Final Supplemental Environmental Impact Statement (FSEIS),

Regulatory Impact Review and Regulatory Flexibility Analysis

FEDERAL LOBSTER MANAGEMENT

IN THE EXCLUSIVE

ECONOMIC ZONE

National Marine Fisheries Service

Northeast Region

October 30, 2002

ABSTRACT

The National Marine Fisheries Service (NOAA Fisheries) has proposed regulations that would modify management measures in certain management areas of the American lobster fishery in a manner compatible with the recommendations made by the Atlantic States Marine Fisheries Commission (Commission) in Addendum I to Amendment 3 (Addendum I) of the Commission's Interstate Fisheries Management Plan (ISFMP) for the species. In short, Addendum I requests the Federal Government to do as follows: to control fishing effort as determined by historical participation in the American lobster trap fisheries conducted in the offshore Lobster Conservation Management Area (LCMA) 3 (Area 3) and in the nearshore LCMAs of the Exclusive Economic Zone (EEZ) from New York through North Carolina (Areas 4 and 5); to implement a mechanism for conservation equivalency and associated trap limits for owners of vessels in possession of a Federal lobster permit (permit holders) fishing in New Hampshire state waters; and to clarify lobster management area boundaries in Massachusetts waters. This FSEIS takes a hard look at the environmental consequences of NOAA Fisheries' proposed rule, and provides analysis on the reasonable alternatives thereto.

Table of Contents

I. PURPOSE AND NEED

1. Science

American lobster experience very high fishing mortality rates and are overfished throughout their range, from Canada to Cape Hatteras. Although harvest and population abundance are near record levels due to high recent recruitment and favorable environmental conditions, there is significant risk of a sharp drop in abundance, and therefore landings, as recruitment inevitably declines. Such a decline would have serious implications for the American lobster fishery, which is the most valuable fishery in the northeastern United States. In 2001, approximately 74 million pounds (33,439 metric tons (mt)) of American lobster were landed with an ex-vessel value of approximately 255 million dollars.

In March 2000, the Atlantic States Marine Fisheries Commission (Commission) issued an American lobster stock assessment report that concluded that the resource is growth overfished. That assessment was further evaluated by an external peer review which took place during May 8-9, 2000 (Stock Assessment Peer Review Report No. 00-01, July 2000). The Peer Review Report provided several management recommendations on the implications of the stock assessment report. The review concluded that fishing rates are unacceptably high and that a precautionary approach in management of the resource is warranted to sustain future viability of the lobster fishery. The report recommended that reductions in fishing mortality could be achieved through reductions in fishing effort.

The Commission's Addendum I recommendations to NOAA Fisheries were the first attempt in the lobster ISFMP to begin controlling effort through trap limits based on historic participation. The Peer Review Report noted that the lobster fishery has experienced a large increase in the number of traps fished in the last several decades and notable increases during the last decade due to increases in both the number of licenses and the number of traps fished. The report noted that trap reduction experiences for lobsters in Florida and Australia were positive and continuing reductions in fishing effort resulted in reductions in fishing mortality rates. The Report cautioned that the relationship between reduction in effort and reduction in fishing mortality is difficult to assess. Although effort reductions will have a positive impact on the stocks, the benefits and time required to measure benefits is difficult to specifically quantify with scientific precision.

The need for continuing measures to reduce very high fishing mortality rates was further justified when the 2001 Annual State and Federal Trawl Survey Update to the 2000 lobster stock assessment was presented to the Commission Lobster Board by the Commission Lobster Technical Committee in February 2002. While some states were unable to provide trawl survey updates for 2001, in the absence of a yearly assessment, trends derived from trawl surveys can provide a useful indicator of stock status. All three lobster stock areas were surveyed in 2001, and general indications are that resource conditions have not improved since the last stock assessment in 2000. For pre-recruit lobsters, which are those lobsters within one-half inch (1.2 cm) of the legal minimum carapace size of 3-1/4 inches (8.26 cm), the mean number per tow

generally declined throughout all stock areas for both sexes. For further information on the status of the resource, refer to Section IV.3.B.

2. Atlantic States Marine Fisheries Commission

Operating under the Commission's interstate management process, American lobster are managed in state waters under Amendment 3 to the American Lobster ISFMP (Amendment 3), as well as Addenda I, II and III to the plan. The Interstate lobster plan and its corresponding Federal regulations (50 CFR Part 697) embodies the concept of adaptive management. Amendment 3 was not designed as a stand-alone measure, but instead was intended to provide the necessary bedrock on which to base future, more specifically tailored management measures. Amendment 3 established a framework for area management, which includes industry participation through seven Lobster Conservation Management Teams (LCMTs). The LCMTs were encouraged to develop a management program which suits the needs of the area while meeting targets established in the ISFMP. The LCMTs, with the support of state agencies, have played a vital role in advancing the area management program.

As explained in further detail in Section II.1. of this FSEIS, on December 6, 1999, NOAA Fisheries issued a Final Rule (64 FR 68228) that transferred its Federal lobster fishery regulations from the more Federally oriented fishery management councils created under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (50 CFR Part 649) to the state oriented Atlantic Coastal Fisheries Cooperative Management Act (Atlantic Coastal Act) (50 CFR Part 697). The logic of the decision is straightforward: since approximately 80% of the fishery for American lobster occurs in state waters, Federal action alone could no longer ensure that the Federal Fishery Management Plan (FMP) under the New England Fishery Management Council process, which covered only Federal waters, was consistent with National Standard 1 of the Magnuson-Stevens Act, which requires implementation of conservation and management measures to prevent overfishing.

The regulations issued in the Federal Final Rule on December 6, 1999, were designed in keeping with the new regulatory standard of state primacy as set forth in the Atlantic Coastal Act: 1) that the regulations be consistent with the National Standards set forth in the Magnuson-Stevens Act; and 2) that the regulations be compatible with the Commission's lobster ISFMP. The purpose and need of Federal regulatory action in the American lobster fishery is not simply to respond to increasing lobster mortality, although the proposed action certainly does so, but to respond to NOAA Fisheries' requirement under the Atlantic Coastal Act to support the States' management efforts and, if applicable, to promulgate Federal lobster regulations, that are compatible with the Commission's lobster ISFMP.

It is also important to note that measures addressed in this FSEIS encompass a part of a larger interstate management program which, in its entirety, responds to and attempts to address increasing lobster mortality and efforts to end overfishing and rebuild stocks. Measures in this FSEIS build on previous measures initiated with the approval of Amendment 3 and its corresponding Federal regulations (50 CFR Part 697). Specifically, after Amendment 3, the

Commission's Lobster Board adopted a two-phase approach to incorporate the newly created LCMT's anticipated management recommendations. First, it would attempt to address fishing effort control, then second, it would address management measures designed to increase egg production. As described in greater detail later in section II.1.B-C., measures in Addendum I, which are the genesis of this proposed action, address fishing effort control, while measures in Addenda II and III, which will be the subject of future Federal rulemaking, principally address management measures affecting egg production. As explained in greater detail in Section II.1.C., NOAA Fisheries intends to address Commission recommendations to implement measures identified in Addenda II and III in future rulemaking.

