Taking Stock: The Magnuson-Stevens Act Revisited: Have the Managers Finally Gotten it Right?: Federal Groundfish Management in New England

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Have the Managers Finally Gotten It Right?:

Federal Groundfish Management in New England

Peter Shelley*

New England's fabled Atlantic cod (*Gadus morhua*)\(^1\) came under comprehensive U.S. management with the passage of the Fishery Conservation and Management Act of 1976.\(^2\) In the

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intervening thirty-five years, this seminal federal law has been scrutinized, condemned, praised, challenged, amended, and interpreted repeatedly by fishermen and conservationists, fishery managers and regulators, and courts and legislators but the challenge of achieving a viable and sustainable fishery for Atlantic cod remains. The latest fishery stock assessments, while positive for a number of fish species in the New England groundfish complex, were not sanguine with respect to either the Georges Bank or the Gulf of Maine Atlantic cod stocks, putting spawning-aged biomass at 11.9% and 21% respectively of what would be associated with a maximum sustainable yield from the stock. Moreover, Georges Bank Atlantic cod is not projected to be rebuilt until 2026 even with highly restrictive fishing controls. Thus, the


3. The groundfish complex in New England is thirteen species, managed as twenty stocks. Other fish that would generally be considered “groundfish,” that is, fish that spend their adult lives on or near the bottom of the ocean, such as monkfish or spiny dogfish, are currently managed separately.

4. These are the same species because there are significant exchanges between the onshore and the offshore populations of cod but they are managed in New England as if they were separate stocks of fish. There remain significant questions about the structure of the New England cod populations that are just being investigated now. Failure to properly account for cod population structure is one of the hypotheses explaining the poor performance of the cod stock assessment mode.

5. See NOAA Fisheries Serv., Assessment of 19 Northeast Groundfish Stocks through 2007, Presentation to New England Fishery Management Council (Sept. 3, 2008), available at http://www.nefmc.org/nemulti/council mtg_docs/Sept%202008/080903_Final%20GARM%20Presentation_Paul%20R ago.pdf [hereinafter Assessment of 19 Northeast Groundfish Stocks]. These biomass estimates have to be understood in the context that there is still a great deal of scientific uncertainty with the population models that are used for this stock.

6. E.g., NEW ENG. FISHERY MGMT. COUNCIL, FINAL AMENDMENT 16 TO THE NORTHEAST MULTISPECIES FISHERY MANAGEMENT PLAN 7 (October 16, 2009), available at http://www.nefmc.org/nemulti/planamen/Amend16/final_amend16_oct09.html, [hereinafter FINAL AMENDMENT 16]. For the final rule promulgating Amendment 16, see 75 Fed. Reg. 18,262 (Apr. 9, 2010) (to be codified at 15 C.F.R. pt. 902, 50 C.F.R. pt. 648). Gulf of Maine Atlantic cod were on track to being rebuilt by 2014 and were declared to be no longer overfished in 2010, but a recent stock assessment has thrown the past assessments into limbo as the scientists now think that earlier projections of rapid regrowth were wrong. The decision process associated with changing the 2014 rebuilding deadline for Gulf of Maine cod is underway. See Abby Goodnough, Scientists Say Cod Are Scant; Nets Say Otherwise, N.Y. TIMES
current status of the once-sacred cod presents a dubious metric of the success of the fisheries management program since 1976.

This article will continue a series of legal and policy analyses Conservation Law Foundation (CLF) has conducted, looking at the challenges of rebuilding and protecting sustainable fish populations at levels that are capable of providing reliable annual catch levels and supporting an economically viable, thriving, and diverse regional fishery in New England. The focus of the analysis here will proceed from the recent enactment of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (Magnuson Reauthorization Act), to the judicial review of the promulgation of regulations implementing Amendment 16 to the Northeast Multispecies (Groundfish) Fishery Management Plan (“Amendment 16 FMP”).

I. BACKGROUND

The legislative course of U.S. fisheries management is marked by three major congressional actions: the original Fishery Conservation and Management Act of 1976 (FCMA), the Sustainable Fisheries Act (SFA) enacted in 1996, and the Magnuson Reauthorization Act. This article will refer to the

7. There is a famous wooden carving of the Atlantic cod that is known as the “Sacred Cod” in the Massachusetts State House. For a short history of this iconic carving, see KURLANSKY, supra note 1, at 79.


collective results of these and other minor Congressional tweaks to the original FCMA as the "Magnuson-Stevens Act." In addition to the monumentally important and internationally influential assertion of exclusive fishery management control over the 200-mile fishery conservation zones by the FCMA,\(^\text{13}\) the driving force of the Magnuson-Stevens Act for policy purposes has been the National Standards for fishery management set forth in the Act, pursuant to which all fishery management plans are required to conform.\(^\text{14}\)

Of these standards, the most elusive in execution in New England, especially for our friend the Atlantic cod, has been National Standard 1, which constructs the Scylla and Charybdis of fisheries management: achieving optimum yield from a stock while preventing overfishing.\(^\text{15}\) The persistent difficulties in implementing National Standard 1 are ironic given the key role that National Standard 1 was always designed to play in producing sustainable levels of fish and thriving fisheries. The original FCMA conference report states: "[t]he first of these national standards is regarded by the conferees as being of particular importance. It declares that conservation and management measures shall be designed, implemented, and enforced to prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery."\(^\text{16}\)

Over the ensuing 35 years, fishery management councils and federal regulators alike have struggled to understand how to reconcile these often competing objectives: preventing overfishing while achieving so-called "optimum yield" from the fishery on a continuous basis.\(^\text{17}\) If the best available science indicated that a

\(^{13}\) Fishery Conservation and Management Act, § 101, 90 Stat. at 336. President Reagan later expanded the scope of this 200-mile jurisdiction to include other activities and national interests in addition to fishing, and the zones were renamed Exclusive Economic Zones. See Proclamation 5030, 48 Fed. Reg. 10,605, 10,605-06 (Mar. 10, 1983); see also Act of Nov. 14, 1986, Pub. L. No. 99-659, § 101(a), 100 Stat. 3706, 3706 (adding definition of "exclusive economic zone").


\(^{16}\) S. REP. NO. 94-711, at 50. (1976) (Conf. Rep.).

\(^{17}\) The FCMA at that time defined "optimum yield" (OY) as achieving the "greatest overall benefit to the Nation, with particular reference to food production and recreational opportunities," and "which is prescribed as such on the basis of the maximum sustainable yield from such fishery, as modified
manager could not simultaneously achieve both objectives in a particular complex of fish that was being managed, was one more important than the other? Some favored weighing the economic objectives over the ecological objectives, particularly in the short term; others saw the purposes of the law requiring placing the ecological objectives first. In New England, it took a lawsuit to resolve the point. National Standard 1 created a conservation floor: overfishing had to be prevented and on-going overfishing had to be stopped.\textsuperscript{18}

The second major Congressional intervention in fisheries management occurred in 1996 with passage of the SFA.\textsuperscript{19} The 1996 amendments focused on several structural elements of the FCMA that were confounding the Congressional goals of achieving sustainable fisheries in the United States. The SFA established a biological cap on setting of the optimal yield for a fishery regardless of the social or economic consequences of that cap;\textsuperscript{20} it added a new National Standard to reduce bycatch;\textsuperscript{21} and it mandated that regional fisheries management councils and the federal agencies develop comprehensive measures that “minimize to the extent practicable [the] adverse effects” of fishing on essential fish habitat.\textsuperscript{22}

As with the conservation provisions of the original FCMA\textsuperscript{23} however, these new conservation objectives had to await judicial

\textit{by any relevant economic, social, or ecological factor.”} Fishery Conservation and Management Act § 3 (emphasis added).

18. See Conservation Law Found. of New Eng. v. Franklin, 989 F.2d 54, 61 (1st Cir. 1993). See generally Shelley et al., supra note 8 (discussing the first federal litigation brought under the Magnuson-Stevens Act to directly enforce National Standard 1).


20. The SFA amended the definition of “optimum yield” to eliminate the option of allowing fishing rates higher than the estimated maximum sustainable yield, even if they were justified by relevant economic or social factors: OY “prescribed on the basis of the maximum sustainable yield . . . as reduced by any relevant . . . factor.” 16 U.S.C. § 1802(33)(B) (2006) (emphasis added). See also Fleming et al., supra note 8, at 586-87.

21. 16 U.S.C. § 1802(2) (2006) (defining “bycatch” as “fish which are harvested in a fishery, but which are not sold or kept for personal use”).


23. See generally Shelley et al., supra note 8 (discussing the first federal litigation brought directly under the Magnuson-Stevens Act to enforce its overfishing objectives).
review before being fully implemented in New England. CLF and others sued the Secretary of the Department of Commerce on May 19, 2000, alleging that the groundfish management plans from the New England Fishery Management Council ("New England Council" or "Council") failed to properly implement the new SFA conservation measures.\textsuperscript{24} Specifically, the conservation plaintiffs argued that Amendment 9 to the Northeast Multispecies (Groundfish) Fishery Management Plan ("Amendment 9 FMP") set the overfishing definitions too high, allowed overfishing to continue, violated the rebuilding requirements for depleted stocks, and failed to implement the new requirements to minimize bycatch and discards.\textsuperscript{25} As a result, plaintiffs argued, the National Marine Fisheries Service's (NMFS)\textsuperscript{26} approval of such plans violated the law. Plaintiffs again prevailed on all counts.\textsuperscript{27}

The Amendment 9 FMP litigation was quickly followed by the adoption of Amendment 13 to the Northeast Multispecies (Groundfish) Fishery Management Plan ("Amendment 13 FMP"), which was already being developed by the New England Council during the course of the Amendment 9 litigation. The Amendment 13 FMP went into effect May 1, 2004, and further changed the underlying fishery management plan. Conservation groups and commercial fishing interests challenged the amendment in a multi-party court fight.\textsuperscript{28} The conservationists challenged the amendment on the grounds that the regulations allowed continued overfishing on some stocks during their rebuilding period, which the groups concluded was still in
violation of National Standard 1; that the probability of overfishing was unacceptably high; that the amendment failed to minimize bycatch or adopt an adequate bycatch reporting methodology; and that the amendment violated the National Environmental Policy Act, 42 U.S.C. §§ 4321-4370h.29

The conservation plaintiffs did not fare as well in this challenge. On the issue of whether a “phased-in” elimination of overfishing was legal, the court concluded: “CLF confuses the statutory bar on exceeding the [maximum sustainable yield] *amount* with a nonexistent prohibition on exceeding the Fmsy *rate* during a rebuilding program.”30 The court continued: “so long as [optimum yield] is achieved over time and rebuilding targets can be met within the statutory period, the Secretary [of Commerce] enjoys significant latitude in designing a rebuilding program and in ending overfishing.”31 The court concluded: “it was permissible . . . to take into account ‘the needs of fishing communities’ in establishing the rebuilding framework and in setting the timetable for ending overfishing.”32 As a result of this reading of the law, a pivotal issue that CLF and others thought had been put to rest in an earlier decision33 once more became a confounding factor in sorting out an appropriate balance between fish and fishermen.

The court also ruled against the conservation plaintiffs with respect to their challenges to the likelihood of success of the

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29. *Oceana, Inc.*, 2005 W.L. 555416, at *5. Oceana also brought a claim challenging Amendment 13 for alleged failures to protect essential fish habitat (EFH). *Id.* This claim was follow-up litigation to a case that American Oceans Campaign (now Oceana) commenced in 1999 with respect to the identification and protection of essential fish habitat in a number of fishery management plans around the United States, including the New England Council’s Omnibus Habitat Amendment. Am. Oceans Campaign v. Daley, 183 F. Supp. 2d 1, 3 (D.D.C. 2000). The court there held that while the EFH analysis met the Magnuson-Stevens Act requirements at the time, it violated the National Environmental Policy Act by failing to adequately address alternatives. *Id.* at 12. Habitat protection as required by the Magnuson-Stevens Act continues to be a failure in New England but is beyond the scope of this article.


31. *Id.*

32. *Id.*

rebuilding plans, the question of NEPA inadequacy, and the essential fish habitat claims. The court granted summary judgment to the conservation groups on their claims that Amendment 13 failed with respect to its bycatch reporting methodology methods and protocols. The fishing group that challenged the Amendment 13 FMP suffered a similar fate, prevailing only on a narrow, albeit important, procedural challenge it mounted to protect the council's management prerogatives.

