

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director



ESTIMATED TIME
1 HOUR

DATE: January 27, 1997

SUBJECT: Essential Fish Habitat

ACTION REQUIRED

Review and comment on proposed Secretarial guidelines for identification of essential fish habitat (EFH).

BACKGROUND

As discussed at the December Council meeting, the Magnuson-Stevens Act requires the Secretary to establish guidelines (by April 11, 1997), and the Council to amend their FMPs (by October 11, 1998) to identify and describe EFH in the areas under its jurisdiction. The guidelines are important in that they will define the scope and parameters of amendments to address the EFH provisions of the Act. Proposed guidelines are now available (Item C-6(a)) and will be presented for Council consideration by staff of the Protected Resources Management Division (PRMD), NMFS. The Council's Ecosystem Committee also will provide comments for Council review following a Committee meeting now set for Thursday evening, February 6.

**Framework for the Description, Identification, Conservation,
and Enhancement of Essential Fish Habitat
(January 2, 1997)**

I. PURPOSE

Section 305(b)(1)(A and B) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act, 16 U.S.C. 1801 et seq.), as amended, mandates that,

"(A) The Secretary shall, within 6 months of the date of enactment of the Sustainable Fisheries Act, establish by regulation guidelines to assist the Councils in the description and identification of essential fish habitat in fishery management plans (including adverse impacts on such habitat) and in the consideration of actions to ensure the conservation and enhancement of such habitat. The Secretary shall set forth a schedule for the amendment of fishery management plans to include the identification of essential fish habitat and for the review and updating of such identifications based on new scientific evidence or other relevant information.

"(B) The Secretary, in consultation with participants in the fishery, shall provide each Council with recommendations and information regarding each fishery under that Council's authority to assist it in the identification of essential fish habitat, the adverse impacts on that habitat, and the actions that should be considered to ensure the conservation and enhancement of that habitat."

This document provides a framework for the description, identification, conservation, and enhancement of essential fish habitat (EFH) and is designed to aid Fishery Management Councils (Councils) in implementing the EFH requirements of sections 303 and 305 of the Magnuson-Stevens Act. This framework also describes how the National Marine Fisheries Service (NMFS), acting on behalf of the Secretary of Commerce (Secretary), will implement its EFH requirements under the Magnuson-Stevens Act. These requirements include developing and providing information and recommendations in guidelines, by regulation, to the Councils to assist in identifying EFH, adverse impacts to EFH (including adverse impacts from fishing), and actions to conserve and enhance EFH. Finally, the framework describes how NMFS, in coordination with the Councils, will consult on and recommend conservation and enhancement measures for actions undertaken by any state or Federal agency that may adversely affect any EFH.

This framework is an instrument to solicit public comments on ideas for the development of guidelines by regulation, as required by the Magnuson-Stevens Act. In order to coordinate implementation of the fishery management plan EFH amendments efficiently, NMFS will contact the Councils to develop an appropriate schedule (see section V.D). NMFS will also develop a technical assistance manual that will provide the Councils, Federal agencies, and states with additional information for identifying EFH, adverse impacts to EFH, and conservation and enhancement measures.

II. INTRODUCTION

The health and productivity of fish populations are dependent on habitat quantity and quality. As defined in section 3 of the Magnuson-Stevens Act, fish includes finfish, mollusks, crustaceans, and all other forms of marine animal and plant life, other than marine mammals and birds. Congress stated that habitat considerations should receive increased attention for the conservation and management of fishery resources (section 2(a)(9)). This framework describes how NMFS interprets the statutory definition of EFH and outlines procedures to assist Councils in describing, identifying, conserving, and enhancing EFH.

This framework is based on four general principles. First, the description and identification of EFH must be based on the best scientific information available. Second, in cases where little information is available, the framework requires a conservative approach to describing and identifying EFH, erring on the side of inclusiveness, to ensure adequate habitat protection. Third, the framework must be appropriate for many different species in many different areas. Finally, the procedures for describing and identifying EFH should be scientifically defensible.

III. OVERVIEW OF STATUTORY REQUIREMENTS

A. Definition of EFH

As defined in section 3(10) of the Magnuson-Stevens Act, EFH is those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." For the purposes of this framework document: waters" include aquatic areas and their associated physical, chemical and biological properties that are used by fish and may include historic areas where appropriate; substrate" includes sediments, geological features underlying the waters, and associated biological communities such as coral reefs or submerged aquatic vegetation; necessary" means the habitat required to support a managed species or assemblage at a target production level reflecting conscientious stewardship; and spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle. Migratory routes such as rivers serving as passageways to anadromous fish spawning grounds should be considered EFH. The definition of EFH may include habitat for an individual species or an assemblage of species, whichever is appropriate within each FMP. Finally, in interpreting "feeding" and "growth to maturity", EFH should also include essential habitat for prey species if the managed species depends on the existence of a specific prey species. This definition commits the Secretary and Councils to an ecosystem approach to fish habitat conservation and enhancement that views EFH from a broad perspective.

B. Contents of FMPs

The amended Magnuson-Stevens Act has several new FMP provisions, including section 303(a)(7) which requires: that EFH be described and identified for any fishery that is managed under the Magnuson-Stevens Act based on guidelines established by the Secretary of Commerce under section 305(b)(1)(A); that the adverse effects of fishing on EFH be minimized, to the extent practicable; and that other actions to encourage the conservation and enhancement of EFH be identified.

