

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director



ESTIMATED TIME
1 HOUR

DATE: October 4, 1999

SUBJECT: Essential Fish Habitat

ACTION REQUIRED

Preliminary Review of Habitat Areas of Particular Concern analysis.

BACKGROUND

Habitat areas of particular concern (HAPC) are those areas of special importance that may require additional protection from adverse effects. HAPC is defined on the basis of its ecological importance, sensitivity, exposure, and rarity of the habitat. Several habitat types have been already identified as HAPC as part of the essential fish habitat amendments. These HAPC's included:

1. Living substrates in shallow waters (e.g., eelgrass, kelp, rockweed, mussel beds, etc.)
2. Living substrates in deep waters (e.g., sponges, coral, anemones, etc)
3. Freshwater areas used by anadromous fish (e.g., migration, spawning, and rearing areas)

In October 1998, the Council approved for analysis several proposals regarding habitat areas of particular concern (HAPC). These proposals requested that a gap analysis be prepared, and additional habitat types and areas be designated as HAPC. Proposed HAPC habitat types included seamounts and pinnacles, the ice edge, the shelf break, and biologically-consolidated fine-grained sediments. Proposed specific HAPC areas included a deep basin in Prince William Sound, the Chrikov Basin north of St. Lawrence Island, and the red king crab bycatch areas around Kodiak Island.

The HAPC technical team has completed a preliminary analysis of HAPC types and alternatives to minimize potential impacts. An executive summary of the analysis is provided as Item C-9(a). At this meeting, the Council will review the analysis and provide additional direction to staff. Note that the Ecosystem Committee has recommended additional options to be analyzed. Initial review of this amendment package has been tentatively scheduled for December and final action in February 2000.

Executive Summary

This Environmental Assessment/Regulatory Impact Review (EA/RIR) addresses alternatives to protect and conserve habitat of finfish, mollusks, and crustaceans. The Magnuson-Stevens Act mandates that any fishery management plan (FMP) must include a provision to minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat.

The action identified in this EA/RIR is to define and identify additional habitat areas of particular concern (HAPC) in the North Pacific and implement management measures to minimize adverse impacts of fishing and non-fishing threats on HAPC to the extent practicable. These HAPC areas and management measures would be included in the five FMPs: the BSAI groundfish, GOA groundfish, BSAI crab, scallop, and salmon FMPs. The alternatives analyzed in the EA/RIR are the following:

Alternative 1: Status Quo. The FMPs would not be amended to add additional HAPC types and areas, and no additional measures would be taken to protect HAPC from potential effects caused by fishing and non-fishing activities.

Alternative 2: Amend the FMPs to include additional HAPC types and areas, and take additional measures to protect HAPC from potential effects caused by fishing and non-fishing activities.

A. Proposed HAPC habitat types

1. Seamounts and pinnacles (especially those that extend into the photic zone)
2. Ice edge
3. Shelf break or shelf edge domain (e.g., Bering Sea "greenbelt")
4. Biologically-consolidated fine-grained sediments

B. Proposed specific HAPC areas

1. A deep basin in Prince William Sound
2. The Chrikov Basin north of St. Lawrence Island
3. The red king crab bycatch areas around Kodiak Island

C. Options for Fishery Management Actions (proposed by analysts). *Note that both Option 2 and Option 3 can be adopted.*

- Option 1. Status quo. No additional fishery management actions to protect HAPC from fishing impacts would be taken.
- Option 2. Reclassify some living substrate HAPC as a prohibited species. This would specifically prohibit retention of all corals, sponges, kelp, rockweed, and mussels, all of which have commercial potential but are currently categorized in the groundfish plans as non-specified species (and hence have no catch limits or reporting requirements).
- Option 3. Establish no fishing zones in areas of Gorgonian coral abundance.