This decision was very disappointing to conservationists and to a significant degree set the stage for the conservation agenda in the congressional reauthorization debates that were to come up shortly. Clearly, the Magnuson-Stevens Act language was still not tight enough to ensure that fishery-management plans would produce sustainable fisheries as quickly as practicable, a central element of its stated purposes. Congress had intended the SFA to end overfishing and rebuild stocks, but instead regulators and managers continued to interpret provisions in the SFA to allow overfishing during rebuilding, greatly increasing the risks, if not the reality, that the widespread overfished status of many of the Nation's fish populations would continue far beyond the 10-year endpoint originally envisioned.

II. THE FIGHT FOR ACCOUNTABILITY: THE MAGNUSON-STEvens FISHERY CONSERVATION AND MANAGEMENT REAUTHORIZATION ACT

The third major intervention by Congress with fisheries management was the 2007 passage of the Magnuson-Stevens Reauthorization Act. This reauthorization may well represent a sort of "final chapter" as far as refining the major structural

35. Id. at *20-21.
36. Id. at *27-37.
37. Id. at *43.
38. Id. at 21-27.
elements of the Magnuson-Stevens Act is concerned; Congress certainly seemed intent at a minimum on putting an end to the lengthy interpretative process that began in 1976 on the topic of preventing overfishing. The Magnuson Reauthorization Act conclusively weights biological considerations more than social and economic factors in the situation of overfished stocks, recognizing that healthy, sustainable fisheries are dependent in the long term on healthy fish populations. Continued overfishing, even in the short term, is not in the Nation's interest.

For the conservation community in New England, the Magnuson Reauthorization Act's legislative process focused on defending the SFA's improvements, ensuring that overfishing would stop in all New England fisheries, requiring accountability measures for the catch limits that were being set by the New England Council, and taking some of the politics out of fisheries science and science recommendations at the council level. This last piece was done by requiring all councils to have science and statistical committees (SSC) and by decreasing the latitude of councils to ignore or modify the advice from these expert committees. These efforts were largely successful and the reauthorized law improved considerably on the existing statutory framework.

Several provisions in the reauthorized law were particularly notable with respect to the situation in New England. First, annual catch limits (ACLs) were required to be set for all stocks in the management unit and these annual catch limits had to have strict accountability measures that would ensure that the fishery did not overshoot the limit during the fishing year. The ACLs had to ensure that no overfishing would occur in any stock in the fishery. For any stock already subject to overfishing, the new restrictive ACLs had to be in place by the start of the 2010 fishing year; for all others, the ACLs had to be in place by the start of the

42. This optimistic view that the law is safe from major adjustments may be thwarted by a number of bills recently introduced in the 112th Congress, 1st Session, in the U.S. House of Representatives that seek to re-introduce "flexibility" into fishery management, particularly with respect to setting the rebuilding schedules for overfished fish stocks. See H.R. 1646, 2304, 2772, & 3061, 112th Cong. (1st Sess. 2011) (all currently before the Committee on Natural Resources in the House).


44. See id. §§ 1853(a)(10), 1853(a)(15), 1854(e).
2011 fishing year.\textsuperscript{45} Second, the ACLs were to be set pursuant to scientific calculations of the allowable biological catch prepared by each council’s SSC, calculations that were not subject to second-guessing by the council.\textsuperscript{46} Later-adopted National Standard 1 guidelines further specified that the allowable biological catch had to be reduced by the scientific and management uncertainties present in the fishery.\textsuperscript{47}

Congress rejected the use or tolerance of overfishing as a management tool in the Magnuson Reauthorization Act, even in the short-run:

The goal of the Magnuson-Stevens Act should be to produce MSY “on a continuing basis” in order to end overfishing and rebuild fisheries within a reasonable period of time. To achieve this goal, plans must establish a reasonable end-date for fishing beyond sustainable levels, particularly because it is necessary to ensure that overfishing during the rebuilding period will not undermine rebuilding goals.\textsuperscript{48}

The Magnuson Reauthorization Act strengthened existing law and Congress stood up to the fishing interests that wanted to scale back the conservation measures during the reauthorization process. As one of the principal Congressional architects put it, “[w]hile the pending measure does not do everything I would have liked, it does not roll back the conservation principles in this important fisheries management law. The legislation actually strengthens the Magnuson-Stevens Act.”\textsuperscript{49}

Under the Magnuson Reauthorization Act, ACLs and accountability measures (AMs) were mandated for all fishery management plans. The act first amends section 303(a)(15) of the Magnuson-Stevens Act to include the words “establish a

\begin{footnotes}
\footnote{45}{\textit{Id.} § 1853.}
\footnote{46}{\textit{See id. §§ 1852(g)(1)(B) & (h)(6) (2006); 50 C.F.R. § 600.310(f) (2009).}}
\footnote{47}{50 C.F.R. § 600.310(g)(2) (2009).}
\footnote{48}{S. REP. NO. 109-229, at 22 (2006).}
\end{footnotes}
mechanism for specifying annual catch limits in the plan (including a multiyear plan), implementing regulations, or annual specifications, at a level such that overfishing does not occur in the fishery, including measures to ensure accountability."50 Moreover, as noted above, managers had a strict timeline for putting these ACLs and AMs in place: fishing year 2010 for overfished fisheries and fishing year 2011 for all others.51

These forcing and clarifying functions of the act were heralded by conservationists: "Congress' latest revamping moves in the right direction. First, the [Magnuson Reauthorization Act] clarifies and strengthens existing stock rebuilding provisions by requiring Councils to actually implement required plans and regulations to end overfishing of stocks declared over-fished. Moreover, such plans and regulations must now provide for ending overfishing immediately."52 By imposing strict time limits and requiring the ACLs be developed based on scientific advice, the Magnuson Reauthorization Act prevented councils from continually re-defining stock specifications to allow overfishing.53

This act drastically changed the fisheries landscape in New England, where overfishing was still being tolerated under the authority of the decision in *Oceana, Inc.* As the Washington, D.C.-based Marine Fish Conservation Network observed: "Congress also closed a loophole allowing overfishing to continue on species already classified as overfished. The new law specifies that rebuilding plans—plans managers must develop to restore species declared overfished—must end overfishing immediately and not

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51. Id.
53. “[O]verfished” and “overfishing” are defined in the Magnuson-Stevens Act as “a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a continuing basis.” 16 U.S.C. § 1802(34) (2006). The National Marine and Fisheries Service has clarified these terms so that “overfished” defines the biomass of the stock while “overfishing” pertains to the rate or level of removal of fish from the stock. Magnuson-Stevens Act Provisions; Annual Catch Limits; National Standard Guidelines, 73 Fed. Reg. 32,526, 32,532 (June 9, 2008) (to be codified at 50 C.F.R. pt. 600).
continue, as has been the case most notably in New England where plans to restore species have dragged on for years.\textsuperscript{54}

Furthermore, the practice of consequence-free annual quota overruns, which were a chronic outcome in New England, was eliminated by the AM requirements. Councils were to use a range of measures, including: (1) those that apply in-season and are designed to prevent the fishery from ever exceeding the ACL in the first place and (2) those measures that would be applied after a fishing year which caused an ACL overage to both pay back the overage and to ensure it did not happen in subsequent years.\textsuperscript{55} If ACLs are exceeded, new AMs must be implemented within the next year, or as soon as possible.\textsuperscript{56} These new requirements are designed to remove all incentives to overfishing from the fishery: “[t]he clear intent of Congress in the [Magnuson Reauthorization Act] is to end overfishing by requiring catch limits and enforcing those limits through accountability measures.”\textsuperscript{57}

To further aid in preventing overfishing, the Magnuson Reauthorization Act prescribed protocols for developing the annual catch specifications that de-politicized the use of science in the council process.\textsuperscript{58} The act required councils to establish and use an SSC: “Each scientific and statistical committee shall provide its Council ongoing scientific advice for fishery management decisions, including recommendations for acceptable biological catch, preventing overfishing, maximum sustainable yield, and achieving rebuilding targets, and reports on... sustainability of fishing practices.”\textsuperscript{59} Members of the SSC “shall

\begin{itemize}
\item \textsuperscript{55} Magnuson-Stevens Act Provisions; Annual Catch Limits; National Standard Guidelines, 73 Fed. Reg. at 32,535.
\item \textsuperscript{56} Id.
\item \textsuperscript{57} Id.
\item \textsuperscript{58} A New Course for America's Fish and Fishermen, supra note 54.
\item \textsuperscript{59} Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, Pub. L. No. 109-479, sec. 103(b), § 302(g), 120
\end{itemize}
be [f]ederal employees, [s]tate employees, academicians, or independent experts and shall have strong scientific or technical credentials and experience[,]" and a peer review process could also be established to provide the council with further scientific advice. Councils have to adopt ACLs that do not exceed the levels recommended by the SSCs or the peer review process.

By mandating that SSC committees must be comprised of qualified and competent individuals and by requiring that the scientific advice serve as an absolute cap on quotas, Congress attempted to ensure that accurate information is both provided to and, more importantly, utilized by the councils when developing fishery management plans. Congress inserted these provisions because it recognized the detrimental effect that ignoring scientific recommendations was having on fisheries: "ten years after enactment of the [Sustainable Fisheries Act], overfishing is still occurring in a number of fisheries, even those fisheries under a rebuilding plan established early in the SFA implementation process." In addition to the ACL and AM requirements, Congress mandated a more prominent role for science in all council processes. Prior to these mandates, the New England Council used to have long discussions about what the science advice meant and even felt free to ignore it. Indeed, the New England Council did not even have a functional SSC prior to passage of the Magnuson Reauthorization Act. The Magnuson


60. Id. Independent members can also be paid a stipend, in the hopes that "Councils attract . . . qualified experts to serve on SSCs who otherwise may not have the funding necessary to enable them to perform the required work." S. REP. NO. 109-229, at 18 (2006).

61. Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 § 103(b), 120 Stat. at 3580.


Reauthorization Act eliminates the politics that inevitably interfered with the manager's long-term objectives of producing and maintaining sustainable fisheries: "[t]he new provisions significantly constrain the councils' ability to ignore the advice of SSCs and establish an independent peer review process for evaluating the quality of that advice." 65

In discussing the need for these new measures, the Senate Committee on Commerce, Science, and Transportation reported the following:

[S]ome regions argued that with proper accountability safeguards, effort controls could achieve the same results with less disruption to the fishery. However, the Committee concluded that explicit direction is needed to ensure accountability in all regions. After numerous meetings and discussions with the Councils, industry, and conservation groups, the Committee determined that, to ensure compliance with the 1996 amendments, S. 2012 needed to require that: (1) scientifically established annual catch limits be set and adhered to in each managed fishery and (2) any catch in excess of that limit (overages) should be deducted from the following year's catch limit through appropriate management measures. 66

The Magnuson Reauthorization Act was another legislative step in the right direction. After its enactment, the focus immediately turned to NMFS, which was charged with interpreting and implementing these new requirements.

III. REVISITING THE NATIONAL STANDARD GUIDELINES

Since the Magnuson Reauthorization Act significantly altered National Standard 1, new interpretative guidelines were required. These guidelines were of particular concern to conservationists, who still saw a number of ways that congressional intent could go astray in the guideline promulgation process. 67 NMFS filed a

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65. A NEW COURSE FOR AMERICA'S FISH AND FISHERMEN, supra note 54, at 13.
67. A NEW COURSE FOR AMERICA'S FISH AND FISHERMEN, supra note 54, at 8 ("NMFS guidelines and regulations will be key to addressing these concerns directly when setting annual catch limits.").
notice of intent (NOI) to prepare an environmental impact statement for the impending guidelines it planned to write for National Standard 1.  
National Oceanic and Atmospheric Administration (NOAA) later proposed a rule for ACLs on June 9, 2008. Over the course of the next three months, NMFS held three public meetings and made formal presentations to each regional fishery management council. It received over 158,000 comments involving the proposed National Standard 1 guidelines revisions. The final guidance was published on January 16, 2009.

