

Summary of Key Difference between 2015 Presidential Memorandum on Mitigation and 2016 Fish and Wildlife Service Endangered and Threatened Wildlife and Plants; Endangered Species Act Compensatory Mitigation Policy

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We have undertaken a comparison of the 2015 Presidential Memorandum on Mitigation to the 2021 draft NOAA mitigation policy and 2016 FWS Compensatory Mitigation policy to serve as background as FWS considers new conservation banking policies. We review the 2016 policies on mitigation and compensatory mitigation because they form a strong platform on which to base conservation bank policies. They establish clear and consistent standards for achieving or exceeding no net loss of habitat, clarify how and when mitigation is appropriate, and establish guidance on equivalent standards for types of mitigation.

One priority for any regulation on conservation banking that is absent from the 2015 memo and from the 2016 policies: the FWS needs to establish processes by which bank proponents – and its own offices - can propose types of compensatory mitigation and the creation of credit quantification tools. For example, the 2008 EPA/Army Corps mitigation rule established the Interagency Review Team (IRT) process for this purpose. Furthermore, if banks are to have endowment and financing obligations written into regulation, that same regulation should describe the requirements that create the same standards on in lieu fee and permittee responsible compensatory projects.

Lastly, several standards of mitigation should be formally defined and incentivized in any conservation banking regulation: Additionality, durability, compensation in advance of impacts, and no net loss/net benefit goals are all important to ensuring successful and high-quality mitigation outcomes. Conservation banks should achieve additional benefits, with special attention to avoiding using public lands to offset impacts to private lands (except in rare circumstances). Durability should be further supported through requirements that financial endowments be sufficient to support long term stewardship.

The following table compares common compensatory mitigation principles with the content of the Presidential Memorandum, NOAA draft policy, and 2016 (rescinded) FWS compensatory mitigation policy.

	In conflict
	Not covered or barely mentioned in policy
	Some coverage but not extensive
	Extensive match with 2015 Presidential Memorandum and recognized mitigation principles

Mitigation Principle	2015 Presidential Memorandum	2021 NOAA policy	2016 FWS Compensatory Mitigation Policy
Irreplaceable natural resources	• Develop plans that identify irreplaceable resources • Define irreplaceable resources where only avoidance is appropriate • Recognizes that many irreplaceable natural resources are protected through existing laws	• Silent on irreplaceability • Generally, recommends avoidance with high value habitats and is silent on other types of resources (e.g., populations)	• Covered in general mitigation policy (habitats of high importance are irreplaceable or difficult to replace, 2016) but not in this policy (which is appropriate).
Net benefit and no net loss goals	• Minimum no net loss for sensitive resources, except where inconsistent with federal law • Seek a net benefit where allowed	• Equivalent language for no net loss • No mention of net benefit	• Called a ‘mitigation goal’ the policy has consistent language that says that while the agency may not require it, they can encourage federal agencies and applicants to seek a net benefit or at minimum, a no net loss, outcome for species.
Additionality	• Additionality should be considered by all federal agencies • Explicit recognition of additionality and process to consider it in all federal policies.	• No mention	• In section 5.4, requires that additionality be provided through all compensatory mitigation projects Demonstration of additionality is difficult on designated conservation land or public land but the Service will support it if additionality is clearly demonstrated and is legally attainable.
Advance compensation	• Agencies create a policy preference for advance compensation	• No mention	• Section 6.1.1 creates a clear preference for advance mitigation and makes clear that banks, fee programs and other arrangements can also provide ecological results in advance in

