

# Report of the Ad Hoc Essential Fish Habitat Environmental Impact Statement Oversight Committee

August 2004

## Introduction

The Ad Hoc Essential Fish Habitat (EFH) Environmental Impact Statement (EIS) Oversight Committee EFH EISOC met August 16-18, 2004, in Portland, Oregon, to provide advice on a draft statement of the proposed action and its purpose and need and to develop a preliminary range of alternatives for consideration by the Council. This report contains the purpose and need statement and a summary of the alternatives.

## Purpose and Need and Need for the Proposed Action

### *The Proposed Action*

*The proposed action* is to amend the Pacific Coast Groundfish FMP, pursuant to section 303(a)(7) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), to (1) describe and identify EFH for the fishery, (2) minimize to the extent practicable the adverse effects of fishing on EFH, and (3) identify other actions to encourage the conservation and enhancement of EFH. The project area for this action is the Pacific Coast Exclusive Economic Zone.

### *Purpose of the Proposed Action*

*The purpose of proposed action* is, first, to provide the Council and the National Marine Fisheries Service (NMFS) with the information they need to better account for the function of Pacific Coast groundfish EFH when making fishery management decisions; second, to ensure this EFH is capable of sustaining groundfish stocks at levels which support vibrant fisheries; and third, it is a healthy component of fully functioning ecosystems.

### *Need*

*The proposed action is needed* because the Council and NMFS have not had the tools needed to consider habitat and ecosystem function, and their relation to other biological and socioeconomic conditions affecting the groundfish fishery, in management decision making. The West Coast groundfish fishery suffers from numerous problems; although identifying and conserving EFH cannot address all these problems, the proposed action will allow managers to consider solutions in a more comprehensive way. The most important problems facing the fishery are overcapacity, or too many boats chasing too few fish; declining stock sizes, leading the Secretary of Commerce

to declare nine groundfish stocks overfished;<sup>1/</sup> and changing ocean conditions, which may have contributed to the failure of some groundfish stocks to replace themselves (recruitment failure). An overriding problem has been the challenge of managing fisheries with limited scientific data. This increases the risk that decisions exacerbate the kinds of fishery- and stock-related problems just identified.

In Section 2(9) of the MSA, Congress found 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” and “habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States.” Furthermore, one of long-term goals for the groundfish fishery, adopted by the Pacific Fishery Management Council in its strategic plan, is “to protect, maintain, and/or recover those habitats necessary for healthy fish populations and the productivity of those habitats” (PSMFC 2000).

These statements underscore the need to understand and conserve EFH as part of a holistic approach to fishery management. Each of the key problems mentioned earlier is related to the need to sustain fully functional EFH. Overcapacity, for example, if it results in higher levels of fishing effort than would otherwise be necessary, may contribute to adverse fishing impacts to EFH. On the biological side of the system, degraded EFH may be factor in declines in stock abundance. However, these questions cannot be definitively answered without better scientific information about the location of EFH and the role it plays in stock productivity.

### ***Objectives Satisfied By This EIS***

Acting on the advice of the National Academy of Sciences (NRC 2002), NMFS and the Council have engaged in a public process to develop a comprehensive risk assessment to determine if EFH-related problems exist, and if so, which of these problems could be appropriately considered through the Council and the National Environmental Policy Act (NEPA) processes. The risk assessment focuses on the identification of EFH, threats to its health and function, and the delineation of gaps in the available data, which if filled, would improve the risk assessment and support its ongoing use. Once the risk assessment was completed, the following problem statement was developed, in order to highlight those issues that this EIS is intended to resolve:

*Based on the results of the risk assessment, the Council, NMFS, and partner organizations have developed the following objectives for this EIS:*

- *consider alternatives for the designation of EFH and HAPCs;*
- *address gaps in available data; and,*
- *consider alternatives for minimization of adverse effects of fishing on EFH.*

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1/ One of these stocks, Pacific whiting, has subsequently been declared rebuilt.

# Preliminary Range of Alternatives

## *Introduction*

The EFH EISOC developed alternatives based on four objectives for the EIS:

- designation of EFH;
- designation of HAPC;
- minimization of adverse effects of fishing on EFH; and,
- adaptive management.

The EFH EISOC developed separate sets of alternatives for each objective. The alternatives are not mutually exclusive either within or between categories.

Mapped representations of area-specific alternatives will be provided as supplemental briefing material at the September Council meeting.

## *Alternatives for Designation of EFH*

**Alternative 1 (Status Quo):** Maintain current designation (i.e., whole Exclusive Economic Zone [EEZ]), based on the following seven habitat composites: Estuarine; Rocky Shelf; Nonrocky Shelf; Canyon; Continental Slope/Basin; Neritic Zone; and Oceanic Zone.

**Alternative 2:** Designate upper 90% area of overfished species<sup>2/</sup> habitat suitability probability<sup>3/</sup> (HSP) greater than zero, 80% area greater than zero for precautionary zone species,<sup>4/</sup> and upper 70% of HSP area for all other groundfish, and all seamounts.

**Alternative 3:** Designate 100% of the HSP area of overfished species, upper 90% of the HSP area for precautionary zone species, and upper 80% of the HSP area or all other groundfish, and all seamounts.