C. Actions by the Secretary

The Magnuson-Stevens Act requires the Secretary to undertake several actions regarding fish habitat:

- Develop guidelines, by regulation, to assist the Councils to describe and identify EFH (including adverse effects) and conservation and enhancement measures, by April 11, 1997.
- After consulting with fishing participants and other interested parties, provide each Council with recommendations and information regarding EFH for each fishery under that Council's authority.
- Review programs administered by the Department of Commerce and ensure that any relevant programs further the conservation and enhancement of EFH.
- Provide information to other Federal agencies to further the conservation and enhancement of EFH.
- Recommend conservation measures for any action undertaken by any state or Federal agency that would adversely affect EFH.

D. Actions by the Fishery Management Councils

The Magnuson-Stevens Act requires or authorizes actions by the Councils, including:

- Councils are required to submit FMP amendments to the Secretary to implement the EFH and other new FMP requirements, by October 11, 1998.
- Councils may comment on and make recommendations to the Secretary and any Federal or state agency concerning any activity, or proposed activity, authorized, funded, or undertaken by any Federal or state agency that may affect the habitat, including EFH, of a fishery under its authority.
- Councils must comment on and make recommendations to the Secretary and any Federal or state agency concerning an activity that is likely to substantially affect the habitat, including EFH, of an anadromous fishery.

E. Actions Required of Other Federal Agencies

The Magnuson-Stevens Act requires actions by Federal agencies, including:

- Federal agencies must consult with the Secretary regarding any activity, or proposed activity, authorized, funded, or undertaken by the agency that may adversely affect EFH.
- Within 30 days of receipt of a recommendation, Federal agencies are required to provide the Secretary and any Council that comments on an activity, or proposed activity, with a written description of the measures proposed by the agency for avoiding, mitigating or offsetting the impact of the activity on EFH. If this response is inconsistent with the recommendations of the Secretary, the agency must explain why it is inconsistent.

IV. SPECIFIC EFH REQUIREMENTS IN FMPS

A. Description and Identification of EFH

1. Fish Habitat (Present and Historical)

The role of habitat in supporting the productivity of organisms has been thoroughly documented in the ecological literature, and the linkage between habitat availability and fishery productivity has been clearly established for several fishery species. Because habitat is an essential element for sustaining the production of a species, the goals of FMPS cannot be achieved if the managed species do not have a sufficient quantity of suitable habitat.

From the broadest perspective, fish habitat is the geographic area where the species occurs at any time during its life. That area should be described in terms of ecological characteristics, location, and time. Ecologically, essential habitat includes structure or substrate that focus distribution (e.g., coral reefs, marshes, or kelp beds) and other characteristics that are less distinct (e.g., turbidity zones, thermoclines, or fronts separating water masses). Spatially, habitat use may shift over time due to climatic change, human uses, or other factors. Habitat not currently used should be considered when establishing long-term goals for EFH and species productivity. Habitat restoration will be vital to improving habitat quality and quantity, with benefits to the species and society.

Fishery species use habitat for spawning, breeding, migration, feeding and growth, and for shelter to increase survival. However, most habitats provide only a subset of these functions. Fish habitat utilized by a species can change with life history stage, abundance of the species, competition from other species, and environmental variability in time and space. The type of habitat available, its attributes, and its functions are important to species productivity and societal benefits.

2. EFH for Managed Species

There are numerous factors that must be considered by the Secretary and the appropriate Council for determining the EFH of a managed species. Institutional arrangements for implementing the Magnuson-Stevens Act currently utilize either a single species or single assemblage approach. The ecological relationships among species and between the species and their habitat require, where possible, that an ecosystem approach be used in assessing EFH of a managed species or species assemblage. Where possible, this ecosystem approach should be used in assessing the EFH of a given species or assemblage. The extent of the EFH should be based on the judgment of the Secretary and the appropriate Council regarding the amount of habitat that is necessary to maintain a managed species at a target production level that supports the maximum societal benefits of the species, including the catch of the species.

In general, the minimum threshold for determining the target production of the species or assemblage should be that level necessary to maintain at least the current reproductive capacity of the population so that the maximum sustainable yield (MSY) eventually can be attained. Since the MSY is based on prevailing ecological and environmental conditions, including degraded conditions that may have contributed to a reduction in MSY, the feasibility of increasing the yield of a species with improved ecological conditions must be evaluated. This feasibility should be determined by assessing historical information that existed in periods of higher yields and more favorable ecological conditions, and considering the feasibility of returning to those conditions. If degraded or inaccessible habitat has contributed to the reduced yields of a species, and in the judgment of the Secretary and the appropriate Council, the degraded conditions can be reversed through such actions as improved fish passage techniques (for fish blockages), improved water quality measures (removal of contaminants) and similar measures that are practicable, then EFH should include those habitats that would be essential to the species to obtain increased yields or societal benefits. EFH is to be determined based on the target production level that supports the maximum societal benefit of a species, including harvest, and will always be greater than the "critical habitat" for any managed species listed as threatened or endangered under the Endangered Species Act.

Other societal benefits of the species, such as being a prey species of other living marine species, should be considered when determining the target production level of a species and the required habitat to support that level of productivity. Where a stock of a species is considered to be healthy and where sufficient information exists to determine the necessary habitat to support the target production level, then EFH for a species should be a subset of all existing habitat for the species.

