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### **Abbreviations**

EFH = Essential fish habitat

ESA = Endangered Species Act

HAPC = Habitat area of particular concern

NEPA = National Environmental Policy Act

FMP = Fishery management plan

MSA = Magnuson-Stevens Fishery Conservation and Management Act

NMFS = National Marine Fisheries Service

## I. Introduction

In the Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-297), Congress declared that “One of the greatest long-term threats to the viability of commercial and recreational fisheries is the continuing loss of marine, estuarine and other aquatic habitats.”<sup>1</sup> Congress also determined that “habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States.”<sup>2</sup> The amended MSA established procedures designed to identify, conserve, and enhance essential fish habitat (EFH). The MSA defines EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.”<sup>3</sup>

In 2002, the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NMFS) issued the final EFH regulations establishing procedures for identifying and describing EFH in fishery management plans (FMPs).<sup>4</sup> Those regulations are implemented by NMFS, based on EFH described and identified in FMPs by the eight regional fishery management councils (councils): New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, Caribbean, Pacific, North Pacific, and Western Pacific; or, in the case of Atlantic Highly Migratory Species, by NMFS.

The MSA requires federal agencies to consult with NMFS, on behalf of the Secretary of Commerce, on all actions or proposed actions that they authorize, fund or undertake that may adversely affect EFH.<sup>5</sup> The EFH regulations outline the process for federal agencies, NMFS, and councils to satisfy the EFH consultation requirement of the EFH regulations. Through the consultation process, measures are identified to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH. NMFS provides consultation services primarily through its five regional offices: Greater Atlantic, Southeast, Pacific Islands, West Coast, and Alaska. If EFH in multiple regions may be adversely affected by a given proposed federal action, the NMFS’ Office of Habitat Conservation, Habitat Protection Division typically coordinates among regions.

## II. Objective

The objective of this document is to provide national guidance to federal agencies on their responsibilities under the MSA. The EFH regulations direct federal agencies to consult with NMFS if they plan to take actions where EFH is designated. This national guidance reflects the EFH requirements of section 305(b) of the MSA, 16 U.S.C. 1855, as implemented by regulations at 50 C.F.R. subparts J and K; and is provided to help “action agencies” comply with the EFH regulations as they consult on their activities, or proposed activities. However, this guidance cannot address every circumstance that may occur, and there are also a number of regional differences to consider. If

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<sup>1</sup> 16 U.S.C. §§ 1801 *et seq.* as amended through January 2007.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.* §1802(10).

<sup>4</sup> 50 C.F.R. § 600.

<sup>5</sup> 16 U.S.C. 1855 § 305(b)(2)-(4).

this guidance does not address a particular circumstance, users should direct questions to a NMFS regional EFH coordinator(s)<sup>6</sup> or consultation biologist(s).

### **III. Guidance**

#### **1. EFH Overview**

##### **1.1 EFH Designations**

###### **1.1.1 What is EFH?**

EFH designations are intended to conserve all of the habitats that are needed for each managed species throughout their life cycle. As stated in the introduction, the MSA defined EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.”<sup>7</sup> EFH designations include descriptions of the physical and biological environment and the location of all necessary habitats. The EFH regulations clarify that “waters” includes aquatic areas and their associated physical, chemical, and biological properties that are used by the managed fish species, and those areas historically used by those species, where appropriate. “Substrate” includes sediment, hard bottom, structures underlying the waters and associated biological communities (e.g., seagrass, oyster reefs, and coral reefs). “Necessary” means the habitat required to support a sustainable fishery and the managed species’ contribution to a healthy ecosystem. And “spawning, breeding, feeding, and growth to maturity” covers a species’ full life cycle.<sup>8</sup>

###### **1.1.2 Why is EFH Important?**

EFH is a foundation for habitat conservation and the sustainability of federally-managed fisheries and stocks. Habitat can be a limiting resource for federally-managed species, and conserving EFH is the best way to ensure their sustainability into the future. EFH designations serve as the basis for consultations by action agencies with NMFS under the MSA. EFH is also the basis for NMFS and the councils to implement regulations and best fishing practices that reduce adverse habitat effects from fishing (e.g., gear restrictions in sensitive habitats) to the extent practicable. NMFS and councils may incorporate EFH information for federally-managed fishery species into their management decisions.

###### **1.1.3 How is EFH Described?**

Councils and NMFS (for highly migratory species) identify and define EFH for federally-managed fishery species in their FMPs or in geographically-based fisheries ecosystem plans. Councils and NMFS may designate EFH in U.S. waters under state and federal jurisdiction; although FMPs may also describe, identify, and protect habitats of managed species in international waters.<sup>9</sup> Thus, habitat

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<sup>6</sup> <https://www.fisheries.noaa.gov/contact-directory/regional-essential-fish-habitat-coordinators>.

<sup>7</sup> 16 U.S.C § 1802(10).

<sup>8</sup> 50 C.F.R. § 600.10.

<sup>9</sup> Id. § 600.805.

designated as EFH does not necessarily encompass the entirety of the habitat needed for a managed species' essential biological functions.

EFH designations are based on the best scientific information available, and are refined periodically.<sup>10</sup> Councils and NMFS rely on teams of scientists specializing in relevant disciplines (e.g., fish habitat/life-history, population dynamics, and socio-economic science) to describe and identify the life history requirements for managed species. Councils and NMFS also gather information from advisory panels and the public in order to make or refine EFH designations.

EFH is described and identified for each life stage (e.g., larval, juvenile, and adult); however, if data are insufficient for one or more life stages, then councils and NMFS may describe EFH across life stages. EFH descriptions for multiple managed species may overlap. In addition, EFH may be described for a single federally managed species or groups of species referred to as management unit species.

