

# Compensatory Mitigation and the Future of Ag Land Use

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## Compensatory Mitigation and the Future of Ag Land Use

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## What Is Compensatory Mitigation?

- Gains in resources to offset losses of aquatic and/or species resources caused by permitted activities
  - Gains – “credits”
  - Losses – “impacts” or “debits”
- Wetlands/Streams
  - Restoration, enhancement, establishment, and/or preservation of aquatic resources to offset losses of jurisdictional waters and wetlands
- Species
  - Large areas of preserved and/or restored species habitat formally approved to compensate for impacts to similar species habitat

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## Previous Approaches to Mitigation

- Focus on on-site mitigation, but often surrounded by development



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## Shift to Landscape-Scale Mitigation

- Increased focus on need to do landscape-scale conservation and mitigation
- Selecting land based on ecological and watershed suitability and not just price and availability



Source: <http://willamettepartnership.org/>

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## Obama-Era Mitigation Policies



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## USDA Wetland Mitigation Banking Program

- Program created by the 2014 Farm Bill
- Funds made available through nationwide competitive process
- NRCS investing more than \$7 million to fund agricultural wetland mitigation banks in 10 Midwest and Northern Great Plain states
- Incentivizes 3<sup>rd</sup> parties to develop mitigation banks specifically for agricultural producers subject to Wetland Conservation Compliance provisions of the 1985 Farm Bill
- Avoids competition for mitigation credits with other large developers



Source: USDA, Natural Resources Conservation Service. Webinar: NRCS Wetland Mitigation Banking Program.

2015 Presidential Memo

- **Presidential Memorandum: Mitigating Impacts on Natural Resources from Development (Nov. 2015)**
  - Established federal principles
    - Net benefit goal
    - Landscape-scale
    - Advance compensation
    - Long-term financial assurances
    - Avoidance of impacts to "irreplaceable resources"
  - Essentially directed other agencies (BLM, USFS, and FWS) to adopt mitigation framework similar to Corps'
  - Legal authority?



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FWS Mitigation Policy

- Finalized on December 27, 2016
- Implements Presidential Memo
  - Extends to ESA species
  - "Net conservation benefit" (or at a minimum, no net loss)
  - Advance compensation
  - No impacts on "high value" habitat areas
- Gives Service significant discretion to impose mitigation requirements
- Services would implement through § 7 consultation, § 10 Incidental Take Permits, NEPA processes



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Broad Regulatory Expansion

- Obama-era regs and policies more expansive and gave more agency discretion
  - WOTUS Rule
  - Critical Habitat Rules
- Broad expansion in regulatory requirements means more permitting
- Drives demand for mitigation

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Potential Implications for Agriculture

- **Increased permitting requirements for Ag**
  - Impacting more federally protected resources
- **Rise in mitigation banks**
  - More farmland to be taken out of ag use for mitigation purposes
  - Can be business opportunities in this area
  - But can also be high risk
    - High transaction costs, doesn't allow for flexibility
- **Questions about compatible uses**
  - E.g., can you still have cattle grazing on mitigation lands?
    - Different answers from different Corps Districts

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Trump Admin Review

- EO on Promoting Energy Independence and Economic Growth
  - Revokes Obama Presidential Memo of Nov. 2015
  - Directs reexamination of Dept of Interior mitigation policies
- Secretary Zinke Order on American Energy Independence
  - Orders review of Dep't Interior mitigation policies – FWS policy, BLM Handbook
  - Reconsider, modify, or rescind

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Mitigation Banking



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Different Compensation Sources

- **Permittee-responsible mitigation (on- or off-site)**
  - Permittee or contractor does compensatory mitigation project
  - Permittee retains responsibility
- **Mitigation Banks**
  - One or more sites where resources are restored, established, enhanced, and/or preserved for purpose of offsetting permitted impacts
  - Sells compensatory mitigation credits to permittees
  - Commercial bank or single client bank
  - Responsibility transferred to bank sponsor
- **In-lieu fee programs**
  - Limited to government or non-profit natural resource management entities
  - Collects fees from permittees to do larger compensatory mitigation projects
  - Responsibility transferred to in-lieu fee program sponsor

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Different Compensation Sources

U.S. Army Corps of Engineers: 2008 Mitigation Rule Retrospective

- Increasing reliance on mitigation bank and in-lieu fee program credits

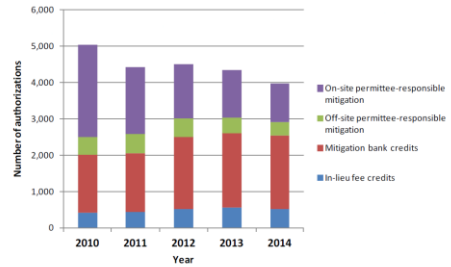
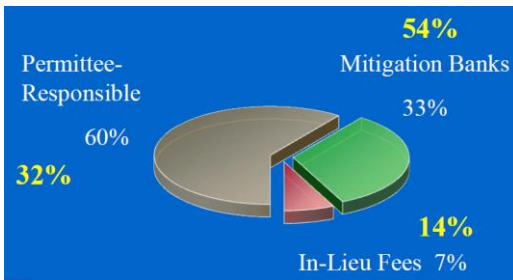


Figure 13. Number of all authorizations (individual permits and general permits) requiring compensatory mitigation, by mitigation source, during the period of 2010-2014

Different Compensation Sources

Types of Compensatory Mitigation 2015



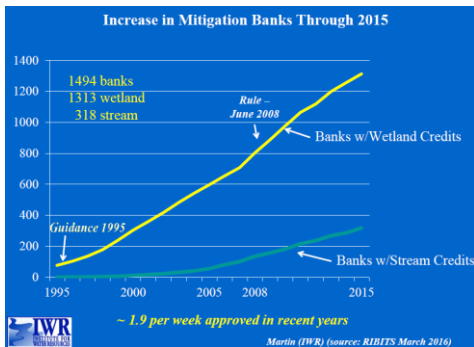
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What is a Mitigation Bank?

- Sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the mitigation bank sponsor
- Operation and use governed by mitigation bank instrument
- Market-oriented approach
- Advantages of third party compensation
  - Watershed/landscape scale
  - Responsibilities are clear
  - Severance of liability
  - Reduce time to permit
- Highly regulated

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Increase in Mitigation Banks



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Wetland and Stream Mitigation Banks

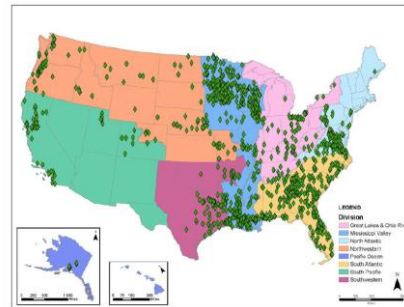


Figure 21. Locations of all approved mitigation bank sites through 2014

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Wetlands Mitigation Bank

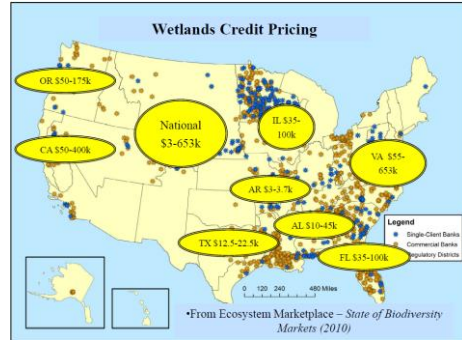
- Site where wetlands resources restored, established, enhanced, and/or preserved for purpose of offsetting losses of jurisdictional wetlands
- Wetlands banking is most established
  - As of 2015, at least 600,00 acres approved for banking
  - Average of 10,000 acres of permitted wetland impacts requiring mitigation annually
- Annual wetland mitigation market size - \$1.2 billion



Source: <http://www.cityofchesapeake.net/>

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Wetlands Credit Pricing



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Banks Providing Wetland Credits

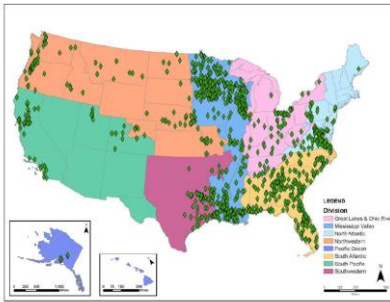
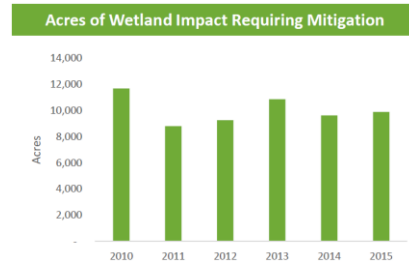


Figure 22. Locations of approved mitigation bank sites providing wetland credits as of 2014

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Wetland Impacts Requiring Mitigation

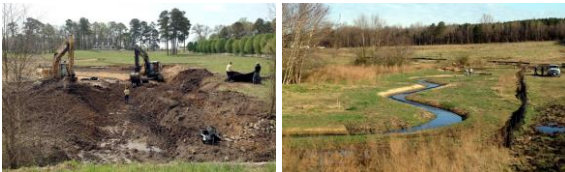


- Average of 10,032 acres of permitted wetland impacts require mitigation annually

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Stream Mitigation Bank

- Increased regulatory focus on stream mitigation since 2008 Mitigation Rule
  - Number of banks providing stream mitigation credits has more than doubled since 2008
- Annual Stream Mitigation Market Size – \$2.2 billion



Source: Charlotte Observer

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Banks Providing Stream Credits

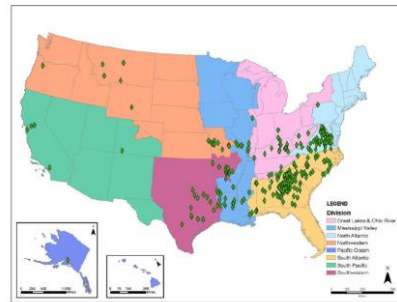
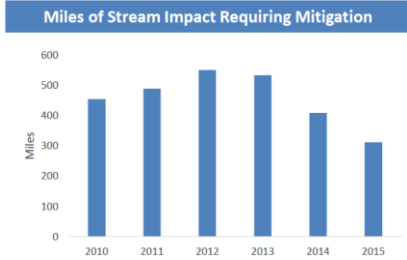


Figure 23. Locations of approved mitigation bank sites providing stream credits as of 2014

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### Stream Impacts Requiring Mitigation



- Average of 458 miles of permitted stream impacts require mitigation annually

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### Conservation Bank

- Large areas of preserved and/or restored species habitat formally approved to compensate for impacts to similar species habitat
- No regulations with specific requirements/instructions or performance criteria
- Less than 200 conservation banks have been approved



Source: <http://www.wyofile.com>

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### Approved Conservation Banks



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### Wetlands/Stream v. Species Banks

- | <u>Wetlands/Streams</u>                                                                                                                                                                                                                  | <u>Species</u>                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• CWA requires mitigation</li> <li>• Clear requirements and performance standards from Corps 2008 Mitigation Rule</li> <li>• “No net loss”</li> <li>• Service areas tied to watersheds</li> </ul> | <ul style="list-style-type: none"> <li>• No ESA mitigation reqs</li> <li>• FWS policy may be revised or rescinded</li> <li>• Preservation and “recovery” of species</li> <li>• Service areas tied to species range</li> </ul> |

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### Mitigation Bank Implementation

- Site selection
  - Carefully selecting piece of property is VERY important
  - Watershed, market for credits, title issues
- Business Plan & Prospectus
  - To secure commitment from agencies on service area, credits, and design approach
  - Align financial and ecological perspectives
- Bank Document
- Construction/Habitat Implementation
  - Plans, bids, contracting
- Long-Term Management and Monitoring
  - Monitor, manage, maintain

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### Litigation Risks

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**Litigation Risks**

- Potential challenges to FWS mitigation policy
  - Does FWS have statutory authority to require net conservation benefits?
  - NGOs could challenge rescinded/revised policies
- Mitigation bank challenges
  - Challenges to mitigation bank approvals
    - *Sierra Club v. St. Johns River Water Management District* - failure to do NEPA review
  - Challenges on Corps requiring permittee to obtain credits from one bank v. another
    - *Walther & Pioneer Reserve v. United States* - breach of contract claim

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# Presidential Documents

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Title 3—

Memorandum of November 3, 2015

The President

## Mitigating Impacts on Natural Resources From Development and Encouraging Related Private Investment

**Memorandum for the Secretary of Defense[,] the Secretary of the Interior[,] the Secretary of Agriculture[,] the Administrator of the Environmental Protection Agency[, and] the Administrator of the National Oceanic and Atmospheric Administration**

We all have a moral obligation to the next generation to leave America's natural resources in better condition than when we inherited them. It is this same obligation that contributes to the strength of our economy and quality of life today. American ingenuity has provided the tools that we need to avoid damage to the most special places in our Nation and to find new ways to restore areas that have been degraded.

Federal agencies implement statutes and regulations that seek simultaneously to advance our economic development, infrastructure, and national security goals along with environmental goals. As efforts across the country have demonstrated, it is possible to achieve strong environmental outcomes while encouraging development and providing services to the American people. This occurs through policies that direct the planning necessary to address harmful impacts on natural resources by avoiding and minimizing impacts, then compensating for impacts that do occur. Moreover, when opportunities to offset foreseeable harmful impacts to natural resources are available in advance, agencies and project proponents have more options to achieve positive environmental outcomes and potentially reduce permitting timelines.

Federal agencies can, however, face barriers that hinder their ability to use Federal resources for restoration in advance of regulatory approval of development and other activities (e.g., it may not be possible to fund restoration before the exact location and scope of a project have been approved; or there may be limitations in designing large-scale management plans when future development is uncertain). This memorandum will encourage private investment in restoration and public-private partnerships, and help foster opportunities for businesses or non-profit organizations with relevant expertise to successfully achieve restoration and conservation objectives.

One way to increase private investment in natural resource restoration is to ensure that Federal policies are clear, work similarly across agencies, and are implemented consistently within agencies. By encouraging agencies to share and adopt a common set of their best practices to mitigate for harmful impacts to natural resources, the Federal Government can create a regulatory environment that allows us to build the economy while protecting healthy ecosystems that benefit this and future generations. Similarly, in non-regulatory circumstances, private investment can play an expanded role in achieving public natural resource restoration goals. For example, performance contracts and other Pay for Success approaches offer innovative ways to finance the procurement of measurable environmental benefits that meet high government standards by paying only for demonstrated outcomes.

Therefore, by the authority vested in me as President by the Constitution and the laws of the United States of America, and to protect the health of our economy and environment, I hereby direct the following:

**Section 1. Policy.** It shall be the policy of the Departments of Defense, the Interior, and Agriculture; the Environmental Protection Agency; and



the National Oceanic and Atmospheric Administration; and all bureaus or agencies within them (agencies); to avoid and then minimize harmful effects to land, water, wildlife, and other ecological resources (natural resources) caused by land- or water-disturbing activities, and to ensure that any remaining harmful effects are effectively addressed, consistent with existing mission and legal authorities. Agencies shall each adopt a clear and consistent approach for avoidance and minimization of, and compensatory mitigation for, the impacts of their activities and the projects they approve. That approach should also recognize that existing legal authorities contain additional protections for some resources that are of such irreplaceable character that minimization and compensation measures, while potentially practicable, may not be adequate or appropriate, and therefore agencies should design policies to promote avoidance of impacts to these resources.

Large-scale plans and analysis should inform the identification of areas where development may be most appropriate, where high natural resource values result in the best locations for protection and restoration, or where natural resource values are irreplaceable. Furthermore, because doing so lowers long-term risks to our environment and reduces timelines of development and other projects, agency policies should seek to encourage advance compensation, including mitigation bank-based approaches, in order to provide resource gains before harmful impacts occur. The design and implementation of those policies should be crafted to result in predictability sufficient to provide incentives for the private and non-governmental investments often needed to produce successful advance compensation. Wherever possible, policies should operate similarly across agencies and be implemented consistently within them.

To the extent allowed by an agency's authorities, agencies are encouraged to pay particular attention to opportunities to promote investment by the non-profit and private sectors in restoration or enhancement of natural resources to deliver measurable environmental outcomes related to an established natural resource goal, including, if appropriate, as part of a restoration plan for natural resource damages or for authorized investments made on public lands.

**Sec. 2. *Definitions.*** For the purposes of this memorandum:

(a) "Agencies" refers to the Department of Defense, Department of the Interior, Department of Agriculture, Environmental Protection Agency, and National Oceanic and Atmospheric Administration, and any of their respective bureaus or agencies.

(b) "Advance compensation" means a form of compensatory mitigation for which measurable environmental benefits (defined by performance standards) are achieved before a given project's harmful impacts to natural resources occur.

(c) "Durability" refers to a state in which the measurable environmental benefits of mitigation will be sustained, at minimum, for as long as the associated harmful impacts of the authorized activity continue. The "durability" of a mitigation measure is influenced by: (1) the level of protection or type of designation provided; and (2) financial and long-term management commitments.

(d) "Irreplaceable natural resources" refers to resources recognized through existing legal authorities as requiring particular protection from impacts and that because of their high value or function and unique character, cannot be restored or replaced.

(e) "Large-scale plan" means any landscape- or watershed-scale planning document that addresses natural resource conditions and trends in an appropriate planning area, conservation objectives for those natural resources, or multiple stakeholder interests and land uses, or that identifies priority sites for resource restoration and protection, including irreplaceable natural resources.

(f) “Mitigation” means avoiding, minimizing, rectifying, reducing over time, and compensating for impacts on natural resources. As a practical matter, all of these actions are captured in the terms avoidance, minimization, and compensation. These three actions are generally applied sequentially, and therefore compensatory measures should normally not be considered until after all appropriate and practicable avoidance and minimization measures have been considered.

**Sec. 3. *Establishing Federal Principles for Mitigation.*** To the extent permitted by each agency’s legal authorities, in addition to any principles that are specific to the mission or authorities of individual agencies, the following principles shall be applied consistently across agencies to the extent appropriate and practicable.

(a) Agencies should take advantage of available Federal, State, tribal, local, or non-governmental large-scale plans and analysis to assist in identifying how proposed projects potentially impact natural resources and to guide better decision-making for mitigation, including avoidance of irreplaceable natural resources.

(b) Agencies’ mitigation policies should establish a net benefit goal or, at a minimum, a no net loss goal for natural resources the agency manages that are important, scarce, or sensitive, or wherever doing so is consistent with agency mission and established natural resource objectives. When a resource’s value is determined to be irreplaceable, the preferred means of achieving either of these goals is through avoidance, consistent with applicable legal authorities. Agencies should explicitly consider the extent to which the beneficial environmental outcomes that will be achieved are demonstrably new and would not have occurred in the absence of mitigation (i.e. additionality) when determining whether those measures adequately address impacts to natural resources.

(c) With respect to projects and decisions other than in natural resource damage cases, agencies should give preference to advance compensation mechanisms that are likely to achieve clearly defined environmental performance standards prior to the harmful impacts of a project. Agencies should look for and use, to the extent appropriate and practicable, available advance compensation that has achieved its intended environmental outcomes. Where advance compensation options are not appropriate or not available, agencies should give preference to other compensatory mitigation practices that are likely to succeed in achieving environmental outcomes.

(d) With respect to natural resource damage restoration plans, natural resource trustee agencies should evaluate criteria for whether, where, and when consideration of restoration banking or advance restoration projects would be appropriate in their guidance developed pursuant to section 4(d) of this memorandum. Consideration under established regulations of restoration banking or advance restoration strategies can contribute to the success of restoration goals by delivering early, measurable environmental outcomes.

(e) Agencies should take action to increase public transparency in the implementation of their mitigation policies and guidance. Agencies should set measurable performance standards at the project and program level to assess whether mitigation is effective and should clearly identify the party responsible for all aspects of required mitigation measures. Agencies should develop and use appropriate tools to measure, monitor, and evaluate effectiveness of avoidance, minimization, and compensation policies to better understand and explain to the public how they can be improved over time.

(f) When evaluating proposed mitigation measures, agencies should consider the extent to which those measures will address anticipated harm over the long term. To that end, agencies should address the durability of compensation measures, financial assurances, and the resilience of the measures’ benefits to potential future environmental change, as well as ecological relevance to adversely affected resources.

(g) Each agency should ensure consistent implementation of its policies and standards across the Nation and hold all compensatory mitigation mechanisms to equivalent and effective standards when implementing their policies.

(h) To improve the implementation of effective and durable mitigation projects on Federal land, agencies should identify, and make public, locations on Federal land of authorized impacts and their associated mitigation projects, including their type, extent, efficacy of compliance, and success in achieving performance measures. When compensatory actions take place on Federal lands and waters that could be open to future multiple uses, agencies should describe measures taken to ensure that the compensatory actions are durable.

**Sec. 4. *Federal Action to Strengthen Mitigation Policies and Support Private Investment in Restoration.*** In support of the policy and principles outlined above, agencies identified below shall take the following specific actions.

(a) Within 180 days of the date of this memorandum, the Department of Agriculture, through the U.S. Forest Service, shall develop and implement additional manual and handbook guidance that addresses the agency's approach to avoidance, minimization, and compensation for impacts to natural resources within the National Forest System. The U.S. Forest Service shall finalize a mitigation regulation within 2 years of the date of this memorandum.

(b) Within 1 year of the date of this memorandum, the Department of the Interior, through the Bureau of Land Management, shall finalize a mitigation policy that will bring consistency to the consideration and application of avoidance, minimization, and compensatory actions or development activities and projects impacting public lands and resources.

(c) Within 1 year of the date of this memorandum, the Department of the Interior, through the U.S. Fish and Wildlife Service, shall finalize a revised mitigation policy that applies to all of the U.S. Fish and Wildlife Service's authorities and trust responsibilities. The U.S. Fish and Wildlife Service shall also finalize an additional policy that applies to compensatory mitigation associated with its responsibilities under the Endangered Species Act of 1973. Further, the U.S. Fish and Wildlife Service shall finalize a policy that provides clarity to and predictability for agencies and State governments, private landowners, tribes, and others that take action to conserve species in advance of potential future listing under the Endangered Species Act. This policy will provide a mechanism to recognize and credit such action as avoidance, minimization, and compensatory mitigation.

(d) Within 1 year of the date of this memorandum, each Federal natural resource trustee agency will develop guidance for its agency's trustee representatives describing the considerations for evaluating whether, where, and when restoration banking or advance restoration projects would be appropriate as components of a restoration plan adopted by trustees. Agencies developing such guidance will coordinate for consistency.

(e) Within 1 year of the date of this memorandum, the Department of the Interior will develop program guidance regarding the use of mitigation projects and measures on lands administered by bureaus or offices of the Department through a land-use authorization, cooperative agreement, or other appropriate mechanism that would authorize a project proponent to conduct actions, or otherwise secure conservation benefits, for the purpose of mitigating impacts elsewhere.

**Sec. 5. *General Provisions.*** (a) This memorandum complements and is not intended to supersede existing laws and policies.

(b) This memorandum shall be implemented consistent with applicable law, and subject to the availability of appropriations.

(c) This memorandum is intended for the internal guidance of the executive branch and is inapplicable to the litigation or settlement of natural resource damage claims. The provisions of section 3 this memorandum encouraging

restoration banking and advance restoration projects also do not apply to the selection or implementation of natural resource restoration plans, except to the extent determined appropriate in Federal trustee guidance developed pursuant to section 4(d) of this memorandum.

(d) The provisions of this memorandum shall not apply to military testing, training, and readiness activities.

(e) Nothing in this memorandum shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department, agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(f) This memorandum is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

(g) The Secretary of the Interior is hereby authorized and directed to publish this memorandum in the *Federal Register*.

A handwritten signature in black ink, appearing to be "Sally Jewell", written in a cursive style.

THE WHITE HOUSE,  
Washington, November 3, 2015

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

[Docket No. FWS-HQ-ES-2015-0126;  
FXHC1122090000-156-FF09E33000]

### U.S. Fish and Wildlife Service Mitigation Policy

**AGENCY:** Fish and Wildlife Service,  
Interior.

**ACTION:** Notice of final policy.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce revisions to our Mitigation Policy, which has guided Service recommendations on mitigating the adverse impacts of land and water developments on fish, wildlife, plants, and their habitats since 1981. The revisions are motivated by changes in conservation challenges and practices since 1981, including accelerating loss of habitats, effects of climate change, and advances in conservation science. The revised Policy provides 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. The primary intent of the Policy is to apply mitigation in a strategic manner that ensures an effective linkage with conservation strategies at appropriate landscape scales.

**DATES:** This Policy is effective on November 21, 2016.

**ADDRESSES:** Comments and materials received, as well as supporting documentation used in the preparation of this Policy, including an environmental assessment, are available on the Internet at <http://www.regulations.gov> at Docket Number FWS-HQ-ES-2015-0126.

**FOR FURTHER INFORMATION CONTACT:** Craig Aubrey, U.S. Fish and Wildlife Service, Division of Environmental Review, 5275 Leesburg Pike, Falls Church, VA 22041-3803, telephone 703-358-2442.

**SUPPLEMENTARY INFORMATION:** The revised Policy integrates all authorities that allow the Service either to recommend or to require mitigation of impacts to Federal trust fish and wildlife resources, and other resources identified in statute, during development processes. It is intended to serve as a single umbrella policy under which the Service may issue more detailed policies or guidance documents covering specific activities in the future. Citations for the many statutes and other

authorities referenced in this document are in Appendix A.

### Background

The primary intent of revising the 1981 Mitigation Policy (1981 Policy) is to apply mitigation in a strategic manner that ensures an effective linkage with conservation strategies at appropriate landscape scales, consistent with the Presidential Memorandum on Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment (November 3, 2015), the Secretary of the Interior's Order 3330 entitled "Improving Mitigation Policies and Practices of the Department of the Interior" (October 31, 2013), and the Departmental Manual Chapter (600 DM 6) on Implementing Mitigation at the Landscape-scale (October 23, 2015). Within this context, our revisions of the 1981 Policy: (a) Clarify that this Policy addresses all resources for which the Service has authorities to recommend mitigation for impacts to resources; and (b) provide an updated framework for applying mitigation measures that will maximize their effectiveness at multiple geographic scales.

By memorandum, the President directed all Federal agencies that manage natural resources to avoid and minimize damage to natural resources and to effectively offset remaining impacts, consistent with the principles declared in the memorandum and existing statutory authority. Under the memorandum, all Federal mitigation policies shall clearly set a net benefit goal or, at minimum, a no net loss goal for natural resources, wherever doing so is allowed by existing statutory authority and is consistent with agency mission and established natural resource objectives. This Policy implements the President's directions for the Service.

Secretarial Order 3330 established a Department-wide mitigation strategy to ensure consistency and efficiency in the review and permitting of infrastructure development projects and in conserving natural and cultural resources. The Order charged the Department's Energy and Climate Change Task Force with developing a report that addresses how to best implement consistent, Department-wide mitigation practices and strategies. The report of the Task Force, "A Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior" (April 2014), describes guiding principles for mitigation to improve process efficiency, including the use of landscape-scale approaches rather than project-by-project or single-resource

mitigation approaches. This revision of the Service's Mitigation Policy complies with a deliverable identified in the Strategy that seeks to implement the guiding principles set forth in the Secretary's Order, the corresponding Strategy, and subsequent 600 DM 6.

In 600 DM 6, the Department of the Interior established policy intended to improve permitting processes and help achieve beneficial outcomes for project proponents, affected communities, and the environment. By implementing this Manual Chapter, the Department will:

- (a) Effectively mitigate impacts to Department-managed resources and their values, services, and functions;
- (b) provide project developers with added predictability and efficient and timely environmental reviews;
- (c) improve the resilience of resources in the face of climate change;
- (d) encourage strategic conservation investments in lands and other resources; increase compensatory mitigation effectiveness, durability, transparency, and consistency; and
- (e) better utilize mitigation measures to help achieve Departmental goals.

The final Policy implements the Department's directions for the Service. As with the 1981 Policy, the Service intends, with this revision, to conserve, protect, and enhance fish, wildlife, plants, and their habitats for future generations. Effective mitigation is a powerful tool for furthering this mission.

### Changes From the Draft Policy

This final Policy differs from the proposed revised Policy in a few substantive respects, which we list below, and contains many editorial changes in response to comments we received that requested greater clarity of expression regarding various aspects of the Policy purpose, authorities, scope, general principles, framework for formulating mitigation measures, and definitions. The most common editorial change to the final Policy addresses the concern that the proposed revised Policy was unclear regarding the Service's authorities to either recommend or require mitigation. The proposed revised Policy frequently used the phrase "recommend or require" as a general descriptor for Service-formulated mitigation measures, because we have authority to require mitigation in some contexts, but not in others. The final Policy adds new text to the Authority section that identifies those circumstances under which we have specific authority to require, consistent with other applicable laws and regulations, one or more forms of

mitigation for impacts to fish and wildlife resources.

This Policy provides a common framework for the Service to apply when identifying mitigation measures across the full range of our authorities, including those for which we may require mitigation, but the Policy cannot and does not alter or substitute for the regulations implementing any of our authorities. We summarize below the few substantive changes to the proposed revised Policy, listed by section.

In section 4 of the Policy, General Policy and Principles, we added a principle to emphasize the importance of the avoidance tier of the mitigation hierarchy. This new principle reinforces existing direction in the proposed revised Policy that Service staff will recommend avoidance of all impacts to high-value habitats as the only effective means of mitigating impacts at these locations.

In section 5.5, Habitat Valuation, we clarify that habitats of “high-value” to an evaluation species are scarce and of high suitability and high importance. As with the proposed revised Policy, the final Policy directs Service personnel to seek avoidance of all impacts to high-value habitats.

In section 5.6.3, Compensation, we added a paragraph that describes onsite compensation and distinguishes it from rectifying impacts. We added another paragraph that indicates how third parties may assume the responsibilities for implementing proponent-responsible compensation. Other revisions to this section are editorial in nature, intended to better communicate Service intentions about the use of compensation in mitigating impacts to species. These revisions include reorganizing material into new subsections at 5.6.3.1, Equivalent Standards, and at 5.6.3.2, Research and Education.

In section 6, Definitions, we added definitions for “baseline” and “habitat credit exchange” and modified the definition of “practicable.”

In Appendix A, Authorities and Direction for Service Mitigation Recommendations, we updated the listed authorities, regulations, and guidance documents where necessary. To better reflect their relationship with this Policy and to respond to comments received, we have modified the discussions of the Bald and Golden Eagle Protection Act, Clean Water Act, Fish and Wildlife Conservation Act, Marine Mammal Protection Act, Migratory Bird Treaty Act, and Natural Resource Damage Assessment and Restoration processes.

We made clarifying edits and additions to Appendix C, Compensatory Mitigation in Financial Assistance Awards Approved or Administered by the U.S. Fish and Wildlife Service. We added a sentence in the first paragraph recognizing that the regulations at 50 CFR part 84 authorize the use of Natural Resource Damage Assessment funds as a match in the National Coastal Wetlands Conservation Program. In part B, we added “the proposed use of mitigation funds on land acquired with Federal financial assistance” as a common issue related to mitigation in financial assistance. In part G, we clarified the circumstances under which the Service can approve financial assistance to satisfy mitigation requirements of State, tribal, or local governments. In part H, we revised the topic question from “Can a mitigation proposal be located on land acquired under a Service financial assistance award?” to “Can a project on land already designated for the conservation of natural resources generate credits for compensatory mitigation?” and revised the answer accordingly. We added a topic to those included in the proposed revised Policy at part I: “Does the Service’s Mitigation Policy affect financial assistance programs and awards managed by other Federal entities?” This addition describes the various circumstances in which this question is relevant.

## Discussion

The Service’s motivations for revising the 1981 Policy include:

- Accelerating loss, including degradation and fragmentation, of habitats and subsequent loss of ecosystem function since 1981;
- Threats that were not fully evident in 1981, such as effects of climate change, the spread of invasive species, and outbreaks of epizootic diseases, are now challenging the Service’s conservation mission;
- The science of fish and wildlife conservation has substantially advanced in the past three decades;
- The Federal statutory, regulatory, and policy context of fish and wildlife conservation has substantially changed since the 1981 Policy; and
- A need to clarify the Service’s definition and usage of mitigation in various contexts, including the conservation of species listed as threatened or endangered under the Endangered Species Act of 1973, as amended (ESA), which was expressly excluded from the 1981 Policy.

## Mitigation Defined

In the context of impacts to environmental resources (including their values, services, and functions) resulting from proposed actions, “mitigation” is a general label for measures that a proponent takes to avoid, minimize, and compensate for such impacts. The 1981 Policy adopted the definition of mitigation in the Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) regulations (40 CFR 1508.20). The CEQ mitigation definition remains unchanged since codification in 1978 and states that “Mitigation includes:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- compensating for the impact by replacing or providing substitute resources or environments.”

This definition is adopted in this Policy, and the use of its components in various contexts is clarified. In 600 DM 6, the Department of the Interior states that mitigation, as enumerated by CEQ, is compatible with Departmental policy; however, as a practical matter, the mitigation elements are categorized into three general types that form a sequence: Avoidance, minimization, and compensatory mitigation for remaining unavoidable (also known as residual) impacts. The 1981 Policy further stated that the Service considers the sequence of the CEQ mitigation definition elements to represent the desirable sequence of steps in the mitigation planning process. The Service generally affirms this hierarchical approach in this Policy. We advocate first avoiding and then minimizing impacts that critically impair our ability to achieve conservation objectives for affected resources. We also provide guidance that recognizes how action- and resource-specific circumstances may warrant departures from the preferred mitigation sequence; for example, when impacts to a species may occur at a location that is not critical to achieving the conservation objectives for that species, or when current conditions are likely to change substantially due to the effects of a changing climate. In such

circumstances, relying more on compensating for the impacts at another location may more effectively serve the conservation objectives for the affected resources. This Policy provides a logical framework for the Service to consistently make such choices.

#### *Scope of the Revised Mitigation Policy*

The Service's mission is to conserve, protect, and enhance fish, wildlife, and plants, and their habitats for the continuing benefit of the American people. This mission includes a responsibility to make mitigation recommendations or to specify mitigation requirements during the review of actions based on numerous authorities related to specific plant and animal species, habitats, and broader ecological functions. Our authorities to engage actions that may affect these resources extends to all U.S. States and territories, on public and on private property. This unique standing necessitates that we clarify our integrated interests and expectations when seeking mitigation for impacts to fish, wildlife, plants, and their habitats.

This Policy serves as overarching 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. In most cases, applications of this Policy are advisory. Service recommendations provided under the guidance of this Policy are intended to help action proponents incorporate appropriate means and measures into their actions that will most effectively conserve resources affected by those actions. As necessary and as budgetary resources permit, we intend to adapt or develop Service program-specific policies, handbooks, and guidance documents, consistent with the applicable statutes, to integrate the spirit and intent of this Policy.

#### *New Threats and New Science*

Since the publication of the Service's 1981 Policy, land use changes in the United States have reduced the habitats available to fish and wildlife. By 1982, approximately 72 million acres of the lower 48 States had already been developed. Between 1982 and 2012, the American people developed an additional 44 million acres 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 been existing habitats, including 17 million acres converted from forests.

A projection that the U.S. population will increase from 310 million to 439 million between 2010 and 2050 suggests that land conversion trends like these will continue. In that period, development in the residential housing sector alone may add 52 million (42 percent more) units, plus 37 million replacement units. 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 will also increase fragmentation, isolation, and degradation through myriad indirect effects. The loss of ecological function will radiate beyond the extent of direct habitat losses. Given these projections, the 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 function.

Accelerating climate change is resulting in impacts that pose a significant challenge to conserving species, habitat, and ecosystem functions. Climatic changes can have direct and indirect effects 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, this Policy emphasizes the integration of mitigation planning with a landscape approach to conservation.

Over the past 30 years, the concepts of adaptive management (resource management decisionmaking when outcomes are uncertain) have gained general acceptance as the preferred science-based approach to conservation. Adaptive management is an iterative process that involves: (a) Formulating alternative actions to meet measurable objectives; (b) predicting the outcomes of alternatives based on current knowledge; (c) conducting research that tests the assumptions underlying those predictions; (d) implementing alternatives; (e) monitoring the results; and (f) using the research and monitoring results to improve knowledge and adjust actions and objectives accordingly. Adaptive management further serves the need of most natural resources managers and policy makers to provide accountability

for the outcomes of their efforts, *i.e.*, progress toward achieving defensible and transparent objectives.

Working with many partners, the Service is increasingly applying the principles of adaptive management in a landscape approach to conservation. Mitigating the impacts of actions for which the Service has advisory or regulatory authorities continues to play a significant role in accomplishing our conservation mission under this approach. Our aim with this Policy is to align mitigation with conservation strategies at appropriate landscape scales so that mitigation most effectively contributes to achieving the conservation objectives we are pursuing with our partners, and to align mitigation recommendations and requirements with Secretarial Order 3330 and 600 DM.

#### *A Focus on Habitat Conservation*

Although many Service authorities pertain to specific taxa or groups of species, most specifically recognize that these resources rely on functional ecosystems to survive and persist for the continuing benefit of the American people. Mitigation is a powerful tool for sustaining species and the habitats upon which they depend; therefore, the Service's Mitigation Policy must effectively deal with impacts to the ecosystem functions, properties, and components that sustain fish, wildlife, plants, and their habitats. The 1981 Policy focused on habitat: "the area which provides direct support for a given species, population, or community." It defined criteria for assigning the habitats of project-specific evaluation species to one of four resource categories, using a two-factor framework based on the relative scarcity of the affected habitat type and its suitability for the evaluation species, with mitigation guidelines for each category. We maintain a focus on habitats in this Policy by using evaluation species and a valuation framework for their affected habitats, because habitat conservation is still generally the best means of achieving conservation objectives for species. However, our revisions of the evaluation species and habitat valuation concepts are intended to address more explicitly the landscape context of species and habitat conservation to improve mitigation effectiveness and efficiency. In addition, we recognize that some situations warrant measures that are not habitat based to address certain species-specific impacts.



## *Applicability to the Endangered Species Act*

The 1981 Policy did not apply to the conservation of species listed as threatened or endangered under the ESA. Excluding listed species from the 1981 Policy was based on: (a) A recognition that all Federal actions that could affect listed species and designated critical habitats must comply with the consultation provisions of section 7 of the ESA; and (b) a position that “the traditional concept of mitigation” did not apply to such actions. This Policy supersedes this exclusion for the Service. Mitigation, which we define in this Policy as measures to avoid, minimize, and compensate for impacts, is an essential means of achieving the overarching purpose of the ESA, which is to conserve listed species and the ecosystems upon which they depend.

Effective mitigation prevents or reduces further declines in populations and/or habitat resources that would otherwise slow or impede recovery of listed species. It is fully consistent with the purposes of the ESA for the Service to identify measures that mitigate the impacts of proposed actions to listed species and designated critical habitat. Although this Policy is intended, in part, to clarify the role of mitigation in endangered species conservation, nothing herein replaces, supersedes, or substitutes for the ESA or its implementing regulations.