EFH should include geographic boundaries in order to provide notice to Federal and state agencies and other affected parties of the potential effects of their activities on EFH. It should be described by the components of the ecosystem that are important to the managed species. Therefore, EFH should be described by its physical, chemical, and/or biological characteristics, including, but not limited to, temperature, salinity, nutrients, dissolved oxygen, bottom type, and vegetation. EFH should also take into consideration that environmental conditions affecting one life history stage could impact the overall production and recruitment success of a species. Some habitats may be essential because they support specific prey organisms required to maintain the productivity of the managed species. If the abundance of a species is directly reliant upon the abundance of specific prey organisms, then the description of EFH for the species should include a description of the essential habitat for the prey as well.

FMPs should describe EFH in text and with tables that provide information on the biological requirements for each life history stage of the species. These tables should include all available information on environmental and habitat variables that control or limit distribution, abundance, reproduction, growth, mortality, and productivity of the managed species. Information in the tables should be supported with citations. Graphical depiction of habitats used by life history stages, and maps of species distributions may also be useful in describing and identifying EFH.

3. Information Requirements

The following hierarchical approach should be used in identifying EFH; the process should be initiated at Level 1 and progress through the various levels as more information on habitat functions becomes available. Information from all levels will be useful in identifying EFH, and the goal of this procedure should be to include as many levels of analysis as possible within the constraints of the available data. The hierarchical approach presented herein for describing and identifying EFH relies upon the best available scientific information regarding species distribution, abundance, habitat usage, and habitat function. Where the best available scientific information is subject to differing interpretations, or is limited in scope, best scientific professional judgement should be used. Councils should apply this approach in a risk-averse fashion, erring on the side of inclusiveness to ensure adequate protection for EFH of managed species. Councils should strive to obtain data sufficient to describe habitat at the highest level of detail (i.e., Level 4) and provide the regulated community (i.e., those individuals proposing activities that may adversely effect EFH) with an unambiguous interpretation of the description and identification EFH. The hierarchical approach provides a framework for identifying research needs and collecting additional information to improve our understanding of EFH.

The information obtained in the hierarchical analysis will allow Councils to assess the relative value of habitats in relation to the productivity of a fish species. Habitats valued most highly through this analysis should be considered essential for the species. Habitats of intermediate and low value, however, may also be essential. For example, low-value habitat may be extensive in its geographic coverage, and the productivity derived from the cumulative habitat area may be essential in meeting target productions levels. Similarly, if a species is recovering from a population decline, all habitats used by the species should be considered essential in addition to some historic habitats that are potentially valuable.

To identify EFH, basic information is needed on current and historic stock size and on the geographic range of the managed species (and prey species where appropriate). Information is also required on the timing and location of major life history stages (defined by developmental and functional shifts). Since EFH should be identified for each major life history stage, data should be collected on the distribution, density, growth, mortality, and production of each stage within all habitats occupied by the species. Different levels of data may be available for different life history stages of a species (e.g., data for eggs may be at Level 1, while data for adults may be at Level 3). These data should be obtained from the peer-reviewed literature, data reports and "gray" literature, data files of government resource agencies, and any other potential source of quality information.

Level 1: Presence/absence distribution data are available in at least some portions of the geographic range of the species.

This level is used when only presence/absence data are available to describe the distribution of a species (or life history stage) in relation to potential habitats. Care should be taken to ensure that all potential habitats have been sampled adequately. Using these data, the only scientifically defensible statement that can be made about the importance of a habitat is that the species (or life history stage) does or does not occur in the habitat. At this level of data availability, EFH is everywhere a species has been found.

In the event that distribution data are available for only portions of the geographic area occupied by a particular life history stage of a species, EFH can be inferred on the basis of distributions among habitats where the species has been found and on information about its habitat requirements and behavior. At this level of data availability, the risk-averse approach is to define EFH as everywhere the species is likely to occur, noting any areas of known significance to reproduction, feeding, or growth to maturity.

Level 2: Habitat-related densities of the species are available

At this level, quantitative data (i.e., relative densities) are available for the habitats occupied by a species or life history stage. Because the efficiency of sampling gear is often affected by habitat characteristics, strict quality

assurance criteria are required to ensure that density estimates are comparable among habitats. For example, trawl data may not be appropriate for making comparisons of fish densities among different estuarine habitats, because trawl catch efficiency has been shown to vary with some habitat characteristics. Density data should reflect habitat utilization, and the degree that a habitat is utilized is assumed to be indicative of habitat value. Therefore, for each life history stage, the habitats contributing the most productivity are those with the highest densities of the species. When assessing habitat value on the basis of fish densities in this manner, temporal changes in habitat availability and utilizations should be considered.

Level 3: Habitat-related growth, reproduction, or survival rates by habitat are available

At this level, data are available on habitat-related growth, reproduction, and/or survival by life history stage. The habitats contributing the most to productivity should be those that support the highest growth, reproduction, and survival of the species (or life history stage).

Level 4: Production rates by habitat are available

At this level, data are available that directly relate the production rates of a species or life history stage to habitat type, quantity, quality, and location. Essential habitats are those necessary to maintain target long-term production levels.