Types of information used to describe and identify EFH include distribution, life history, and population data for each species. The councils and NMFS identify species-specific habitat data gaps and deficits in data quality. Filling one or more of those gaps is necessary to refine EFH. The EFH regulations define a hierarchy for those data that are used to support EFH designations. This hierarchy is of increasing specificity:

- Level 1: Species distribution data
- Level 2: Species habitat-related density data
- Level 3: Species growth, reproduction or survival rate within habitats
- Level 4: Species production rates by habitat

The councils and NMFS strive to describe EFH by life stage for each managed species using the highest level of detail, but are often limited to level 1 information that is specific to the adult life stage.

#### **1.1.4 Where are EFH Designations Found?**

EFH is described and identified by text and illustrated spatially on maps in FMPs using the best available scientific information. The EFH text and maps in FMPs are the legal descriptions of EFH designations. If there are differences between the descriptions of EFH in text and maps, the textual description ultimately determines the limits of EFH. The EFH regulations provide considerable flexibility in how these geographic boundaries are determined; however, EFH should be distinguished among all habitats that are potentially used by a species if adequate information is available to do so.

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<sup>10</sup> Id. § 600.815(a).

### 1.1.5 What are HAPCs?

The EFH regulations encourage councils and NMFS to identify habitat areas of particular concern (HAPC) as priority areas for habitat conservation, management, and research. Each of the eight has designated HAPCs for one or more of their FMPs. HAPCs are based on one or more of the following considerations:<sup>11</sup>

- The importance of the ecological function provided by the habitat
- The extent to which the habitat is sensitive to human-induced environmental degradation
- Whether, and to what extent, development activities are, or will be, stressing the habitat type
- The rarity of the habitat type

HAPC designations may result in management measures that afford greater protection to the area (e.g., restricting bottom-contact fishing). HAPCs can also be used to target areas for habitat-based research. Federal activities occurring in HAPCs may receive increased scrutiny during the EFH consultation process and more rigorous conservation recommendations from NMFS for reducing adverse effects.

Because HAPCs are discretionary, should one council or NMFS identify a HAPC, other councils and NMFS may choose not to identify similar sensitive habitats as HAPCs in an adjacent jurisdiction. For example, seagrass habitats are designated as HAPCs in the South Atlantic because they are important to managed species and are sensitive to disturbance; but seagrass habitats are not designated as HAPCs in the Gulf of Mexico and the Caribbean where the ecology is comparable. In both cases, NMFS and councils use the best scientific information available as the basis for providing EFH conservation recommendations to action agencies.

## 1.2 EFH Consultations

### 1.2.1 Who Consults on EFH?

Federal agencies are required by law to consult with NMFS on any action that may adversely affect EFH. "Action" refers to any action authorized, funded, or undertaken by such an agency. These "action agencies" may propose measures that address the adverse effects of their actions, but must still consult with NMFS. When more than one action agency is responsible for a federal action, the consultation requirements for all participating agencies may be met through a lead action agency (to the extent that the lead agency has the authority to implement measures necessary to address the adverse effects of the action).<sup>12</sup> The lead action agency should notify NMFS that it represents one or more other action agencies.

An action agency may designate a non-federal representative to conduct the EFH consultation according to the EFH regulations. However, the action agency remains ultimately responsible for compliance with the consultation requirements of the MSA. For example, the Washington State Department of Transportation is the designated non-federal representative of the Federal Highway Administration and consults directly with NMFS on their behalf. The Federal Highway

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<sup>11</sup> Id. § 600.815(a)(8).

<sup>12</sup> Id. § 600.920(b).

Administration ensures that their designated non-federal representative meets the EFH consultation requirements.

The MSA does not require state or local agencies to consult with NMFS on their actions that may adversely affect EFH; however, state governments may voluntarily set up procedures for that purpose. NMFS and councils may comment and provide EFH conservation recommendations to state agencies just as we would to federal agencies when the state's activities may have an adverse impact on EFH, as described in Section 2.3.<sup>13</sup>

### **1.2.2 When to Consult on EFH**

An agency is required to consult on actions that it determines “may adversely affect EFH,” i.e., if adverse effects are possible from an action, consultation is required. Adverse effects on EFH are defined by regulation as anything that reduces quality and/or quantity of EFH.”<sup>14</sup> Consultation is required even if adverse effects are minimal or temporary. For example, NMFS may consult with the U.S. Army Corps of Engineers on actions covered by their general permits, which cover minimal adverse effects such as nationwide permits for minor discharges and dredging.

If an action agency determines that its action would not adversely affect EFH (i.e., the action reduces neither the quality nor the quantity of EFH), consultation is not required.<sup>15</sup> An agency is not required to inform NMFS of a determination that an action would not adversely affect EFH. However, if NMFS is asked to concur with a no effect determination by an action agency, we are under no obligation to concur and may provide EFH conservation recommendations to which the action agency is required to respond. Alternatively, NMFS may initiate the “further review” process described in Section 2.5.4.

Although consultations are not required for federal actions that were completed prior to the EFH regulations (e.g., permits were issued), they are required for renewals and reviews of, or substantial revisions to, the original action that may adversely affect EFH. For example, NMFS Policy Directive 03-201-16 identifies the procedure for three maintenance dredging scenarios in federal navigation channels:<sup>16</sup>

- A. New channel or widening/deepening of the existing channel—consultation needed
- B. Existing channel undergoing maintenance with no prior EFH consultation—consultation needed
- C. Existing channel undergoing maintenance with prior completed EFH consultation—consultation not needed

In accordance with this Policy Directive, under Scenario C, above, “if the prior EFH consultation evaluated the impacts [i.e. adverse effects] for the full suite of planned maintenance activities

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<sup>13</sup> Id. § 600.925(c).

<sup>14</sup> Id. § 600.810.

<sup>15</sup> Id. § 600.920(a)(1).

<sup>16</sup> NMFS Policy Directive 03-201-16 Essential Fish Habitat Consultations for Army Corps of Engineers Channel Maintenance Dredging, <https://media.fisheries.noaa.gov/dam-migration/03-201-16.pdf>.



including the periodic loss of ecological function for the planned maintenance dredging schedule into the future, no additional EFH conservation recommendations for in-channel impacts should be needed unless there are changes to dredging methods, changes to the environment, or changes to our understanding of how the project affects EFH.”