II. SUMMARY OF PROPOSED ACTION

1. Background

The proposed Federal action described above has its specific genesis in the recommendations made by the Commission in Addendum I to Amendment 3 of their ISFMP for the species. Lobster management history, however, pre-dates the action by over a century.

A. Lobster Management Pre-Amendment 3

Lobster management began at least as early as the 1870's when Maine, in 1872 passed a law forbidding the taking of egg-bearing females. In 1878, Connecticut enacted a closed season for egg-bearing lobsters. Massachusetts and Maine promulgated regulations similar to Connecticut soon thereafter in 1880 and 1883, respectively. Also, Maine in 1879 limited lobster canning operations to the early spring season – ostensibly for conservation reasons. From this time throughout much of the 1900's, the lobster fishery was managed by states individually and independent of one another. No central lobster FMP existed. States occasionally consented to informal agreements to implement uniform management measures – e.g., the New England coastal states agreed to implement minimum size restrictions in the 1950's – but these voluntary cooperative efforts were of limited success. The Atlantic States Marine Fisheries Commission, created by compact and ratified May 4, 1942, theoretically provided the vehicle for uniform state management. In reality, however, the Commission operated more as a conduit to facilitate the exchange of statistical, scientific and managerial information amongst the involved states.

Nor did the Federal government regulate the lobster fishery during this era. Although Federal authority extended to the high seas throughout the early to mid-1900's, the Federal government had not exercised its power to manage lobster and the only effective controls had been individual state extraterritorial regulations. Thus, the Federal government's role in this fishery was limited to providing to the states research of a pure and applied nature. The reasoning for such is relatively clear: The fishery remained essentially a shoal-water, coastal trap fishery well into the 1950's. Even today, only 20% of the lobster resource is prosecuted in Federal waters beyond 3 miles from shore.

The problems associated with independent state management of the lobster fishery were brought to the fore in 1969 in a report by the President's Commission on Marine Science, Engineering and Research (the Stratton Commission). Specifically, the Stratton Commission found that fisheries were regulated under split or multiple jurisdictions, with no single focus of management responsibility. The Commission recommended "...a definitive review and restructuring of fisheries laws and regulations, and the creation of a new framework based on Federal objectives for fisheries development and on the best scientific information."

Until such legislation could be drafted and passed, the Federal government attempted to achieve the Stratton Report's objectives on an interim basis by creating its State-Federal Fisheries Management Program in 1971. In essence, the Federal government, through NOAA Fisheries, funded and facilitated key fisheries administrators from the coastal states in each region to meet with a NOAA Fisheries regional director to develop effective and uniform management plans for targeted fisheries throughout the range of that species.

The lobster fishery was the first targeted species under the program. It had become clear by the 1970's that the fishery was overcapitalized: Fishing effort had dramatically increased, yet without a proportionate increase (and a trend towards an actual decrease) in harvest. For example, in 1880, Maine, the nation's leading lobster producing state, had some 2,763 people engaged in
the fishery using approximately 104,000 traps to land 6,457 metric tons of lobster. By 1957, however, the number of traps used in Maine alone increased to 565,000, with an increase, although not proportionate, in landings to 11,068 metric tons. By 1972, however, Maine's lobster catch of 7,374 metric tons was near a 30 year low, yet 7,045 Maine lobster fishers used 1,448,000 traps to prosecute the fishery -- all-time highs in both categories. The Northeast Marine Fisheries Board, the name of the group created and funded under the State-Federal Program, was thus born and tasked with developing a lobster fishery management plan ("FMP").

The Northeast Marine Fisheries Board developed the first Federal lobster FMP in 1978. The FMP was then forwarded directly to the appropriate states, as well as to the New England Fisheries Management Council ("NEFMC") and Mid-Atlantic Fisheries Management Council ("MAFMC"), newly created in 1976 by the Magnuson-Stevens Act. The Councils reviewed the FMP and, pursuant to the Magnuson-Stevens Act, formally referred the plan to the Federal government with a recommendation for adoption. The Federal Government adopted the FMP as a rule in 1983.

Despite having a Federal FMP, uniformity of regulation remained a problem in the lobster fishery. For example, despite timely receipt of the Northeast Marine Fishery Board's 1978 FMP, by 1983, some states still had not implemented the FMP's recommended minimum carapace length and others had not implemented the plan's recommended escape vent requirement. Despite these problems, the New England Fishery Management Council continued to manage lobster in the Exclusive Economic Zone and amended the Federal FMP five times through the mid-1990's. Noteworthy during this period was the establishment of a 'control date' in the Federal lobster fishery by the NEFMC. A Federal Register notice was published on March 25,

1991 (56 FR 12366) that established a qualification date to determine eligibility for future access to the Federal lobster fishery if a management regime is developed and implemented that limits the number of participants in the Federal lobster fishery. Subsequently, March 25, 1991 was used in Federal rulemaking under Amendment 5 to the NEFMC FMP (59 FR 31938) as the control date.

In the meantime, Congress enacted the Atlantic Coastal Act in 1993. The Atlantic Coastal Act contemplated transition of lobster management from the more Federally oriented fishery management councils created under the Magnuson-Stevens Act to the state oriented Commission. The logic of the decision is straightforward: Since approximately 80% of the fishery for American lobster occurs in state waters, the Federal FMP objectives of maintaining a sustainable fishery and preventing overfishing of the resource could not be achieved effectively by Federal action alone. NOAA Fisheries could no longer ensure that the Federal FMP, which covered only Federal waters, was consistent with National Standard 1 of the Magnuson-Stevens Act, which requires implementation of conservation and management measures to prevent overfishing. Such a process occurred in part when the Commission in December 1997 issued its lobster FMP entitled "Amendment 3 to the Interstate Fishery Management Plan" and later, on December 6, 1999 when NOAA Fisheries issued a Final Rule (64 FR 68228) that transferred its Federal lobster fishery regulations from the Magnuson-Stevens Act (50 CFR Part 649) to the Atlantic Coastal Act (50 CFR Part 697), and implemented new regulations. These new regulations included: extension of the moratorium on new entrants into the EEZ fishery; designation of lobster management areas; near-shore and off-shore area trap limits; a 5-inch maximum carapace size in the Gulf of Maine; trap size restrictions; a trap escape vent size increase; trap tag requirements; and annual specification of additional management measures necessary to end overfishing and rebuild American lobster stocks. The regulations issued in that Federal Final Rule were designed in keeping with the new regulatory standard of state primacy as set forth in the Atlantic Coastal Act: 1) that the regulations be consistent with the National Standards set forth in the Magnuson-Stevens Act; and 2) that the regulations be compatible with the Commission's lobster ISFMP.