4. Representation of EFH

Once EFH is identified for each life history stage, the general distribution and geographic limits of EFH should be presented in FMPs in the form of maps. Ultimately, these data should be incorporated into a Geographic Information System (GIS) to facilitate analysis and presentation. For example, if submerged aquatic vegetation (SAV) has been identified as EFH for a species, the general distribution of SAV should be mapped over the geographic range of the species. These maps may be presented as fixed in time and space, but they should encompass all appropriate temporal and spatial variability in the distribution of EFH. If the geographic boundaries of EFH change seasonally, annually, or decadal, these changing distributions need to be represented in the maps. Different types of EFH should be identified on maps along with areas used by different life history stages of the species. The type of information used to identify EFH should be included in map legends, and more detailed and informative maps should be produced as more complete information about population responses (e.g., growth, survival, or reproductive rates) to habitat characteristics becomes available. Where the present distribution or stock size of a species or life history stage is different from the historical distribution or stock size, then maps of historical habitat boundaries should be included in the FMP. If EFH for a species includes habitat that supports a specific prey organism, this prey habitat should be identified separately and presented on the habitat maps as well.

B. Adverse Effects of Human Activities, and Actions to Ensure the Conservation, Management, and Enhancement of EFH

This section provides guidance concerning the identification in FMPs of potential adverse effects of Federal and state activities on EFH, as well as conservation, management and enhancement opportunities associated with such activities. Potential adverse effects of fishing activities on EFH are also addressed in this section.

Consideration of EFH should be incorporated into amended FMPs such that the FMPs identify and describe the following: (1) activities with known or potential adverse effects on EFH (threats); (2) actions required to counter threats to the existing and historic EFH; and (3) actions to restore or enhance EFH. In this context, "restore" means to reestablish the habitat and associated functions to a desired level that is based on feasibility and historic information; and "enhance" means to improve the habitat and associated functions to a desired level that is based on feasibility and historic information. FMP recommendations should assess impacts cumulatively and individually for all activities that adversely affect EFH. The ultimate goal is to incorporate the highest level of

analysis possible, e.g., cumulative impacts on a watershed basis, including some form of ecological risk assessment. The steps involved in identifying and describing adverse effects on EFH, and a suggested process to avoid them, should be presented in a hierarchical fashion.

Tier 1: Identify activities that have potential adverse effects on EFH. Broad categories of activities may include, but are not limited to: fill, excavation, mining, impoundment, discharge, water diversions, thermal additions, runoff, placement of contaminated material, introduction of exotic species, certain fishing activities, and the conversion of aquatic habitat that may eliminate, diminish, or disrupt the functions of EFH. If known, describe the EFH most likely to be affected by these activities. For each activity, describe the known or potential impacts to EFH. These descriptions should explain the mechanisms or processes that cause expected deleterious effects, and explain the known or potential impacts on the habitat function (e.g., carcinogenic effects, bioaccumulation, clogged gills, reduced visibility for prey capture, etc.). When there are sufficient data to support it, the use of a GIS is encouraged.

Tier 2: Using Tier 1 as a basis, identify and describe those activities that can influence habitat function on an ecosystem or watershed scale. This should include an assessment of the cumulative and synergistic effects of multiple threats, including natural adverse effects (such as storm damage or climate-based environmental shifts), and an ecological risk assessment of the managed species' habitat. For the purposes of this analysis, cumulative impacts are impacts on the environment that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of who undertakes such actions. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time. The use of a GIS to analyze and present these data is required under this tier.

For the identification and description of adverse effects on EFH, FMPs should provide scientific justification that the potential or known adverse effects are a result of the identified activities. Examples of scientific justification include, but are not limited to: peer-reviewed articles and reports; resource agency publications that have been subjected to internal agency review; agency data products, such as research findings, on-going evaluations and scientific knowledge of species, ecosystems, or watershed systems; ocean temperature, dissolved oxygen and salinity logs; fish landings reports; satellite and aerial imagery data products; and testimonies of individuals with a demonstrated expertise regarding the resources under discussion.

1. Fishing-Related Activities

Adverse impacts from fishing may include physical disturbance of the substrate, loss of and injury to benthic organisms, and loss of and injury to prey species and their habitat. Benthic organisms are a particular concern because they may also create important microhabitat features of EFH that directly affect survival and feeding success of early life history stages of the managed species. FMPs must include management options that minimize adverse impacts, to the extent practicable, and identify potential conservation and enhancement measures. Because fishing activities fall within the regulatory control of the Councils and the Secretary, it is incumbent upon NMFS and the Councils to gather sufficient information to support evaluation of these options. Fishery management options may include, but are not limited to:

- (i) Fishing gear restrictions. These options may include, but are not limited to: limit seasonal and areal uses of trawl gear and bottom longlines; restrict net mesh sizes, traps, and entanglement gear to allow escapement of juveniles and non-target species; reduce fish and shellfish traps set near coral reefs and other hard bottoms; limit seasonal and areal uses of dredge gear in sensitive habitats; prohibit use of explosives and chemicals; restrict diving activities that have potential adverse effects; prohibit the use of nets that have a high rate of incidental take or bycatch; prohibit drift gillnets; prohibit anchoring of fishing vessels in coral reef areas and other significant areas; and prohibit fishing activities that cause significant physical damage in areas of EFH, such as SAV, algal beds, rock reefs, and sand dollar beds.
- (ii) Closed areas/times. These spatial and temporal actions may include, but are not limited to: closing areas to all fishing or specific gear types during spawning, migration, foraging and nursery activities;

and designating zones to limit effects of fishing practices on certain vulnerable or rare areas/species/life history stages, e.g. Special Management Zones, Habitat Areas of Particular Concern, Areas of Biological Significance, and Species of Concern.

(iii) Harvest limits. These actions may include, but are not limited to: limits on take of species that provide structural habitat for other species assemblages or communities, e.g., "live rock," SAV including eelgrass, kelp beds (e.g., "roe-on-kelp" fishery), and other marine habitats.