### 1.2.3 How to Consult on EFH

The MSA identifies the EFH consultation requirements<sup>17</sup> and the EFH regulations outline the consultation process for action agencies, NMFS, and councils to satisfy the EFH consultation requirement of the MSA.<sup>18</sup> There are three general requirements:

- Action agencies initiate an EFH consultation by submitting a complete EFH assessment to NMFS
- NMFS and councils respond and may provide conservation recommendations intended to conserve EFH
- Action agencies must provide a detailed response in writing to NMFS, and to any council that commented on the action, within 30 days after receiving an EFH conservation recommendation as to whether and how they plan to implement it

Although discussions may occur (and are encouraged) with action agencies before a consultation is initiated, the timelines for the actual EFH consultation set forth in the regulations begins when NMFS determines that it has received a complete EFH assessment from the action agency or its designee. For information on what constitutes a complete EFH assessment, see Section 2.1. NMFS encourages all action agencies to coordinate as early as possible in their planning process (see discussion of early coordination in Section 1.2.5). Coordinating early is more likely to result in a complete EFH assessment and can thus make the process more efficient.

### 1.2.4 Types of Consultations and their Timelines

There are five approaches to conducting EFH consultations: 1) through a general concurrence, 2) combined with an existing environmental review procedure, 3) as a standalone abbreviated consultation, 4) as a standalone expanded consultation, or 5) as part of a programmatic consultation (see Section 2.2 for a discussion of each of these approaches).<sup>19</sup> Timelines vary based on type of consultation. Standalone EFH consultations follow the prescribed timeframes. Some consultation approaches do not have timelines associated with them (i.e., general concurrence and programmatic consultations). Other consultations are combined with an existing environmental review that follows a separate timeline (e.g., 15 days following a Department of the Army General Permit notification). Lastly, an action agency and NMFS may agree to an alternative timeline for any consultation approach on a case-by-case basis.

NMFS receives thousands of EFH consultation requests annually. NMFS reviews the action agency’s EFH assessment and engages in consultation for those that may have adverse effects on EFH; and

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<sup>17</sup> 16 U.S.C. 1855.

<sup>18</sup> 50 C.F.R. §§ 600.905–600.930.

<sup>19</sup> 16 U.S.C. 1855.

councils may also participate. If capacity is limited, NMFS may prioritize consultations on certain types of proposed actions, such as those that may have greater, or longer-term, adverse impacts on EFH. Actions may proceed without a complete EFH consultation if a response from NMFS is not received 30 and 60 days after a request to initiate an abbreviated or expanded consultation.

### **1.2.5 Early Coordination and Technical Assistance**

NMFS prefers that federal agencies engage with us early in their planning process for actions that may adversely affect EFH. This typically results in more efficient consultations, both reducing uncertainty and ensuring maximum efficiency and flexibility. It can also result in greater conservation benefits for the species that rely on the habitat. Action agencies can conduct early coordination throughout their planning processes, which will typically lead to the identification of the information needed and the level of specificity to support the action agency's determination.

Early coordination allows NMFS to work directly with the action agency to:

- Conduct an initial review of the proposed action
- Determine sufficiency of the supporting materials
- Determine the appropriate scale of the EFH effects analysis
- Provide timely advice for project modifications to better avoid or minimize any anticipated adverse effects

Early coordination allows exploration of more options and reduces uncertainty for both agencies. Early coordination is most valuable when early coordination exchanges have been incorporated into the proposed action. Federal permit applicants are encouraged to coordinate early with the federal agency issuing their permit and NMFS to facilitate their permitting process.

## **2. EFH Consultation Guidance**

### **2.1 EFH Assessments**

To initiate an EFH consultation, the EFH regulations require action agencies to prepare a written EFH assessment describing the effects of that adverse action on EFH, and submit it to NMFS. EFH assessments should be commensurate with the complexity and magnitude of the proposed project's potential adverse effects. For example, assessments of simple actions involving temporary adverse effects on EFH may be relatively brief, whereas, actions that may pose a more serious threat to EFH warrant a more detailed EFH assessment.

All complete EFH assessments include these mandatory components:<sup>20</sup>

- A description of the action
- An analysis of the potential adverse effects of the action on EFH and the managed species
- The action agency's conclusions regarding the effects of the action on EFH
- Proposed mitigation, if applicable

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<sup>20</sup> 50 C.F.R. § 600.920(e).

In addition, it may be appropriate and helpful for an EFH assessment to provide additional information:

- The results of an on-site inspection to evaluate the habitat and the site specific effects of the project
- The views of recognized experts on the habitat or species that may be affected
- A review of pertinent literature and related information
- An analysis of alternatives to the action. Such analyses are more useful if they include alternatives that could avoid or minimize adverse effects on EFH
- Other relevant information

To minimize workload, action agencies may “incorporate by reference” a completed EFH assessment prepared for a similar action that adequately addresses similar adverse effects on EFH in the same geographic area and in a similar ecological setting.<sup>21</sup>

If action agencies are unsure of what level of detail to use in their EFH assessment, they should coordinate early with NMFS. NMFS cannot initiate consultation with an incomplete EFH assessment and will request additional information, potentially delaying the project timeline.

### **2.1.1 Description of the Action**

The description of the action is a critical component needed to identify potential stressors resulting from the proposed action. EFH assessments should include known operational limitations and uncertainties. The project description should be as detailed as necessary to assess the potential adverse effects on EFH.

The EFH assessment should “deconstruct” the proposed action—separately describe each activity with relevant methodologies of the proposed project—in order to estimate the probable adverse effects accurately. For example, replacing a culvert at a road crossing with a bridge may entail diverting the streamflow, excavating the roadway to remove the culvert, driving piles in the stream or on the stream bank, building forms, and pouring concrete—each with its own adverse effects.