The final guidance rule constituted a major re-write of the previous National Standard 1 guidelines. NMFS incorporated the directives from Congress by mandating that all fishery management plans must contain ACLs and have AMs. The rule further provided that “ACLs in coordination with AMs must prevent overfishing[]” AMs should “address and minimize both the frequency and magnitude of overages “of the ACL if they occur.” Accountability measures are further described in subpart (g) where NMFS details in-season accountability measures, suggests using annual catch targets to ensure an ACL level is not breached, and requires that in situations where “an ACL was exceeded, AMs must be triggered and implemented as soon as possible to correct the operational issue that caused the

68. National Standard 1 Guidelines; Notice of Intent to Prepare an Environmental Impact Statement, 72 Fed. Reg. 7016, 7017 (Feb. 14, 2007). This proposal was later abandoned as NMFS determined a categorical exclusion was appropriate for the action.
71. Id.
73. 50 C.F.R. § 600.310(c) (2010).
74. 50 C.F.R. § 600.310(f)(5)(i).
75. 50 C.F.R. § 600.310(g)(1).
76. These annual catch targets were voluntary and portrayed as sort of a gravel warning strip that alerted managers that an ACL overage was likely.
ACL overage." The ACL and AM mechanisms are highly detailed and quite specific.

NMFS also clarified how numerous fishing terms related to each other, settling on a tiered approach where the overfishing limit (OFL) is greater or equal to the acceptable biological catch (ABC), which is greater than or equal to the ACL. The difference between the OFL and ABC "depends on how scientific uncertainty is accounted for;" the difference between the ABC and the ACL is the estimated management uncertainty. The SSCs were to be responsible for determining the ABC, thus implicitly vesting in the scientists any calculation of the scientific uncertainty of the OFL calculation. The councils were then to set the ACLs based on that scientific advice, after they had further reduced the ABC by the council's estimate of the management uncertainty with respect to achieving the ACL with the management measures they were proposing.

Not only did the new provisions in the Magnuson Reauthorization Act require the National Standard 1 guidelines to be rewritten, but the act also affected other guidelines and regulations. The National Standard 8 and 9 guidelines both underwent minor changes. NMFS also implemented new regulations:

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77. 50 C.F.R. § 600.310(g)(3).
78. 50 C.F.R. § 600.310(h)(1).
79. Magnuson-Stevens Act Provisions; Annual Catch Limits; Nat'l Standard Guidelines Final Rule, 74 Fed. Reg. 3178, 3180 (Jan. 16, 2009) (to be codified at 50 C.F.R. pt. 600). NMFS went further to clarify that there were very few fisheries where setting all of these standards as equal to each other would be appropriate. Id.
80. Id.
82. General Provision of the Magnuson-Stevens Fishery Conservation and Management Act; Minor Amendments to Regulations Final Rule, 73 Fed. Reg. 67,809, 67,810 (Nov. 17, 2008) (to be codified at 50 C.F.R. pt. 600). National Standard 8 (section 600.345) was modified to add "that fishery conservation and management measures take into account the importance of fishery resources to fishing communities by using economic and social data that is based on the best scientific information available." Id. National Standard 9 (section 600.350) was also modified "by reformatting paragraph (c), the definition, and adding an exclusion of 'bycatch' scientifically tagged and released highly migratory species fish harvested in a commercial fishery managed by a Council or the Western and Central Pacific Fisheries Convention Implementation Act." Id.
guidelines to establish the new Council Coordinating Committee and to set up SSC operating procedures.  

Back in New England, the New England Fishery Management Council was already deeply engaged in developing Amendment 16 to the Northeast Multispecies (Groundfish) Fishery Management Plan ("Amendment 16 FMP") and now needed to bring it into compliance with the new law and guidelines.

IV. AMENDMENT 16 TO NEW ENGLAND'S GROUNDFISH FMP

The New England Council formally commenced Amendment 16 to the Northeast Multispecies FMP on November 6, 2006, while the reauthorization process was still under way in Congress. The Council had already determined several years earlier during the Amendment 13 FMP process and in discussions after adoption of Amendment 13 that Amendment 16 was to be a major amendment that would introduce a number of significant management changes into the fishery. First, since this amendment was happening at the mid-point of many of the rebuilding programs for the twelve overfished stocks, the Council intended to use it to adjust catch rates up or down to ensure that all fish stocks stayed on a proper rebuilding trajectory. For most of these rebuilding stocks, the New England Council's objective was to have them rebuilt by 2014. Second, the Council had already signaled that groundfish management in New England would be shifting to a "hard quota" management system. In conjunction with this shift to hard quotas, the Council indicated

84. Fisheries of the Northeastern United States; Northeast Multispecies Fishery, Scoping Process, 71 Fed. Reg. 64,941 (Nov. 6, 2006).
85. Id. at 64,942.
86. Id. Our friend, the Georges Bank Atlantic cod, however, is on a much longer rebuilding timeline. Because of biological factors, the scientists had calculated that this stock would not be rebuilt until 2026. See 16 U.S.C. § 1854(e)(4)(A)(ii) (2006) (setting maximum rebuilding period of ten years unless "the biology of the stock of fish" dictates otherwise).
87. Unlike the status quo indirect control system, see Anderson, supra note 2, a hard quota system is a direct control system where the main conservation mechanism is the setting of a total amount of fish to be caught, after which the fishery closes.
that it would analyze new management mechanisms and approaches, including individual quota systems, area management systems, expansions of the existing pilot sector management systems, and total allowable catch systems. The New England Council expected to have the Amendment 16 FMP in place by the start of the 2009 fishing year, May 1, 2009, although the public notice itself foreshadowed some of the challenges that lay ahead with such an ambitious schedule, including the fact that the new science assessments for the stocks managed under Amendment 16 were not scheduled to be completed until mid-2008.

In the comments in response to the Amendment 16 FMP scoping notice, the New England Council received strong feedback of community interest in a number of management systems: continuation of the current “days-at-sea” program; an area-based

88. The Council had established a pilot program for sector-based management in Amendment 13. Magnuson-Stevens Fishery Conservation and Management Act Provisions; Fisheries of the Northeastern United States; Northeast (NE) Multispecies Fishery; Amendment 13 Final Rule, 69 Fed. Reg. 22,906, 22,981-83 (April 27, 2004) (to be codified at 50 C.F.R. pt. 648). This first look at a sector management approach where fishermen could form organizations that fished as groups was spearheaded by a group of Cape Cod fishermen from Chatham, Massachusetts, known as the Georges Bank Cod Hook Sector. Amendment 13 allocated this sector a quota based on its 1996-2001 fishing history on Georges Bank cod. See id. at 22,983. This was the first “hard quota” groundfish program in New England since the 1980s. In a hard quota program, a fishery has to close once it has caught its numerical limit of fish. Another sector, the Georges Bank Cod Fixed Gear Sector, was created in 2006 by what the New England Council calls a framework adjustment. NEW ENG. FISHERY MGMT. COUNCIL, FRAMEWORK ADJUSTMENT 42 TO THE NORTHEAST MULTISPECIES FISHERY MANAGEMENT PLAN 306 (2006), available at http://www.nefmc.org/nemulti/frame/fw42/final_fw42_sec05.pdf.


90. Id. at 64,943. At least in New England, the Council has had to deal with a long lead time in amendment approval, primarily because of federal process requirements. The deadline for submitting a plan for implementation on the first day of the fishing year, May 1st, is usually in the early fall of the preceding year.

91. The Council developed the existing “days-at-sea” program in the 1980s after the hard quota system established by ICNAF was abandoned. See Anderson, supra note 2. Stated simply, in this “days-at-sea” program there were no hard catch limits but simply annual catch targets. Scientists and managers made estimates of how many pounds of particular fish stocks would probably be caught under different configurations of indirect controls
management system that would define the fishing region into geographical areas for management purposes; various hard quota programs, ranging from individual transferable fishing quotas (ITQs) to stewardship shares; a point system that, according to its proponents, would function as a more adaptive quota program; and an expansion of the pilot sector management program set up under the Amendment 13 FMP.\textsuperscript{92} After extensive public debate over the various options, the New England Council decided to carry three alternatives forward for full analysis in Amendment 16: the sector management program, a hard quota "backstop" for the current days-at-sea program, and the current system, which was included as the "no action" alternative.\textsuperscript{93} The other approaches were deferred until a later amendment.\textsuperscript{94}

The New England Council's well-laid plans, however, quickly ran into the Magnuson Reauthorization Act.\textsuperscript{95} Where the Council thought in early 2006 that it was just making mid-term adjustments to the rebuilding programs and other fishery rules in Amendment 16, the new legal requirements from the Magnuson Reauthorization Act regarding annual catch limits, accountability measures, actions by the Council's new SSC in setting the acceptable biological catches and overfishing limits, all of which had to be in place by May 1, 2010, for all overfished stocks at the latest, were a train wreck for the work plans of the Council's technical staff. To make matters worse, NMFS was not close to completing the revisions to the National Standard 1 guidelines and other changed National Standards that would be applicable to

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  \item Such controls included limiting the number of days fished, altering the mesh sizes in the fishing gears used to let more fish through the nets uncaptured, closing areas with high catch rates to fishing, and the like.
  \item It is called an "indirect control" system because the managers do not directly regulate the pounds of fish caught each year, but rather they attempt to indirectly regulate the amount caught by restricting the methods of the fishermen who catch the fish.
  \item final amendment 16, supra note 6, at 63-65.
  \item id. at 65-66.
  \item id.
  \item id. at 56-57. significant time and energy was also consumed by framework 42 to the groundfish fmp. new eng. fishery mgmt. council, framework adjustment 42 to the northeast multispecies fishery management plan 306 (2006), available at \url{http://www.nefmc.org/nemulti/frame/fw42/final_fw42_sec01.pdf}.
\end{itemize}
all the new analyses. The New England Council had no choice, however, but to move forward with one eye on Washington and one eye on its own newly-constituted SSC, making its best guesses as to how its regulatory world might change.

The second unexpected event came from the science side. All nineteen of the groundfish stocks were being comprehensively reassessed in 2008 through the third of a series of peer-review processes known as the Groundfish Assessment Review Meeting (GARM III), which took place over 2007 and 2008. GARM III significantly changed a number of the ways the fisheries scientists were looking at the New England fish data and the fish themselves, including new biological reference points for all of the nineteen stocks regulated under the Multispecies Groundfish Fishery Management Plan. To give just one example, GARM III indicated that Georges Bank cod now required a fifty-five percent reduction in existing fishing mortality.

Finally, the Council’s SSC rejected the Council’s proposed approach in Amendment 16 for calculating the scientific uncertainty in the estimates of the allowable biological catches (ABCs) and annual catch limits (ACLs) as being overly complicated and inaccurate and substituted a new approach that they felt better reflected the existing literature on scientific uncertainty as well as NMFS’s approach to scientific uncertainty. Since the Council was now bound to follow the SSC’s advice on these matters, the Council’s plan development team had to go back to the drawing board, using the SSC’s alternative methodology.

