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## Fix It! Constructing a Recommendation to the Ocean Commission for the Future of Fisheries

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# Fix It! Constructing a Recommendation to the Ocean Commission for the Future of Fisheries

Kristen M. Fletcher\*

*The problem with fish illustrates some of the structural and policy problems that the Council will be grappling with.*

—Doug Hopkins, Environmental Defense.<sup>1</sup>

## I. INTRODUCTION

The release of the 2001 film *The Perfect Storm*, telling the story of the tragic loss of the *Andrea Gail* and her crew, brought the dangers that commercial fishers face on a daily basis in front of the American public. While the film is mostly remembered for its cast and the enormous waves generated to simulate the “storm of the century” that converged on New England, it also subtly showed the economic hardships of an industry searching for a way to maintain itself in a time of declining fish stocks, competition with larger, more technologically advanced vessels, and captains that

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1. Doug Hopkins, Program Director, Oceans Program, Environmental Defense, Testimony Before the U.S. Commission on Ocean Policy 1, at [http://www.oceancommission.gov/meetings/nov13\\_14\\_01/Hopkins\\_testimony.pdf](http://www.oceancommission.gov/meetings/nov13_14_01/Hopkins_testimony.pdf) (Nov. 13, 2001) [hereinafter Hopkins Statement].

feel the pressure to sail farther, faster, and even risk safety to bring home the fish.

It is this U.S. fisheries regime that represents one of the greatest challenges for the U.S. Commission on Ocean Policy (Commission), created by the Oceans Act of 2000, which has been directed to review U.S. practices relating to its oceans and coasts and make recommendations for a national ocean policy. The Commission is responsible for making recommendations on the U.S. fisheries management regime, which poses socioeconomic, ecological, governance, and management issues. Additionally, the Commission is responsible for reviewing such issues as nonliving marine resources, marine transportation, and coastal development, to name a few. Though it underwent considerable modification in 1996, it is likely facing significant changes in the next few years. With the eyes of the fishing, environmental, and private sectors focused on the Commission to "fix" fisheries management, its analysis of one of the nation's most captivating but also challenging professions may also determine its success in creating an ocean policy for the country.

As will be discussed in Part II of this Article, the Commission has held a series of regional public hearings to gather information from the public on ocean and coastal resource and management issues. At these hearings, experts have gathered to give testimony and participate in a question and answer session with the Commissioners. It is from this testimony and dialogue that the Commission will develop its recommendations to Congress. Fisheries issues have arisen in every region, showing the importance of both commercial and recreational fisheries to every region of the country and the national scope of the problems.

Eventually, through the testimony offered to the Commission, and letters from witnesses providing answers to follow-up questions from the Commissioners, themes emerged showing the strengths and weaknesses of the fisheries management scheme and recommended solutions to environmental, economic, and legal problems. Amendment to the primary federal fisheries statute, the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson Act), looms as a top priority. In addition, the issues raised relating to the regional fishery management councils – the regional management scheme set up by the Magnuson Act – threaten to further divide the already polarized stakeholders.

Lastly, the lack of a coordinated federal oceans policy plagues the management regime and leaves fish stocks, the marine habitat, and the recreational and commercial fishing industries vulnerable to damage from non-fishing related activities.

This Article offers highlights from the testimony offered to the Commission on fisheries issues in the United States and analyzes the effectiveness of several proposed solutions. Part II of this Article provides background information on the Magnuson Act, including its mandate, implementation, and shortcomings over the last two decades, as well as information on the Commission, including its creation and mandate from Congress. The next three parts of this Article present the main themes from public testimony at the first six regional meetings of the Commission. Specifically, Part III analyzes the suggestions for amendments to the Magnuson Act, including adding a conservation mandate, mandating the use of ecosystem management, and codifying existing management practices. Part IV provides analysis of the current structure of the regional fisheries management councils and the proposals for changing that structure. Part V analyzes the proposed changes to federal agency organization and research funding and priorities. Finally, this Article concludes with a wish list of proposed solutions that the Commission might consider in order to "fix" the U.S. fisheries management regime.

## II. U.S. FISHERIES MANAGEMENT AND THE COMMISSION

### A. *An Introduction to U.S. Fisheries Law*

The Magnuson Act,<sup>2</sup> enacted in 1976 as the primary statute for U.S. fisheries, had two original purposes. First, spurred by reports of foreign ships depleting stocks of fish off the U.S. coast, Congress created a 200-mile exclusive fishing zone called the fishery conservation zone, which effectively eliminated foreign fishing in a matter of a few years.<sup>3</sup> In 1993, the Reagan administration

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2. 16 U.S.C. §§ 1803-1883 (2000) (originally enacted as the Fisheries Conservation and Management Act of 1976, ch. 38, § 1801, 90 Stat. 331; amended as the Magnuson Fishery Conservation and Management Act, Dec. 22, 1980, 94 Stat. 3300; amended as the Magnuson-Stevens Fishery Conservation and Management Act, Sept. 30, 1996, ch. 38, § 1801, 110 Stat. 3009) [hereinafter Magnuson Act].

3. 16 U.S.C. § 1811. The Act contains special provisions for highly migratory species that migrate out of the fishery conservation zone (now the U.S. Exclusive Economic Zone) into international or other nations' waters. *Id.* § 1812.

adopted a 200-mile exclusive economic zone (EEZ), claiming sovereign rights over resources and economic uses.<sup>4</sup> In 1989, foreign catches in the U.S. EEZ were approximately one percent of the 1976 amount, while commercial domestic landings doubled.<sup>5</sup> Congress assumed that the overfishing occurring in U.S. waters was primarily a result of an abundance of foreign vessels and that the exclusion of these vessels would clear the way for increased long-term harvest by U.S. fishing vessels.

Second, with development and advancement of the U.S. fishing industry in mind, the Magnuson Act set up a regional management scheme based on eight "regional fishery management councils" (Councils) that were given the authority to manage fisheries through the creation of fisheries management plans (FMPs) and to comment on activities affecting the fishery.<sup>6</sup> The Councils were responsible for meeting the larger goal of preventing overfishing while still achieving optimum yields from each fishery.<sup>7</sup> Councils met these goals through various management techniques including setting total allowable catch, size limitations, seasonal closures, gear restrictions, and other limited entry techniques.<sup>8</sup> An FMP developed by the Councils must contain the measures "necessary and appropriate for the conservation and management of the fishery to prevent overfishing and rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of the fishery."<sup>9</sup> In addition, FMPs must comply with the ten national standards specified in the statute. Measures must: (1) be based on the best scientific information available; (2) be fair and equitable to all fishers; (3) consider efficiency; (4) allow for variations in fisheries resources and catches; (5) minimize costs; (6)

4. Proclamation No. 5030, I PUB. PAPERS 380 (Mar. 10, 1983).

5. JOHN P. WISE, *FEDERAL CONSERVATION & MANAGEMENT OF MARINE FISHERIES IN THE UNITED STATES* vii (2d ed. 1991).

6. 16 U.S.C. §§ 1852-1853.

7. *See id.* § 1851(a)(1). Optimum yield is that which provides the "greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities," and is based on the maximum sustainable yield (MSY) of a fishery. *Id.* § 1802. MSY is the largest average catch that can be captured from a stock under existing environmental conditions. *See* NAT'L RES. COUNCIL, *IMPROVING FISH STOCK ASSESSMENTS* (1998).

8. *See generally* Shi-Ling Hsu & James E. Wilen, *Ecosystem Management and the 1996 Sustainable Fisheries Act*, 24 *ECOLOGY L.Q.* 799 (1997) (evaluating the techniques employed by the Councils to meet these goals).

9. 16 U.S.C. § 1853 (a)(1)(A).

minimize adverse economic impacts on fishing communities; (7) minimize bycatch and its mortality; and (8) promote the safety of human life at sea.<sup>10</sup> Finally, conservation and management measures also must comply with other federal laws including the National Environmental Policy Act (NEPA),<sup>11</sup> Executive Order 12,291,<sup>12</sup> the Regulatory Flexibility Act,<sup>13</sup> the Paperwork Reduction Act,<sup>14</sup> the Marine Mammal Protection Act,<sup>15</sup> and Executive Order 12,612.<sup>16</sup>

It is important to note the context in which the Magnuson Act was originally adopted.<sup>17</sup> The House Report noted a growing concern with over-exploitation of fish stocks, especially by foreign fleets, and concluded that “[w]hile certain constraints on domestic entry in American fisheries are often necessary, such controls would not be effective unless analogous controls apply to foreign vessels fishing the same stocks.”<sup>18</sup> The report found the U.S. fleet characterized by “old vessels which are expensive to maintain, relatively inefficient, and subject to high and rapidly increasing insurance rates.”<sup>19</sup> After the passage of the Magnuson Act, the U.S. fleet grew and took advantage of ample fish stocks previously over-exploited by foreign fleets.<sup>20</sup>

However, over the course of the next two decades, the National Marine Fisheries Service (NMFS) began to warn of fully-exploited or over-utilized fish stocks and that “the harvesting and processing capacity in many U.S. fisheries far exceeds levels that are consis-

10. See *id.* § 1851(a)(1)-(10) (delineating the ten national standards).

11. 42 U.S.C. §§ 4321-4370 (1994). NEPA requires a review of the environmental impacts of major federal actions. *Id.*

12. Exec. Order No. 12,291, 46 Fed. Reg. 13,193 (Feb. 19, 1981). This Executive Order requires periodic publication of regulations. 46 Fed. Reg. at 13,195.

13. 5 U.S.C. §§ 601-612 (2000). The Regulatory Flexibility Act requires that agencies analyze effects of their regulations on small businesses. *Id.*

14. 44 U.S.C. §§ 3501-3520 (1994).

15. 16 U.S.C. § 1361 (2000). The Marine Mammal Protection Act generally prohibits the “taking” of marine mammals and the importation of marine mammals or their products. *Id.*

16. See 52 Fed. Reg. 41,685 (Oct. 30, 1987) (providing guidelines for agencies when drafting regulations or policies that have “federalism” implications).

17. See BILLIANA CICIN-SAIN & ROBERT W. KNECHT, THE FUTURE OF U.S. OCEAN POLICY 77-83 (2000) (describing the domestic and international context of the Magnuson Act).

18. H.R. No. 94-445, at 31 (1975), reprinted in 1976 U.S.C.C.A.N. 593, 603.

19. *Id.* at 30, reprinted in 1976 U.S.C.C.A.N. at 602.

20. See WISE, *supra* note 5.

tent with sustainable fisheries."<sup>21</sup> In 1998, the agency identified 90 out of 290 stocks as overfished (31%), with an additional 10 stocks approaching an overfished condition and the status of an additional 544 stocks unknown.<sup>22</sup> The effect of over-capitalization in the U.S. fishery was evident when New England fisheries began to show signs of severe decline in the late 1980s and early 1990s.<sup>23</sup> Since the 1960s, there has been up to an eighty percent decline in stocks of haddock, cod, and flounder, and the federal government was spending millions of dollars on buyback programs.<sup>24</sup> These collapsing stocks also caught the attention of national and regional environmental public interest groups who have become major players in the fisheries management regime in just over a decade. The 1996 amendments to the Magnuson Act, entitled the Sustainable Fisheries Act (SFA), represent the last significant change to the fisheries statute. The SFA added three national standards, focusing on bycatch, economic analysis of the impact of fisheries regulations on communities, and safety at sea, along with mandating the identification and conservation of "essential fish habitat."<sup>25</sup> The SFA also initiated a flurry of legal actions from both the fishing communities (claiming that regulations were having adverse economic impacts) and the environmental community (claiming that the bycatch and essential fish habitat provisions were not being followed).<sup>26</sup> The legal actions led to fisheries management decisions being made by the judiciary instead of scientists or management experts.<sup>27</sup> It is in this context of litigation, declining

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21. NAT'L RES. COUNCIL, *SHARING THE FISH: TOWARD A NATIONAL POLICY ON INDIVIDUAL FISHING QUOTAS* 13 (1999) [hereinafter *SHARING THE FISH*].