2. Non-Fishing Related Activities

A variety of activities within watersheds and in offshore and coastal areas affect fish habitat. These activities affect living marine resources directly and indirectly through habitat loss and/or modification. These effects, combined with cumulative effects from activities in adjacent areas, have contributed to the decline of some species.

FMPs should include options that minimize these effects and identify potential enhancement measures. Conservation and enhancement recommendations may include, but are not limited to:

(i) Avoidance and minimization of adverse impacts on EFH. Environmentally sound engineering and management practices (e.g., seasonal restrictions, dredging methods, disposal options, etc.) should be employed for all dredging and construction projects. Disposal of contaminated dredge material, sewage sludge, industrial waste or other materials in EFH should be avoided. Oil and gas exploration, production, transportation, and refining activities in EFH should be avoided, where possible, and minimize and mitigate if unavoidable.

(ii) Restoration of riparian and shallow coastal areas. Restoration measures could include: restoration of functions of riparian vegetation by reestablishing mature trees or other appropriate vegetation, restore natural bottom characteristics; removal of material from areas where accumulation is caused by human activities; and replacement of gravel to stream areas for spawning.

(iii) Upland habitat restoration. This should include measures to control erosion, stabilize roads, upgrade culverts for fish passage, and manage watershed uses.

(iv) Water quality. This includes enforcement of best land management practices for ensuring water quality standards at state and Federal levels, improved treatment of sewage, and disposal of waste materials.

(v) Watershed analysis and subsequent watershed planning. This should be encouraged at the local and state levels. This effort should minimize depletion/diversion of freshwater flows into rivers and estuaries, destruction/degradation of wetlands, and introduction of non-native species, and should consider climate changes.

(vi) Habitat creation. Require justification for habitat created at the expense of another naturally functioning systems (e.g., marsh creation with dredge material placed in shallow water habitat).

C. Recommendations for Improving Habitat Information

Each FMP should contain recommendations, preferably in priority order, for research efforts that the Councils and NMFS view as necessary for carrying out their EFH management mandate. The primary need for additional research is to make available sufficient information to support a higher level of description and identification of EFH (Section IV.A.3). An initial inventory of available environmental and fisheries data sources relevant to the managed species should be useful in describing and identifying EFH. This inventory should also help to identify

major species-specific habitat data gaps. Gaps in data availability (i.e., accessibility, use and application of the data) and in data quality (including considerations of scale and resolution; relevance; and potential biases in collection and interpretation) should be identified. The recommendations may include basic life history information that will result in the comprehensive identification of the habitat requirements of the species (or species assemblages), including all life stages, as well as habitat-related information that defines the interrelationship between the species, its environment and the food chain (e.g., drifter studies to determine current flows, and tagging studies for determination of migratory pathways and habitat-use patterns).

Additional research may also be necessary to identify and evaluate actual and potential adverse effects on EFH, including, but not limited to: direct physical alteration; impaired habitat quality/functions; or indirect adverse effects such as sea level rise; global warming and climate shifts; and non-gear fishery impacts. The Magnuson-Stevens Act specifically identifies the effects of fishing as a concern. The need for additional research on the effects of fishing gear on EFH may be included in this section of the FMP. If an adverse effect is identified and determined to be an impediment to reaching target long-term production levels, then the research needed to quantify and mitigate this effect should be identified in this section.

A target production level and the habitat necessary to support this level of productivity should be defined in the EFH amendment process, against which success can be measured. This should represent a measure of the habitat necessary to restore levels of species productivity to feasible historic levels, taking into account accepted productivity levels and any adverse effects that have already reduced available EFH.

V. DEVELOPMENT AND APPROVAL OF EFH FMP AMENDMENTS

The Magnuson-Stevens Act requires NMFS to:

- Develop recommendations that will assist the Councils in identifying and describing EFH, adverse impacts to EFH (including adverse impacts from fishing), and actions to conserve and enhance EFH; and
- Recommend conservation and enhancement measures for actions undertaken by any Federal or state agency that would adversely affect EFH.

These efforts will involve close cooperation with the Councils, states, other Federal agencies, interstate fisheries commissions, tribal agencies, academia, fishing participants, conservation organizations, and other interested parties.

Based on schedules submitted by each Council, NMFS will establish a master schedule within 60 days of publication of the final rule to indicate when FMPs will be amended to include EFH.

A. Evaluation of FMPs

Since 1986, the Magnuson-Stevens Act has required that each FMP describe significant fishery habitat and the effects habitat impacts may have on the fishery. The initial step in preparing EFH amendments will be for NMFS and each Council to evaluate the existing habitat information in each FMP. This review will help establish the amount and quality of the information on life history, habitat, and distribution for each species or assemblage of species managed under the Magnuson-Stevens Act. This evaluation should compare existing FMP documentation to the hierarchical approach outlined in section IV.A.3.

In cooperation with the Councils, and after consulting with fishery participants, NMFS should identify additional information to assist the Councils with EFH amendments. Significant data gaps should also be identified.

B. Development of EFH Identification Recommendations

After reviewing the best available scientific information, and in consultation with the Councils, participants in the fishery, and other interested parties, NMFS will develop recommendations for the identification of EFH in each FMP. Prior to submitting a formal EFH identification recommendation to the Council for an FMP, the draft recommendation will be made available for public review and at least one public meeting will be held.