The combination of these three events produced new stock specifications and revised rebuilding plans for many of the stocks

96. See supra text accompanying notes 15-18.
98. See Assessment of 19 Northeast Groundfish Stocks, supra note 5.
100. FINAL AMENDMENT 16, supra note 6, at 8.
101. See supra note 62 and accompanying text.
that suggested that further major effort reductions were going to be necessary in the fishery to recover the overfished populations.\textsuperscript{102} It became quickly apparent to anyone following the process that Amendment 16 was going to have to introduce significant new and enforceable mortality cuts on a number of key fish stocks. Under the \textit{status quo} days-at-sea program, the additional reductions in the numbers of days that fishermen could fish to meet the new quotas would be close to catastrophic for many, reducing some fishermen to a just handful of days to catch groundfish.\textsuperscript{103}

By mid-2008, the New England Council concluded – properly – that there was no way it could make its scheduled May 1, 2009 deadline for implementing the amendment and revised the Amendment 16 deadline to May 1, 2010, requesting at the same time that NMFS issue an interim management plan to cover the 2009 fishing year.\textsuperscript{104} NMFS issued the interim plan based largely on the New England Council’s recommended interim measures, which became effective May 1, 2009.\textsuperscript{105}

The New England Council completed its portion of the Amendment 16 journey on October 23, 2009, when NMFS published the notice of availability of the Council’s final amendment and its associated draft environmental review for formal public comment.\textsuperscript{106} Amendment 16 was a sprawling,

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\item[102.] Among other reasons for pessimistic rebuilding projections that came out of the 2008 GARM III process, the scientists indicated that fishing levels had inadvertently been set too high by Amendment 13. The actual recruitment of many species in the 2004-08 period, that is, the number of fish that survived earlier life stages to “recruit” into the fishery for some of the stocks turned out to be less than one-half the estimate that the scientists had counted on when they set the fishing limits in Amendment 13. \textit{Final Amendment 16, supra} note 6, at 80.
\item[103.] Many of these fishermen had diversified into other fisheries than groundfish, but still, the economic impacts of the new scientific advice were widely considered to spell the end of portions of the fleet.
\item[105.] \textit{Id.} The groundfish fishing year in New England runs from May 1st to April 30th.
\item[106.] Magnuson-Stevens Fishery Conservation and Management Act Provisions; Fisheries of the Northeastern United States; Northeast (NE) Multispecies Fishery; Amendment 16, 74 Fed. Reg. 54,773 (Oct. 23, 2009) (to
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massive re-write of groundfish management in New England by the New England Council. Concealing the extensive and often contentious public policy debates that emerged from 2007 to 2009, the final Council vote in favor of the Amendment 16 FMP was 14-1-1.107

The Amendment 16 FMP added another species, Atlantic wolffish (Anarhichas lupus), to the groundfish complex managed under the Northeast Multispecies FMP; developed new stock status determination criteria, rebuilding programs, control rules and stock specifications processes; set annual catch limits and accountability measures; expanded the sector management program and developed an approach for calculating each sector member’s catch history for purposes of creating a collective quota under which each sector would operate; established new effort controls for fishermen who did not join sectors; created new management and accountability measures for the recreational fishery; created new recordkeeping and reporting requirements; and modified or initiated a number of special access programs and other targeted programs.108 NMFS received some 1519 comments in response to its call for comments on the amendment.109 The administrative record that was assembled later for the judicial review of the Amendment 16 FMP was over 62,000 pages.110

NMFS published notice of final regulations implementing the Amendment 16 FMP111 on April 9, 2010,112 some three weeks

be codified at 50 C.F.R. pt. 648).

107. New England Management Council Motions, June 22-25, 2009, NEW ENG. FISHERY MGMT. COUNCIL (June 22, 2009), http://nefmc.org/actions/motions/motions-jun09.pdf. David Goethel, a fisherman from New Hampshire, was the lone dissenting vote. NMFS Regional Director Patricia A. Kurkul, who would ultimately have to determine with NMFS whether the Amendment met all its requirements, was the abstaining vote. The proceedings of this June 2009 Council meeting, with page after page of motions, motion amendments, perfections of motions, and withdrawal of motions, provide a good window into the degree to which the New England Council debated every issue raised about Amendment 16. Id.


111. Magnuson-Stevens Fishery Conservation and Management Act
before the start of the 2010 fishing year that would be governed by Amendment 16 FMP. Of the entire package, only one pilot program proposed by the New England Council was disapproved by NMFS as being inconsistent with the national standards in the Magnuson-Stevens Act. The new rules went into effect on May 1, 2010. The historical landings of the active groundfishermen who elected to fish under the new sector provisions created by Amendment 16 FMP were such that the new sector program comprised ninety-eight percent of the total annual groundfish allocation for the 2010 fishing year.

Amendment 16 was not perfect and certainly not the last word on groundfish management in New England. But the CLF concluded that the Northeast Multispecies FMP as amended by Amendment 16 was generally consistent for the first time since 1989 with both the letter and spirit of the law: a tremendous achievement by the New England Council. Nonetheless, within a month, three independent petitions for judicial review of the Amendment 16 FMP were filed in various U.S. district courts.

Provisions; Fisheries of the Northeastern United States; Northeast (NE) Multispecies Fishery; Amendment 16, 75 Fed. Reg. 18,262, 18,263 (Apr. 9, 2010) (to be codified at 15 C.F.R. pt. 902, 50 C.F.R. pt. 648). Amendment 16 is actually comprised of three sets of regulations published on the same day: the Amendment 16 regulations and Final Environmental Impact Statement, the operations plans for the seventeen sectors that would operate in the 2010 fishing year, and a specifications document (referred to as Framework 44) that set the catch limits for the twenty stocks for the fishing years 2010-12. See id.

112. Id. at 18,262.
113. Id. at 18,263.
114. Id. at 18,304. Because of the time constraints and other considerations, including the fact that the interim rule that NMFS implemented at the Council's request as a holding place for Amendment 16 expired on April 30, 2010, NMFS exercised its authority under the Administrative Procedures Act to waive the normal 30-day waiting period before published rules become effective. See 5 U.S.C. § 553(d)(3) (2006); Magnuson-Stevens Fishery Conservation and Management Act Provisions; Fisheries of the Northeastern United States; Northeast (NE) Multispecies Fishery; Amendment 16, 75 Fed. Reg. at 18,304.

V. BACK TO COURT(S)

On April 27, 2009, James Lovgren filed a complaint on behalf of himself and “all other similarly situated” aggrieved fishermen, who were holders of the Northeast Multispecies federal fishing permit in the U.S. District Court for the District of New Jersey.116 On May 9, 2010, the City of New Bedford and various other fishermen and fishing-related interests alleged to be adversely affected by Amendment 16 filed a complaint in the U.S. District Court for the District of Massachusetts.117 The New Bedford and the Lovgren plaintiffs both sought expedited review pursuant to 16 U.S.C. § 1855(f)(4). On May 7, 2010, the marine conservation group Oceana filed a complaint with the U.S. District Court for the District of Columbia.118 With the Massachusetts and New Jersey parties’ agreement, the government successfully moved to transfer the New Jersey case to Massachusetts and consolidate the two cases.119 Oceana objected to consolidation and its challenge to Amendment 16 stayed in the District of Columbia. CLF’s July 9, 2010 motion to intervene on the government’s side in the New Bedford case was granted.120

The various petitioners challenged Amendment 16 on a variety of grounds. The New Bedford and Lovgren plaintiffs focused on various alleged violations of the Magnuson-Stevens Act, the National Environmental Policy Act, the Administrative Procedures Act, the Regulatory Flexibility Act, and the U.S. Constitution.121 Oceana’s challenge was more narrowly focused on

116. Complaint for Declaratory and Injunctive Relief at 1, Lovgren v. Locke, No. 10-cv-2162 (D.N.J. Apr. 29, 2010), ECF No. 1. Mr. Lovgren apparently filed this as a substitution for an earlier filed complaint in the same court, docketed as 3:09-02148. Id. at 2.
117. Complaint at 1, New Bedford v. Locke, 10-cv-10789 (D. Mass. May 9, 2010), ECF No. 1. This complaint was later amended to add the City of Gloucester as a plaintiff. Plaintiffs’ First Amended Complaint at 1-2, New Bedford v. Locke, No. 10-cv-10789 (D. Mass. June 24, 2010) ECF No. 4.
121. The Lougren complaint also prayed for certification as a class action.
issues related to bycatch monitoring in general and accountability for the catch of a groundfish stock in the sea scallop fishery.\textsuperscript{122} The Lovgren and New Bedford plaintiffs both sought unusual relief: in addition to declaratory judgment, Lovgren sought, \textit{inter alia}, an order that the Secretary of Commerce “seriously evaluate whether negotiated rulemaking is appropriate pursuant to the Negotiated Rulemaking Act, 5 U.S.C. §§ 561-570a” or, alternatively, “pursuant to the Fishery Negotiation Panel, 50 C.F.R. § 600.750 et seq.”\textsuperscript{123} The New Bedford plaintiffs sought, \textit{inter alia}, declaratory relief, compensatory damages, and an order that the defendant “conduct a full Regulatory Flexibility Analysis which takes into account the cumulative effect of all fishery management plans.”\textsuperscript{124}

The New Bedford plaintiffs also made it abundantly clear from the earliest filings in the case that they intended to pursue a

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and sought a jury trial, both of which were strange requests given that this case was fundamentally a record review case under the Administrative Procedure Act. See 16 U.S.C. § 1855(f)(1) (2006). The Lovgren plaintiffs never pursued these requests.

\textsuperscript{122} See, e.g., Complaint for Declaratory and Injunctive Relief, supra note 116, at ¶ 1. The Oceana petition for judicial review was still pending before the United States District Court for the District of Columbia at the time this article was being written and will not be covered here.

\textsuperscript{123} Complaint, supra note 116, at 18.

\textsuperscript{124} Complaint, supra note 117, at 11-12; Plaintiffs’ First Amended Complaint, supra note 117, at 15. Another group, Food & Water Watch, Inc., sought to intervene on October 8, 2010, on the side of the plaintiffs challenging Amendment 16 on a variety of grounds, most of which had not been raised by the plaintiffs' original complaints. Motion for Food & Water Watch, Inc. To Intervene As Plaintiff, New Bedford v. Locke, No. 10-cv-10789, (D. Mass Oct. 8, 2010), ECF No. 37. The court ultimately disallowed their motion and permitted them to appear as \textit{amicus curiae} in the proceedings. Order at 1-2, New Bedford v. Locke, No. 10-cv-10789 (Feb. 4, 2011), ECF No. 78. Food and Water Watch filed an interlocutory appeal to the First Circuit Court of Appeals challenging the district court’s action, Locke v. Food & Water Watch, No. 11-1303 (1st Cir. Mar. 21, 2011), but later withdrew it. This intervention raised an important issue with respect to whether an intervenor can raise new issues challenging a fishery management plan after the 30-day jurisdictional statute of limitations in the Magnuson-Stevens Act. In the case of Food & Water Watch, the issues it wanted to raise were advanced five months after the statutory limitations period for challenging the management plan had run. While this issue was fully briefed to the First Circuit in Food & Water Watch’s appeal, it was not legally resolved because the appeal was dismissed by mutual consent on the parties. Judgment entered on August 30, 2011.
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far-ranging course of discovery, including deposing all the principal decision-makers on Amendment 16, from Council members up to the head of the National Oceanic and Atmospheric Administration, to support their suspicions that Amendment 16 was both engineered and approved by NMFS in bad faith and as a result of improper conduct. The district court alluded to the plaintiffs' discovery as a "fishing expedition" at oral argument on the discovery motions. By this tactic and seemingly against their own stated interests, the plaintiffs managed to drag out the Amendment 16 judicial review proceedings despite the fact that it was strictly a record review case and despite their own insistence for an expedited process. All their requests for depositions and other discovery to supplement the administrative record were summarily denied.

The New Bedford plaintiffs' motion for summary judgment argued that Amendment 16 violated the law in several particulars. First, the amendment improperly managed the multispecies fishery on a stock-by-stock basis rather than on a whole fishery basis. Second, the allocations in the amendment were alleged to be invalid because they were based on different criteria for different subcomponents of the commercial fleet and for the recreational fishery. Third, the annual catch limits were allegedly too restrictive. Finally, they argued that Amendment 16's expanded sector program failed to follow the statutory procedures set out for Limited Access Privilege Programs (LAPPs) in the Magnuson-Stevens Act.