22. NAT'L MARINE FISHERIES SERV., 105TH CONG., *REPORT ON STATUS OF FISHERIES OF THE UNITED STATES* 6 (1998), available at <http://www.nmfs.noaa.gov/sfa/98stat.pdf> (last visited Feb. 22, 2003).

23. See Suzanne Iudicello et al., *Putting Conservation into the Fishery Conservation and Management Act: The Public Interest in Magnuson Reauthorization*, 9 TUL. ENVTL. L.J. 339, 346 (1996).

24. See Patrick Shavloske, *The Canadian-Spanish Fishing Dispute: A Template for Assessing Inadequacies of the United Nations Convention on the Law of the Sea and a Clarion Call for Ratification of the New Fish Stock Treaty*, 7 IND. INT'L & COMP. L. REV. 223, 241 (1996).

25. Sustainable Fisheries Act, Pub. Law No. 104-297, 110 Stat. 3559 (1996) (codified in scattered sections of 16 U.S.C. and 46 U.S.C.).

26. See Kristen M. Fletcher, *When Economics and Conservation Clash: Challenges to Economic Analysis in Fisheries Management*, 31 E.L.R. 11168 (2001); *infra* Part III.A.

27. Fletcher, *supra* note 26; *infra* Part III.A.

fisheries, and increased attention to damaged fish habitat and by-catch that the Oceans Act of 2000 was enacted, creating the Ocean Commission and calling for a review of national ocean policies, including fisheries.

### B. *Fisheries and the Ocean Commission*

The Oceans Act of 2000 created the sixteen-member U.S. Commission on Ocean Policy (Commission) to "make recommendations for coordinated and comprehensive national ocean policy."<sup>28</sup> The objectives of the Commission are to promote the following: (1) the protection of life and property against natural and man-made hazards; (2) responsible stewardship, including use of fishery resources and other ocean and coastal resources; (3) protection of the marine environment and prevention of marine pollution; (4) enhancement of marine-related commerce; (5) expansion of human knowledge of the marine environment; (6) investment in and improvement of the capabilities, performance, use, and efficiency of technologies for use in ocean and coastal activities; and (7) close cooperation among all government agencies.<sup>29</sup> A final report for this national ocean policy is due in June 2003.<sup>30</sup>

The first step in creating the Council involved the Senate and House Majority and Minority Leaders nominating potential members to the President. The President then appointed members to the Council based upon their geographic representation and their expertise in scientific, regulatory, economic, and environmental ocean and coastal activities. Although President Clinton signed the Oceans Act into law, it was the Bush administration (and Republican majorities in both the Senate and House of Representatives) that nominated the members.<sup>31</sup>

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28. Oceans Act of 2000 § 2, 33 U.S.C. § 857-19 (2000).

29. *Id.*

30. Oceans Act of 2000 § 4(a). Though the original report was due to Congress in April 2003, the Oceans Act was amended by Public Law 107-77, which extended the date of the report to June 2003 ("The Commission [on Ocean Policy] shall present to the Congress within eighteen months of the first meeting of the Commission its recommendations for a national ocean policy."). Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act of 2002, Pub. L. No. 107-77, 115 Stat. 748, Title V (2001).

31. See Oceans Act of 2000 §§ 3(b)(1)-(4). The nominations were mandated as follows: four members appointed from a list of eight individuals nominated by the Majority Leader of the Senate in consultation with the Chairman of the Senate Committee on Commerce, Science, and Transportation; four members appointed



In order to efficiently address the myriad of issues it is confronted with in reviewing U.S. ocean and coastal resources, the Commission has established four working groups to review and analyze issues within each specific area of focus and report the findings to the full Commission.<sup>32</sup> The working groups are: (1) Governance; (2) Investment and Implementation; (3) Research, Education, and Marine Operations; and (4) Stewardship.<sup>33</sup> While all of the working groups will touch on fisheries issues, the Stewardship Working Group will assess the status of U.S. stewardship over fisheries and other living and nonliving marine resources in coastal, EEZ waters and the world's oceans. The Commission is assisted by a mandated Science Advisory Panel set up to ensure that the "scientific information considered by the Commission is based on the best scientific information available."<sup>34</sup>

The only formal action that the Commission has taken stems from the U.S. failure to ratify the Law of the Sea Treaty. The Commission adopted a formal resolution calling for the United States to immediately accede to the United Nations Law of the Sea Convention in order to maintain its leadership role in ocean and coastal activities.<sup>35</sup> Beyond this resolution, the Commission spent its first

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from a list of eight individuals who shall be nominated by the Speaker of the House of Representatives in consultation with the Chairmen of the House Committees on Resources, Transportation and Infrastructure, and Science; two members from a list of four individuals nominated by the Minority Leader of the Senate in consultation with the Ranking Member of the Senate Committee on Commerce, Science, and Transportation; and two members appointed from a list of four individuals nominated by the Minority Leader of the House in consultation with the Ranking Members of the House Committees on Resources, Transportation and Infrastructure, and Science. *Id.* §§ 3(b)(2)(A)-(D).

32. For complete information on the Commission and its working groups, visit the Commission web page: The U.S. Commission on Ocean Policy, at <http://www.oceancommission.gov> (last visited Feb. 22, 2003).

33. *Id.*

34. Oceans Act of 2000 § 3(c)(3).

35. The resolution states:

The National Commission on Ocean Policy unanimously recommends that the United States of America immediately accede to the United Nations Law of the Sea Convention. Time is of the essence if the United States is to maintain its leadership role in ocean and coastal activities. Critical national interests are at stake and the United States can only be a full participant in upcoming Convention activities if the country proceeds with accession expeditiously.

U.S. COMM'N ON OCEAN POL'Y, UNITED NATIONS LAW OF THE SEA CONVENTION RES., at [http://www.oceancommission.gov/documents/los\\_resolution.pdf](http://www.oceancommission.gov/documents/los_resolution.pdf) (Nov. 14, 2001) (on file with author).

months of existence planning for and holding regional meetings. The Oceans Act required at least six regional public meetings; the Commission concluded its ninth regional meeting in Chicago on September 25, 2002.<sup>36</sup> After receiving testimony from the national and regional public hearings, the Commissioners identified a variety of issues to be considered in the deliberation stage in the fall of 2002.<sup>37</sup> This summary of issues evidences the course that the Commission's dialogue about U.S. ocean issues is taking. Approximately one quarter of the document is dedicated to issues regarding living marine resources, including fisheries.<sup>38</sup>

The testimony gathered at the public hearings evolved from a group of invited speakers from the academic, government, private, and nonprofit sectors who were convened on panels addressing issues specific to the geographic region. The speakers were given approximately ten to fifteen minutes to make a formal presentation, and then were engaged in a question and answer session with the Commissioners for the remaining sixty to seventy-five minutes. Follow-up questions were mailed to the panelists and the testimony and follow-up questions were made available on the Commission's website.

This testimony and the follow-up responses will provide the basis for the Commission's recommendations regarding changing or maintaining the U.S. fisheries management regime. The three main themes that emerged from this process were: (1) amending the Magnuson Act; (2) reforming the regional fishery management

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36. The regional meetings were: Southeast Regional Meeting, January 15-16, 2002 in Charleston, South Carolina; Florida and Caribbean Regional Meeting, February 22, 2002 in St. Petersburg, Florida; Gulf of Mexico Regional Meeting, March 7-8, 2002 in New Orleans, Louisiana; Southwest Regional Meeting, April 18-19, 2002 in Los Angeles, California; Hawaii and Pacific Islands Regional Meeting, May 13-14, 2002 in Honolulu, Hawaii; Northwest Regional Meeting, June 13-14, 2002 in Seattle, Washington; Northeast Regional Meeting, July 23-24, 2002 in Boston, Massachusetts; Alaska Regional Meeting, August 21-22, 2002 in Anchorage, Alaska; Great Lakes Regional Meeting, September 24-25, 2002 in Chicago, Illinois. U.S. Commission on Ocean Policy: Commission Meetings, at <http://www.oceancommission.gov/meetings/welcome.html> (last visited Feb. 22, 2003). Three other public meetings were held on November 13-14, 2001, October 30, 2002, and November 22, 2002 in Washington, D.C. *Id.*

37. U.S. COMM'N ON OCEAN POL'Y, TOWARD A NATIONAL OCEAN POLICY: OCEAN POLICY TOPICS AND RELATED ISSUES 4 (Working Draft for Public Comment 2002), available at [http://www.oceancommission.gov/documents/issues\\_document7\\_16\\_02.pdf](http://www.oceancommission.gov/documents/issues_document7_16_02.pdf) (July 16, 2002) [hereinafter NATIONAL OCEAN POLICY].

38. *Id.*

council structure; and (3) improving the federal agency approach to fisheries and fisheries research. We will most likely find a “fix” to the current fisheries management crisis from these themes.

### III. AMENDING THE MAGNUSON ACT

*Passage of the Magnuson-Stevens Fishery Conservation and Management Act greatly expanded the role of the federal government in the management of marine fisheries. In your opinion, has this worked?*

— Follow-up question from Admiral James D. Watkins after a Gulf of Mexico Regional Council meeting.<sup>39</sup>

*It depends on your definition of “worked.”*

— Answer from Larry Simpson, Executive Director, Gulf States Marine Fisheries Commission.<sup>40</sup>

As noted earlier, the Magnuson Act successfully reached its original goals of expelling foreign fishing boats from a 200-mile U.S. fishing zone and the establishment of eight regional fishery management councils whose decisions, more than two decades after their creation, are still guiding the domestic harvest of wild fisheries. Clearly, adoption of the Magnuson Act was a pivotal step in the domestic management of living marine resources. Even critics of the statute acknowledge that it ushered in the ideal that “new management systems had to be created to protect and enhance the economic and social benefits derived from commercial and recreational fishing.”<sup>41</sup> As noted by the Commission, “[W]hy is it that the same [f]ederal law appears to produce effective fishery management results in some areas and not in others?”<sup>42</sup>

Almost every witness to offer public testimony to the Commission on fisheries management recommended amending the Magnuson Act in some way. Four major themes emerge from the testimony. The first theme is to add or strengthen the conserva-

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39. Letter from Larry B. Simpson, Executive Director, Gulf States Marine Fisheries Commission to Admiral James D. Watkins, Chairman, U.S. Commission on Ocean Policy 1 (Apr. 17, 2002) (on file with author).

40. *Id.*

41. See CICIN-SAIN & KNECHT, *supra* note 17, at 78 (criticizing the Act for failing to follow the then-existing international practice relating to highly migratory species, omitting policies for interstate or state-federal areas, and neglecting to clearly state measures for the sustained development of domestic fishery resources).

42. NATIONAL OCEAN POLICY, *supra* note 37, at 7.

tion mandate in the statute. The second theme is that Congress amend the Magnuson Act to require that fisheries be governed according to principles of ecosystem management. The third theme is to codify existing management practices, especially those relating to habitat protection and quota regimes, in order to authorize or mandate their use by federal agencies and the Councils. The fourth theme, restructuring of the Councils, was given such consideration by both witnesses and Commissioners that it will be addressed separately in Part III.