Under ESA section 7, the Service has consistently recognized or applied mitigation in the form of:

(a) Measures that are voluntarily included as part of a proposed Federal action that avoid, minimize, rectify, reduce over time, or compensate for unavoidable (also known as residual) impacts to a listed species;

(b) components of reasonable and prudent alternatives (RPAs) to avoid jeopardizing the continued existence of listed species or destroying or adversely modifying designated critical habitat; and

(c) reasonable and prudent measures (RPMs) within an incidental take statement to minimize the impacts of anticipated incidental taking on the affected listed species.

As another example, the 1982 amendments to the ESA created incidental take permitting provisions (section 10(a)(1)(B)) with specific requirements (sections 10(a)(2)(A)(ii) and 10(a)(2)(B)(ii)) for applicants to minimize and mitigate impacts to listed species to the maximum extent practicable.

## **Summary of Comments and Responses**

The March 8, 2016, notice announcing our proposed revisions to the U.S. Fish and Wildlife Service (Service) Mitigation Policy (Policy) (81 FR 12380) requested written comments, information, and recommendations from governmental agencies, tribes, the scientific community, industry groups, environmental interest groups, and any other interested members of the public.

That notice established a 60-day comment period ending May 9, 2016. Several commenters requested an extension of time to provide their comments, asked the Service to revise and recirculate the Policy for comment, or asked the Service to withdraw the Policy to allow interested parties additional time to comment. We subsequently published a notice on May 12, 2016 (81 FR 29574), reopening the comment period for an additional 30 days, through June 13, 2016.

During the comment period, we received approximately 189 comments from Federal, State, and local government entities, industry, trade associations, conservation organizations, nongovernmental organizations, private citizens, and others. The range of comments varied from those that provided general statements of support or opposition to the draft Policy, to those that provided extensive comments and information supporting or opposing the draft Policy or specific aspects thereof. The majority of comments submitted included detailed suggestions for revisions addressing major concepts as well as editorial suggestions for specific wording or line edits.

All comments submitted during the comment period have been fully considered in preparing the final Policy. All substantive information provided has been incorporated, where appropriate, directly into this final Policy or is addressed below. The comments we received were grouped into general issues specifically relating to the draft Policy, and are presented below along with the Service’s responses to these substantive comments.

### *A. Clarify How the Policy Guides Formulation of Service Mitigation Recommendations vs. Requirements*

*Comment (1):* Many commenters indicated that the proposed Policy was unclear regarding the Service’s authorities to require mitigation, and requested clarification to distinguish between requirements and recommendations. Several of these commenters noted that various

authorities cited for the Policy, such as the ESA, Fish and Wildlife Coordination Act (FWCA), and NEPA, do not require actions to maintain or improve the status of affected resources, or to apply a landscape approach to their conservation, which are features of the Policy.

*Response:* We agree with comments that the proposed Policy provided an unclear distinction between circumstances under which the Policy would guide the Service’s formulation of: (a) Mitigation requirements, *i.e.*, measures that the Service may impose upon an action proponent as conditions of Service funding, approval, or regulatory decision; vs. (b) mitigation recommendations, *i.e.*, measures that we advise an action proponent to adopt for conservation purposes. We used the phrase “recommend or require” because the Service has authority to require mitigation in some contexts, but not in others, and our aim with this Policy is to provide a common framework for the Service to implement across the full range of our authorities. However, we recognize the need to clearly distinguish these two general contexts, and have revised the final Policy accordingly.

Circumstances under which the Service currently has specific authority to *require*, consistent with applicable laws and regulations, one or more forms of mitigation for impacts to fish and wildlife resources include the following:

1. Actions that the Service carries out, *i.e.*, the Service is the action proponent;
2. Actions that the Service funds;
3. Actions to restore damages to fish and wildlife resources caused by oil spills and other hazardous substance releases, under the Oil Pollution Act (OPA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA);
4. Actions of other Federal agencies that require an incidental take statement under section 7 of the ESA (measures to minimize the impacts of incidental taking on the species);
5. Actions that require an incidental take permit under section 10 of the ESA (measures to minimize and mitigate the impacts of the taking on the species to the maximum extent practicable);
6. Fishway prescriptions under section 18 of the Federal Power Act (FPA), which minimize, rectify, or reduce over time through management, the impacts of non-Federal hydropower facilities on fish passage;
7. License conditions under section 4(e) of the FPA for non-Federal hydropower facilities affecting Service properties (*e.g.*, a National Wildlife Refuge) for the protection and

utilization of the Federal reservation consistent with the purpose for which such reservation was created or acquired;

8. Actions that require a Letter of Authorization or Incidental Harassment Authorization under the Marine Mammal Protection Act (MMPA); and

9. Actions that require a permit for non-purposeful (incidental) take of eagles under the Bald and Golden Eagle Protection Act (BGEPA).

The circumstances cited above under which the Service currently has specific authority to *require*, consistent with applicable laws and regulations, one or more forms of mitigation for impacts to fish and wildlife resources are further clarified in subsequent responses to comments, the Policy, and its appendices.

In all other circumstances not listed above, the Policy will guide the Service's formulation of recommendations, not requirements, to proponents of actions that cause impacts to fish and wildlife resources and which are within the defined scope (section 3) of the Policy.

#### *B. Policy Is Based on Existing Authority*

*Comment (2):* Several commenters stated that the draft Policy attempted to inappropriately create new authority for the Service to engage in mitigation processes, circumventing appropriate legislative or rulemaking processes. They stated that the Policy could not be used to expand Service authority to take actions beyond those authorized by Congress, noting that the Policy itself is not an independent grant of authority and the imposition of any mitigation measures advocated by it would be constrained by authority provided by the applicable statute. The commenters requested we clarify that the Policy does not expand existing Service authorities.

*Response:* The commenters are correct that the Policy cannot create or assume new authority for making mitigation recommendations. This Policy does not exceed existing statutory or regulatory authority to engage in mitigation processes for the purpose of making mitigation recommendations, and in limited cases, specifying mitigation requirements. Processes established by applicable statutes and regulations remain in effect and are not superseded by this Policy. In implementing this Policy and carrying out our broader mission, the Service recognizes these authorities and processes, and their limitations.

#### *C. Scope of the Policy*

*Comment (3):* One commenter stated their concerns that the scope of the

Policy appeared to limit the discretion of an action agency, potentially holding the action agency or applicant responsible for mitigation beyond an action agency's own authority, mission, and responsibilities.

*Response:* The Service recognizes that the authorities and processes of different agencies may limit or provide discretion regarding the level of mitigation for a project. This Policy is not controlling upon other agencies. There may be limitations (*e.g.*, agency-specific authorities and 600 DM 6) on the implementation of measures that would achieve the Policy's goal of net conservation gain or a minimum of no net loss, when the costs of such mitigation are reimbursable by project beneficiaries under laws and regulations controlling agencies' activities (*e.g.*, Bureau of Reclamation).

*Comment (4):* Two commenters stated their belief that the Policy inappropriately expands Service authority to lands beyond National Wildlife Refuges or other Service-managed lands, and beyond the authorities of the ESA.

Several commenters wanted the Policy to contain explicit guidance on the function of the Service's mitigation authorities under each statute and on implementation of the new Policy in relation to those authorities. Two commenters were concerned about the way the Service will coordinate its responsibilities with similar duties carried out by other agencies and how the Policy applies in situations when more than one statute applies to a particular action.

*Response:* The Service's authorities to recommend mitigation are described in section 2 and in Appendix A. The Policy's overall coverage is described in the Scope, section 3. The commenters are correct that the Policy's coverage is dictated by the underlying statutory authorities. If a relevant statute provides the Service with authority to make mitigation recommendations, the Service may provide recommendations that cover the resources that are described in that statute. The Policy cannot create or assume new authority for making mitigation recommendations or exceed existing statutory or regulatory authority, and it does not extend the geographic or taxonomic extent of coverage beyond existing Service practice. Authorities for making mitigation recommendations may be applicable, regardless of the location of the action, and whether the action has an effect on a species listed under the ESA. For example, the Service routinely reviews projects to provide mitigation recommendations for inter-

jurisdictional fish under NEPA, FWCA, FPA, and the Clean Water Act (CWA) for projects that are planned on lands and waters not owned or managed by the Service.

This Policy covers engagement under all of the Service's mitigation authorities, and does not replace interagency procedure established in another document. The Policy was developed in accordance with the Presidential Memorandum on Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment (November 3, 2015), and the Secretary of the Interior's Order 3330 entitled "Improving Mitigation Policies and Practices of the Department of the Interior" (October 31, 2013). Having multiple agency mitigation policies using common principles, terms, and approaches provides greater consistency and predictability for the public.

*Comment (5):* Two commenters stated that the Service cannot prioritize fish, wildlife, plants, and their habitats above all other resources. One said that the Policy must incorporate the Mining and Minerals Policy Act of 1970 (30 U.S.C. 21a) that states that it is the policy of the Federal Government in the national interest to foster and encourage private enterprise in the development of economically sound and stable domestic mining, minerals, metal and mineral reclamation industries, and to promote the orderly and economic development of domestic mineral resources and reserves. They also stated the Policy must incorporate the National Materials and Minerals Policy, Research and Development Act, (30 U.S.C. 1601 *et seq.*), which states it is the continuing policy of the United States to promote an adequate and stable supply of materials necessary to maintain national security, economic well-being, and industrial production, with appropriate attention to a long-term balance between resource production, energy use, a healthy environment, natural resources conservation, and social needs. The commenter noted that the Service ignored these statutes and proposed requirements that restrict and discourage mineral development in violation of these laws. They added that any mitigation must be balanced against Congress' policy of encouraging mineral development.

*Response:* The Service recognizes the national importance of resource development referenced by the commenter, along with many other types of economic development and activities. Statutes that encourage such development are not modified by this Policy. By enacting the various statutes

that provide for natural resource mitigation authority across multiple Federal agencies, Congress has recognized that fish and wildlife resources provide commercial, recreational, social, and ecological value to the American people. These statutes providing mitigation authority do not supersede statutes encouraging economic development. Conversely, statutes encouraging economic development do not supersede those providing mitigation authorities. Mitigation is a process by which agencies, proponents, and partners can facilitate sustainable development while simultaneously addressing the long-term conservation of native plants, animals, and ecosystems.

*Comment (6):* One commenter stated there were constitutional limits on requiring mitigation, referencing the *Koontz v. St. Johns River Water Management District* case decided by the U.S. Supreme Court 570 US 2588 (2013). This commenter noted that any compensatory mitigation measures must have an essential nexus with the proposed impacts and be roughly proportional, or have a reasonable relationship between the permit conditions required and the impacts of the proposed development being addressed by those permit conditions.

*Response:* Like all agencies, the Service has responsibility to implement its authorities consistent with any applicable case law. The Service will implement the Policy in a manner that is consistent with the *Koontz* case and any other relevant court decisions. We have included the following language in the Policy in section 5.6, Means and Measures: All appropriate mitigation measures have a clear connection with the anticipated effects of the action and are commensurate with the scale and nature of those effects.

#### D. Trust Resources

*Comment (7):* Several commenters addressed the concept of Federal trust fish and wildlife resources. They noted that in section 3.2, the Policy states that it applies to Service trust resources, but gives Service staff discretion to engage in mitigation processes on an expanded basis under appropriate authorities. They were unclear what authorities were being referenced and recommended that they be clarified, especially if they were expanding the Service's efforts. They asked that we clarify what the term "expanded basis" means.

Commenters stated that the Service's authority is limited to migratory birds, threatened or endangered species, eagles, and certain marine mammals.

They said that States have authority for all other species. They also requested acknowledgement that States have sole authority for resource management and that the Service should restrict the Policy to only federally protected species.

*Response:* This Policy applies to all resources listed or described within the Service's various mitigation authorities. The language used within those authorities to describe the covered resources determines the scope of Service recommendations made under each authority. Some authorities apply to resources defined very broadly. The types of resources for which the Service is authorized to recommend mitigation include those that contribute broadly to ecological functions that sustain species. For example, 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 is dependent. 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, including fish and wildlife resources, 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 this Policy, we note that the Service has traditionally described its trust resources as migratory birds, federally listed endangered and threatened species, certain marine mammals, and inter-jurisdictional fish. Our engagement in mitigation processes is likely to focus on those trust resources, but under certain authorities, the Service's recommendations are not strictly limited to covering only trust resources. This Policy does not establish new authority. We respect the role of States and State authorities. We have revised section 3.2 to replace the term "expanded basis" to avoid the perception that the Policy is expanding authorities.

#### E. Applicability to Endangered and Threatened Species

*Comment (8):* Several commenters recommended excluding species that are listed as endangered or threatened under the ESA as resources to which the Policy would apply, and several others supported such applicability. Reasons cited by the commenters for excluding listed species included: (a) The Service does not explain the circumstances that have changed and warrant reversing the listed-species exclusion of the 1981 Policy; (b) the Policy cannot substitute for ESA-specific requirements; (c) the ESA does not provide authority to require mitigation; and (d) Policy concepts such as "net conservation gain," "high-value habitat," and a "landscape approach" to conservation are inconsistent with ESA statutory authority and regulatory requirements.

*Response:* The Policy addresses all fish and wildlife resources for which the Service has authority to recommend or require mitigation, including ESA-listed species, because of our need to more strategically provide such recommendations. The primary purpose of the ESA is to provide a means for conserving the ecosystems upon which listed species depend. Avoiding, minimizing, and compensating for impacts is as important, if not more so, to the conservation of listed species as it is to any other resource of conservation concern (e.g., wetlands), because listed species are in danger of extinction or are likely to become so in the foreseeable future. The Service can and should advise others about how they may help conserve listed species when their proposed actions would cause impacts to their populations, because conserving listed species is part of our agency's mission. Identifying those means and measures that would, at minimum, result in no net loss to the status of affected listed species will inform action proponents about what they can do, consistent with their authorities and abilities, to prevent further status declines or contribute to their recovery. As mentioned earlier, the 1982 amendments to the ESA are another example of the changed circumstances since the 1981 Policy, and changes in knowledge, conservation, and management of listed species support this Policy's concepts.

*Comment (9):* In ESA section 7(a)(2) consultations, several commenters noted that reasonable and prudent alternatives (RPAs) to actions that jeopardize listed species or destroy or adversely modify designated critical habitat are not required to meet the no-net-loss or net gain goal of the Policy.

*Response:* When an agency has proposed an action that the Service has determined in a biological opinion is likely to jeopardize listed species or destroy or adversely modify designated critical habitat, we agree that RPA(s) to that action are not required to meet the no-net loss/net gain goal of the Policy. The definition of RPAs at 50 CFR 402.02 applies to the formulation of RPAs, not this Policy. In discussions with both the action agency and any applicant involved, the Service is required to suggest RPAs, if available, to the action agency and to rely on the expertise of both in identifying RPAs.

The ESA does not prohibit impacts to critical habitat, but section 7(a)(2) does prohibit Federal actions from destroying or adversely modifying critical habitat, without special exemption under section 7(h). We do not anticipate conflicts between the advisory recommendations under this Policy provided in advance of the initiation of consultation and subsequent review of actions under section 7(a)(2) relative to critical habitat. However, we have added language in the Policy that specifically cautions Service personnel about providing compensation recommendations in the context of actions that may affect designated critical habitat. Recommendations for measures that mitigate impacts (all five types) to the listed species *within* critical habitat will receive preference over compensation *outside* critical habitat to avoid the possibility that adverse effects to the physical and biological features of critical habitat could appreciably diminish its conservation value.

*Comment (10):* In ESA section 7(a)(2) consultations, several commenters requested that the Service clarify whether the reasonable and prudent measures (RPMs) and the accompanying nondiscretionary terms and conditions that the Service includes in incidental take statements may require compensating for the impacts of take on the species. Most stated that RPMs are limited to actions that minimize take, and may not include requirements to compensate for taking impacts. In support of such comments, some quoted the Services' 1998 Consultation Handbook language at page 4-50, which states in a section about RPMs: "Section 7 requires minimization of the level of take. It is not appropriate to require mitigation for the impacts of incidental take."

*Response:* The Service's authority to require or recommend mitigation, including all forms of mitigation covered by the CEQ's definition of mitigation, are governed by the ESA and

the regulations addressing consultations at 50 CFR part 402. While this Policy addresses ESA compensatory mitigation to a limited extent, further detail regarding the role of compensatory mitigation in implementing the ESA will be provided through authority-specific step-down policy (see proposed Endangered Species Act—

Compensatory Mitigation Policy at 81 FR 61032-61065, September 2, 2016).

*Comment (11):* Two commenters asked that we clarify this sentence in the Discussion material on Applicability to the Endangered Species Act: "This Policy encourages the Service to utilize a broader definition of mitigation where allowed by law."

*Response:* We removed the sentence from the Discussion material in this final Policy.

#### *F. Policy Addresses Multiple Authorities*

*Comment (12):* Several commenters addressed aspects of the Service's authority under the Bald and Golden Eagle Protection Act (BGEPA). One commenter supported the acknowledgement that compensatory mitigation for bald and golden eagles may include preservation of those species' habitats and enhancing their prey base. They noted that existing regulations establishing a permit program for the non-purposeful take of bald and golden eagles recognize these options but that these options have not been used. One commenter stated the Service was incorrect in stating in the proposed Policy: "the statute and implementing regulations allow the Service to require habitat preservation and/or enhancement as compensatory mitigation for eagle take." They said that Congress has not exercised jurisdiction over the habitats of eagles, meaning the Service lacks authority to require mitigation for impacts to eagle habitats. One commenter suggested the Policy should articulate whether compensatory mitigation would be in addition to current requirements of a 1-for-1 take offset.

*Response:* The Service has revised the BGEPA material in Appendix A section (A)(1) to address the concepts raised by the commenters. Although BGEPA does not directly protect eagle habitat beyond nest structures, nothing in the statute precludes the use of habitat restoration, enhancement, and protection as compensatory mitigation. Because golden eagle populations are currently constrained by a high level of unauthorized human-caused mortality rather than habitat loss, permits for golden eagle take require mitigation to be in the form of a reduction to a human-caused source of mortality.

However, habitat restoration and enhancement could potentially offset permitted take in some situations, once standards and metrics are developed to ensure the habitat-based mitigation provided will adequately compensate for the detrimental impacts of the permit.

As we developed this Policy, the Service is simultaneously in the process of developing revised regulations that will establish the specific mitigation ratio (prior to being adjusted to account for uncertainties and risks in the mitigation method) for eagle permits.

*Comment (13):* Three commenters stated that section 404(m) of the CWA does not provide the Service with any substantive authority to "secure mitigation" as stated in Appendix A (A)(2). They suggested the Service's role is limited to commenting upon section 404 permits and providing recommendations to the U.S. Army Corps of Engineers (Corps) and that final decisionmaking rests with that agency.

*Response:* We have edited Appendix A to remove the word "secure," replacing it with "recommend." This change better reflects the Service's authority, provided in the CWA, to provide mitigation recommendations during permitting processes. The Service makes such recommendations with the intention that they be considered and adopted by the Corps as their permit conditions or requirements, but the commenters are correct that the Service's recommendations themselves are advisory.

*Comment (14):* Two commenters were concerned that the language in the Policy provides an inappropriate method of requiring mitigation measures on projects permitted under CWA section 404 where the Service could not do so under its own authority, by asking the Corps to impose them.

*Response:* The language regarding the CWA in Appendix A (A)(2) does not introduce any new authority or process. It describes the existing means by which the Service, under statutory authority in the CWA, provides recommendations to the Corps. The Service uses those recommendations to advise the Corps on the effects of proposed permitting actions on aquatic habitats and wildlife and how to mitigate those effects. The Corps then decides whether to adopt the Service's advice in making their CWA permitting decision.

*Comment (15):* One commenter was concerned that the Policy could be applied to activities authorized under CWA section 404 Nationwide Permits (NWP) that have only minimal environmental impacts. They said that the Service should expressly exclude

activities authorized by NWP from the Policy because such activities have only minimal environmental impacts and any current mitigation requirements are unwarranted.

*Response:* Mitigation does apply to the NWP program. The Corps addresses mitigation for NWP-authorized activities in General Condition 23 (77 FR 10285, February 21, 2012). Activities authorized by NWPs are not excluded from this Policy. Also see the agency coordination provisions of General Condition 31, Pre-construction Notification, in the NWPs issued by the Corps on February 21, 2012 (77 FR 10286). For the listed NWPs and in the circumstances described in General Condition 31, the Service is afforded a review opportunity, after which the U.S. Army Corps District Engineer will consider any comments from Federal and State agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

*Comment (16):* One commenter suggested clarifying the application of the Policy to the Service's role in CWA section 404 permits and mitigation by adding the following sentence to Section 3.4, Applicability to Service Actions: This Policy applies to the Service's review of all CWA permits, both in coordination and consultation roles.

*Response:* We agree with the commenter that the Policy applies to the Service's review of CWA section 404 permits. We did not add the suggested sentence but address the Service's application of our statutory authority to make recommendations that mitigate the impacts of these permitted actions on aquatic environments in Appendix A (A)(2).

*Comment (17):* Two commenters addressed the Service's authority under the Fish and Wildlife Coordination Act. One commenter said the Policy should acknowledge that the FWCA is advisory in nature. Another commenter said that the Policy should acknowledge that the FWCA provides a basis for recommending mitigation of impacts to ecological functions.

*Response:* Mitigation recommendations the Service makes under the FWCA to Federal agencies planning water resource development projects are advisory. Section 2(a) of the FWCA requires agencies to consult with the Service whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, channelized, controlled, or modified for any purpose

whatever, with a view to the conservation and development of fish and wildlife resources. Section 2(b) of the FWCA requires that Service reports and recommendations be given full consideration and included in project reports to Congress or to any other relevant agency or person for authorization or approval. These aspects of FWCA compliance are required. Adoption of Service recommendations by the Federal water resource construction agency is not required.

The FWCA applies to those resources described in section 8 of the statute, where the terms "wildlife" and "wildlife resources" are defined to include birds, fishes, mammals, and all other classes of wild animals, and all types of aquatic and land vegetation upon which wildlife is dependent. In practice, Service recommendations made under FWCA are likely to focus on linkages of effects to trust resources, as prioritized by Service field and regional offices, but recommendations can cover resources as the statute defines. Because of the breadth of this coverage, we agree with the commenter that Service recommendations under the FWCA can include measures intended to address systemic ecological functions and agree that the purposes of the statute envision this application.

*Comment (18):* Several commenters addressed the Service's authority under the Migratory Bird Treaty Act (MBTA). One commenter said the Service was incorrect in describing implied authority to permit incidental take of migratory birds under the MBTA and noted that the Service has no authority to require compensatory mitigation for incidental take of migratory birds. Several commenters said that mitigation for migratory birds exceeds MBTA authority and that the Policy should exclude potential incidental impacts to migratory birds under the MBTA until the Service establishes statutory or regulatory authority to require landowners to obtain incidental take authorization prior to undertaking otherwise lawful activities. They added that the MBTA does not directly address mitigation or habitat impacts.

One commenter said the Service was incorrect in writing that the Fish and Wildlife Conservation Act implicitly provided for mitigation of impacts to migratory birds. They said that the language does not authorize the Service to engage in any management activities associated with migratory birds, particularly over private parties, only directing the Service to monitor and assess population trends and species status of migratory nongame birds.

*Response:* The Service has consistently interpreted the MBTA to apply to the incidental take of migratory birds. Currently, there is no express authority to permit the incidental take of migratory birds under the MBTA. Thus, the Service uses an enforcement discretion approach whereby the Service provides technical assistance to project proponents with strategies to avoid or minimize project-related take of migratory birds that is not the purpose of the otherwise legal action. Under this approach, the Service recommends voluntary measures that can mitigate the direct take of migratory birds and works with project proponents to address impacts to migratory bird habitat, including voluntary compensation for loss of migratory bird habitat. In May 2015, the Service published a notice of intent to conduct a National Environmental Policy Act review of a proposed rule that would establish the authority to permit incidental take as provided by the Act itself. An environmental impact statement will evaluate multiple alternatives for authorizing the incidental take of migratory birds. Subsequently, the Service will develop a regulation that provides the clear authority to permit incidental take and require mitigation measures to avoid and minimize incidental take, and compensation for unavoidable take. Until the regulation is finalized, the Service will continue working with project proponents and industries to manage impacts to migratory birds and their habitats.

The Service does not have specific statutory authority pursuant to the MBTA to *require* Federal action agencies and/or their permittees to provide compensatory mitigation for unavoidable impacts to (loss of) migratory bird habitat resulting from federally conducted or approved, authorized, or funded projects or activities. However, many Federal agency-specific authorities, as well as procedural authorities such as NEPA and the FWCA, require consultation with the Service, State natural resource agencies, and others, and evaluation of environmental effects of proposed actions, which may include considering impacts to migratory bird habitat. Through these authorities, the Service may recommend compensatory mitigation for unavoidable impacts to migratory bird habitat. Federal action agencies may include terms and conditions in permits, licenses, and certificates that mitigate a full range of adverse environmental effects, such as recommendations to compensate for

unavoidable impacts to migratory bird habitat, if they determine they have authority, consistent with their statutes and regulations, to require such compensatory mitigation.

In addition, Executive Order (E.O.) 13186 directs Federal agencies “taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations” to sign a Memorandum of Understanding (MOU) with the Service “that shall promote the conservation of migratory bird populations.”

In Appendix A, we have modified the text of section (A)(7) to clarify the requirements of the Fish and Wildlife Conservation Act and have made minor clarifying edits to the MBTA text of section (A)(10).

*Comment (19):* Four commenters addressed the Marine Mammal Protection Act (MMPA) discussion in Appendix A (A)(9). One commenter suggested that the Service provide more clarification on existing authorities under the MMPA. These included specifying that this section of Appendix A only discusses incidental take authorizations for non-commercial fishing activities; clarifying requirements as they apply to military readiness activities; providing additional information on other means of affecting the least practicable adverse impact; and clarifying that the permissible methods of taking and the mitigation and reporting are required measures as provided under Incidental Take Regulations (ITRs) and Incidental Harassment Authorizations (IHAs).

*Response:* Although the MMPA section of Appendix A was intended to provide a general overview for part of this Act, we agree that Appendix A of the Mitigation Policy could benefit from these additional clarifications. We have revised Appendix A to address these points as appropriate.

*Comment (20):* Commenters stated that the Policy is incompatible with the MMPA in that it adopts a new position inconsistent with the existing regulations or otherwise effects a substantive change in the MMPA.

*Response:* This Policy does not alter or amend any existing regulation, law, or policy other than the 1981 Policy itself. Instead, where mitigation measures are compatible with the standards of other statutes, *e.g.*, the MMPA, the Service would recommend their use. On the other hand, there are mitigation measures that may be required under statutes besides the MMPA regardless of this Mitigation Policy, *e.g.*, mitigation measures to ensure the least practicable adverse impact on a marine mammal species or

stock and its habitat, and on their availability for subsistence use.

*Comment (21):* Commenters stated that the draft mitigation Policy is incompatible with the MMPA in that it indicates that recipients of incidental take authorizations would be required to take actions to achieve a net conservation gain or no net loss to the affected marine mammal species or stock. They commented that the Service does not have such authority under the MMPA.

*Response:* The MMPA states that species and population stocks should not be permitted to diminish beyond the point at which they cease to be a significant functioning element in the ecosystem of which they are a part, and, consistent with this major objective, they should not be permitted to diminish below their optimum sustainable population. In this manner, the mitigation Policy is compatible with the MMPA in that it implies there should be no conservation loss. However, the Service agrees that the MMPA does not require recipients to achieve a net conservation gain or no net loss to marine mammals. It was not the intent of this Policy to make such a requirement. Instead, should the Service make the required findings under section 101(a)(5) of the MMPA and authorize incidental take, it would prescribe the permissible methods of taking and other means of ensuring the least practicable adverse impact on the marine mammal species or stock and its habitat, and on the availability for subsistence use as a part of that authorization. We have revised Appendix A of the Policy to clarify this point.

*Comment (22):* One commenter suggested that the Policy should include language to ensure that review and consultation under Section 106 of the National Historic Preservation Act of 1996 (NHPA) (16 U.S.C 470 *et seq.*), as amended in 1992, takes place at the early planning stage of the action and not wait until mitigation is being considered.

*Response:* We have revised section 3.4 of the Policy to state that the Service’s responsibilities begin “during early planning for design of the action.” In addition, we have added the following language: “Consistent with the NEPA, and the NEPA and NHPA Section 106 Handbook, these reviews will be integrated into the decisionmaking process at the earliest possible point in planning for the action rather than wait until mitigation is considered.”

*Comment (23):* One commenter said that in Appendix B, to help meet its overarching Tribal Trust Doctrine

responsibilities under the NHPA, the Service should initiate Section 106 consultation with Indian tribes early within the time of mitigation planning for the FWS proposed action (instead of after the preferred mitigation approach is selected).

*Response:* We have revised Appendix B accordingly. The Service will initiate Section 106 consultation with Indian tribes during early planning for Service-proposed actions, to ensure their rights and concerns are incorporated into project design. Consultation will continue throughout all stages of the process, including during consideration of mitigation, and will follow the Service’s Tribal Consultation Handbook and the Service’s Native American Policy.

*Comment (24):* One commenter specifically questioned the treatment of Natural Resource Damage Assessment actions conducted under CERCLA, OPA, and the CWA, stating that the Presidential Memorandum on Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment, dated November 3, 2015, requires that separate guidance be developed for when restoration banking or advance restoration would be appropriate.

*Response:* When a release of hazardous materials or an oil spill injures natural resources under the jurisdiction of State, tribal, or Federal agencies, the type of restoration conducted depends on the resources injured by the release and, by nature of the action, must happen after impacts occur. Thus, this Policy’s preference for compensatory mitigation measures that are implemented and earn credits in advance of project impacts cannot apply. However, pending promulgation of further DOI guidance, the tools provided in section 5 maintain flexibility useful in implementing restoration to restore injured resources under the jurisdiction of multiple governments, by providing support for weighing or modifying project elements to reach Service goals. Therefore, in agreement with the commenter, we have made edits to section 5.6 and to Appendix A to clarify the relationship of this Policy with Natural Resource Damage Assessment and the Presidential Memorandum on Mitigation.

*Comment (25):* Two commenters said that combining the fish and wildlife resources provisions of the Stream Protection Rule under the Surface Mining Control and Reclamation Act (SMCRA) with the language of the proposed Mitigation Policy could result in the Service inserting mitigation



requirements not otherwise called for in a SMCRA permit.

*Response:* At the time this Policy was completed, the proposed Stream Protection Rule, published July 27, 2015 (80 FR 44436), was not yet finalized. The statutory language of SMCRA and its implementing regulations, including the Stream Protection Rule when finalized, will determine the scope of resources covered by Service recommendations under that statute. This Policy does not exceed existing statutory or regulatory authority to engage in mitigation processes for the purpose of making mitigation recommendations, and in limited cases, specifying mitigation requirements. Processes established by applicable statutes and regulations are not superseded by this Policy.

#### G. Exemptions

*Comment (26):* Several commenters provided observations regarding exemptions from the Policy. One commenter said that the Policy should further identify those activities and projects that are exempt, adding that the Policy should make clear that any new procedural or other requirements apply only to new project applications or proposals. Several commenters said that the Policy should not apply to actions for which a complete application is already submitted. They stated that the Policy should apply neither to actions already under review nor to actions where coordination was initiated prior to publication of the final Policy.

*Response:* In section 3.3, Exclusions, we describe the circumstances when the Policy does not apply, but we do not specifically exempt any category of action. The Policy applies when one or more of our authorities apply to the review of a particular action for purposes of making mitigation recommendations. It is the language of those authorities that specifies their coverage of particular actions and resources. In section 3.3, we establish that the Policy does not apply when the Service has already agreed to a mitigation plan for pending actions, except in the specified circumstances. Complete applications that are submitted prior to the finalization of this Policy, but that are not yet under review, do not satisfy those circumstances. If an action is under active review as of the date of final publication of this Policy, Service personnel may elect to apply this Policy to that action. For actions where coordination was initiated prior to the final Policy, Service personnel would determine whether that coordination constitutes active review.

*Comment (27):* Two commenters said the Policy should exempt landowners who have participated or are currently participating in voluntary programs designed to conserve endangered species.

*Response:* We do not specifically exempt any category of action in section 3.3. This Policy, as an umbrella policy, integrates all of the Service's authorities for engaging in mitigation. We cannot legally exempt the landowners referenced by the commenters on the basis of their status pursuant to an agreement entered into under a single authority, because their future actions may trigger applicability of one or more other authorities. The Policy does not, however, override or modify any such agreements or substitute for the regulations governing those agreements.

*Comment (28):* Four commenters stated that the Policy should explicitly exempt activities with *de minimus* impacts. They said that projects with small and/or temporary impacts should not be burdened by mitigation measures.

*Response:* We do not specifically exempt any category of action and do not exempt actions on the basis of the size of activities planned or on the size of their impacts. The Policy provides a framework to guide Service personnel in their review of actions, including their application of the mitigation hierarchy and their recommendations for mitigation. Application of this guidance will assist Service personnel in determining whether to engage actions in mitigation planning and then in the formulation of mitigation recommendations. Application of this guidance could result, in appropriate circumstances, in a decision not to engage in mitigation planning for actions with *de minimus* impacts, but we do not specifically exempt actions based on the scale of anticipated impacts.

*Comment (29):* One commenter stated the Policy should include an exemption for conservation projects sponsored by local, State, or Federal resource agencies that seek beneficial restoration and implement conservation objectives.

*Response:* We do not specifically exempt any category of action and do not exempt actions on the basis of their primary purpose. We acknowledge that actions designed to restore or create habitats are generally less likely to require, for example, compensatory mitigation, and support their role in fulfilling the Service's larger mission. The Policy does not establish new or increased scrutiny of conservation or restoration actions than under existing statutes and regulations. The Service

may apply this Policy in review of a conservation action that is intended to benefit one resource, but may adversely affect others for which the Service is authorized to provide mitigation recommendations and/or mitigation requirements.

*Comment (30):* Two commenters stated that this Policy should not apply to military testing, training, or readiness activities. They stated that such an exclusion is necessary to be consistent with the Presidential Memorandum on Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment (November 3, 2015).

*Response:* The Service interprets the Presidential Memorandum, which instructs agencies to develop or update their mitigation policies, to exempt agencies that conduct military testing, training, and readiness activities from the requirement to update or create policies for those activities. The Presidential Memorandum cannot exempt any particular activity from the applicability of existing statutory authority that provides for mitigation.

*Comment (31):* One commenter stated the Policy should define or describe "habitat" and recommended that the Service exclude dredge material placement sites, and other such manmade areas, from mitigation planning processes.

*Response:* Habitat develops on sites with a history of human manipulation, including levees, reclaimed mine sites, timber harvest sites, agricultural areas, and dredged material placement sites. The commenter does not reference a particular timeframe over which their proposed exemption would be valid. We note that sites with a history of human manipulation may have been disturbed or modified hundreds of years prior, with multiple episodes of habitat recovery and re-disturbance in the intervening years. The Policy does not exclude areas solely because they are manmade or disturbed habitats. Mitigation requirements and recommendations will be informed by the framework established in this Policy, including section 5.5, Valuation.

#### H. Net Conservation Gain/No Net Loss

*Comment (32):* Many commenters addressed the Policy's mitigation planning goal to improve (*i.e.*, a net gain) or, at minimum, to maintain (*i.e.*, no net loss) the current status of affected resources. A number of commenters supported the goal while a number of commenters opposed the inclusion of a net conservation gain. Many commenters stated that the Service lacks the statutory authority to implement the



net gain goal for mitigation planning. Several commenters suggested that a net gain goal imposes a new standard for mitigation and that mitigation requirements should be commensurate with the level of impacts. Others expressed concern about the costs associated with achieving a net gain.

*Response:* The Policy applies to those resources identified in statutes and regulations that provide the Service with the authority to make mitigation recommendations or specify mitigation requirements and are described in section 2 and in Appendix A. The purpose of the net conservation goal in mitigation planning is to improve conservation outcomes to affected resources, but the Policy does not require project proponents to achieve those outcomes. The Policy provides a framework for Service recommendations to conserve fish, wildlife, plants, and their habitats that are negatively affected by proposed actions. The identification of those means and measures that would result in a net conservation gain to the affected resources will not only help prevent further declines but contribute to a net improvement in the status of affected species and their habitats. The Service will seek a net gain in conservation outcomes in developing mitigation measures consistent with our mission to identify and promote opportunities to decrease the gap between the current and desired status of a resource.

*Comment (33):* Several commenters questioned the ability to achieve the net conservation gain and how it would be measured. Other commenters stated that the Policy should provide the methodology to assess or measure the net conservation gain.

*Response:* It is beyond the scope of the Policy to provide specific quantifiable measures to achieve the net conservation gain goal. The Service's mitigation goal is to achieve a net conservation gain or, at a minimum, no net loss of the affected resources. The Policy provides the framework for assessing the effects of an action and formulating mitigation measures (sections 5.1 through 5.9) to achieve this goal, which will be specific to the conservation objectives of the affected resources.

*Comment (34):* Several commenters stated that neither no net loss, nor net conservation gain, are compatible with the standards of the ESA sections 7 and 10. One commenter asked that we clarify that the net conservation gain goal does not modify or expand proponents' obligations under ESA sections 7 or 10 permitting programs. One commenter stated that the Policy's

goal would have limited relevance to section 10 decisions other than serving as an aspiration or goal for negotiating conservation measures. One commenter asked that we specify how the Policy's goal will be applied to processing incidental take permit applications under section 10(a)(2)(B)(ii), especially for projects predicted to directly kill listed species. This commenter added that neither no net loss nor net gain is an appropriate goal under section 10 if the goal implies that impacts at the individual level will not be minimized to the maximum extent practicable.

*Response:* This Policy is intended to guide mitigation for impacts to listed species. It does not expand the Service's authorities for recommending or requiring mitigation under the ESA. As an administrator of the ESA, the Service has an obligation to work with others to recover listed species and preclude the need to list species, including guiding compensatory mitigation to offset the adverse impacts of actions to threatened and endangered species. The Service anticipates further defining the mitigation goal in relation to compensatory mitigation for impacts to listed species and designated critical habitat in the forthcoming Endangered Species Act Compensatory Mitigation Policy.

*Comment (35):* One commenter recommended the use of regional conservation goals and objectives in developing landscape-scale mitigation where the conservation goals and objectives are clear, explicit, and defensible. The commenter recommended that the Policy define a conservation goal as a "formal statement describing the future status of a species or habitat."