The focus points of the summary judgment arguments by the Lougren plaintiffs were the alleged use of a flawed database of landings history that violated National Standard 2's requirement to base management on "the best scientific information

128. Memorandum of the Cities of New Bedford and Gloucester and Others In Support of Their Motion for Summary Judgment at 9, New Bedford v. Locke, No. 10-cv-10789, 2011 WL 2638863 (D. Mass Nov. 22, 2010), ECF No. 57. The New Bedford plaintiffs' motion for summary judgment identified several other alleged deficiencies with respect to the analysis of costs, socio-economic effects, and bycatch. Id. at 21-29.
available;”129 a failure to represent mid-Atlantic fishermen adequately in the New England Council’s management bodies and the Amendment 16 process, thereby violating National Standard 4’s prohibition against discrimination between states and National Standard 6’s requirement to take variations in fisheries into account;130 a failure to minimize bycatch as required by National Standard 9;131 and a violation of the LAPP rules by failing to have a referendum before implementing the sector management system.132

Injecting an explicit political overtone into the proceedings, the Governor of the Commonwealth of Massachusetts, Deval Patrick, and the head of the state Division of Marine Fisheries, Paul Diodati,133 and Congressmen Barney Frank (4th District MA) and John Tierney (6th District MA) filed separate memoranda as amici curiae in support of the plaintiffs. Those memoranda argued that Amendment 16 violated at least four national standards.134 Food & Water Watch (F&WW), a national non-profit organization, was also granted an opportunity to file an amicus brief in support of plaintiffs’ challenge,135 and the Georges Bank Cod Fixed Gear Sector, a sector that had been formed under the Amendment 13 FMP, filed an amicus brief in support of the defendants.136

129. 16 U.S.C. § 1851(a)(2) (2006). Lovgren also argued, but did not press, that the use of the “flawed database” also amounted to a taking under the Fifth Amendment to the U.S. Constitution. Lovgren Plaintiffs’ Motion for Summary Judgment at 8-10, No. 10-cv-10789, 2011 WL 2636863 (D. Mass. Nov. 22, 2010), ECF No. 55-1 (citing U.S. CONST. amend. V). This pleading was styled as a motion but was in fact Lovgren’s memorandum in support of summary judgment.
131. Id. at 13 (citing 16 U.S.C. § 1851(a)(9) (2006)).
132. Id. at 15-16.
133. It is paradoxical that a Governor and his chief state fisheries management official would make an effort to block a federal fishery management plan in court that they had in fact helped to draft as members on the New England Council, and for which they had also voted.
135. See Order, supra note 124, at 1-2.
136. Memorandum of Amicus Curiae Georges Bank Cod Fixed Gear
The Lougren plaintiffs and F&WW argued strenuously that the sector management program set up by Amendment 16 constituted an individual fishing quota system and, therefore, specifically required a referendum of the fishermen in the fishery before it could be adopted and implemented. This was perhaps the key issue on review. If the Amendment 16 FMP violated these provisions, virtually the entire amendment would have to be scrapped by the New England Council, the managers would have to revert to the old rules, and the active groundfishery that was well into the new fishing season would be thrown into chaos. This legal issue turned on a very specific question: were the "potential sector contributions" assigned to each permit holder that were used for calculating how much quota a sector would have to fish on during the fishing year the same as an "individual fishing quota" (IFQ). F&WW also argued an issue in their amicus brief that was not raised by any of the plaintiffs: that Amendment 16 violated the National Environmental Policy Act by not analyzing the increased damage that would occur to the marine environment as a result of what F&WW predicted as a likely shift

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138. One of the inherent challenges of judicial review under the Magnuson-Stevens Act is the fact that such review does not typically even get under way until the next fishing season under the challenged rules is already open. In the case of Amendment 16, the amendment went into effect on May 1, 2010, and the challenges were not filed until the end of the first week of May 2010, and some were attempted to be filed five months after that. See Motion for Food and Water Watch, Inc. To Intervene As Plaintiff, supra note 124. By the time the administrative record on a complicated amendment can be assembled, the issues briefed and argued, and a decision reached, many months will have gone by in the best case. With Amendment 16, the district court decision did not come down until June 30, 2011, more than a full year after the amendment had gone into effect. New Bedford v. Locke, No. 10-cv-10789, 2011 WL 2636863 (D. Mass. June 30, 2011). Without even considering the economic instability and uncertainty that exists within the fishery during the pendency of an appeal, the magnitude of the social and economic consequences of the judicial rejection of a major amendment to the fishery at such a late stage are difficult to calculate or imagine.
in the groundfish fleet to more destructive gear under the auspices of Amendment 16.\textsuperscript{139}

The government and CLF argued in their cross motions for summary judgment that all these claims were either without a basis in law or in fact or both. On the issue of whether the Amendment 16 sector program was an illegal LAPP or IFQ program, both the government and CLF distinguished the sector program from the IFQ programs identified by Congress as needing special procedural approaches. Indeed, the administrative record was replete with analysis, debate, and discussion that make it clear that the New England Council did not propose or intend to create such an IFQ program and had deferred any consideration of such a program to a later amendment.\textsuperscript{140} The Council took pains under guidance from counsel for NMFS to ensure that Amendment 16 sectors did not cross any IFQ or LAPP procedural lines.\textsuperscript{141} The defendants' abilities to educate the court on the subtle but critical differences between the Amendment 16 sector program and the LAPP programs Congress was concerned with was critical to the success or failure of this line of argument.

On the issue of whether Amendment 16 improperly set catch limits on a stock-by-stock basis without taking into account the impact of that approach on the optimum yield from the entire fishery, CLF and the government were in agreement again: the Magnuson-Stevens Act requires the fishery management council to set limits on a stock-by-stock basis, even, or perhaps particularly, in a multispecies fishery.\textsuperscript{142} This issue was a

\textsuperscript{139}. See supra note 124 for a discussion regarding the jurisdictional problems associated with the late raising of such issues.

\textsuperscript{140}. See supra Part IV.


\textsuperscript{142}. E.g., Federal Defendants' Consolidated Memorandum in Support of Cross-Motion for Summary Judgment and in Opposition to Motions for Summary Judgment, Docket Nos. 56, 61, and 63, supra note 141, at 22-28; Defendant Conservation Law Foundation's Memorandum in Support of
longstanding grievance with many fishermen in New England. Many different stocks of fish are caught simultaneously in non-selective fishing gears like the massive, mobile otter trawls in wide use in the region. Since these different stocks of fish are typically at different relative abundance levels, the setting of a low catch limit on one species or stock with a hard quota could shut down the fishery for all the stocks caught in that gear when the limit for the limited stock was reached even though the hard quotas on the more abundant stocks had not yet been caught. Thus, the so-called “weaker” stock could constrain the fishery’s ability to fully harvest the higher catch available with the abundant species. The plaintiffs argued this control rule violated the Magnuson-Stevens Act’s requirement to catch the optimum yield in the whole fishery.143 Thus, the question of whether overfishing or optimum yield was the higher priority in the Magnuson-Stevens Act once more rose from the dead and presented itself for decision.144

Motion for Summary Judgment and in Opposition to Plaintiffs’ Motions for Summary Judgment, supra note 141, at 7-13.


144. NMFS has a provision in the National Standard 1 guidelines, known as the “mixed stock exception,” which does not exist in the Magnuson-Stevens Act itself. That provision, which was specifically revised and clarified after the Magnuson-Stevens Reauthorization Act, provides:

Exceptions to requirements to prevent overfishing. Exceptions to the requirement to prevent overfishing could apply under certain limited circumstances. Harvesting one stock at its optimum level may result in overfishing of another stock when the two stocks tend to be caught together (This can occur when the two stocks are part of the same fishery or if one is bycatch in the other’s fishery). Before a Council may decide to allow this type of overfishing, an analysis must be performed and the analysis must contain a justification in terms of overall benefits, including a comparison of benefits under alternative management measures, and an analysis of the risk of any stock or stock complex falling below its MSST. The Council may decide to allow this type of overfishing if the fishery is not overfished and the analysis demonstrates that all of the following conditions are
The New Bedford plaintiffs' challenge to the Amendment 16 allocation formula that was used by the New England Council to calculate the “potential sector contribution” associated with each groundfish permit was not complicated as a legal manner, but it was certainly a “hot” issue. All fishery allocation decisions, that is, decisions as to who has been participating in a fishery, over what period of time, and what they had caught for purposes satisfied: (1) Such action will result in long-term net benefits to the Nation; (2) Mitigating measures have been considered and it has been demonstrated that a similar level of long term net benefits cannot be achieved by modifying fleet behavior, gear selection/configuration, or other technical characteristic in a manner such that no overfishing would occur; and (3) The resulting rate of fishing mortality will not cause any stock or stock complex to fall below its MSST more than 50 percent of the time in the long term, although it is recognized that persistent overfishing is expected to cause the affected stock to fall below its Bmsy more than 50 percent of the time in the long term.

50 C.F.R. § 600.310(m) (2010). Because virtually all of the stocks that are limiting the catch of other abundant stocks in New England are also overfished, this exception cannot be used to justify overfishing on those less abundant, rebuilding stocks. For understandable but short-sighted reasons, New England fishermen tend to hate this outcome. E.g., Laurie Schreiber, Manage For Weakest Stock, Or For Fishery as a Whole?, FISHERMEN'S VOICE (May 2009), http://www.fishermensvoice.com/ 0509manageforweakeststock orfisheryaswhole.html.

145. Under Amendment 16, a “potential sector contribution” (PSC) was calculated for each permit owned by a fisherman who elected to enter into a sector contract. 50 C.F.R. § 648.87(b)(1)(i)(E) (2010). The sector totaled up these PSCs to arrive at a total quota, called an “annual catch entitlement,” for each regulated stock of groundfish that the sector as a whole could catch during the fishing season. 50 C.F.R. § 648.87(b)(1)(i)(A) (2010). How the sector then distributed this quota among its members was a decision each sector made privately. By the terms of Amendment 16, the Council's allocation formula used to come up with the PSCs was not permanent and was subject to modification by the New England Council. See, e.g., Magnuson-Stevens Fishery Conservation and Management Provisions; Fisheries of the Northeastern United States; Northeast (NE) Multispecies Fishery; Amendment 16; Final Rule, 75 Fed. Reg. 18,262, 18,291 (Apr. 9, 2010) (to be codified at 15 C.F.R. pt. 902; 50 C.F.R. pt. 648); accord FINAL AMENDMENT 16, supra note 6, at 104 (“regardless which method is used to determine permit history in this management action, the Council may choose a different method for calculating permit history in the future”).

146. This issue would be addressed under an abuse of discretion standard, and the administrative record was replete with discussion, alternative analysis, and social and economic impact analysis on this precise topic. There was little risk that a reviewing court would reverse on this issue.
of allocating access to the fish in the future in a limited entry fishery, are highly contentious and inevitably produce winners and losers. The Council had settled on an allocation formula that used the average landings by multispecies permit by stock during the period of 1996-2006, although other options were also debated.

After full briefing and oral argument, Judge Zobel took the matter under advisement. She released her decision on Amendment 16 on June 30, 2011, thirteen months after Amendment 16 had already gone into effect. Characterizing the plaintiffs’ approach to the Amendment 16 challenges as “cast[ing] a dragnet . . . , woven from a multitude of alleged failings of [Amendment] 16,” the court ruled against the plaintiffs on all counts.

Before tackling the LAPP/IFQ issue, the court analyzed the standard of deference that was due to the government in its interpretations of the Magnuson-Stevens Act. Although the New Bedford plaintiffs insisted that little deference was due to the agency, characterizing the agency’s interpretation of the optimum yield language as “absurd” and “prevent[ing] the statute from achieving its stated goal,” the court disagreed, holding that “Congress expressly delegated to the Secretary the authority to create [fishery management plans] and that Amendment 16 was developed in accordance with a “highly formalized administrative procedure, including a notice-and-comment

148. Id. at 1.
149. Id. at 19.
150. Memorandum of the Cities of New Bedford and Gloucester and Others in Support of Their Motion for Summary Judgment, supra note 128, at 12; see also Opposition and Reply Memorandum of the Cities of New Bedford and Gloucester and Others on Cross-Motions for Summary Judgment at 5-6, New Bedford v. Locke, No. 10-cv-10789, 2011 WL 2636863 (D. Mass. Feb. 14, 2011), ECF No. 84 (arguing that the agency was “illogically re-writ[ing] the Act to achieve an absurd result”). The New Bedford plaintiffs were clearly motivated throughout their challenge by their unsubstantiated claims that Amendment 16 was the product of a result-driven, biased agency acting in bad faith throughout the process. See, e.g., Plaintiff’s [sic] Memorandum in Support of Their First Motion for Discovery and Completion or Supplementation of the Administrative Record at 14-16, New Bedford v. Locke, No. 10-cv-10789 (D. Mass. Oct. 13, 2010), ECF No. 40.
Accordingly, the court held that full deference was appropriate under the controlling *Chevron* standard.\(^{153}\)

Although the court stated that it was a “close call” whether the sector program was a LAPP or an IFQ program,\(^{154}\) the court’s reasoning leads one to think that the question was actually anything but close: “the court is bound by the Agency’s informed conclusion, reached at Congress’ express direction after an extended and formal administrative process including a notice-and-comment period.”\(^{155}\) Similarly, the court expressed that it was bound by *Chevron* to defer to the government’s interpretation of a provision in the LAPP provisions of the Magnuson-Stevens Act that created an exemption for sectors from the referendum requirement.\(^{156}\)

Even without any deference, moreover, it is clear that the potential sector contributions (PSCs) are dramatically different from the IFQs that are distributed to fishermen in an IFQ fisheries. Moreover, “sectors” in New England are exempted from the referendum requirements even if they are construed to be a LAPP: “[i]n this subparagraph [relating to referendum requirements for IFQ programs], the term ‘individual fishing quota’ does not include a sector allocation.”\(^{157}\) A PSC is a sector allocation; it can only be used by a sector.\(^{158}\) Even under a “plain meaning” approach to statutory construction, there is no question that Congress was exempting the groundfish sectors in New England from the IFQ referendum requirements.