#### A. *Add or Strengthen a Conservation Mandate*

*Sadly, the heart of fisheries management is rebuilding overfished stocks.*

— Julie K. Morris, Member, Gulf of Mexico Fishery Management Council.<sup>43</sup>

As a Gulf Council member, Julie K. Morris advocated that the first step in the management process should be a determination of stock status and conservation goals for the stock, relying solely on scientific analysis.<sup>44</sup> She argued that the Council could then consider the alternatives for reducing harvest including economic, social, and environmental considerations.<sup>45</sup> Morris likened this first step to the endangered species listing process used by the Florida Fish and Wildlife Conservation Commission “which begins with a peer-reviewed biological status determination, followed by a management plan developed in the second phase.”<sup>46</sup>

Many in the fishing community are likely to bristle at the suggestion that Council decisions should emulate the endangered species listing. However, Morris’s suggestion of preparing a biological status report prior to making harvesting, allocation, or conservation decisions is actually a close relative to the process envisioned under the Magnuson Act. The statute recognizes that “[f]ishery resources are finite but renewable. If placed under sound manage-

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43. Julie K. Morris, Former Commissioner of Florida Fish and Wildlife Conservation Commission and Current Member of the Gulf of Mexico Marine Fishery Council, Testimony Before the U.S. Commission on Ocean Policy 7, at [http://www.oceancommission.gov/meetings/feb\\_22\\_02/morris\\_statement.pdf](http://www.oceancommission.gov/meetings/feb_22_02/morris_statement.pdf) (Feb. 22, 2002) [hereinafter Morris Statement].

44. *Id.* at 8.

45. *Id.*

46. *Id.*

ment before overfishing has caused irreversible effects, the fisheries can be conserved and maintained so as to provide optimum yields on a continuing basis."<sup>47</sup> Rather than waiting until a fish species has reached the brink of extinction and listing it as endangered or threatened, the statute contemplates a management scheme beginning with a healthy stock that is then managed on a sustainable basis.

During Commission testimony, however, the debate raged regarding the effectiveness, or even existence, of the Magnuson Act's "conservation mandate."<sup>48</sup> The Act was adopted to "take immediate action to conserve and manage the fishery resources found off the coasts of the United States,"<sup>49</sup> calling for a national program of conservation and management to prevent overfishing, rebuild overfished stocks, ensure conservation, and facilitate long-term protection of essential fish habitat while realizing the potential of fishery resources.<sup>50</sup>

Regarding conservation matters, the statute states in pertinent part:

[T]he rules, regulations, conditions, methods, and other measures (A) which are required to rebuild, restore, or maintain . . . any fishery resource and the marine environment; and (B) which are designed to assure that: (i) a supply of food and other products may be taken, and that recreational benefits may be obtained, on a continuing basis; (ii) irreversible or long-term adverse effects on fishery resources and the marine environment are avoided; and (iii) there will be a multiplicity of options available with respect to future uses of these resources.<sup>51</sup>

The national standards present a diverse, and sometimes competing, mix of requirements that Councils strive to meet. Do the Magnuson Act's stated purpose and its national standards serve as strong enough conservation mandates to maintain healthy stocks *and* rebuild struggling ones? Critics of the statute prior to the

47. 16 U.S.C. § 1801(a)(5) (2000).

48. Hopkins Statement, *supra* note 1, at 1; Rod Moore, Executive Director, West Coast Seafood Processors Association, Statement Before the U.S. Commission on Ocean Policy 7, at [http://oceancommission.gov/meetings/june13\\_14\\_02/moore\\_testimony.pdf](http://oceancommission.gov/meetings/june13_14_02/moore_testimony.pdf) (June 13, 2002) [hereinafter Moore Statement].

49. 16 U.S.C. § 1801(b)(1) (2000).

50. *Id.* § 1801(a)(6).

51. *Id.* § 1802(5).

1996 Sustainable Fisheries Act amendments saw the SFA as a way to “put the ‘C’ for ‘conservation’ back in the Magnuson Act” by adding essential fish habitat and bycatch provisions.<sup>52</sup> Five years after the amendments, however, NMFS and the Secretary of Commerce were faced with over 100 lawsuits from both the environmental and fishing sectors, challenging fisheries management rules.<sup>53</sup> It is no surprise that environmental advocates claim the statute needs “[n]ew mandates for the conservation of fish and shellfish populations, as well as the ecosystems they are parts of,”<sup>54</sup> while commercial fishing proponents argue the existing statutory regime will soon result in “no fishery left to manage. We will certainly have fish, just not anyone to catch or process them.”<sup>55</sup> One of the most affirmative conservation mandates in wildlife law originates in the Endangered Species Act (ESA). Section 7 of the ESA directs federal agencies to ensure that their actions do not jeopardize the continued existence of listed species or destroy or adversely modify the critical habitat of listed species.<sup>56</sup> However, lessons learned under section 7 show that even with a clear mandate, statutes are still subject to inadequate implementation by federal agencies.<sup>57</sup>

The ESA does not define what constitutes “jeopardy” to an endangered or threatened species, leaving the federal agencies, NMFS, and the Fish and Wildlife Service, to interpret the standard.<sup>58</sup> Thus,

[D]espite the apparent power the jeopardy standard gives to federal fish and wildlife officials to effectively halt or demand modifications to actions that adversely affect listed species . . . analysis reveals that the jeopardy standard’s reality is a far cry from its promise . . . . [R]ather, the concept of jeopardy

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52. Iudicello et al., *supra* note 23, at 341.

53. Mary Hope Katsouros, Senior Vice President, The H. John Heinz III Center for Science, Economics, and the Environment, Statement Before the U.S. Commission on Ocean Policy 5, at [http://www.oceancommission.gov/meetings/jan15\\_16\\_02/katsouros\\_statement.pdf](http://www.oceancommission.gov/meetings/jan15_16_02/katsouros_statement.pdf) (Jan. 15, 2002) [hereinafter Katsouros Statement].

54. Hopkins Statement, *supra* note 1, at 1.

55. Moore Statement, *supra* note 48, at 7.

56. 16 U.S.C. § 1536(a)(2) (2000).

57. See Kristen M. Fletcher & Sharonne E. O’Shea, *Essential Fish Habitat: Does Calling It Essential Make It So?*, 30 ENVTL. L. 51 nn.143-216 (2000) (analyzing implementation under the Endangered Species Act and Essential Fish Habitat).

58. See 16 U.S.C. § 1532 (2000).

often amounts to little more than a vague threat employed by FWS and NMFS to negotiate relatively minor modifications to federal and non-federal actions.<sup>59</sup>

In addition to facing implementation challenges similar to the ESA, the Magnuson Act's conservation mandate was tempered in the 1996 SFA amendments by the requirement that conservation and management measures "minimize adverse economic impacts" on fishing communities.<sup>60</sup> Thus, Congress mandated that the Secretary of Commerce conduct economic analyses that balance the obligation to manage fishery resources with the potential adverse effects on fishing communities and to the extent practicable minimize those adverse effects.<sup>61</sup> The resulting lawsuits reveal the tightrope that the Secretary of Commerce and NMFS walk among science, economics, and conservation.<sup>62</sup>

A handful of courts have analyzed the Secretary's balancing of economic and conservation goals and offer a glimpse into the conservation mandate that courts assign to the agency.<sup>63</sup> In *Natural Resources Defense Council v. Daley*,<sup>64</sup> one of the few circuit court decisions to interpret the economic requirement, the Natural Resources Defense Council (NRDC) filed suit, claiming that NMFS failed to meet the statutory requirement that "conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the

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59. Daniel J. Rohlf, *Jeopardy Under the Endangered Species Act: Playing a Game Protected Species Can't Win*, 41 WASHBURN L.J. 114, 115 (2001). Rohlf explains that:

[T]he causes of the jeopardy standard's ineffectiveness are myriad: legal shortcomings in FWS'[s] and NMFS'[s] interpretation of the jeopardy standard itself, procedural limitations on how the Services assess jeopardy, and even basic agency misunderstandings of conservation biology. Together these problems have significantly undermined the ESA's most basic protection for species facing extinction. However, the silver lining to the rather grim current state of affairs is that the jeopardy standard's failings stem principally from administrative interpretations and policies rather than weaknesses in the statute itself.

*Id.* at 115.

60. 16 U.S.C. § 1851(a)(8)(B) (2000).

61. See The Regulatory Flexibility Act, 5 U.S.C. §§ 601-612 (2000) (amended in 1996, expanding the analysis that federal agencies must complete to determine the effect of their regulations on small businesses).

62. See Fletcher & O'Shea, *supra* note 57.

63. See Fletcher, *supra* note 26, for an analysis of cases under both the Magnuson Act and Regulatory Flexibility Act.

64. 62 F. Supp. 2d 102 (D.D.C. 1999), *rev'd*, 209 F.3d 747 (D.C. Cir. 2000).

United States fishing industry.”<sup>65</sup> In finding for the agency, the district court noted an inconsistency between two of the national standards and held that because the agency must “reconcile” the two provisions without congressional direction on the issue, the court must give broad deference to the agency “whose task it is to resolve competing interests which Congress itself inadvertently did not resolve . . . .”<sup>66</sup> On appeal, the United States Court of Appeals for the District of Columbia rejected the district court’s contention that the two standards at issue create competing goals. Rather, the court concluded: “It is only when two different plans achieve similar conservation measures that the [Fish and Wildlife] Service take into consideration adverse economic consequences.”<sup>67</sup> In light of the finding that the first priority of the Magnuson Act is conservation, the court found that the agency’s actions were not reasonable.<sup>68</sup>

A legislative solution to the competing interpretations of the Magnuson Act’s conservation provisions is to require fisheries decisions to be based upon the precautionary principle.<sup>69</sup> As described in testimony, the precautionary principle “is an established approach that guides managers to err on the side of the resource, rather than on the side of short-term economic gain.”<sup>70</sup> In other words, the lack of full scientific certainty is not a basis for postponing conservation measures when a serious risk of environmental damage is present. While this principle is defined and utilized in international regimes, it has not been specifically applied to U.S. fisheries management because there is often uncertainty about its true meaning and how it might be applied. Obviously, different stakeholders would be willing to accept different levels of risk.

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65. *Id.* at 106 (quoting 16 U.S.C. § 1851(a)(1) (2000)).

66. *Id.* at 107-08.

67. *Natural Res. Def. Council v. Daley*, 209 F.3d 747, 753 (D.C. Cir. 2000).

68. *Id.* at 747-56.

69. See David Freestone, *International Fisheries Law Since Rio: The Continued Rise of the Precautionary Principle*, in *INTERNATIONAL LAW AND SUSTAINABLE DEVELOPMENT – PAST ACHIEVEMENTS AND FUTURE CHALLENGES* 135 (Alan Boyle & David Freestone eds., 1999), for a thorough discussion of the precautionary principle in the fisheries context. See generally Jan Bohanes, *Risk Regulation in WTO Law: A Procedure-Based Approach to the Precautionary Principle*, 40 *COLUM. J. TRANSNAT’L L.* 323 (2002) (discussing the substitution of procedural criteria for the current-oriented requirements imposed on national legislation by the WTO).

70. John E. Reynolds, III, Chairman, U.S. Marine Mammal Commission, Address Before the U.S. Commission on Ocean Policy 4, at [http://www.oceancommission.gov/meetings/feb\\_22\\_02/reynolds\\_statement.pdf](http://www.oceancommission.gov/meetings/feb_22_02/reynolds_statement.pdf) (Feb. 22, 2002).