B. Procedural History of the Proposed Action

The Commission approved Addendum I on August 3, 1999. The Addendum is principally an effort control measure that determines trap limits based upon historical participation (as opposed to fixed trap limits) in Lobster Management Area 3 (offshore EEZ), and Areas 4 and 5 (inshore EEZ areas south of New York). To support the Commission, and as a result of the Commission's recommending compatible measures in Federal waters, NOAA Fisheries published an Advance Notice of Proposed Rulemaking (ANPR) in the Federal Register on September 1, 1999 (64 FR 47756), to seek public comment on whether there is a need under the Atlantic Coastal Act to restrict access of Federal permit holders in the lobster EEZ fishery on the basis of historical participation. The ANPR also notified the public that NOAA Fisheries established September 1, 1999, the publication date of the ANPR, as a potential control date, or

cut-off date, to be used to determine eligibility for future access to lobster management areas, and to discourage shifts into new areas by lobster trap vessels subject to Federal lobster regulations.

NOAA Fisheries subsequently published a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) in the Federal Register on December 10, 1999 (64 FR 69227). NOAA Fisheries later published a notice of availability for a Draft Supplemental Environmental Impact Statement (DSEIS) on November 24, 2000 (65 FR 70567). The DSEIS responded to recommendations made by the Commission, and considered the biological, economic, and social impacts of several alternative actions for waters under Federal jurisdiction. The preferred alternatives in the DSEIS included: implementation of a historical participation management regime to control lobster fishing effort and preserve the socio-economic character of the associated lobster fisheries in Lobster Management Areas 3, 4 and 5; modification of trap limit restrictions for Federal Lobster permit holders who also hold a New Hampshire state lobster license, to be consistent with New Hampshire regulations, which were determined by the Commission to be conservation equivalent to the ISFMP; and modifications to the coordinates of lobster management areas in Massachusetts state waters, for clarity, and to be consistent with past fishing practices. In November and December 2000, NOAA Fisheries held public meetings in Maine, Rhode Island, New York, and New Jersey, to receive comments on the biological, economic and social impacts addressed in the DSEIS. See Appendix - DSEIS Public Comment and Responses and DSEIS Public Hearing Summaries for further information on public comments to the DSEIS alternatives.

NOAA Fisheries published its Proposed Rule in the Federal Register on January 3, 2002 (67 FR 282). The Proposed Rule addressed management measures identified in the DSEIS, and included a technical amendment to the regulations to clarify that Federal lobster permit holders must attach federally approved lobster trap tags to all lobster traps fished in any portion of any management area (whether in state or Federal waters). The lobster trap tag requirement is not new, but was not previously clearly specified in the regulatory text, and the technical amendment is intended to make the regulations easier to understand.

On February 11, 2000, the Commission also recommended that black sea bass pots in Lobster Management Area 5 be exempted from Atlantic Coastal Act trap gear requirements. Since this request implicates the management of the black sea bass fishery under the Magnuson-Stevens Act, NOAA Fisheries decided to address this recommendation in a separate rulemaking due to the associated administrative complexities affecting two different fishery resources managed under separate Federal legislative authorities. Therefore, Proposed and Final Rules on the black sea bass pots issue were published in the Federal Register on December 5, 2000 (65 FR 75916), and March 13, 2001 (66 FR 14500), respectively. This regulatory action exempts black sea bass fishers who concurrently hold limited access lobster and limited access black sea bass permits from the more restrictive gear requirements in the lobster regulations when fishing in Area 5 if they elect to be restricted to the non-trap lobster allowance while targeting black sea bass in Area

5. This regulation also clarifies that lobster trap regulations do not affect trap gear requirements for fishermen who do not possess a Federal limited access American lobster permit. The intent of these regulations is to relieve restrictions on fishers that were unintended, without compromising lobster conservation goals.

C. Future Federal Regulatory Action

Following approval of Addendum I to Amendment 3 to the ISFMP, the Commission approved additional area specific management measures in Addendum II on February 1, 2001 and in Addendum III on February 20, 2002.

Addendum II addresses management measures designed to affect egg production issues observed in the March 2000 stock assessment (peer reviewed in May 2000). Addendum II also clarifies several components of Amendment 3, such as updating the egg production rebuilding schedule and reconvening LCMTs to develop recommendations for area management based on the stock assessment completed in March 2000. The specific components of Addendum II are as follows.

Addendum II

Addendum II establishes a schedule for egg production rebuilding, minimum size increases, and trap reductions for the American lobster fishery. It addresses three issues – all related to the egg production targets included in the plan. These issues are: (1) implement the remaining portions of the LCMT proposals relating to increasing egg production for the Area 2 (inshore Southern New England), Area 3 (offshore waters), Area 4 (inshore Northern Mid-Atlantic), Area 5 (inshore Southern Mid-Atlantic) and the Outer Cape Area; (2) revise the egg production rebuilding schedule based on the May 2000 stock assessment; and (3) establish a timeframe for additional LCMT recommendations to meet the 10 percent egg production target contained in the plan by 2008.

More specifically, Addendum II establishes a schedule for gauge size increases in Areas 2, 3, 4, 5 and the Outer Cape, as well as a timeline for trap reductions for Area 3 fishermen over the next four years. It also provides recommendations to the NOAA Fisheries for implementation of complementary regulations in the Exclusive Economic Zone.

Subsequent to Addendum II, Addendum III to Amendment 3 of the ISFMP was developed in response to an Addendum II requirement whereby each LCMT was asked to review the area specific management measures and make additional revisions as necessary. The specific requirements of Addendum III are as follows.

Addendum III

Addendum III incorporates the alternative management programs for LCMAs 1, 2, 3, 4, 5, 6 and Outer Cape Cod as developed by the respective LCMTs. It identifies new management measures applicable to commercial fishing in LCMAs 1, 2, 3, 4, 5, 6, and Outer Cape Cod, which provide

for the following: Area 1 (Gulf of Maine) - Escape vent size increase to 2-inches in 2007 (if necessary), zero tolerance definition of v-notching, and mandatory v-notching requirements; Area 2 (Southern New England) - Annual implementation dates for minimum gauge size increases; Area 3 (Offshore) - Mandatory v-notching requirements (above the 42º 30' latitude in Gulf of Maine), five-mile overlap boundary between Areas 3 and 5, and a choose and use provision, annual implementation dates for minimum gauge size increases; Area 4 (Southern New England) - Minimum gauge size increases, maximum gauge size (if necessary); Area 5 (Mid-Atlantic) - Minimum gauge size increases, maximum gauge size (if necessary), vessel upgrade limit; Area 6 (New York & Connecticut State Waters) - Minimum gauge size increases (if necessary), escape vent size increase (if necessary), and; Outer Cape Cod - Minimum gauge size increases, trap reduction schedule, annual trap transfer period and passive reductions, and additional contingency measures.