The contents of EFH identification recommendations may vary depending on the amount of supporting information available for the species being considered. For EFH, presence/absence data for a species with "Level 1" information (see Section IV.B.2.i) will support a simple graphical display, while the more complex data sets expected at "Level 3" will support more detailed comparison of life history stages and habitat types to yield displays of distribution over time. For mitigative measures, the level of detail will be dictated by a combination of species and impact information. Point source discharges, designated disposal sites, and known pollutant loads may provide sufficient information to develop mitigative measures for certain impacts in specific areas, perhaps even with seasonal restrictions. Such determinations will be made by NMFS and the Councils based on the available information for each species or species assemblage.

C. Preparation of EFH Amendments

NMFS will consider the best available scientific information in developing EFH amendments for Council consideration. Councils have the option of incorporating some or all of the NMFS recommendations into their EFH amendments, consistent with this framework.

D. Schedule for EFH Amendments

The Magnuson-Stevens Act requires that NMFS develop a schedule for amending FMPs. NMFS will develop the amendment schedule based on discussions with each Council, thereby balancing pressures from other priorities and staff availability. NMFS will use the schedule to anticipate when its contributions will be needed by each Council. Several factors are likely to affect EFH amendment schedules:

- Is there sufficient information to prepare an EFH amendment early in the 18-month period or is the amount and quality of habitat data available expected to improve later in the amendment period?
- Can the EFH amendment be combined with an FMP amendment that may already be anticipated within the 18-month amendment period?
- Could certain aspects of the information available on life history, adverse effects, EFH, and/or mitigative measures for one species be applied to more than one FMP, thereby expediting the amendment process?
- Will staff resources constrain the pace or order of work on EFH amendments?
- How will preparation and approval tasks for all EFH amendments be distributed over the 18-month period, both for the Councils and NMFS?

To arrange workloads during the 18-month amendment period, each Council should notify NMFS of its intended EFH amendment schedule within 1 month of publication of final guidelines in the Federal Register. NMFS will combine those schedules into a master list of all proposed EFH amendments and make the schedule available to the public. Further discussion may be needed to balance amendment schedules with resource availability.

E. Future Review of EFH

Each Council and NMFS are expected to review the EFH components of FMPs. Each FMP EFH identification recommendation and amendment should include a provision to review and update EFH information and prepare a revised FMP amendment if new information becomes available. The schedule for this review should be based on an assessment of the quality of both the existing data and expectations when new data will be available. Such a review of information should be conducted at least once every five years.

VI. COORDINATION AND CONSULTATION ON EFH

A. GENERAL

1. Scope

The following guidance addresses the coordination and consultation requirements of the Magnuson-Stevens Act. These include the requirement that: Federal agencies must consult with the Secretary on all activities, or proposed activities, authorized, funded, or undertaken by the agency, that may adversely affect EFH; and the Secretary and the Councils provide recommendations to conserve EFH to Federal or state agencies on such activities. EFH conservation recommendations are measures recommended by the Councils or NMFS to a Federal or state agency to conserve EFH. Such recommendations may include measures to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH resulting from actions or proposed actions authorized, funded, or undertaken by that agency. These actions are mandated by sections 305(b)(2-4) of the Magnuson-Stevens Act. These requirements are also explained within sections III(D-E) of this framework. The following guidance for a coordination and consultative process should assist all parties involved to clearly and consistently interpret and implement the requirements of the Magnuson-Stevens Act.

2. Coordination with Other Environmental Reviews

Consultation and coordination under sections 305(b)(1)(D), 305(b)(2), and 305(b)(4) of the Magnuson-Stevens Act may be consolidated with interagency coordination procedures required by other statutes, such as the National Environmental Policy Act, the Fish and Wildlife Coordination Act, the Clean Water Act, and the Federal Power Act, to reduce duplication and improve efficiency. For example, a Federal agency preparing an environmental impact statement (EIS) need not duplicate sections of that document in a separate EFH assessment, provided the EIS specifically and fully evaluates the effects of the proposed action on EFH, notes that it is intended to function as an EFH assessment, is provided to NMFS for review, and meets the other requirements for an EFH assessment contained in this section.

3. Designation of Lead Agency

If more than one Federal or state agency is involved in an action (e.g., authorization is needed from more than one agency), the consultation requirements of sections 305(b)(2-4) of the Magnuson-Stevens Act may be fulfilled through a lead agency. The lead agency shall notify NMFS in writing that it is representing one or more additional agencies.

4. Conservation and Enhancement of EFH

To further the conservation and enhancement of EFH in accordance with section 305(b)(1)(D) of the Magnuson-Stevens Act, NMFS will compile and make available to other Federal and state agencies syntheses of the locations of EFH, including maps and/or narrative descriptions. Federal and state agencies empowered to authorize, fund, or undertake actions that could adversely affect any EFH identified in an FMP are encouraged to contact NMFS and the Councils to become familiar with the extent of, and potential threats to EFH, as well as opportunities to promote the conservation and enhancement of such habitat.

B. COUNCIL COMMENTS AND RECOMMENDATIONS TO FEDERAL AND STATE AGENCIES

1. Establishment of Procedures

Each Council should establish procedures for reviewing activities authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken, by state or Federal agencies that may affect the habitat, including EFH, of a species under its authority. Each Council may identify activities of concern by: directing Council advisory staff to track proposed actions; having the Council's habitat committee identify activities of concern; entering into an agreement with the NMFS Regional Administrator to notify the Council of activities that may be a concern; or by similar procedures. Federal and state actions often follow specific timetables which may not coincide with Council meetings. Councils may wish to consider establishing abbreviated procedures for the development of Council recommendations.