The Commission recognizes the inherent challenge in adding the precautionary principle to the fisheries management regime. In a follow-up question to John Reynolds, Chairman of the U.S. Marine Mammal Commission, who advocated for the use of the principle to guide the conservation of marine mammals as they are affected by fishing practices, the Commission bluntly asked “[H]ow do you convince the public that the ‘precautionary principle’ is a useful tool?”<sup>71</sup> Reynolds responded that the principle should be used “in the management of living marine resources in essentially the same manner as it is used in our daily lives,” comparing the protection of certain values in our lives such as food, clothing, and shelter for children, to the protection of the marine environment and its living resources.<sup>72</sup> He noted that for the public to make an educated decision regarding the value of marine resources and the level of risk that the public is willing to accept, managers and scientists must provide to the public “realistic, accurate assessments of the status of our marine living resources, the nature and extent of the threats to those resources . . . and the short and long-term costs associated with their loss.”<sup>73</sup>

Another alternative, and one that may be more feasible in light of the reservations that surround the application of the precautionary principle, is to rank the SFA standards in order to clarify for the Councils and NMFS which factors should be a priority in creating and implementing an FMP. Specifying conservation as the first priority among the SFA standards would certainly strengthen the concept of a conservation mandate, as well as provide greater guidance to Councils and NMFS. Interestingly, both environmental supporters and fisheries representatives advocated for such a ranking (but not necessarily the same principles ranked first) to provide greater clarity in the management process.<sup>74</sup>

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71. Letter from John E. Reynolds, III, Chairman, U.S. Marine Mammal Commission, to Admiral James D. Watkins, Chairman, U.S. Commission on Ocean Policy 5, at [http://www.oceancommission.gov/meetings/feb\\_22\\_02/answers/reynolds\\_response.pdf](http://www.oceancommission.gov/meetings/feb_22_02/answers/reynolds_response.pdf) (Feb. 22, 2002).

72. *Id.* at 5-6.

73. *Id.* at 6.

74. See Morris Statement, *supra* note 43; Moore Statement, *supra* note 48.

## B. Mandate Ecosystem Management

*In short, we've dug our marine ecosystem into a hole.*

— Kathy Fletcher, Executive Director, People For Puget Sound.<sup>75</sup>

During Commission public hearings, witnesses have called for a recommendation from the Commission “on how best to integrate an ecosystem or sustainable development approach [to further] ocean policy for the next 30 years.”<sup>76</sup> While its council system represents an initial acknowledgment that fisheries management must be regional in character, Congress has consistently failed to mandate more than a species-by-species approach in the Magnuson Act.<sup>77</sup> The 1996 SFA amended the Magnuson Act to increase the attention paid to habitat by fisheries managers and other federal agencies through the identification of “essential fish habitat.”<sup>78</sup> These provisions represented to many a new mandate to manage fisheries through habitat protection. In amending the Magnuson Act, Congress stated that “[O]ne 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. Habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States.”<sup>79</sup> While the 1996 essential fish habitat (EFH) provisions were not the first attempt by Congress to include habitat in fisheries management, the provisions did require significant changes to FMPs including identifying essential fish habitat; minimizing adverse effects on this habitat caused by fishing; and identifying other actions that should be considered to encourage

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75. Kathy Fletcher, Executive Director, People For Puget Sound, Testimony Before the U.S. Commission on Ocean Policy 2, at [http://www.oceancommission.gov/meetings/june13\\_14\\_02/fletcher\\_testimony.pdf](http://www.oceancommission.gov/meetings/june13_14_02/fletcher_testimony.pdf) (June 13, 2002).

76. William T. Hogarth, Assistant Administrator for Fisheries, National Oceanic and Atmospheric Administration, Testimony Before the U.S. Commission on Ocean Policy 2, at [http://www.oceancommission.gov/meetings/jan15\\_16\\_02/hogarth\\_statement.pdf](http://www.oceancommission.gov/meetings/jan15_16_02/hogarth_statement.pdf) (Jan. 15, 2002) [hereinafter Hogarth Statement].

77. See generally Sharon R. Siegel, *Applying the Habitat Conservation Model to Fisheries Management: A Proposal for a Modified Fisheries Planning Requirement*, 25 COLUM. J. ENVTL. L. 141 (2000) (analyzing the failure of limited entry regimes and the need for habitat protection similar to that under the Endangered Species Act).

78. See Hsu & Wilen, *supra* note 8, at 806.

79. 16 U.S.C. § 1801(a)(9) (2000).

the conservation and enhancement of essential fish habitat.<sup>80</sup> Congress requires federal agencies to consult with the Secretary of Commerce regarding any action that might adversely affect any essential fish habitat, after which the Secretary recommends conservation measures to the agency.<sup>81</sup> The statute requires the federal agency to respond to the Secretary and the appropriate Council(s), providing a description of measures that will be taken to avoid, mitigate, or offset the impact of the activity on the habitat.<sup>82</sup> When a federal agency response fails to account for the impacts to essential fish habitat, the agency must include an explanation.<sup>83</sup> Like NEPA, the review of the activity is often the final step. The acting agency may continue to act, even in a way that harms essential fish habitat, with NMFS's only recourse being to consult the Secretaries of both agencies for "higher review."<sup>84</sup>

While including the EFH provisions in the Magnuson reauthorization was seen as a move away from species-by-species management to management of prey species, the benthic community, and the health of the ecosystem habitat, many of the threats that were identified in the FMPs remain outside of the Councils' jurisdiction. Though the offshore oil and gas industry, coastal developers, and marine transportation industry raised a myriad of concerns about the effect EFH would have on their ability to remain viable, the Councils' authority did not extend to those industries. Instead, their authority extends only to the regulation and limits on fishing activities including gear usage, fishing effort and catch limits, but *not* including other activities that may adversely impact habitat such as oil and gas development or dredging.<sup>85</sup>

The statutory definition of essential fish habitat and the identification process also hamper the EFH provisions. Congress defined essential fish habitat as those "waters and substrate

80. *Id.* § 1855(b)(1)(A) (2000). For an analysis of EFH and its predecessor provisions in the 1986 and 1990 Magnuson Act amendments, see Fletcher & O'Shea, *supra* note 57.

81. 16 U.S.C. §§ 1855(b)(2), (4)(A) (noting that actions triggering this requirement are those authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken by the federal agency).

82. *Id.* § 1855(b)(4)(B).

83. *Id.*

84. *Id.* § 1855(b)(1)(C).

85. See also Fletcher & O'Shea, *supra* note 57, at 65-68 (further discussing Council authority to regulate and limit fishing activities, but not other activities that may adversely impact habitat).

necessary to fish for spawning, breeding, feeding, or growth to maturity.”<sup>86</sup> The Councils took on the challenge of reviewing scientific information and data and establishing just which habitat in each region was “essential” to managed fish stocks.<sup>87</sup> However, with such a broad definition and gaps in available research, the result of the EFH amendments was to effectively include the U.S. EEZ as essential fish habitat. NMFS created the “habitat area of particular concern” (HAPC), describing it as “EFH that is judged to be particularly important to the long-term productivity of populations of one or more managed species, or to be particularly vulnerable to degradation” in order to “help provide additional focus for conservation efforts.”<sup>88</sup>

The vast charge to identify essential fish habitat proved to be difficult because of the broad definition created by Congress and the NMFS guidance standards. The guidance document identified the “basic” information needed for identification of essential fish habitat. Recognizing that from the broadest perspective, fish habitat is the geographic area where the species occurs at any time

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86. 16 U.S.C. § 1802(10) (2000); *see also* NAT'L MARINE FISHERIES SERV., TECHNICAL GUIDANCE TO IMPLEMENT THE ESSENTIAL FISH HABITAT REQUIREMENTS FOR THE MAGNUSON-STEVENS ACT, at <http://www.nmfs.noaa.gov/habitat/efh/TechnicalGuidancetoImplementtheEFHRequirementsfortheMagnuson-StevensAct.htm> (last visited Feb. 22, 2003) [hereinafter NMFS GUIDANCE DOCUMENT] (elaborating on the definition of essential fish habitat); 50 C.F.R. § 600.10 (“For the purpose of interpreting the definition of essential fish habitat: ‘Waters’ includes aquatic areas and their associated physical, chemical, and biological properties that are used by fish, and may include areas historically used by fish where appropriate; ‘substrate’ includes sediment, hard bottom, structures underlying the waters, and associated biological communities; ‘necessary’ means the habitat required to support a sustainable fishery and the managed species’ contribution to a healthy ecosystem; and ‘spawning, breeding, feeding, or growth to maturity’ covers a species’ full life cycle.”).

87. For example, the North Pacific Fishery Management Council wrote the EFH document as amendments to the Groundfish Fishery of the Bering Sea and Aleutian Islands Area and Gulf of Alaska, the King and Tanner Crab Fisheries in the Bering Sea/Aleutian Islands, the Scallop Fisheries off Alaska, and the Salmon Fisheries in the EEZ off the Coast of Alaska. N. PAC. FISHERY MGMT. COUNCIL, ESSENTIAL FISH HABITAT (1998) (Draft of Environmental Assessment for Secretarial Review for Amendment 55 to the FMP for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area, Amendment 55 to the FMP for Groundfish of the Gulf of Alaska, Amendment 8 to the FMP for the King and Tanner Crab Fisheries in the Bering Sea/Aleutian Islands, Amendment 5 to the FMP for Scallop Fisheries off Alaska, and Amendment 5 to the FMP for the Salmon Fisheries in the EEZ off the Coast of Alaska).

88. 62 Fed. Reg. 66,531 (Dec. 19, 1997).

during its life, Councils were responsible for ascertaining information on current and historic stock size, geographic range, temporal and space distribution, and each major life history stage within all habitats occupied by the managed species.<sup>89</sup> As a result, essential fish habitat is a multi-dimensional concept. Habitat can be identified for a specific species in a certain geographic area, in a particular level of the water column, and during a certain time of year or season.<sup>90</sup>

The EFH provisions are a step toward mandating ecosystem management under the Magnuson Act, but do not allow for enough accountability on the part of other federal agencies. A recommendation was made to the Commission to elevate NMFS's and the Councils' authority,

[requiring] federal agencies to bear the burden of proving that activities that affect the coastal environment will not have an adverse impact on fisheries habitat and increasing NMFS'[s], as well as the [Councils'] ability to veto federal non-fishing related activities that are found to cause unacceptable adverse impacts to fisheries habitat.<sup>91</sup>

Increased authority, however, must be combined with a mandate in the Magnuson Act to develop "Fishery Ecosystem Plans for major ecosystems and ensure that management action is consistent with these plans."<sup>92</sup> Congress mandated similar ecosystem management in the Marine Mammal Protection Act (MMPA).<sup>93</sup> In its initial findings, Congress noted that "such species and population stocks [of marine mammals] should not be permitted to dimin-

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89. See 50 C.F.R. § 600.810(a)(2)(B) (2001); see also GULF OF MEXICO FISHERY MGMT. COUNCIL, GENERIC AMENDMENT FOR ADDRESSING ESSENTIAL FISH HABITAT REQUIREMENTS IN THE FOLLOWING FISHERY MANAGEMENT PLANS OF THE GULF OF MEXICO: SHRIMP FISHERY OF THE GULF OF MEXICO, UNITED STATES WATERS; RED DRUM FISHERY OF THE GULF OF MEXICO; REEF FISH FISHERY OF THE GULF OF MEXICO; COASTAL MIGRATORY PELAGIC RESOURCES (MACKERELS) IN THE GULF OF MEXICO AND SOUTH ATLANTIC; STONE CRAB FISHERY OF THE GULF OF MEXICO; SPINY LOBSTER IN THE GULF OF MEXICO AND SOUTH ATLANTIC; CORAL AND CORAL REEFS OF THE GULF OF MEXICO 24, at <http://www.gsmfc.org/pubs/Habitat/efh.pdf> (Oct. 1998) (documenting the challenges facing the Gulf of Mexico Fisheries Management Council in its management of over 450 species of fish).