			ways that would qualify for the preference. Section 5.7.1. of the general mitigation policy creates a clear preference for advance compensatory mitigation.
Durability	- Requires consideration of durability - Defines as measurable environmental benefits that can be sustained for at least as long as the harm they are compensating continues	- Inconsistent with durability standard - Only requires compensatory measures to last a subjectively long time, not related to duration of impacts	- Defines the term and requires durability be ensured. - Includes a special section on public lands durability noting that durability is challenging for public land mitigation because its difficult to ensure site protection, financial assurances and long-term stewardship. - The general mitigation policy is consistent with this policy.
Clear and measurable process for mitigation and mitigation evaluation	- Set mitigation sequence (avoidance, minimization, compensation) - Measurable performance standards - Prioritize adequate compensation, long term financial assurances, and resilience of benefits related to climate change	- Set mitigation sequence (avoidance, minimization, compensation) - Common criteria and standards for banks - Prioritize durable, adaptable, and resilient compensatory measures	- Set mitigation sequence (avoidance, minimization, rectifying the impact, reducing or eliminating, and compensation); can be simplified to avoid, minimize, and compensate. - Measurable performance criteria (this policy uses the word criteria instead of standards but they appear to have the same definition). - General mitigation policy uses “standards” compared to “criteria” in this policy. - Prioritize how performance standards are applied, demonstrate priority for adequate compensation and durability assurances.

Treatment of different types of compensatory mitigation	• Hold all compensatory mitigation mechanisms to equivalent and effective standards	• No mention of holding permittee responsible, in lieu fee, or banks to equivalent standards	• Requires that all mitigation mechanisms be held to equivalent standards.
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Specific Text Reflecting Similarities and Differences Between [2015 Obama Memorandum](#), [2021 NOAA draft policy](#) and [2016 FWS Endangered Species Act Compensatory Mitigation Policy](#)

Mitigation Principle	2015 Obama Memo	2021 NOAA policy	2016 FWS ESA Compensatory Mitigation Policy
Avoid and minimize then “ensure that any remaining harmful effects” are addressed	<i>“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.”</i>	<i>“NOAA will follow the mitigation sequence by first considering avoidance, then minimization, and then compensatory or offsetting measures.”</i>	4b of FWS’s general mitigation policy states that it is a ‘fundamental principle’ of mitigation to, “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.” And, Section 5.5, Habitat Valuation, states, “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.” The Dec 2016 compensatory mitigation policy states: “The Service should coordinate with Federal agencies and encourage them to use their authorities under

			<i>appropriate statutes (e.g., Federal Land Policy and Management Act) to avoid, minimize, and offset adverse impacts to listed species and designated critical habitat using the full mitigation sequence. Compensation is a component of the mitigation sequence that can be applied to offset adverse effects of actions on listed species and critical habitat."</i>
Clear and consistent approach to compensatory mitigation	<i>"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."</i>	<i>"NOAA will endeavor to use timely and transparent processes that provide predictability and uniformity... NOAA also recognizes that under some authorities, such as section 404 of the Clean Water Act, strict adherence to the mitigation sequence is required."</i> Comment: No other mention of clear and consistent standards.	<i>"Adherence to the principles, standards, and guidance identified in this policy is expected to: (1) Provide greater clarity on applying compensatory mitigation to actions subject to ESA compliance requirements; (2) improve consistency and predictability in the implementation of the ESA by standardizing compensatory mitigation practices; and (3) promote the use of compensatory mitigation at a landscape scale to help achieve the purposes of the ESA."</i> <i>"5.3. Reliable and Consistent Metrics Metrics that measure ecological functions and/or services at compensatory mitigation sites and impact sites must be science-based, quantifiable, consistent, repeatable, and related to the conservation goals for the species."</i>
Recognize resources that are of such irreplaceable character that only avoidance is appropriate	<i>"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."</i> <i>"When a resource's value is determined to be irreplaceable, the preferred means of achieving either of these goals is</i>	<i>"In applying the mitigation sequence, NOAA will generally recommend avoiding impacts to high value habitats. High value habitats include irreplaceable and difficult to replace habitats; habitats that are critical for achieving conservation objectives for NOAA trust resources; and habitats that provide essential ecosystem functions or contribute to ecosystem resiliency."</i>	Comment: No explicit definition of "irreplaceable natural resources". Rather, the FWS mitigation policy describes 'high-value habitats' and 'habitats of high importance.' The policy is consistent regarding 'avoidance of all impacts' in high-value habitats. In 4c, FWS's overall mitigation policy states, "Avoid high-value habitats. The