The description should also include any measures, such as best management practices, that will be implemented to avoid and minimize adverse effects on EFH (e.g., erosion control measures, bubble curtains around construction noise, streambank revegetation, and dewatering of the channel downstream). These measures are considered a form of mitigation, and are discussed in Section 2.1.5.

### **2.1.2 Adverse Effects Analysis**

The EFH regulations define adverse effects on EFH as “any impact that reduces quality and/or quantity of EFH.”<sup>22</sup> Those regulations clarify that “adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to,

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<sup>21</sup> Id. § 600.920(e)(5).

<sup>22</sup> Id. § 600.810.

benthic organisms, prey species, and their habitat, and other ecosystem components if such modifications reduce the quality and/or quantity of EFH.” Furthermore, “adverse effects on EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide adverse effects, including individual, cumulative, or synergistic consequences of actions.”<sup>23</sup>

In order to analyze adverse effects on EFH, the action agency should determine likely stressors (e.g., turbidity, sound, and physical habitat alterations) associated with the proposed activities that may reduce the quality or quantity of EFH. For each of those stressors, they should then identify the effects of those stressors on EFH. Adverse effects on EFH typically result from loss or changes to physical or chemical EFH, or mortality of EFH organisms (e.g., seagrass, oysters, corals, kelp, or a prey-base).

During early coordination, it may be beneficial for the action agency and NMFS to work together, when possible, to clarify project methods, refine resource assessments, and discuss concerns and approaches to reduce uncertainty in the adverse effects analysis. For instance, on-site inspections of the action area can rapidly generate qualitative information (e.g., photographs) which can reduce uncertainty. It can be helpful for the action agency and NMFS staff to visit the action area together. In addition, input from subject matter experts may be considered from academia, government, or private industry who have extensive knowledge about the habitat, managed species, or types of effects relevant to the proposed action.

Temporary adverse effects on EFH are those that are limited in duration and that allow the particular habitat to recover to its pre-action condition. As habitats recover from temporary adverse effects, their service and function to the fishery return to the conditions that existed prior to those effects. The effects during this timeframe should be accounted for in the analysis. See Section 2.1.3, below, for treatment of climate change on temporary effects. Permanent effects are often associated with habitat conversion or infrastructure construction (e.g., construction dredging, shoreline hardening).

EFH assessments should estimate the timing and duration of temporary adverse effects (i.e., days, weeks, months, or years) even though the duration of an adverse effect may not always be directly correlated with the magnitude (i.e., intensity) of that adverse effect. For example, turbidity may occur at low levels for long durations without affecting EFH because currents and tides keep turbidity levels low enough to be tolerated. Conversely, an acute pulse of turbidity may result in sedimentation that causes more severe adverse effects on EFH. In addition, the timing of the proposed action may dictate the severity of an adverse effect. For example, effects occurring in habitats used during sensitive life stages (e.g., construction-related turbidity that impacts spawning habitat during spawning season), could have a particularly adverse outcome for managed species.

By considering the estimated duration and magnitude of an adverse effect, the severity of the adverse effects can be determined. Recovery from adverse effects that occur from proposed activities can occur through natural processes, or be expedited by active restoration.

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<sup>23</sup> Id. § 600.910.

### **2.1.3 Addressing Effects from Climate Change**

Climate change is having broad global and regional effects on EFH, including warming waters, changes to river flow and temperature regimes, changes to coastal wetland productivity, rising sea levels, increased stratification and hypoxia, acidification of ocean water, and changes in primary productivity. These changes should be considered in both the estimation of post-project restoration, and recovery rates and targets; i.e., we may not be able to look to past performance to gauge future responses. Moreover, it may not be possible to recover to the pre-action EFH quality and quantity. If future conditions for a given EFH are predicted to worsen due to climate change, the expected difference between the pre-action EFH condition and the expected recovered condition should be considered when analyzing adverse effects on EFH. When an action will have ongoing adverse effects on EFH, such as those from operations and maintenance, the analyses should consider how the effects in the future will interact differently with the changing climate.

Federal actions may have adverse effects on EFH that interact synergistically with effects of climate change, and analyses should consider those interactions when appropriate. Federal actions that may exacerbate the effects of climate change include, but are not limited to, the following:

- Coastal structures, such as seawalls and revetments, that interfere with the ability of salt marsh wetlands to persist or migrate inland to keep pace with sea level rise
- New or replacement bridges or culverts in tidal streams and rivers that do not account for the flow of water at higher tides or stronger storm events, potentially restricting fish passage and impacting adjacent stream banks and salt marsh wetlands
- Cooling water systems for new or relicensed power plants that increase the water temperature of the surrounding outfall structures, increasing already heightened water temperature beyond tolerance thresholds of various species

Federal actions should account for the effects of climate change and potential uncertainty of these effects in the future in their project design by including adaptive measures (see Section 2.1.6, Adaptive Management)

### **2.1.4 Effects Determination**

After performing an analysis of the potential adverse effects of the project on EFH, the action agency makes a determination regarding the effects of the action. The action agency's effects determination should be based on project-specific considerations, such as the ecological importance or sensitivity of an area, the type and extent of EFH affected, and the type of activity. All adverse effects from proposed activities should be determined individually and when combined with each other.

Temporary effects differ from permanent effects because the affected EFH can recover over time to the pre-action state, or baseline. These effects are more common and less straightforward because they can either dissipate quickly or persist well after the proposed project activities (e.g., construction) have ceased.

Minimal adverse effects result in only small measurable changes in the affected habitat and its ecological functions.<sup>24</sup> Substantial adverse effects may pose a relatively serious threat to EFH and typically could not be alleviated through minor modifications to a proposed action. For example, a harbor development project that requires significant dredging and filling, channel realignments, or shoreline stabilization near EFH would likely result in substantial adverse effects on EFH, according to the EFH regulations.<sup>25</sup> A more specific example of this type of substantial adverse effect is where dredging occurs to soft bottom EFH used by juveniles of a managed species.