90. See 50 C.F.R. § 600.815(a)(1)(iii)(A)(1)-(4) (2002).

91. Letter from Cynthia M. Sarthou, Executive Director, Gulf Restoration Network, to Admiral James D. Watkins, Chairman, U.S. Commission on Ocean Policy 2 (May 8, 2002) (on file with author) [hereinafter Sarthou Answer].

92. *Id.*

93. 16 U.S.C. § 1361(2) (2000).

ish beyond the point at which they cease to be a significant functioning element of the ecosystem of which they are a part" and should not diminish below their "optimum sustainable population."<sup>94</sup> The statute defines optimum sustainable population as the "number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem."<sup>95</sup> Furthermore, Congress enacted the MMPA with the "primary objective of their management . . . [being] to maintain the health and stability of the marine ecosystem."<sup>96</sup>

Thus, along with forbidding the "taking"<sup>97</sup> or importation of marine mammals in the United States, the statute sets ecosystem management as a priority for marine mammal management.<sup>98</sup> While fisheries management is based on the sustainable development of the resources and the MMPA is based on the protection, but generally not the harvest of marine mammals, the statute's mandate of measuring the health of populations by the health of the ecosystem can serve as a model for a reauthorization of the Magnuson Act.

A second element of the MMPA that can serve as a guiding principle for the Magnuson Act is placing the burden of proving the compatibility of an activity with the ecosystem on those seeking to utilize a resource. The MMPA provides for explicit exemptions to the moratorium on "taking" marine mammals for certain activities, but requires that other activities apply for a permit or an exemption from the statute.<sup>99</sup> Under an ecosystem management regime for fisheries, NMFS and the Councils could exempt certain fishing activities from the statute, while requiring more damaging fishing activities and federal activities that significantly affect the health of fisheries' ecosystems to show that they qualify for a permit. This

94. *Id.*

95. *Id.* § 1362(9).

96. *Id.* § 1361(6).

97. *Id.* § 1371(a). Under the statute, "take" means "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill any marine mammal." *Id.* § 1362(13).

98. *Id.* § 1361(6).

99. Permits are available for scientific research, public display, photography, enhancing the survival or recovery of a species, and some types of commercial fishing. *See id.* § 1371(a)(1). Exceptions to the statute are available for actions taken in defense of life or property, *id.* § 1371(c), and subsistence harvesting, *id.* § 1371(b)(1).

is one option to address land-based activities such as urban and agricultural runoff,<sup>100</sup> and might force federal agencies to alter policies in coastal zone development, marine transportation, flood insurance, and other programs that drive coastal habitat destruction.<sup>101</sup>

### C. *Codify Habitat and Nontraditional Governance Regime*

*The USA spends several billion dollars per year to manage National Parks and National Forests. Costs for designating and managing comparable [MPAs] will be much lower . . . .*

— Dr. Elliott A. Norse, President, Marine Conservation Biology Institute.<sup>102</sup>

The third theme in the recommendations regarding the Magnuson Act amendments was to institutionalize certain tools that are already being used in fisheries management, such as the use of Marine Protected Areas (MPAs) and nontraditional governance regimes to allocate rights and resources among user groups. Councils have been using “no-take zones” or temporary closures of areas for years and are now faced with a growing demand to establish areas that preclude all or some fishing activity in order to allow a fish species to recover.<sup>103</sup>

This demand was illustrated in 1999 when President Clinton issued Executive Order 13,158 calling for a national coordinated system of MPAs, defined as “any area of the marine environment reserved by Federal, State, territorial, tribal or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein.”<sup>104</sup> The Order sought to strengthen the management and protection of existing MPAs, establish new or expanded MPAs, develop a national system, and compel federal agencies to seek consultation regarding MPAs.<sup>105</sup>

100. Fletcher, *supra* note 26, at 3.

101. The Congress and the Administration must also identify needed changes in federal policy, such as flood insurance, transportation, and the like, that drive coastal habitat destruction. Sarthou Answer, *supra* note 91, at 1.

102. Elliot A. Norse, Ph.D., President, Marine Conservation Biology Institute, Testimony Before the Commission on Ocean Policy Concerning Habitat and Living Resources 5, at [http://www.oceancommission.gov/meetings/apr18\\_19\\_02/norse\\_statement.pdf](http://www.oceancommission.gov/meetings/apr18_19_02/norse_statement.pdf) (Apr. 18, 2002) [hereinafter Norse Statement].

103. See, e.g., South Atlantic Fishery Management Council; Public Meetings, 63 Fed. Reg. 64,244 (Nov. 19, 1998).

104. Executive Order No. 13,158, 65 Fed. Reg. 34,909, 34,909 (May 31, 2002).

105. *Id.*

Specifically, the Order compelled each federal agency whose actions “affect the natural or cultural resources that are protected by an MPA” to identify those actions and avoid harm to the resources.<sup>106</sup> The National Oceanic and Atmospheric Administration (NOAA) has undertaken the effort of cataloguing the existence and use of MPAs across the country in order to create “an inventory of existing U.S. marine managed areas (MPAs).”<sup>107</sup>

Despite the order and the popularity of MPAs with some stakeholders, the Commission testimony showed the extent of disagreement about the soundness and fairness of MPAs. In testimony regarding the effectiveness of MPAs around the world, it was stated that “population density of fish is on average 91 percent higher than outside reserves; biomass – or total living matter in the areas – is 192 percent higher; average size of fish and other organisms is 31 percent higher; and species diversity is 21 percent higher.”<sup>108</sup> Others see the use of MPAs, or “marine wilderness areas,” as “politically expedient solutions” including “ocean wilderness proposals that severely restrict or eliminate public access to these national resources.”<sup>109</sup> Many questions remain about the effectiveness of MPAs and whether or not they merely distribute the fish to a particular location or actually boost productivity within the fishery. However, in the Gulf region the “use of MPAs . . . is probably one of the most common types of fishery regulations utilized by the states and [Gulf] Council” with almost 135,000 square nautical miles established as MPAs or reserves.<sup>110</sup>

While the Magnuson Act is silent on the use of MPAs, they are common in practice and Congressional language regarding their

106. 65 Fed. Reg. at 34,910.

107. *Id.* at 34,909. For access to the inventory and other information on marine managed areas, see Marine Protected Areas of the United States, The MPA Inventory, at [http://mpa.gov/mpaservices/mpa\\_inventory.html](http://mpa.gov/mpaservices/mpa_inventory.html) (last visited Feb. 22, 2003).

108. David White, Director, The Ocean Conservancy Southeastern Regional Office, Testimony Before the President’s Commission on Ocean Policy 2, at [http://www.oceancommission.gov/meetings/feb\\_22\\_02/white\\_statement.pdf](http://www.oceancommission.gov/meetings/feb_22_02/white_statement.pdf) (Feb. 22, 2002) (citing ROBERT WARNER ET AL., ECOLOGICAL APPLICATIONS).

109. Michael Nussman, President, American Sportfishing Association, Address Before the U.S. Commission on Ocean Policy 3, at [http://www.oceancommission.gov/meetings/nov13\\_14\\_01/nussman\\_testimony.pdf](http://www.oceancommission.gov/meetings/nov13_14_01/nussman_testimony.pdf) (Nov. 13, 2001).

110. Letter from Wayne Swingle, Executive Director, Gulf of Mexico Fishery Management Council, to Admiral James Watkins, Chairman, U.S. Commission on Ocean Policy 2, at [http://www.oceancommission.gov/meetings/mar7\\_8\\_02/answers/swingle\\_answers.pdf](http://www.oceancommission.gov/meetings/mar7_8_02/answers/swingle_answers.pdf) (Mar. 7, 2002).



use and the development in the fishery context could provide greater guidance on the level of effectiveness that should be expected, and the methodology that should be employed to determine when and where MPAs would be justified. Institutionalizing MPAs as tools in the fisheries management scheme would clarify their use by the Councils and NMFS, thereby promoting the ecosystem and multi-species management discussed above. Any codification should necessarily give the authority to NMFS to determine the appropriateness of MPAs in particular areas and in relation to specific species.

Another habitat tool worthy of codification is the “habitat area of particular concern” (HAPC), included by NMFS in its guidance to Councils regarding the identification and implementation of EFH provisions.<sup>111</sup> As mentioned above, the HAPC was created to rein in the broad definition of essential fish habitat and the resulting massive inclusion of most of the EEZ as essential fish habitat. The problem with naming the bulk of the EEZ essential fish habitat is that the agency’s limited resources cannot provide adequate protection to the entire EEZ. The HAPC allows agency and Council attention to focus on areas of complex habitat, breeding or feeding areas for overfished stocks, or areas of interaction with other species, rather than on the entire EEZ in the particular regions.<sup>112</sup> The use of the HAPC is not new and is seen by some as “the next logical step in protecting EFH.”<sup>113</sup> In 1984, the HAPC was used by the Gulf and South Atlantic Councils to “protect pristine coral areas from the impacts of gear fished on the bottom . . . totaling 390 square miles.”<sup>114</sup> Codifying the HAPC can provide greater authority to NMFS to manage these areas as priority essential fish habitat and weave HAPCs into a broader ecosystem management scheme.

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111. NMFS GUIDANCE DOCUMENT, *supra* note 86, at 56.

112. *See* Magnuson-Stevens Act Provisions; Essential Fish Habitat (EFH), 67 Fed. Reg. 2,343, 2,344 (Jan. 17, 2002) (to be codified at 50 C.F.R. pt. 600).

113. Wayne Swingle, Executive Director, Gulf of Mexico Fishery Management Council, Testimony Before the U.S. Commission on Ocean Policy 30, at [http://www.oceancommission.gov/meetings/mar7\\_8\\_02/answers/swingle\\_answers.pdf](http://www.oceancommission.gov/meetings/mar7_8_02/answers/swingle_answers.pdf) (Mar. 7, 2002) [hereinafter Swingle Statement].

114. *See id.* (also stating the Gulf and South Atlantic Councils closed shrimp nursery grounds, subsequently prohibited all fishing in spawning aggregation sites for mutton snapper, and proposed the establishment of two marine reserves at gag grouper spawning aggregation sites).

Another area of fishery management that would benefit from statutory amendment is the inclusion of nontraditional governance regimes that can assist Councils and NMFS in allocating finite resources to numerous stakeholders. While Individual Fishing Quotas (IFQs) and Individual Transferable Quotas (ITQs) are currently in use in some U.S. fisheries, the 1996 SFA placed a moratorium on the development of new IFQ or ITQ systems.<sup>115</sup>

With fisheries management schemes becoming more and more restrictive and some fisheries closing, many in the fishing community and government began advocating for the expansion of tradable permitting.<sup>116</sup> An ITQ scheme creates permits that grant the right to fish a certain percentage of the total allowable catch for a fishery.<sup>117</sup> Along with the moratorium created by the SFA, Congress mandated a National Academy of Sciences review and report for recommendations on implementing a national policy for IFQs.<sup>118</sup> In 1999, the National Research Council issued the report, recommending the use of ITQs as one legitimate option among many; Councils should make the determination of whether to use an ITQ system on a case-by-case basis.<sup>119</sup>

Commission testimony explained the need for a national decision on IFQs and ITQs: “[T]he fishing industry needs to know whether or not IFQs and ITQs will be used as a tool of manage-

115. See 16 U.S.C. § 1853(d)(1)(A) (2000) (“A Council may not submit and the Secretary may not approve or implement before October 1, 2000, any fishery management plan, plan amendment, or regulation under this chapter which creates a new individual fishing quota program.”).