	<i>through avoidance, consistent with applicable legal authorities."</i> <i>"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."</i>	<i>"NOAA will determine if habitats are high value by considering the habitat's (a) scarcity; (b) suitability for affected NOAA trust resources; and (c) importance to achieving conservation objectives. A habitat need not have all three characteristics to be considered high value."</i>	<i>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."</i> <i>"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)."</i>
Large-scale planning and irreplaceable resources	<i>"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."</i>	<i>"Mitigation recommendations and decisions should be made using a holistic landscape and/or seascape approach, with a goal of selecting the option that best achieves the conservation objectives for the affected NOAA trust resources."</i>	<i>FWS uses 'landscape' rather than large-scale – 'landscape' appears 46 times in the overall mitigation policy and 26 times in the compensatory mitigation policy. Section 4d of the overall policy notes, "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."</i> <i>The compensatory mitigation policy further states:</i> <i>"Good candidates for compensatory mitigation sites are unprotected lands that are high value for conservation and that are acceptable to the Service. Designations of high conservation value may include lands with existing high-</i>

			<i>value habitat or habitat that when restored, enhanced, established, or properly managed will provide high value to the species."</i>
Policies signals that will encourage investment in mitigation credits	<i>"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."</i>	Comment: Policy silent on how to incentivize investment in compensatory assets.	<i>"Consistent implementation of ESA programs that permit or authorize incidental take of listed species will provide regulatory predictability for everyone. The Service will share appropriate information on the availability of compensatory mitigation programs and projects with the public through online media or other appropriate means."</i> <i>"...the Service can work with Federal agencies to establish compensatory mitigation programs such as conservation banking and in-lieu fee programs that incentivize offsetting the effects of their actions through the appropriate use of compensation while expediting regulatory processes for the Federal agencies and applicants."</i>
Policies should operate similarly across agencies	<i>"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."</i> <i>"Wherever possible, policies should operate similarly across agencies and be implemented consistently within them."</i> <i>"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."</i>	<i>"NOAA will work in collaboration and coordination with partner agencies, tribes, project proponents, and others within the broader array of stakeholders to implement this Policy."</i> Comment: No evidence that NOAA analyzed other federal mitigation policies to ensure consistency. Comment: Policy silent on the existence of multiple mechanisms or requirements for equivalent standards between them.	<i>"The Service should coordinate with Federal agencies and encourage them to use their authorities under appropriate statutes (e.g., Federal Land Policy and Management Act) to avoid, minimize, and offset adverse impacts to listed species and designated critical habitat using the full mitigation sequence."</i> <i>"Habitat-based compensatory mitigation will be held to equivalent standards (the standards set forth in this policy) regardless of the mitigation mechanism(s) proposed. Habitat-based compensatory mitigation programs developed to credit conservation actions that benefit unlisted species should</i>

			<i>meet all compensatory mitigation standards set forth in this policy if they are intended to be used as compensatory mitigation for adverse impacts of actions undertaken after listing."</i>
Encouraging supply of advanced mitigation credits	<i>"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."</i> <i>"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."</i>	Comment: Policy silent on advanced mitigation or preference for advanced mitigation. Only indirect mention is the following: <i>"NOAA will support mitigation measures that provide a high degree of certainty in their effectiveness and durability, when they are available."</i>	Overall mitigation policy notes preference for "compensatory mitigation measures that are implemented and earn credits in advance of project impacts." FWS's compensatory mitigation policy also contains this preference: <i>"6.1.2. Preference for Compensatory Mitigation in Advance of Impacts. After following the principles and standards outlined in this policy and all other considerations being equal, preference will be given to compensatory mitigation projects implemented in advance of impacts to the species. Mitigation implemented in advance of impacts 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 subsequent to, the impacts of the actions even when that proposal is supplemented with higher mitigation ratios. While conservation banking is by definition mitigation in advance of impacts, other third-party mitigation arrangements and permittee-responsible mitigation may also satisfy this preference by implementing compensatory mitigation in advance of impacts."</i>