**Alternative 4:** Designate 100% of the area where HSP is greater than zero for all species.

**Alternative 5:** Designate upper 70% of the area where HSP is greater than zero.

**Alternative 6:** Designate upper 30% of the area where HSP is greater than zero for all species.

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2/ Bocaccio, canary rockfish, cowcod, darkblotched rockfish, lingcod, Pacific ocean perch, yelloweye rockfish, and widow rockfish.

3/ Habitat suitability probability refers to the probability that an area is suitable habitat for groundfish. A complete description of the methods for calculating HSP was presented to the Council in April 2004 and is available online at <http://www.pcouncil.org/habitat/habrisk.html>.

4/ Dover sole, sablefish, and shortspine thornyhead.

**Alternative 7:** Designate 100% of the area where HSP is greater than zero for assessed species only.

**Alternative 8:** Designate 100% of the area where HSP is greater than zero for all species and any additional area in depths  $\leq 3,500$  m.

### ***Draft Alternatives to Designate HAPC***

**Alternative 1 (status quo):** No HAPC designation.

**Alternative 2:** Designate estuaries as HAPC. This alternative would designate, through an FMP amendment, estuary areas off the West Coast as HAPC. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in areas that provide an important ecological function and may be, or may become, stressed by development activities.

**Alternative 3:** Designate canopy kelp as HAPC. This alternative would designate, through an FMP amendment, areas off the West Coast where canopy kelp (*Macrocystis* spp. and *Nereocystis* sp.) has been documented and mapped. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in areas that provide an important ecological function.

**Alternative 4:** Designate sea grass beds as HAPC. This alternative would designate, through an FMP amendment, areas off the West Coast where eelgrass (*Zostera* spp. and *Ruppia* sp.) and surfgrass (*Phyllospadix* spp.) has been documented and mapped. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in areas that provide an important ecological function and may be, or become, stressed by development activities.

**Alternative 5:** Designate core habitat for juvenile and adult overfished and precautionary zone groundfish species as HAPC. This alternative would designate, through an FMP amendment, core areas off the West Coast of EFH for the juvenile and adult life history stages of overfished species and precautionary zone groundfish species. Core areas are identified for this alternative as the upper 10% HSP. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in areas that are of ecological importance to depressed populations of groundfish.

**Alternative 6:** Designate nearshore rocky reef areas HAPC. This alternative would designate all rocky reef areas within 3 nm of shore and in depths less than or equal to 35 fm that are in waters outside of 3 nm. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in areas that are of ecological importance to depressed populations of groundfish.

**Alternative 7:** Designate areas of interest HAPC. This alternative would designate specified areas based on sensitivity, complexity, and ecological importance. These areas are: the northern portion of the Olympic National Marine Sanctuary; Astoria canyon; Daisy Bank; Heceta Bank; Rogue Canyon; Gorda Escarpment; Juan de Fuca Ridge; Cordell Bank; Monterey Canyon; Monterey Bay; Morro Ridge; Thompson Seamount; President Jackson Seamount; Taney Seamount; Guide Seamount; Pioneer Seamount; Gumdrop Seamount; Davidson Seamount; San Juan Seamount; and the Cowcod Conservation Area(s). Each area of interest is presented as a

separate suboption. The Council could choose any combination of these areas as a preferred alternative. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in areas that are of ecological importance to depressed populations of groundfish.

**Alternative 8:** Designate areas around oil production platforms as HAPC. This alternative would designate, through an FMP amendment, the areas around existing oil rigs as HAPC. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in unique habitat areas that are of ecological importance.

### ***Draft Alternatives to Minimize Adverse Impacts to EFH***

**Alternative 1 (status quo):** Describe current measures intended to minimize adverse impacts to EFH.

**Alternative 2:** Depth-based gear restrictions for large footrope trawl gear and fixed gear.

Option 1: Amend the FMP and implementing regulations to prohibit the use of large footrope trawl gear shoreward of 200 fm and prohibit all fixed gear shoreward of 100 fm north of 40°10' N latitude and 150 fm south of 40°10' N latitude.

Option 2: Amend the FMP and implementing regulations to prohibit the use of large footrope trawl gear throughout the EEZ and prohibit all fixed gear shoreward of 100 fm north of 40°10' N latitude and 150 fm south of 40°10' N latitude.

**Alternative 3:** Control-rule based area closures using habitat sensitivity index values.

Option 1: The area closures are defined for each gear type by the following control rule: those areas where the sensitivity index value is greater than or equal to 2; the recovery index value is greater than 1; and cumulative trawl hours are less than 100 hours for the years 2000 through 2002.

Option 2: The same as Option 1 except no adjustment is made for trawl effort.

**Alternative 4:** Restrict the expansion of commercial fisheries. This alternative is designed to limit the potential for trawl fisheries to expand into areas that are currently unimpacted or have not been trawled between 2000 and 2002.

Option 1: Trawl fisheries would be prohibited from fishing in areas that were untrawled during 2000-2002.