The court ruled against the plaintiffs on the issue of optimum yield in a multispecies fishery as well. The court rejected plaintiffs’ argument that National Standard 1’s requirement of “achieving . . . the optimum yield from each fishery” meant that multispecies stocks in a fishery had to be treated as one unit, even if that meant ignoring the health of an individual stock component

\(^{152}\) Id.


\(^{154}\) Id. at *4.

\(^{155}\) Id.


\(^{158}\) See, e.g., 50 C.F.R. § 648.87(b)(1)(i)(A) & (E).
within that fishery.\textsuperscript{159} Chiding the plaintiffs for putting all the weight of their argument on their singular interpretation of one word, "fishery,"\textsuperscript{160} the court concluded that the full text of the statute removed any ambiguity: "the rest of the [Magnuson-Stevens Act] makes clear that the Agency must manage the health of individual stocks," citing numerous references in the statute to stocks in overfishing situations.\textsuperscript{161} The court also noted the fact that the Agency’s interpretation was "longstanding and codified in regulation," once again bringing the question squarely within \textit{Chevron}\textsuperscript{162} and thus beyond plaintiffs’ reach.\textsuperscript{163}

As to the other claims, the court variously held against the plaintiffs on the basis that the plaintiffs’ claims were not

\begin{itemize}
\item \textsuperscript{159} New Bedford, 2011 WL 2636863, at *5-6 (citation omitted) (internal quotation marks omitted).
\item \textsuperscript{160} Id. at *5. The definition of “fishery” itself is not conclusive as an interpretive guide since it refers in pertinent part to “[o]ne or more stocks of fish.” 16 U.S.C. § 1802(13) (2006).
\item \textsuperscript{161} New Bedford, 2011 WL 2636863, at *5.
\item \textsuperscript{162} Id. at *6.
\item \textsuperscript{163} One can only hope that this holding ends the decadal-long contention in New England that overfishing should be allowed in a multispecies stock complex in order to get optimal yield from the most abundant species. At least until the Magnuson-Stevens Act is revised to provide otherwise, fisheries have to be managed on a stock-by-stock basis, even if they are harvested as a complex. This is not the end of the issue however. Improved gear technology can often take advantage of relative differences in behaviors between species, such as the tendency of cod fish to swim to the bottom when approached by a mobile fishing net and haddock to rise. By making rigging nets so these cod can escape, fishermen can increase their harvest of haddock without affecting the expeditious rebuilding of cod populations. See e.g., Brandie Jefferson, \textit{Net Catches One Species, Spares Others - For URI Fisheries Team, the Ones That Got Away Help Land it a Big Catch}, PROVIDENCE J., Nov. 16, 2007, at B1, available at http://www.projo.com/news/content/fishing_net_11-16-07_AE7SURN_v13.2620a50.html. Similar innovations have already been tried with other species, including flounder. See e.\textsuperscript{g}, DAVID CHOSID ET AL., NOAA/NMFS SALTONSTALL-KENNEDY PROGRAM COMPLETION REPORT: FURTHER TESTING OF COD-AVOIDING TRAWL NET DESIGNS 14 (2008), available at http://www.mass.gov/dfwele/dmf/projectsandprojects/conseng/skoffshoreshelfinal.pdf. Funding for this research and development could come from the fishing industry as well as the federal government. Also yet to be tested is the capacity of sector managers to communicate with their boats at sea to learn what they are catching and directing their boats away from areas with high levels of catch of an unwanted stock. Sectors should also provide incentives for members to cooperate on gear or fishing improvements that reduce catch of cod or other rebuilding populations. Keeping the stock-by-stock management strategy provides the proper incentives for fishermen to do just that.
\end{itemize}
supported by the record,\textsuperscript{164} that the Agency's resolution of the issue was rational,\textsuperscript{165} that the disputed technical issue was clearly within the agency's scientific expertise,\textsuperscript{166} and that the plaintiffs were making substantive claims with respect to statutes that had only procedural obligations, which had been fulfilled.\textsuperscript{167} The court declared the Lovgren plaintiffs' "convoluted" Fifth Amendment claim "groundless."\textsuperscript{168} The court entered judgment in the case for the defendants on July 1, 2011.\textsuperscript{169} Both the Lovgren plaintiffs and the New Bedford plaintiffs have filed appeals of the district court decision with the First Circuit Court of Appeals,\textsuperscript{170} which will probably not be decided until early 2012, almost two years after Amendment 16 took effect.

VI. LESSONS LEARNED AND SOME THOUGHTS ABOUT THE PATH FORWARD

CLF believes that Amendment 16 was an important and well-articulated shift in management direction for groundfishing in New England. After three major legislative efforts, at least four

\textsuperscript{164} New Bedford, 2011 WL 2636863, at *6 (reasonable alternatives in fishery impact statements in the record), *8 (database claim not based on record; claim of lack of mid-Atlantic regional representation not accurate).

\textsuperscript{165} Id. at *7-8 (PSC allocations and recreational harvest allocations; bycatch and discards).

\textsuperscript{166} Id. at *5 (concerning alleged overly restrictive annual catch limits).

\textsuperscript{167} Id. at *8-9 (NEPA claims invalid; regulatory Flexibility Act and Paperwork Reduction Act claims invalid).

\textsuperscript{168} Id. at *10.


\textsuperscript{170} For reasons that are not clear, the plaintiffs reconfigured themselves on appeal and filed four separate appeals with the U.S. First Circuit Court of Appeals. James Lovgren filed an appeal on behalf of himself, other fishermen and fishing organizations, and others against Secretary of Commerce Gary Locke, various federal officials, Conservation Law Foundation, the Atlantic States Marine Fisheries Commission, and the Atlantic Coastal Cooperative Statistics Program. Lovgren v. Locke, No. 11-1964 (1st Cir. Aug. 19, 2011). The Cities of New Bedford and Gloucester filed a second appeal against the same parties. New Bedford v. Locke, No. 11-1952 (1st Cir. Aug. 30, 2011). The New Hampshire Commercial Fisherman's Association and others filed a third appeal against the same parties. Lovgren v. Locke, No. 11-1987 (1st Cir. Aug. 26, 2011). Tempest Fisheries, Limited and others filed a fourth appeal against the same parties. No. 11-2001 (Aug. 30, 2011). All the appeals were based on slightly different challenges to the district court decision and have been consolidated as City of New Bedford v. Locke, No. 11-1952 (1st Cir. Nov. 15, 2011).
major judicial challenges to the implementation of the Magnuson-Stevens Act by conservation groups, and twelve amendments to the Groundfish FMP since CLF challenged Amendment 4 in 1991, it may be worth reflecting on that arc of fishing history in New England and offering some thoughts about the challenges ahead.

A. Amendment 16 is a major success for the New England Fishery Management Council.

Garrett Hardin once noted that the prescription for successful management of the public commons was “mutual coercion, mutually agreed upon by the majority of the people affected.” Amendment 16 certainly fills that prescription. Even though there were significant time pressures on the Council to get Amendment 16 in place by May 1, 2010, the Council got the job done, and their efforts have so far withstood judicial review unscathed. The new sectors that formed under Amendment 16 were operating, in some ways, under even more pressure than the Council was at the start of the 2010 fishing year: trying to organize themselves, absorbing the new regulations in Amendment 16, getting the monitoring and data management systems in place that are critical to their success, and getting used to cooperating rather than competing. It was a monumental task that few outside the fishery or Council can properly appreciate. But it happened and most fishermen were able to cast off their lines in time to fish under the new system on May 1, 2010.

The impacts of Amendment 16 on the water and to the pocketbooks well-being of New England’s groundfishermen can be only partially assessed at this time. The biological, economic, and social statistics have been analyzed by NMFS in a report released in October 2011. These results need to be appreciated in the context of the Amendment 16 economic analysis, where the Council anticipated that the short-term economic costs could be significant, on the order of a fifteen million dollar or fifteen percent decline in groundfish revenues. The Council’s estimates were based on the fishery continuing to operate

172. See supra Part IV.
173. See Kitts et al., supra note 115.
174. FINAL AMENDMENT 16, supra note 6, at 15.
exclusively under the old management regime without the sectors as the Council at that time had no idea how many fishermen would elect to go into sectors by the start of the May 1, 2010 fishing year.

Fortunately, the projections were wrong. As the year-end NOAA report summarized: “[f]or the fishery as a whole in 2010, more nominal value was obtained from fewer fish landed and less fishing effort expended as compared to the previous three years.” Year-end analyses indicate that the New England groundfish fleet landed 12.1 million fewer pounds of groundfish than it had in the 2009 fishing year and 11.5 million pounds fewer of non-groundfish species. Gross groundfish revenues for the fleet, however, were only down $1.8 million compared to the gross revenues in 2009 and total revenues including all species landed by groundfish boats in 2010 increased $26.6 million over the 2009 fishing year. This increase occurred notwithstanding the significant cutback in stock quota allocations for the year, the chaos of the start-up of the new management system, and the significant increase in diesel fuel prices, which were in the thirty percent range. Notably, the groundfish fleet caught these fish with fifteen percent fewer trips that were made in 2009, a dramatic increase in efficiency and reduction in a vessel’s variable costs. Nonetheless, although the data quality on social and economic impacts at the “boat level” rather than the “state level” is very poor, there seems little question that the 2010 fishing year was far more successful for some fishermen than others, and that crew positions and crew share of the profits were particularly hard hit during the fishing year as boat owners took advantage of their new opportunity to operate their business more efficiently.

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175. Kitts et al., supra note 115, at 31.
176. Id. at 33.
177. Id. These gross revenues exclude all the new sector costs borne by the sector members, field, insurance, crew costs, ice, gear, food, and all the other variable fishing costs that have to be subtracted off the top.
178. Id. at 40.
179. New Hampshire’s groundfish operations owners lost roughly $1 million in net profits, while most other states increased, in some cases like Massachusetts’ groundfish boat owners by $3.1 million in net profits. Id. at 51.
180. Crew positions in the fleet dropped by 165 and the number of crew days at sea dropped by 17,364. Id. at 68.
From a conservation perspective, it looks like two stocks were overfished during the 2010 fishing year; the first time that has probably happened, if at all, since the United States declared the 200-mile EEZ. In fact, the groundfish fleet had the opposite problem: a lot of fish that could have been caught were not caught. As a percentage of the total allowable catch available to the fleet, the numbers ranged from catching only 19.9% of the available quota for Georges Bank haddock to a 237.3% catch rate for southern windowpane flounder. Eleven of the eighteen stocks that were not overfished were in the sixty to eighty five percent of quota-caught range. From the perspective of our Atlantic cod, this looks like a great outcome but from the perspective of the health of the groundfish fleet, the needs of seafood consumers, and the tolerance of the region's politicians, this "lost harvest" of uncaught quota is a major problem that the New England Council will have to address.

B. The Amendment 16 FMP is not perfect and some of the most challenging social and economic management decisions still lay ahead.

There were some less anticipated results associated with the implementation of the Amendment 16 FMP, mostly on the social and economic front. Two aspects of the Council's Amendment

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182. Id. The southern windowpane flounder quota overages were a relatively small amount of fish in terms of tonnage and were not landed as there was a zero possession limit. All the same, this stock is in terrible shape and the scientists were hoping to get the catch to as close to zero as possible.