Following approval of Addendum II, the Commission recommended implementation of compatible measures in Federal waters to those measures described in Addendum II. In response to Commission recommendations, NOAA Fisheries published in the Federal Register on September 24, 2001 (66 FR 48853), a notice to advise the public and solicit written comments regarding NOAA Fisheries' intent to complete an EIS relative to the recommendations of the Commission in Addendum II. Subsequently, the Commission approved Addendum III to the ISFMP on February 20, 2002, and recommended implementation of compatible measures in Federal waters to those measures described in Addendum III. Due to the similar nature of the two addenda and the intent to implement regulations in the EEZ that are compatible with the ISFMP in a timely manner, NOAA Fisheries published a Notice of Intent to develop a single EIS, on September 5, 2002 (67 FR 56800), to examine the measures proposed in both Addenda II and III and requested comments from the public on the entire suite of management measures approved under the two addenda. NOAA Fisheries intends to continue Federal lobster rulemaking on measures identified in the two addenda in keeping with the new regulatory standard of state primacy as set forth in the Atlantic Coastal Act: 1) that the regulations be consistent with the National Standards set forth in the Magnuson-Stevens Act; and 2) that the regulations be compatible with the Commission's lobster ISFMP. This includes Commission recommendations concerning Federal rulemaking to implement a lobster minimum size increase that was not included in this regulatory action for the reasons discussed in Section III.1.E.

2. This Proposed Action

NOAA Fisheries proposes regulations to enhance the current Federal management measures applicable to the American lobster fishery. This action responds to recommendations made by the Atlantic States Marine Fisheries Commission in Addendum I. With this regulatory action, additional measures will be implemented in Federal waters to complement management measures in state waters under the Commission lobster ISFMP and to strengthen a state-Federal framework to end overfishing and rebuild stocks of American lobster. Note that most measures will apply to Federal permit holders who fish only in specific management areas.

NOAA Fisheries will implement measures aligned with alternatives identified in the DSEIS for

this action. The following is a summary of the major actions, for further details see Section III.

1. NOAA Fisheries will implement measures to control fishing effort as determined by historical participation in the American lobster trap fisheries conducted in the offshore Area 3 and in the nearshore Areas 4 and 5, but will also establish a maximum trap limit of 1,440 traps for vessels qualifying to fish with traps in LCMA 4 and 5 as outlined in the DSEIS selected Alternative 1D. Although not recommended by the Commission, NOAA Fisheries will implement the trap limit to preclude excessive trap fishing effort to the lobster resource and comment received during this rulemaking. NOAA Fisheries believes the removal of existing trap limits in Areas 4 and 5 (800 lobster traps per vessel under current Federal Regulations), without implementation of an alternative trap limit, would likely result in excessive lobster fishing mortality. Implementation of a maximum trap limit in Areas 4 and 5 of 1,440 lobster traps per vessel, in combination with the proposed qualification criteria for participation in the Areas 4 and 5 trap fishery, may preclude excessive trap fishing effort and corresponding levels of lobster fishing mortality. A maximum trap limit in Areas 4 and 5 may also alleviate marine mammal and endangered species interactions with lobster trap gear.

2. NOAA Fisheries will implement a mechanism for conservation equivalency and associated trap limits for owners of vessels in possession of a Federal lobster permit (permit holders) fishing in New Hampshire state waters. This regulatory action will modify Federal regulations to allow Federal permit holders who elect to fish in Area 1 and also possess a New Hampshire full commercial lobster license to fish 400 additional lobster traps in New Hampshire state waters in addition to the 800 lobster traps they may fish in state and Federal waters of Area 1 under current Federal regulations. However, these fishermen would not be allowed to fish more than 800 lobster traps in the Federal waters of Area 1.

3. NOAA Fisheries will clarify lobster management area boundaries in Massachusetts waters. With this action, NOAA Fisheries will implement compatible boundary lines for Area 1, Area 2, and the Outer Cape Area to maintain consistency with the Commission's American lobster ISFMP and to avoid confusion if the Federal and Commission area boundaries and their associated lobster management measures differ.

4. NOAA Fisheries includes a technical amendment to the regulations clarifying that Federal lobster permit holders must attach federally approved lobster trap tags to all lobster traps fished in any portion of any management area (whether in state or Federal waters). This requirement is not new, but was not previously clearly specified in the regulatory text, and this technical amendment is intended to make the regulations easier to understand.

Discussion of the selected management actions includes reference to other recommendations made by the Commission, but not extensively analyzed for this action. These include upgrade limitations for vessels participating in the LCMA 3 trap fishery, an increase in the minimum

gauge size in Federal waters, and "closed areas" which would prohibit harvest of lobsters taken by trap gear in selected portions of LCMA 4. See Section III.1.E. for additional information on recommendations considered but rejected. The selected management actions also include a discussion of concerns raised by NOAA Fisheries in two areas relative to the ability of Federal permit holders to compile and provide documentation which will be required to certify historical participation on the basis of the qualification criteria, and the ability of NOAA Fisheries to accommodate recommendations from the Commission for Federal rulemaking responding to conservation-equivalent management measures specific to state jurisdictional waters. See Section III.2.D. and E. for additional discussion on these issues.

3. This FSEIS

The National Environmental Policy Act (NEPA) requires preparation of an EIS for major federal actions that significantly affect the quality of the human environment. An EIS shall provide full and fair discussion of significant environmental impacts and shall inform decision makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment. A DSEIS was prepared for this action, announced by a notice of availability published in the Federal Register on November 24, 2000 (65 FR 70567). For additional discussion of and information on the DSEIS, see Section III.1.

This document will serve to address other Federal regulatory requirements including the Final Regulatory Flexibility Act (RFA) and the Final Regulatory Impact Review (RIR). The purpose of the RFA is to provide a means for examination of regulatory actions that will lead to minimization of the adverse impacts from regulations and record keeping requirements on small business, small organizations, and small government entities to the greatest extent practicable. This FSEIS discusses the impacts specifically on the effects of the resource management action on small business entities. The RIR is part of the process of preparing and reviewing fishery management actions and provides a comprehensive review of the changes in net economic benefits to society associated with proposed regulatory actions. The RIR is designed to provide information to determine whether the proposed regulation is likely to be "economically significant", i.e. have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities. The analysis also provides a review of the problems and policy objectives promoting the regulatory proposal and an evaluation of the major alternatives that could be used to solve the problems. The purpose of the analysis is to ensure that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost effective way.

III. ALTERNATIVES, INCLUDING THE SELECTED MANAGEMENT ACTION, RATIONALE, AND ENVIRONMENTAL CONSEQUENCES

1. Review and Summary of DSEIS Alternatives

The DSEIS presented several alternatives for each of the major measures addressed by this regulatory action, within the parameters of the Atlantic Coastal Act and Magnuson-Stevens Act requirements - see Section I.2 for more details on state and Federal cooperative management under the Atlantic Coastal Act. Four of these (Alternatives 1A - 1D) address alternatives relating to implementation of historical participation as a means to control lobster fishing effort in LCMAs 3, 4, and 5. Due to the unique nature of the alternatives relating to the regulatory actions to address LCMA 1 trap limits for Federal lobster permit holders fishing in New Hampshire waters and LCMA boundary clarifications, only two alternatives were presented for each of these actions in the DSEIS: implement measures to complement the ISFMP; or continue the no action/status quo alternative.