The goal of these FMP amendments is to provide additional protection of EFH from potential adverse effects due to fishing and non-fishing related activities through the identification of HAPCs. The information on HAPC conservation recommendations provided by NMFS or the Councils should encourage avoidance of activities that may adversely affect fish habitat in these areas. Conservation recommendations may advise the use of environmentally sound engineering and management practices (e.g., seasonal and gear restrictions, specific dredging methods, and disposal options) for all fishing and non-fishing related activities. If implemented by the action agencies, EFH/HAPC conservation recommendations provided by a Council or NMFS will improve

the conservation of important aquatic habitats and the associated ecosystem. All of the alternatives to the status quo would be expected to benefit fish populations and their habitats, provide for improved long-term productivity of the fisheries, and benefit the vulnerable marine ecosystems.

Some of the proposed HAPC habitat types and areas ranked higher than others relative to the criteria specified in the guidelines for essential fish habitat. Analysis indicated that seamounts and pinnacles should receive HAPC type designation. Additionally, the deep basin in Prince William Sound should be designated as a specific HAPC area. Designation of HAPC areas could also include the Nearshore Bristol Bay closure area, the Pribilof Island Habitat Conservation Area, and the Cape Edgecumbe pinnacles. These areas meet most, if not all, of the criteria specified for HAPC designation.

Proposed management measures would reduce adverse impacts of fishing on HAPC. The option to prohibit harvest of some HAPC species would constitute a preventative approach, in that it would prevent a commercial fishery for these HAPC species from developing. Large amounts of coral have been commercially harvested in the past for jewelry, but recent catch records show that none has been reported taken in recent years.

The option to prohibit all fishing on areas of gorgonian coral abundance would protect this vulnerable HAPC from adverse impacts due to fishing. These corals have been shown to be 1) important shelter for rockfish and other fish species; 2) very long lived; 3) easily damaged by fishing gear; and 4) slow to recover from damage. Although the proposed closure areas are small, and generally not in areas of high fishing effort, the fishing industry may incur some operational costs (as yet unquantified) associated with this measure. Nevertheless, it is unlikely that the total catch of all species would be affected by this measure.

To prohibit all fishing in the proposed coral protection areas, the Alaska Board of Fisheries would need to pass complementary regulations for fisheries under their jurisdiction (e.g., scallops, salmon, crab). For example, some fishing for golden king crabs currently occurs in the proposed closure areas in the Aleutian Islands. Under the BSAI king and Tanner crab FMP, closed areas are a category 2 measure, meaning that the regulation can be adopted by the Board after following criteria set forth in the FMP. Note that one of the criteria for closed waters is "the need to protect critical habitat for target or non-target species".

None of the alternatives are expected to have a significant impact on endangered, threatened, or candidate species, and none of the alternatives would affect takes of marine mammals. Actions taken to define or protect HAPC are not likely alter the total harvest amounts of groundfish, crab, scallops, or salmon.

None of the alternatives is expected to result in a "significant regulatory action" as defined in E.O. 12866. However, this analysis will be conducted if appropriate for each FMP amendment.

None of the alternatives are likely to significantly affect the quality of the human environment, and the preparation of an environmental impact statement for the proposed action is not required by Section 102(2)(C) of the National Environmental Policy Act or its implementing regulations.

Fishnet USA Review: Anatomy of an

Waterman's Gazette
FROM: ALASKA DRAGGERS ASSOCIATION FAX NO.: 907 486 6292
Oct. 06 1999 02:34PM P2

In their latest assault, the anti-commercial fishing interests are attempting to equate the use of bottom-tending trawls and dredges to the supposed "environmental catastrophe" called timber clearing (actually an environmental sound forestry technique when properly used but one that has been demonized by anti-logging activists). Through the clever use of words and statistics, they are trying to make it appear as if fishing techniques which have been in use for generations are turning huge areas of sea floor into biological deserts. If less areas are being cleared, the end of biological diversity in the world's oceans. Like so many of the anti-fishing arguments that are being circulated, however, these are based on misinterpretations and distortions of the most meager of scientific observations.