The action agency is encouraged to propose minimization measures, such as best management practices, as well as offset or compensation to reduce overall adverse effects on EFH as much as possible. Even when an action agency incorporates such measures, it is still necessary to consult on EFH, since the trigger to consult is when adverse effects are possible, unconditioned by the extent of proposed minimization and offset.

### 2.1.5 Mitigation

According to the MSA, the action agency's EFH assessment should include a description of any measures or prescriptions that will avoid, mitigate, or offset adverse effects, if applicable. The term "minimize" was added by regulation. While neither the MSA nor the EFH implementing regulations define these terms, the Council on Environmental Quality's (CEQ's) National Environmental Policy Act (NEPA) regulations provide a helpful equivalency:<sup>26</sup>

- Avoid is to prevent adverse impacts by not taking a certain action or parts of an action
- Mitigate is to minimize the degree or magnitude of the action and its implementation
- Offset is to compensate for the impact by replacing or providing substitute resources or environments

Following the CEQ NEPA construct, avoidance is the first priority, followed by mitigation or minimization, and then offset or compensation. Action agencies are encouraged to describe avoidance efforts, such as ensuring the project is in a location where it will not affect EFH or conducting it at a certain time of year so it will recover before the species returns, as well as any measures that minimize adverse effects, such as best management practices, so that NMFS can accurately evaluate the extent of potential adverse effects. Action agencies are also encouraged to coordinate closely with NMFS on developing suitable methods of offset or compensation in order to address unavoidable adverse effects. The use of appropriate resource planning documents, such as FMPs, as amended, and Endangered Species Act (ESA) recovery plans, may help identify appropriate forms of offset or compensation.

### 2.1.6 Adaptive Management

In many cases, mitigation measures are designed to be modified over the life of the project, or to be flexible and adaptable to account for uncertainty. This helps to ensure that the action continues to

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<sup>24</sup> 67 FR 2343, EFH Final Rule: Comment 14 B.

<sup>25</sup> 67 FR 2343, EFH Final Rule: Comment 30.

<sup>26</sup> 40 C.F.R. § 1508.1(s).

result in anticipated outcomes into the future. For example, adaptive management may include measures in the design that consider projected climate change. Alternatively, adaptive measures may be recommended for a license or permit that allows specific changes in the operations or the structures in the future if a predetermined threshold is exceeded. There a number of examples of how adaptive management can be used to ensure mitigation measures result in the anticipated outcomes:

- Hydropower licenses that account for future changes in water levels due to anticipated temperature or precipitation patterns in order to meet fish passage requirements, base flow rates, and generation capacity
- Nature-based shoreline protection designs that provide a pathway for coastal wetlands to migrate inland with sea level rise (e.g., living shorelines)
- Bridge structures that account for appropriate water flow for fish, while avoiding erosion of the bottom and banks at projected sea levels and flood elevations
- Culverts that account for projected changes in flow due to higher rainfall events and sea level rise
- Tide gates that are designed to include protective measures against sea level rise, such as gate closure criteria, to ensure the appropriate tidal regime for wetlands and other coastal habitats

### **2.1.7 Request for Additional Information**

NMFS relies on the information in the EFH assessment to assess the adverse effects of the proposed action on EFH. Incomplete information creates uncertainty and, without a complete EFH assessment, NMFS will not initiate consultation. Uncertainty may be created if, for example, the assessment indicates that the activity could have adverse effects on vulnerable EFH resources without further elaboration on the duration and magnitude of those effects. Additional information may also be needed when abbreviated consultations are expanded.

Because a request for information may delay the initiation of consultation, action agencies should provide clear project descriptions that include habitat delineations for project plans and resource surveys (e.g., submerged aquatic vegetation maps), complete descriptions of best management practices, and a clear analysis of effects on EFH. NMFS is available to discuss EFH assessments via early coordination to help ensure draft EFH assessments are complete.

## **2.2 Consultation Approaches**

The five EFH consultation approaches discussed below vary in the required complexity of the adverse effects analysis, as well as the timeline to complete the consultation. All EFH consultations scale commensurately with the scope of the proposed project's potential adverse effects and project complexity.

### **2.2.1 General Concurrence**

A general concurrence identifies specific types of federal actions that may adversely affect EFH, but for which no further consultation is required because the action agency has determined and NMFS has concurred that it will likely result in no more than minimal adverse effects individually and cumulatively. Action agencies may request that NMFS develop a general concurrence for a common

activity type, or NMFS may identify the need for a general concurrence and conduct the analysis independently. General concurrences may be national or regional in scope. General concurrences are periodically reviewed and revised, as appropriate.

Action agencies do not need to consult on projects that conform to an existing general concurrence. Action agencies can contact a NMFS EFH Coordinator for information about the availability of general concurrences in their proposed action area.

### 2.2.2 Existing Procedures

A common consultation approach is to combine EFH consultations with other existing environmental review procedures (e.g., NEPA, ESA, and Clean Water Act). In order to use existing environmental review procedures to satisfy the EFH consultation requirement, NMFS must have made an EFH finding that the existing process, or a modified version of that process, will satisfy the EFH consultation requirements.<sup>27</sup> NMFS will make the modifications to the EFH consultation procedure explicit in their EFH findings, and must ensure that all of the regulatory requirements of both statutes are met. An example of a modified process is when an EFH consultation requires an altered timeline in order to align with the process with which it is being combined.

EFH findings must be made with a specific action agency. To obtain a new EFH finding or to determine if an applicable EFH finding to use an existing environmental review procedure is already established, an action agency should coordinate with NMFS early. If the action affects only a single NMFS region, the finding should be made by that NMFS regional office. National EFH findings to use an existing environmental review procedure should apply to two or more regions, and are made with NMFS' Headquarters. EFH findings should be made in coordination with action agencies, communicated by letter and provided to action agencies by request through the relevant NMFS EFH Coordinator.