NOAA Fisheries held public meetings in Maine, Rhode Island, New York, and New Jersey, to receive comments on the biological, economic and social impacts addressed in the DSEIS for this action. A total of 153 individuals attended the public meetings, which were held in November and December 2000, and 225 written comments were received by January 9, 2001, the closing date for public comment on the DSEIS. See the Appendix for a summary of the public meetings and written comments on the DSEIS.

A brief description of the major alternatives addressed in the DSEIS for this action is provided below. See Section III.2. and III.3. for a full description of the alternatives summarized below.

A. Effort Control Alternatives in Areas 3, 4, and 5

Based upon its approval of selected management measures proposed by the Area 3, 4, and 5 LCMTs, the Commission recommended to NOAA Fisheries that access to, and levels of effort in, the lobster trap fishery in EEZ Offshore Area 3 and Nearshore EEZ waters of Areas 4 and 5 be based on historical participation. The Commission recommendations for qualification based on historical participation addressed qualification criteria, allocation of fishing effort, and limitations on vessel upgrades. Qualification criteria are different among the areas and include demonstration of active involvement in the fishery during a specified qualification period through provision of certain documents. The Commission plan for Area 3 proposes that potential participants must meet or exceed both a landing and a fishery intensity threshold in order to qualify and specifically defines that threshold. The Commission plans for Areas 4 and 5 however, although similar, only generally prescribe that qualification and trap limits be based on "historical levels" without providing further definition. (see details provided for the selected actions in subsequent text).

Non-Selected DSEIS Alternative 1A. Implement Historical Participation Requirements and Fishing Effort Limits for Areas 3, 4, and 5

This non-selected alternative would implement a historical participation approach to limit lobster fishing effort in LCMAs 3, 4, and 5. This non-selected alternative would require the current possession of a Federal lobster fishing permit and evidence of a history of two consecutive months of active trap fishing for each elected area during any one calendar year within the period

March 25, 1991 and September 1, 1999. In addition, qualification to participate in the Area 3 fishery would include a requirement to demonstrate that at least 25,000 pounds of lobster were harvested throughout the range of the resource during the qualifying year. Trap limits would be based on the associated qualification criteria and respective trap allocations for the selected action measures described later in this section of this FSEIS. There would be a maximum trap limit and a sliding scale trap reduction schedule associated with each vessel qualifying to fish with traps in LCMA 3, but this non-selected alternative would not establish a maximum trap limit of 1,440 traps for vessels qualifying to fish with traps in LCMA 4 and 5. See Section III.2.B. for additional information on trap limits for LCMA 4 and 5.

Non-selected DSEIS Alternative 1B. (No Action/Status Quo) Continue Existing Trap Limits, with No Area Qualification Requirements

Under the No Action non-selected alternative, American lobster would continue to be managed in Federal waters under trap limit provisions of existing regulations of the Atlantic Coastal Fisheries Cooperative Management Act (50 CFR Part 697).

Any vessel issued an American lobster limited access permit fishing with traps would continue to annually declare to NOAA Fisheries in which lobster management area or areas the vessel intends to fish. Once a vessel has declared the management area(s), no changes to the management areas specified may be made for the remainder of the fishing year unless the vessel becomes a replacement vessel for another qualified vessel. Under existing regulations (50 CFR §697.4(a)(7)), qualified vessels may elect to fish with traps in any or all LCMAs, and trap allocations are based on this election. If a permit holder elects to fish in any Nearshore LCMA, or any Nearshore LCMA and LCMA 3, the vessel is restricted to a maximum of 800 traps. If a vessel elects to fish only in LCMA 3, or in LCMA 3 and the LCMA 2/3 overlap, the vessel is restricted to a maximum of 1,800 traps.

Non-selected DSEIS Alternative 1C. Implement a Historical Participation Requirement and Retain Current Trap Limits for Areas 3, 4, and 5

This non-selected alternative would require the current possession of a Federal lobster fishing permit and evidence of a history of two consecutive months of active trap fishing for each elected area (LCMA 3, 4, and/or 5) during any one calendar year within the period March 25, 1991 and September 1, 1999. In addition, qualification to participate in the Area 3 fishery would include a requirement to demonstrate that at least 25,000 pounds of lobster were harvested throughout the range of the resource during the qualifying year. Trap limits would be the same as those described in the no-action/status quo non-selected alternative.

Selected DSEIS Alternative 1D. Implement Historical Participation Requirement with A Maximum Trap Allocation for LCMA 4 and 5.

This alternative was selected as the preferred action in this FSEIS. This action will implement the measures contained in the non-selected Alternative 1A, but would also establish a maximum

trap limit of 1,440 traps for vessels qualifying to fish with traps in LCMA 4 and 5. This limit will be implemented to be consistent with a provision for a maximum trap limit already included in the Commission's recommendation for LCMA 3, but absent in the Commission's recommendations for LCMA 4 and LCMA 5. See Section III.2.B. for additional discussion on this action, including the supporting rational for the qualification periods and maximum trap limit.

B. Trap Limit Alternatives for New Hampshire Waters of Area 1

In October 1998, the Commission approved a proposal from the State of New Hampshire for conservation equivalent lobster trap limits that vary from the 800 lobster trap limit in Area 1 (see subsequent text for details on the state program). In keeping with ISFMP procedures, this conservation equivalent proposal was submitted by the State of New Hampshire to the Board with supporting documentation to support the state's contention that the state lobster fishing effort control program would, in fact, be equivalent to the fixed trap limits for LCMA 1. The state proposal and supporting documentation was submitted to the Commission's Lobster Technical Committee ("TC"), composed of lobster scientists from several states and NOAA Fisheries, and following a review of the conservation equivalency proposal and supporting documentation, the TC concurred with the State of New Hampshire that the state's program would be equivalent to the LCMA 1 fixed trap limit of 800 traps. Following the TC review, and the Commission approval, the Commission recommended that NOAA Fisheries implement compatible measures for impacted Federal lobster permit holders.

The State of New Hampshire's lobster management program provides for a two-tier lobster license system: State fishermen who provide documentation of landing more than 12,000 lb (5,443 kg) of lobster in at least 2 years, from 1994 to 1998, receive a full commercial lobster license issued by the State of New Hampshire; those who cannot provide this documentation are issued a limited commercial lobster license. Those fishermen who qualify for a full license may fish up to 1,200 lobster traps in state waters, and those in the limited category may fish a maximum of 600 lobster traps in state waters. Following approval of the New Hampshire proposal under the ISFMP, the Commission recommended that NOAA Fisheries modify Federal regulations to maintain the biological and socio-economic basis of New Hampshire's lobster management program. The Commission requested that NOAA Fisheries modify Federal regulations to allow Federal permit holders who elect to fish in Area 1 and also possess a New Hampshire full commercial lobster license to fish 400 lobster traps in New Hampshire state waters in addition to the 800 lobster traps they may fish in state and Federal waters of Area 1 under current Federal regulations. However, these fishermen would not be allowed to fish more than 800 lobster traps in the Federal waters of Area 1.

