Draft NOAA Mitigation Policy for Trust Resources

PREAMBLE

The National Oceanic and Atmospheric Administration (NOAA) is responsible for the stewardship of the Nation's ocean resources and their habitat.

As outlined in this Policy, mitigation is an important component of NOAA's work in conserving and managing coastal, riverine, and marine resources. This work is conducted in consultation and coordination with other Federal, state, and local agencies, and the public. This Policy does not expand NOAA's authorities, and all NOAA mitigation activities will be conducted in accordance with existing authorities.

The definition of mitigation used in this Policy is derived from the Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) regulations (40 CFR 1508.20). In practice, the five mitigation elements in the CEQ definition[1] are often categorized into three general types: avoidance, minimization (including rectifying and reducing), and compensatory mitigation. This Policy uses these three categories:

- Avoid—avoid the impact altogether by not taking a certain action or parts of an action or by modifying the action.
- Minimize—minimize the impact by limiting the degree or magnitude of the action and its implementation.
- Compensate—offset or compensate for the impact by replacing or providing substitute resources or environments.

This is NOAA's first and only comprehensive national policy on mitigation. Step-down guidance providing more detail on specific issues or for specific regions must be written to be consistent with this Policy.

SECTION 1. PURPOSE.

.01 This Order establishes NOAA's policy for mitigation of impacts to NOAA trust resources. NOAA has been engaged in mitigation activities for decades. Many of the statements in this Policy reflect successful approaches currently used by NOAA. Additional details on some aspects of mitigation are covered in existing NOAA and interagency guidance (see section 6.0). This Policy is compatible with those existing NOAA mitigation documents.

[1] The five elements are avoid, minimize, rectify, reduce, and compensate.

SECTION 2. SCOPE.

.01 This Policy does not alter or substitute for the authorities, standards, and procedures provided by the applicable statutes or the regulations implementing those statutes. This Policy does not expand NOAA's authorities, and all NOAA mitigation activities will be conducted in accordance with existing authorities.

.02 NOAA has authorities relevant to the conservation of a broad range of fish and wildlife resources. These authorities are codified under multiple statutes that address management and conservation of natural resources, including the effects of land, water, and energy development on fish, wildlife, plants, and their habitats. Listed in section 6.0 are the statutes that provide NOAA, directly or indirectly through delegation from the Secretary of Commerce, specific authority for conservation of these resources and give NOAA a role in recommending, requiring, or carrying out mitigation when conducted pursuant to those authorities.

.03 NOAA also has a role in mitigation for activities that NOAA undertakes, such as:

a. actions that NOAA carries out, i.e., NOAA is the project proponent;
b. actions that NOAA funds; and
c. actions that NOAA authorizes under various statutes.

.04 This Policy applies to NOAA trust resources, which are living marine resources and their habitats, including but not limited to: commercial and recreational fishery resources (which include not only marine fish and shellfish but also diadromous fish species); endangered and threatened marine species (which include not only marine fish and shellfish but also diadromous fish species and corals) and their designated critical habitats; marine mammals and marine turtles; marshes, mangroves, seagrass beds, coral reefs, and other coastal habitats; areas identified as essential fish habitat (EFH); areas within EFH identified as Habitat Areas of Particular Concern (HAPC); marine habitats and resources associated with national marine sanctuaries, marine national monuments, and other protected places; and aquatic habitats and resources associated with the Great Lakes. The types of resources for which NOAA is authorized to recommend mitigation also include those that contribute broadly to ecological functions that sustain species. This definition of "NOAA trust resources" is provided for purposes of this Policy only. It is not meant to define or interpret the meaning of terms such as "trust," "trust resources," or "trustee" as they are used in other contexts.

SECTION 3. DEFINITIONS.

.01 Avoid/Avoidance – a method of preventing adverse impacts by not taking a certain action or parts of an action, or by modifying the action to avoid effects.

.02 Compensate – replacing or providing substitute resources and/or environments.

.03 Compensatory Mitigation – a method of offsetting adverse impacts by replacing or providing equitable substitute resources or environments through the restoration, establishment, enhancement, or preservation of resources with commensurate services and functions.

.04 Conservation – a general term for the collective practices, plans, policies, and science that are used to manage NOAA trust resources. Conservation includes protection and restoration.

.05 Credit – a unit of measure (e.g., a functional or areal measure or other suitable metric) representing the accrual or attainment of ecological functions at a mitigation site. The measure of ecological functions is based on the resources restored, established, enhanced, or preserved.

.06 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.

.07 Enhancement – the manipulation of the physical, chemical, or biological characteristics of a natural resource to heighten, intensify, or improve a specific function(s). Enhancement results in the gain of selected natural resource function(s), but may also lead to a decline in other function(s).

.08 Establishment – the manipulation of the physical, chemical, or biological characteristics present to develop a specific habitat resource on a site that did not previously have that resource.

.09 Essential Fish Habitat – those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. 1801 et seq.).

.010 Habitat – coastal rivers and watersheds, estuaries, the Great Lakes, and marine waters; bottom zones through the water column; and an area's physical, geological, chemical, and biological components.