*Response:* We acknowledge that there may be variability in conservation plans developed by different entities, and agree that the commenter's descriptions are among the possibilities. This Policy describes an overall goal of a net conservation gain. The Service's mitigation planning goal is to improve (*i.e.*, a net gain) or, at a minimum, to maintain (*i.e.*, no net loss) the current status of affected resources, as allowed by applicable statutory authority and consistent with the responsibilities of action proponents under such authority, primarily for important, scarce, or sensitive resources, or as required or appropriate. Service mitigation recommendations or requirements will specify the means and measures that achieve this goal, as informed by established conservation objectives and strategies. This Policy defines conservation objectives as a measurable expression of a desired outcome for a

species or its habitat resources. Population objectives are expressed in terms of abundance, trend, vital rates, or other measurable indices of population status. Habitat objectives are expressed in terms of the quantity, quality, and spatial distribution of habitats required to attain population objectives, as informed by knowledge and assumptions about factors influencing the ability of the landscape to sustain species.

#### *I. Landscape-Scale Approach*

*Comment (36):* Two commenters stated the Policy should include nearshore, estuarine, and marine habitats in describing landscapes. They asked that we clarify that the concept is inclusive of ecologically connected areas of the aquatic environment, such as watersheds.

*Response:* We concur with the commenters that the definition of and concept of landscape and a landscape approach must include aquatic environments. The concept does include ecologically connected areas of the aquatic environment such as watersheds. The existing definition of landscape in section 6 accommodates this inclusion.

*Comment (37):* Three commenters suggested providing more clarity regarding what it means to take a landscape approach to mitigation in the absence of an existing conservation plan. They said that a landscape approach in the absence of an appropriate plan will necessitate an analytical process and the Policy should identify the information that should be used in such a process. They suggested adopting language from the rule on Compensatory Mitigation for Losses of Aquatic Resources, 33 CFR parts 325 and 332 (Corps) and 40 CFR part 230 (Environmental Protection Agency (EPA)), 33 U.S.C. 1344, that describes the Corps and EPA watershed approach in the absence of appropriate plans.

*Response:* The availability of plans will be variable, and the Policy's instruction to Service staff to take a landscape approach when conservation plans are not available is sound. The diversity in the habitats, species, project impacts, and mitigation in the implementation of the Service's suite of mitigation authorities make detailed specification of landscape approach instructions beyond the scope of this umbrella policy. In concurrence with the commenters, we have added text to the end of section 5.1, Integrating Mitigation with Conservation Planning.

*Comment (38):* Multiple commenters expressed concerns regarding how the landscape approach will be

implemented, suggesting that clarity be provided through specific criteria, guidance on process, and how data will be used or appropriateness of data, for consistent application.

*Response:* The Service has written the national Policy in a manner that facilitates further clarification on a regional scale. As with many of the decisions made in impact analysis, determination of appropriate assessment methodologies including landscape scale must occur on a project-by-project basis, under the authority at hand, with information most appropriate for the site or region of impact. Section 5.3.3 allows the Service flexibility in methodology to meet this need by allowing use of any methodology that allows comparison of present to predicted conditions, measures beneficial and adverse impacts by a common metric, and predicts effects over time. We look forward to using existing means of engagement at the local and State level, when working with the States, tribes, and other partners through existing authorities while developing programs and additional guidance to seek mutual goals and avoid inconsistency.

#### *J. Advance Mitigation Planning at Larger Scales*

*Comment (39):* Two commenters stated that the term “Advance Mitigation Planning at Larger Scales” in section 5.1, Integrating Mitigation with Conservation Planning, might be confused with the Policy’s preference for Advance Mitigation in section 5.7.1, Preferences.

*Response:* We agree and have changed the term within section 5.1 to read “Proactive Mitigation Planning at Larger Scales.”

#### *K. Climate Change*

*Comment (40):* Many commenters addressed the Policy’s inclusion of climate change in assessing the effects of a proposed action and mitigation. One commenter stated the Policy should make it a requirement that climate change be assessed, while others urged the Service to refrain from using climate change projections to govern mitigation efforts. Several commenters stated that climate change predictions and the effects to species and their habitats are uncertain and that the current state of climate projections are not of a scale sufficient to assess project-related impacts or mitigation. Several commenters suggested the Policy include guidance on how the effects of climate change should be determined. One commenter stated the Service should ensure that the temporal scope

of the analyses is well defined and supported by data and that the impacts to species and their habitats can be assessed with reliable predictability.

*Response:* Consistent with the Departmental Manual Chapter (600 DM 6), this Policy recommends that climate change be considered when evaluating the effects of an action and developing appropriate mitigation measures. The Service recognizes that the science of climate change is advancing and assessment methodologies are continually being refined to address the effects of climate change to specific resources and at differing scales. Because of the broad scope of resources covered by this Policy and the evolving state of climate change science and assessment methodologies, including specific information on these topics is beyond the scope of the Policy. Therefore, the Policy is written with language to ensure that it does not become quickly outdated as methodologies evolve. As stated in section 5.3, Assessment, the Service will use the best available information and methodologies when considering the effects of climate change to the resources covered by this Policy and in designing mitigation measures.

*Comment (41):* One commenter provided an in-depth discussion of the broad-scale consequences of greenhouse gas emissions, climate change, and carbon sequestration.

*Response:* The Service shares the commenter’s emphasis of the importance of climate change as a systemic challenge that must be a focus of integrated natural resource management. That is why it is written in the Policy to inform the scale, nature, and location of mitigation measures when employing the Policy’s fundamental principle of using the landscape approach (section 4.c). It is not possible to provide exhaustive details for addressing climate change in this umbrella policy. Our mitigation authorities give us ability to recommend mitigation for impacts to species and habitats, but we do not have explicit authorities to recommend offsets for carbon emissions. In the course of integrating mitigation with conservation planning (section 5.1), assessing project impacts and formulating mitigation measures (section 5.3), and recommending siting of compensatory mitigation (section 5.7.1), this Policy directs Service staff to integrate consideration of climate change.

#### *L. Collaboration and Coordination*

*Comment (42):* Several commenters supported the Policy’s clear desire for collaboration and coordination with

stakeholders. However, other commenters were concerned with the lack of detail in regard to coordination with State, tribal, or other local conservation partners during various steps in the process, and the extent to which data, analyses, and expertise of these entities will be used, and conflict with existing planning efforts avoided. Multiple comments indicated the importance of early coordination with State, tribal, and Federal organizations, local conservation partners, and private landowners, especially to avoid delay in the process. Some commenters requested minimum standards for plans or data, and indicated multiple types of plans or data that would be useful (e.g., ESA Recovery Plans, State Wildlife Action Plans, watershed plans, State natural heritage data, and plans associated with State or metropolitan transportation planning processes). One commenter in particular pointed to the importance of collaborating to avoid conflicts and “negative externalities” for Alaska and its citizens. Multiple commenters requested we specifically list State and local entities in section 5.2.

*Response:* State and local conservation partners often have data or planning documents important to project mitigation scenarios. Thus, we acknowledge the benefits of collaboration and coordination in the early planning and design of mitigation in section 5.2. We look forward to using existing means of engagement at the local and State level, when working with the States, tribes, and other partners through existing authorities while developing programs to seek mutual goals and avoid inconsistency. Therefore, we revised the text in sections 4(c) and 5.2(a) and (d) to better reference local government entities.

*Comment (43):* One commenter requested reaffirmation that States can, with guidance and participation of the Service, develop and implement mitigation programs to achieve Service mitigation goals, while aligning with local conservation plans and multiple use objectives. Several commenters requested identification of specific Service representatives to engage in these planning efforts, and clarification on process, especially to avoid disputes related to inconsistency. One commenter requested the Service require State concurrence with recommendations when related to resources under State authority; others were specifically concerned with the Policy’s interface with current mitigation systems.

*Response:* We agree that alignment with local mitigation efforts mutually

benefits conservation agencies, and this Policy formally recognizes the shared responsibility with State, local, and tribal governments, and other Federal agencies and stakeholders. We look forward to using existing means of engagement at the local and State level, when working with the States, tribes, and other partners through existing authorities while developing programs to seek common goals and avoid inconsistency.

*Comment (44):* Several commenters requested more information specifically on how conflicts between agencies or regulations, plans, or mitigation or permitting requirements would be handled.

*Response:* Conflicts between agencies are handled through direct engagement and through existing mechanisms that will be unchanged by this Policy. For example, in NEPA, regulations at 40 CFR part 1504 establish procedures for referring Federal interagency disagreements concerning proposed major Federal actions that might cause unsatisfactory environmental effects to the Council on Environmental Quality. The same regulations provide means for early resolution of such disagreements. In CWA permitting processes, disagreements over issuance of specific permits or on policy issues between the Service and Corps or between EPA and the Corps are resolved following procedures established at section 404(q) of that act and detailed within a Memorandum of Agreement between the agencies. The Corps/EPA joint 2008 Compensatory Mitigation Rule also features a dispute resolution process for agencies to resolve disagreements concerning the approval of mitigation banks or in-lieu-fee programs. We will continue to use existing processes.

*Comment (45):* One commenter requested that the Service include requirements that all mitigation data, including data associated with amount and type of mitigation, ecological outcomes, landscape scale and conservation plans used in mitigation planning, and monitoring be made public in an easily accessible manner, such as being submitted electronically to publicly available databases.

*Response:* We agree that data should be made broadly available to facilitate future conservation at a landscape level, dependent on the relevant regulations under which the mitigation is required. If there is the potential for disclosure of personal, private, or proprietary information, there are limitations on the Service's or other agencies' ability to require public availability. While most of the Service's mitigation authorities allow for recommendations, the ability

to disclose monitoring data may be at the discretion of another agency. A blanket requirement to post all monitoring data to public databases would, therefore, be beyond the scope of this Policy.

#### *M. Assessment*

*Comment (46):* One commenter stated that indirect effects from some actions are greater than the direct effects and should, therefore, be made more prominent in the Policy.

*Response:* We added indirect and cumulative impacts to section 5.3 of the Policy.

*Comment (47):* Several commenters expressed concern regarding the use of best professional judgment during and as subjective predictions of impact, as described in section 5.3.4. Some commenters seemed particularly concerned about coincidental changes in magnitude of probable impacts caused by indirect sources, or those falling outside Service jurisdiction, such as climate change.

*Response:* The Service, in section 5.3, allows use of "best professional judgment" using information described in the remainder of that section (recognition of and adjustment for uncertainty, use of information provided by the action proponent, and best available methodologies to predict impact). Thus, even where predictions may be uncertain, the Service will support decisions on the best available scientific information. As with many of the decisions made in impact analysis, prediction of impacts through time must occur on a project-by-project basis, under the authority at hand, with information most appropriate for the site or region of impact. We look forward to using existing means of engagement at the local and State level, when working with the States, tribes, and other partners through existing authorities while developing programs and additional guidance to seek mutual goals and avoid inconsistency.

*Comment (48):* Multiple commenters stated that assessment methodologies should be designed to ensure predictable mitigation credits, measure both beneficial and adverse effects, and be based on biological and/or habitat conditions that are accurate, sensitive, repeatable, and transparent. Two commenters were concerned that the Service should provide additional guidance to Federal and State agencies to avoid inefficiencies, and provide clarification in methodologies.

*Response:* As with many of the decisions made in impact analysis, determination of appropriate assessment methodologies must occur on a project-

by-project basis, under the authority at hand, with information most appropriate for the site or region of impact. Section 5.3.3 allows the Service flexibility in methodology to meet this need by allowing use of any methodology that compares present to predicted conditions, measures beneficial and adverse impacts by a common metric, and predicts effects over time. We look forward to using existing means of engagement with the States, tribes, and other partners through existing authorities while developing programs and additional guidance to seek mutual goals and avoid inconsistency.

*Comment (49):* One commenter suggested that "key ecological attributes" (KEA) be used as a landscape-scale mitigation framework to guide impact assessment and ensure "like for like" benefits. The commenter categorized KEAs as: (1) Size (measure of a resource's area of occurrence or population abundance); (2) condition (measure of the biological composition, structure, and biotic interactions that characterize the space in which the resource occurs); and (3) landscape context (assessment of the resource's environment including the ecological processes and regimes that maintain it, and connectivity that allows species to access habitats and resources or allows them to respond to environmental change through dispersal or migration).

*Response:* While use of the assessment approach involving application of KEAs would be consistent with the assessment principles and attributes of the best available effect assessment methodologies that we describe in section 5.3, we do not specify use of specific methodologies because the Policy's breadth of geographical, ecological, and authority coverage warrant flexibility.

*Comment (50):* One commenter stated the Policy should provide science quality standards while another commenter stated that science provided by a project proponent to support a mitigation action should be evaluated fairly.

*Response:* As stated in the Policy, the Service will use the best available science in formulating and monitoring the long-term effectiveness of its mitigation recommendations and decisions, consistent with all applicable Service science policy. This will include an objective evaluation of science-based information provided by the project proponent.

## N. Evaluation Species

*Comment (51):* Numerous commenters expressed opinions and concerns on how the evaluation species should be selected. Suggestions focused on coordination with States and other parties and on selecting species identified in local government plans that have met appropriate standards or in State Wildlife Action Plans.

*Response:* The Policy is not meant to be exhaustive in identifying the resources or characteristics of evaluation species. The Service recognizes that there may be existing plans (e.g., local government plans, State Wildlife Action plans) other than those identified in the Policy as well as other characteristics that may be useful in mitigation planning depending on the specific action and the affected resources. We agree that the use of existing plans such as State Wildlife Action plans or other sources that have established species conservation objectives will be useful in selecting evaluation species within the affected area. The Service will work with project proponents and other stakeholders in reviewing existing plans and identifying evaluation species for a specific action following the guidance outlined in section 5.4, Evaluation Species.

*Comment (52):* One commenter stated that section 5.4, Evaluation Species should be expanded to focus beyond evaluation species to species and their habitats for use in impact assessments and mitigation planning.

*Response:* Section 5.4 in the Policy adequately addresses the identification and characteristics of evaluation species, and does not need to be expanded. The purpose of selecting evaluation species is part of the Policy's framework to evaluate affected habitats and make mitigation recommendations based on their scarcity, suitability, and importance to achieving conservation objectives as discussed in section 5.5, Habitat Valuation.

*Comment (53):* A number of commenters suggested that the Policy's approach to evaluation species will expand the Service's jurisdiction to all wildlife and that mitigation will be required for species (and habitats) for which there is no direct statutory or regulatory obligation.

*Response:* Evaluation species are a utility used by agencies in mitigation planning. The Service defines them as the fish, wildlife, and plant resources in the affected area that are selected for effects analysis and mitigation planning. We need evaluation species because we cannot exhaustively assess all impacts and formulate mitigation for all

resources affected by a proposed action. The purpose of Service mitigation planning is to develop a set of recommendations that, if implemented with the proposed action as a package, would achieve conservation objectives for the affected resources. Accordingly, the Service would select evaluation species for which conservation objectives have the greatest overlap with the effects of a proposed action. The Service will select others to represent the suite of fish and wildlife impacts caused by an action. The Policy provides guidance for selecting evaluation species and is not a means of expanding our jurisdiction. Evaluation species are, in effect, a planning tool and were a major feature of the 1981 Policy.

*Comment (54):* A number of commenters addressed the selection of evaluation species in those instances identified in the Policy where an evaluation species does not need to occur within the affected habitat: Species identified in an approved plan that includes the affected area, or the species is likely to occur in the affected area during the reasonably foreseeable future with or without the proposed action due to natural species succession. One commenter stated that the Policy places clear and defined limits on what constitutes both the "reasonably foreseeable future" and "natural species succession" when selecting evaluation species so mitigation actions are not overly expansive. Some commenters questioned the Service's authority to expand the scope of analysis to species that do not occur in the affected area but could occur at some point in the foreseeable future due to natural species succession.

*Response:* The selection of evaluation species that is not currently present in the affected area was a component of the Service's 1981 Policy. Under this Policy, the Service retains the ability to consider such selections, as authorities permit. Such selections will be subject to the conditions described in section 5.4 and are not a means of expanding the Service's authorities.

*Comment (55):* A few commenters stated that there is no basis for evaluating other non-listed species when assessing actions under the ESA, while another commenter expressed concern that the consultation and permitting for specific species will be complicated by the addition of evaluation species resulting in additional analysis and costs.

*Response:* Nothing in this Policy supersedes statutes and regulations governing treatment of federally listed species. Section 5.4, Evaluation Species,

provides guidance on the selection of evaluation species that the Service will recommend in the assessment of affected resources and mitigation planning. The Service will recommend the smallest set of evaluation species necessary to relate the effects of an action to the full suite of affected resources. In instances where the Service is required to issue a biological opinion, permit, or regulatory determination for a specific species, that species will be, at a minimum, identified as an evaluation species. The recommendation to use additional evaluation species will depend on the specific project and affected resources. Use of evaluation species beyond federally listed species will improve conservation outcomes for other resources affected by an action, but the Policy does not require such usage.

*Comment (56):* One commenter stated that the Policy creates a new category of species by using evaluation species.

*Response:* Evaluation species is not a new term and has been brought forth from the Service's 1981 Policy. Section 5.4, of the Policy, Evaluation Species, provides additional guidance on the selection and use of evaluation species to assess impacts and develop mitigation strategies.

## O. Habitat Valuation

*Comment (57):* Several commenters requested the Service provide additional details on habitat valuation in section 5.5 of the Policy. To avoid the potential for "lengthy disputes" between the Service and other stakeholders in mitigation planning, some recommended including measurable/repeatable metrics in the Policy for quantifying habitat scarcity, suitability, and importance. Others wanted a very clear standard for identifying "habitats of high-value," for which the Policy guidance is to avoid all impacts.

*Response:* The scope of the Policy covers all authorities that give the Service a role in mitigating the impacts of actions to fish and wildlife resources, which encompasses a broad range of action types and species. The types and quality of available information vary widely across this range; therefore, highly prescriptive methods of habitat valuation are not advisable. Scarcity, suitability, and importance are the characteristics most relevant to our purpose for habitat valuation, which is to inform the relative emphasis we place on avoiding, minimizing, and compensating for impacts to the conservation of evaluation species. Our definitions of these parameters are sufficiently clear to provide useful guidance to Service personnel in

formulating mitigation recommendations to action proponents. However, we have revised the Policy to clarify that “habitats of high-value” are those that are rare and both highly suitable for, and important to, the conservation of the evaluation species.

Our authority to require specific mitigation actions of action proponents is limited, and is governed by the regulations of the statute that confers such authority, not this Policy. Our goal with this Policy is to provide a common framework for the Service to apply when identifying mitigation measures across the full range of our authorities to promote better conservation outcomes for species. Service personnel are obligated to explain mitigation recommendations, including our valuation of the affected habitats. Action proponents may adopt or reject Service recommendations about how they may maintain or improve the status of species as part of their proposed actions. Therefore, we do not anticipate “lengthy disputes” between the Service and action proponents over habitat valuations.

*Comment (58):* Several commenters recommended that the Service use habitat valuation as the basis for variable mitigation standards or goals, similar to the 1981 Policy.

*Response:* This Policy adopts a minimum goal of no-net-loss for mitigating impacts to evaluation species, regardless of the value of the affected habitat, which is a fundamental change relative to the 1981 Policy. Instead of determining variable objectives that apply to affected habitats, variable habitat value informs the priority we assign to avoid, minimize, and compensate for impacts to evaluation species. Our rationale for this change is that all occupied habitats contribute to the current status of an evaluation species. Discounting the contribution of lower value habitat would increase the difficulty of achieving conservation objectives for evaluation species. However, we recognize that to maintain or improve a species’ status, it is more efficient to avoid and minimize impacts to higher value habitats, and to minimize and strategically compensate for impacts to lower value habitats. The Service will engage action proponents in mitigation planning only when we have authority to do so and when an action may adversely affect resources of conservation interest to a degree that warrants application of the Policy.

*Comment (59):* Two commenters recommended the Service retain the four Resource Categories of the 1981 Policy.

*Response:* In the 1981 Policy, the Resource Categories established variable mitigation objectives based on habitat value, which was a function of scarcity and suitability. Under this Policy, the objective is a minimum of no net loss, regardless of habitat value. Instead, habitat value informs the priority we assign to avoid, minimize, and compensate for impacts. By adding habitat “importance” to the scarcity and suitability parameters of the 1981 Policy, the revised Policy more explicitly integrates mitigation recommendations with conservation strategies applicable to the evaluation species. Our valuation considers all three parameters, and we will seek to avoid and minimize impacts to habitats of higher value, and to minimize and compensate for impacts to habitats of lower value. We considered prescribing a prioritization of mitigation types through a revised resource category system but determined that it added little practical value beyond stating that we should recommend avoiding impacts to rare habitats that are of both high suitability and importance (the equivalent of Resource Category 1 in the 1981 Policy) and give greater emphasis to compensating for impacts to low-value habitats.

*Comment (60):* Three commenters expressed specific concerns about the three habitat-valuation parameters, each recommending possible revisions/substitutions. One stated that our definition of importance was mostly a function of scarcity and/or suitability, and suggested substituting “irreplaceability” and “landscape position” as more independent parameters. Another suggested that “unique and irreplaceable” was the criterion for recommending avoiding all impacts to a habitat, as opposed to high-value assessed by all three valuation parameters. The third urged the Service to use “vulnerability” as an additional parameter.

*Response:* Our definitions of the three habitat-valuation parameters are distinct and do not overlap, but we recognize potential correlations between the parameters (e.g., rare habitats of high suitability are very likely also of high importance). Our definition of importance captures the significance of a location in the conservation of a species, regardless of its scarcity or suitability, and we disagree that importance is mostly a function of scarcity and suitability. The definition of importance refers to both the ability to replace the affected habitat and its role in the conservation of the evaluation species as a core habitat, a linkage between habitats, or its

provision of a species-relevant ecological function. Therefore, “irreplaceability” and “landscape position” are already considered in the importance parameter.

A “unique” habitat is the rarest valuation possible on the scarcity parameter, and an “irreplaceable” habitat rates high on the importance parameter. The third parameter, suitability, is defined as “the relative ability of the affected habitat to support one or more elements of the evaluation species’ life history compared to other similar habitats in the landscape context.” A unique habitat would have no other similar habitats in the relevant landscape context for comparative purposes; therefore, its suitability is not assessable. In practice, if a unique and irreplaceable habitat is supporting an evaluation species, we will consider it as a “high-value” habitat under this Policy.

Our view of “vulnerability” as a habitat-valuation parameter is that it is difficult to define and assess consistently. A workable definition would likely overlap substantially with the scarcity parameter, which is more readily evaluated given data about the spatial distribution of a habitat type in the relevant landscape context, and also with the replicability concept under the importance parameter. Regardless whether a non-overlapping definition is possible, adding vulnerability as a fourth habitat-valuation parameter would then dilute the influence of the other three. Scarcity and suitability, which were features of the 1981 Policy, and importance, which is applicable to interpreting how conservation plans describe the significance of particular areas, are each amenable to reasonably consistent assessment by Service personnel. These three parameters sufficiently serve the purpose of habitat valuation under this Policy, which is to prioritize the type of mitigation we recommend.

*Comment (61):* One commenter suggested that when more than one evaluation species uses an affected habitat, some situations may warrant not using the highest valuation to govern the Service’s mitigation recommendations, contrary to the Policy’s guidance in section 5.6.3. The commenter offered the following example of such a situation. An affected habitat is used by two evaluation species; but regulatory requirements (e.g., ESA compliance) apply to the species associated with the lower habitat valuation, and conservation bank credits are available to compensate for impacts to this species. Two other commenters requested clarification of

the Service's methodology for valuation of a habitat used by multiple evaluation species.

*Response:* Because the goal of the Policy is to improve, or at minimum, maintain the current status of evaluation species, the Policy's guidance to assign the highest valuation among evaluation species associated with an affected habitat most efficiently achieves this goal for all evaluation species. Avoiding or minimizing impacts to the higher value habitat reduces the level of compensation necessary to achieve the Policy goal for both species. The availability of conservation bank credits, while advantageous, should not dictate Service recommendations for achieving the Policy goal.

Although species to which regulatory requirements apply, such as species listed under the ESA, are automatic evaluation species under the Policy, the Policy does not assign priorities among evaluation species. Accordingly, our habitat-valuation methodology is the same whether one or multiple evaluation species use an affected habitat. The scarcity parameter is not species-specific; however, the suitability and importance parameters are. A particular affected habitat is not necessarily of the same suitability for and importance to different evaluation species and may, therefore, receive different valuations. The highest valuation informs the relative priority for avoiding, minimizing, and compensating for impacts.

#### *P. Mitigation Hierarchy*

*Comment (62):* We received comments from many entities related to our use of the mitigation hierarchy concept in the Policy. Most expressed support for strict adherence to the avoid-minimize-compensate sequence of the hierarchy and concern that the Policy's recognition of circumstances warranting a departure from this preferred sequence provides Service personnel an inappropriate amount of discretion. Others supported such departures and requested greater specificity in defining the circumstances that would justify greater emphasis on compensation.

*Response:* The first three general principles listed in section 4 will guide the Service's application of the mitigation hierarchy: (a) The goal is to improve or, at minimum, to maintain the current status of affected resources; (b) observe an appropriate mitigation sequence; and (c) integrate mitigation into a broader ecological context with applicable landscape-level conservation plans. Action- and resource-specific application of these principles under

the framework of section 5 will determine the relative emphasis that Service mitigation recommendations afford to measures that avoid, minimize, and compensate for impacts.

We are clarifying Service determinations of "high-value habitat," for which the Service recommendation is to avoid all impacts. Consistent with our commitment to the mitigation hierarchy under Principle "b" of section 4, the Service will not recommend compensation as the sole means of mitigating impacts when practicable options for avoiding or minimizing impacts are available. However, to achieve the Policy's goal of maintaining or improving the status of evaluation species, all Service mitigation recommendations will necessarily include some degree of compensation, unless it is the rare circumstance where it is possible to avoid all impacts while still accomplishing the purpose of the action or we are compelled to recommend the no-action alternative. Our habitat-valuation guidance (section 5.5) informs the relative emphasis we place on the mitigation types in the hierarchy. Higher valued habitats warrant primarily avoidance and minimization measures, in that order, to the maximum extent practicable. Compensation is likely, but not necessarily, a more effective means of maintaining or improving the status of species affected in lower valued habitats. Applicable conservation plans for the evaluation species (Principle "c" of section 4) will inform Service personnel whether compensation should receive greater emphasis. Service personnel are obligated to explain recommendations per the guidance of section 5.8, Documentation.

*Comment (63):* One commenter stated the Policy should include a mechanism to credit a project proponent for implementing avoidance or minimization measures.

*Response:* Avoidance and minimization are components of the mitigation hierarchy. Impacts that are avoided will negate the need for further mitigation measures. Impacts that are minimized will lessen the need to reduce, rectify, and compensate for residual impacts.

*Comment (64):* One commenter requested the Policy clarify how mitigation credits will be calculated at banking sites and that the Policy should provide for the ability to "stack" credits. Another commenter suggested the Policy include the definition of the term "credit."

*Response:* This is not a compensatory mitigation policy. It is beyond the scope of this Policy to provide detailed

procedural or operational information. Based on the applicable authority, such implementation detail for compensatory mitigation processes is provided in other regulatory or policy documents. For example, details for CWA processes is provided through regulation (Compensatory Mitigation for Losses of Aquatic Resources, 33 CFR parts 325 and 332 (USACE) and 40 CFR part 230 (EPA), 33 U.S.C. 1344). For ESA processes, the Service expects to finalize such guidance through policy (see proposed ESA Compensatory Mitigation Policy at (81 FR 61032-61065, September 2, 2016)).

#### *Q. Avoidance*

*Comment (65):* Several commenters strongly supported the Policy's statements on avoidance, or said the Policy should increase the emphasis on avoidance generally, and especially with respect to the most highly valued resources. They suggested the Policy more strongly acknowledge that some habitats are unique and irreplaceable, making the "no action" alternative the only way of achieving conservation goals for species that depend on those habitats. They added that ensuring the long-term protection of high-value habitat is especially critical for imperiled species.

Some commenters said the Policy should not require avoidance of all impacts to high-value habitats, as strict adherence to this measure has the potential to stop crucial infrastructure projects. They said requiring avoidance of high-value habitats and imposing limitations on timing, location, and operation of the project will result in added project costs. They proposed that avoidance recommendations be made or implemented on a case-by-case basis. Some commenters suggested the Policy clarify the Service's authority for recommending a "no action" alternative. One commenter said the Service cannot recommend avoidance of all impacts when such a position would deny a property owner any beneficial use of their property. Otherwise, a regulatory taking would result. Commenters said that because the Service has no basis to deny an action, the Policy should expressly state it does not allow for the Service to veto proposed projects on which it consults.

*Response:* We agree the proposed Policy's existing statements regarding recommendation of avoidance of impacts to high-value habitats are important themes, as they were in the 1981 Policy. For clarity, we have edited section 4, General Policy and Principles, to add a principle highlighting the



Service's policy of recommending avoidance of high-value habitats.

This Policy provides a common framework for identifying mitigation measures. It does not create authorities for requiring mitigation measures to be implemented. The authorities for reviewing projects and providing mitigation recommendations or requirements derive from the underlying statutes and regulations. On a case-by-case basis, as noted in the Policy at section 5.7, Recommendations, we may recommend the "no action" alternative when appropriate and practicable means of avoiding significant impacts to high-value habitats and associated species are not available. These recommendations will be linked to avoiding impacts to high-value habitats. Depending on the spatial configuration and location of habitats relative to project elements, recommending avoidance of all impacts to high-value habitats will not always equate to recommending no action.

Also, we note that the Policy does not indicate avoidance of all high-value habitats is required. The Policy provides guidance to Service staff for making a recommendation to avoid all high-value habitats or to adopt a "no action" alternative in certain circumstances. If we provide such materials to an action agency for consideration in their authorization process, a regulatory taking would not result from making recommendations. This Policy will not effectively compel a property owner to suffer a physical invasion of property and will not deny all economically beneficial or productive use of the land or aquatic resources. This Policy provides a common framework for the Service to apply when identifying mitigation measures across the full range of our authorities, including those for which we may require mitigation. This broad program direction for the Service's application of its various authorities does not itself result in any particular action concerning a specific property. In addition, this Policy substantially advances a legitimate government interest (conservation of species and their habitat) and does not present a barrier to all reasonable and expected beneficial use of private property.

*Comment (66):* Three commenters said identifying and requiring avoidance of all high-value habitat conflicts with the statutory and regulatory requirements of the ESA. They pointed out that regulations at 50 CFR 402.14(i)(2) state reasonable and prudent measures cannot alter basic design, location, scope, duration, or timing of an action. They said the

Service would prohibit any activity impacting areas determined to be high-value habitat and that no such parallel requiring complete avoidance exists under the ESA. They said the Service has no authority to mandate the complete avoidance of designated critical habitat or require all impacts to critical habitat be offset with mitigation measures that achieve a net gain or no net loss.

*Response:* The Policy does not prohibit any activity impacting areas determined to be high-value habitat. The Policy provides guidance to Service staff for making a recommendation to avoid all high-value habitats or to adopt a "no action" alternative in certain circumstances. Through the Policy, we are neither requiring nor mandating the complete avoidance of designated critical habitat. Regulations and procedures that implement the ESA are not superseded. The Policy does apply to all species and their habitats for which the Service has authorities to recommend mitigation on a particular action, including listed species and critical habitat. Although the Policy is intended, in part, to clarify the role of mitigation in endangered species conservation, nothing in it replaces, supersedes, or substitutes for the ESA implementing regulations. In early stages of interagency consultation under the ESA, we routinely provide advice to action agencies on avoiding impacts to listed species and designated critical habitats that may be reflected in subsequent project descriptions or in action agency permits or authorizations. The provision of that advice is consistent with the Policy's guidance to Service staff on recommending avoidance of all high-value habitats.

*Comment (67):* One commenter said requiring onsite avoidance can lead to piecemeal mitigation and undermines the goal of supporting regional mitigation planning. They suggested removing the preference for onsite avoidance over compensatory mitigation to better support regional mitigation planning goals.

*Response:* The Service agrees that defaulting to avoidance can, in some cases, result in a less desirable outcome than pursuing compensatory mitigation elsewhere that better serves broader landscape-level conservation goals. However, in the Policy, we note that those cases involve impacts to lower value habitats. Even then, the Service will consider avoidance, consistent with the mitigation hierarchy. For the most highly valued habitats, the Policy guides Service staff to recommend avoidance. If adopted, recommendations to avoid impacts to high-value habitats directly

support regional mitigation planning by ensuring the scarcest, most suitable, and most important habitats within a landscape remain unaltered.

*Comment (68):* Three commenters discussed whether avoidance of all impacts to high-value habitats is always necessary or desirable. They asked what the Service's response would be when an action is likely to be implemented despite recommendations to avoid high-value habitats. They suggested the Policy recognize that avoidance of all impacts to high-value habitats is not always necessary or practicable, and that unavoidable impacts to those resources will sometimes be authorized.

*Response:* Through this Policy, we provide guidance to Service staff that recommendations should seek to avoid all impacts to habitats they determine to be of high-value. Therefore, our policy is that it is always desirable to avoid impacts to high-value habitats. We recognize circumstances will vary, and in section 5.7, Recommendations, we note that when appropriate and practicable means of avoiding significant impacts to high-value habitats and associated species are not available, the Service may recommend the "no action" alternative. We further recognize that our recommendations, either to avoid all impacts to high-value habitats or to adopt the no action alternative if necessary, will not be adopted or implemented by action agencies in all cases.

#### *R. Compensatory Mitigation*

*Comment (69):* Several commenters said they strongly supported application of equivalent standards for compensatory mitigation mechanisms as advocated by the Policy. One commenter said that, without equivalency, mitigation programs with lower standards will have competitive pricing advantages that create a "race to the bottom" as developers seek the lowest cost compliance option, producing lower conservation outcomes and undermining chances of species recovery. Several said the Policy should give greater emphasis to the sentence: "The Service will ensure the application of equivalent ecological, procedural, and administrative standards for all compensatory mitigation mechanisms." These commenters felt that, while the Policy's intent to support equivalent standards is clear, the statement is not easily located within a paragraph in section 5.6.3. They suggested creating a new paragraph with this sentence as the lead, or creating a new subsection titled "Equivalent Standards" under the existing section 5.6. Two commenters said equivalent standards should be



required by the Policy. One commenter said a monitoring and verification process should be required of all mitigation.

*Response:* We agree with the commenters that equivalent standards must be applied to ensure compensatory mitigation is successfully implemented regardless of the mechanism used to provide the mitigation. A level playing field allows for more transparency, fairness, and a greater likelihood of successful mitigation. In this Policy, we do not state that equivalent standards are required because of the breadth of authorities and processes it covers. In many cases, our authority is advisory, with the permitting authority resting with another agency. In such cases, requiring equivalent standards is another agency's provision to implement or enforce. This Policy covers multiple authorities, so it would be inaccurate to state that it can require equivalent standards in all cases. However, the Policy's statement of support for application of equivalent standards is accurate in all cases. Similarly, we support the monitoring and verification processes suggested by one commenter, but cannot provide a blanket requirement for such processes through this Policy. We agree with the commenters who suggested that our support for equivalent standards is not well highlighted or located within the Policy. We have now placed the information under a header for a new section 5.6.3.1, Equivalent Standards.

*Comment (70):* One commenter supported the Policy's definition of "additionality," while two commenters expressed concern for the use of the term "baseline" in defining additionality and suggested the Policy distinguish between baseline and pre-project or pre-existing conditions.

*Response:* For purposes of the Policy, the baseline is the existing condition that will be used as the starting point by which to compare the adverse or beneficial effects of an action. In assessing compensatory mitigation, the Service will evaluate if the proposed mitigation measures are demonstrably new and would not have occurred without the compensatory mitigation measure and if they provide a conservation benefit above the baseline condition (*i.e.*, additionality). We have included the definition of baseline in section 6.

*Comment (71):* Several commenters requested the Service recognize in the Policy the ability of proponents to transfer responsibility for compensatory mitigation actions they initiate to a third party.

*Response:* We have revised the Policy to recognize that third parties may assume responsibility for implementing proponent-responsible compensation. This Policy advocates equivalent ecological, procedural, and administrative performance standards among all compensatory mitigation mechanisms. Therefore, conversion of a proponent-responsible plan to one administered by a third party is inconsequential relative to the Policy's goals. The third party accepting responsibility for the compensatory actions would assume all of the proponent's obligations to ensure success and durability.

*Comment (72):* One commenter suggested the Policy indicate that Service-approved conservation banks for aquatic and aquatic-dependent species may also serve the purpose of compensating for impacts to waters regulated under the CWA, but that the Corps has discretion to use a conservation bank for those purposes.

*Response:* We agree that a wetland protected and managed as a conservation bank to compensate for impacts to species may also serve as a wetland mitigation bank, provided the Corps has approved the bank for that purpose. Because the Policy addresses mitigation for impacts to fish and wildlife species and not impacts to regulated wetlands, *per se*, the comment exceeds the scope of this Policy and does not warrant a specific revision.

However, we intend to address operational considerations for compensatory mitigation mechanisms in step-down policies, such as the proposed ESA Compensatory Mitigation Policy (81 FR 61032–61065, September 2, 2016).

*Comment (73):* One commenter questioned whether measures that are considered "onsite compensation" in the context of permitting processes under the CWA (*i.e.*, restoring, enhancing, and/or preserving wetlands on or adjacent to the impact site) are considered a form of minimization under the Policy. The commenter noted section 5.6.3 indicates that compensation occurs "generally in an area outside the action's affected area," but also refers to compensation sites that are either "within or adjacent to the impact site."

*Response:* The Policy adopts the five mitigation types defined in the NEPA regulations. We include "rectifying the impact by repairing, rehabilitating, or restoring the affected environment" (rectify) and "reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action" (reduce) under the

"minimizing" label, but have not discarded these definitions, which have specific utility for species conservation. Our purpose for consolidating the five NEPA mitigation types into three was to align the general language of this Policy with that of the existing three-tiered DOI and CWA mitigation policies (avoid, minimize, and compensate). We group "rectify" and "reduce" with "minimization" to recognize the priority of these types of measures over compensation in the mitigation hierarchy, because such measures are, by definition, onsite measures focused specifically on the action-affected resources. We recognize that, unlike proactive minimization measures, measures to rectify and reduce impacts over time occur after impacts and are, therefore, more similar to compensation measures. Compensation replaces, or provides substitute resources or environments for, the affected resources, not necessarily within the affected area. Replacing or providing an onsite substitute for an affected resource meets the definition of rectify, but in the three-tier scheme of mitigation under CWA processes, is typically called onsite compensation. Because this Policy addresses species and not waters of the United States, some differences in terminology with mitigation under the CWA are unavoidable.

Under this Policy, which has not discarded the definition of rectify, "onsite compensation" has a narrower meaning. Onsite compensation involves provision of a habitat resource within the action area that was *not* adversely affected by the action, but would effectively address the action's effect on the conservation of the evaluation species. For example, an action reduces food resources for an evaluation species, but water availability in dry years is a more limiting factor to the species' status in the affected area. Increasing the reliability of water resources onsite may represent a practicable measure that will more effectively maintain or improve the species' status over some degree of rectifying the loss of food resources alone, even though the action did not affect water availability. This Policy would identify measures to restore food resources as rectification and measures to increase water availability as onsite compensation.