In the DSEIS prepared for this action, NOAA Fisheries expressed concern that recommendations from the Commission for Federal implementation of conservation equivalent measures may unduly burden the agency, given that there are 15 member states in the Commission and that each state may seek Federal implementation of the conservation equivalent of several different types of measures under the ISFMP. Refer to Section III.2.E. for further discussion of and

procedures for future recommendations for conservation equivalent measures.

Selected DSEIS Alternative 2A. Conservation Equivalent Trap Limits for New Hampshire License Holders

This alternative was selected as the preferred action in this FSEIS. This action will allow Federal permit holders who fish for lobster in LCMA1 and who also possess a New Hampshire full commercial lobster fishing license to fish a maximum of 400 additional traps only in the state waters of New Hampshire as specified in New Hampshire state regulations. Currently, Federal permit holders who elect to fish in LCMA 1, or any other Nearshore LCMA and LCMA 3, are restricted to a maximum of 800 traps, whether they fish in state or Federal waters.

Non-selected DSEIS Alternative 2B (Status Quo). Retain Current Trap Limits for Federal Permit Holders in New Hampshire Waters

This non-selected alternative would require Federal lobster permit holders who also possess a New Hampshire commercial lobster license to abide by an 800-trap limit, whether they fish in state or Federal waters.

C. Alternatives for Boundary Clarifications

In Addendum I to Amendment 3 of the American Lobster ISFMP, the Commission revised the boundary lines for three of the LCMAs adjacent to Massachusetts, including Area 1, Area 2, and the Outer Cape Area, to bring the area boundaries more in line with traditional fishing practices in those areas and to correct an oversight in the specification of an Area 1 boundary line in Amendment 3 to the ISFMP. A copy of charts showing the affected American lobster EEZ management areas is provided in the Appendix.

Selected DSEIS Alternative 3A. Revise Current Lobster Area Boundaries.

This alternative was selected as the preferred action in this FSEIS. This action will implement compatible Federal boundary lines for LCMA 1, LCMA 2, and the Outer Cape LCMA to maintain consistency with the Commission's ISFMP, as described in Section III.2.F.

Non-selected DSEIS Alternative 3B (Status Quo). Retain Current Lobster Area Boundaries.

NOAA Fisheries can maintain the existing Federal boundary lines for all LCMAs including the three LCMAs adjacent to Massachusetts: LCMA 1, LCMA 2, and the Outer Cape LCMA.

D. Clarification of Lobster Trap Tag Requirements

This regulatory action includes a technical amendment to the regulations clarifying that Federal lobster permit holders must attach federally approved lobster trap tags to all lobster traps fished in any portion of any management area (whether in state or Federal waters). This requirement is

not new, but was not previously clearly specified in the regulatory text, and this modification is intended to make the regulations easier to understand. For further information on this requirement, see Section III.2.G.

E. Recommendations Considered but Rejected

The selected actions identified in this FSEIS are part of an iterative approach by state and Federal jurisdictions to end overfishing of American lobster. Additional deliberations under the ISFMP are continuing, in cooperation with the LCMTs, to rebuild stocks of American lobster throughout the species' range. Recommendations by the Commission to NOAA Fisheries in development of this regulatory action that were considered but rejected include: area specific increases in the minimum gauge size of American lobster as a measure to help achieve ISFMP objectives; vessel upgrades for LCMA 3 for a two year period; and the evaluation of closed areas and/or marine protected areas as a potential management tool. These topics are discussed in greater detail below.

1. Minimum Size Increase

Subsequent to the Commission's approval of Addendum I to Amendment 3 to the ISFMP, the Commission also requested that NOAA Fisheries consider an increase in the minimum gauge size in the Federal waters comprising Lobster Conservation Management Areas 2, 3, 4, 5, and Outer Cape Cod. The Commission made this request to promote synchronization of State-Federal regulations, anticipating that a gauge increase would be considered, and was, in fact, subsequently approved for several management areas in Addendum II and Addendum III to Amendment 3 of the ISFMP in August 2001 and February 2002. See Section I.2. and II.1.C. of this FSEIS for additional information on Addenda II/III area-specific gauge increases. NOAA Fisheries concurs with the need for consistent and timely implementation of regulations throughout the range of the lobster resource. However, under Federal rulemaking procedures, the impacts of a gauge increase in Federal waters will require a thorough examination of the biological and socio-economic impacts of such a measure, including the interstate and U.S.-Canada trade implications. Therefore, as mentioned in Section II.1.C. of this FSEIS, it is NOAA Fisheries' intention to address gauge increases in future rulemaking as NOAA Fisheries begins to analyze the impacts of implementation of management measures identified in Addenda II and III, as requested by the Commission. In this regard, NOAA Fisheries published a Notice of Intent to develop a single EIS, on September 5, 2002 (67 FR 56800), to examine the measures proposed in both Addenda II and III and is requesting comments from the public on the entire suite of management measures approved under the two addenda to Amendment 3.

2. Vessel Upgrades

NOAA Fisheries will not adopt the Commission's recommendation to limit vessel upgrades for Federal permit holders receiving an Area 3 trap allocation. This limitation, if implemented, would preclude federally permitted vessels in the Area 3 lobster fishery that measure over 50 ft

(15.24 m) in length, or upgrading to over 50 ft (15.24 m) in length, from upgrades or replacement that would result in more than a 10-percent increase in length overall, or a 20-percent increase in shaft horsepower, for 2 years.

NOAA Fisheries does not concur with this recommendation. A prohibition on an increase in vessel length or an increase in horsepower for a 2-year period would require existing permit holders to substantiate existing baseline vessel characteristics. Lobster trap vessels are generally small, with an average length of 39 ft (11.9 m). Many such vessels are not U.S. Coast Guard documented, and, therefore, information on length and horsepower may not be available to NOAA Fisheries. The implementation of lobster vessel upgrade criteria may accordingly require a marine survey to establish legal vessel specifications, adding a financial burden on vessel owners. The potential cost to hire a marine surveyor or naval architect to verify existing baseline vessel characteristics can range from $150 to $600, with associated costs increasing with vessel size, and would result in added delays for vessel replacement and transfers, if implemented. NOAA Fisheries' review of requests for transfers would take more time, because NOAA Fisheries would need to verify whether the specific vessel with a limited access American lobster permit would qualify to fish in Area 3 and, therefore, would be restricted by the upgrade provision.

NOAA Fisheries is concerned that implementation of the Commission's recommended, temporary upgrade restrictions would be unnecessarily burdensome for fishermen and NOAA Fisheries and would afford no obvious conservation benefits to the lobster resource, unlike the permanent restrictions on vessel and horsepower upgrades in the scallop and groundfish fisheries. In addition, an unknown number of vessels that would qualify for historical participation in Area 3 may currently hold a Federal fisheries permit in another fishery that permanently restricts vessel and horsepower upgrades. The implementation of trap limits, either fixed or based on a historical level of participation, has the potential to effectively limit fishing effort in the offshore lobster fishery without an additional requirement for vessel upgrade restrictions.