.011 Impact – a change (usually a decrease but this term can encompass an increase as well) in the quality or quantity of NOAA trust resources.

.012 Importance – the relative significance of the affected habitat, compared to other examples of a similar habitat type in the landscape or seascape, to achieving conservation objectives for NOAA trust resources.

.013 Interim loss – the loss of natural resource functions or services associated with the time lag between T1 (the time at which the natural resource functions or services are lost due to injury or authorized impact) and T2 (the time at which the restored resources or compensatory mitigation have reached a functional level where they are replacing the functions or services lost).

.014 Landscape – a land area encompassing an interacting mosaic of ecosystems and human systems that is characterized by common management concerns. Relative to this Policy, such management concerns relate to conserving NOAA trust resources.

.015 Minimize – limiting the degree or magnitude of an impact, action, or its implementation.

.016 Mitigation – measures taken to avoid, minimize, and compensate for adverse impacts to resources. Mitigation includes: avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting or modifying the degree or magnitude of the action or 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. As a practical matter, these five mitigation elements are condensed into three general types: avoidance, minimization (including rectifying and reducing), and compensatory mitigation.

.017 Mitigation/Conservation/Restoration/Environmental Bank – a site or suite of sites that provides ecological functions and services expressed as credits that are used to offset impacts or injuries occurring elsewhere.

.018 NOAA trust resources – living marine resources and their habitats, including but not limited to: commercial and recreational fishery resources (marine fish and shellfish, including diadromous fish species); endangered and threatened marine species (including diadromous fish species) and their designated critical habitats; marine mammals and marine turtles; marshes, mangroves, seagrass beds, coral reefs, and other coastal habitats; areas identified as essential fish habitat (EFH); areas within EFH identified as Habitat Areas of Particular Concern (HAPC);

marine habitats and resources associated with national marine sanctuaries, national marine monuments, and other protected places; and aquatic habitats and resources associated with the Great Lakes.

.019 Preservation – the removal of a threat to, or preventing the decline of, natural resources by an action in or near those resources. This term includes activities commonly associated with the protection and maintenance of natural resources through the implementation of appropriate legal and physical mechanisms.

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

.021 Protection – preventing the decline or loss of species or habitats.

.022 Re-establishment – the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural and/or historic functions to a site where these functions once existed, but are now completely absent. Re-establishment is one sub-category of restoration (the other is rehabilitation).

.023 Rehabilitation – the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing degraded resources and returning them to their natural and/or historic functions. Rehabilitation is one sub-category of restoration (the other is re-establishment).

.024 Restoration – the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural and/or historic functions to a degraded habitat or an area where these functions once existed, but are now completely absent. Restoration includes “re-establishment” and “rehabilitation”.

.025 Scarcity – the relative spatial extent (e.g., rare, common, or abundant) of the habitat type in the relevant context (e.g., landscape or seascape, species range).

.026 Seascape – a marine and/or estuarine area encompassing an interacting mosaic of ecosystems and human systems that is characterized by common management concerns. Relative to this Policy, such management concerns relate to conserving NOAA trust resources.

.027 Suitability – the relative ability of the affected habitat to support one or more elements of the affected resources’ (e.g., species’) life history (e.g., reproduction, rearing, feeding, dispersal, migration, or resting from disturbance) stages compared to other similar habitats in the landscape or seascape context.

.028 Temporal loss – see “interim loss.”

SECTION 4. POLICY.

The following eight principles will guide NOAA recommendations and decisions about mitigation.

.01 Apply the mitigation sequence appropriately.

NOAA will follow the mitigation sequence by first considering avoidance, then minimization, and then compensatory or offsetting measures. The selection of appropriate mitigation measures will give considerable weight to the practicability and feasibility of achieving environmental benefits consistent with applicable authorities. NOAA also recognizes that under some authorities, such as section 404 of the Clean Water Act, strict adherence to the mitigation sequence is required.

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.

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.

.02 Employ the best scientific information available.

NOAA will use the best scientific information available in mitigation planning, implementation, and monitoring. Since the state of mitigation-related science is dynamic, continually involving new information and questions, the best scientific information available is not static. Scientific information includes factual input, data, models, analyses, technical information, and scientific assessments. Scientific information also includes data compiled directly from surveys or sampling programs, appropriate local and traditional knowledge, and models that are mathematical representations of reality constructed with primary data. Additionally, scientific information can be gained through implementing mitigation projects and learning from them through monitoring, and in some cases, research.

Consistent with existing authorities, NOAA may request the collection of information about NOAA trust resources through surveys and other data collection efforts when existing information is not sufficient for the evaluation of proposed actions and mitigation.

.03 Apply a holistic landscape and/or seascape approach.

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. This approach allows for the consideration of a wide range of mitigation options including off-site and out-of-kind compensation in addition to

on-site and in-kind compensation. This holistic approach can also allow for the development of multi-use mitigation strategies to encourage a broad range of ecological benefits.

NOAA supports but does not require the development of landscape or seascape management plans in collaboration with partners and other stakeholders. These plans should incorporate the best scientific information available and complement existing conservation plans (e.g., recovery plans, habitat conservation plans, watershed plans) relevant to the affected trust resources.