*Comment (74):* Five commenters addressed the Policy's reference to habitat credit exchanges among available compensatory mitigation mechanisms. Two commenters expressed support for the inclusion of habitat credit exchanges, but one commenter said that they should be excluded because there are no existing

examples that demonstrate the viability of the concept. Three commenters said the Policy should emphasize that equivalent standards apply to habitat credit exchanges as well as all other compensatory mitigation mechanisms. Two commenters said the Policy should further define habitat credit exchanges.

*Response:* We agree with the majority of the commenters that defining and clarifying the role of habitat credit exchanges as a potential compensatory mechanism is prudent. In section 6, we have added the definition of habitat credit exchange. We confirm that all compensatory mitigation mechanisms, including habitat credit exchanges, must meet equivalent standards. Habitat credit exchanges in concept are not new. They are the species equivalent to the environmental market mechanisms established for carbon and water quality trading. Exchanges are emerging where wide-ranging species cross multiple natural and geo-political boundaries and a mechanism to engage vast numbers of participants is desired. At its core, a habitat credit exchange is a trading platform and, therefore, may encompass other compensatory mitigation mechanisms such as conservation banks.

*Comment (75):* One commenter expressed concern that “performance standards” are included among the 12 considerations for compensatory mitigation mechanisms in section 5.6.3, but are not mentioned in section 5.8 about documenting final Service recommendations. The commenter recommended the Service require performance standards in mitigation plans that address the full range of measures adopted (avoidance, minimization, and compensation), not just compensatory measures.

*Response:* We agree mitigation plans should include performance standards that address the effectiveness (degree to which objectives are achieved) of any mitigation means and measures (avoid, minimize, compensate) for which the outcome is relatively uncertain. Although such uncertainty is generally greatest for compensatory measures involving future habitat improvements to offset unavoidable impacts, the success of planned avoidance and minimization measures is not always assured and may require monitoring. To handle uncertainty, section 5.8 indicates that Service-recommended/approved mitigation plans should specify measurable objectives, associated effectiveness monitoring, and additional adaptive management (*i.e.*, corrective) actions as indicated by monitoring results. These final plans address the full range of mitigation means and

measures that are reasonable and appropriate to ensure the proposed action improves or, at minimum, maintains the current status of affected species and their habitats. We did not use the phrase “performance standards” in section 5.8 as we did in section 5.6.3, and it is not necessary to do so. A compensatory mitigation plan that is prepared independently of a general mitigation plan for an impact-causing action (*e.g.*, the instrument for operating a conservation bank or in-lieu fee program) will serve the compensation needs of one or more such actions, and both types of plans require objectives and appropriate effectiveness monitoring (*i.e.*, performance standards).

*Comment (76):* One commenter recommended the Policy explicitly require an equivalent assessment of impacts and offsets (*i.e.*, the amount of compensation necessary to, at minimum, maintain the current status of the affected species after applying avoidance and minimization measures).

*Response:* Section 5.3, Assessment, provides general guidance for estimating impacts and benefits. This guidance applies to assessing the effects of actions both with and without mitigation options. Section 5.3 directs Service staff to use best available effects-assessment methodologies that meet various criteria, including the ability to estimate adverse and beneficial effects using “common” (*i.e.*, shared or equivalent) metrics. We have revised this language to clarify that “common” means “equivalent,” and have added an example to illustrate the concept. The example involves assessing effects to a species’ food resource. The metric is the density or spatial extent of the food resource. Predicted decreases and increases in this metric represent adverse and beneficial effects, respectively.

*Comment (77):* One commenter stated that the Service should not require the use of a mitigation or conservation bank over other mitigation mechanisms, and that the Service lacks authority to require financial assurances of action proponents.

*Response:* We are clarifying the circumstances under which the Service may require the implementation of mitigation under the guidance of this Policy. Such circumstances are limited, and we expect our application of the Policy will most often occur in an advisory capacity to action proponents. The Policy expresses a preference for compensatory mitigation in advance of impacts, but the use of conservation banks or other compensation in advance of impacts is not a firm requirement,

even when the Service is funding, approving, or carrying out the proposed action. To the same extent that the Service cannot require mitigation under all of the authorities that apply to a particular action, the Service cannot require financial assurances of action proponents in all cases (*e.g.*, outside the ESA Habitat Conservation Plan context). Nevertheless, we are retaining the reference to financial assurances throughout the Policy as a prudent component of mitigation plans. Such assurances are a reasonable and practicable underpinning for reducing the uncertainty about achieving the objectives associated with mitigation plans, especially with compensatory activities intended to secure future benefits to the affected species.

*Comment (78):* One commenter believed the Policy preference to compensate for impacts in advance of actions causing impacts would discourage voluntary actions to conserve species in order to avoid the need to list them as endangered or threatened under the ESA. The commenter suggested Service listing decisions would discount any habitat improvements that are identified, or could serve as advance compensation, presumably because the proponents of future actions causing impacts to the species would seek to claim such improvements as compensatory offsets. Over time, advance compensation improves the status of the species only to the extent that its benefits exceed the impacts of those future actions relying upon it; therefore, advance compensation does not necessarily preclude the need to list a species.

*Response:* This Policy does not address listing decisions under the ESA. This comment addresses the purposes of the Service’s proposed “Policy Regarding Voluntary Prelisting Conservation Actions” (79 FR 42525–42532, July 22, 2014), which is not yet finalized. The proposed Voluntary Prelisting Conservation Actions policy describes the Service’s proposal to give credit to such actions in the event of a subsequent listing of the species. In the context of both section 7 and section 10 of the ESA, the Service proposes to recognize a proponent’s previous conservation actions as offsets to the adverse effects of a proposed action within the framework of an established conservation plan for the species in States that participate in the prelisting conservation program. Regardless how the Service finalizes the Voluntary Prelisting Conservation Actions policy, this Policy expresses Service support for compensation in advance of impacts to species, and the Service will account for

advance compensation actions in its formulation of mitigation recommendations.

*Comment (79):* Several commenters recommended the Policy address preferences for “in-kind” vs. “out-of-kind” compensatory measures. Some urged the Service to explicitly endorse out-of-kind measures, while others advised us to express a strong preference for in-kind measures as in the 2008 Mitigation Policy for CWA section 404 permitting.

*Response:* We do not use the terminology of “in-kind” vs. “out-of-kind” compensation in this Policy. Unlike the Mitigation Policy for CWA section 404 permitting, where the subject resources are waters of the United States, the subject resources of this Policy are species. All compensatory mitigation recommended by the Service under this Policy is “in-kind” for the affected evaluation species (*i.e.*, it must offset an action’s unavoidable impacts to the same species). We do not express a preference for implementing compensatory measures in the same type of habitat(s) affected by the action. Based on a species’ conservation needs and applicable plans/strategies to address those needs, Service personnel will determine whether in-kind or out-of-kind habitat compensation will provide the most practicable means of ensuring a proposed action improves or, at minimum, maintains the current status of the affected evaluation species.

*Comment (80):* Two commenters recommended that the Policy recognize an action proponent’s authorities/abilities to implement all mitigation measures onsite only, or to implement compensatory measures only within a particular jurisdiction.

*Response:* The Service should not provide recommendations that others have no discretion to consider, and this Policy does not direct Service personnel to do so. Measures that avoid and minimize impacts apply within the area affected by the action, and proponents should generally have sufficient discretion to adopt and implement all such measures. The Service will respect the jurisdictional limitations of proponents to implement compensatory measures outside the affected area.

*Comment (81):* A few commenters expressed concern that early or voluntary mitigation actions would not be recognized or given the appropriate crediting.

*Response:* The Service supports early and voluntary mitigation actions and is committed to collaborating and coordinating with project proponents to

assess the accrual of additional conservation benefits from such actions.

*Comment (82):* A number of commenters addressed the concept of duration in relation to the durability of mitigation measures. Several commenters questioned the standard to maintain the intended purpose of the mitigation measure “for as long as the impacts of the action persist on the landscape.” These commenters suggested the duration of the mitigation site be correlated to the monitoring and maintenance period after which the mitigation sites should be allowed to evolve through natural successional processes rather than be required to maintain a specific condition. Another commenter recommended more objective or established timeframes such as length of the “planning horizon” or “in perpetuity” to characterize the duration of the mitigation. One commenter suggested the burden of proof be on the project proponent to demonstrate that impacts of a temporary duration have been removed before being released from a mitigation obligation.

*Response:* The Service will recommend or require that mitigation measures be durable, and at minimum, maintain their intended purpose for as long as impacts of the action persist on the landscape. The Service acknowledges site-specific conditions may need to evolve through natural processes. For example, we expect riverine systems to scour and revegetate in cycles, causing species composition to vary at any one point in time but supporting targeted resources in the long term. In other circumstances, active management (*e.g.*, controlled burning, grazing) may be needed to retain the intended purpose of the mitigation site for affected resources. Mitigation measures for permanent impacts will rely on permanent mitigation. When it can be demonstrated that impacts to affected resources are temporary, durability accounts for the time the effects of the action persist.

*Comment (83):* One commenter noted the definition of “durability” only includes the concept of duration and not the implementation assurances needed to ensure the mitigation is durable, while another commenter suggested that reference be made to the elements “a. thru i.” as set forth in 81 FR 12380 at 12391 (March 8, 2016) as essential to the definition.

*Response:* Durability is one of the fundamental principles that will guide Service mitigation recommendations to ensure mitigation measures maintain their intended purpose for affected resources for as long as impacts persist

on the landscape. We agree with the commenters that implementation assurances are needed to ensure mitigation is durable. Section 5.6.3 identifies those elements intended to ensure successful implementation and durability of compensatory mitigation measures, including site-protection mechanisms, performance standards, monitoring, long-term and adaptive management, and provisions for financial assurances.

*Comment (84):* Several commenters supported the approach described in the Policy regarding the limits on use of research or education as compensatory mitigation. Three commenters suggested that use of research/education as compensatory mitigation should be expanded. One commenter suggested we add additional implementation detail. For clarity, one commenter suggested moving the research/education material under a new header or section.

*Response:* We agree with the commenters who said compensatory mitigation should provide tangible benefits and that research/education should be included in a mitigation package only in those limited circumstances described in the Policy. Exhaustive implementation detail on this topic is beyond the scope of this umbrella policy, which covers all Service mitigation authorities wherever they are carried out. Such detail may be contained in future step-down guidance or will be determined on a case-by-case basis by Service staff. We have reorganized the material into a new section 5.6.3.2.

#### *S. Adaptive Management*

*Comment (85):* In general, commenters appeared to agree with the concept of adaptive management, as discussed in the Background section and other areas of the Policy. Several commenters suggested refinements to the Policy to increase certainty for project proponents. One commenter was concerned with regard to adaptive management’s nexus with protections for federally listed species.

*Response:* We agree the iterative process used during adaptive management serves to facilitate progress toward achieving defensible and transparent objectives. As this Policy is meant to guide the overall approach to mitigation planning while allowing the greatest flexibility for Service program needs, we expect further guidance will document specific requirements on specific elements included in documentation, including those related to adaptive management. Nothing in this Policy supersedes statutes and

regulations governing treatment of federally listed species.

#### T. Documentation

*Comment (86):* Commenters asked that final recommendations include, in writing, all steps and clearly identify party responsibilities regarding implementation and performance of mitigation measures. One commenter requested more consistency between the 12 elements identified in section 5.6.3 and the section on final recommendations. Another commenter requested clarification of whether information provided by the Service through the Policy is a requirement or considered technical assistance.

*Response:* The Policy indicates that documentation should be commensurate in scope and level of detail with the significance of the potential impacts to resources, in addition to providing an explanation of the basis for Service recommendations. As this Policy is meant to guide the overall approach to mitigation planning while allowing the greatest flexibility for Service program needs, we expect further guidance will document specific requirements on specific elements included in documentation. Section 5.6.3 describes the use of compensatory mitigation, one of the five general types of impact mitigation described under section 5.6, Means and Measures. Section 5.6.3 includes several measures meant to ensure successful implementation and durability, specific to instances where compensatory mitigation is employed. The text in section 5.8, Documentation, has been modified to include the phrase: “Where compensation is used to address impacts, additional information outlined in section 5.6.3 may be necessary.”

#### U. Monitoring

*Comment (87):* Many commenters were concerned how this Policy would add predictability, efficiency, and timeliness. Some were particularly concerned about potentially variable interpretation among Service field offices. One recommended actual Policy implementation elements be separated due to complexity and provided as guidance, while two others stated the Policy was not specific enough to evaluate and ensure consistency. Several commenters requested a standardized process or system, with clear guidelines and methods for implementation, be established to determine effectiveness, monitor durability, and track performance to ensure compliance and deliver conservation benefits. One commenter

was concerned that wildlife and habitat assessments envisioned by the Policy could entail complex analyses, while others said mitigation should be based on biological conditions and reliable, repeatable, and quantitative science-based methods to measure benefits and outcomes and inform adaptive management. Others suggested use of key ecological attributes (KEAs) to measure outcomes. Some were concerned that there was no requirement for monitoring, while others supported standardized self-reporting. One commenter noted the monitoring requirement may conflict within the Policy itself (Appendix B, section C) with regard to the responsibility of the Service to monitor compliance.

*Response:* The Service, being national in scope of operations, has written the proposed Policy in a manner that allows for further clarification on a regional scale. Regarding the request that a “standardized process” or “system” be established, where such (a) system(s) would be of benefit, it would be more practicable to establish it at a regional or programmatic scale, and would be handled through step-down guidance. The principle articulated in paragraph (f) of section 4 specifically states: “The Service will use the best available science in formulating and monitoring the long-term effectiveness of its mitigation recommendations and decisions, consistent with all applicable Service science policy.” The principle articulated in paragraph (f) states “The Service will recommend or require that mitigation measures are durable, and at a minimum, maintain their intended purpose for as long as impacts of the action persist on the landscape.” Thus, where appropriate, a process using KEAs may be applied. Regarding requirements for monitoring, the Policy states the Service’s final mitigation recommendations should communicate in writing “c. effectiveness monitoring; d. additional adaptive management actions as may be indicated by monitoring results; and e. reporting requirements.” Regarding the statement indicating the need or inability to “require” monitoring, this Policy serves as an overarching 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. The text in the Policy was modified to clarify its intent with regard to monitoring compliance. This includes Appendix B, which now clarifies Service responsibilities for applying the Policy when formulating our own

proposed actions under the NEPA decisionmaking process, versus being used as guidance for providing mitigation recommendations when reviewing the proposed actions of other Federal agencies under NEPA.

#### V. Recommendations and Preferences

*Comment (88):* One commenter was concerned that certain language in the Policy appeared to devalue proponent-responsible compensatory mitigation and cautioned against conflating preferences with standards. This commenter pointed to the Department of the Interior’s Departmental Manual Chapter (600 DM 6) on Implementing Mitigation at the Landscape-scale (October 23, 2015), that lists the high and equivalent standards to which all mechanisms for compensatory mitigation should be held in section 6.7. They noted preferences are not included in that list, so while the ideas of “equivalent standards” and a policy’s “preferences” are both principles, a preference is not an equivalent standard. They said each mitigation measure does not need to adhere to each preference, only to each equivalent standard. They suggested that the following statement be removed from section 5.6.3 of the Policy, as it seemingly asserts all mitigation measures must achieve the preferences: “As outlined by DM 6.6 C, this means that compensatory mitigation measures will . . . implement and earn credits in advance of impacts . . . .”

*Response:* We do not intend to devalue proponent-responsible mitigation, and we recognize it is a vital compensatory-mitigation mechanism, whether implemented by private project developers, agencies, or third-party mitigation implementers. We acknowledge flexibility is warranted in recommendations for the compensatory mitigation measures and mechanisms most likely to achieve the Policy’s goal, and we established a preference for advance mitigation because it is the compensatory mitigation timing most likely to achieve that goal. We recognize either concurrent mitigation or mitigation occurring after impacts may be necessary in some cases, and may represent the best ecological outcome in others. The Policy does not establish an explicit preference for conservation or mitigation banks or other compensatory mitigation mechanisms. Conservation or mitigation banks do typically secure resource benefits before impacts occur, and may be more likely to satisfy this preference, but any other compensatory mitigation mechanism that does so is also consistent with the Service’s preference. We agree with the

suggestion to remove reference of our preference for advance mitigation from the language that precedes the list of equivalent standards, located in the new section 5.6.3.1, Equivalent Standards, and have made that targeted edit to avoid further confusion between preferences and equivalent standards.

*Comment (89):* One commenter asked for clarification of the following statement on advance compensatory mitigation within section 5.7.1, Preferences: The extent of the compensatory measures that are not completed until after action impacts occur will account for the interim loss of resources consistent with the assessment principles (section 5.3).

*Response:* The sentence the commenter mentions addresses temporal loss. Temporal loss is the delay between the loss of resource functions caused by an impact and the replacement of resource functions at a compensatory mitigation site. Additional compensatory mitigation may be required to compensate for temporal loss. When the compensatory mitigation project is initiated prior to, or concurrent with, the impacts, additional compensation for temporal loss may not be necessary, unless the resource has a long development time. We have added an additional sentence to clarify the statement.

*Comment (90):* One commenter said the Policy should use a priority and preference, similar to the Corps' and EPA's joint rule on Compensatory Mitigation for Losses of Aquatic Resources, 33 CFR parts 325 and 332, and 40 CFR part 230 (EPA), 33 U.S.C. 1344. In that regulation, the agencies establish an explicit preference for mitigation banking, followed by in-lieu fee programs, and finally, proponent-responsible mitigation.

*Response:* This Policy is an umbrella policy that integrates all of the Service's authorities for engaging in mitigation processes. One reason we have not pursued an outright preference for banks or other mechanisms is that our authorities to recommend mitigation extend beyond the current track record for banks, which is limited to aquatic habitats and listed species. Instead of following the regulatory model from the CWA practice of stating an explicit, hierarchical preference that begins with banks, we establish a preference for advanced mitigation. While conservation or mitigation banks do typically secure resource benefits before impacts occur, and may be more likely to satisfy this preference, any compensatory mitigation mechanism that secures resource benefits before

impacts occur may also be consistent with the Service's preference.

We expect additional detail regarding compensatory mitigation mechanisms will be included in future step-down policies that are specific to compensatory mitigation. In this Policy, we use terminology that supports and accommodates future Service policies rather than pre-determines their content. For example, we do not yet know what compensatory mitigation mechanisms will be preferred in future Bald and Golden Eagle Protection Act regulations, so it would be inappropriate to state firm preferences here.

*Comment (91):* One commenter suggested we revise section 5.7, Recommendations, to indicate that compensatory mitigation should encourage more sustainable contributions of the goods and services provided to the public. This commenter said mitigation can have larger public benefits and services and that the Service should encourage mitigation actions that have additional natural, cultural, historical, or recreational values and benefits.

*Response:* We agree mitigation actions can provide the benefits the commenter describes. In section 5.1, we describe our support of the development of mitigation plans that identify high-priority resources prior to specific proposed actions. The most effective early mitigation planning is integrated with conservation planning and planning for human infrastructure, including transportation; water and energy development; as well as working lands, recreation, and cultural values. Although such integration is not a requirement of a process under any particular mitigation authority, the Service recognizes the potential power of plans that simultaneously addresses multiple ecological and human needs from broad stakeholder perspectives.

#### *W. Advance Mitigation*

*Comment (92):* Several commenters addressed the Policy's inclusion of a preference for advance mitigation. Several said they strongly endorsed statements throughout the Policy that recognize the value of compensatory mitigation completed in advance of impacts. Others said the preference should be removed or altered, but their reasoning differed. Some opposed a categorical requirement that mitigation be implemented prior to impacts, while others suggested the Policy go further than a preference and make advance mitigation a requirement. Some commenters said a preference was appropriate, but suggested the Policy

use consistent language in referring to a preference.

*Response:* Section 5.7.1 describes a preference for advance mitigation. It is not a requirement. As policy, we prefer that compensatory mitigation be implemented before the impacts of an action occur, making affected resources less vulnerable to temporal impacts and a net loss. Advance mitigation reduces risk and uncertainty. Demonstrating that mitigation is successfully implemented in advance of impacts provides ecological and regulatory certainty that is rarely matched by a proposal of mitigation to be accomplished concurrent with, or following, the impacts of an action. Most of the Service's mitigation authorities provide the ability to specify mitigation recommendations rather than requirements, and the Service would not be able to create a requirement for advance mitigation through policy. Accordingly, when providing mitigation recommendations to another action agency for consideration in their permitting or project decision, this Policy's guidance to Service staff is that they indicate their preference for advance mitigation. We have made minor edits to more consistently refer to this preference.

*Comment (93):* Several commenters said the Policy's preference for advance mitigation is incompatible with project-planning realities, is not feasible or appropriate for some projects, and is not always possible. They suggested we revise the Policy to allow mitigation to occur concurrent with, and in some circumstances following, impacts to be consistent with the Corps' mitigation framework. Some commenters suggested simultaneous construction of the project and mitigation remain an option.

Other commenters expressed the need for flexibility regarding the preference for conservation reasons. One commenter said overemphasizing the timing of mitigation could limit the Policy's goal of net conservation gain. They suggested the Policy de-emphasize mitigation timing in favor of tailored mitigation that addresses the needs of unique species and habitats. They were also concerned that a preference for advance mitigation would give priority to for-profit conservation/mitigation banks, and may not adequately tailor mitigation for the impacted resources. Another commenter noted that some initial flexibility may be necessary as new mitigation programs are created at the State and local levels.

*Response:* Because advance mitigation is the Service's preference and not a requirement, the Policy is compatible with circumstances where

compensatory mitigation is concurrent with or after project impacts. It is our preference that compensatory mitigation be implemented prior to project impacts, but we recognize that authorities and project planning circumstances might prevent implementation of advance mitigation in some cases. While concurrent mitigation is an option when circumstances allow, proponents may expect advance mitigation to remain the Service's preference in most cases.

We agree that flexibility is necessary in recommendations for compensatory mitigation measures and mechanisms that are most likely to successfully secure resources. Advance mitigation is the Service's preference, as it is the compensatory mitigation timing that is most likely to achieve success in regard to procuring funding. We recognize that concurrent mitigation or mitigation occurring after impacts may be necessary in some cases or may represent the best ecological outcome in others. The Policy does not establish an explicit preference for conservation or mitigation banking or other compensatory mitigation mechanisms. Conservation or mitigation banking typically secures resources before impacts occur, but any compensatory mitigation mechanism that does so may also be considered consistent with the Service's preference.

*Comment (94):* One commenter wrote that it is possible for in-lieu fee programs to implement advanced mitigation, although they have not done so historically. This commenter also said a preference for advanced mitigation applied to in-lieu fee programs would increase their likelihood of success.

*Response:* The Policy's preference for advance mitigation applies to all compensatory mitigation mechanisms. Although conservation or mitigation banking secures resources before impacts occur, any compensatory mitigation mechanism implemented before impacts occur may also satisfy this preference. In-lieu fee programs can implement a "jump-start" that establishes and maintains a supply of credits that offer mitigation in advance of impacts.

#### X. Public and Private Lands

*Comment (95):* Several commenters focused on the way the Policy addresses siting of compensatory mitigation relative to land ownership status in section 5.7.2, Recommendations for Locating Mitigation on Public or Private Lands. Several expressed support for the Policy's statement that mitigation will generally be required on lands with the

same ownership classification as those where impacts occur. Some commenters believe the Policy should establish even stronger controls on public land mitigation, saying that impacts on private lands should not be mitigated on public lands. These commenters reasoned that mitigation on public lands has limited value and should not be allowed. One commenter said the Policy should recognize that when any compensatory mitigation is sited on Federal lands, unless a full-cost compensation is made for the fair market value (at a minimum) of the land utilized, then the public is subsidizing the development that caused the resource impacts. One commenter said no policy should create unfair competition with private industry, or create a disincentive to private investment in compensatory mitigation. They felt this could occur if there were no restrictions on siting compensatory mitigation for private-land impacts on public land locations. One commenter noted that some land managers would like to use compensatory mitigation funds to resolve preexisting problems on public lands, usually unrelated to the action and resources under active analysis. The commenter said this view is understandable but contrary to the mitigation hierarchy.

Several commenters suggested fewer barriers or checks on mitigating private-land impacts on public lands, and the removal of the statement that compensatory mitigation should generally occur on lands with the same ownership classification as at the location of impacts. These commenters said requiring mitigation on lands with the same ownership classification is unnecessarily restrictive, adding that, when implemented, the standards for compensatory mitigation will force a positive result regardless of land ownership. One commenter said public land managers do not and will not have the funding necessary to stabilize and recover some resources, and it is, therefore, imperative that private conservation investments, including mitigation for adverse activities, be applied on public lands if it will provide maximum conservation benefit for the affected resource.

*Response:* Compensatory mitigation can occur on public lands, and in some cases, such siting may lead to the best ecological outcome. Compensatory mitigation for impacts on public lands can be sited on both public and private lands. Also, compensatory mitigation for impacts on private lands can be located on public lands, but it is that combination, or that particular change in ownership classification, where

Service staff should be attentive to additional considerations before confidently making such a recommendation. Section 5.7.2 describes factors Service staff should consider. This cautious approach is warranted within the Policy's instruction to Service staff, for the reasons described below.

We recognize that funds to properly manage or restore public lands are often insufficiently available today, absent infusion of mitigation dollars. This argument may have merit in some cases, but we remain concerned about consequences. It is possible that funding availability is reduced and opportunities to restore or protect at-risk habitats on private lands are precluded when compensatory mitigation is sited on public lands. If passed, those opportunities on private lands are often permanently gone. Given the irregular footprint of public lands across much of the United States, we are also concerned about strategic conservation of wildlife if the aggregation of mitigation onto public lands is further streamlined without articulating at least some test or application of criteria prior to making such recommendations. If we remove all checks on locating compensatory mitigation for private land impacts on public lands, we may risk making the "export" of habitats from private to public lands a routine practice, as it may often be the lower cost option. This outcome would counter the Service's intent that the Policy be applied using a landscape-level approach.

We agree with the commenters who said there is potential for the public to subsidize the development that causes resource impacts if access to public lands for compensatory mitigation is streamlined to an inappropriate extent. This could potentially facilitate impacts or de-incentivize avoidance on private lands by artificially reducing the costs of compensatory mitigation for project proponents.

We are also concerned about the unintended consequence of reducing private conservation investment. Streamlined access to public lands for proponents needing to provide mitigation for impacts on private lands could undermine private conservation investment and banking opportunities, or weaken the economic conditions necessary for bank establishment by artificially reducing proponents' mitigation costs (e.g., land acquisition costs might not be fully incorporated).

*Comment (96):* Several commenters discussed conditions or means for ensuring compensatory mitigation on public lands is durable and held to the



same standards as when conducted on private lands.

One commenter said the Policy should require the public land agency include the compensatory mitigation requirements as specific conditions in the special use permit or other required authorizations. This commenter also said a long-term management plan should be included in the use authorization, permit, or other legally binding document. They said that in order to ensure long-term management plans are binding, they should be established through a contractual agreement between the public land management agency and a third party with a conservation mission.

One commenter said compensatory mitigation on Federal lands for impacts on private lands must include full-cost compensation for the use of public lands, either through monetary compensation or implementation of additional projects to further the purposes of the Federal lands.

One commenter said land managers must demonstrate that actions taken in already-protected areas meet mitigation objectives and are not used solely for the benefit of existing protected area management goals. They added that when compensatory mitigation is sited within protected areas, land managers must uphold accountability by maintaining a ledger of mitigation actions undertaken and completed in addition to existing conservation obligations.

One commenter said the Policy, at minimum, should give preference to private lands with high conservation potential yet currently lacking conservation assurances (*i.e.*, legal and financial assurances in place to achieve protection in perpetuity) before considering the use of public lands for mitigation.

Two commenters said the Policy should require public land managers commit to long-term protection and management, and that they implement and fully fund alternative compensatory mitigation in the event of a change in law that allows incompatible uses to occur on mitigation lands. They said this would provide better certainty to project proponents when mitigating on public lands.

*Response:* We agree that the identification of mechanisms for ensuring the durability and additionality of compensatory mitigation on public lands is both important and challenging. As an umbrella policy, this Policy integrates all of the Service's authorities for engaging in all aspects of mitigation, and is not specifically a compensatory

mitigation policy. It is beyond the scope of the Policy to provide detailed procedural information for all compensatory mitigation scenarios.

Also, as many of our mitigation authorities are advisory, it would be inappropriate to present detailed compensatory mitigation procedures in this Policy for such advisory authorities, when that information may already be presented in the existing regulations or guidance of other agencies. We agree that compensatory mitigation on Federal lands for impacts occurring on private lands must incorporate accounting for the difference between the cost of using public lands compared to private lands. Otherwise, agencies will not be able to maintain a level playing field for both public and private lands and for all types of compensatory mitigation mechanisms. Detailed specification of measures to ensure such accounting is beyond the scope of this Policy.

Public lands that are proposed for siting compensatory mitigation may include Federal, State, county, and municipal lands. The existence and nature of mechanisms to ensure durability and additionality varies widely across land management agencies. Given this variation, it is prudent for this Policy to provide general guidelines for Service staff to examine before recommending mitigation of private land impacts on public lands. As described in section 5.7.2, these include additionality, durability, legal consistency, and whether the proposal would lead to the best possible conservation outcome.

*Comment (97):* One commenter addressed the Service's Final Policy on the National Wildlife Refuge System and Compensatory Mitigation under the Section 10/404 Program (64 FR 49229–49234, September 10, 1999). They said siting compensatory mitigation for impacts permitted under the CWA on National Wildlife Refuge System lands is not appropriate and that those lands were not established for fulfilling private wetland impact mitigation requirements. They added that the Service must fulfill its responsibility for fully functioning Federal lands and should in no instances lower its standards when contemplating compensatory mitigation; to do otherwise would subsidize private mitigation. This commenter was concerned that section 5.7.2 undermined the 1999 Policy.

*Response:* We appreciate the commenter's observations and share their concerns regarding compensatory wetland mitigation on National Wildlife Refuge System lands. Those concerns led to, and were addressed by the 1999

Policy. Section 5.7.2 does not undermine the 1999 Policy. Regardless of the content of section 5.7.2, when the public land proposed for siting compensatory mitigation for permitted impacts under the CWA is a National Wildlife Refuge, that proposal is specifically covered by, and must comply with, the 1999 Policy. Our revisions of the 1981 Policy do not modify or supersede the 1999 Policy.

#### Y. Implementation

*Comment (98):* One commenter recommended an economic analysis because they believed there would be additional burdens and cost of implementing the Policy.

*Response:* We understand that confusion regarding whether the Service's comments are requirements or merely recommendations may have led some to believe the scope of the Policy has been substantially expanded. The burdens and costs associated with this Policy will remain largely the same as under the 1981 Policy and under existing agency practice.

*Comment (99):* Commenters requested the Service articulate a clear timeline in which the Policy will be implemented across the agency. A 2-year timeline was recommended, as it would allow enough time to sufficiently (a) adopt the Policy, (b) train and educate staff, and (c) apply the Policy in the field. Others questioned the undue burden to staff and availability of funding to implement the Policy. Similarly, commenters requested information on how the Service plans to implement the Policy, given staffing and budget constraints.

*Response:* The Service, being national in scope of operations, has written the proposed Policy in a manner that allows for further clarification on a regional scale. Regarding the request that a "standardized process" or "system" be established, where such a system(s) would be of benefit, it would be more practicable to establish it at a regional or programmatic scale, and would be handled through step-down guidance. During development of such guidance, the Service will facilitate discussions and training with staff to ensure consistency and reduce workload.

*Comment (100):* Many expressed concern with how the Policy may be inconsistent or conflict with regulations or policies from States, and other Federal agencies responding to the Presidential Memorandum on Mitigation (National Marine Fisheries Service, Corps, National Atmospheric and Oceanic Administration, Federal Energy Regulatory Commission, etc.), given the need to promulgate joint regulations. Some urged the Service to



coordinate this Policy internally, particularly with policies promulgated under the Endangered Species Act and CERCLA, OPA, and the CWA during natural resource damage assessment. One commenter requested clarity where more than one statute applies, others suggested the Service provide training internally and externally to other agencies, and some recommended examples and templates be constructed.

*Response:* The Policy is consistent with the Presidential Memorandum on Mitigation. The guidance development referenced in the Presidential Memorandum on Mitigation is under consideration within the Department of Interior at the time this Policy is being finalized and the Service will continue to seek consistency in future guidance. We have made edits to Appendix A to clarify the relationship of this Policy with natural resource damage assessment and the Presidential Memorandum on Mitigation.

*Comment (101):* One commenter questioned the use of “reasonably foreseeable,” requesting clarification of what impacts would be considered such and what criteria would be applied to make that determination.

*Response:* The Service will implement use of the phrase “reasonably foreseeable,” similar to that used in NEPA. Under this scenario, actions that are likely to occur or are probable, rather than those that are merely possible, would be considered reasonably foreseeable. See CEQ guidance at 46 FR 18026 (March 23, 1981).

*Comment (102):* Several commenters were concerned that the Policy lacks clear mitigation protocol, resulting in moving targets for land users interested in developing and executing projects in good faith. Some commenters stated that the Policy will substantially increase uncertainty, without providing additional environmental benefits, especially given the broad range of regulatory protections already in place.

*Response:* The Service, being national in scope of operations, has written the proposed Policy in a manner that allows for further clarification on a regional scale. Thus, site differences could be considered during impact evaluation, for example, circumstances such as differences in productivity of habitat prior to the project, expected duration and severity of impact, or other local conditions. A less flexible policy could cause rigid adherence to a protocol, which may be more suitable in one region than another.

*Comment (103):* One commenter suggested the Service did not comply with procedural requirements to finalize

the Policy, in particular the Administrative Procedure Act (APA) and the Regulatory Flexibility Act (RFA).

*Response:* The Service complied with all necessary regulatory requirements in publishing the final Policy. The Policy does not require compliance with the APA or the RFA because it is not regulatory. The Policy simply revises and replaces the 1981 Policy that guided the Service’s mitigation recommendations for 35 years. This Policy is advisory in nature and outlines the Service’s recommended approach to addressing accelerating loss of habitats, effects of climate change, and a strategic approach to conservation at appropriate landscape scales. It addresses all resources for which the Service has legal authorities to recommend mitigation for impacts to resources and provides an updated framework for mitigation measures that will maximize their effectiveness at multiple geographic scales.

*Comment (104):* Several commenters suggested we allow the public to comment on a complete portfolio of policies, handbooks, and guidance documents that implement the Policy at one time.

*Response:* Many of the Service’s guidance products are completed, while others are either in development or have yet to be drafted, making it logistically impossible to complete such a filing. This Policy is intended to be an umbrella policy under which more detailed policies or guidance documents covering specific activities may be developed in the future.

#### *Z. Editorial and Organizational Comments*

*Comment (105):* Many commenters provided specific technical, editorial, and organizational suggestions or corrections, including suggestions for new or modified definitions.

*Response:* We have addressed technical, editorial, and organizational suggestions and corrections as appropriate throughout the document.

*Comment (106):* Many commenters questioned the specifics of multiple definitions, requested clarification or refinement, or mentioned the need for additional or narrowed definitions (e.g., baseline, additionality, equivalent standards, preferences and credits, emerging mechanisms, conservation objective, net conservation gain, impacts or effects, landscape, ecologically relevant scales, broad ecological functions, ecologically functioning landscapes).

*Response:* With regard to refining the definitions, the Service is consistent

with the Departmental Manual and Presidential Memorandum. As with many of the decisions made during analyses of impacts, definitions of many terms may take on the nuances of the project and/or authority under which the mitigation is being discussed. We have preserved the flexibility and look forward to using existing means of engagement at the local and State level, when working with the States, tribes, and other partners through existing authorities while developing programs and additional guidance to seek mutual goals and avoid inconsistency, including newly emerging mechanisms for analyses, mitigation, and monitoring.

*Comment (107):* One commenter was concerned the definition of “compensatory mitigation” insinuates there will always be “remaining unavoidable impacts” that must be compensated, and suggests revisions. The same commenter states that the definition of mitigation hierarchy should include where departure from the sequential approach may achieve a better conservation income.

*Response:* If there are no residual impacts after “all appropriate and practicable avoidance and minimization measures have been applied,” no compensatory mitigation would be required. Departure from the mitigation hierarchy is detailed in section 5.5, where we describe how relative emphasis will be given to mitigation types within the mitigation hierarchy depending on the landscape context and action-specific circumstances that influence the effectiveness of available mitigation. No change was made to these definitions.

#### *AA. Appendix C. Compensatory Mitigation in Financial Assistance Awards Approved or Administered by the U.S. Fish and Wildlife Service*

*Comment (108):* Five commenters suggested or requested clarifications regarding Appendix C, which addresses the limited role that specific types of mitigation can play in financial assistance programs. Two commenters said they supported limiting the use of public conservation funds to meet regulatory mitigation requirements, as the use of such funding to also generate credits undermines the effectiveness of both conservation and mitigation programs. They said that funding from any public entity that is specifically dedicated to conservation should not be used to generate credits, and suggested those funds be used to achieve baseline conditions. They suggested the Policy clarify that public conservation funds can be used to meet baseline.

*Response:* The commenters propose that, if funds from a public entity are specifically dedicated to conservation, they could be used to achieve baseline conditions, which they define as “the level of resource function above which mitigation credits may be sold.” However, even if baseline were defined as recommended, the achievement of baseline would still be an essential part of the process leading to the generation of mitigation credits.

This Policy prohibits the use of the Federal share or the required minimum match of a financial assistance project to satisfy Federal mitigation requirements, except in exceptional situations described in the Policy. This prohibition is consistent with the basic principles of the regulations implementing the compensatory mitigation requirements of the CWA, which is the authority for most funds spent on mitigation. The regulations were published in the **Federal Register** on April 10, 2008 (73 FR 19594), by: (a) The Department of Defense, resulting in regulations at 33 CFR parts 325 and 332; and (b) the EPA, resulting in regulations at 40 CFR part 230. Sections 332.3(j)(2) and 230.93(j)(2) state that, except for projects undertaken by Federal agencies, or where Federal funding is specifically authorized to provide compensatory mitigation, federally funded aquatic resource restoration or conservation projects undertaken for purposes other than compensatory mitigation, such as the Wetlands Reserve Program, Conservation Reserve Program, and Partners for Wildlife Program activities, *cannot be used for the purpose of generating compensatory mitigation credits* for activities authorized by [Department of the Army] permits. *However, compensatory mitigation credits may be generated by activities undertaken in conjunction with, but supplemental to, such programs* in order to maximize the overall ecological benefits of the restoration or conservation project. [*Emphasis added.*]

The preamble of the final rule for these regulations clarifies the intent of §§ 230.93(j)(2) and 332.3(j)(2) by stating that, for example, if a Federal program has a 50 percent landowner match requirement, neither the federally funded portion of the project, nor the landowner’s 50 percent match, which is part of the requirements for obtaining Federal funding, may be used for compensatory mitigation credits. However, if the landowner provides a greater than 50 percent match, any improvements provided by the landowner over and above those required for Federal funding could be

used as compensatory mitigation credits.