3. Closed Areas

Under the provisions of Addendum I to Amendment 3 of the ISFMP (recommendations for actions in Federal waters), the Commission has requested that NOAA Fisheries implement a ban on possession of lobster taken by trap gear in the following four "closed areas" (Figure III.1.) of LCMA 4:

Fire Island:

POINT	LATITUDE (°N)	LONGITUDE (°W)	LORAN
A (NW)	40 31.344	073 25.823	26730 / 43710
B (NE)	40 33.233	073 09.249	26600 / 43710
C (SE)	40 23.377	073 11.708	26600 / 43620

D (SW)	40 23.464	073 10.976	26730 / 43620

Moriches:

POINT	LATITUDE (°N)	LONGITUDE (°W)	LORAN
A (NW)	40 24.276	072 46.617	26400 / 43605
B (NE)	40 25.688	072 38.048	26300 / 43605
C (SE)	40 28.380	072 35.063	To the Area 3 boundary along the 26300 line
D (SW)	40 12.831	072 48.559	26400 / 43500

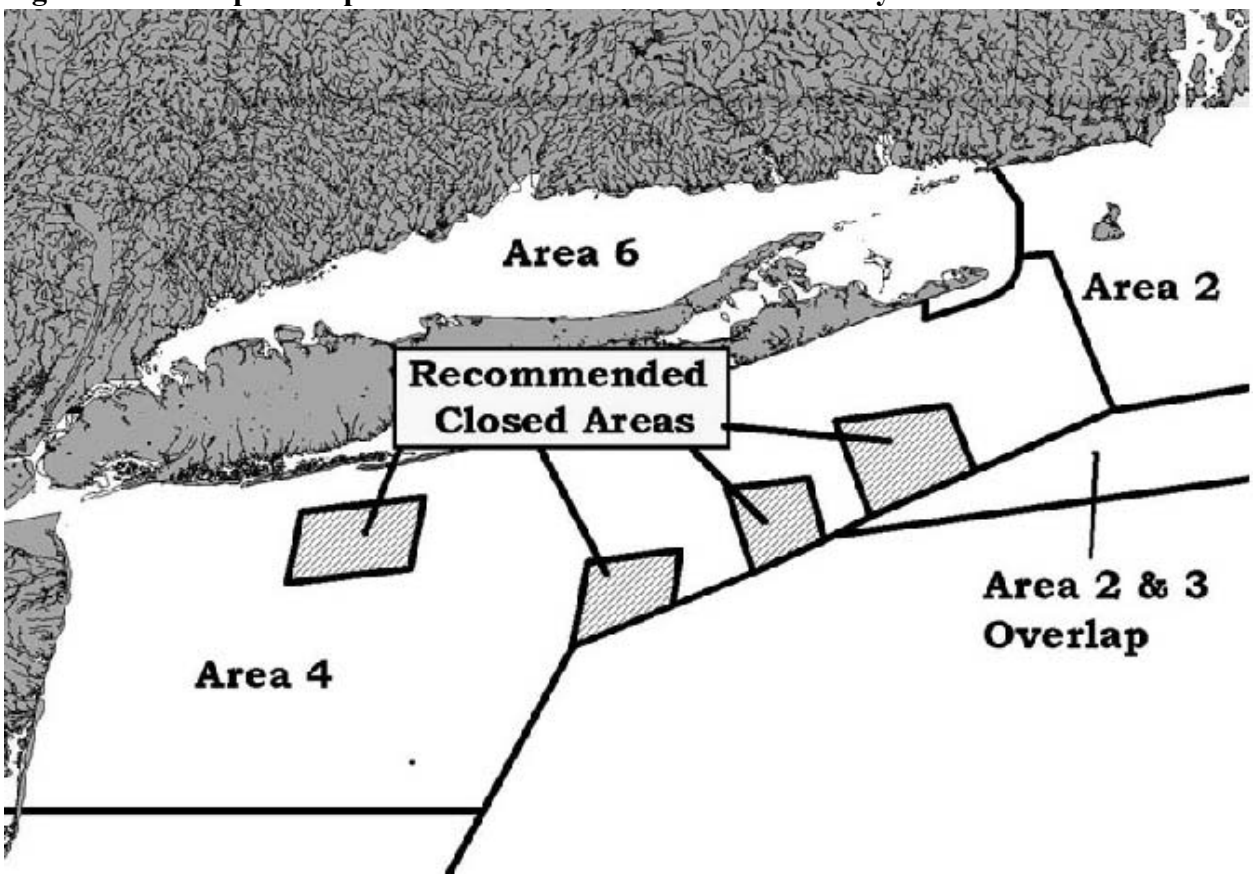
Shinnecock:

POINT	LATITUDE (°N)	LONGITUDE (°W)	LORAN
A (NW)	40 34.389	072 27.420	14960 / 43670
B (NE)	40 35.904	072 13.117	14890 / 43670
C (SE)	40 27.997	072 13.117	To the Area 3 boundary along the 14890 line
D (SW)	40 23.105	072 23.782	To the Area 3 boundary line along the 14960 line

Montauk:

POINT	LATITUDE (°N)	LONGITUDE (°W)	LORAN
A (NW)	40 43.678	072 12.521	14950 / 43730
B (NE)	40 46.053	071 56.974	17850 / 43730
C (SE)	40 37.120	071 53.188	To the Area 3 boundary line along the 26300 line
D (SW)	40 39.741	072 07.616	To the Area 3 boundary line along the 26300 line

Figure III.1. Map of Proposed Area 4 Closures recommended by the Area 4 LCMT. From



Left to Right: Fire Island, Moriches, Shinnecock, and Montauk.

These four areas represent approximately 11% of LCMA 4 and comprise approximately 520 square miles. The Commission's Lobster Technical Committee, in its review of this component of the LCMA 4 plan, reported that although, conceptually, closed areas can be beneficial to resource protection, it was unlikely that the closed areas as proposed would sufficiently increase lobster egg production.

Although there are no mandatory reporting requirements specific to Federal lobster regulations, the NOAA Fisheries' Vessel Trip Report (VTR) database includes lobster harvest statistics for those Federal lobster permit holders who are required, as a condition of possessing a Federal fishing permit for other Federally-managed fisheries, to submit summaries of total landings for all species harvested. A review of this database indicates that, during the period 1994-1999, approximately 4% (399) of 9,454 trips by vessels fishing with lobster traps in LCMA 4 occurred within at least one of the proposed "closed" areas. These trips accounted for approximately 3% of the annual lobster trap harvest in LCMA 4, ranging from a high of 5% (24,461 pounds) in 1995 to a low of 1% (4,637 pounds) in 1999. There has been a steady decline in trap fishing activity, as well as associated lobster harvest, within these areas since 1995. Thus, on the basis of these VTR statistics, NOAA Fisheries agrees at this time with the Commission's Lobster Technical Committee's conclusion that a ban on the possession of lobster taken by traps in the four geographical areas under consideration would not provide a reasonable expectation of

helping to attain the ISFMP objective to end overfishing of American lobster. In addition, significant complexities in enforcement of such a ban would arise, since the Commission's proposal allows continued use of traps in these areas to harvest finfish and lobster could continue to be harvested by non-trap gear.