116. See generally Alison Rieser, *Prescriptions for the Commons: Environmental Scholarship and the Fishing Quotas Debate*, 23 HARV. ENVTL. L. REV. 393, 396 (1999) (analyzing fishing quotas).

117. Carrie A. Tipton, *Protecting Tomorrow's Harvest: Developing a National System of Individual Transferable Quotas to Conserve Ocean Resources*, 14 VA. ENVTL. L.J. 381, 397 (1995).

118. 16 U.S.C. § 1853(d)(5) (2000).

119. SHARING THE FISH, *supra* note 21, at 194. The 1996 SFA halted the development of the ITQ system for the Gulf of Mexico red snapper fishery, leaving the Gulf Council scrambling to adopt an emergency endorsement system in order to keep the commercial fishery open. See 16 U.S.C. § 1883(b); see also Kristen M. Fletcher, 18:3 WATER LOG 6, *Red Snapper Fishery Tests License Limitation System* (1998), at <http://www.olemiss.edu/orgs/SGLC/waterlog.htm> (last visited Feb. 22, 2003). The restriction did not apply to the North Pacific halibut and sablefish, South Atlantic wreckfish, or the Mid-Atlantic surfclam and ocean (including mahogany) quahog individual fishing quota programs. 16 U.S.C. § 1853(d)(2)(B) (2000).

ment and what the rules governing their use will be."<sup>120</sup> Similar to the National Research Council findings, most witnesses recognized that while such programs are not effective systems for every fishery, Magnuson amendments "should allow each [C]ouncil to determine whether to implement such a system."<sup>121</sup>

While these quota programs have received much attention, they are not the only governance regimes in existence. In fact, "fisheries cooperatives and community-based management systems, bound to adhere to stringent federal standards, may prove more effective than the current system that relies so heavily on the regional fishery management councils."<sup>122</sup> Recognizing that the current use of open access and, at times, limited entry can create incentives for overfishing, overcapitalization and derby fishing, the Commission was urged to consider these alternative regimes to allow for tailored responses to fisheries, their stakeholders, and fluctuations in effort and catch.<sup>123</sup>

#### IV. RESTRUCTURING THE FISHERY MANAGEMENT COUNCILS

*Ask yourself whether you would be willing to fly in a commercial airliner designed by engineers with the same record of success as our fishery management councils.*

— Dr. Elliott A. Norse, President, Marine Conservation Biology Institute.<sup>124</sup>

Whether an environmental representative suggests the alteration of the membership of the Councils or a scientist recommends the modification of their function, one of the themes that arises in

120. David T. Goethel, *Ocean Policy and Fisheries: A Discussion of Areas in Need of Change*, Address Before the U.S. Commission on Ocean Policy 2, at [http://www.oceancommission.gov/meetings/jul23\\_24\\_02/goethel\\_testimony.pdf](http://www.oceancommission.gov/meetings/jul23_24_02/goethel_testimony.pdf) (July 23, 2002) [hereinafter Goethel Statement].

121. Swingle Statement, *supra* note 113, at 3. Swingle states:

[L]arge segments of the constituency of some Councils oppose the concept . . . . Some of the constituent opposition is due to the fact the ITQs create a windfall profit for the persons who first sell the ITQ certificates. This could be eliminated by using language to allow the federal government to collect this windfall profit, as did the state of Florida for spiny lobster and stone crab trap certificate programs.

*Id.*; see also Morris Statement, *supra* note 43, at 7 (echoing Swingle's hopes that the "Commission would support changes in federal law that would allow each Fishery Council to determine whether ITQs would be a useful tool for their fisheries.").

122. Hopkins Statement, *supra* note 1, at 2.

123. *Id.* at 2; see also Morris Statement, *supra* note 43.

124. Norse Statement, *supra* note 102, at 5.

almost every fisheries-related testimony to the Commission is to somehow "improve" the Councils.

The Magnuson Act created eight regional management councils,<sup>125</sup> stating that each should "reflect the expertise and interest of the several constituent States in the ocean area over which such Council is granted authority."<sup>126</sup> The Councils are responsible for preparing FMPs and amending them when necessary, preparing comments on applications for foreign fishing, and conducting public hearings.<sup>127</sup> The Councils rely on analysis and information from various advisory committees including a fishing industry advisory committee, a scientific and statistical committee, and species working groups. The committees assist in the "development, collection, and evaluation of such statistical, biological, economic, social and other scientific information as is relevant to . . . [the] development and amendment of any fishery management plan."<sup>128</sup>

Membership on the Councils consists of the following voting members: the principal state official with marine fishery management responsibility,<sup>129</sup> the NMFS regional director for the geographic area concerned,<sup>130</sup> individuals appointed by the Secretary of Commerce who "are knowledgeable regarding the conservation and management, or the commercial and recreational harvest, of the fishery resources,"<sup>131</sup> and members "from a list of qualified individuals submitted by the Governor of each constituent State."<sup>132</sup> Nonvoting members include the Fish and Wildlife Service regional

125. 16 U.S.C. § 1852(a) (2000).

126. *Id.* § 1852. The eight Regional Fishery Management Councils and the "constituent States" are: New England (consisting of Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut), Mid-Atlantic (consisting of New York, New Jersey, Delaware, Pennsylvania, Maryland, Virginia, and North Carolina), South Atlantic (consisting of North Carolina, South Carolina, Georgia, and Florida), Caribbean (consisting of Virgin Islands and the Commonwealth of Puerto Rico), Gulf of Mexico (consisting of Florida, Alabama, Mississippi, Louisiana, and Texas), Pacific (consisting of California, Oregon, Washington, and Idaho), North Pacific (consisting of Alaska, Washington, and Oregon), and Western Pacific (consisting of Hawaii, American Samoa, Guam, and the Northern Mariana Islands). *Id.* § 1852(a)(1)(A)-(H).

127. *Id.* § 1852(h).

128. *Id.* § 1852(g)(1). Councils may create additional advisory committees as deemed necessary. *Id.* § 1852(g)(2).

129. *Id.* § 1852(b)(1)(A).

130. *Id.* § 1852(b)(1)(B).

131. *Id.* § 1852(b)(2)(A).

132. *Id.* § 1852(b)(2)(C).

or area director, the Coast Guard District Commander, the Marine Fisheries Commission Executive Director, and one representative from the Department of State.<sup>133</sup> The statute requires that voting members disclose financial interest in “any harvesting, processing, or marketing activity . . . undertaken within any fishery over which the Council . . . has jurisdiction.”<sup>134</sup>

While a wide variety of suggestions were given to the Commission during public hearings, three main themes for restructuring the Council emerged. The first was revising Council membership to reduce the economic conflicts of interest inherent in managing a resource in which a member has a financial interest. The second theme was amending the Councils’ authority to either increase or decrease NMFS’s overall role, while the third theme was adding accountability for the Councils if stocks are overfished or Council measures fail to rebuild a stock in the allotted time-period.

#### A. *Revising Council Membership*

One of the greatest criticisms of the Councils from the Commission testimony is the perceived disproportional makeup and potential conflicts of interest for Council members. Even though the Magnuson Act “was amended in 1990 to tighten Council membership qualifications . . . [a] general perception exists that decisions are made primarily by those who represent the industry and thus have a direct financial interest in the outcome.”<sup>135</sup>

The Magnuson Act directs that commercial fishers and others that are economically dependent on fishing be represented on the Councils.<sup>136</sup> The perceived threat is that “in doing so, the [Magnuson Act] has put the fox in charge of the henhouse.”<sup>137</sup> The original statute contemplated, without directly addressing the potential conflicts of interest, that the representation of the commercial

133. *Id.* § 1852(c). The Pacific Council has an additional nonvoting member appointed by the Governor of Alaska. *Id.* § 1852(c)(2).

134. *Id.* § 1852(j)(2)(C).

135. Lawrence Watters, *A Pacific Coast Perspective on Policy and Legal Issues Related to Reauthorization of the Magnuson Fisheries Conservation and Management Act*, 9 TUL. ENVTL. L.J. 287, 291 (1996).

136. 16 U.S.C. § 1852(g)(4) (2000).

137. Letter from Doug Hopkins, Program Director, Oceans Program, Environmental Defense, to the U.S. Commission on Ocean Policy 5, at [http://www.oceancommission.gov/meetings/nov13\\_14\\_01/answers/Hopkins\\_answers.pdf](http://www.oceancommission.gov/meetings/nov13_14_01/answers/Hopkins_answers.pdf) (Nov. 13, 2001) [hereinafter Hopkins Answer].

and recreational fishing interests on the Councils be based on the number of fishers, vessels, shore-support employees, and the economic contribution of the various fisheries to the different regions.<sup>138</sup> It is the “dismissal” of the importance of potential economic conflicts of interest that has led to the greatest criticism. It leaves Council members in the position of having to make “a range of scientific determinations that affect [C]ouncil members’ short-term economic interests, but that also affect the public’s long term interests in sustainable fisheries and healthy marine ecosystems.”<sup>139</sup>

Along with prohibiting the membership of those with economic interests in the outcome of Council decisions, witnesses recommended restricting Council membership to scientists and wildlife managers who can best make decisions based on the scientific needs of the species and ecosystem. Elliott Norse of the Marine Conservation Biology Institute recommended that “membership and staffing should be reconstituted to include a majority with demonstrable expertise in marine conservation and management, who work for academic institutions and public interest nonprofit organizations . . . .”<sup>140</sup> He also advocated for a Federal Fisheries Management Commission comprised of “individuals knowledgeable in the fields of marine ecology and resource management”<sup>141</sup> who would provide independent oversight of NMFS and the Councils.

Many models exist to reduce or remove the economic conflicts of interest in Council membership. The Magnuson Act was amended to require financial disclosure statements.<sup>142</sup> However, Congress can add further specifications regarding conflicts if such disclosures do not prevent taking actions that are in the best interest of the industry, but not of the resource. For example, Congress may require adding more public accountability to the Council process, potentially reducing the number of conflicts of interest, or Congress may require appointed members to be independent of current fishing activities (i.e., familiar with the commercial fishing

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138. H.R. REP. NO. 94-445, *reprinted in* 1976 U.S.C.C.A.N. 593, 631.

139. Hopkins Answer, *supra* note 137, at 5.

140. Norse Statement, *supra* note 102, at 4.

141. *Id.*

142. 16 U.S.C. §§ 1852(j)(2)(A)-(C) (2000).

sector, but not dependent upon it for economic reasons).<sup>143</sup> The statute can take one of three tactics: prevent membership by those with a conflict of interest, limit the discretion of those with a conflict of interest, or institute penalties for violation of the conflict of interest when it dictates a reckless resource decision.<sup>144</sup>

### B. *Amend Council Authority and Accountability*

Altering the membership of Councils to avoid conflicts of interest naturally leads to a discussion of the options for limiting the discretion or authority of Councils. Rather than provide Councils with unlimited authority in the creation of FMPs and designation of total allowable catch amounts, some witnesses advocated granting the Councils allocation authority only.<sup>145</sup> In such a model, NMFS would be responsible for setting the total allowable catch, but the Councils would then determine how to allocate the available fish among competing economic interests. By placing the catch determination in the hands of NMFS, it is argued that catch levels will not be set too high, as may be the case when Councils adopt catch limits.<sup>146</sup> Limiting Councils to such an "advisory role only," would still allow for them to advise NMFS of other related issues such as how to "spread out fishing effort geographically and over time to minimize the potential for derby fisheries, minimize the net economic cost of FMP restrictions, enhance safety, increase efficiency, and reduce the costs of monitoring and enforcement."<sup>147</sup>

Witnesses suggested that if Councils maintain their current role of setting catch limits and making determinations regarding overfished stocks and rebuilding plans, then they should be made more accountable for failures such as failing to rebuild a stock. A system of penalties could be established denying the Council authority over specific stocks or abolishing the Council until NMFS

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143. See Kevin R. Murray et al., *Natural Resource Damage Trustees: Whose Side Are They Really On?*, 5 ENVTL. LAW. 407 (1999), for an example of amending the requirements for natural resource damage trustees to mirror federal bankruptcy trustees.