The Policy acknowledges these regulations for mitigation required by the CWA (Dept. of the Army permits). It also adopts the underlying principles of these regulations as the foundation of the Policy for mitigation required by authorities other than the CWA. Restricting the role of financial assistance funds for mitigation purposes is a reasonable requirement to avoid the equivalent of a Federal subsidy to those who are legally obligated to compensate for the environmental impacts of their proposed projects.

*Comment (109):* Two commenters said limiting the use of funds counted as matching funds toward Federal grants as mitigation is inconsistent with several existing State and Federal policy statements. They noted that in 2008, seven agencies including the Service, other Federal agencies, and several Oregon State agencies issued joint recommendations limiting the use of public conservation dollars to generate credits for mitigation. The recommendations state, “The agencies believe that funds from programs identified as Public Resource Protection and Restoration Programs should not be used to finance mitigation projects undertaken to satisfy regulatory requirements. To do so would be inconsistent with the mandated and/or intended purposes and limitations of these programs.” The recommendations further state “. . . multisource funded projects should include accounting that is detailed and transparent enough to accurately measure the relative habitat and conservation values derived through each funding source.” They also stated that Metropolitan Regional Governments and other sources of public conservation funds have consistently limited the use of public conservation funds to support mitigation, but allow mitigation funds to be used as match.

*Response:* The Policy allows matching funds to be used to generate credits only if: (a) The match used for the credits is over and above the required minimum; (b) funding for the award has been statutorily authorized and/or appropriated for use as compensatory mitigation for specific projects or categories of projects; or (c) the project funded by the Federal financial assistance award requires mitigation as a condition of a permit. These restrictions are based on the premise that neither Federal funds nor any required contribution for obtaining Federal funds should subsidize those who are legally obligated to compensate for the environmental impacts of the

projects they propose. This was an underlying principle in the regulations that implement the compensatory mitigation requirements of the CWA, which is the authority for most funds spent on compensatory mitigation.

The regulations on compensatory mitigation under the CWA were published jointly in the **Federal Register** on April 10, 2008 (73 FR 19594), by: (a) The Department of Defense, resulting in regulations at 33 CFR parts 325 and 332; and (b) the Environmental Protection Agency, resulting in regulations at 40 CFR part 230. For excerpts from these regulations that are relevant to this comment, please see our response to comment #108 above.

Consistent with the DOD and EPA regulations, the Appendix C, section (C)(1)(a) of the Policy allows the match in a Federal financially assisted project to be used to generate mitigation credits if: The mitigation credits are solely the result of any match over and above the required minimum. This surplus match must supplement what will be accomplished by the Federal funds and the required minimum match to maximize the overall ecological benefits of the restoration or conservation project.

*Comment (110):* Five commenters said they want to encourage collective action to achieve conservation outcomes, and leveraging multiple funding sources will lead to bigger projects with greater environmental benefits. They said the Policy seems to support a scenario where the EPA could fund \$1 million of a project, a city could fund \$2 million, but the city could not take any mitigation credits if it claimed those funds as match for the Federal grant. The commenters said this scenario could limit opportunities to create greater conservation or environmental benefit at a landscape scale.

*Response:* Under the commenters’ scenario, if a city provided match above the required minimum, the Policy would not present a barrier for this “surplus” match to generate mitigation credits as long as the program’s establishing authority(ies) or regulations do not prohibit it. However, if a program requires a minimum match, that required minimum has effectively already been dedicated to conservation by the rules of the program. In those programs where a minimum match is required, the Federal funds and the minimum match are essential components of the financial assistance. The award would not be possible without that minimum match, so the Policy does not allow either of these

essential components to generate mitigation credits.

This was a basic principle in the regulations that implement the compensatory mitigation requirements of the CWA, which is the authority for most funds spent on compensatory mitigation. The Service's revised Policy is based on the same principle. If we were to allow the match required as a prerequisite for an award to generate mitigation credits, it would effectively subsidize those who are legally obligated to compensate for the environmental impacts of their proposed projects.

*Comment (111):* Two commenters suggested the following text to reflect the importance of leveraging multiple funding sources in achieving landscape-scale outcomes: Public conservation funds cannot be used to meet regulatory compliance obligations. Where multiple sources of funding are used in conjunction with credit-generating activities, it is the permittee's responsibility to demonstrate compliance with this requirement. Public conservation funds can be used to meet baseline conditions.

*Response:* The Policy authorizes the use of specific funding sources that are, or could be interpreted as "public conservation funds." The references to such funding in the Policy are:

(a) Federal funding statutorily authorized and/or appropriated for use as compensatory mitigation for specific projects or categories of projects (Appendix C, section E(1)(b)).

(b) Federal funds needed to mitigate environmental damage caused by a federally funded project (Appendix C, section E(1)(c)).

(c) Revenue from a Natural Resource Damage Assessment and Restoration Fund settlement as long as the financial assistance program does not prohibit its use (Appendix C, section F).

The Policy also affirms that States, tribes, and local governments are free to use Federal financial assistance (*i.e.*, public conservation funds) to satisfy the mitigation requirements of State laws or regulations as long as that use is not contrary to any law, regulation, or policy of the State, tribal, or local government (Appendix C, section G(2)).

We did not accept the commenter's recommended language because it could lead to incorrect interpretations of the Policy.

The commenter also recommended "public conservation funds" be used to meet baseline conditions under the commenter's definition of "baseline." We addressed this issue in a previous response.

*Comment (112):* One commenter said it is not workable to prohibit a site that has received Federal funds to generate credits. They suggested the Policy encourage the pooling of resources and the investment of mitigation dollars in the most valuable sites regardless of whether Federal funds have been invested on the site, especially for those uses not directly related to restoring greater sage-grouse habitat. The commenter said they believe thoughtful discussions and pertinent accounting will ensure Federal funds are not used to generate credits to offset the impacts of the private sector or create a conflict with the rules of additionality.

*Response:* The authority for most funds spent on mitigation is the CWA. The regulations that implement the CWA's compensatory mitigation requirements were published jointly in the **Federal Register** on April 10, 2008 (73 FR 19594), by: (a) The Department of Defense, resulting in regulations at 33 CFR parts 325 and 332; and (b) the Environmental Protection Agency, resulting in regulations at 40 CFR part 230. Sections 332.3(a)(3) and 230.93(a)(3) indicate that compensatory mitigation projects may be sited on public or private lands. Credits for compensatory mitigation projects on public land must be based solely on aquatic resource functions provided by the compensatory mitigation project, *over and above* those provided by public programs already in place. [*Emphasis added.*]

Sections 332.3(j)(2) and 230.93(j)(2) of 40 CFR part 230 state that, except for projects undertaken by Federal agencies, or where Federal funding is specifically authorized to provide compensatory mitigation, federally funded aquatic resource restoration or conservation projects undertaken for purposes other than compensatory mitigation, such as the Wetlands Reserve Program, Conservation Reserve Program, and Partners for Wildlife Program activities, cannot be used for the purpose of generating compensatory mitigation credits for activities authorized by [Department of the Army] permits. However, compensatory mitigation credits may be generated by activities undertaken in conjunction with, *but supplemental to*, such programs in order to maximize the overall ecological benefits of the restoration or conservation project. [*Emphasis added.*]

The CWA may have a limited effect on the habitat of the greater sage-grouse, but the underlying principles of its regulations are reasonable and appropriate for applicability to other statutory authorities for mitigation. Limiting any credits from projects on

public lands to those based on resource functions provided *over and above* those already in place, avoids a government subsidy to those already legally obligated to compensate for impacts of their projects. The Policy adopts the basic principles of the CWA's compensatory mitigation regulations as the foundation for all sources of compensatory mitigation.

*Comment (113):* One commenter noted Appendix C includes information on the use of Service funds relative to the need to obtain permits from the Corps' regulatory program. To avoid confusing these requirements with the Corps' Civil Works requirements, they suggested adding a statement that Appendix C does not affect policies on cost-sharing or non-Federal contributions for the Corps' Civil Works Program.

*Response:* The Policy directly affects only those Federal financial assistance programs and awards in which the Service has the authority to approve or disapprove applications. It also affects real property or equipment either acquired or improved with a Service-administered financial assistance award where the recipient must continue to manage the real property or equipment for its originally authorized purpose as long as it is needed for that purpose. The Policy has no effect on other Federal agencies' policies on match or cost share as long as those policies do not affect: (a) Restrictions in this Policy on the use of Service-administered financial assistance awards for generating compensatory mitigation credits, and (b) the Service's responsibilities as identified in Federal statutes or their implementing regulations. The Policy does not take precedence over the requirements of any Federal statute or regulation, whether that statute or regulation applies to a Service program or a program of another Federal agency. We added a new section I to Appendix C to clarify these issues.

*Comment (114):* One commenter said the Service's proposed revised Policy is inconsistent on in-lieu fee mitigation in the context of financial assistance programs. They sought further explanation of the rationale of allowing Federal funds to satisfy mitigation requirements of State, tribal, or local governments.

*Response:* The revised Policy prohibits the use of proceeds from the purchase of credits in an in-lieu fee program as match unless both of the following apply:

(a) The proceeds are over and above the required minimum match. This surplus match must supplement what will be accomplished by the Federal

funds and the required minimum match to maximize the overall ecological benefits of the project.

(b) The statutory authority(ies) for the financial-assistance program and program-specific regulations (if any) do not prohibit the use of match or program funds for mitigation.

This prohibition is consistent with the underlying principles of the regulations implementing the compensatory mitigation requirements of the CWA, which is the authority for most funds spent on mitigation. Please see relevant excerpts from the regulations published jointly by The Department of Defense and the EPA within our response to comment #108 above.

The Service's revised Policy defers to these regulations for mitigation required by the CWA (Dept. of the Army permits). It also adopts the underlying principles of these regulations as the foundation for mitigation required by authorities other than the CWA. Restricting the ability of financial assistance programs to generate compensatory mitigation credits is a reasonable requirement to avoid the equivalent of a Federal subsidy to those who are legally obligated to compensate for the environmental impacts of their proposed projects.

The rationale of allowing the use of Federal funds to satisfy mitigation requirements of State, tribal, or local governments is based on 33 CFR 332.3(j)(1) and 40 CFR 230.93(j)(1), which have the force and effect of law only for the compensatory mitigation requirements of the CWA. However, the basic approach of these regulations is reasonable and appropriate for use as the foundation of a Service policy on mitigation in the context of financial assistance when the authority for mitigation is in a statute other than the CWA.

The regulations at 33 CFR 332.3(j)(1) and 40 CFR 230.93(j)(1) read:

(j) *Relationship to other Federal, State, tribal, and local programs.* (1) Compensatory mitigation projects for DA [Department of the Army] permits may also be used to satisfy the environmental requirements of other programs, such as State, tribal, or local wetlands regulatory programs, other Federal programs such as the Surface Mining Control and Reclamation Act, Corps civil works projects, and Department of Defense military construction projects, consistent with the terms and requirements of these programs and subject to the following considerations: (i) The compensatory mitigation project must include appropriate compensation required by the DA permit for unavoidable impacts

to aquatic resources authorized by that permit. (ii) Under no circumstances may the same credits be used to provide mitigation for more than one permitted activity. However, where appropriate, compensatory mitigation projects including mitigation banks and in-lieu fee projects, may be designed to holistically address requirements under multiple programs and authorities for the same activity.

The wording of Appendix C, section G may have led the commenter to incorrectly conclude that Service-administered financial assistance may be awarded explicitly for the purpose of satisfying the mitigation requirements of a State, tribal, or local government. We changed the wording of section G to avoid any misunderstanding on this issue.

*Comment (115):* One commenter asked what, if any, impacts might be considered for administration of the Service's Wildlife and Sport Fish Restoration Program (WSFR) and State fish and wildlife agency obligations related to that program. They requested potential programmatic impacts be noted in the Policy, and the existing Joint Federal/State Task Force on Federal Assistance Policy (JTF) be engaged. This commenter appreciated the Policy's emphasis on collaboration and coordination, but suggested we also cite 43 CFR part 24, *Department of the Interior Fish and Wildlife Policy: State-Federal Relationships*. They also said the Service should consult with the States and other affected governments before selecting plans to guide mitigation, and that great deference should be given to State-prepared plans.

*Response:* It is difficult to assess the impact of the Policy on WSFR because the Service has never had any comprehensive national policy on the role of mitigation in its financial assistance programs. The CWA is the authority for most funds spent on mitigation, and it is the only Federal statutory authority for mitigation that addresses mitigation in the context of financial assistance. The Policy does not (and cannot) change the CWA regulations on compensatory mitigation, which have been in effect since 2008. The Policy will give grants managers in the Service and in recipient agencies a better awareness and understanding of these regulations.

In addition to the 2008 CWA regulations, an element of continuity in this Policy is its treatment of the Natural Resource Damage Assessment and Restoration Fund. This Policy incorporates the findings of a 1999 Solicitor's Opinion determining that

revenue from this fund was eligible as match.

As for the commenter's recommendation that we consult with the States and other affected governments before selecting plans to guide mitigation, on March 8, 2016, we published the proposed revised Policy in the **Federal Register**, and invited all interested parties to comment during a 60-day comment period. On May 12, 2016, we extended the comment period for an additional 30 days. We are pleased to have received the recommendations of the Association of Fish and Wildlife Agencies, which represents State fish and wildlife agencies.

As for the comment that we engage the Joint Federal/State Task Force on Federal Assistance Policy on the potential impacts to the WSFR program, we welcome any JTF engagement on the implementation of Appendix C. We are also open to future input that: (a) Clearly improves implementation of Appendix C; (b) fully complies with existing statutes and regulations; (c) carries out the general policy and principles stated in section 4 of the Policy, with special attention to the goal of a net conservation gain; (d) maintains a consistent approach in satisfying the requirements of all statutory authorities for mitigation to the extent possible; (e) ensures *additionality* (see section 6) for any proposed change in locating compensatory mitigation on public or private lands already designated for the conservation of natural resources; and (f) does not subsidize those who are legally obligated to compensate for the environmental impacts of their proposed projects.

Section G of Appendix C of the revised Policy may be of special interest to the Association of Fish and Wildlife Agencies, as it affirms the rights of States, tribes, and local governments to structure the mitigation requirements of their own laws and regulations however they choose. The Service's revised Policy does not affect mitigation required by State, tribal, or local law.

We added the 43 CFR part 24 reference to Appendix A, section C per the comment.

To address the comment that we give great deference to State-prepared plans that guide mitigation, we will convert the existing section H in Appendix C to section I, and add the following to the new section H: When evaluating existing plans under sections H.2.a or b, the Service must defer to State and tribal plans to determine which additional benefits to count toward achieving the mitigation planning goal

as long as the plans are consistent with Federal law, regulation, and this Policy.

*Comment (116):* One commenter noted that the way financial assistance programs addressed in Appendix A are described in section 3.5 may become outdated. The number of financial assistance programs recently increased to 61. Instead of using a number that will change frequently, they suggested revising the first sentence to read:

The Service has more than 60 financial assistance programs, which collectively disburse. . . .

*Response:* We made the suggested revision.

*Comment (117):* One commenter addressed the interaction between the Service's financial assistance programs described in Appendix C with section 4, General Policy and Principles. The commenter was concerned that the following concept in paragraph (g) would be applied inconsistently unless additional guidance was provided: "The Service will recommend or require that compensatory mitigation be . . . additional to any *existing or foreseeably expected* conservation efforts planned for the future." The commenter said the following scenarios need clarification:

(1) A master plan for a land-management unit has an objective that calls for a specific conservation action to be accomplished in the next 15 years. If funding has not yet been appropriated or allocated to accomplish the conservation action, would the master-plan objective qualify as a "foreseeably expected" conservation effort planned for the future?

(2) The establishing statutory authority of a land-management agency makes that agency responsible for specific management actions, but the agency does not have enough funds to carry out these management actions? Would those management actions for which the agency is statutorily responsible qualify as an "existing or foreseeably expected" conservation effort?

(3) The partners in a grant-funded land-acquisition project have committed to use non-Federal and non-match funds to complete specific types of restoration or enhancement on the project area. These commitments contributed to the project being recommended for funding by the grant program's ranking panel. Would these commitments qualify as an "existing or foreseeably expected" conservation effort?

*Response:* The regulations implementing the compensatory mitigation requirements of the CWA at 33 CFR 332.7(a) and 40 CFR 230.97(a) state that:

Long-term protection may be provided through real estate instruments such as conservation easements held by entities such as Federal, State, tribal, or local resource agencies, nonprofit conservation organizations, or private land manager; the transfer of title to such entities; or by restrictive covenants. For government property, long-term protection may be provided through Federal facility management plans or integrated natural resources management plans.

These regulations regard facility-management plans and integrated natural-resources management plans as providing long-term protection. We used this as part of the basis for clarifying what would qualify as "existing or foreseeably expected conservation efforts planned for the future." We addressed the issues and scenarios raised by the commenter in Appendix C, section H.

*Comment (118):* One commenter addressed the interaction between the Service's financial assistance programs described in Appendix C and provisions of section 5.7.2, Recommendations for Locating Mitigation on Public or Private Lands. They asked for clarification on whether the following would be considered public land:

(a) Real property owned by "instrumentalities" of government, such as a regional water management district?

(b) An interest in real property that is less than full fee title, such as a conservation easement or a leasehold estate?

(c) Real property owned by tribal governments?

(d) Real property held by nongovernmental entities, but acquired with Federal financial assistance. In such cases, the Federal awarding agency does not have an ownership interest in the property, but it does have the following legal rights defined in regulation:

(1) Approving encumbrances to the title,

(2) Approving or giving instructions for disposition of real property no longer needed for its originally authorized purpose, and

(3) Receiving a share of the proceeds resulting from disposition of real property when the Federal awarding agency authorizes sale on the open market or transfer to the grant recipient.

*Response:* Examples (a), (b), and (c) would be public land for purposes of the Policy. However, if the government or public agency owns a fee with exceptions to title as in example (b), the Policy applies only to the interest owned by a government or public

agency. It has no effect on interests not owned by a government or public agency. Example (d) would be considered public land only if the interest in real property is owned by the Federal Government; a State, tribal, or local government; or an agency or instrumentality of one of these governments. We have provided clarification in Appendix C, section H.

*Comment (119):* One commenter said terms in section 5.7.2,

Recommendations for Locating Mitigation on Public or Private Lands, had implications for the material in Appendix C and were unclear. Specifically, they asked for an explanation of the difference between the proposed language of this Policy in section 5.7.2: "measures the public agency is foreseeably expected to implement absent the mitigation" and the language of the regulations jointly issued by the EPA at 40 CFR 230.93(a)(3) and the Corps at 33 CFR 332.3(a)(3): "Credits for compensatory mitigation projects on *public* land must be based solely on aquatic resource functions provided by the compensatory mitigation project, over and above *those provided by public programs already planned or in place.*"

*Response:* The language in section 5.7.2 and in the EPA/Corps regulation has different purposes, but both are applications of the principle of *additionality*, which this Policy defines as: A compensatory mitigation measure is additional when the benefits of a compensatory mitigation measure improve upon the baseline conditions of the impacted resources and their values, services, and functions in a manner that is demonstrably new and would not have occurred without the compensatory mitigation measure.

The measures described in section 5.7.2 are effectively those described in the regulatory language as: Those provided by public programs already planned.

Appendix C, section H explains how to determine what qualifies as "baseline conditions . . . that a public land management agency is foreseeably expected to implement absent the mitigation."

*Comment (120):* One commenter addressed Appendix C, section H, Can a mitigation proposal be located on land acquired under a Federal financial assistance award? They said despite this section title, section 5.7.2, Recommendations for Locating Mitigation on Public or Private Lands, seems to apply to everything covered by the Policy, including financial assistance awards. They suggested that if section 5.7.2 applies to financial

assistance awards, we clarify that Appendix C, section H supplements section 5.7.2.

*Response:* Most lands acquired under Service-approved or administered financial assistance awards are dedicated to conservation, but not all are public land. We have revised section H to acknowledge the applicability of section 5.7.2 to land already designated for conservation.

*Comment (121):* One commenter said the Authorities and Direction for Service Mitigation Recommendations listed in Appendix A needed additional references related to the financial assistance programs described in Appendix C. They suggested the following authorities for the two Service grant programs that have an authorizing statute or regulation prohibiting the use mitigation in the program be added to Appendix A:

North American Wetlands Conservation Act, 16 U.S.C. 4401 *et seq.*

National Coastal Wetlands Conservation Grants, 16 U.S.C. 3954, 50 CFR part 84.

*Response:* We added the North American Wetlands Conservation Act, 16 U.S.C. 4401 *et seq.* to Appendix A, section B, Additional Legislative Authorities. We added the National Coastal Wetlands Conservation Grants, 16 U.S.C. 3954, 50 CFR part 84 to Appendix A, section C, Implementing Regulations.

*Comment (122):* One commenter addressed the ineligibility of the use of mitigation in the National Coastal Wetlands Conservation program. They suggested that inserting the following as the ninth sentence in the introductory paragraph would avoid any potential misunderstandings: Consistent with the Service's Mitigation Policy, the regulations at 50 CFR part 84 authorize the use of Natural Resource Damage Assessment funds as match in the National Coastal Wetlands Conservation Program.

*Response:* We added the sentence as recommended.

*Comment (123):* For further clarity, one commenter recommended editing in Appendix C, section B, Where do most mitigation issues occur in financial assistance? Specifically, they suggested the first sentence in the answer to Question B be replaced with: Most mitigation issues in financial assistance relate to: (a) The proposed use of mitigation funds on land acquired with Federal financial assistance, and (b) the use as match of mitigation funds and in-kind contributions derived from mitigation funds.

*Response:* We replaced the first sentence as recommended by the commenter.

*Comment (124):* One commenter noted that in a recent mitigation project proposed for siting on land acquired with Federal financial assistance, the landowner asserted that the mitigation project should be acceptable to the Service because it was acceptable to the Corps. To address such implementation questions, the commenter suggested adding a new section that examines the responsibilities of the Corps and the Service for approving specific decisions related to the limited role of mitigation in financial assistance programs. They said, where appropriate, the new section would give the legal basis of their respective roles.

*Response:* The District Engineer of the Corps has the authority to impose conditions on a Department of the Army (DA) permit under the CWA, including conditions on the type and location of compensatory mitigation. However, no mitigation project, whether it is under the authority of the CWA or any other Federal statute, can interfere with the purposes of a financially assisted project. If the conditions in a DA permit will affect a financially assisted project for which the Service is responsible, those conditions must be acceptable to the Service before the permitted activity is initiated.

Even if a mitigation project under the CWA will not affect one of its financially assisted projects, the Service may be a member of the Interagency Review Team that reviews documentation for the establishment of mitigation banks and in-lieu fee programs. The respective roles of the Corps and the Service in carrying out the compensatory mitigation requirements of the CWA are described in more detail in 33 CFR parts 325 and 332, and 40 CFR part 230.

For mitigation projects that will affect a financially assisted project in a program where it approves or administers awards, the Service is responsible for the following decisions:

*(a) Can real property and equipment acquired under a Service-administered financial assistance award be used for purposes of compensatory mitigation?*

The Service makes this decision based on 2 CFR 200.311(b) and 2 CFR 200.313(a-c), which addresses real property and equipment (respectively), with special reference to the Service's authority to approve encumbrances and its right to receive a share of proceeds from a disposition when property is no longer needed for the purposes of the original award. 50 CFR 80.132-135 also apply to real property acquired under

the Wildlife Restoration program, Sport Fish Restoration program, and Enhanced Hunter Education and Safety programs, and will guide mitigation in financial assistance programs.

*(b) Can real property that includes a capital improvement funded by a Service-administered financial assistance award be used for purposes of compensatory mitigation during the useful life of the capital improvement?*

The Service makes this decision based on 2 CFR 200.311(b). Regulations at 50 CFR 80.132-135 may also be applicable to a capital improvement funded by an award from the Wildlife Restoration program, Sport Fish Restoration program, and Enhanced Hunter Education and Safety programs. "Capital improvement" means (a) a structure that costs at least \$25,000 to build; or (b) the alteration, renovation, or repair of a structure that increases the structure's useful life by at least 10 years or its market value by at least \$25,000. A financial assistance program may have its own definitions of capital improvement for purposes of compensatory mitigation as long as it includes all capital improvements as defined here.

*(c) Can real property managed, maintained, or operated with funding from a Service-administered financial assistance award be used for purposes of compensatory mitigation?*

The Service makes this decision based on 2 CFR 200.300.311(a) and (b). Regulations at 50 CFR 80.134 also apply to real property managed, maintained, or operated by an award from the Wildlife Restoration program, Sport Fish Restoration program, and Enhanced Hunter Education and Safety programs.

*(d) Are funds or in-kind contributions that have been used or will be used to satisfy compensatory-mitigation requirements eligible as match in a Service-administered financial assistance program?*

The Service makes this decision based on 2 CFR 200.300; 2 CFR 200.403(a); and 2 CFR 200.404(a), (b), and (d). For compensatory mitigation required by the CWA, the Service makes this decision in compliance with 33 CFR 332.3(j)(2) and 40 CFR 230.93(j)(2). The final rule for these regulations was published in the **Federal Register** on April 10, 2008 (73 FR 19594). Its preamble clarifies the intent of §§ 332.3(j)(2) and 230.93(j)(2) in the following example: . . . if a Federal program has a 50 percent landowner match requirement, neither the federally funded portion of the project, nor the landowner's 50 percent match, which is part of the requirements for obtaining



Federal funding, may be used for compensatory mitigation credits. However, if the landowner provides a greater than 50 percent match, any improvements provided by the landowner over and above those required for federal funding could be used as compensatory mitigation credits.

### **National Environmental Policy Act (NEPA)**

We have analyzed this Policy in accordance with the criteria of the National Environmental Policy Act, as amended (NEPA) (42 U.S.C. 4332(c)), the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA (40 CFR parts 1500–1508), and the Department of the Interior's NEPA procedures (516 DM 2 and 8; 43 CFR part 46). Issuance of policies, directives, regulations, and guidelines are actions that may generally be categorically excluded under NEPA (43 CFR 46.210(i)). Based on comments received, we determined that a categorical exclusion can apply to this Policy, but nevertheless, the Service chose to prepare an environmental assessment (EA) to inform decision makers and the public regarding the possible effects of the policy revisions. We announced our intent to prepare an EA pursuant to NEPA when we published the proposed revised policy. We requested comments on the scope of the NEPA review, information regarding important environmental issues that should be addressed, the alternatives to be analyzed, and issues that should be addressed at the programmatic stage in order to inform the site-specific stage during the comment period on the proposed revised policy. Comments from the public were considered in the drafting of the final EA. The final EA is available on the Internet at <http://www.regulations.gov> at Docket Number FWS–HQ–ES–2015–0126.

### **Authority**

The multiple authorities for this action include the: Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*); Fish and Wildlife Coordination Act, as amended, (16 U.S.C. 661–667(e)); National Environmental Policy Act (42 U.S.C. 4371 *et seq.*); and others identified in section 2 and Appendix A of this Policy.

### **Mitigation Policy of the U.S. Fish and Wildlife Service**

#### *1. Purpose*

This Policy applies to all actions for which the U.S. Fish and Wildlife Service (Service) has specific authority

to either recommend or to require the mitigation of impacts to fish, wildlife, plants, and their habitats. Most applications of this Policy are advisory. The purpose of this Policy is to provide guidance to Service personnel in formulating and delivering recommendations and requirements to action agencies and project proponents so that they may avoid, minimize, and compensate for action-caused impacts to species and their habitats.

The guidance of this Policy:

- Provides a framework for formulating measures to maintain or improve the status of affected species through an application of the mitigation hierarchy informed by a valuation of their affected habitats;
- will help align Service-recommended mitigation with conservation objectives for affected resources and the strategies for achieving those objectives at ecologically relevant scales;
- will allow action agencies and proponents to anticipate Service recommendations and plan for mitigation measures early, thus avoiding delays and assuring equal consideration of fish and wildlife conservation with other action purposes; and
- allows for variations appropriate to action- and resource-specific circumstances.

This Policy supersedes the Fish and Wildlife Service Mitigation Policy (46 FR 7644–7663) published in the **Federal Register** on January 23, 1981. Definitions for terms used throughout this Policy are provided in section 6.

#### *2. Authority*

The Service has jurisdiction over a broad range of fish and wildlife resources. Service authorities are codified under multiple statutes that address management and conservation of natural resources from many perspectives, including, but not limited to, the effects of land, water, and energy development on fish, wildlife, plants, and their habitats. We list below the statutes that provide the Service, directly or indirectly through delegation from the Secretary of the Interior, specific authority for conservation of these resources and that give the Service a role in mitigation planning for actions affecting them. We further discuss the Service's mitigation planning role under each statute and list additional authorities in Appendix A.

- Bald and Golden Eagle Protection Act, 16 U.S.C. 668 *et seq.* (Eagle Act)
- Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 *et seq.* (ESA)
- Federal Land and Policy Management Act, 43 U.S.C. 1701 *et seq.* (FLPMA)

- Federal Power Act, 16 U.S.C. 791–828c (FPA)
- Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. 1251 *et seq.* (CWA)
- Fish and Wildlife Conservation Act, 16 U.S.C. 2901–2912
- Fish and Wildlife Coordination Act, as amended, 16 U.S.C. 661–667(e) (FWCA)
- Marine Mammal Protection Act of 1972, as amended, 16 U.S.C. 1361 *et seq.* (MMPA)
- Migratory Bird Treaty Act, 16 U.S.C. 703–712 (MBTA)
- National Environmental Policy Act, 42 U.S.C. 4371 *et seq.* (NEPA)
- National Wildlife Refuge System Administration Act, 16 U.S.C. 668dd *et seq.*

While all of the statutes listed above give the Service an advisory role in fish and wildlife mitigation, not all of them give the Service authority to require others to implement the mitigation measures we identify. Circumstances under which the Service has specific authority to require, consistent with applicable laws and regulations, one or more forms of mitigation for impacts to fish and wildlife resources include:

- Actions that the Service carries out, *i.e.*, the Service is the action proponent;
- actions that the Service funds;
- actions to restore damages to fish and wildlife resources caused by spills of oil and other hazardous materials under the Oil Pollution Act and the Comprehensive Environmental Response, Compensation, and Liability Act;
- actions of other Federal agencies that require an incidental take statement under section 7 of the ESA (measures to minimize the impact of the incidental taking on the species);
- actions of non-Federal entities that require an incidental take permit under section 10 of the ESA (measures to minimize and mitigate the impacts of the taking on the species to the maximum extent practicable);
- fishway prescriptions under section 18 of the FPA, which minimize, rectify, or reduce over time through management, the impacts of non-Federal hydropower facilities on fish passage;
- license conditions under section 4(e) of the FPA for non-Federal hydropower facilities affecting Service properties (*e.g.*, a National Wildlife Refuge) for the protection and utilization of the Federal reservation consistent with the purpose for which such reservation was created or acquired;
- actions that require a “Letter of Authorization” or “Incidental



Harassment Authorization” under the MMPA; and

- actions that require a permit for non-purposeful (incidental) take of eagles under the Eagle Act.

Our aim with this Policy is to provide a common framework for Service discretion across the full range of our authorities, including those listed above for which the Service may require mitigation, but the Policy does not alter or substitute for the regulations implementing any of these authorities.

### 3. Scope

#### 3.1. Actions

This Policy applies to all Service activities related to evaluating the effects of proposed actions and subsequent recommendations or requirements to mitigate impacts to resources, defined in section 3.2. For purposes of this Policy, actions include: (a) Activities conducted, authorized, licensed, or funded by Federal agencies (including Service-proposed activities); (b) non-Federal activities to which one or more of the Service’s statutory authorities apply to make mitigation recommendations or specify mitigation requirements; and (c) the Service’s provision of technical assistance to partners in collaborative mitigation planning processes that occur outside of individual action review.

#### 3.2. Resources

This Policy may apply to specific resources based on any Federal authority or combination of authorities, such as treaties, statutes, regulations, or Executive Orders, that empower the Federal Government to manage, control, or protect fish, wildlife, plants, and their habitats that are affected by proposed actions. Such Federal authority need not be exclusive, comprehensive, or primary, and in many cases, may overlap with that of States or tribes or both.

This Policy applies to those resources identified in statute or implementing regulations that provide the Service authority to make mitigation recommendations or specify mitigation requirements for the actions described in section 3.1. The scope of resources addressed by this Policy is inclusive of, but not limited to, the Federal trust fish and wildlife resources concept.

The Service has traditionally described its trust resources as migratory birds, federally listed endangered and threatened species, certain marine mammals, and inter-jurisdictional fish. Some authorities narrowly define or specifically identify covered taxa, such as threatened and

endangered species, marine mammals, or the species protected by the Migratory Bird Treaty Act. This Policy applies to trust resources; however, Service Regions and field stations retain discretion to recommend mitigation for other resources under appropriate authorities.

The types of resources for which the Service is authorized to recommend mitigation also include those that contribute broadly to ecological functions that sustain species. 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 is dependent. 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 Endangered Species Act 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 section 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.

#### 3.3. Exclusions

This Policy does not apply retroactively to completed actions or to actions specifically exempted under statute from Service review. It does not apply where the Service has already agreed to a mitigation plan for pending actions, except where: (a) New activities or changes in current activities would

result in new impacts; (b) a law enforcement action occurs after the Service agrees to a mitigation plan; (c) an after-the-fact permit is issued; or (d) where new authorities or failure to implement agreed-upon recommendations, warrant new mitigation planning. Service personnel may elect to apply this Policy to actions that are under review as of the date of its final publication.

#### 3.4. Applicability to Service Actions

This Policy applies to actions that the Service proposes, including those for which the Service is the lead or co-lead Federal agency for compliance with NEPA. However, it applies only to the mitigation of impacts to fish, wildlife, plants, and their habitats that are reasonably foreseeable from such proposed actions. When it is the Service that proposes an action, the Service acknowledges its responsibility, during early planning for design of the action, to consult with Tribes, and to consider the effects to, and mitigation for, impacts to resources besides fish, wildlife, plants, and their habitats (*e.g.*, cultural and historic resources, traditional practices, environmental justice, public health, recreation, other socio-economic resources, etc.). Consistent with NEPA (42 U.S.C. 4332(A)) (40 CFR 1500.2 and 1501.2) and the CEQ and the Advisory Council on Historic Preservation (ACHP), *NEPA NHPA Section 106 Handbook*, these reviews will be integrated into the decisionmaking process at the earliest possible point in planning for the action. This Policy neither provides guidance nor supersedes existing guidance for mitigating impacts to resources besides those defined in section 3.2, Resources.

NEPA requires the action agency to evaluate the environmental effects of alternative proposals for agency action, including the environmental effects of proposed mitigation (*e.g.*, effects on historic properties resulting from habitat restoration). Considering impacts to resources besides fish and wildlife requires the Service to coordinate with entities having jurisdiction by law, special expertise, or other applicable authority. Appendix B further discusses the Service’s consultation responsibilities with tribes related to fish and wildlife impact mitigation, *e.g.*, statutes that commonly compel the Service to address the possible environmental impacts of mitigation activities for fish and wildlife resources. It also supplements existing Service NEPA guidance by describing how this Policy integrates with the Service’s decisionmaking process under NEPA.

### 3.5. Financial Assistance Programs and Mitigation

The Service has more than 60 financial assistance programs, which collectively disburse more than \$1 billion annually to non-Federal recipients through grants and cooperative agreements. Most programs leverage Federal funds by requiring or encouraging the commitment of matching cash or in-kind contributions. Recipients have acquired approximately 10 million acres in fee title, conservation easements, or leases through these programs. To foster consistent application of financial assistance programs with respect to mitigation processes, Appendix C addresses the limited role that specific types of mitigation can play in financial assistance programs.

#### 4. General Policy and Principles

The mission of the Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. In furtherance of this mission, the Service has a responsibility to ensure that impacts to fish, wildlife, plants, and their habitats in the United States, its territories, and possessions are considered when actions are planned, and that such impacts are mitigated so that these resources may provide a continuing benefit to the American people. Consistent with Congressional direction through the statutes listed in the “Authority” section of this Policy, the Service will provide timely and effective recommendations to conserve, protect, and enhance fish, wildlife, plants, and their habitats when proposed actions may reduce the benefits thereof to the public.

Fish and wildlife and their habitats are resources that provide commercial, recreational, social, and ecological value to the Nation. For Tribal Nations, specific fish and wildlife resources and associated landscapes have traditional cultural and religious significance. Fish and wildlife are conserved and managed for the people by State, Federal, and tribal governments. If reasonably foreseeable impacts of proposed actions are likely to reduce or eliminate the public benefits that are provided by such resources, these governments have shared responsibility or interest in recommending means and measures to mitigate such losses. Accordingly, in the interest of serving the public, it is the policy of the U.S. Fish and Wildlife Service to seek to mitigate losses of fish, wildlife, plants, their habitats, and uses thereof resulting from proposed actions.

The following fundamental principles will guide Service-recommended mitigation, as defined in this Policy, across all Service programs.

a. *The goal is a net conservation gain.* The Service’s mitigation planning goal is to improve (*i.e.*, a net gain) or, at minimum, to maintain (*i.e.*, no net loss) the current status of affected resources, as allowed by applicable statutory authority and consistent with the responsibilities of action proponents under such authority. As informed by established conservation objectives and strategies, Service mitigation recommendations will focus primarily on important, scarce, or sensitive resources, and will specify the means and measures that achieve the planning goal.

b. *Observe an appropriate mitigation sequence.* The Service recognizes it is generally preferable to take all appropriate and practicable measures to avoid and minimize adverse effects to resources, in that order, before compensating for remaining impacts. However, to achieve the best possible conservation outcomes, the Service recognizes that some limited circumstances may warrant a departure from this preferred sequence. The Service will prioritize the applicable mitigation types based on a valuation of the affected resources as described in this Policy in a landscape conservation context.

c. *Avoid high-value habitats.* The Service will seek avoidance of all impacts to high-value habitats. High-value habitats make an exceptional contribution to the conservation of species. Preventing impacts to these habitats is the most effective means of maintaining the current status of a species, which is the minimum goal of this Policy.

d. *A landscape approach will inform mitigation.* The Service will integrate mitigation into a broader ecological context with applicable landscape-level conservation plans, where available, when developing, approving, and implementing plans, and by steering mitigation efforts in a manner that will best contribute to achieving conservation objectives. The Service will consider climate change and other stressors that may affect ecosystem integrity and the resilience of fish and wildlife populations, which will inform the scale, nature, and location of mitigation measures necessary to achieve the best possible conservation outcome. The Service will foster partnerships with Federal and State partners, tribes, local governments, and other stakeholders to design mitigation strategies that will prevent fragmented

landscapes and restore core areas and connectivity necessary to sustain species.

e. *Ensure consistency and transparency.* The Service will use timely and transparent processes that provide predictability and uniformity through the consistent application of standards and protocols as may be developed to achieve effective mitigation.

f. *Science-based mitigation.* The Service will use the best available science in formulating and monitoring the long-term effectiveness of its mitigation recommendations and decisions, consistent with all applicable Service science policy.

g. *Durability.* The Service will recommend or require that mitigation measures are durable, and at a minimum, maintain their intended purpose for as long as impacts of the action persist on the landscape. The Service will recommend or require that action proponents provide assurances of durability, including financial assurances, to support the development, maintenance, and long-term effectiveness of the mitigation measures.

h. *Effective compensatory mitigation.* The Service will recommend implementing compensatory mitigation before the impacts of an action occur. The Service will recommend compensatory mitigation that provides benefits to the affected species that are additional to the benefits of existing conservation efforts or those planned for the reasonably foreseeable future. To ensure consistent implementation of compensatory mitigation, the Service will support the application of equivalent standards, regardless of the mechanism used to provide compensatory mitigation.