2. Early Involvement

Councils should provide comments and recommendations on proposed state and Federal activities of interest as early as practicable in project planning to ensure thorough consideration of Council concerns by the responsible agency.

3. Coordination with NMFS

The Secretary will develop agreements with each Council to facilitate coordination between the Councils and NMFS on EFH conservation recommendations.

C. FEDERAL AGENCY CONSULTATION

1. Interagency Coordination

Both Federal and state agencies are encouraged to coordinate their actions with NMFS to facilitate the early identification of potential adverse effects on EFH. However, the consultative requirements of sections 305(b)(2) and 305(b)(4) of the Magnuson-Stevens Act differ for Federal agencies versus state agencies. Federal agencies have a statutory requirement to consult with NMFS regarding actions that may adversely affect EFH, pursuant to section 305(b)(2) of the Magnuson-Stevens Act. NMFS is mandated under section 305(b)(4) to provide EFH recommendations regarding state and Federal agency actions that could adversely affect EFH (see section D). In order for NMFS to fulfill its obligation regarding EFH recommendations to states, a process to facilitate EFH recommendations on state activities should be developed. Both Federal and state agencies are encouraged to develop specific agreements (or modify existing agreements) with NMFS to meet these requirements in a manner to increase the efficiency of the consulting requirements and to fully meet the intent and purpose of the Magnuson-Stevens Act EFH provisions.

2. Designation of Non-Federal Representative

A Federal agency may designate a non-Federal representative to conduct an abbreviated consultation or prepare an EFH assessment by giving written notice of such designation to NMFS. If a non-Federal representative is used, the Federal agency shall provide guidance and supervision and shall independently review the scope and contents of the EFH assessment. The Federal agency remains ultimately responsible for compliance with sections 305(b)(2) and 305(b)(4) of the Magnuson-Stevens Act.

3. General Concurrence

(a) Purpose. The General Concurrence process identifies specific types of Federal actions that may affect EFH, but for which no further consultation is generally required because NMFS determines, through an analysis of that

class of action, that they are likely to result in minimal adverse effects individually or cumulatively. General Concurrences may be national or regional in scope.

(b) Requirements.

(1) For Federal actions to qualify for General Concurrence, NMFS must determine, after consultation with the appropriate Council(s), that the actions meet the following criteria:

(i) the actions must be similar in nature and similar in their impact on EFH;

(ii) the actions must not cause greater than minimal adverse effects on EFH when implemented individually; and

(iii) the actions must not cause greater than minimal cumulative adverse effects on EFH.

(2) Categories of Federal actions may also qualify for General Concurrence if they are modified by appropriate conditions that ensure the actions will meet the criteria in paragraph 3(b)(1) above. For example, NMFS may provide General Concurrence for additional actions contingent upon project size limitations, seasonal restrictions, or other conditions.

(c) General Concurrence Initiated by Federal Agency. A Federal agency may request General Concurrence by providing NMFS with a written description of the nature and approximate number of the proposed actions, an analysis of the effects of the actions on EFH and associated species and their life history stages, including cumulative effects, and the Federal agency's conclusions regarding the magnitude of such effects. If NMFS agrees that the actions are likely to result in minimal adverse effects to EFH, NMFS, in consultation with the Council(s), will provide the Federal agency with a written statement of General Concurrence that further consultation is not required, and that preparation of EFH assessments for individual actions subject to the General Concurrence is not necessary. If NMFS determines that the actions would adversely affect EFH, NMFS will notify the Federal agency that abbreviated or expanded consultation is required.

(d) Notification and Further Consultation. NMFS may request notification for activities covered under a General Concurrence if NMFS concludes there are circumstances under which such activities could result in more than a minimal impact on EFH. NMFS may require further consultation for these activities on a case-by-case basis. Each General Concurrence should establish specific procedures for notification that further consultation is possible.

(e) Revisions to General Concurrences. NMFS will periodically review and revise its findings of General Concurrence as appropriate.

4. EFH Assessments

(a) Preparation requirement. Federal agencies (or designated non-Federal representatives) must complete an EFH assessment for any action that may adversely affect EFH identified in a FMP, except for those activities covered by a finding of General Concurrence.

(b) Mandatory Contents. At a minimum, the assessment shall contain:

(i) a description of the proposed action;

(ii) an analysis of the effects of the action on EFH and the managed and associated species and their life history stages, including cumulative effects; and

(iii) the Federal agency's conclusions regarding the effects of the action on EFH.

(c) **Additional Information.** If warranted by the nature of the action, the assessment should also include:

- (I) the results of an on-site inspection to evaluate the habitat and the site-specific effects of the project;
- (ii) the views of recognized experts on the habitat or species that may be affected;
- (iii) a review of pertinent literature and related information;
- (iv) an analysis of alternatives to the proposed action, including alternatives that could avoid or minimize adverse effects on EFH;
- (v) proposed mitigation; and/or
- (vi) other relevant information.

(d) **Incorporation by reference.** The assessment may incorporate by reference a completed EFH assessment prepared for a previous action, supplemented with any relevant new information, provided the proposed action involves similar impacts to EFH in the same geographic area or a similar ecological setting. It may also incorporate by reference other environmental assessment documents. These documents must be provided to NMFS.