144. See Marc A. Rodwin, *Strains in the Fiduciary Metaphor: Divided Physician Loyalties and Obligations in a Changing Health Care System*, 21 AM. J.L. & MED. 241 (1995), for an interesting discussion of points of intervention and major policy approaches in the health care field as they relate to conflicts of interest.

145. Hopkins Answer, *supra* note 137, at 6.

146. *Id.* at 5.

147. *Id.* at 6.

can rebuild stocks and/or reestablish a Council that can meet the statute's requirements. While NMFS and the Secretary of Commerce have much greater control over Council activities than these suggestions imply, the reality is that Council decisions are rarely overruled.

Despite strong feelings that the Council structure needs amending, others in the process felt equally as strong that the "character of our fisheries can only be maintained through local governance [of the Councils] and the complex problems we face will be addressed most effectively by using the knowledge and information of fishermen who have chosen to participate in the process."<sup>148</sup> The creation of the Council-based management regime is one of the fundamental elements of the Magnuson Act and will likely not be abolished or altered significantly. A compromise position for the Commission may be to address conflicts of interest more fully by statute and recommend the regular review of Council membership to avoid inequities.

#### V. FEDERAL AGENCY ORGANIZATION AND RESEARCH

*In your group's opinion, what are the most critical changes needed at the federal level to address the major environmental problems in the Gulf of Mexico?*

— Follow-up question from Admiral Watkins.<sup>149</sup>

*The most fundamental change needed at the federal level is a move away from the current crisis-oriented management approach toward decision-making that is coordinated among the various federal agencies, is adaptive and is comprehensive.*

— Answer from Cynthia M. Sarthou, Executive Director, Gulf Restoration Network.<sup>150</sup>

#### A. Reforming the Federal Ocean Approach

The 1969 Stratton Commission Report recommended the creation of an independent ocean agency to coordinate marine-related

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148. Thomas R. Hill, Chairman, New England Fishery Management Council, Testimony Before the U.S. Commission on Ocean Policy 3, at [http://www.oceancommission.gov/meetings/jul23\\_24\\_02/hill\\_testimony.pdf](http://www.oceancommission.gov/meetings/jul23_24_02/hill_testimony.pdf) (July 23, 2002).

149. Sarthou Answer, *supra* note 91, at 1.

150. *Id.*



activities.<sup>151</sup> This recommendation led Congress to create NOAA, but rather than make it a cabinet-level, independent agency, Congress placed NOAA in the Department of Commerce (DOC), noted as a “department historically focused more on promoting business and trade than advancing science and conservation.”<sup>152</sup> Placement in the DOC, combined with the abundance of environmental laws and regulations that were adopted in the 1970s and 1980s, caused management of the oceans and marine resources to be splintered among many federal agencies “each of which has its own mandate and often lacks adequate resources to accomplish critical tasks.”<sup>153</sup> When considering reform of the federal agency structure, the Commission must consider the type of management necessary (i.e., ecosystem-based versus species-by-species), the effects on marine resources from both marine and non-marine activities, the authority necessary to alter these activities, and the nature of the crisis facing ocean management. While “the existing structure has proven inadequate to cope with the crises facing our oceans, let alone to implement an ecosystem-based management approach,”<sup>154</sup> a cabinet-level agency has been recommended to coordinate among federal agencies and to implement a sustainable management scheme for marine resources.<sup>155</sup>

The existing structure is composed of a three-way division of jurisdiction along with fragmented agencies who manage their own interests in the oceans based on a single-purpose approach.<sup>156</sup> The federal, state, and local governments all have some level of governance authority in the coasts that affect the way resources are managed or protected.

The cabinet-level departments with various interests in ocean and coastal resources include the Department of Commerce: NOAA/NMFS, National Ocean Service, Coastal Zone Management Program, and the Sea Grant College Program; the Department of

151. NAT'L OCEANIC & ATMOSPHERIC ADMIN., COMM'N ON MARINE SCI., ENG'G & RES., OUR NATION AND THE SEA: A PLAN FOR NATIONAL ACTION 4 (Jan. 1969), *available at* <http://www.lib.noaa.gov/edocs/stratton/chapter1.html#Plan> (last visited Feb. 22, 2003).

152. Roger T. Rufe, President, The Ocean Conservancy, Statement Before the U.S. Commission on Ocean Policy 3, *at* [http://www.oceancommission.gov/meetings/nov13\\_14\\_01/rufe\\_testimony.pdf](http://www.oceancommission.gov/meetings/nov13_14_01/rufe_testimony.pdf) (Nov. 13, 2001) [hereinafter Rufe Statement].

153. *Id.*

154. *Id.* at 4.

155. *Id.*

156. CICIN-SAIN & KNECHT, *supra* note 17, at 19-20.

Interior: Minerals Management Service, U.S. Geologic Survey and the Environmental Protection Agency; the Department of Defense: Navy and Army Corps of Engineers; and the Department of Transportation: Coast Guard and Maritime Administration. With the newly created Department of Homeland Security, which will likely house the Coast Guard, the degree of fractionalization in the federal scheme becomes clear.<sup>157</sup> Without a “mechanism in the Executive Branch to establish a government-wide policy for the oceans,” the departments operate as independent agencies, without the responsibility or authority to “develop or administer an integrated management program.”<sup>158</sup> As a result, national ocean policy is dependent upon each agency’s individual policy goals.

Currently, NMFS and the Secretary of the Interior have primary responsibility over fisheries management, but have little leverage to prevent activities in the ocean that affect the health of fisheries. One example of this lack of leverage is the land-based alterations affecting the Gulf of Mexico. The Gulf Region has lost approximately fifty percent of its historical wetlands and has been greatly affected by activities on the rivers that feed into it, providing freshwater and nutrient support for Gulf fisheries.<sup>159</sup> Structural projects for flood control and navigation, runoff from agricultural sites hundreds of miles away, and urban development are responsible for greater nonpoint source pollution, leaving the Gulf of Mexico long on pollutants and short on the natural sediments that have been carried through the nation’s rivers for centuries.<sup>160</sup>

As mentioned previously, the Magnuson Act requires federal agencies to consult with NMFS regarding actions that will affect essential fish habitat. While this is an attempt to integrate the interest of fishery resources with decisions of other agencies, NMFS’s only recourse against agencies that disagree with its findings is to request review by the Secretaries of both NMFS and the acting agency.

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157. *Id.* at 20-21.

158. *Id.* at 22.

159. Cynthia Sarthou, Executive Director, Gulf Restoration Network, Testimony Before the U.S. Commission on Ocean Policy 7, at [http://www.oceancommission.gov/meetings/mar7\\_8\\_02/sarthou\\_statement.pdf](http://www.oceancommission.gov/meetings/mar7_8_02/sarthou_statement.pdf) (Mar. 7, 2002) [hereinafter Sarthou Statement].

160. *Id.*

Relying on the original recommendation by the Stratton Commission, many witnesses recommended the creation of a cabinet-level Department of the Oceans.<sup>161</sup> Though not a new idea, the current climate of integrated management of land-based resources may pave the way for such a “super-agency.” The increasing popularity of ecosystem management and watershed management during the 1990s has led to the increased use of integrated, sustained management regimes. However, the debate remains whether an “Oceans Agency” can overcome the fragmented governance regime that has been in use for three decades and is based on statutes adopted during a time when the nation sought to develop underutilized resources, instead of safeguarding resources and ecosystems. The success of such an agency may depend upon the enactment of legislation calling for a national policy and integration of authority and mandate.

Not all suggestions included such a drastic change to the federal structure. One witness suggested, “[As] an interim step to establishing an independent agency, I urge you to recommend creating a permanent, cabinet-level interagency oceans advisory council.”<sup>162</sup> Others believe the current structure is workable. In a follow-up question by the Commission to a member of the Gulf Council, it was asked whether establishing a Council like the Marine Mammal Commission which oversees marine mammal issues for NOAA, would “help solve fishery management problems.”<sup>163</sup> Gulf Council Member Julie K. Morris did not see the value in adding a commission that would provide advisory information to Congress, the Council and NOAA, explaining that the

[C]ouncils already have stock assessment panels and standing scientific and statistical committees with expertise in the regional fish stocks. [There is no] advantage of having a national commission also reviewing the science of regional fisheries, and instead see an additional forum for scientific

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161. See, e.g., Norse Statement, *supra* note 102, at 10; Rufe Statement, *supra* note 152, at 3; Katsourous Statement, *supra* note 53, at 4.

162. Rufe Statement, *supra* note 152, at 4.

163. Letter from Julie K. Morris, Former Commissioner of Florida Fish and Wildlife Conservation Commission and Current Member of the Gulf of Mexico Marine Fishery Council, to the U.S. Commission on Ocean Policy 4, at [http://www.oceancommission.gov/meetings/feb\\_22\\_02/answers/morris\\_answers.pdf](http://www.oceancommission.gov/meetings/feb_22_02/answers/morris_answers.pdf). (Feb. 22, 2002) (on file with author).

review as another place for additional decision-making to get bogged down.

David Goethel, biologist and fisherman, suggested still a different tactic:

[R]equire bureaucrats to spend one week per year observing the industry they oversee. A few members of various government agencies have actually come out with me or other fishermen to get some hands on experience, but always on their days off. Some of the agencies actually frown on their employees getting experience by saying it destroys their objectivity. In my opinion, many of our regulatory problems in ocean policy could be greatly lessened if our overseers had rudimentary knowledge of the problems faced when working in the ocean environment. You can read about it behind a desk until hell freezes over, but as my own children found out, nothing clarifies the mind like an ice-covered deck in the middle of January.<sup>164</sup>

In lieu of mandating days at sea in mid-January for federal agency employees – for which there might not be enough NOAA lawyers to handle the potential liability – elevating stewardship of marine resources to the cabinet level has its advantages. As one witness recommended: “[T]ake all the marine components other than defense and diplomacy and make them work together. We are a maritime nation; does it not make sense to have an arm of government that reflects that important fact?”<sup>165</sup> Likewise, research efforts could be combined to implement a new national strategy.

#### B. *Advancing Research Capabilities and Priorities*

*What is known about the dynamics of marine species is generally based on information gathered after a species is in peril or a decline in abundance is noted.*

— Dr. Gus Rassam, Executive Director, American Fisheries Society.<sup>166</sup>

The substance of Dr. Rassam’s statement was one area upon which all Commission witnesses agreed. The amount of federal

164. Goethel Statement, *supra* note 120, at 3.

165. Moore Statement, *supra* note 48, at 5-6.

166. Dr. Ghassan Rassam, Executive Director, American Fisheries Society, Address to the Ocean Policy Commission 2, at [http://oceancommission.gov/meetings/nov13\\_14\\_01/Rassam\\_testimony.pdf](http://oceancommission.gov/meetings/nov13_14_01/Rassam_testimony.pdf) (Nov. 13, 2001).

spending on marine research, whether the area is fisheries, marine operations, marine pollution, or other marine species, is sadly out of proportion compared to research conducted for land or non-marine resources. Each public meeting of the Commission resulted in a collective call for more federal spending on marine research and education.<sup>167</sup> According to Wayne Swingle, Executive Director of the Gulf of Mexico Fishery Management Council, even though the number of NMFS personnel to gather data on fisheries was gradually increased after implementation of the Magnuson Act, level funding for NMFS during the 1980s, when the number of FMPs was increasing, prevented the number of personnel from increasing.<sup>168</sup>

And while funding marine resource research is critical to proper management, throwing money into the current structure would be an inadequate fix. Instead, to be of any use to the fisheries regime, additional funding for fisheries research must be accompanied by a research agenda, revitalized to acknowledge and account for the failures in stock assessment, habitat protection, and overfishing.