Because NOAA trust resources also include ESA listed species, the procedure to combine EFH and ESA section 7 consultation procedures was adopted as a national policy directive.<sup>28</sup> The national policy directive streamlines the process for NMFS to issue a finding that an agency's ESA section 7 consultation procedures satisfy the EFH consultation requirements by prescribing the procedure through which all EFH and ESA consultations are combined, which is otherwise developed for each finding. Attached to the national policy directive is a template for a finding that combines EFH with ESA section 7 consultations, and instructions for action agencies on how to determine if a new finding is needed, how to request a new one, and how to apply it to their consultation preparation. NMFS regional and headquarters offices are encouraged to notify action agencies in advance of the need for such an EFH finding if they anticipate a need for one in the future. NMFS may develop policy directives for other existing environmental review procedures, such as NEPA reviews (i.e.,

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<sup>27</sup> 50 C.F.R. § 600.920(f).

<sup>28</sup> NMFS Policy Directive 03-201-05 *Guidance for Combining Magnuson-Stevens Fishery Conservation and Management Act EFH Consultations with Endangered Species Act Section 7 Consultations*, <https://media.fisheries.noaa.gov/dam-migration/03-201-05.pdf>



Environmental Impact Statements or Environmental Assessments) and Fish and Wildlife Coordination Act consultations, at its discretion.

The action agency can choose whether to provide NMFS with an EFH assessment within the document for the existing procedure (either fully integrated or in separate sections) or to provide it as a standalone EFH assessment. If the EFH assessment is contained in the document for the existing procedure, the action agency must identify that section of the document as an EFH assessment.<sup>29</sup> Regardless of which existing environmental review procedure the EFH consultation is combined with, the same information requirements apply to all EFH consultations, and the action agency must still respond to NMFS' EFH conservation recommendations within 30 days.

### **2.2.3 Abbreviated Consultations**

Abbreviated consultations are appropriate for proposed projects whose activities do not conform to a general concurrence, and do not have the potential to result in substantial adverse effects on EFH. An abbreviated consultation may be appropriate when the adverse effect of an action could be alleviated through minor design or operational modifications.

The action agency should submit its EFH assessment to NMFS as soon as practicable, and at least 60 days prior to a final decision on the action. However, it is highly recommended that the EFH assessment is submitted earlier than 60 days prior to a final decision, in case the EFH assessment is found to be incomplete and additional information is requested, or if the consultation is expanded. NMFS will respond to the action agency seeking to initiate an EFH consultation in writing within 30 days after an initial review of a complete EFH assessment, if it intends to consult.

When substantial adverse effects are possible, greater scrutiny is needed to ensure that adverse effects are considered to the greatest extent possible. When adverse effects are not minimal or cannot be minimized through best management practices, an expanded consultation would be appropriate. If NMFS believes that the action may result in substantial adverse effects, NMFS will request in writing that the action agency initiates expanded consultation. Such a request will explain why NMFS believes expanded consultation is needed and will specify any new information needed.<sup>30</sup>

### **2.2.4 Expanded Consultations**

Expanded consultations are appropriate for actions that are anticipated to have substantial adverse effects on EFH,<sup>31</sup> such as when the adverse effects of an action or proposed action cannot be alleviated through minor design or operational modifications, or the inclusion of measures to offset unavoidable adverse effects.

For expanded consultations, action agencies must submit their EFH assessment to NMFS at least 90 days prior to a final decision on the action. NMFS will respond within 60 days of receiving a

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<sup>29</sup> 50 C.F.R. § 600.920(f).

<sup>30</sup> 16 U.S.C. 1855.

<sup>31</sup> 50 C.F.R. § 600.920(i).

complete EFH assessment if it intends to consult, unless an extended or compressed schedule is mutually agreed upon.

Many standalone EFH consultations are initiated as abbreviated consultations; however, if NMFS believes the action may result in substantial adverse effects on EFH, we may request additional information or expanded consultation. If additional information is needed to assess the effects of the action, NMFS will request the additional information in writing. Action agencies can identify the most appropriate information to include in their EFH assessment through early coordination with NMFS (see Section 1.2.5).

The expanded EFH consultation provides the maximum opportunity for NMFS and the action agency to work together to minimize the adverse effects on EFH and to develop effective EFH conservation recommendations. If appropriate, NMFS may conduct a site visit to assess the quality of the habitat and to clarify the risk of adverse effects on EFH from the proposed action. Such visits should be coordinated with the action agency.

### **2.2.5 Programmatic Consultations**

A comprehensive approach to EFH consultation is to evaluate a whole program of activities up front (i.e., programmatic consultation), and universally apply EFH conservation recommendations to those activities. A programmatic EFH consultation provides a means for NMFS and an action agency to consult on a potentially large number of individual actions that may adversely affect EFH.

Programmatic consultations will generally be the most appropriate option to address funding programs, large-scale planning efforts, and other instances in which sufficient information is available to address all reasonably foreseeable adverse effects on EFH of an entire program, parts of a program, or a number of similar individual actions occurring within a given geographic area. For example, the U.S. Navy's routine "testing and training" activities to maintain troop readiness and efficacy occurs at established "ranges" within a specific geographic area at predictable levels. Another example is the U.S. Army Corps of Engineers Nationwide Permit Program.

Preparing for a programmatic EFH consultation requires specific types of information to be included in addition to all the required information specified for EFH assessments above. Specifically, the EFH regulations identify the need to include a description of the program and the nature and approximate number of actions (annually or by some other appropriate time frame).<sup>32</sup>

Programmatic consultations do not have a specific timeline established by regulation. Rather, programmatic consultations front-load the analysis of what would be many individual consultations resulting in limited interagency coordination thereafter. The relative amount of work to set up a programmatic EFH consultation is commensurate with the complexity of the program proposed for consultation.

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<sup>32</sup> Id. § 600.920(j).

NMFS provides programmatic EFH conservation recommendations to avoid and minimize adverse effects on EFH, after evaluating and discussing the proposed measures for mitigating or otherwise offsetting unavoidable adverse effects on EFH. Programmatic conservation recommendations are defined by activity type and are applied to each action that the action agency proposes if it conforms to the programmatic conditions. Otherwise, the action agency may contact NMFS to discuss specific exceptions on a case-by-case basis.