Durability of compensation	<i>"Durability -- 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."</i> <i>"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."</i>	Conflicting durability definition: <i>"Durability – assurance or high probability that a mitigation action will have a relatively long fully functional life, e.g., will persist on the landscape or seascape and provide the desired ecosystem functions and services."</i> <i>"Mitigation that is durable, adaptable, and resilient under a range of climate change conditions is more likely to maintain its effectiveness in the future than mitigation designed for present conditions that may not persist."</i>	<i>"5.6. Ensure Durability Compensatory mitigation must be secured by adequate legal, real estate, and financial protections that ensure the success of the mitigation. Most compensatory mitigation projects are permanent, and the viability of the assurances to achieve long-term stewardship of a mitigation site must be carefully planned and implemented to ensure durability. A compensatory mitigation measure is "durable" when the effectiveness of the measure is sustained for the duration of the associated impacts (including direct and indirect impacts) of the authorized action (600 DM 6.4H)."</i>
Clear goal post for how much compensatory mitigation is enough¹	<i>"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."</i>	Comment: Policy silent on net benefit. No net loss referenced in two ways: 1) Proportionality: <i>"In applying the mitigation sequence, NOAA will generally recommend avoiding impacts to high value habitats."</i> 2) No net loss: <i>"It is important that mitigation be both proportional in scale to the impacts to NOAA trust resources and of a sufficient quantity and quality to fully offset those impacts, including any interim losses (also known as temporal losses)."</i>	<i>"Through this policy, the Service encourages Federal agencies to use section 7(a)(1) to achieve a goal of a "net gain" through their mitigation policies and approaches so that they may help bring endangered and threatened species to the point where they no longer need to be listed pursuant to the ESA."</i> <i>"Mitigation Goal: Development of landscape-scale conservation programs for listed and at-risk species that are designed to achieve a net gain in conservation for the species."</i> Overall mitigation policy sets a 'net conservation gain' goal.

¹ The 2016 policy helpfully describes how a voluntary commitment to compensatory mitigation that exceeds 'no net loss' can help overcome uncertainty and therefore leads to more regulatory predictability and shorter reviews and permitting. The policy also talks about how voluntary commitment to exceed no net loss goals should be encouraged for HCPs and other permits.

Additionality should be a consideration in all federal policies	<i>“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.”</i>	Comment: Policy silent on additionality.	Comment: Both policies define additionality. <i>The Dec 2016 policy goes farther to state: “5.4. Judicious Use of Additionality Compensatory mitigation must provide benefits beyond those that would otherwise have occurred through routine or required practices or actions, or obligations required through legal authorities or contractual agreements. A compensatory mitigation measure is “additional” when the benefits of the 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 (600 DM 6.4G). The additional benefits may result from restoration or enhancement of habitat; preservation of existing habitat that lacks adequate protection; management actions that protect, maintain, or create habitat (e.g., regularly scheduled prescribed burns or purchase of rights in a split estate); or other activities (e.g., an action that reduces threats from disease or predation, or captive breeding and reintroduction of individuals or populations).”</i>
NRDA specific guidance	<i>“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.”</i>	Comment: Policy silent on NRDA other than to cite NRDA statutes, with no specificity, in the list of relevant authorities.	Comment: There is no mention of NRDA specific guidance in the compensatory mitigation policy. The Nov 2016 FWS mitigation policy states, <i>“In the Presidential Memorandum on Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment (November 3, 2015), DOI is</i>

			<i>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.”</i>
Measurable performance standards	<i>“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.”</i>	Comment: No mention of: • “Measurable” • “Performance standards” • “Quantify” • “Performance” • “Test” • “Accountable”	Comment: FWS references ‘criteria,’ rather than standards. <i>“Performance criteria—observable or measurable administrative and ecological (physical, chemical, or biological) attributes that are used to determine if a compensatory mitigation project meets the agreed upon conservation objectives identified in a mitigation instrument or the conservation measures proposed as part of a permitted or otherwise authorized action.”</i>