As discussed above, NMFS and the Councils are required under NEPA to assess the impacts of fishing on the environment. In addition, these entities must determine the optimum yield of a fishery, the essential fish habitat, and the effect that management measures will have on fishing communities – all based on the best scientific information available. Unfortunately, this leaves NMFS and the Councils leading the fisheries management regime blind, as the information necessary to make educated decisions is unavailable in a timely manner or is nonexistent.<sup>169</sup> This is best described in the following testimony:

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167. See, e.g., Carolyn Thoroughgood, Statement Before the U.S. Commission on Ocean Policy 3, at [http://www.oceancommission.gov/meetings/nov13\\_14\\_01/Thoroughgood\\_testimony.pdf](http://www.oceancommission.gov/meetings/nov13_14_01/Thoroughgood_testimony.pdf) (Nov. 13, 2001); Thomas C. Malone, The Need for a Regional Approach for Detecting, Understanding, and Predicting Changes in the Coastal Ocean, Address Before the U.S. Commission on Ocean Policy 2-3, at [http://www.oceancommission.gov/meetings/jul23\\_24\\_02/malone\\_testimony.pdf](http://www.oceancommission.gov/meetings/jul23_24_02/malone_testimony.pdf) (July 23, 2002); Susan Hanna, Economic Investments to Improve Fisheries Management, Address Before the U.S. Commission on Ocean Policy 3-4, at [http://www.oceancommission.gov/meetings/june13\\_14\\_02/hanna\\_testimony.pdf](http://www.oceancommission.gov/meetings/june13_14_02/hanna_testimony.pdf) (June 13, 2002).

168. Swingle Statement, *supra* note 113, at 1.

169. See Hogarth Statement, *supra* note 76, at 4 (discussing statistics regarding the “breadth and quality” of NMFS scientific research program).

When Dr. William Hogarth, National Director of the National Marine Fisheries Service, was in Gloucester last summer, he acknowledged being stymied by the inadequate scientific data available to him in assessing the stocks. The data, he said, was 2 1/2 to 3 years old. Couple that weakness with the widely divergent anecdotal reports of the fisherman. The picture you end up with suffers from critical gaps, which make final assessments mere guesswork at best.<sup>170</sup>

With over 100 lawsuits filed against NMFS in recent years, scientists are spending valuable time *defending* their data and analyses rather than gathering new data.<sup>171</sup> As William Hogarth explained, “science sometimes gives people the answers they don’t want to hear, which can lead to criticism.”<sup>172</sup> Hogarth painted an optimistic picture of NMFS research efforts in his January 15, 2002 testimony explaining that:

[C]ontrary to some of the criticism, NOAA Fisheries maintains full service science centers with scientists who in many cases are world-renowned in their field . . . . The problem is not the quality of the science or where it is located, but the fact that it is under-funded given the demands for data and analysis.<sup>173</sup>

Assuming additional money could be made available for marine research, what priorities should be set for its use? When asked in a follow-up question about the “science voids in fisheries management,” Hogarth responded: “[T]here are many gaps in our scientific knowledge. Many topics will never be completely understood, but we continually strive to improve our knowledge.”<sup>174</sup>

Suggestions to the Commission included three major priorities. First, it was recommended that NMFS study fish stocks when populations are abundant instead of waiting until after a problem

170. Roger S. Berkowitz, *Figuring out the Sustainability of the Fish Industry: Literally a Life and Death Proposition*, Address Before the U.S. Commission on Ocean Policy 2, at [http://www.oceancommission.gov/meetings/jul23\\_24\\_02/berkowitz\\_testimony.pdf](http://www.oceancommission.gov/meetings/jul23_24_02/berkowitz_testimony.pdf) (July 23, 2002) [hereinafter Berkowitz Statement].

171. Katsouros Statement, *supra* note 53, at 5.

172. Hogarth Statement, *supra* note 76, at 4.

173. *Id.*

174. Letter from William T. Hogarth, Assistant Administrator for Fisheries, National Oceanic and Atmospheric Administration, to U.S. Commission on Ocean Policy 3 (Mar. 7, 2002) (on file with author). Hogarth’s top four recommendations for spending on research were data collection, fisheries oceanography, socio-economics, and essential fish habitat studies. *Id.* at 4-5.

is identified.<sup>175</sup> Delay can force the use of restrictive management measures to rebuild the depleted population and cause fisherman to shift their effort to other species, potentially starting another process of overfishing and depletion.<sup>176</sup> Second, Congress should mandate the long-term monitoring of the coasts, estuarine waters, and the EEZ to provide assessments and mapping.<sup>177</sup> Lastly, the timeliness of the data collection process is imperative and requires updated scientific equipment on boats and an increased number of observers in order to compile real-time data.<sup>178</sup>

Marine fisheries research in the United States is not without its successes. One successful example of redesigning federal research efforts is the creation of state-federal partnerships such as the Marine Resources Monitoring, Assessment and Prediction Program (MARMAP). MARMAP, which provides data to the state management sections, is a partnership among the South Carolina Department of Natural Resources, Marine Resources Division, South Atlantic Council, NMFS, and the Atlantic States Marine Fisheries Commission.<sup>179</sup> According to George R. Sedberry, Assistant Director of the Marine Resources Research Institute, MARMAP addresses specific management problems, such as survival rates of released fish, movements of species, growth rates, and the status of the fisheries.<sup>180</sup> Sedberry also testified regarding the Southeast Area Monitoring and Assessment Program-South Atlantic (SEAMAP-SA), another cooperative program with NMFS, that conducts annual trawl surveys of shallow coastal waters from Cape Hatteras, North Carolina to Cape Canaveral, Florida.<sup>181</sup>

The value of the research results is unparalleled: MARMAP data has been used to locate areas of reef habitat, to site potential marine protected areas, and to measure the abundance and diver-

175. Sarthou Statement, *supra* note 159, at 6.

176. *Id.*

177. Ken Haddad, Address Before the U.S. Commission on Ocean Policy 2, at [http://www.oceancommission.gov/meetings/feb\\_22\\_02/haddad\\_statement.pdf](http://www.oceancommission.gov/meetings/feb_22_02/haddad_statement.pdf) (Feb. 22, 2002).

178. Berkowitz Statement, *supra* note 170, at 2.

179. George R. Sedberry, Assistant Director, Marine Resources Research Institute, Address Before the U.S. Commission on Ocean Policy 1-2, at [http://www.oceancommission.gov/meetings/Jan15\\_16\\_02/sedberry\\_statement.pdf](http://www.oceancommission.gov/meetings/Jan15_16_02/sedberry_statement.pdf) (Jan. 15, 2002).

180. *Id.* at 2.

181. *Id.* at 3.

sity of species.<sup>182</sup> While Sedberry cautioned against the use of partnership resources to focus on single-species fisheries in particular, he urged the use of this state-federal partnership model to meet the objectives of the Oceans Act.<sup>183</sup>

In addition, Wayne Swingle, Executive Director of the Gulf of Mexico Fishery Management Council, pointed to cooperative programs for the collection of management information, especially the innovative way this data collection requirement is being approached in the New England area . . . through cooperative research plans which involve the fishing industries in collection of both fishery dependent data (e.g., bycatch) and fishery independent data (e.g., trawl surveys) to determine year class strength of juveniles. The program makes the fishery participants more comfortable with the results of stock assessments, and Congress appears more willing to fund such cooperative research when supported by commercial and recreational industries.<sup>184</sup>

## VI. CONCLUSION: THE FISHERIES MANAGEMENT "WISH LIST"

The future of fisheries management in this country is dependent upon the timely collection and analysis of scientific data and the ability of the managers to respond to that data in an efficient manner, avoiding political and economic conflicts of interest. Presently, the federal research agenda and the management scheme mandated under the Magnuson Act hamper, and in some ways, preclude these results. The Commission was told to "be bold" but must be aware of the political realities that may preclude a complete overhaul to the system. Based on these political realities, public testimony to the Commission, and the failures of the management regime over the last twenty-six years, the "wish list" for fisheries begins with an evaluation of the federal governmental structure and authority given to NMFS and the Councils. The wish list includes a revitalized EEZ research agenda, and concludes with a transformation of the current species-by-species approach to an ecosystem-based approach.

The Commission should recommend reevaluation of the placement of NOAA and NMFS in the Department of Commerce. The

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182. *Id.* at 3-4.

183. *Id.* at 4.

184. Swingle Statement, *supra* note 113, at 2.



Commission is already contemplating a reorganization at the federal level in order "to more effectively respond to issues" and provide a more coordinated approach to marine issues.<sup>185</sup> The inability of the Department of Commerce to adapt to ecosystem-based approaches, especially in the area of marine fisheries, or adequately address the need for marine-related research, strengthens the argument for a federal Department of the Oceans. This department would be a cabinet-level agency with a scientific advisory panel setting the research and technical approaches for fisheries. A cabinet-level agency dedicated to the protection and sustained use of U.S. oceanic resources can provide greater guidance related to marine issues nationwide and undertake the task of advocating and finding the funding for necessary marine research, through both congressional funding and public/private partnerships. The research agenda must be mandated by Congress and assigned to the Oceans Agency and NOAA to implement.

If moved to a federal Oceans Agency with oversight of activities affecting the oceans, NMFS will likely have greater influence in the review of land-based activities. With a coordinated planning and review effort, there is a greater opportunity for the agency to affect policy changes at the federal level. Likewise, the Magnuson Act should be amended to mandate stronger accountability by NMFS to take measures necessary to prevent overfishing and rebuild stocks, based on recommendations from the Councils. While NMFS currently has the authority to override Council action, it rarely does so, leaving fisheries management decisions largely in the hands of a body that "strive[s] to create consensus among large and diverse groups of stakeholders, and often settle[s] for the lowest common denominator."<sup>186</sup>

Fisheries management overall should be reexamined and amended to reflect ecosystem management, similar to the scheme mandated in the Marine Mammal Protection Act. While the 1996 EFH provisions were a start, the Magnuson Act still fails to acknowledge the importance of ecosystem maintenance and, thus, fails to provide adequate mechanisms to address fishing down the

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185. NATIONAL OCEAN POLICY, *supra* note 37, at 15.

186. See Hopkins Statement, *supra* note 1, at 2 ("[A]lternative entities may be able to craft solutions that are successful and durable because the number of stakeholders may be smaller and more likely to agree on principles and management measures.").

food chain, the capacity of the ecosystem, and those areas that are truly "essential" habitat. By recognizing the interconnectedness of species and their habitat, a system of marine protected areas can be developed, the purpose of which is to provide rebuilding areas for species; a kind of refuge area that can target necessary elements of the marine environment.

When adopted in 1976, the authors of the Magnuson Act were concerned with the *development* of domestic fisheries, paving the way for overcapitalization in fisheries that had already been subjected to overfishing by foreign fleets. In the years following its enactment, the technology of catching fish overtook fisheries science, leaving stock assessment and ecosystem analysis behind as fisheries began to crash in regions across the United States. The wealth of public testimony provides a road map for the Ocean Commission, and more importantly, for Congress, to reexamine the federal management structure and our history of fishing in order to implement vital changes.