To the extent possible, where there is detail lacking in the types of adverse effects, a programmatic EFH consultation will state the circumstances in which additional consultation may be necessary (i.e., a supplemental EFH consultation).

NMFS may determine the proposed program is inappropriate for a programmatic consultation and select the appropriate project-specific consultation type if, for example, sufficient information is not available to adequately evaluate the entire program's adverse effects into the future and provide meaningful EFH conservation recommendations.

### **2.2.6 Consulting on Emergency Actions**

Action agencies may face unexpected challenges that require immediate and swift actions, such as hazardous material clean-up, response to natural disasters, or actions to protect public safety. There is not a specific approach to consult on EFH for emergency response actions that may adversely affect EFH. Whenever possible, NMFS encourages action agencies to contact NMFS during the emergency to discuss potential ways to avoid or minimize effects on EFH. If a consultation cannot be completed before or during the agency's emergency response, the EFH regulations allow for after-the-fact consultations to address adverse effects on EFH if an expedited consultation is not practicable.<sup>33</sup>

NMFS encourages action agencies to establish emergency procedures for EFH consultations at a national or regional level. Although NMFS will coordinate as early and fully as possible to help guide an emergency response, when action agencies have information to consult programmatically on emergency procedures it may reduce the chances of unavoidable losses of EFH and a need for an after the fact consultation.

When an after-the-fact consultation is conducted, lessons learned can lead to better coordination practices for future emergencies. EFH regulations do not authorize after-the-fact EFH consultations unless the action is related to an emergency response and an expedited consultation is not possible.

### **2.3 Fishery Management Councils' Consultation Role**

The EFH regulations and the MSA address the main features of council and NMFS EFH consultation coordination.<sup>34</sup> The MSA authorizes councils to comment on and make recommendations to the

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<sup>33</sup> Id. § 600.920(a)(1).

<sup>34</sup> 50 C.F.R. § 600.925(d); § 600.930.

Secretary of Commerce and any federal or state agency concerning any federal activity or proposed activity that may affect the habitat (e.g., EFH) of a fishery resource under the council's authority.<sup>35</sup>

The councils and NMFS may cooperate to identify actions that may adversely affect EFH, to jointly develop comments and EFH conservation recommendations, and to provide additional EFH information to federal or state agencies. However, the councils may choose to provide comments to the action agency separately from NMFS. In both situations, NMFS shares pertinent information with the councils, which may participate in some or all aspects of consultation.

Many councils have coordinated with NMFS to identify a regional subset of EFH consultations for which they have a specific area of concern (e.g., aquaculture, offshore wind, ocean mining). However, by statute, councils shall provide comments and recommendations concerning any activity that, in the view of the council, is likely to substantially affect the habitat, including EFH, of an anadromous fishery resource under its authority.<sup>36</sup>

## 2.4 Consultation Tools

There are various sources of information about the habitat, managed species, or types of effects relevant to the proposed action that can assist the action agency in making a determination on the adverse effects:

- EFH information in FMPs, as amended
- Scientific journal articles
- Environmental review documents (e.g., NEPA documents, Forest Management Plans, ESA recovery plans, Damage Assessment and Restoration Plans, and Fish and Wildlife Coordination Act letters and reports)
- Agency reports, such as NOAA Technical Memoranda
- NMFS' Essential Fish Habitat Mapper
- NMFS' Environmental Consultation Organizer

The FMPs are based on the best scientific information available for a given managed species at the time EFH was designated, and they are periodically updated through an amendment process. FMPs describe EFH and identify the geographical extent of the designation; however, new information may be available that is not captured in the FMP. Recent scientific journal articles, environmental review documents, and agency reports are great sources of information to ensure the best scientific information is being considered in consultation.

The Essential Fish Habitat Mapper<sup>37</sup> spatially illustrates where managed species have EFH designated by life stage. It also includes links to supporting materials such as FMPs and GIS data.<sup>38</sup> While the EFH Mapper is a great tool, because of the variability in the quality of data and intended usage of the EFH Mapper's GIS data layers, not all EFH designations can be mapped effectively. For

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<sup>35</sup> 16 U.S.C. 1855.

<sup>36</sup> 16 U.S.C. 1855 § 305(b)(4)(B)

<sup>37</sup> <https://www.habitat.noaa.gov/apps/efhmapper>

<sup>38</sup> <https://www.habitat.noaa.gov/application/efhinventory/index.html>

example, resolution may be lower near complex coastlines and freshwater designations. Therefore, action agencies should use the text in the FMP for evaluating adverse effects on EFH.

NMFS' Environmental Consultation Organizer (ECO) is an online information management application for EFH and ESA consultations accessible to action agencies and the public.<sup>39</sup> Consultation records may include NMFS' response to the action agency with the applicable EFH conservation recommendations. These can be used by action agencies to inform future projects with similar effects on EFH and habitats.

Other tools are also available to address regionally-specific challenges. For example, the NMFS Alaska Regional Office developed ShoreZone, a useful tool for extrapolation of site data over broad spatial ranges for creating a variety of habitat models and oil spill response tools.<sup>40</sup> In addition, some councils provide more detailed mapping information than the EFH Mapper for their specific jurisdiction, which is made available through their websites.

## **2.5 NMFS' Responses**

### **2.5.1 NMFS' Evaluation**

NMFS evaluates the action agency's determination as to whether the proposed action either "would not adversely affect EFH" or "would adversely affect EFH." If the action would adversely affect EFH, NMFS may provide conservation recommendations to avoid, minimize or mitigate, or otherwise offset those adverse effects. If NMFS disagrees with a specific determination made by an action agency, our rationale will be explained. NMFS may request clarifications by the action agency during the consultation or may identify specific information from action agencies that would improve the focus and efficacy of EFH conservation recommendations.