#### 5. Mitigation Framework

This section of the Policy provides the conceptual framework and guidance for implementing the general policy and principles declared in section 4 in an action- and landscape-specific mitigation context. Implementation of the general policy and principles as well as the direction provided in 600 DM 6 occurs by integrating landscape scale decisionmaking within the Service’s existing process for assessing effects of an action and formulating mitigation measures. The key terms used in describing this framework are defined in section 6, Definitions.

The Service recommends or requires mitigation under one or more Federal authorities (section 2) when necessary and appropriate to avoid, minimize, and/or compensate for impacts to resources (section 3.2) resulting from

proposed actions (section 3.1). Our goal for mitigation is to achieve a net conservation gain or, at minimum, no net loss of the affected resources (section 4). Sections 5.1 through 5.9, summarized below, provide an overview of the mitigation framework and describe how the Service will engage actions as part of its process of assessing the effects of an action and formulating mitigation measures that would achieve this goal. Variations appropriate to action-specific circumstances are permitted; however, the Service will provide action proponents with the reasons for such variations.

## Synopsis of the Service Mitigation Framework

**5.1. Integrating Mitigation Planning with Conservation Planning.** The Service will utilize landscape-scale approaches and landscape conservation planning to inform mitigation, including identifying areas for mitigation that are most important for avoiding and minimizing impacts, improving habitat suitability, and compensating for unavoidable impacts to species. Proactive mitigation plans can achieve efficiencies for attaining conservation objectives while streamlining the planning and regulatory processes for specific landscapes and/or classes of actions within a landscape.

**5.2. Collaboration and Coordination.** At both the action and landscape scales, the Service will collaborate and coordinate with action proponents and with our State, Federal, and tribal conservation partners in mitigation.

**5.3. Assessment.** Assessing the effects of proposed actions and proposed mitigation measures is the basis for formulating a plan to meet the mitigation policy goal. This Policy does not endorse specific methodologies, but does describe several principles of effects assessment and general characteristics of methodologies that the Service will use in implementing this Policy.

**5.4. Evaluation Species.** The Service will identify the species evaluated for mitigation purposes. The Service should select the smallest set of evaluation species necessary, but include all species for which the Service is required to issue biological opinions, permits, or regulatory determinations. When actions would affect multiple resources of conservation interest, evaluation species should serve to best represent other affected species or aspects of the environment. This section describes characteristics of evaluation species that are useful in planning mitigation.

**5.5. Habitat Valuation.** The Service will assess the value of affected habitats to evaluation species based on their scarcity, suitability, and importance to achieving conservation objectives. This valuation will determine the relative emphasis the Service will place on avoiding, minimizing, and compensating for impacts to habitats of evaluation species.

**5.6. Means and Measures.** The means and measures that the Service recommends for achieving the mitigation policy goal are action- and resource-specific applications of the three general types of impact mitigation (avoid, minimize, and compensate). This section provides an expanded definition of each type, explains its place in this Policy, and lists generalized examples of its intended use in Service mitigation recommendations and requirements.

**5.7. Recommendations.** This section describes general standards for Service recommendations, and declares specific preferences for various characteristics of compensatory mitigation measures, *e.g.*, timing, location.

**5.8. Documentation.** Service involvement in planning and implementing mitigation requires documentation that is commensurate in scope and level of detail with the significance of the potential impacts to resources. This section provides an outline of documentation elements that are applicable at three different stages of the mitigation planning process: Early planning, effects assessment, and final recommendations.

**5.9. Followup.** Determining whether Service mitigation recommendations were adopted and effective requires monitoring, and when necessary, corrective action.

## 5.1. Integrating Mitigation With Conservation Planning

The Service's mitigation goal is to improve or, at minimum, maintain the current status of affected resources, as allowed by applicable statutory authority and consistent with the responsibilities of action proponents under such authority (see section 4). This Policy provides a framework for formulating mitigation means and measures (see section 5.6) intended to efficiently achieve the mitigation planning goal based upon best available science. This framework seeks to integrate mitigation recommendations and requirements into conservation planning to better protect or enhance populations and those features on a landscape that are necessary for the long-term persistence of biodiversity and ecological functions. Functional

ecosystems enhance the resilience of fish and wildlife populations challenged by the widespread stressors of climate change, invasive species, and the continuing degradation and loss of habitat through human alteration of the landscape. Achieving the mitigation goal of this Policy involves:

- Avoiding and minimizing those impacts that most seriously compromise resource sustainability;
- rectifying and reducing over time those impacts where restoring or maintaining conditions in the affected area most efficiently contributes to resource sustainability; and
- strategically compensating for impacts so that actions result in an improvement in the affected resources, or at a minimum, result in a no net loss of those resources.

The Service recognizes that we will engage in mitigation planning for actions affecting resources in landscapes for which conservation objectives and strategies to achieve those objectives are not yet available, well developed, or formally adopted. The landscape-level approach to resource decisionmaking described in this Policy and in the Departmental Manual (600 DM 6.6D) applies in contexts with or without established conservation plans, but it will achieve its greatest effectiveness when integrated with such planning.

When appropriate, the Service will seek a net gain in the conservation outcome of actions we engage for purposes of this Policy. It is consistent with the Service's mission to identify and promote opportunities for resource enhancement during action planning, *i.e.*, to decrease the gap between the current and desired status of a resource. Mitigation planning often presents practicable opportunities to implement mitigation measures in a manner that outweighs impacts to affected resources. When resource enhancement is also consistent with the mission, authorities, and/or responsibilities of action proponents, the Service will encourage proponents to develop measures that result in a net gain toward achieving conservation objectives for the resources affected by their actions. Such proponents include, but are not limited to, Federal agencies when responsibilities such as the following apply to their actions:

- Carry out programs for the conservation of endangered and threatened species (Endangered Species Act, section 7(a)(1));
- consult with the Service regarding both mitigation and enhancement in water resources development (Fish and Wildlife Coordination Act, section 2);

- enhance the quality of renewable resources (National Environmental Policy Act, section 101(b)(6)); and/or
- restore and enhance bird habitat (Executive Order 13186, section 3(e)(2)).

To serve the public interest in fish and wildlife resources, the Service works under various authorities (see section 2) with partners to establish conservation objectives for species, and to develop and implement plans for achieving such objectives in various landscapes. We define a landscape as an area encompassing an interacting mosaic of ecosystems and human systems that is characterized by common management concerns (see section 6, Definitions). Relative to this Policy, such management concerns relate to conserving species. The geographic scale of a landscape is variable, depending on the interacting elements that are meaningful to particular conservation objectives and may range in size from large regions to a single watershed or habitat type. When proposed actions may affect species in a landscape addressed in one or more established conservation plans, such plans will provide the basis for Service recommendations to avoid and minimize particular impacts, rectify and reduce over time others, and compensate for others. The criteria in this Policy for selecting evaluation species (section 5.4) and assessing the value of their affected habitats (section 5.5) are designed to place mitigation planning in a landscape conservation context by applying the various types of mitigation where they are most effective at achieving the mitigation policy goal.

The Service recognizes the inefficiency of automatically applying under all circumstances each mitigation type in the traditional mitigation sequence. As DM 6 also recognizes, in limited situations, specific circumstances may exist that warrant an alternative from this sequence, such as when seeking to achieve the maximum benefit to affected resources and their values, services, and functions. For example, the cost and effort involved in avoiding impacts to a habitat that is likely to become isolated or otherwise unsuitable for evaluation species in the foreseeable future may result in less conservation when compared to actions that achieve a greater conservation benefit if used to implement offsite compensatory mitigation in area(s) that are more important in the long term to achieving conservation objectives for the affected resource(s). Conversely, onsite avoidance is the priority where impacts would substantially impair progress toward achieving conservation objectives.

The Service will rely upon existing conservation plans that are based upon the best available scientific information, consider climate-change adaptation, and contain specific objectives aimed at the biological needs of the affected resources. Where existing conservation plans are not available that incorporate all of these elements or are not updated with the best available scientific information, Service personnel will otherwise incorporate the best available science into mitigation decisions and recommendations and continually seek better information in areas of greatest uncertainty. Service personnel will use a landscape approach based on analysis of information regarding resource needs, including priorities for impact avoidance and potential compensatory mitigation sites. Such information includes development trends and projected habitat loss or conversion, cumulative impacts of past development activities, the presence and needs of species, and restoration potential. Service personnel may access this information in existing mapping products, survey data, reports, studies, or other sources.

#### Proactive Mitigation Planning at Larger Scales

The Service supports the planning and implementation of proactive mitigation plans in a landscape conservation context, *i.e.*, mitigation developed before actions are proposed, particularly in areas where multiple similar actions are expected to adversely affect a similar suite of species. Proactive mitigation plans should complement or tier from existing conservation plans relevant to the affected resources (*e.g.*, recovery plans, habitat conservation plans, or nongovernmental plans). Effective and efficient proactive mitigation identifies high-priority resources and areas on a regional or landscape scale, prior to and without regard to specific proposed actions, in which to focus: (a) Resource protection for avoiding impacts; (b) resource enhancement or protection for compensating unavoidable impacts; and (c) measures to improve the resilience of resources in the face of climate change or otherwise increase the ability to adapt to climate and other landscape change factors. In many cases, the Service can take advantage of available Federal, State, tribal, local, or nongovernmental plans that identify such priorities.

Developing proactive mitigation should involve stakeholders in a transparent process for defining objectives and the means to achieving those objectives. Planning for proactive

mitigation should establish standards for determining the appropriate scale, type, and location of mitigation for impacts to specific resources within a specified area. Adopted plans that incorporate these features are likely to substantially shorten the time needed for regulatory review and approval as actions are subsequently proposed. Proactive mitigation plans, not limited to those developed under a programmatic NEPA decisionmaking process or a Habitat Conservation Plan process, will provide efficiencies for project-level Federal actions and will also better address potential cumulative impacts.

Procedurally, proactive mitigation should draw upon existing land-use plans and databases associated with human infrastructure, including transportation, and water and energy development, as well as ecological data and conservation plans for floodplains, water quality, high-value habitats, and key species. Stakeholders and Service personnel process these inputs to design a conservation network that considers needed community infrastructure and clearly prioritizes the role of mitigation in conserving natural features that are necessary for long-term maintenance of ecological functions on the landscape. As development actions are proposed, an effective proactive regional mitigation plan will provide a transparent process for identifying appropriate mitigation opportunities within the regional framework and selecting the mitigation projects with the greatest aggregated conservation benefits.

#### 5.2. Collaboration and Coordination

The Service shares responsibility for conserving fish and wildlife with State, local, and tribal governments and other Federal agencies and stakeholders. Our role in mitigation may involve Service biological opinions, permits, or other regulatory determinations as well as providing technical assistance. The Service must work in collaboration and coordination with other governments, agencies, organizations, and action proponents to implement this Policy. Whenever appropriate, the Service will:

- Coordinate activities with the appropriate Federal, State, tribal, and local agencies and other stakeholders who have responsibilities for fish and wildlife resources when developing mitigation recommendations for resources of concern to those entities;
- consider resources and plans made available by State, local, and tribal governments and other Federal agencies;

c. seek to apply compatible approaches and avoid duplication of efforts with those same entities;

d. collaborate with Federal and State agencies, tribes, local agencies and other stakeholders in the formulation of landscape-level mitigation plans; and

e. cooperate with partners to develop, maintain, and disseminate tools and conduct training in mitigation methodologies and technologies.

The Service should engage agencies and applicants during the early planning and design stage of actions. The Service is encouraged to engage in early coordination during the NEPA Federal decisionmaking process to resolve issues in a timely manner (516 DM 8.3). Coordination during early planning, including participation as a cooperating agency or on interdisciplinary teams, can lead to better conservation outcomes. For example, the Federal Highway Administration (FHWA) is most likely to adopt alternatives that avoid or minimize impacts when the Service provides early comments under section 4(f) of the Transportation Act of 1966 relative to impacts to refuges or other Service-supported properties. When we identify potential impacts to tribal interests, the Service, in coordination with affected tribes, may recommend mitigation measures to address those impacts. Recommendations will carry more weight when the Service and tribe have overlapping authority for the resources in question and when coordinated through government-to-government consultation.

Coordination and collaboration with stakeholders allows the Service to confirm that the persons conducting mitigation activities, including contractors and other non-Federal persons, have the appropriate experience and training in mitigation best practices, and where appropriate, include measures in employee performance appraisal plans or other personnel or contract documents, as necessary. Similarly, this allows for the development of rigorous, clear, and consistent guidance, suitable for field staff to implement mitigation or to deny authorizations when impacts to resources and their values, services, and functions are not acceptable. Collaboratively working across Department of the Interior bureaus and offices allows the Service to conduct periodic reviews of the execution of mitigation activities to confirm consistent implementation of the principles of this Policy.

When collaborating with stakeholders, Service staff should utilize the principles and recommendations set

forth in the Council on Environmental Quality handbook, *Collaboration in NEPA—a Handbook for NEPA Practitioners* (2007).

### 5.3. Assessment

Effects are changes in environmental conditions caused by an action that are relevant to the resources (fish, wildlife, plants, and their habitats) covered by this Policy. This Policy addresses mitigation for impacts to these resources. We define impacts as adverse effects relative to the affected resources. Impacts may be direct, indirect, or cumulative. Indirect effects are often major drivers in ecological systems. Because indirect impacts from an action occur later in time or farther removed in distance, they may have landscape-scale implications. Mitigation is the general label for all measures implemented to avoid, minimize, and/or compensate for its predicted impacts.

The Service should design mitigation measures to achieve the mitigation goal, when appropriate, of net gain, or a minimum of no net loss for affected resources. This design should take into account the degree of risk and uncertainty associated with both predicted project effects and predicted outcomes of the mitigation measures. The following principles shall guide the Service's assessment of anticipated effects and the expected effectiveness of mitigation measures.

1. The Service will consider action effects and mitigation outcomes within planning horizons commensurate with the expected duration of the action's impacts. In predicting whether mitigation measures will achieve the mitigation policy goal for the affected resources during the planning horizon, the Service will recognize that predictions about the more-distant future are more uncertain and adjust the mitigation recommendations accordingly.

2. Action proponents should provide reasonable predictions about environmental conditions relevant to the affected area both with and without the action over the course of the planning horizon (*i.e.*, baseline condition). If such predictions are not provided, the Service will assess the effects of a proposed action over the planning horizon considering: (a) The full spatial and temporal extent of resource-relevant direct and indirect effects caused by the action, including resource losses that will occur during the period between implementation of the action and the mitigation measures; and (b) any cumulative effects to the affected resources resulting from existing concurrent or reasonably

foreseeable future activities in the landscape context. When assessing the affected area without the action, the Service will also evaluate: (a) Expected natural species succession; (b) implementation of approved restoration/improvement plans; and (c) reasonably foreseeable conditions resulting directly or indirectly from any other factors that may affect the evaluation of the project including, but not limited to, climate change.

3. The Service will use the best available effect assessment methodologies that:

a. Display assessment results in a manner that allows decisionmakers, action proponents, and the public to compare present and predicted future conditions for affected resources;

b. measure adverse and beneficial effects using equivalent metrics to determine mitigation measures necessary to achieve the mitigation policy goal for the affected resources (*e.g.*, measure both adverse and beneficial effects to a species' food resources via changes to the density or spatial extent of the food resource);

c. predict effects over time, including changes to affected resources that would occur with and without the action, changes induced by climate change, and changes resulting from reasonably foreseeable actions;

d. are practical, cost-effective, and commensurate with the scope and scale of impacts to affected resources;

e. are sufficiently sensitive to estimate the type and relative magnitude of effects across the full spectrum of anticipated beneficial and adverse effects;

f. may integrate predicted effects with data from other disciplines such as cost or socioeconomic analysis; and

g. allow for incorporation of new data or knowledge as action planning progresses.

4. Where appropriate effects assessment methods or technologies useful in valuation of mitigation are not available, Service employees will apply best professional judgment supported by best available science to assess impacts and to develop mitigation recommendations.

### 5.4. Evaluation Species

Section 3.2 identifies the resources to which this Policy applies. Depending on the authorities under which the Service is engaging an action for mitigation purposes, these resources may include: Particular species; fish, wildlife, and plants more generally; and their habitats, including those contributing to ecological functions that sustain species. However, one or more species

of conservation interest to the Service is always necessary to initiate mitigation planning, and under this Policy, the Service will explicitly identify evaluation species for mitigation purposes. In instances where the Service is required to issue a biological opinion, permit, or regulatory determination for specific species, the Service will identify such species, at minimum, as evaluation species.

Selecting evaluation species in addition to those for which the Service must provide a regulatory determination varies according to action-specific circumstances. In practice, an initial examination of the habitats affected and review of typically associated species of conservation interest are usually the first steps in identifying evaluation species. The purpose of Service mitigation planning is to develop a set of recommendations that would improve or, at minimum, maintain the current status of the affected resources. When available, conservation planning objectives (*i.e.*, the desired status of the affected resources) will inform mitigation planning (see section 5.1). Therefore, following those species for which we must provide a regulatory determination, species for which action effects would cause the greatest increase in the gap between their current and desired status are the principal choices for selection as evaluation species.

An evaluation species must occur within the affected area for at least one stage of its life history, but as other authorities permit, the Service may consider evaluation species that are not currently present in the affected area if the species is:

- a. Identified in approved State or Federal fish and wildlife conservation, restoration, or improvement plans that include the affected area; or
- b. likely to occur in the affected area during the reasonably foreseeable future with or without the proposed action due to natural species succession.

Evaluation species may or may not occupy the affected area year-round or when direct effects of the action would occur.

The Service should select the smallest set of evaluation species necessary to relate the effects of an action to the full suite of affected resources and applicable authorities, including all species for which the Service is required to issue opinions, permits, or regulatory determinations. When an action affects multiple resources, evaluation species should represent other affected species or aspects of the environment so that the mitigation measures formulated for the evaluation species will mitigate impacts to other similarly affected resources to

the greatest extent possible.

Characteristics of evaluation species that are useful in mitigation planning may include, but are not limited to, the following:

- a. Species that are addressed in conservation plans relevant to the affected area and for which habitat objectives are articulated;
- b. species strongly associated with an affected habitat type;
- c. species for which habitat limiting factors are well understood;
- d. species that perform a key role in ecological processes (*e.g.*, nutrient cycling, pollination, seed dispersal, predator-prey relations), which may, therefore, serve as indicators of ecosystem health;
- e. species that require large areas of contiguous habitat, connectivity between disjunct habitats, or a distribution of suitable habitats along migration/movement corridors, which may, therefore, serve as indicators of ecosystem functions;
- f. species that belong to a group of species (a guild) that uses a common environmental resource;
- g. species for which sensitivity to one or more anticipated effects of the proposed action is documented;
- h. species with special status (*e.g.*, species of concern in E.O. 13186, Birds of Conservation Concern);
- i. species of cultural or religious significance to tribes;
- j. species that provide monetary and non-monetary benefits to people from consumptive and non-consumptive uses including, but not limited to, fishing, hunting, bird watching, and educational, aesthetic, scientific, or subsistence uses;
- k. species with characteristics such as those above that are also easily monitored to evaluate the effectiveness of mitigation actions; and/or
- l. species that would be subject to direct mortality as a result of an action (*e.g.*, wind turbine).

#### 5.5. Habitat Valuation

Species conservation relies on functional ecosystems, and habitat conservation is generally the best means of achieving species population objectives. Section 5.4 provides the guidance for selecting evaluation species to represent these habitat resources. The value of specific habitats to evaluation species varies widely, such that the loss or degradation of higher value habitats has a greater impact on achieving conservation objectives than the loss or degradation of an equivalent area of lower value habitats. To maintain landscape capacity to support species, our

mitigation policy goal (Section 4) applies to all affected habitats of evaluation species, regardless of their value in a conservation context. However, the Service will recognize variable habitat value in formulating appropriate means and measures to mitigate the impacts of proposed actions, as described in this section. The primary purpose of habitat valuation is to determine the relative emphasis the Service will place on avoiding, minimizing, and compensating for impacts to habitats of evaluation species.

The Service will assess the overall value of affected habitats by considering their: (a) Scarcity; (b) suitability for evaluation species; and (c) importance to the conservation of evaluation species.

- *Scarcity* is the relative spatial extent (*e.g.*, rare, common, or abundant) of the habitat type in the landscape context.

- *Suitability* is the relative ability of the affected habitat to support one or more elements of the evaluation species' life history (reproduction, rearing, feeding, dispersal, migration, hibernation, or resting protected from disturbance, etc.) compared to other similar habitats in the landscape context. A habitat's ability to support an evaluation species may vary over time.

- *Importance* is the relative significance of the affected habitat, compared to other similar habitats in the landscape context, to achieving conservation objectives for the evaluation species. Habitats of high importance are irreplaceable or difficult to replace, or are critical to evaluation species by virtue of their role in achieving conservation objectives within the landscape (*e.g.*, sustain core habitat areas, linkages, ecological functions). Areas containing habitats of high importance are generally, but not always, identified in conservation plans addressing resources under Service authorities (*e.g.*, in recovery plans) or when appropriate, under authorities of partnering entities (*e.g.*, in State wildlife action plans, Landscape Conservation Cooperative conservation "blueprints," etc.).

The Service has flexibility in applying appropriate methodologies and best available science when assessing the overall value of affected habitats, but also has a responsibility to communicate the rationale applied, as described in section 5.8 (Documentation Standards). These three parameters are the considerations that will inform Service determinations of the relative value of an affected habitat that will then be used to guide application of the mitigation hierarchy under this Policy.

For all habitats, the Service will apply appropriate and practicable measures to avoid and minimize impacts over time, generally in that order, before applying compensation as mitigation for remaining impacts. For habitats we determine to be of high-value (*i.e.*, scarce and of high suitability and high importance) however, the Service will seek avoidance of all impacts. For habitats the Service determines to be of lower value, we will consider whether compensation is more effective than other components of the mitigation hierarchy to maintain the current status of evaluation species, and if so, may seek compensation for most or all such impacts.

The relative emphasis given to mitigation types within the mitigation hierarchy depends on the landscape context and action-specific circumstances that influence the efficacy and efficiency of available mitigation means and measures. For example, it is generally more effective and efficient to achieve the mitigation policy goal by maximizing avoidance and minimization of impacts to habitats that are either rare, of high suitability, or of high importance, than to rely on other measures, because these qualities are typically not easily repaired, enhanced through onsite management, or replaced through compensatory actions. Similarly, compensatory measures may receive greater emphasis when strategic application of such measures (*i.e.*, to further the objectives of relevant conservation plans) would more effectively and efficiently achieve the policy goal for mitigating impacts to habitats that are either abundant, of low suitability, or of low importance.

When more than one evaluation species uses an affected habitat, the highest valuation will govern the Service's mitigation recommendations or requirements. Regardless of the habitat valuation, Service mitigation recommendations or requirements will represent our best judgment as to the most practicable means of ensuring that a proposed action improves or, at minimum, maintains the current status of the affected resources.

## 5.6. Means and Measures

The means and measures that the Service recommends for achieving the goal of this Policy (see section 4) are action- and resource-specific applications of the five general types of impact mitigation: Avoid, minimize, rectify, reduce over time, and compensate. The third and fourth mitigation types, rectify and reduce over time, are combined under the minimization label (*e.g.*, in mitigation

planning for permitting actions under the Clean Water Act, in the Presidential Memorandum on Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment, and in 600 DM 6.4), which we adopt for this Policy and for the structure of this section, while also providing specific examples for rectify and reduce. When carrying out its responsibilities under NEPA, the Service will apply the mitigation meanings and sequence in the NEPA regulations (40 CFR 1508.20). In particular, the Service will retain the ability to distinguish, as needed, between minimizing, rectifying, and reducing or eliminating the impact over time, as described in Appendix B: Service Mitigation Policy and NEPA.

The emphasis that the Service gives to each mitigation type depends on the evaluation species selected (section 5.4) and the value of their affected habitats (section 5.5). Habitat valuation aligns mitigation with conservation planning for the evaluation species by identifying where it is critical to avoid habitat impacts altogether and where compensation measures may more effectively advance conservation objectives. All appropriate mitigation measures have a clear connection with the anticipated effects of the action and are commensurate with the scale and nature of those effects.

Nothing in this Policy supersedes the statutes and regulations governing prohibited "take" of wildlife (*e.g.*, ESA-listed species, migratory birds, eagles); however, the Policy applies to mitigating the impacts to habitats and ecological functions that support populations of evaluation species, including federally protected species. Attaining the goal of improving or, at a minimum, maintaining the current status of evaluation species will often involve applying a combination of mitigation types. For each of the mitigation types, the following subsections begin with a quote of the regulatory language at 40 CFR 1508.20, then provides an expanded definition, explains its place in this Policy, and lists generalized examples of its intended use in Service mitigation recommendations. Ensuring that Service-recommended mitigation measures are implemented and effective is addressed in sections 5.8, Documentation, and 5.9, Followup.

**5.6.1. Avoid**—Avoid the impact altogether by not taking a certain action or parts of an action.

Avoiding impacts is the first tier of the mitigation hierarchy. Avoidance ensures that an action or a portion of the action has no direct or indirect effects

during the planning horizon on fish, wildlife, plants, and their habitats. Actions may avoid direct effects to a resource (*e.g.*, by shifting the location of the construction footprint), but unless the action also avoids indirect effects caused by the action (*e.g.*, loss of habitat suitability through isolation from other habitats, accelerated invasive species colonization, degraded water quality, etc.), the Service will not consider that impacts to a resource are fully avoided. In some cases, indirect effects may cumulatively result in population and habitat losses that negate any conservation benefit from avoiding direct effects. An impact is unavoidable when an appropriate and practicable alternative to the proposed action that would not cause the impact is unavailable. The Service will recommend avoiding all impacts to high-value habitats. Generalized examples follow:

a. Design the timing, location, and/or operations of the action so that specific resource impacts would not occur.

b. Add structural features to the action, where such action is sustainable (*e.g.*, fish and wildlife passage structures, water treatment facilities, erosion control measures) that would eliminate specific losses to affected resources.

c. Adopt a non-structural alternative to the action that is sustainable and that would not cause resource losses (*e.g.*, stream channel restoration with appropriate grading and vegetation in lieu of rip-rap).

d. Adopt the no-action alternative.

**5.6.2. Minimize (includes Rectify and Reduce Over Time)**—Minimize the impact by limiting the degree or magnitude of the action and its implementation.

Minimizing impacts, together with rectifying and reducing over time, is the second tier of the mitigation hierarchy. Minimizing is reducing the intensity of the impact (*e.g.*, population loss, habitat loss, reduced habitat suitability, reduced habitat connectivity, etc.) to the maximum extent appropriate and practicable. Generalized examples of types of measures to minimize impacts follow:

a. Reduce the overall spatial extent and/or duration of the action.

b. Adjust the daily or seasonal timing of the action.

c. Retain key habitat features within the affected area that would continue to support life-history processes for the evaluation species.

d. Adjust the spatial configuration of the action to retain corridors for species movement between functional habitats.



- e. Apply best management practices to reduce water quality degradation.
- f. Adjust the magnitude, timing, frequency, duration, and/or rate-of-change of water flow diversions and flow releases to minimize the alteration of flow regime features that support life-history processes of evaluation species.
- g. Install screens and other measures necessary to reduce aquatic life entrainment/impingement at water intake structures.
- h. Install fences, signs, markers, and other measures necessary to protect resources from impacts (e.g., fencing riparian areas to exclude livestock, marking a heavy-equipment exclusion zone around burrows, nest trees, and other sensitive areas).

*Rectify*— This subset of the second tier of the mitigation hierarchy involves “repairing, rehabilitating, or restoring the affected environment.”

Rectifying impacts may possibly improve, relative to no-action conditions, a loss in habitat availability and/or suitability for evaluation species within the affected area and contribute to a net conservation gain. Rectifying impacts may also involve directly restoring a loss in populations through stocking. Generalized examples follow:

- a. Repair physical alterations of the affected areas to restore pre-action conditions or improve habitat suitability for the evaluation species (e.g., re-grade staging areas to appropriate contours, loosen compacted soils, restore altered stream channels to stable dimensions).
- b. Plant and ensure the survival of appropriate vegetation where necessary in the affected areas to restore or improve habitat conditions (quantity and suitability) for the evaluation species and to stabilize soils and stream channels.
- c. Provide for fish and wildlife passage through or around action-imposed barriers to movement.
- d. Consistent with all applicable laws, regulations, policies, and conservation plans, stock species that experienced losses in affected areas when habitat conditions are able to support them in affected areas.

*Reduce Over Time*—This subset of the second tier of the mitigation hierarchy is to “reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action.”

Reducing impacts over time is preserving, enhancing, and maintaining the populations, habitats, and ecological functions that remain in an affected area following the impacts of the action, including areas that are successfully restored or improved through rectifying mitigation measures. Preservation,

enhancement, and maintenance operations may improve upon conditions that would occur without the action and contribute to a net conservation gain (e.g., when such operations would prevent habitat degradation expected through lack of management needed for an evaluation species). Reducing impacts over time is an appropriate means to achieving the mitigation goal after applying all appropriate and practicable avoidance, minimization, and rectification measures. Generalized examples follow:

- a. Control land uses and limit disturbances to portions of the affected area that may continue to support the evaluation species.
- b. Control invasive species in the affected areas.
- c. Manage fire-adapted habitats in the affected areas with an appropriate timing and frequency of prescribed fire, consistent with applicable laws, regulations, policies, and conservation plans.
- d. Maintain or replace equipment and structures in affected areas to prevent losses of fish and wildlife resources due to equipment failure (e.g., cleaning and replacing trash racks and water intake screens, maintaining fences that limit access to environmentally sensitive areas).
- e. Ensure proper training of personnel in operations necessary to preserve existing or restored fish and wildlife resources in the affected area.

*5.6.3. Compensate*—Compensate for the impact by replacing or providing substitute resources or environments.

Compensating for impacts is the third and final tier of the mitigation hierarchy. Compensation is protecting, maintaining, enhancing, and/or restoring habitats and ecological functions for an evaluation species, generally in an area outside the action’s affected area. Mitigating some percentage of unavoidable impacts through measures that minimize, rectify, and reduce losses over time is often appropriate and practicable, but the costs or difficulties of mitigation may rise rapidly thereafter to achieve the mitigation planning goal entirely within the action’s affected area. In such cases, a lesser or equivalent effort applied in another area may achieve greater benefits for the evaluation species. Likewise, the effort necessary to mitigate the impacts to a habitat of low suitability and low importance of a type that is relatively abundant in the landscape context (low-value habitat) will more likely achieve sustainable benefits for an evaluation species if invested in enhancing a habitat of moderate suitability and high

importance. This Policy is designed to apply the various types of mitigation where they may achieve the greatest efficiency toward accomplishing the mitigation planning goal.

Onsite restoration of an affected resource meets the definition of rectify and is not considered compensation under this Policy. Although compensation is usually accomplished outside the affected area, onsite compensation under the definitions of this Policy involves provision of a habitat resource within the affected area that was not adversely affected by the action, but that would effectively address the action’s effect on the conservation of the evaluation species. For example, an action reduces food resources for an evaluation species, but in dry years, water availability is a more limiting factor to the species’ status in the affected area. Increasing the reliability of water resources onsite may represent a practicable measure that will more effectively maintain or improve the species’ status than some degree of rectifying the loss of food resources alone, even though the action did not affect water availability. In this example, measures to restore food resources are rectification, and measures to increase water availability are onsite compensation.

Multiple mechanisms may accomplish compensatory mitigation, including habitat credit exchanges and other emerging mechanisms. Proponent-responsible mitigation, mitigation/conservation banks, and in-lieu fee funds are the three most common mechanisms. Descriptions of their general characteristics follow:

- a. *Proponent-Responsible Mitigation*. A proponent-responsible mitigation site provides ecological functions and services in accordance with Service-defined or approved standards to offset the habitat impacts of a proposed action on particular species. As its name implies, the action proponent is solely responsible for ensuring that the compensatory mitigation activities are completed and successful. Proponent-responsible mitigation may occur onsite or offsite relative to action impacts. Like all compensatory mitigation measures, proponent-responsible mitigation should: (a) Maximize the benefit to impacted resources and their values, services, and functions; (b) implement and earn credits in advance of project impacts; and (c) reduce risk to achieving effectiveness.
- b. *Mitigation/Conservation Banks*. A conservation bank is a site or suite of sites that provides ecological functions and services expressed as credits that are conserved and managed in

perpetuity for particular species and are used expressly to offset impacts occurring elsewhere to the same species. A mitigation bank is established to offset impacts to wetland habitats under section 404 of the Clean Water Act. Some mitigation banks may also serve the species-specific purposes of a conservation bank. Mitigation and conservation banks are typically for-profit enterprises that apply habitat restoration, creation, enhancement, and/or preservation techniques to generate credits on their banking properties. The establishment, operation, and use of a conservation bank requires a conservation bank agreement between the Service and the bank sponsor, and aquatic resource mitigation banks require a banking instrument approved by the U.S. Army Corps of Engineers. Responsibility for ensuring that compensatory mitigation activities are successfully completed is transferred from the action proponent to the bank sponsor at the time of the sale/transfer of credits. Mitigation and conservation banks generally provide mitigation in advance of impacts.

c. *In-Lieu Fee*. An in-lieu fee site provides ecological functions and services expressed as credits that are conserved and managed for particular species or habitats, and are used expressly to offset impacts occurring elsewhere to the same species or habitats. In-lieu fee programs are sponsored by governmental or nonprofit entities that collect funds used to establish in-lieu fee sites. In-lieu fee program operators apply habitat restoration, creation, enhancement, and/or preservation techniques to generate credits on in-lieu fee sites. The establishment, operation, and use of an in-lieu fee program may require an agreement between regulatory agencies of applicable authority, including the Service, and the in-lieu fee program operator. Responsibility for ensuring that compensatory mitigation activities are successfully completed is transferred from the action proponent to the in-lieu fee program operator at the time of sale/transfer of credits. Unlike mitigation or conservation banks, in-lieu fee programs generally provide compensatory mitigation after impacts have occurred. See section 5.7.1 for discussion of the Service's preference for compensatory mitigation that occurs prior to impacts.

The Service's preference is that proponents offset unavoidable resource losses in advance of their actions. Further, the Service considers the banking of habitat value for the express purpose of compensating for future unavoidable losses to be a legitimate

form of mitigation, provided that withdrawals from a mitigation/conservation bank are commensurate with losses of habitat value (considering suitability and importance) for the evaluation species and not based solely upon the affected habitat acreage or the cost of land purchase and management. Resource losses compensated through purchase of conservation or mitigation bank credits may include, but are not limited to, habitat impacts to species covered by one or more Service authorities.

#### 5.6.3.1 Equivalent Standards

The mechanisms for delivering compensatory mitigation differ according to: (1) Who is ultimately responsible for the success of the mitigation (the action proponent or a third party); (2) whether the mitigation site is within or adjacent to the impact site (onsite) or at another location that provides either equivalent or additional resource value (offsite); and (3) when resource benefits are secured (before or after resource impacts occur).

Regardless of the delivery mechanism, species conservation strategies and other landscape-level conservation plans that are based on the best scientific information available are expected to provide the basis for establishing and operating compensatory mitigation sites and programs. Such strategies and plans should also inform the assessment of species-specific impacts and benefits within a defined geography.

Service recommendations or requirements will apply equivalent ecological, procedural, and administrative standards for all compensatory mitigation mechanisms. Departmental guidance at DM 6.6 C declares a preference for compensatory mitigation measures that will maximize the benefit to affected resources, reduce risk to achieving effectiveness, and use transparent methodologies. Mitigation that the Service recommends or approves through any compensatory mitigation mechanism should incorporate, address, or identify the following that are intended to ensure successful implementation and durability:

- a. Type of resource(s) and/or its value(s), service(s), and function(s), and amount(s) of such resources to be provided (usually expressed in acres or some other physical measure), the method of compensation (restoration, establishment, preservation, etc.), and the manner in which a landscape-scale approach has been considered;
- b. factors considered during the site selection process;

- c. site protection instruments to ensure the durability of the measure;
- d. baseline information;
- e. the mitigation value of such resources (usually expressed as a number of credits or other units of value), including a rationale for such a determination;
- f. a mitigation work plan including the geographic boundaries of the measure, construction methods, timing, and other considerations;
- g. a maintenance plan;
- h. performance standards to determine whether the measure has achieved its intended outcome;
- i. monitoring requirements;
- j. long-term management commitments;
- k. adaptive management commitments; and
- l. financial assurance provisions that are sufficient to ensure, with a high degree of confidence, that the measure will achieve and maintain its intended outcome, in accordance with the measure's performance standards.

Third parties may assume the responsibilities for implementing proponent-responsible compensation. The third party accepting responsibility for the compensatory actions would assume all of the proponent's obligations for ensuring their success and durability.

#### 5.6.3.2 Research and Education

Research and education, although important to the conservation of many resources, are not typically considered compensatory mitigation, because they do not directly offset adverse effects to species or their habitats. In rare circumstances, research or education that is directly linked to reducing threats, or that provides a quantifiable benefit to the species, may be included as part of a mitigation package. These circumstances may exist when: (a) The major threat to a resource is something other than habitat loss; (b) the Service can reasonably expect the outcome of research or education to more than offset the impacts; (c) the proponent commits to using the results/recommendations of the research to mitigate action impacts; or (d) no other reasonable options for mitigation are available.