5. Abbreviated Consultation Procedures

(a) **Purpose.** Abbreviated consultation allows NMFS to quickly determine whether, and to what degree, a Federal agency action may adversely affect EFH. The abbreviated consultation process is appropriate for Federal actions that would adversely affect EFH when, in NMFS' judgment, the adverse effect(s) of such actions could be alleviated through minor modifications to the proposed action.

(b) **Notification by agency.** The Federal agency shall notify NMFS and the appropriate Council as early as practicable regarding proposed actions that may adversely affect EFH. Notification will facilitate discussion of measures to conserve the habitat. Such early consultation shall normally occur during pre-application planning for projects subject to a Federal permit or license, and during preliminary planning for projects to be funded or undertaken directly by a Federal agency.

(c) **Submission of EFH assessment.** The Federal agency shall submit a completed EFH assessment to NMFS for review. If either the Federal agency or NMFS believes expanded consultation will be necessary, the Federal agency shall initiate expanded consultation concurrently with submission of the EFH assessment.

(d) **NMFS response.** NMFS shall respond in writing as to whether it concurs with the findings of the assessment. NMFS' response shall indicate whether expanded consultation is required. If additional consultation is not necessary, NMFS' response shall include any appropriate EFH conservation recommendations to be used by the Federal agency. NMFS will send a copy of its response to the appropriate Council.

(e) **Timing.** Wherever possible, the Federal agency shall submit its EFH assessment to NMFS at least 60 days prior to final approval of the action, and NMFS shall respond in writing within 30 days. NMFS and Federal agencies may agree to use a compressed schedule in cases where regulatory approvals cannot accommodate 30 days for consultation, or to conduct consultation earlier in the planning cycle for proposed actions with lengthy approval processes.

6. Expanded Consultation Procedures

(a) Purpose. Expanded consultation is appropriate for Federal actions that would result in substantial adverse effects to EFH and/or require more detailed analysis to enable NMFS to develop EFH conservation recommendations.

(b) Initiation. Expanded consultation begins when NMFS receives a written request from a Federal agency to initiate expanded consultation. The Federal agency's written request must include a completed EFH assessment. Subject to NMFS' approval, any request for expanded consultation may encompass number of similar individual actions within a given geographic area.

(c) NMFS response. NMFS will:

(1) Review the EFH assessment, any additional information furnished by the Federal agency, and other relevant information;

(2) Conduct a site visit, if necessary and appropriate, to assess the quality of the habitat and to clarify the impacts of the Federal agency action;

(3) Evaluate the effects of the action on EFH, including cumulative effects;

(4) Coordinate its review of the proposed action with the appropriate Council; and

(5) Formulate EFH conservation recommendations and provide the recommendations to the Federal agency and the appropriate Council.

(d) Timing. NMFS will conclude expanded consultation within 60 days of its initiation unless extended by agreement between NMFS and the Federal agency. NMFS and Federal agencies may agree to use a compressed schedule in cases where regulatory approvals cannot accommodate 60 days for consultation.

(e) Best scientific information. The Federal agency shall provide NMFS with the best scientific information available, or reasonably accessible during the consultation, regarding the effects of the proposed action on EFH.

(f) Extension of consultation. If NMFS determines that additional data or analysis would provide better information with which to develop EFH conservation recommendations, NMFS may request that the Federal agency agree to extend expanded consultation. If NMFS and the Federal agency agree to an extension, the Federal agency shall provide the additional information to NMFS, to the extent practicable. If NMFS and the Federal agency do not agree to extend consultation, NMFS shall provide EFH conservation recommendations to the Federal agency using the best scientific data available to NMFS.

7. Responsibilities of Federal Agency Following Receipt of EFH Conservation Recommendations

(a) Federal agency response. Within 30 days after receiving an EFH conservation recommendation (or prior to final approval of the action, if a decision by the Federal agency is required in less than 30 days), the Federal agency shall provide a detailed response in writing to NMFS and the appropriate Council. The response shall include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with the recommendations of NMFS, the Federal agency shall explain its reasons for not following the recommendations, including the scientific justification for any disagreements with NMFS over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects.

(b) Dispute resolution. After receiving a Federal agency response that is inconsistent with the recommendations of NMFS, the Assistant Administrator for Fisheries of the National Oceanic and Atmospheric Administration (or a designee) may request a meeting with the head of the Federal agency, as well as any other agencies involved, to discuss the proposed action and opportunities for resolving any disagreements.

8. Resumption of Consultation

A Federal agency must resume consultation with NMFS following either abbreviated or expanded consultation if the agency substantially revises its plans for the action or if new information becomes available that affects the basis for NMFS' EFH recommendations. Additionally, where Federal oversight, involvement, or control over the action has been retained or is authorized by law, the Federal agency must resume consultation if new EFH is designated that may be adversely affected by the agency's exercise of its authority.

D. NMFS RECOMMENDATIONS TO STATE AGENCIES

1. Establishment of Procedures

Each NMFS Region will establish procedures for identifying actions or proposed actions authorized, funded, or undertaken by state agencies that adversely effect EFH, and for identifying the most appropriate method for providing EFH conservation recommendations to the state agency. In some cases, project-specific recommendations may be required, in other cases, programmatic recommendations may be appropriate.

2. Coordination with Federal Consultation Procedures

When an activity that may adversely effect EFH requires authorization or funding by both Federal and state agencies, NMFS will provide the appropriate state agencies with copies of EFH conservation recommendations developed as part of the Federal consultations procedures in section VI.C.