183. Id.

184. These landings also have to be understood as landings, not catch. Estimates are not available yet on what the discard rates were at sea, although anecdotally, representatives of the sector system have claimed that discards are significantly down under the sector program. The landings "shortfall" must also be offset by the fact that the New England Council is fairly risk prone in its stock assessments: many of the stocks are only 50% likely to meet their rebuilding objectives. See FINAL AMENDMENT 16, supra note 6, at 488.

185. See supra note 143.

186. It is perhaps more accurate to state that the potential for these results was significantly discounted by a number of Council members,
allocation formula remain troubling to many fishermen and conservationists, both from a political and an equitable perspective. As a reminder, for vast majority of the groundfish fleet the Amendment 16 allocation formula used fishing history during the period of 1996-2006 as the basis for the allocation.

New England's groundfish fishery is exclusively a small business fishery, although it is not homogeneous. Different businesses have different business plans and approaches to the fishery. There is a notable difference between fishermen who operate "day boats" that return to shore every day and those who operate "trip boats" that stay at sea for a week or more. The allocation formula produced two problems in the real world for these differently scaled operations. The first was that for many coastal "day boat" fishermen, the 2007-2009 fishing years had been the first strong years for groundfish catch in more than a decade. I believe that this was probably a result of the rebuilding of inshore fish stocks, which could now be found closer to the small coastal ports and their fishermen during this period. For a number of fishermen, particularly in Massachusetts and New Hampshire, the Council's allocation formula did not come close to reflecting what they had been catching recently. While the

although the issues were raised repeatedly by Council member David Goethel. The Council did estimate significant potential short-term economic costs associated with Amendment 16, but did not focus this analysis on distributional inequities, primarily because of lack of real time data. See infra text accompanying notes 189-200.

187. It bears remembering that in the 1994-1996 period, coastal and offshore populations of some fish like cod and haddock were driven down to their lowest levels in the database record, which spans many decades. Once-abundant coastal populations of fish that the local small boat fishermen once easily reached without making an overnight trip were gone.

188. The Commonwealth of Massachusetts attempted to quantify these losses and did an intensive analysis of the impacts of Amendment 16 on a group of fishermen located on the south shore of Massachusetts, known as Sector 10. The twenty-seven boats in this sector lost $647,000 (fifty-two percent) in net groundfish revenues under the new system and with their landings of other species of fish is factored in, lost $404,800 in net revenues. Six crew positions were lost (twenty-two percent decline) and crew pay declined by $242,500. See David Pierce et al., MASS. DIV. OF MARINE FISHERIES, Comparative Economic Survey and Analysis of Northeast Fishery Sector 10 (South Shore, Massachusetts) at 4-5 (November 2011) available at http://www.mass.gov/dfw/e/dmf/marinefisheriesnotices/2011/groundfish_request_and_reports_111511.pdf (this report was included as an attachment as an attachment to Governor Deval Patrick's Letter to Commerce Secretary
allocation cutoff date was likely more related to the availability of recent fishing year data to the Amendment 16 analysts than any intention by the Council to freeze these fishermen out, the fact remains that their catch history between the 2007-2009 was well below their allocation for the 2010 fishing year.

Second, in 1996, when inshore stocks had crashed and aggressive management measures were put into place to rebuild them, many day boat fishermen were forced to abandon their existing groundfish operations and pursued other species, even though they were likely a relatively small factor in the crash. A number of these fishermen also stopped fishing heavily for groundfish in what they rightly perceived as an exercise of stewardship in order to give the fish an opportunity to rebuild. The result was that this cohort of fishermen had no groundfish landings during the 1996-2006 qualifying period to bring forward into the allocation formula for the sector management system. The situation during this same period was generally different for the larger, more mobile overnight “trip” groundfish boats that had the boat size and horsepower to readily move around to where fish were aggregating over a wide range of ocean; many of these boats actually concentrated almost exclusively on continuing to catch groundfish during this qualifying period. As a result, this group had significant catch histories that then became valuable in the Amendment 16 sector system. The fishermen who did not have history during that 1996-2006 period understandably felt that they had been unceremoniously cut out of a fishery in which they had always been active, whether historically or during the 2007-2009 period. For this group, there were significant equity issues that had gone unaddressed in the Amendment 16 FMP.

The potential for disenfranchisement of a number of coastal fishermen, mostly smaller day-boat operations, from the new

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189. A day-boat operation is one that usually fishes for part of a day and rarely stays out at sea overnight. These operations tend to be comprised of the smaller and older vessels and the fishermen who are less driven to become “highliners” in the industry. They are the predominant fleet in many of the smaller fishing ports like, for example, Chatham or Plymouth, Massachusetts or Rye, New Hampshire. By contrast, a “trip boat” operation is designed to fish at sea for an extended period of time, sometimes weeks. These tend to be the bigger, better capitalized, “highliner” operations that come from one of the larger ports, such as New Bedford and Gloucester in...
Amendment 16 fishery could not be fully analyzed at the time the Council was pulling together Amendment 16. This is particularly true with respect to the potential impacts on those operations that had high landings of groundfish in the 2007-2009 period, which data was not available for analysis when the finishing touches of Amendment 16 were happening.

Another impact that appears to be significant during the 2010 fishing year that was not able to be fully analyzed in the Amendment 16 FMP was the loss of crew positions. This phenomenon appears to have been particularly significant in the larger ports but occurred in all sizes of boats. It is likely a function of both the significantly decreased number of trips boat owners needed to take in the 2010 fishing year to catch their quota as well as the new ability of boat owners operating within sectors to consolidate their groundfish permits from multiple boats that they owned and operated onto one or two boats, thereby eliminating crew positions. This loss of crew jobs illustrates the inherent tensions that are present in trying to implement the national standards: National Standard 5 emphasizes consideration of efficiency measures which tend to focus on the boat owner benefits while National Standard 8 focuses on minimizing social and economic impacts on fishing communities, which clearly includes the crew impacts.

The New England Council seems to recognize that it has not focused adequately on the complex task of analyzing or managing social or economic impacts of their fishery management plans, even though that task is always one of the major objectives of any management plan. The questions are challenging indeed. How does the plan balance its goal of achieving "economic efficiency" in the fishery against its goals of "encourag[ing] diversity within the fishery" and providing "reasonable . . . access to the groundfish species?" How can managers collect the data or access the social and economic expertise to allow them to accomplish the

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Massachusetts and Portland in Maine. Their operations also tend to be targeted more directly at a smaller number of fish stocks than are the day boat operations, which tend to be more opportunistic. See Kitts et al., supra note 115, at 51.


191. FINAL AMENDMENT 16, supra note 6, at 67.
Council’s seventh objective for groundfish management: “[t]o the extent possible, maintain a diverse groundfish fishery, including different gear types, vessel sizes, geographic locations, and levels of participation[?]” 193 How can the Council Members who have direct, personal economic interests in particular gears, locations, and vessel sizes put aside their biases and interests sufficiently to advance the personal interests of others, many of whom are direct competitors? 194 How are the state fishery directors, who sit at the Council table for the specific, but not exclusive, purpose of speaking for the interests of the diverse fishing interests and ports in their jurisdictions to take positions if they do not each have a state strategic plan that has been publicly and transparently developed to guide their actions? 195 What precisely does National Standard 8’s goal of protecting fishing communities, 196 which is

193. Id.
194. The New England Council actually represents a fairly good cross-section of the fishing industry from small commercial draggers and recreational charter boat operations to some of the largest vessels and operations in the region. Based just on personal observation, however, it appears that the larger trip-boat operations are much better organized and effective in advancing their agendas through the council process.

195. For example, Massachusetts has a strategic plan that is beautifully rendered but has little, if anything, that would guide the Director’s votes on the Council with respect to fleet diversity. See MASS. DIV. OF MARINE FISHERIES, STRATEGIC PLAN 2010-2014 at 21, http://www.mass.gov/dfwele/dmf/publications/dmf_strategic_plan.pdf (last visited Oct. 11, 2011). The only statement in the plan on this topic is one of the goals: “[w]ork to minimize socio-economic impacts on the Commonwealth’s fishing industry and coastal fishing communities resulting from limitations imposed by interstate and federal fisheries management plans.” Id. What does this goal mean specifically to the Commonwealth’s interest in preserving for example, fishermen in the port of Marshfield, Massachusetts?

196. National Standard 8 directs managers to “provide for the sustained participation of such [fishing] communities” and “to the extent practicable, minimize adverse economic impacts on such communities.” 16 U.S.C. § 1851(a)(8) (2006). The National Standard 8 guidelines are no help at all on these sorts of questions, and, in fact, seem a bit hostile to the discussion: “[t]his standard does not constitute a basis for allocating resources to a specific fishing community nor for providing preferential treatment based on residence in a fishing community.” 50 C.F.R. § 600.345(b)(2) (2010). And there is no reconciliation of whatever National Standard 8 might mean in light of the National Standard 5 guidelines relating to efficiency in fisheries, which has the following language: “this standard highlights one way that a fishery can contribute to the Nation’s benefit with the least cost to society: Given a set of objectives for the fishery, an FMP should contain management measures that result in as efficient a fishery as is practicable or desirable.”
intended to stimulate this sort of debate on fishery management councils, mean in practice?

In fact, it is ridiculously easy to make up questions that neither the law nor the National Standard guidelines help the fishery management councils answer. Moreover, the public and the Council are crippled by the fact that the Magnuson-Stevens Act makes a great deal of the most important data on who is catching how much fish out of the public eye, shielding it with confidentiality protection.\textsuperscript{197} Clearly, there are no \textit{a priori} "right" answers to any of these social or economic questions, but without any data, can there really be \textit{any} answers? To its credit, the New England Council is tackling these questions now through a new amendment to the Groundfish FMP.\textsuperscript{198} Again, from a process perspective, the answers to these questions bring Garret Hardin back to mind with his "mutual coercion, mutually agreed upon by the majority of the people affected."\textsuperscript{199}

Moreover, there is still the open policy question of how the "new" fish that become available to be caught as a result of the rebuilding stock populations should get allocated. Existing groundfishermen with high Amendment 16 allocations, who have been in the fishery for decades and have made investment decisions based on that history, will no doubt claim that in the future as the stocks rebuild, they should continue to be allocated the same percentage of the stocks for which they have a history, regardless of how large the future rebuilt population is. This approach would amount to granting a permanent stake in a significant public fishery to a limited group of individuals. As noted above,\textsuperscript{200} from the standpoint of many fishermen, many of these groundfish operations that would be advantaged by such an approach are the same ones who primarily drove the groundfish populations down to those historic lows in the 1990s and continued to harvest groundfish heavily as stocks were being

\begin{enumerate}
\item C.F.R. § 600.330(b) (2010). That language is not very reassuring to small fishing operators or small ports.
\item See COUNCIL REPORT, NEW ENG. FISHERY MGMT. COUNCIL 3 (July 2011), available at http://www.nefmc.org/actions/council_reports/council-report-jun11.pdf (Council to work on accumulation limits and fleet diversity).
\item See Hardin, supra note 171.
\item See supra Part VI.B.
\end{enumerate}
rebuilt in the early 2000s. It is appropriate to question whether this group should be further rewarded for this single-minded focus on the region's groundfish, particularly at the expense of fishermen who could not reach the fish because they owned smaller or older boats or who abstained from groundfishing during rebuilding?

Additionally, should not some portion of these rebuilding populations be set aside for new entrants to the fishery, young men or women who want to make a living from the sea in a traditional way, and what about the potential for providing some level of groundfish access to the crew members who lost their positions because of cost-efficiency improvements introduced by the Amendment 16 FMP? If this is a done-deal regarding future allocations where the only consideration that matters is what one was fishing for between 1996 and 2006, then the result is that the only way those potential new groundfishermen can gain entry is by buying their way in and mortgaging their future from day one.

The New England Council should have a problem with that outcome. This is a public resource, after all, and the current winners made few, if any, investments in the resource, beyond their own boats and gear, and in many cases fought against the rebuilding provisions at the time. Indeed, they received an enormous windfall through the Amendment 16 process. Under the terms in the Amendment 16 FMP, the PSC that a permit holder was allocated that the fisherman’s sector could now count as a hard quota continues to grow as the fish populations rebound.