Two marine researchers supported by the same Pew Charitable Trusts program that seems determined to put the East Coast swordfish fleet out of business kicked off the most recent anti-fishing ruckus in December 1998 issue of Conservation Biology. In "Disturbance of the Seabed by Mobile Fishing Gear: A Comparison of Forest Clearcutting," Elliot Norse and Les Walling go through a series of exercises to conclude that trawling and dredging by commercial fishing boats is "An activity that each year disturbs an area of seabed as large as Brazil, the Congo and India combined. Then in a fund-raising letter for the American Oceans Campaign, Ted Danson, the model turned actor most widely known for his bartender role in the series Cheers, states, "Each year the number of forest clearcut (that is, stripped bare of trees) equals an area the size of the state of Indiana. By comparison, the annual worldwide trawling of seabeds takes place over an area greater than the U.S. and Mexico combined. That's more than 100 times the size of forests

Extending this geographic theme farther, in draft Federal legislation being discussed in Washington aimed at "saving" the oceans from these traditional fishing techniques are the words, "The driving patterns in the U.S. might well argue that this is misleading. In spite of all the SUV commercials which would lead us to think otherwise, New Jersey's 4.3 million vehicles do most of their driving on highways or in mall parking lots. Traffic isn't evenly distributed over all of New Jersey's real estate. Unfortunately, few of us are as sophisticated about fishing patterns as we are about diving patterns. When a commercial fishing boat leaves the dock at the beginning of a trip, its captain doesn't start aiming or dredging across the ocean bottom. He heads for where the fish are and that's generally where the fish have been since there have been commercial fishermen. Year after year, decade after decade and generation after generation, particular areas on the sea floor have come to be known as reliable "producers" of particular species during particular seasons and every year the fishermen return to these areas and use the same types of trawls and dredges to harvest those fish. Norse and Walling even report that some areas of sea floor actually "can be trawled an astounding 40,000% annually" while other areas usually where the fish aren't might be fished only once every several years, if at all. This means that, like the effects of vehicular traffic in New Jersey, fishing effects aren't close to being evenly distributed. Cars and trucks go where the concrete and asphalt are; fishing boats go where the fish are.

Fun with numbers

In each of these examples, some statistics were apparently manipulated to force seemingly startling conclusions regarding the extent of mobile fishing gear use. But how valid are such exercises? Let's apply the same techniques to what might be a familiar situation.

Starting a little closer to home and the familiar—we applied the methodology used by Norse and Walling in their paper to determine the threat of damage to wildlife habitat that motorized vehicles pose in New Jersey. There were 4.3 million cars, trucks and buses registered in New Jersey in 1997. We assume that the average tire tread width of these vehicles is one foot (at least two tires on each side, each tire at least 6 inches wide), and that each vehicle is driven at least 6,000 miles each year. Using these conservative figures and some reasonable assumptions, it's easy to "prove" that the tire treads of New Jersey's fleet of motor vehicles could crush every square inch of New Jersey's 7,500 square miles of land area at least 600 times each year. In total, almost 5 million square miles of terrestrial habitat could be flattened into unrecognizability by New Jersey's vehicular traffic.

Actual extent of the "problem"

Our traffic example sounds much more compelling when we project the effects to seemingly huge areas, but in actuality, almost twice the total land area of the contiguous 48 United States (or over one hundred and fifty times the size of forests clearcut). The driving patterns in the U.S. might well argue that this is misleading. In spite of all the SUV commercials which would lead us to think otherwise, New Jersey's 4.3 million vehicles do most of their driving on highways or in mall parking lots. Traffic isn't evenly distributed over all of New Jersey's real estate. Unfortunately, few of us are as sophisticated about fishing patterns as we are about diving patterns. When a commercial fishing boat leaves the dock at the beginning of a trip, its captain doesn't start aiming or dredging across the ocean bottom. He heads for where the fish are and that's generally where the fish have been since there have been commercial fishermen. Year after year, decade after decade and generation after generation, particular areas on the sea floor have come to be known as reliable "producers" of particular species during particular seasons and every year the fishermen return to these areas and use the same types of trawls and dredges to harvest those fish. Norse and Walling even report that some areas of sea floor actually "can be trawled an astounding 40,000% annually" while other areas usually where the fish aren't might be fished only once every several years, if at all. This means that, like the effects of vehicular traffic in New Jersey, fishing effects aren't close to being evenly distributed. Cars and trucks go where the concrete and asphalt are; fishing boats go where the fish are.