.04 Promote mitigation strategies with high probability of success.

NOAA will seek to ensure mitigation is implemented successfully and, with respect to compensatory mitigation, fully compensates for lost or damaged resources. NOAA will support mitigation measures that provide a high degree of certainty in their effectiveness and durability, when they are available. In some circumstances, achieving mitigation goals may require the use of measures that do not have a high degree of certainty. Measures to reduce uncertainty of mitigation outcomes should be incorporated into mitigation or adaptive management plans. In general, compensatory mitigation through banking approaches is an example of a strategy with a high probability of success.

.05 Consider climate change and climate resilience when evaluating and developing mitigation measures.

In developing and evaluating mitigation measures, NOAA will consider how the effects of climate change (e.g., sea-level rise, changes in species and habitat ranges) may influence the effectiveness and resilience of some mitigation approaches. 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. NOAA will rely on the specific statutory requirements under which mitigation is being conducted and the best available science when incorporating climate change into mitigation measures.

.06 Implement mitigation that is proportional to impacts to NOAA trust resources and fully offsets those impacts.

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). NOAA will rely on the specific requirements of the statutes under which mitigation is being conducted to ensure that the resources, functions, and services provided through mitigation will be sufficient.

.07 Use preservation of intact habitat as compensation appropriately, taking into account the high risk of habitat loss in many rapidly developing coastal and marine landscapes and seascapes.

NOAA supports habitat preservation as compensatory mitigation in certain, limited situations. Preservation may be particularly valuable when the habitat is at risk of loss or degradation and when the long-term conservation benefits of preserving that habitat outweigh the immediate losses requiring compensatory mitigation. However, because habitat preservation does not result in new habitat functions and services and thus does not provide an immediate offset for habitat losses, NOAA does not generally support the use of habitat preservation as compensatory mitigation when that habitat is at low risk of loss or degradation.

.08 Collaborate with partner agencies and stakeholders.

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. NOAA will endeavor to use timely and transparent processes that provide predictability and uniformity. NOAA will seek to engage project proponents, partner agencies, and stakeholders as appropriate, early in the planning and design stage of actions, including planning for mitigation.

When adverse impacts to NOAA trust resources are identified as part of authorizing a project, NOAA will work with action agencies and/or project proponents to identify options for achieving project goals in a manner consistent with this Policy. Those options may include avoiding work in certain areas or time periods, minimizing adverse effects through the use of protective barriers, and compensation through restoration or other measures. Early engagement between NOAA, action agencies, and project proponents is key to achieving the goals of the project proponents consistent with mitigation mandates.

Whenever appropriate, NOAA will, through Interagency Review Teams or other methods of cooperation:

a. coordinate with partner agencies that have responsibilities for fish and wildlife resources when evaluating mitigation for resources of mutual concern;
b. seek to develop with partner agencies common mitigation recommendations and compliance approaches across mitigation mandates;
c. seek to develop with partner agencies common criteria and standards for banks to facilitate their use for diverse mitigation needs;
d. consider information and plans made available by partner agencies and stakeholders;
e. collaborate with partner agencies and stakeholders in the formulation of landscape or seascape-level mitigation plans; and
f. cooperate with partner agencies and stakeholders to develop, maintain, and disseminate tools and conduct training in mitigation methodologies and technologies.

SECTION 5. RESPONSIBILITIES.

.01 The goal of this Policy is to implement NOAA mitigation authorities in a consistent, effective, and transparent manner. NOAA's National Marine Fisheries Service will lead a biennial review of this Policy in collaboration with other relevant NOAA program offices to ensure the purpose and goals of the Policy are being achieved.

SECTION 6. REFERENCES.

.01 Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601 *et seq.* (CERCLA)
.02 Endangered Species Act of 1973, as amended, 16 U.S.C. § 1531 *et seq.* (ESA)
.03 Federal Power Act, 16 U.S.C. § 791–828c (FPA)
.04 Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. § 1251 *et seq.* (CWA)
.05 Fish and Wildlife Coordination Act, as amended, 16 U.S.C § 661–667(e) (FWCA)
.06 Interjurisdictional Fisheries Act, 16 U.S.C. § 4101 *et seq.* (IFA)
.07 Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1801 *et seq.* (MSA)
.08 Marine Mammal Protection Act, as amended, 16 U.S.C. § 1361 *et seq.* (MMPA)
.09 National Environmental Policy Act, 42 U.S.C. § 4371 *et seq.* (NEPA)
.010 National Marine Sanctuaries Act, 16 U.S.C. § 1413 *et seq.* (NMSA)
.011 Oil Pollution Act, 33 U.S.C. § 2701 *et seq.* (OPA)
.012 Handbook on Coral Reef Impacts: Avoidance, Minimization, Compensatory Mitigation, and Restoration (U.S. Coral Reef Task Force, 2016)
.013 Memorandum of Understanding Concerning Mitigation and Conservation Banking and In-Lieu Fee Programs in California (NOAA, California, and other Federal agencies, 2011)