That seems wrong. Is it not a more equitable and proportionate management response to allocate a portion of the rebuilt stocks to new entrants or historic participants without cost, just as the fish were made available to the current set of winners? The new, higher populations of groundfish are as good a place to look for fish to support such a “newcomer” allocation as any. Ultimately, the New England Council will decide these matters. But the Council does have a number of options and significant power as well as discretion. One would hope that, if no one else, the state fisheries directors who sit on the Council would recognize the value and benefits of preserving both past and future heritages in fishing and act to design programs to facilitate that process.
C. Prevailing on judicial review of a well-done fishery management plan is very difficult.

There is a popular notion that litigation, rather than fishery management councils, controls fisheries management. The litigation associated with the Amendment 16 FMP belies that notion. CLF had the unusual opportunity to intervene on the side of the government in defense of the Amendment 16 FMP and to get the benefit of all the arguments that the government usually puts up against CLF when it challenges fishery management plans as a plaintiff; it was quite an eye-opener. Between *Chevron* deference to agency interpretations of "delegated" legislating and *Baltimore Gas* deference to the scientific, economic and even social expertise of the regulating agency, the practical reality is that with a well-done plan and with a legitimate and transparent plan development public process, there is not much "judicial review" room left for a would-be challenger, as the plaintiffs in the Amendment 16 FMP litigation found out at the district court level. Moreover, the regulating agency itself is somewhat constrained by the structure of the Magnuson-Stevens Act, which gives the fishery management councils front-line authority over and responsibility for the development of the management plans that regulate most of the Nation's federal fisheries. That would suggest that when this fishery management system is working at its best, all of the action would be at the fishery management council level.

One of the lessons from the Amendment 16 experience, therefore, is that a fishery management council can significantly advance the probability of success of its management plans with NMFS and reduce the vulnerability of its plans to judicial reversal by exercising due diligence and care in the planning and execution of its management planning process. Questions of law will still be fair game, particularly in the early years after a major legislative change and before many courts have considered and ruled on the questions, but that is the nature of our jurisprudential system, not something the councils can control. On the other hand, council or NMFS strategies that try to tuck issues "under the rug" or finesse

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them by procedural gimmicks and policy choices that are not clearly identified, debated, and subjected to full public review practically invite litigation. The Magnuson-Stevens Act has both substantive and procedural objectives; both must be honored by the fishery management council and NMFS.

D. The emerging science of fish and fisheries management will continue to challenge managers, fishermen, and the public alike.

The nature of science is change. Since "[s]cience is a particular way of understanding the natural world," as our way of understanding that natural world changes, so does our science. With the oceans, we actually understand very little. As a result, we have to use simulations to make decisions. Fisheries population models are tools to help us estimate fish abundance and stock structure and to simulate the consequences of various management approaches. "It is important to always remember that models are human constructions constrained by human understanding and computing power and as such remain theories to be confronted to the perceptions of stakeholders (in participatory modeling) and tested and progressively improved through adaptive approaches."204

Fishermen, managers, and conservationists are wise to remember this reality and be able to adapt their approaches to the changing science of fisheries and fisheries management modeling by being particularly precautionary in the setting of catch levels. The closer a fish population is to a maximum sustainable yield level, the fewer the social and economic impacts if the stock size estimates change. The Amendment 16 FMP was a good case in point, where the scientific advice changed dramatically midstream.205 Was the former science bad? No, it was the best that was available at the time, and the New England Council and the Northeast Fisheries Science Center in NMFS went to lengths to validate the modeling predictions and assumptions through peer review. That peer review changed prior assumptions about a

205. See supra Part IV.
number of the fish species based on new data and understandings; those changes are ultimately for the better.\textsuperscript{206} Even after the careful stock assessments in 2008, recent new assessments indicate that the 2007 modeling results for Gulf of Maine cod were much too optimistic and had allowed significant overfishing resulting in the stock being determined to be overfished once again in 2011 despite the best efforts of the scientists, the managers, and the fishermen alike.\textsuperscript{207}

Is the current science right? Probably in the sense that it is the best science available\textsuperscript{208} but not in the sense that it is immutable. The best available science that exists to "look" at groundfish populations beneath the surface of the ocean and support the management effort to produce healthy, sustainable fish populations and thriving fishing communities will forever be changing as the scientific understanding of the factors affecting those populations changes. If the experience in New England is any indicator, fisheries science is not rocket science, it is much harder than rocket science at least in terms of producing precise predictions. This fact makes the New England Council's rebuilding strategy, which has a high risk of failure, particularly problematic and emphasizes the strategic importance of rebuilding all stocks to their maximum yield levels as quickly as possible.

Moreover, groundfish abundance and the presence or absence of species in a geographical region is controlled by many more factors than just fishing mortality. Fish are profoundly subject to a number of natural variables—currents, temperatures, salinity, movements of both predator and prey subcomponents in their food web, to name some of the more important, that are constantly changing themselves. With accelerated ocean temperature changes, increased freshwater glacial melt entering the oceans, and ocean acidification processes, all of which are associated with the human emission of greenhouse gases from carbon-based fuel sources, the external variables acting on fish in New England in

\textsuperscript{206} See e.g., FINAL AMENDMENT 16, supra note 6, at 274-75.
the future may have a far more significant impact on New England’s fish populations than the removal rates from the fisheries. Fisheries scientists and managers will have to adjust fishing removal rates in the management plans to recognize those shifting populations even with perfect compliance by fishermen out on the water operating under the best fishery management plan.

Current fisheries models being actively used to manage groundfish in New England do not explicitly account for those external factors. Recognizing this, both government and non-government scientists have been focused on developing ecosystem-based fisheries and non-fisheries models for some time, models that could integrate all the main environment drivers on fish dynamics and production in the region. Perhaps not surprisingly, there still is no firm agreement about what these models should look like and what they can measure or predict and this lack of agreement has persisted for some time.209 The importance of the objectives, however, cannot be overstated: “[w]hen fishery managers understand the complex ecological and socioeconomic environments in which fish and fisheries exist, they may be able to anticipate the effects that fishery management will have on the ecosystem and the effects that ecosystem change will have on fisheries.”210

The most significant challenge may well be designing the process by which a transition from one scientific paradigm about fish and fisheries to another, more complex paradigm will occur. If the fishery management focus, for example, shifts from a single stock assessment approach to a multi-stock assessment focused on total biomass at various trophic levels, that is, modeling and assessing all the species that are at the same functional level in an ecosystem and eat the same food sources for their energy without regard to their speciation, how will that shift occur? And more importantly to fishermen, no doubt, is the question of how that approach intersects with the current approach where

fishermen with their recorded catch histories get slotted into one particular fishery, often to the exclusion of participation in all others. Ecosystem-based fisheries management could introduce the allocation battle for all time.

E. Amendment 16 reveals the limited capacity for self-governance that exists in many of New England’s fisheries.

One of the major premises of the Amendment 16 FMP sector management is that the program can introduce more regulatory flexibility into the fisheries management system without compromising achievement of the biological and other management objectives of the fishery. One of the ways this flexibility can be leveraged is through the active cooperation of sector members with each other within a sector: Where are the fish located? Are there species there that need to be avoided? Are there other spots where members are fishing that have fewer unwanted species present? What is the best technique for rigging a net to avoid bycatch?

These are the sorts of questions that sector members are actually well positioned to focus on using their new sector managers as conduits; sectors can begin behaving as learning institutions for the mutual benefit of the sector’s membership. Such an approach, however, runs squarely into the New England fishermen stereotype, that is, the notion that New England fishermen are not only unaccustomed to working together for a common purpose, but affirmatively unwilling to do so, particularly when it comes to competition for landings. It will be important to watch whether the competition-free dynamic between and among sector members can begin to provide incentives for cooperation, leading to greater profitability of the fisheries and more flexibility in the regulatory controls.

Many leading social researchers, including Nobel Laureate Dr. Elinor Ostrom, have studied the theory of common-property management and institutions for decades. These researchers argue that community-based fisheries have a rich history in many parts of the world and may well be the wave of the future. But,

212. E.g., Donald R. Leal, Community-Run Fisheries: Avoiding the “Tragedy of the Commons,” PROP. & ENVTL. RES. CENTER (Sept. 1996),
as Dr. Ostrum has concluded, "[i]f we are to move beyond the work of [Garrett] Hardin, we need to begin to specify the conditions that are conducive to the emergence of coordinated, rather than independent, actions by the individual users of a [common property resource]."213 It is too early to speculate whether the sector management system, with the right incentives, encouragement, and external support, could provide those conditions and certainly the first fishing year under sectors was more about survival than anything else. Nevertheless, CLF believes the signs are encouraging.214

VII. OUR FRIEND, THE ATLANTIC COD

The Amendment 16 FMP, we hope, will be a turning point for both the fish and fishermen of New England. It is too early to tell and a great deal of heavy lifting lies before the New England Fishery Management Council. It is important, however, to keep the biological goals of Amendment 16 in context. Estimates by researchers at the University of New Hampshire, using very accurate landings data for the original commercial fisheries that developed out of the New England ports, indicate that current Atlantic cod populations are only a tiny fraction of what they were 140 years ago, perhaps on the order of five to six percent of those earlier populations.215 These historical studies indicate, for example, that two to three times the number of Atlantic cod that were landed from the entire Gulf of Maine in 2007 were caught by coastal boats just within the thirty-two kilometers of the Maine coast between Penobscot Bay and Grand Manan 140 years ago.216 Today, there is no cod fishery between Penobscot Bay and Grand


214. This may be particularly true for the smaller scale day boats and coastal fishermen. The larger offshore-capable trip boats are already talking about continuing on to an IFQ system, which might fits their needs better at lower transactional cost.


216. Id.
Manan. It is also important to remember that, while the scientific projections are that Georges Bank Atlantic cod will be rebuilt by 2026 if overfishing does not recur, the estimated rebuilt population will still be well below historical levels.\footnote{217}

This decline is not all due to fishing. Dams, pollution and other human coastal activities have certainly degraded the conditions that used to support that massive population of cod in eastern Maine and Atlantic Canada. And other species and biota have subsequently moved into the ecosystem to fill the hole left by the massive declines of Atlantic cod. But the differential between now and then does say a lot about how hard this marine resource has been pummeled over the years and bears some hope that cod might once again return to Penobscot Bay and Frenchman’s Bay and other coastal areas if we start to manage the resource intelligently. The gap between now and then also provides silent ecological testimony against those, including politicians, who continue to promote “short-term” overharvesting of Atlantic cod so that the industry can immediately return more dollars of haddock fillets even at the expense of attaining long-term fishery objectives as quickly as possible.\footnote{218}

A shortsighted mentality surely does not do much good for Atlantic cod recovery, and it does even less for those who would like to see Atlantic cod restored to some semblance of its former stature in the food web. In the end, CLF continues to believe that a healthy, biologically diverse marine ecosystem in the Gulf of Maine with all endemic stocks restored to and maintained at a

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\item \footnote{217. See id.}
\item \footnote{218. See Conservation Law Found. v. Franklin, 989 F.2d 54 (1993); see also Memorandum of Amici Curiae Representatives Barney Frank and John Tierney in Support of the Plaintiffs and Prospective-Intervenor on Cross-Motions for Summary Judgment, \textit{supra} note 143; Brief, \textit{Amici Curiae}, Filed by Attorney General Martha Coakley on Behalf of Deval Patrick as the Governor of the Commonwealth of Massachusetts and Paul DiDiodati as the Director of the Division of Marine Fisheries for the Commonwealth, \textit{supra} note 143. NMFS estimates that if the nation’s fisheries were all rebuilt, there could be on the order of a $31 billion increase in fish sales, 500,000 new jobs, and $2.2 billion more in revenues to fishermen, their families and their communities. See Eric Schwaab, Assistant National Oceanic and Atmospheric Administration Administrator, Remarks for the International Boston Seafood Show: The Future for the American Seafood Industry (March 21, 2011), \textit{available at} \url{http://www.nero.noaa.gov/nero/nr/nrdoc/11/Schwaab_Boston_Seafood_Show_Final_3-21.pdf}.}
\end{itemize}
maximum spawning stock biomass, rather than a single species, mono-crop harvesting approach, will ultimately provide the maximum benefits to the Nation and to the region's fishermen and their communities. The re-authorized Magnuson-Stevens Fishery Conservation and Management Act and the Amendment 16 FMP appear to have put this region firmly on that path.