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is published monthly by the Maryland Waterman's Association (a non-profit trade association).
Maryland Waterman's Association, Editor
The Gazette welcomes your article, photo and news submissions for publication consideration. For advertising rates call (410) 268-6222. Subscription rate is \$25 per year.

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anti-fishing campaign...

ity the effects are (relatively) minimal because they are focused on areas that can resist those effects. In the same manner the effects of trawls and dredges aren't spread over an area seven times the size of Australia, but are concentrated in limited areas that have been proven to consistently produce fish. Likewise, this would seem to argue that the effects of the gear were minimal (if not, the fish would probably not still be hanging around). However, the real picture having neither the requisite dramatic impact nor the proper anti-fishing spin, let's bring in the land masses and clear-cutting analogy.

How much of New Jersey's wildlife is being destroyed by vehicular traffic each year? Certainly too much, but by no stretch of the imagination is the Garden State being turned into a biological desert by the "pulling, ripping and crushing" (Mr. Danson's words used to indict trawling and dredging) of the tires of over four million motor vehicles. By the same token, no matter how the figures are presented, and no matter how significant the local effects, fishing is concentrated on only limited areas of the ocean bottom. And, somewhat confoundingly for the antis, these areas continue to produce fish.

How much of the ocean's bottom is really fishable?

According to Watling and Norse, "people trawl almost anywhere they want, and the sea's equivalent of ancient forests are becoming cattle pastures..." This is not quite the case. More than 80% of the total area of the world's oceans is more than a mile deep, and this is a depth that is well beyond the reach of the gear on the vast majority of modern fishing vessels. Of the remaining 20%, much is inaccessible because of geographic, political or economic considerations, and some because it

has been claimed by fixed-gear fishermen. While the image of threatened "ancient forests" is certainly a compelling one, it would appear that whatever the ocean-equivalents of these forests might be, in the greatest part of the world's oceans they would be safe from the supposed ravages of today's commercial fishing fleets.

The Clear-cutting analogy

More supposed fuel for the anti-commercial fishing fire is the idea that fishing with trawls and dredges changes the bottom, and that such changes are not acceptable. While the clear-cutting analogy (as clear-cutting is popularly perceived) serves this argument well, it certainly isn't the most accurate. Clear-cutting is supposedly a one-shot harvest of all of the useable timber in an area, tearing up the terrain, destroying all the non-useable trees and leaving behind a biological wasteland with no provisions for or thought of future logging or any other natural or unnatural use.

It would seem, particularly in the face of inarguable proof, that areas of the ocean bottom have been trawled and dredged for generations and have produced fish continuously, that these fishing techniques are much closer to agriculture than to clear-cutting. The fishing grounds aren't cropped once and abandoned as in clear-cutting. After harvesting, the fishing grounds aren't left in a condition that would prevent them from being harvested again for decades. And there is evidence that the changes brought about by trawling or dredging will in some instances actually increase the production of the species being harvested. The dramatic impact and the anti-fishing appeal of the clear-cutting comparison is obvious. The

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accuracy, however, seems seriously lacking.

Comparing trawling and dredging to agricultural techniques, while obviously much more accurate, would just as obviously be much more troubling to the anti-fishing forces. The idea of continuously producing a food crop from an area of ocean bottom—even acknowledging the fact that harvesting that crop might be altering the bottom—would certainly seem to be more acceptable to the public than “clear-cutting” the bottom, and successful PR campaigns aren’t built around attacking acceptable practices.

—*Fishnet USA, May 1999, faxed once monthly to elected and appointed officials, media representatives, individuals and organizations with an interest in fisheries issues.*

Editor's note: The various views and opinions held in the above review are not necessarily shared by the Waterman's Gazette or by MWA staff.