Option 2: Apply the expansion limit to all bottom-tending gear types. Due to the absence of geo-referenced fishing effort data for fixed-gear fisheries, the closure would extend west from a line approximating the 2,000 meters (1,094 fm) depth contour to the seaward margin of the EEZ.

**Alternative 5:** Prohibit development of the krill fishery. This option is designed to protect the prey field as a component of pelagic habitat, for species that rely on krill either as a primary prey or through secondary or later food web dependencies. It is a proactive option because there is not currently a krill fishery that operates within the project area.

**Alternative 6:** Close 25% of representative habitat to all fishing.

Option 1: Identify 25% of the area of each habitat type identified in the comprehensive risk assessment GIS. (The level in the hierarchical classification system to be used for identification of habitat type, which 25% of each habitat type area to designate, and how to create reasonably contiguous areas remains to be determined.)

Option 2: Identify 25% of the area identified as having high densities of benthic structure forming invertebrates.

**Alternative 7:** Prohibit bottom trawling in “hotspot” area that also coincide with areas with high sensitivity and recovery index values. Hotspot areas are determined by identifying the upper 20% of all areas with an HSP greater than zero for all species and finding those areas for which this condition is satisfied for 50 or more species. (The alternative would be analyzed using three different sensitivity/recovery index values.)

**Alternative 8:** Limit fishing impacts in areas of interest.

Option 1: Prohibit bottom trawling in any or all of the areas of interest identified under HAPC alternative 7 above.

Option 2: Prohibit all bottom-contacting activities in any or all of the areas of interest identified under HAPC alternative 7 above.

**Alternative 9:** Zoning Alternative. This alternative would limit the use of bottom-tending mobile fishing gear to those areas where the NMFS determines that such activities can be conducted without altering or destroying a significant amount of habitat.

All areas deeper than, or beyond the 2,000 meter contour along the continental slope extending to the maximum westward range of groundfish EFH would immediately be closed to bottom-tending mobile fishing gear (trawls and dredges). The remaining area of EFH would remain open to these activities, subject to all other regulations, for the next five years.

Within this five-year period, NMFS will conduct the research necessary to delineate zones within EFH where various types of bottom-tending mobile fishing gear could be used without altering or destroying significant amounts of habitat. Any unavoidable adverse impacts must be expected to be minimal and temporary, based on the best scientific information available. All areas not specifically zoned to permit such activity would be closed to those methods of fishing.

NMFS will conduct a gear substitution and modification research program intended to redesign bottom fishing gear to reduce damage to habitat. This program will have a significant cooperative research element that employs fishermen in the design and testing of new gear.

The zoning system will be regularly modified to incorporate new information about habitat sensitivity and recovery factors, gear impacts on habitat, and to accommodate use of newly developed or modified gear.

Option 1: This alternative would only apply to bottom-contact trawls, dredges, and similar bottom-tending mobile fishing gear.

Option 2: This alternative would apply to all gear with bottom contact, including bottom longlines, traps and pots.

**Alternative 10:** Establish impact-reducing fishing gear requirements. Options below are not mutually exclusive.

Option 1: For bottom trawl gear, prohibit roller gear larger than 15 inches.

Option 2: Require the use of weak links on tickler chains designed to break if the chain snags on hard habitat.

Option 3: Prohibit the use of flat trawl doors (i.e., require cambered doors).

Option 4: Analyze five-year phase in requirement for aluminum trawl doors.

Option 5: Limit longline groundline to 3 nm.

Option 6: Limit longline groundline to 1 nm.

Option 7: Require use of x floats/fathom on longline groundline to keep line off bottom except at anchor points.

Option 8: Assess potential to employ “habitat-friendly” anchoring systems for fixed gear.

Option 9: Assess string length restrictions for pot gear.

Option 10: Prohibit dredge gear.

Option 11: Prohibit beam-trawl gear.

Option 12: Prohibit set-gillnets in waters deeper than 30 fm.

Option 13: Prohibit stick gear.

Option 14: Prohibit dingle bar gear (troll groundfish gear).

**Alternative 11:** Designate a no-trawl zone on the central California coast (Santa Cruz to Point Conception) in cooperation with The Nature Conservancy and tied to a privately funded buyout of eligible fishing permits in the designated no-trawl zone. (Refer to The Nature Conservancy’s letter and project proposal included written public comment for the September 2004 Council meeting.)

### ***Research and Monitoring Alternatives***

**Alternative 1:** Amend the FMP and implementing regulations to require all commercial and charter fishing vessels to participate in the logbook program.

Option 1: Collect haul by haul data on all fishing operations of all fishing vessels;

Option 2: Collect haul by haul data on all fishing operations of a representative, random sample of all fishing vessels

**Alternative 2:** Amend the FMP and implementing regulations to require all commercial and charter fishing vessels to participate in the Vessel Monitoring System program.

Options: consider thresholds related to vessel length overall.

**Alternative 3:** Establish a system of research closures to provide areas for experiments to observe habitat condition in open and closed areas and to monitor *in situ* changes in various habitat types caused by known amounts of fishing effort by fishing gears currently used. This alternative will be developed in conjunction with other alternatives that establish open and closed areas.

PFMC  
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