#### 5.7. Recommendations

Consistent with applicable authorities, the Policy's fundamental principles, and the mitigation planning principles described herein, the Service will provide recommendations to mitigate the impacts of proposed actions at the earliest practicable stage of planning to ensure maximum

consideration. The Service will develop mitigation recommendations in cooperation with the action proponent and/or the applicable authorizing agency, considering the cost estimates and other information that the proponent/agency provides about the action and its effects, and relying on the best scientific information available. Service recommendations will represent our best judgment as to the most practicable means of ensuring that a proposed action improves or, at minimum maintains, the current status of the affected resources. The Service will provide mitigation recommendations under an explicit expectation that the action proponent or the applicable authorizing agency is fully responsible for implementing or enforcing the recommendations.

The Service will strive to provide mitigation recommendations, including reasonable alternatives to the proposed action, which, if fully and properly implemented, would achieve the best possible outcome for affected resources while also achieving the stated purpose of the proposed action. However, on a case-by-case basis, the Service may recommend the “no action” alternative. For example, when appropriate and practicable means of avoiding significant impacts to high-value habitats and associated species are not available, the Service may recommend the “no action” alternative.

#### 5.7.1. Preferences for Compensatory Mitigation

Unless action-specific circumstances warrant otherwise, the Service will observe the following preferences in providing compensatory mitigation recommendations:

*Advance compensatory mitigation.* When compensatory mitigation is necessary, the Service prefers compensatory mitigation measures that are implemented and earn credits in advance of project impacts. Even though compensatory mitigation may be initiated in advance of project impacts, there may still be temporal losses that need to be addressed. The extent of the compensatory measures that are not completed until after action impacts occur will account for the interim loss of resources consistent with the assessment principles (section 5.3).

*Compensatory mitigation in relation to landscape strategies and plans.* The preferred location for Service-recommended or required compensatory mitigation measures is within the boundaries of an existing strategically planned, interconnected conservation network that serves the conservation objectives for the affected resources in

the relevant landscape context. Compensatory measures should enhance habitat connectivity or contiguity, or strategically improve targeted ecological functions important to the affected resources (e.g., enhance the resilience of fish and wildlife populations challenged by the widespread stressors of climate change).

Similarly, Service-recommended or required mitigation should emphasize avoiding impacts to habitats located within a planned conservation network, consistent with the Habitat Valuation guidance (section 5.5).

Where existing conservation networks or landscape conservation plans are not available for the affected resources, Service personnel should develop mitigation recommendations based on best available scientific information and professional judgment that would maximize the effectiveness of the mitigation measures for the affected resources, consistent with this Policy’s guidance on Integrating Mitigation Planning with Conservation Planning (section 5.1).

#### 5.7.2. Recommendations for Locating Compensatory Mitigation on Public or Private Lands

When appropriate as specified in this Policy, the Service may recommend establishing compensatory mitigation at locations on private, public, or tribal lands that provide the maximum conservation benefit for the affected resources. The Service will generally, but not always, recommend compensatory mitigation on lands with the same ownership classification as the lands where impacts occurred, e.g., impacts to evaluation species on private lands are generally mitigated on private lands and impacts to evaluation species on public lands are generally mitigated on public lands. However, most private lands are not permanently dedicated to conservation purposes, and are generally the most vulnerable to impacts resulting from land and water resources development actions; therefore, mitigating impacts to any type of land ownership on private lands is usually acceptable as long as they are durable. Locating compensatory mitigation on public lands for impacts to evaluation species on private lands is also possible, and in some circumstances may best serve the conservation objectives for evaluation species. Such compensatory mitigation options require careful consideration and justification relative to the Service’s mitigation planning goal, as described below.

The Service generally only supports locating compensatory mitigation on (public or private) lands that are already

designated for the conservation of natural resources if additionality (see section 6, Definitions) is clearly demonstrated and is legally attainable. In particular, the Service usually does not support offsetting impacts to private lands by locating compensatory mitigation on public lands designated for conservation purposes because this practice risks a long-term net loss in landscape capacity to sustain species by relying increasingly on public lands to serve conservation purposes. However, the Service acknowledges that public ownership does not automatically confer long-term protection and/or management for evaluation species in all cases, which may justify locating compensatory mitigation measures on public lands, including compensation for impacts to evaluation species on public or private lands. The Service may recommend compensating for private-land impacts to evaluation species on public lands (whether designated for conservation of natural resources or not) when:

- a. Compensation is an appropriate means of achieving the mitigation planning goal, as specified in this Policy;
- b. the compensatory mitigation would provide additional conservation benefits above and beyond measures the public agency is foreseeably expected to implement absent the mitigation (only such additional benefits are counted towards achieving the mitigation planning goal);
- c. the additional conservation benefits are durable, *i.e.*, lasting as long as the impacts that prompted the compensatory mitigation;
- d. consistent with and not otherwise prohibited by all relevant statutes, regulations, and policies; and
- e. the public land location would provide the best possible conservation outcome, such as when private lands suitable for compensatory mitigation are unavailable or are available but do not provide an equivalent or greater contribution towards offsetting the impacts to meet the mitigation planning goal for the evaluation species.

Ensuring the durability of compensatory mitigation on public lands may require multiple tools beyond land use plan designations, including right-of-way grants, withdrawals, disposal or lease of land for conservation, conservation easements, cooperative agreements, and agreements with third parties. Mechanisms to ensure durability of land protection for compensatory mitigation on public and private lands vary among agencies, but should preclude conflicting uses and ensure that protection and management

of the mitigation land is commensurate with the magnitude and duration of impacts.

When the public lands under consideration for use as compensatory mitigation for impacts on private lands are National Wildlife Refuge System (NWRS) lands, additional considerations covered in the Service's Final Policy on the NWRS and Compensatory Mitigation Under the Section 10/404 Program (64 FR 49229–49234, September 10, 1999) may apply. Under that policy, the Regional Director will recommend the mitigation plan proposing to site compensatory mitigation on NWRS lands to the Director for approval.

### 5.7.3. Recommendations Related to Recreation

*Mitigation for impacts to recreational uses of wildlife and habitat.* The Service will generally not recommend measures intended to increase recreational value as mitigation for habitat losses. The Service may address impacts to recreational uses that are not otherwise addressed through habitat mitigation, but will do so with separate and distinct recreational use mitigation recommendations.

*Recreational use of mitigation lands.* Consistent with applicable statutes, the Service supports those recreational uses on mitigation lands that are compatible with the conservation goals of those mitigation lands. If certain uses are incompatible with the conservation goals for the mitigation lands, for example, off-road vehicle use in an area conserved for wildlife intolerant to disturbance, the Service will recommend against such uses.

### 5.8. Documentation

The Service should advise action proponents and decisionmaking agencies at timely stages of the planning process. To ensure effective consideration of Service recommendations, it is generally possible to communicate key concerns that will inform our recommendations early in the mitigation planning process, communicate additional components during and following an initial assessment of effects, and provide final written recommendations toward the end of the process, but in advance of a final decision for the action. The following outline lists the components applicable to these three planning stages. Because actions vary substantially in scope and complexity, these stages may extend over a period of years or occur almost simultaneously, which may necessitate consolidating some of the components listed below.

For all actions, the level of the Service's analysis and documentation should be commensurate with the scope and severity of the potential impacts to resources. Where compensation is used to address impacts, additional information outlined in section 5.6.3 may be necessary.

#### A. Early Planning

1. Inform the proponent of the Service's goal to improve or, at minimum, maintain the status of affected resources, and that the Service will identify opportunities for a net conservation gain if appropriate.

2. Coordinate key data collection and planning decisions with the proponent, relevant tribes, and Federal and State resource agencies; including, but not limited to:

- a. Delineate the affected area;
- b. define the planning horizon;
- c. identify species that may occur in the affected area that the Service is likely to consider as evaluation species for mitigation planning;
- d. identify landscape-scale strategies and conservation plans and objectives that pertain to these species and the affected area;
- e. define surveys, studies, and preferred methods necessary to inform effects analyses; and
- f. as necessary, identify reasonable alternatives to the proposed action that may achieve the proponent's purpose and the Service's no-net-loss goal for resources.

3. As early as possible, inform the proponent of the presence of probable high-value habitats in the affected area (see section 5.5), and advise the proponent of Service policy to avoid all impacts to such habitats.

#### B. Effects Assessment

1. Coordinate selection of evaluation species with relevant tribes, Federal and State resource agencies, and action proponents.

2. Communicate the Service's assessment of the value of affected habitats to evaluation species.

3. If high-value habitats are affected, advise the proponent of the Service's policy to avoid all impacts to such habitats.

4. Assess action effects to evaluation species and their habitats.

5. Formulate mitigation options that would achieve the mitigation policy goal (an appropriate net conservation gain or, at minimum, no net loss) in coordination with the proponent and relevant tribes, and Federal and State resource agencies.

#### C. Final Recommendations

The Service's final mitigation recommendations should communicate in writing the following:

1. The authorities under which the Service is providing the mitigation recommendations consistent with this Policy.

2. A description of all mitigation measures that are reasonable and appropriate to ensure that the proposed action improves or, at minimum, maintains the current status of affected fish, wildlife, plants, and their habitats.

3. The following elements should be specified within a mitigation plan or equivalent by either the Service, action proponents, or in collaboration:

- a. Measurable objectives;
- b. implementation assurances, including financial, as applicable;
- c. effectiveness monitoring;
- d. additional adaptive management actions as may be indicated by monitoring results; and
- e. reporting requirements.

4. An explanation of the basis for the Service recommendations, including, but not limited to:

- a. Evaluation species used for mitigation planning;
- b. the assessed value of affected habitats to evaluation species;
- c. predicted adverse and beneficial effects of the proposed action;
- d. predicted adverse and beneficial effects of the recommended mitigation measures; and
- e. the rationale for our determination that the proposed action, if implemented with Service recommendations, would achieve the mitigation policy goal.

5. The Service's expectations of the proponent's responsibility to implement the recommendations.

#### 5.9. Followup

The Service encourages, supports, and will initiate, whenever practicable and within our authority, post-action monitoring studies and evaluations to determine the effectiveness of recommendations in achieving the mitigation planning goal. In those instances where Service personnel determine that action proponents have not carried out those agreed-upon mitigation means and measures, the Service will request that the parties responsible for regulating the action initiate corrective measures, or will initiate access to available assurance measures. These provisions also apply when the Service is the action proponent.

## 6. Definitions

Definitions in this section apply to the implementation of this Policy and were developed to provide clarity and consistency within the policy itself, and to ensure broad, general applicability to all mitigation processes in which the Service engages. Some Service authorities define some of the terms in this section differently or more specifically, and the definitions herein do not substitute for statutory or regulatory definitions in the exercise of those authorities.

**Action.** An activity or program implemented, authorized, or funded by Federal agencies; or a non-Federal activity or program for which one or more of the Service's authorities apply to make mitigation recommendations, specify mitigation requirements, or provide technical assistance for mitigation planning.

**Additionality.** A compensatory mitigation measure is additional when the benefits of a compensatory mitigation measure improve upon the baseline conditions of the impacted resources and their values, services, and functions in a manner that is demonstrably new and would not have occurred without the compensatory mitigation measure.

**Affected area.** The spatial extent of all effects, direct and indirect, of a proposed action to fish, wildlife, plants, and their habitats.

**Affected resources.** Those resources, as defined by this Policy, that are subject to the adverse effects of an action.

**Baseline.** Current and future environmental conditions (relevant to the resources covered by this Policy) that are expected without implementation of the proposed action under review. Predictions about future environmental conditions without the action should account for natural species succession, implementation of approved land and resource management plans, and any other reasonably foreseeable factors that influence these conditions.

**Compensatory mitigation.** Compensatory mitigation means to compensate for remaining unavoidable impacts after all appropriate and practicable avoidance and minimization measures have been applied, by replacing or providing substitute resources or environments (see 40 CFR 1508.20.) through the restoration, establishment, enhancement, or preservation of resources and their values, services, and functions. Impacts are authorized pursuant to a regulatory or resource management program that

issues permits, licenses, or otherwise approves activities. In this Policy, "mitigation" is a deliberate expression of the full mitigation hierarchy, and "compensatory mitigation" describes only the last phase of that sequence.

**Conservation.** In the context of this Policy, the noun "conservation" is a general label for the collective practices, plans, policies, and science that are used to protect and manage species and their habitats to achieve desired outcomes.

**Conservation objective.** A measurable expression of a desired outcome for a species or its habitat resources. Population objectives are expressed in terms of abundance, trend, vital rates, or other measurable indices of population status. Habitat objectives are expressed in terms of the quantity, quality, and spatial distribution of habitats required to attain population objectives, as informed by knowledge and assumptions about factors influencing the ability of the landscape to sustain species.

**Conservation planning.** The identification of strategies for achieving conservation objectives. Conservation plans include, but are not limited to, recovery plans, habitat conservation plans, watershed plans, green infrastructure plans, and others developed by Federal, State, tribal or local government agencies or non-governmental organizations. This Policy emphasizes the use of landscape-scale approaches to conservation planning.

**Durability.** A mitigation measure is durable when the effectiveness of the measure is sustained for the duration of the associated impacts of the action, including direct and indirect impacts.

**Effects.** Changes in environmental conditions that are relevant to the resources covered by this Policy.

**Direct effects** are caused by the action and occur at the same time and place.

**Indirect effects** are caused by the action, but occur at a later time and/or another place.

**Cumulative effects** are caused by other actions and processes, but may refer also to the collective effects on a resource, including direct and indirect effects of the action. The causal agents and spatial/temporal extent for considering cumulative effects varies according to the authority(ies) under which the Service is engaged in mitigation planning (e.g., refer to the definitions of cumulative effects and cumulative impacts in ESA regulations and NEPA, respectively), and the Service will apply statute-specific definitions in the application of this Policy.

**Evaluation species.** Fish, wildlife, and plant resources in the affected area that are selected for effects analysis and mitigation planning.

**Habitat.** An area with spatially identifiable physical, chemical, and biological attributes that supports one or more life-history processes for evaluation species. Mitigation planning should delineate habitat types in the affected area using a classification system that is applicable to both the region(s) of the affected area and the selected evaluation species in order to facilitate determinations of habitat scarcity, suitability, and importance.

**Habitat Credit Exchange.** An environmental market that operates as a clearinghouse in which an exchange administrator, operating as a mitigation sponsor, manages credit transactions between compensatory mitigation providers and project permittees. This is in contrast to the direct transactions between compensatory mitigation providers and permittees that generally occur through conservation banking and in-lieu fee programs. Exchanges provide ecological functions and services expressed as credits that are permanently conserved and managed for specified species and are used to compensate for adverse impacts occurring elsewhere to the same species.

**Habitat value.** An assessment of an affected habitat with respect to an evaluation species based on three attributes—scarcity, suitability, and importance—which define its conservation value to the evaluation species in the context of this Policy. The three parameters are assessed independently but are sometimes correlated. For example, rare or unique habitat types of high suitability for evaluation species are also very likely of high importance in achieving conservation objectives.

**Impacts.** In the context of this Policy, impacts are adverse effects relative to the affected resources.

**Importance.** The relative significance of the affected habitat, compared to other examples of a similar habitat type in the landscape context, to achieving conservation objectives for the evaluation species. Habitats of high importance are irreplaceable or difficult to replace, or are critical to evaluation species by virtue of their role in achieving conservation objectives within the landscape (e.g., sustain core habitat areas, linkages, ecological functions). Areas containing habitats of high importance are generally, but not always, identified in conservation plans addressing resources under Service authorities (e.g., in recovery plans) or when appropriate, under authorities of

partnering entities (e.g., in State wildlife action plans, Landscape Conservation Cooperative conservation “blueprints,” etc.).

**Landscape.** An area encompassing an interacting mosaic of ecosystems and human systems that is characterized by a set of common management concerns. The most relevant concerns to the Service and this Policy are those associated with the conservation of species and their habitats. The landscape is not defined by the size of the area, but rather the interacting elements that are meaningful to the conservation objectives for the resources under consideration.

**Landscape-scale approach.** For the purposes of this Policy, the landscape-scale approach applies the mitigation hierarchy for impacts to resources and their values, services, and functions at the relevant scale, however narrow or broad, necessary to sustain, or otherwise achieve, established goals for those resources and their values, services, and functions. A landscape-scale approach should be used when developing and approving strategies or plans, reviewing projects, or issuing permits. The approach identifies the needs and baseline conditions of targeted resources and their values, services, and functions, reasonably foreseeable impacts, cumulative impacts of past and likely projected disturbance to those resources, and future disturbance trends. The approach then uses such information to identify priorities for avoidance, minimization, and compensatory mitigation measures across that relevant area to provide the maximum benefit to the impacted resources and their values, services, and functions, with full consideration of the conditions of additionality and durability.

**Landscape-scale strategies and plans.** For the purposes of this Policy, landscape-scale strategies and plans identify clear management objectives for targeted resources and their values, services, and functions at landscape-scales, as necessary, including across administrative boundaries, and employ the landscape-scale approach to identify, evaluate, and communicate how mitigation can best achieve those management objectives. Strategies serve to assist project applicants, stakeholders, and land managers in pre-planning as well as to inform NEPA analysis and decisionmaking, including decisions to develop and approve plans, review projects, and issue permits. Land use planning processes provide opportunities for identifying, evaluating, and communicating mitigation in advance of anticipated

land use activities. Consistent with their statutory authorities, land management agencies may develop landscape-scale strategies through the land use planning process, or incorporate relevant aspects of applicable and existing landscape-scale strategies into land use plans through the land use planning process.

**Mitigation.** In the context of this Policy, the noun “mitigation” is a label for all types of measures (see Mitigation Types) that a proponent would implement toward achieving the Service’s mitigation goal.

**Mitigation hierarchy.** The elements of mitigation, summarized as avoidance, minimization, and compensation, provide a sequenced approach to addressing the foreseeable impacts to resources and their values, services, and functions. First, impacts should be avoided by altering project design and/or location or declining to authorize the project; then minimized through project modifications and permit conditions; and, generally, only then compensated for remaining unavoidable impacts after all appropriate and practicable avoidance and minimization measures have been applied.

**Mitigation planning.** The process of assessing the effects of an action and formulating mitigation measures that would achieve the mitigation planning goal.

**Mitigation goal.** The Service’s goal for mitigation is to improve or, at minimum, maintain the current status of affected resources, as allowed by applicable statutory authority and consistent with the responsibilities of action proponents under such authority.

**Mitigation types.** General classes of methods for mitigating the impacts of an action (Council on Environmental Quality, 40 CFR 1508.20(a–e)), including:

- (a) Avoid the impact altogether by not taking the action or parts of the action;
- (b) minimize the impact by limiting the degree or magnitude of the action and its implementation;
- (c) rectify the impact by repairing, rehabilitating, or restoring the affected environment;
- (d) reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action; and
- (e) compensate for the impact by replacing or providing substitute resources or environments.

These five mitigation types, as enumerated by CEQ, are compatible with this Policy; however, as a practical matter, the mitigation elements are categorized into three general types that form a sequence: Avoidance,

minimization, and compensation for remaining unavoidable (also known as residual) impacts. Section 5.6 (Mitigation Means and Measures) of this Policy provides expanded definitions and examples for each of the mitigation types.

**Practicable.** Available and capable of being done after taking into consideration existing technology, logistics, and cost in light of a mitigation measure’s beneficial value and a land use activity’s overall purpose, scope, and scale.

**Proponent.** The agency(ies) proposing an action, and if applicable, any applicant(s) for agency funding or authorization to implement a proposed action.

**Resources.** Fish, wildlife, plants, and their habitats for which the Service has authority to recommend or require the mitigation of impacts resulting from proposed actions.

**Scarcity.** The relative spatial extent (e.g., rare, common, or abundant) of the habitat type in the landscape context.

**Suitability.** The relative ability of the affected habitat to support one or more elements of the evaluation species’ life history (reproduction, rearing, feeding, dispersal, migration, hibernation, or resting protected from disturbance, etc.) compared to other similar habitats in the landscape context. A habitat’s ability to support an evaluation species may vary over time.

**Unavoidable.** An impact is unavoidable when an appropriate and practicable alternative to the proposed action that would not cause the impact is not available.

## **Appendix A. Authorities and Direction for Service Mitigation Recommendations**

### *A. Relationship of Service Mitigation Policy to Other Policies, Regulations*

This section is intended to describe the interaction of existing policies and regulations with this Policy in agency processes. Descriptions regarding the application of mitigation concepts generally, and elements of this Policy specifically, for each of the listed authorities follow:

1. The Bald and Golden Eagle Protection Act (16 U.S.C. 668–668d) (Eagle Act)

The Eagle Act prohibits take of bald eagles and golden eagles except pursuant to Federal regulations. The Eagle Act regulations at title 50, part 22 of the Code of Federal Regulations (CFR), define the “take” of an eagle to include the following actions: “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb” (§ 22.3).

Except for protecting eagle nests, the Eagle Act does not directly protect eagle habitat. However, because disturbing eagles is a violation of the Act, some activities within



eagle habitat, including some habitat modification, can result in illegal take in the form of disturbance. "Disturb" is defined as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

The Eagle Act allows the Secretary of the Interior to authorize certain otherwise prohibited activities through regulations. The Service is authorized to prescribe regulations permitting the taking, possession, and transportation of bald and golden eagles provided such permits are "compatible with the preservation of the bald eagle or the golden eagle" (16 U.S.C. 668a). Permits are issued for scientific and exhibition purposes; religious purposes of Native American tribes; falconry (golden eagles only); depredation; protection of health and safety; golden eagle nest take for resource development and recovery; nonpurposeful (incidental) take; and removal or destruction of eagle nests.

The Eagle Act provides for mitigation in the form of avoidance and minimization by restricting permitted take to circumstances where take is "necessary." While not expressly addressed, compensatory mitigation can also be used as a tool for ensuring that authorized take is consistent with the preservation standard of the Eagle Act. The regulations for eagle nest take permits and eagle non-purposeful incidental take permits explicitly provide for compensatory mitigation. Although eagle habitat (beyond nest structures) is not directly protected by the Eagle Act, the statute and implementing regulations do not preclude the use of habitat restoration, enhancement, and protection as compensatory mitigation.

At the time of development of this Appendix A, the threshold for authorized take of golden eagles is set at zero throughout the United States because golden eagle populations appear to be stable and potentially declining, and may not be able to absorb additional take while still maintaining current numbers of breeding pairs over time. Accordingly, all permits for golden eagle take must incorporate compensatory mitigation. Because golden eagle populations are currently primarily constrained by a high level of unauthorized human-caused mortality, rather than habitat loss, permits for golden eagle take require mitigation to be in the form of a reduction of a source of mortality; however, habitat restoration and enhancement could potentially offset permitted take in some situations, once reliable standards and metrics are developed to support the application of habitat-based mitigation to offset permitted take.

## 2. Clean Water Act (33 U.S.C. 1251 *et seq.*)

Several locations within the statute under section 404 describe the responsibilities and roles of the Service. The authority at section 404(m) is most directly relevant to the Service's engagement of Clean Water Act permitting processes to recommend mitigation for impacts to aquatic resources

nationwide and is routinely used by Ecological Services Field Offices. At section 404(m), the Secretary of the Army is required to notify the Secretary of the Interior, through the Service Director, that an individual permit application has been received or that the Secretary proposes to issue a general permit. The Service will submit any comments in writing to the Secretary of the Army (Corps of Engineers) within 90 days. The Service has the opportunity to engage several thousand Corps permit actions affecting aquatic habitats and wildlife annually and to assist the Corps of Engineers in developing permit terms that avoid, minimize, or compensate for permitted impacts. The Department of the Army has also entered into a Memorandum of Agreement with the Department of the Interior under section 404(q) of the Clean Water Act. The current Memorandum of Agreement, signed in 1992, provides procedures for elevating national or regional issues relating to resources, policy, procedures, or regulation interpretation.

## 3. Endangered Species Act of 1973, as Amended (16 U.S.C. 1531 *et seq.*)

A primary purpose of the Endangered Species Act (ESA) of 1973 as amended (16 U.S.C. 1531 *et seq.*) is to conserve the ecosystems upon which species listed as endangered and threatened depend. Conserving listed species involves the use of all methods and procedures that are necessary for their recovery, which includes mitigating the impacts of actions to listed species and their habitats. All actions must comply with the applicable prohibitions against taking endangered animal species under ESA section 9 and taking threatened animal species under regulations promulgated through ESA section 4(d). Under ESA section 7(a)(2), Federal agencies must consult with the Service(s) to ensure that any actions they fund, authorize, or carry out are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitat. Federal agencies, and any permit or license applicants, may be exempted from the prohibitions against incidental taking for actions that are not likely to jeopardize the continued existence of the species or result in the destruction or adverse modification of designated critical habitat, if the terms and conditions of the incidental take statement are implemented.

The Service may permit incidental taking resulting from a non-Federal action under ESA section 10(a)(1)(B) after approving the proponent's habitat conservation plan (HCP) under section 10(a)(2)(A). The HCP must specify the steps the permit applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps. The basis for issuing a section 10 permit includes a finding that the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of incidental taking, and a finding that the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.

This Policy applies to all actions that may affect ESA-protected resources except for conservation/recovery permits under section

10(a)(1)(A). The Service will recommend mitigation for impacts to listed species, designated critical habitat, and other species for which the Service has authorized mitigation responsibilities consistent with the guidance of this Policy, which proponents may adopt as conservation measures to be added to the project descriptions of proposed actions. Such adoption may ensure that actions are not likely to jeopardize species or adversely modify designated critical habitat; however, such adoption alone does not constitute compliance with the ESA. Federal agencies must complete consultation per the requirements of section 7 to receive Service concurrence with "may affect, not likely to adversely affect" determinations, biological opinions for "likely to adversely affect" determinations, and incidental take statement terms and conditions. Proponents of actions that do not require Federal authorization or funding must complete the requirements under section 10(a)(2) to receive an incidental take permit. Mitigation planning under this Policy applies to all species and their habitats for which the Service has authorities to recommend mitigation on a particular action, including listed species and critical habitat. Although this Policy is intended, in part, to clarify the role of mitigation in endangered species conservation, nothing herein replaces, supersedes, or substitutes for the ESA implementing regulations.

All forms of mitigation are potential conservation measures of a proposed Federal action in the context of section 7 consultation and are factored into Service analyses of the effects of the action, including any voluntary mitigation measures proposed by a project proponent that are above and beyond those required by an action agency. Service regulations at 50 CFR 402.14(g)(8) affirm the need to consider "any beneficial actions" in formulating a biological opinion, including those "taken prior to the initiation of consultation." Because jeopardy and adverse modification analyses weigh effects in the action area relative to the status of the species throughout its listed range and to the status of all designated critical habitat units, respectively, "beneficial actions" may also include proposed conservation measures for the affected species within its range but outside of the area of adverse effects (*e.g.*, compensation).

Mitigation measures included in proposed actions that avoid and minimize the likelihood of adverse effects and incidental take are also relevant to the Service's concurrence with "may affect, not likely to adversely affect" determinations through informal consultation. All mitigation measures included in proposed actions that benefit listed species and/or designated critical habitat, including compensatory measures, are relevant to jeopardy and adverse modification conclusions in Service biological opinions.

Likewise, the Service may apply all forms of mitigation, consistent with the guidance of this Policy, in formulating a reasonable and prudent alternative that would avoid jeopardy/adverse modification, provided that it is also consistent with the regulatory



definition of a reasonable and prudent alternative at 50 CFR 402.02. It is preferable to avoid or minimize impacts to listed species or critical habitat before rectifying, reducing over time, or compensating for such impacts. Under some limited circumstances, however, the latter forms of mitigation may provide all or part of the means to achieving the best possible conservation outcome for listed species consistent with the purpose, authority, and feasibility requirements of a reasonable and prudent alternative.

For Federal actions that are not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of habitat, the Service may provide a statement specifying those reasonable and prudent measures that are necessary or appropriate to minimize the impacts of taking incidental to such actions on the affected listed species. That incidental take statement must comply with all applicable regulations. No proposed mitigation measures relieve an action proponent of the obligation to obtain incidental take exemption through an incidental take statement (Federal actions) or authorization through an incidental take permit (non-Federal actions), as appropriate, for unavoidable incidental take that may result from a proposed action.

#### 4. Executive Order 13186 (E.O. 13186), Responsibilities of Federal Agencies To Protect Migratory Birds

E.O. 13186 directs Federal departments and agencies to avoid or minimize adverse impacts on “migratory bird resources,” defined as “migratory birds and the habitats upon which they depend.” These acts of avian protection and conservation are implemented under the auspices of the MBTA, the Eagle Act, the Fish and Wildlife Coordination Act (16 U.S.C. 661–666c), the ESA, the National Environmental Policy Act, and “other established environmental review process” (section 3(e)(6)). Additionally, E.O. 13186 directs Federal agencies whose activities will likely result in measurable negative effects on migratory bird populations to collaboratively develop and implement an MOU with the Service that promotes the conservation of migratory bird populations. These MOUs can clarify how an agency can mitigate the effects of impacts and monitor implemented conservation measures. MOUs can also define how appropriate corrective measures can be implemented when needed, as well as what proactive conservation actions or partnerships can be formed to advance bird conservation, given the agency’s existing mission and mandate.

The Service policy regarding its responsibility to E.O. 13186 (720 FW 2) states “all Service employees should: A. Implement their mission-related activities and responsibilities in a way that furthers the conservation of migratory birds and minimizes and avoids the potential adverse effects of migratory bird take, with the goal of eliminating take” (2.2 A). The policy also stipulates that the Service will support the conservation intent of the migratory bird conventions by integrating migratory bird conservation measures into our activities, including measures to avoid or minimize

adverse impacts on migratory bird resources; restoring and enhancing the habitat of migratory birds; and preventing or abating the pollution or detrimental alteration of the environment for the benefit of migratory birds.

#### 5. Executive Order 13653 (E.O. 13653), Preparing the United States for the Impacts of Climate Change

E.O. 13653 directs Federal agencies to improve the Nation’s preparedness and resilience to climate change impacts. The agencies are to promote: (1) Engaged and strong partnerships and information sharing at all levels of government; (2) risk-informed decisionmaking and the tools to facilitate it; (3) adaptive learning, in which experiences serve as opportunities to inform and adjust future actions; and (4) preparedness planning.

Among the provisions under section 3, *Managing Lands and Waters for Climate Preparedness and Resilience*, is this: “agencies shall, where possible, focus on program and policy adjustments that promote the dual goals of greater climate resilience and carbon sequestration, or other reductions to the sources of climate change . . . [a]gencies shall build on efforts already completed or underway . . . as well as recent interagency climate adaptation strategies.” Section 5 specifies that agencies shall develop or continue to develop, implement, and update comprehensive plans that integrate consideration of climate change into agency operations and overall mission objectives.

The *Priority Agenda: Enhancing The Climate Resilience of America’s Natural Resources* (October 2014), called for in E.O. 13653, includes provisions to develop and provide decision support tools for “climate-smart natural resource management” that will improve the ability of agencies and landowners to manage for resilience to climate change impacts.

The Service policy on climate change adaptation (056 FW 1) states that the Service will “effectively and efficiently incorporate and implement climate change adaptation measures into the Service’s mission, programs, and operations.” This includes using the best available science to coordinate an appropriate adaptive response to impacts on fish, wildlife, plants, and their habitats. The policy also specifically calls for delivering landscape conservation actions that build resilience or support the ability of fish, wildlife, and plants to adapt to climate change.

#### 6. Federal Power Act (16 U.S.C. 791–828c) (FPA)

The Federal Energy Regulatory Commission (FERC) authorizes non-Federal hydropower projects pursuant to the FPA. The Service’s roles in hydropower project review are primarily defined by the FPA, as amended in 1986 by the Electric Consumers Protection Act, which explicitly ascribes those roles to the Service. The Service has mandatory conditioning authority for projects on National Wildlife Refuge System lands under section 4(e) and to prescribe fish passage to enhance and protect native fish runs under section 18. Under section 10(j),

FERC is required to include license conditions that are based on recommendations made pursuant to the Fish and Wildlife Coordination Act by States, NOAA, and the Service for the adequate and equitable protection, mitigation, and enhancement of fish, wildlife, and their habitats.

#### 7. Fish and Wildlife Conservation Act (16 U.S.C. 2901–2912)

Specifically, Federal Conservation of Migratory Nongame Birds (16 U.S.C. 2912) requires the Service to “identify the effects of environmental changes and human activities on species, subspecies, and populations of all migratory nongame birds” (section 2912(2)); “identify conservation actions to assure that species, subspecies, and populations of migratory nongame birds . . . do not reach the point at which the measures provided pursuant to the Endangered Species Act of 1973, as amended (16 U.S.C. 1531–1543), become necessary” (section 2912(4)); and “identify lands and waters in the United States and other nations in the Western Hemisphere whose protection, management, or acquisition will foster the conservation of species, subspecies, and populations of migratory nongame birds. . . .” (section 2912(5)).

#### 8. Fish and Wildlife Coordination Act (16 U.S.C. 661–667e) (FWCA)

The FWCA requires Federal agencies developing water-related projects to consult with the Service, NOAA, and the States regarding fish and wildlife impacts. The FWCA establishes fish and wildlife conservation as a coequal objective of all federally funded, permitted, or licensed water-related development projects. Federal action agencies are to include justifiable means and measures for fish and wildlife, and the Service’s mitigation and enhancement recommendations are to be given full and equal consideration with other project purposes. The Service’s mitigation recommendations may include measures addressing a broad set of habitats beyond the aquatic impacts triggering the FWCA and taxa beyond those covered by other resource laws. Action agencies are not bound by the FWCA to implement Service conservation recommendations in their entirety.

#### 9. Marine Mammal Protection Act of 1972, as Amended (16 U.S.C. 1361 *et seq.*) (MMPA)

The MMPA prohibits the take (*i.e.*, hunting, killing, capture, and/or harassment) of marine mammals and enacts a moratorium on the import, export, and sale of marine mammal parts and products. There are exemptions and exceptions to the prohibitions. For example, under section 101(b), Alaskan Natives may hunt marine mammals for subsistence purposes and may possess, transport, and sell marine mammal parts and products. However, this section focuses on incidental take authorizations for non-commercial fishing activities.

Section 101(a)(5) allows for the authorization of incidental, but not intentional, take of small numbers of marine mammals by U.S. citizens while engaged in a specified activity (other than commercial fishing) within a specified geographical

region, provided certain findings are made. Specifically, the Service must make a finding that the total of such taking will have a negligible impact on the marine mammal species and will not have an unmitigable adverse impact on the availability of these species for subsistence uses. Negligible impact is defined at 50 CFR 18.27(c) as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.” Unmitigable adverse impact, which is also defined at 50 CFR 18.27(c), means “an impact resulting from the specified activity that is likely to reduce the availability of the species to a level insufficient for a harvest to meet subsistence needs by (i) causing the marine mammals to abandon or avoid hunting areas, (ii) directly displacing subsistence users, or (iii) placing physical barriers between the marine mammals and the subsistence hunters; and (2) cannot be sufficiently mitigated by other measures to increase the availability of marine mammals to allow subsistence needs to be met.”

Section 101(a)(5)(A) of the MMPA provides for the promulgation of Incidental Take Regulations (ITRs), which can be issued for a period of up to 5 years. The ITRs set forth permissible methods of taking pursuant to the activity and other means of effecting the least practicable adverse impact on the species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for subsistence uses. In addition, ITRs include requirements pertaining to the monitoring and reporting of such takings.

Under the ITRs, a U.S. citizen may request a Letter of Authorization (LOA) for activities proposed in accordance with the ITRs. The Service evaluates each LOA request based on the specific activity and geographic location, and determines whether the level of taking is consistent with the findings made for the total taking allowable under the applicable ITRs. If so, the Service may issue an LOA for the project and will specify the period of validity and any additional terms and conditions appropriate to the request, including mitigation measures designed to minimize interactions with, and impacts to, marine mammals. The LOA will also specify monitoring and reporting requirements to evaluate the level and impact of any taking. Depending on the nature, location, and timing of a proposed activity, the Service may require applicants to consult with potentially affected subsistence communities in Alaska and develop additional mitigation measures to address potential impacts to subsistence users. Regulations specific to LOAs are codified at 50 CFR 18.27(f).

Section 101(a)(5)(D) established an expedited process to request authorization for the incidental, but not intentional, take of small numbers of marine mammals for a period of not more than one year if the taking will be limited to harassment, *i.e.*, Incidental Harassment Authorizations (IHAs). Harassment is defined in section 3 of the MMPA (16 U.S.C. 1362). For activities other than military readiness activities or scientific

research conducted by or on behalf of the Federal Government, harassment means “any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild” (the MMPA calls this Level A harassment) “or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to migration, breathing, nursing, breeding, feeding, or sheltering” (the MMPA calls this Level B harassment). There is a separate definition of harassment applied in the case of a military readiness activity or a scientific research activity conducted by or on behalf of the Federal Government. In addition, “small numbers” and “specified geographical region” requirements do not apply to military readiness activities.

The IHA prescribes permissible methods of taking by harassment and includes other means of effecting the least practicable impact on marine mammal species or stocks and their habitats, paying particular attention to rookeries, mating grounds, and areas of similar significance. In addition, as appropriate, the IHA will include measures that are necessary to ensure no unmitigable adverse impact on the availability of the species or stock for subsistence purposes in Alaska. IHAs also specify monitoring and reporting requirements pertaining to the taking by harassment.

ITRs and IHAs can provide considerable conservation and management benefits to covered marine mammals. The Service shall recommend mitigation for impacts to species covered by the MMPA that are under its jurisdiction consistent with the guidance of this Policy and to the extent compatible with the authorities of the MMPA. Proponents may adopt these recommendations as components of proposed actions. However, such adoption itself does not constitute compliance with the MMPA. In addition, IHAs or LOAs issued under ITRs specify the permissible methods of taking and other means of effecting the least practicable adverse impact on the species or stock and its habitat, and on the availability for subsistence purposes. Those authorizations also outline required monitoring and reporting of takes.

10. Migratory Bird Treaty Act (16 U.S.C. 703–712) (MBTA)

The MBTA does not allow the take of migratory birds without a permit or other regulatory authorization (*e.g.*, rule, depredation order). The Service has express authority to issue permits for purposeful take and currently issues several types of permits for purposeful take of individuals (*e.g.*, hunting, depredation, scientific collection). Hunting permits do not require the mitigation hierarchy be enacted; rather, the Service sets annual regulations that limit harvest to ensure levels harvested do not diminish waterfowl breeding populations. For purposeful take permits that are not covered in these annual regulations (*e.g.*, depredation, scientific collection), there is an expectation that take be avoided and minimized to the maximum extent practicable as a condition of the take authorization process. Compensation and

offsets are not required under these purposeful take permits, but can be accepted.