### **2.5.2 Conservation Recommendations**

NMFS' EFH conservation recommendations are measures that action agencies can implement to conserve EFH. Conservation recommendations are based upon the best scientific information available provided by the action agency, in addition to NMFS' own expertise. Where the adverse effects of the action are uncertain, NMFS may provide broader conservation recommendations to reduce the uncertainty and minimize risks to EFH. For example, if adverse effects from dredging are minimized through the use of turbidity curtains and those curtains must be visually inspected to ensure performance, NMFS may recommend that dredging not occur at night.

NMFS will provide EFH conservation recommendations to action agencies in writing with an explicit rationale, which may or may not be captured in the conservation recommendation itself. This allows the action agencies to locate and better understand the reason for each EFH conservation recommendation, and for both the action agency and NMFS to determine if alternative approaches proposed by the action agency adequately address the basis for the conservation recommendation.

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<sup>39</sup> <https://appscloud.fisheries.noaa.gov>.

<sup>40</sup> <https://www.fisheries.noaa.gov/alaska/habitat-conservation/alaska-shorezone>.

NMFS will not recommend that action agencies take actions beyond their statutory authority.<sup>41</sup> In addition, there are situations in which adverse effects may occur, but EFH conservation recommendations are not warranted, such as for temporary effects on EFH that is unoccupied by a managed species long enough for full recovery.

Conservation recommendations come in various forms and typically include avoidance and minimization measures such as location or routing adjustments, best management practices, and time of year restrictions. While NMFS will first attempt to identify reasonable avoidance and minimization measures, NMFS may recommend compensation or offset for any remaining unavoidable adverse effects.

Programmatic conservation recommendations are defined by activity type and are applied to each action that the action agency proposes if it conforms to the programmatic conditions. To the extent possible, where there is detail lacking in the types of adverse effects, a programmatic EFH consultation will state the circumstances in which additional consultation may be necessary (i.e., a supplemental EFH consultation). By tracking and reporting on the actions that took place under the programmatic in a given year, action agencies can review the conservation recommendations and modify them as appropriate.

### **2.5.3 Action Agency Response to Conservation Recommendations**

The action agency is required to respond to EFH conservation recommendations in writing within 30 days, regardless of whether they initiated the consultation or not. If state agencies choose to consult, they are not required to respond. If an action agency's final response is not possible within 30 days, an interim reply may be provided to EFH conservation recommendations that identifies an anticipated date for the final response.

The action agency's final response shall either identify the measures the action agency will take to implement EFH conservation recommendations; explain to NMFS why it is not following any or all recommendations; or identify any alternative measures that the agency will take to avoid, mitigate, or offset the impact of the activity on such habitat.<sup>42</sup> In the case of a response that is inconsistent with EFH conservation recommendations, the action agency must explain its reasons for not following the recommendations, including the scientific justification for any disagreements with NMFS over the anticipated effects of the action and the measures needed to avoid, minimize, mitigate, or offset such effects.<sup>43</sup> The final response must be provided to NMFS at least 10 days prior to taking any proposed action. Lastly, NMFS notes that an action agency that fails to respond to an EFH conservation recommendation is not in compliance with its legal obligation under the MSA.<sup>44</sup>

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<sup>41</sup> 50 C.F.R. § 600.925(a).

<sup>42</sup> 16 U.S.C. 1855 § 305(b)(4)(B).

<sup>43</sup> 50 C.F.R. § 600.920(k)(1).

<sup>44</sup> 16 U.S.C. 1855(b)(4)(A).

#### **2.5.4 Consultation Completion**

A typical EFH consultation is completed when NMFS responds that no conservation recommendations are necessary or receives a response to its EFH conservation recommendations. If an action agency is unable to accept an EFH conservation recommendation, the consultation is completed by explaining to NMFS why it is not following each recommendation, unless NMFS seeks further review (see Section 2.5.5 of this guidance).

NMFS expects action agencies to implement the EFH conservation recommendations that are accepted, including consultation obligations that occur into the future, and to communicate the results to NMFS. For example, when compensation or offset occurs, monitoring is typically necessary to inform adaptive management or otherwise ensure success for those forms of mitigation. The results of this monitoring should be relayed to NMFS. Monitoring information is not only important for the action agency to use in adaptive management, it can also inform future consultations and the design of future proposals.

#### **2.5.5 Disagreement and Further Review**

When an action agency's decision is inconsistent with an EFH conservation recommendation, NMFS prefers to first discuss and resolve the disagreements with action agency staff at the level at which the consultation originated (i.e., regional or national offices). If a resolution cannot be achieved, NMFS can elevate the disagreement to the Assistant Administrator of NMFS for further review and resolution.<sup>45</sup> The Assistant Administrator of NMFS may arrange a meeting with the appropriate action agency counterpart and affiliated parties to discuss the action and opportunities for resolving an outstanding disagreement. Action agencies and NMFS may agree to clarify their inter-agency elevation process through a formal agreement.

Further review does not occur frequently and is often referred to as an "elevation." There are a number of situations in which NMFS may seek further review:

- Practicable alternatives resulting in fewer adverse effects on EFH are not selected by the action agency
- Practical avoidance, minimization, compensation, or offset are not selected (e.g., monitoring proposed as mitigation)
- Success of the proposed compensation or offset is in question
- There is an apparent failure to follow the EFH regulations, policy, procedures, or guidance

#### **2.5.6 Reinitiation of Consultation**

The action agency is required to reinitiate consultation if the plans for the action are substantially revised in a manner that may adversely affect EFH. Reinitiated EFH consultations are completed through a supplemental consultation that addresses only the portion of the action which is proposed to change (e.g., new features or activities). Reinitiated EFH consultations follow the same timelines and requirements that were applicable to the original EFH consultation. For example, an EFH

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<sup>45</sup> 50 C.F.R. § 600.920(k)(2).

assessment for a re-initiated expanded consultation would require a more detailed and specific EFH assessment than a reinitiated abbreviated consultation. Portions of an original EFH consultation that are not modified by a supplemental EFH consultation remain unchanged and the relevant original EFH conservation recommendations continue to apply.