The Service has implied authority to permit incidental take of migratory birds, though incidental take has only been authorized in limited situations (*e.g.*, Department of Defense Readiness Rule and the NOAA Fisheries Special Purpose Permit). In all situations, permitted or unpermitted, there is an expectation that take be avoided and minimized to the maximum extent practicable, and voluntary offsets can be employed to this end. However, the Service cannot legally require or accept compensatory mitigation for unpermitted, and thus illegal, take of individuals. While action proponents are expected to reduce impacts to migratory bird habitat, such impacts are not regulated under the MBTA. As a result, action proponents are allowed to use the full mitigation hierarchy to manage impacts to their habitats, regardless of whether or not a permit for take of individuals is in place. Assessments of action effects should examine direct, indirect, and cumulative impacts to migratory bird habitats, as habitat losses have been identified as a critical factor in the decline of many migratory bird species.

11. National Environmental Policy Act (42 U.S.C. 4321 *et seq.*) (NEPA)

NEPA requires Federal agencies to integrate environmental values into decisionmaking processes by considering impacts of their proposed actions and reasonable alternatives. Agencies disclose findings through an environmental assessment or a detailed environmental impact statement and are required to identify and include all relevant and reasonable mitigation measures that could improve the action. The Council on Environmental Quality’s implementing regulations under NEPA define mitigation as a sequence, where mitigation begins with avoidance of impacts; followed by minimization of the degree or magnitude of impacts; rectification of impacts through repair, restoration, or rehabilitation; reducing impacts over time during the life of the action; and lastly, compensation for impacts by providing replacement resources. Effective mitigation through this ordered approach starts at the beginning of the NEPA process, not at the end. Implementing regulations require that the Service be notified of all major Federal actions affecting fish and wildlife and our recommendations solicited. Engaging this process allows the Service to provide comments and recommendations for mitigation of fish and wildlife impacts.

12. National Wildlife Refuge Mitigation Policy (64 FR 49229–49234, September 10, 1999) (Refuge Mitigation Policy)

The Service’s Final Policy on the National Wildlife Refuge System and Compensatory Mitigation under the section 10/404 Program establishes guidelines for the use of Refuge lands for siting compensatory mitigation for impacts permitted through section 404 of the Clean Water Act (CWA) and section 10 of the Rivers and Harbors Act (RHA). The Refuge Mitigation Policy clarifies that siting mitigation for off-Refuge impacts on Refuge lands is appropriate only in limited and

exceptional circumstances. Mitigation banks may not be sited on Refuge lands, but the Service may add closed banks to the Refuge system if specific criteria are met. The Refuge Mitigation Policy, which explicitly addresses only compensatory mitigation under the CWA and RHA, remains in effect and is unaltered by this Policy. However, the Service will evaluate all proposals for using Refuge lands as sites for other compensatory mitigation purposes using the criteria and procedures established for aquatic resources in the Refuge Mitigation Policy (e.g., to locate compensatory mitigation on Refuge property for off-Refuge impacts to endangered or threatened species).

### 13. Natural Resource Damage Assessment and Restoration (NRDAR)

Under the Oil Pollution Act (33 U.S.C. 2701 *et seq.*) (OPA) and the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601) (CERCLA), as amended by Public Law 99-499, when a release of hazardous materials or an oil spill injures natural resources under the jurisdiction of State, tribal, and Federal agencies, these governments quantify injuries to determine appropriate restoration necessary to compensate the public for losses of those resources or their services. Nothing in this Policy supersedes the statutes and regulations governing the natural resource damage provisions of CERCLA, OPA, and the CWA.

The Service is often a participating bureau, supporting the Department of the Interior, during NRDAR. A restoration settlement, in the form of damages provided through a settlement document, is usually determined by quantifying the type and amount of restoration necessary to offset the injury caused by the spill or release. The type of restoration conducted depends on the resources injured by the release (e.g., marine habitats, ground water, or biological resources (fish, birds)).

In the *Presidential Memorandum on Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment* (November 3, 2015), DOI is charged with developing guidance describing considerations for evaluating whether, where, and when tools and techniques used in mitigation—including restoration banking or advance restoration projects—would be appropriate as components of a restoration plan resolving natural resource damage claims. Pending promulgation of that guidance, the tools provided in section 5 maintain the flexibility to implement the appropriate restoration to restore injured resources under the jurisdiction of multiple governments, by providing support for weighing or modifying project elements to reach Service goals.

### B. Additional Legislative Authorities

1. Clean Air Act; 42 U.S.C. 7401 *et seq.*, as amended (See <http://www.fws.gov/refuges/airquality/permits.html>)
2. Marine Protection, Research, and Sanctuaries Act; 16 U.S.C. 1431 *et seq.* and 33 U.S.C. 1401 *et seq.*
3. Resource Conservation and Recovery Act; 42 U.S.C. 6901 *et seq.*
4. Shore Protection Act; 33 U.S.C. 2601 *et*

*seq.*

5. Coastal Zone Management Act; 16 U.S.C. 1451 *et seq.*
6. Coastal Barrier Resources Act; 16 U.S.C. 3501
7. Surface Mining Control and Reclamation Act; 30 U.S.C. 1201 *et seq.*
8. National Wildlife Refuge System Administration Act; 16 U.S.C. 668dd, as amended
9. National Historic Preservation Act; 16 U.S.C. 470f
10. North American Wetlands Conservation Act; 16 U.S.C. 4401 *et seq.*
11. Pittman-Roberts Wildlife Restoration Act; 16 U.S.C. 669–669k
12. Dingell-Johnson Sport Fish Restoration Act; 16 U.S.C. 777–777n, except 777e–1 and g–1
13. Federal Land and Policy Management Act; 43 U.S.C. 1701 *et seq.*

### C. Implementing Regulations

1. National Environmental Policy Act (NEPA), 40 CFR part 1508, 42 U.S.C. 55
2. Marine Mammal Protection Act (MMPA), 50 CFR part 18, 16 U.S.C. 1361 *et seq.*
3. Migratory Bird Treaty Act (MBTA), 50 CFR part 21, 16 U.S.C. 703 *et seq.*
4. Bald and Golden Eagle Protection Act (Eagle Act), 50 CFR part 22, 16 U.S.C. 668 *et seq.*
5. Guidelines for Wetlands Protection, 33 CFR parts 320 and 332, 40 CFR part 230
6. Compensatory Mitigation for Losses of Aquatic Resources, 33 CFR parts 325 and 332 (USACE) and 40 CFR part 230 (EPA), 33 U.S.C. 1344
7. National Coastal Wetlands Conservation Grants, 16 U.S.C. 3954, 50 CFR part 84
8. Natural Resource Damage Assessments (OPA), 15 CFR part 990, 33 U.S.C. 2701 *et seq.*
9. Natural Resource Damage Assessments (CERCLA), 43 CFR part 11, 42 U.S.C. 9601
10. Endangered Species Act of 1973, as amended; 50 CFR parts 13, 17 (specifically §§ 17.22, 17.32, 17.50), part 402; 16 U.S.C. 1531 *et seq.*
11. Powers of the Secretary (43 U.S.C. 1201), 43 CFR part 24

### D. Executive Orders

1. Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, January 10, 2001
2. Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, January 4, 1979
3. Executive Order 11988, Floodplain Management, May 24, 1977
4. Executive Order 11990, Protection of Wetlands, May 24, 1977
5. Executive Order 12898, Federal Actions To Address Environmental Justice in Minority and Low-Income Populations, February 11, 1994
6. Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance, October 5, 2009
7. Executive Order 13604, Improving Performance of Federal Permitting and Review of Infrastructure Projects, March 22, 2012

### E. Council on Environmental Quality (CEQ) Policy and Guidance

1. Guidance Regarding NEPA Regulations (48 FR 34236, July 28, 1983)
2. Designation of Non-Federal Agencies to be Cooperating Agencies in Implementing the Procedural Requirements of the National Environmental Policy Act (40 CFR 1508.5, July 28, 1999)
3. Cooperating Agencies in Implementing the Procedural Requirements of the National Environmental Policy Act (January 30, 2002)
4. Collaboration in NEPA, a Handbook for NEPA Practitioners (October 2007)
5. Memorandum, “Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact” (January 14, 2011)
6. “Memorandum on Environmental Collaboration and Conflict Resolution” (September 6, 2012)
7. NEPA and NHPA, a Handbook for Integrating NEPA and Section 106 (March 2013)
8. Memorandum for Heads of Federal Departments and Agencies, “Effective Use of Programmatic NEPA Reviews” (December 18, 2014)
9. Memorandum: “Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews” (August 1, 2016)

### F. Department of the Interior Policy and Guidance

1. Department of the Interior National Environmental Policy Act Procedures, 516 DM 1–7
2. Secretarial Order 3330, Improving Mitigation Policies and Practices of the Department of the Interior (October 31, 2013)
3. Secretarial Order 3206, American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act (June 5, 1997)
4. Department of the Interior Climate Change Adaptation Policy, 523 DM 1

### G. U.S. Fish and Wildlife Service (USFWS) Policy and Guidance:

1. Service Responsibilities to Protect Migratory Birds, 720 FW 2
2. Final Policy on the National Wildlife Refuge System and Compensatory Mitigation under the Section 10/404 Program, 64 FR 49229–49234, September 10, 1999
3. Habitat Conservation Planning and Incidental Take Permit Processing Handbook, 61 FR 63854, 1996
4. USFWS National Environmental Policy Act Reference Handbook, 505 FW 1.7 and 550 FW 1
5. Endangered Species Act Habitat Conservation Planning Handbook (with NMFS), 1996
6. Endangered Species Act Consultation Handbook (with NMFS), 1998
7. Inter-agency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities Under the Federal

Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act, 2002

8. Guidance for the Establishment, Use, and Operation of Conservation Banking, 2003
9. Endangered and Threatened Wildlife and Plants; Recovery Crediting Guidance, 2008
10. USFWS Tribal Consultation Handbook, 2011
11. Service Climate Change Adaptation Policy, 056 FW 1
12. USFWS Native American Policy, 510 FW 1

#### H. Other Agency Policy, Guidance, and Actions Relevant to Service Activities

1. Memorandum of Agreement Between the Department of the Army and the Environmental Protection Agency, The Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines, 1990
2. Federal Highway Administration, Consideration of Wetlands in the Planning of Federal Aid Highways, 1990
3. Clean Water Act Section 404(q) Memorandum of Agreement Between the Department of the Interior and the Department of the Army, 1992
4. Interagency Agreement between the National Park Service, Fish and Wildlife Service, Bureau of Land Management, and the Federal Aviation Administration Regarding Low-Level Flying Aircraft Over Natural Resource Areas, 1993
5. USFWS Memorandum from Acting Director to Regional Directors, Regarding "Partners for Fish and Wildlife Program and NEPA Compliance," 2002
6. Agreement between the U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers for Conducting Fish and Wildlife Coordination Act Activities, 2003
7. Memorandum of Agreement Between the U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers, 2003
8. Partnership Agreement between the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service for Water Resources and Fish and Wildlife, 2003
9. Memoranda of understanding with nine Federal agencies, under E.O. 13186, Responsibilities of Federal Agencies to Protect Migratory Birds (<http://www.fws.gov/migratorybirds/PartnershipsAndInitiatives.html>)

### Appendix B. Service Mitigation Policy and NEPA

This appendix addresses Service responsibilities for applying this Policy when we are formulating our own proposed actions under the NEPA decision making process. Service personnel may also use this appendix as guidance for providing mitigation recommendations when reviewing the proposed actions of other Federal agencies under NEPA. However, comments that we provide are advisory to other Federal agencies in the NEPA context as an agency with special expertise regarding mitigating impacts to fish and wildlife resources. Consistent with their authorities, action

agencies choose whether to adopt, in whole or in part, mitigation recommendations received from other agencies and the public, including the Service. Any requirements of other Federal agencies to mitigate impacts to fish and wildlife resources are governed by applicable statutes and regulations.

#### A. Mitigation in Environmental Review Processes

NEPA was enacted to promote efforts to prevent or eliminate damage to the environment and biosphere (42 U.S.C. 4321). The NEPA process is intended to help officials make decisions based on an understanding of environmental consequences and take actions that protect, restore, and enhance the environment (40 CFR part 1501). At the earliest stage possible in the planning process, and prior to making any detailed environmental review, the Service will "consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved." (42 U.S.C. 4332(C)) Early coordination avoids delays, reduces potential conflicts, and helps ensure compliance with other statutes and regulations. When scoping the issues for the review, the Service will "invite the participation of affected Federal, State, and local agencies, any affected Indian tribe, the proponent of the action, and other interested persons (including those who might not be in accord with the action on environmental grounds)." (40 CFR 1501.7(a)(1))

NEPA requires consideration of the impacts from connected, cumulative, and similar actions, and their relationship to the maintenance and enhancement of long-term productivity (42 U.S.C. 4332). Mitigation measures should be developed that effectively and efficiently address the predicted and actual impacts, relative to the ability to maintain and enhance long-term productivity. The consideration of mitigation (type, timing, degree, etc.) should be consistent with and based upon the evaluation of direct, indirect, and cumulative impacts. The Service should also consider and encourage public involvement in development of mitigation planning, including components such as compliance and effectiveness monitoring, and adaptive management processes.

Consistent with the January 14, 2011, CEQ Memorandum: Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impacts, Service-proposed actions should incorporate measures to avoid, minimize, rectify, reduce, and compensate for impacts into initial proposal designs and described as part of the action. Measures to achieve net gain or no-net-loss outcomes have the greatest potential to achieve environmentally preferred outcomes that are encouraged by the memorandum, and measures to achieve net gain outcomes have the greatest potential to enhance long-term productivity. We should analyze mitigation measures considered, but not incorporated into the proposed action, as one or more alternatives. For illustrative purposes, our NEPA documents may address mitigation

alternatives or consider mitigation measures that the Service does not have legal authority to implement. However, the Service should not commit to mitigation alternatives or measures considered or analyzed without sufficient legal authorities or sufficient resources to perform or ensure the effectiveness of the mitigation (CEQ 2011). The Service should monitor the compliance and effectiveness of our mitigation commitments. For applicant-driven actions, some or most of the responsibility for mitigation monitoring may lie with the applicant; however, the Service retains the ultimate responsibility to ensure that monitoring is occurring when needed and that the results of monitoring are properly considered in an adaptive management framework.

When carrying out its responsibilities under NEPA, the Service will apply the mitigation meanings and sequence in the NEPA regulations (40 CFR 1508.20). In particular, the Service will retain the ability to distinguish between:

- Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- rectifying the impact by repairing, rehabilitating, or restoring the affected environment; and
- reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

Minimizing impacts under NEPA is commonly applied at the planning design stage, prior to the action (and impacts) occurring. Rectification and reduction over time are measures applied after the action is implemented (even though they may be included in the plan). Therefore, under NEPA, there are often very different temporal scopes between minimization measures and those for rectification and reduction over time. These temporal differences can be important for developing and evaluating alternatives, analyzing indirect and cumulative impacts, and for designing and implementing effectiveness and compliance monitoring. Therefore, the Service will retain the ability to distinguish between these three mitigation types when doing so will improve the ability to take the requisite NEPA "hard look" at potential environmental impacts and reasonable alternatives to proposed actions.

Other statutes besides NEPA that compel the Service to address the possible environmental impacts of mitigation activities for fish and wildlife resources commonly include the National Historic Preservation Act of 1996 (NHPA) (16 U.S.C. 470 *et seq.*), as amended in 1992, the Federal Water Pollution Control Act (Clean Water Act) (33 U.S.C. 1251–1376), Fish and Wildlife Coordination Act (16 U.S.C. 661–667(e)), as amended (FWCA), and the Clean Air Act (42 U.S.C. 7401–7661). Service mitigation decisions should also comply with all applicable Executive Orders, including E.O. 13514, Federal Leadership in Environmental, Energy, and Economic Performance (October 5, 2009); E.O. 13653, Preparing the United States for the Impacts of Climate Change (November 1, 2013); and E.O. 12898, Federal Actions To Address Environmental Justice in Minority

Populations and Low-Income Populations. DOI Environmental Compliance Memorandum (ECM) 95-3 provides additional direction regarding responsibilities for addressing environmental justice under NEPA, including the equity of benefits and risks distribution.

### B. Efficient Mitigation Planning

The CEQ Regulations Implementing NEPA include provisions to reduce paperwork (§ 1500.4), delay (§ 1505.5), and duplication with State and local procedures (§ 1506.2) and combine documents in compliance with NEPA. A key component of the provisions to reduce paperwork directs Federal agencies to use environmental impact statements for programs, policies, or plans, and to tier from statements of broad scope to those of narrower scope, in order to eliminate repetitive discussions of the same issues (§§ 1501.1(i), 1502.4, and 1502.20). To the fullest extent possible, the Service should coordinate with State, tribal, local, and other Federal entities to conduct joint mitigation planning, research, and environmental review processes. Mitigation planning can also provide efficiencies when it is used to reduce the impacts of a proposed project to the degree it eliminates significant impacts and avoids the need for an environmental impact statement. When using this approach, employing a mitigated Finding of No Significant Impact (FONSI), the Service should ensure consistency with the aforementioned January 14, 2011, CEQ memorandum.

Use of this Policy will help focus our NEPA discussion on issues for fish, wildlife, plants, and their habitats, and will avoid unnecessarily lengthy background information. When appropriate, the Service should use the process for establishing evaluation species and resource categories to concentrate our environmental analyses on relevant and significant issues.

Programmatic NEPA reviews can establish standards for consideration and implementation of mitigation, and can more effectively address cumulative impacts. The programmatic NEPA reviews can facilitate decisions on agency actions that precede site- or project-specific decisions and actions, such as mitigation alternatives or commitments for subsequent actions, or narrowing of future alternatives. To ensure that landscape-scale mitigation planning is effectively implemented and meets conservation goals, as appropriate, the Service should seek and consider collaborative opportunities to conduct programmatic NEPA decisionmaking processes on Service actions that are similar in timing, impacts, alternatives, resources, and mitigation. The Service should consider developing standard mitigation protocols or objectives in a programmatic NEPA review in order to provide a framework and scope for the subsequent tiered analysis of environmental impacts. Existing landscape-scale conservation and mitigation plans that have already undergone a NEPA process will provide efficiencies for Federal actions taken on a project-specific basis and will also better address potential cumulative impacts. However, the Service may incorporate plans

or components of plans by reference (40 CFR 1502.21), while addressing impacts from plans or components within the NEPA process on the Service action. When considering programmatic NEPA reviews, the Service should adopt approaches consistent with the December 18, 2014, CEQ Memorandum: Effective Use of Programmatic NEPA Reviews.

Appropriate treatment of climate change in NEPA reviews is essential to development of meaningful mitigation. The Service approach should be consistent with the August 1, 2016, CEQ Memorandum: Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews, which guides the consideration of reasonable alternatives and recommends agencies consider the short- and long-term effects and benefits in the alternatives and mitigation analysis.

### C. Collaboration

Collaboration is an important component of mitigation planning, especially at the landscape or programmatic level. A collaborative NEPA process can offer the Service many benefits regarding development and implementation of mitigation, including, but not limited to: Better information regarding mitigation options by accessing relevant scientific and technical expertise and knowledge relating to local resources; a fairer process by involving most or all interests involved in determining mitigation; conflict prevention by dealing with issues related to mitigation as they arise; and easier implementation because all the stakeholders feel vested in the implementation of mitigation. Therefore, when considering and engaging in collaboration, the Service should, to the extent applicable, utilize the principles and recommendations set forth in the Office of Management and Budget and CEQ Memorandum on Environmental Collaboration and Conflict Resolution (2012) and the CEQ handbook, *Collaboration in NEPA—a Handbook for NEPA Practitioners* (2007).

### D. NEPA and Tribal Trust Responsibilities

NEPA also provides a process through which all Tribal Trust responsibilities can be addressed simultaneous to consultation, but care should be taken to ensure that culturally sensitive information is not disclosed. Resources that may be impacted by Service actions or mitigation measures include culturally significant or sacred landscapes, species associated with those landscapes, or species that are separately considered culturally significant or sacred. The Service should coordinate or consult with affected tribes to develop methods for evaluating impacts, significance criteria, and meaningful mitigation to sacred or culturally significant species and their locales. Because climate change has been identified as an Environmental Justice (EJ) issue for tribes, adverse climate change-related effects to culturally significant or sacred landscapes or species may be cumulatively greater, and may indicate the need for a separate EJ analysis. Affected tribes can be those for

which the locale of the action or landscape mitigation planning lies within traditional homelands and can include traditional migration areas. The final determination of whether a tribe is affected is made by the tribe, and should be ascertained during consultation or a coordination process. When government-to-government consultation takes place, the consultation process will be guided by the Service Tribal Consultation Handbook.

The Service has overarching Tribal Trust Doctrine responsibilities under the Eagle Act, the National Historic Preservation Act (NHPA), the American Indian Religious Freedom Act (AIRFA) (42 U.S.C. 1996), Religious Freedom Restoration Act of 1993 (RFRA) (42 U.S.C. 2000bb *et seq.*), Secretarial Order 3206, American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, the Endangered Species Act (June 5, 1997), Executive Order 13007, Indian Sacred Sites (61 FR 26771, May 29, 1996), and the USFWS Native American Policy. Government-wide statutes with requirements to consult with tribes include the Archeological Resources Protection Act of 1979 (ARPA) (16 U.S.C. 470aa-mm), the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. 3001 *et seq.*), and AIRFA. Regulations with requirements to consult include NAGPRA, NHPA, and NEPA. As required, the Service will initiate Section 106 consultation with Indian tribes during early planning for FWS proposed actions, to ensure their rights and concerns are incorporated into project design. Consultation will continue throughout all stages of the process, including during consideration of mitigation.

### E. Integrating the Mitigation Policy Into the NEPA Process

When the Service is the lead or co-lead Federal agency for NEPA compliance, this Policy may inform several components of the NEPA process and make it more effective and more efficient in conserving the affected Federal trust resources. This section discusses the role of this Policy in Service decisionmaking under NEPA.

#### Scoping

The Service should use internal and external scoping to help identify appropriate evaluation species, obtain information about the relative scarcity, suitability, and importance of affected habitats for resource category assignments, identify issues associated with these species and habitats, and identify issues associated with other affected resources. Climate change vulnerability assessments can be a valuable tool for identifying or screening new evaluation species. The Service should coordinate external scoping with agencies having special expertise or jurisdiction by law for the affected resources.

#### Purpose and Need

The purpose and need statement of the NEPA document should incorporate relevant conservation objectives for evaluation species and their habitats, and the need to ensure either a net gain or no-net-loss. Because the statement of purpose and need frames the development of the proposed action and

alternatives, including conservation objectives from the beginning, it steers action proposals away from impacts that may otherwise necessitate mitigation. Addressing conservation objectives in the purpose statement initiates a planning process in which the proposed action and all reasonable alternatives evaluated necessarily include appropriate conservation measures, differing in type or degree, and avoids presenting decisionmakers with a choice between a “conservation alternative” and a “no conservation alternative.”

#### Alternatives

The alternatives should include, as appropriate, an alternative that includes design components or mitigation measures to achieve a net benefit for affected resources and an alternative that includes design components or mitigation measures to achieve no-net-loss of affected resources. Alternatives that include provisions for mitigation based upon different climate change projections will help guide the development of appropriate responses, and will facilitate the ability to change mitigation responses more quickly to ones already analyzed but not previously adopted.

#### Affected Environment

The affected environment discussion should focus on significant environmental issues associated with evaluation species and their habitats and highlight resource vulnerabilities that may require mitigation features in the project design. This section should document the relative scarcity, suitability, and importance of affected habitats, along with the sensitivity and status of the species and habitats. It should identify relevant temporal and spatial scales for each resource and the appropriate indicators of effects and units of measurement for evaluating mitigation features. This section should also identify habitats for evaluation species that are currently degraded but have a moderate to high potential for restoration or improvement.

#### Significance Criteria

Explicit significance criteria provide the benchmarks or standards for evaluating effects under NEPA. Potentially significant impacts to resources require decisionmaking supported by an environmental impact statement. Determining significance considers both the context and intensity of effects. For resources covered by this Policy, the sensitivity and status of affected species, and the relative scarcity, suitability, and importance of affected habitats, provide the context component of significance criteria. Measures of the severity of effects (degree, duration, spatial extent, etc.) provide the intensity component of significance criteria. Significance criteria may help identify appropriate levels and types of mitigation; however, the Service should consider mitigation for impacts that do not exceed thresholds for significance as well as those that do.

#### Analysis of Environmental Consequences

The analysis of environmental consequences should address the relationship of effects to the maintenance and enhancement of long-term productivity (40

CFR 1502.16), and include the timing and duration of direct, indirect, and cumulative effects to resources, short-term versus long-term effects (adverse and beneficial), and how the timing and duration of mitigation would influence net effects over time. The Service’s net gain goal for fish and wildlife resources under this Policy applies to the full planning horizon of a proposed action. Guidance under section V.B.3 (Assessment Principles) of this Policy supplements existing Service, Department, and government-wide guidance for the Service’s environmental consequences analyses for affected fish and wildlife resources under NEPA.

#### Cumulative Effects Analyses

The long-term benefits of mitigation measures, whether onsite or offsite relative to the proposed action, often depend on their placement in the landscape relative to other environmental resources and stressors. Therefore, cumulative effects analyses, including the effects of climate change, are especially important to consider in designing mitigation measures for fish and wildlife resources. Cumulative effects analyses should include consideration of direct and indirect effects of climate change and should incorporate mitigation measures to address altered conditions. Cumulative effects are doubly important in actions affecting species in decline, such as ESA-listed or candidate species, marine mammals, and Birds of Conservation Concern, for which the Service should design mitigation that will improve upon existing conditions and offset as much as practicable reasonably foreseeable adverse cumulative effects. Also, to the extent practicable, cumulative effects analyses should address the synergistic effects of multiple foreseeable resource stressors. For example, in parts of some western States, the combination of climate change, invasive grasses, and nitrogen deposition may substantially increase fire frequency and intensity, adversely affecting some resources to a greater degree than the sum of these stressors considered independently.

#### Analysis of Climate Change

The analyses of climate change effects should address effects to and changes for the evaluation species, resource categories, mitigation measures, and the potential for changes in the effects of mitigation measures. Anticipated changes may result in the need to choose different or additional evaluation species and habitat, at different points in time.

#### Decision Documents

Mitigation measures should be included as commitments within a Record of Decision (ROD) for an EIS, and within a mitigated FONSI. The decision documents should clearly identify: (a) Measures to achieve outcomes of no net loss or net gain; (b) the types of mitigation measures adopted for each evaluation species or suite of species; (c) the spatial and temporal application and duration of the measures; (d) compliance and effectiveness monitoring; (e) criteria for remedial action; and (f) unmitigable residual effects.

## Appendix C. Compensatory Mitigation in Financial Assistance Awards Approved or Administered by the U.S. Fish and Wildlife Service

The basic authority for Federal financial assistance is in the Federal Grant and Cooperative Agreement Act of 1977 (31 U.S.C. 6301 *et seq.*). It distinguishes financial assistance from procurement, and explains when to use a grant or a cooperative agreement as an instrument of financial assistance. Regulations at 2 CFR part 200 provide Government-wide rules for managing financial assistance awards. Each of the Service’s financial assistance programs has at least one statutory authority, which are listed in the Catalog of Federal Domestic Assistance at <http://www.cfda.gov/>. These statutory authorities and their program-specific regulations may supplement or create exceptions to the Government-wide regulations. The authorities and regulations for the vast majority of financial assistance programs do not address mitigation, but there are at least two exceptions. The statutory authority for the North American Wetlands Conservation Fund program (16 U.S.C. 4401 *et seq.*) prohibits the use of program funds for specific types of mitigation. Regulations implementing the National Coastal Wetlands Conservation Grant program (50 CFR part 84) include among the activities ineligible for funding the acquisition, restoration, enhancement, or management of lands to mitigate recent or pending habitat losses. Consistent with this Policy, the regulations at 50 CFR part 84 authorize the use of Natural Resource Damage Assessment funds as match in the National Coastal Wetlands Conservation Program. To foster consistent application of financial assistance programs with respect to mitigation processes, the following provisions describe appropriate circumstances as well as prohibitions for use of financial assistance in developing compensatory mitigation.

#### A. What is Federal financial assistance?

Federal financial assistance is the transfer of cash or anything of value from a Federal agency to a non-Federal entity to carry out a public purpose authorized by a U.S. law. If the Federal Government will be substantially involved in carrying out the project, the instrument for transfer must be a cooperative agreement. Otherwise, it must be a grant agreement. We use the term *award* interchangeably for a grant or cooperative agreement. This Policy applies only to awards approved or administered by the Service in one of its financial assistance programs. If the Service shares responsibility for approving or administering an award with another entity, this Policy applies only to those decisions that the Service has the authority to make under the terms of the shared responsibility.

#### B. Where do most mitigation issues occur in financial assistance?

Most mitigation issues in financial assistance relate to: (a) The proposed use of mitigation funds on land acquired with Federal financial assistance, and (b) using either mitigation funds or in-kind



contributions derived from mitigation, as match. Match is the share of project costs not paid by Federal funds, unless otherwise authorized by Federal statute. Most Service-approved or -administered financial assistance programs require or encourage applicants to provide match to leverage the Federal funds.

*C. Can the Federal or matching share in a financially assisted project be used to generate mitigation credits for activities authorized by Department of the Army (DA) permits?*

1. Neither the Federal nor matching share in financially assisted aquatic-resource-restoration projects or aquatic resource conservation projects can be used to generate mitigation credits for DA-authorized activities except as authorized by 33 CFR 332.3(j)(2) and 40 CFR 230.93(j)(2). These exceptional situations are any of the following:

a. The mitigation credits are solely the result of any match over and above the required minimum. This surplus match must supplement what will be accomplished by the Federal funds and the required-minimum match to maximize the overall ecological benefits of the restoration or conservation project.

b. The Federal funding for the award is statutorily authorized and/or appropriated for the purpose of mitigation.

c. The work funded by the financial assistance award is subject to a DA permit that requires mitigation as a condition of the permit. An example is an award that funds a boat ramp that will adversely affect adjacent wetlands and the impact must be mitigated. The recipient may pay the cost of the mitigation with either the Federal funds or the non-Federal match.

2. Match cannot be used to generate mitigation credits under the exceptional situations described in section C(1)(a-c) if the financial assistance program's statutory authority or program-specific regulations prohibit the use of match or program funds for compensatory mitigation.

*D. Can the Service approve a proposal to use the proceeds from the purchase of credits in an in-lieu-fee program or a mitigation bank as match?*

1. In-lieu-fee programs and mitigation banks are mechanisms authorized in 33 CFR part 332 and 40 CFR part 230 to provide mitigation for activities authorized by a DA permit. The Service must not approve a proposal to use proceeds from the purchase of credits in an in-lieu-fee program or mitigation bank as match unless both of the following apply:

a. The proceeds are over and above the required minimum match. This surplus match must supplement what will be accomplished by the Federal funds and the required-minimum match to maximize the overall ecological benefits of the project.

b. The statutory authority for the financial assistance program and program-specific regulations (if any) do not prohibit the use of match or program funds for mitigation.

2. The reasons that the Service cannot approve a proposal to use proceeds from the

purchase of credits in an in-lieu-fee program or mitigation bank as match except as described in section D(1)(a-b) are:

a. Proceeds from the purchase of credits are legally required compensation for resources or resource functions impacted elsewhere. The sponsor of the in-lieu-fee program or mitigation bank uses these proceeds for the restoration, establishment, enhancement, and/or preservation of the resources impacted. The purchase price of the credits is based on the full cost of providing the compensatory mitigation.

b. When credits are purchased from an in-lieu-fee program sponsor or a mitigation bank to compensate for impacts authorized by a DA permit, the responsibility for providing the compensatory mitigation transfers to the sponsor of the in-lieu-fee program or mitigation bank. The process is not complete until the sponsor provides the compensatory mitigation according to the terms of the in-lieu-fee program instrument or mitigation-banking instrument approved by the District Engineer of the U.S. Army Corps of Engineers.

*E. Can the Federal share or matching share in a financially assisted project be used to satisfy a mitigation requirement of a permit or legal authority other than a DA permit?*

The limitations on the use of mitigation in a Federal financially assisted project are generally the same regardless of the source of the mitigation requirement, but only the limitations regarding mitigation required by a DA permit are currently established in regulation. Limitations for a permit or authority other than a DA permit are established in this Policy. They are:

1. Neither the Federal nor matching share in a financially assisted project can be used to satisfy Federal mitigation requirements except in any of the following situations:

a. The mitigation credits are solely the result of any match over and above the required minimum. This surplus match must supplement what will be accomplished by the Federal funds and the required minimum match to maximize the overall ecological benefits of the project.

b. The Federal funding for the award is statutorily authorized and/or appropriated for use as compensatory mitigation for specific projects or categories of projects.

c. The project funded by the Federal financial assistance award is subject to a permit or authority that requires mitigation as a condition of the permit. An example is an award that funds a boat ramp that will adversely affect adjacent wetlands and the impact must be mitigated. The recipient may pay the cost of the mitigation with either the Federal funds or the non-Federal match.

2. Match cannot be used to satisfy Federal mitigation requirements under the exceptional situations described in section E(1)(a-c) if the financial assistance program's statutory authority or program-specific regulations prohibit the use of match or program funds for mitigation.

3. If any regulations govern the specific type of mitigation, and if these regulations address the role of mitigation in a Federal financially assisted project, the regulations will prevail in any conflict between those regulations and section E of Appendix C.

*F. Can the Service approve a proposal to use revenue from a Natural Resource Damage Assessment and Restoration (NRDAR) Fund settlement as match in a financial assistance award?*

1. The Service can approve such a proposal as long as the financial assistance program does not prohibit the use of match or program funds for compensatory mitigation. In certain cases, this revenue qualifies as match because:

a. Federal and non-Federal entities jointly recover the fees, fines, and/or penalties and deposit the fees, fines, and/or penalties as joint and indivisible recoveries into a fiduciary fund for this purpose.

b. The governing body of the NRDAR Fund may include Federal and non-Federal trustees, who must unanimously approve the transfer to a non-Federal trustee for use as non-Federal match.

c. The project is consistent with a negotiated settlement agreement and will carry out the provisions of the Comprehensive Environmental Response Compensation and Liability Act, as amended, Federal Water Pollution Control Act of 1972, and the Oil Pollution Act of 1990 for damage assessment activities.

d. The use of the funds by the non-Federal trustee is subject to binding controls.

*G. Can the Service approve financial assistance to satisfy mitigation requirements of State, tribal, or local governments?*

1. The Service may approve an award that satisfies a compensatory mitigation requirement of a State, tribal, or local government, if satisfying the mitigation requirement is incidental to a project purpose consistent with the purposes(s) of the program. It is solely the responsibility of the State, tribal, or local government to determine that its mitigation requirement has been satisfied and to submit any required certifications to that effect.

2. Satisfying a State, tribal, or local government mitigation requirement with Federal financial assistance or contributing match originating from such a requirement to a Federal award must not be contrary to any law, regulation, or policy of the State, tribal, or local government, as applicable.

*H. Can a project on land already designated for the conservation of natural resources generate credits for compensatory mitigation?*

1. A project on public, private, or federally recognized tribal lands already designated for conservation of natural resources can generate credits for compensatory mitigation if it meets the requirements of section 5.7.2. One of these requirements is that the benefits of the mitigation measures must be additional. If the authority for the compensatory mitigation is the Clean Water Act and if public land is proposed as the site of the project, it must also comply with 33 CFR 332.3(a)(3) and 40 CFR 230.93(a)(3), both of which read:

. . . Credits for compensatory mitigation projects on public land must be based solely on aquatic resource functions provided by the compensatory mitigation project, over and above those provided by public programs already planned or in place. . . .



Public land includes only those real property interests owned or held by Federal, State, and local governments, and instrumentalities of any of these governments.

To be either “additional” or “over and above,” the benefits must improve upon the baseline conditions of the impacted resources and their values, services, and functions in a manner that is demonstrably new and would not have occurred without the compensatory mitigation measure. Baseline conditions are: (a) Those that exist, and (b) those that a public land-management agency is foreseeably expected to implement absent the mitigation.

2. Examples of baseline conditions that a land-management agency or organization is foreseeably expected to implement are:

a. Management outcomes or environmental benefits required for a land-management unit by a statute, regulation, covenant in a deed, facility-management plan, or an integrated natural resources management plan, *e.g.*, (a) huntable populations of big game, (b) Class A wild trout populations at Class A densities, and (c) habitat diversity. When evaluating existing plans under sections H.2.a or b, the Service must defer to State and tribal plans to determine which additional benefits to count toward achieving the mitigation planning goal as long as the plans are consistent with Federal law and regulation and this Policy.

b. Management responsibilities assigned to an agency by statute, regulation, facility management plan, or integrated natural resources management plan, *e.g.*, (a) resource protection, (b) habitat management, and (c) fire management.

c. Commitments made under a financial-assistance award by the recipient, a subrecipient, or a partner to achieve certain management outcomes or environmental

benefits for a land-management unit. The source of the funding to carry out these commitments may be the awarding agency, a match provider, and/or other contributors.

3. Projects that are not part of annual operations and maintenance are not baseline conditions if they are unfunded and have little prospect of funding, even if these projects are authorized in a statute or called for in a plan. Examples of projects that may be authorized in a statute or called for in a plan, but may have little prospect for funding are: (a) Construction of a high-volume pump station, (b) demolition of a dam, (c) reforestation of 1,000 acres of former agricultural land, and (d) acquisition of real property.

4. If it is unclear whether the proposed mitigation would provide additional conservation benefits after considering the above guidance, financial assistance managers must use judgment in making a decision. The overarching principles in making this decision should be: (a) Consistency with regulations, and (b) avoidance of an unauthorized subsidy to anyone who has a legal obligation to compensate for the environmental impacts of a project.

5. Service staff must be involved in the decision to locate mitigation on real property acquired under a Service-approved or administered financial assistance award for one or both of the following reasons:

a. The Service has a responsibility to ensure that real property acquired under one of its financial assistance awards is used for its authorized purpose as long as it is needed for that purpose.

b. If the proposed legal arrangements or the site-protection instrument to use the land for mitigation would encumber the title, the recipient of the award that funded the acquisition of the real property must obtain

the Service’s approval. If the proposed legal arrangements would dispose of any real-property rights, the recipient must request disposition instructions from the Service.

*I. Does the Service’s Mitigation Policy affect financial assistance programs and awards managed by other Federal entities?*

1. This Policy affects only those Federal financial assistance programs and awards in which the Service has the authority to approve or disapprove applications for financial assistance or changes in the terms and conditions of an award. It also affects real property or equipment acquired or improved with a Service-administered financial assistance award where the recipient must continue to manage the real property or equipment for its originally authorized purpose as long as it is needed for those purposes.

2. The Policy has no effect on other Federal agencies’ policies on match or cost share as long as those policies do not affect:

a. Restrictions in the Policy on the use of Service-approved or administered financial assistance awards for generating compensatory mitigation credits, and  
b. the Service’s responsibilities as identified in Federal statutes or their implementing regulations.

3. This Policy does not take precedence over the requirements of any Federal statute or regulation whether that statute or regulation applies to a Service program or a program of another Federal agency.

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