2. Selected FSEIS Actions

A. Area 3 Historical Participation Fishing Effort Control Program

1. Area 3 Coordinates

EEZ Offshore Management Area 3 is defined at 50 CFR 697.18(d). See the Appendix for a copy of a chart and latitude and longitude coordinates showing the American lobster EEZ management areas.

2. Area 3 - Qualification Criteria

With this action, NOAA Fisheries will limit the number of traps fished in Area 3 based on proof of historical participation in the Area 3 fishery and the number of traps fished by a vessel during a qualifying period from March 25, 1991 through September 1, 1999. In order to qualify to fish for lobster with traps in Area 3, Federal lobster permit holders will need to meet all of the following criteria:

i. They must possess a current Federal limited access lobster permit.

ii. They must have set, allowed to soak, hauled back and re-set at least 200 lobster traps in Area 3 during a 2-consecutive calendar month period in any calendar year during the qualification period, from March 25, 1991, through September 1, 1999.

iii. They must have landed at least 25,000 lb (11,340 kg) of lobster from any location (state or Federal waters throughout the range of the resource) during the year used as the qualifying year from March 25, 1991, through September 1, 1999

This March 25, 1991 to September 1, 1999 qualification period is similar to the recommendations pertaining to historical participation in the EEZ for Areas 3, 4, and 5 approved by the Commission under the ISFMP on August 1, 1999. The beginning date, March 25, 1991, as recommended by the Commission, was originally established as a 'control date' in the Federal lobster fishery by the NEFMC. A Federal Register notice was published on March 25, 1991 (56 FR 12366) that established a qualification date to determine eligibility for future access to the Federal lobster fishery if a management regime is developed and implemented that limits the number of participants in the Federal lobster fishery. NOAA Fisheries will not use the

Commission's recommended ending date of November 1, 1997, for this qualification period

because of NOAA Fisheries' policy to provide advance notice to the public of qualification dates. Following approval of Addendum I to Amendment 3 to the ISFMP on August 1, 1999, NOAA Fisheries published an ANPR in the Federal Register on September 1, 1999 (64 FR 47756), to give notice that NOAA Fisheries was considering September 1, 1999, the publication date of the ANPR, as a potential control date, or cut-off date, to be used to determine eligibility for future access to lobster management areas, and to discourage shifts into new areas by lobster trap vessels subject to Federal lobster regulations.

With this action, NOAA Fisheries will use the Commission's recommended criterion that will require fishermen to demonstrate that at least 200 lobster traps were set, allowed to soak, hauled back, and re-set in Area 3 during 2 consecutive calendar months within the qualification period. The use of at least 200 lobster traps as a baseline criteria will be consistent with recommendations provided by the Commission, and was initially identified by the Area 3 LCMT as a level of trap fishing effort to indicate active participation in the lobster trap fishery of Area 3. This level of active participation is intended to allow permit holders with more than a minimal level of historic involvement in the Area 3 lobster trap fishery to continued access to the Area 3 fishery. Restricting access to permit holders that can meet this baseline level of active participation would address concerns, as indicated in the most recent stock assessment, of potential expansion and/or redirection of effort from nearshore to offshore areas. The use of at least 200 lobster traps in Area 3 during 2 consecutive calendar months, on balance, indicates a meaningful level of trap fishing effort and a level of economic reliance on the lobster fishery in Area 3 for income. While difficult to identify a specific effort level, this LCMT baseline level of effort on balance may be more likely to maintain and effectively preserve the historic character of the coastal fishing communities. The use of a 2-consecutive calendar month period will maintain consistency with the Commission's ISFMP, and avoid the potential for conflicting state and Federal regulations when implementing this qualification criterion. In addition, the NOAA Fisheries dealer landing and vessel trip report data, which will likely be used for qualification purposes, is based on calendar month time periods. Due to the calendar month configuration of the NOAA Fisheries databases, the use of an alternative time frame, such as 60-consecutive days, would be more prone to error.

With this action, NOAA Fisheries will incorporate the Commission's recommendation to qualify vessels based on a calendar year time period, rather than some other time period, such as a Federal lobster fishing year (May 1 through April 30). The use of calendar years will be consistent with recommendations provided by the Commission. In addition, documents provided by fishermen to demonstrate historic participation, such as tax returns, are commonly based on a calendar year rather than a fishing year. Also, there is often less lobster fishing effort in the winter months due to weather conditions and the availability of the resource. Therefore, it is less likely that a 2-consecutive month period used to qualify a vessel would overlap the December to January time period.

3. Area 3 - Trap Allocation Criteria

Once qualified, a lobster permit holder will be allocated a certain number of lobster traps, based upon the number of traps that the permit holder fished at any one time during the qualifying year. Note, this time may be, but need not be, during the two months used to qualify. Ultimate trap allocations will be based upon the supporting documentation and affidavit provided by the permit holder, but no Federal lobster permit holder will be given an initial lobster trap allocation of more than 2,656 lobster traps. Each trap allocation of more than 1,200 traps will be reduced annually on a sliding scale basis over 4 years. Trap reductions will not go below a baseline of 1,200 traps. Each initial allocation in Area 3 of fewer than 1,200 traps will remain at that allocation. The reduction schedule is shown in Table III.1.

The maximum allocation of 2,656 lobster traps with the associated sliding scale reductions over a 4 year period was recommended by Commission to NOAA Fisheries as a result of Addendum II to Amendment 3 of the ISFMP. The selection of 2,656 traps and the corresponding matrix of trap allocations as identified in Table III.1. were developed by the Area 3 LCMT during the course of several industry meetings. The selection of the matrix of initial maximum trap allocations and sliding scale reductions over a four year period is intended to avoid disruption of traditional historic socio-economic patterns in the offshore fishery; mitigate to the extent practicable the associated economic impacts of trap reductions to the qualifiers; and, ultimately, result in a 20% reduction in the number of traps per vessel and an approximate 35% reduction in the number of total traps fished, compared to 1991-1993 estimated fishing effort in LCMA 3. The 1991-1993 time frame is the last period for which lobster permit information on estimated total numbers of traps fished by Federal permit holders is available to NOAA Fisheries. The extent to which total trapping effort has increased since 1991-1993 would reduce the projected reduction in number of traps being currently fished in Area 3 by some proportional, but variable factor. Information was collected and compiled by the Area 3 LCMT over several industry meetings to provide the Commission's Lobster Technical Committee with a means to quantitatively evaluate this component of the overall LCMT 3 management plan. Approval of the plan by the Commission's Lobster Technical Committee was tempered by concerns regarding whether or not more than 64 vessels have historically participated in the LCMA 3 fishery, thereby reducing the projected trap reductions; and the degree to which trap reductions may lead to increased harvesting efficiencies, thereby diminishing benefits to the resource. But there would remain a benefit in defining the universe of effort.

This Federal maximum trap allocation and sliding scale trap reduction schedule for Area 3 is more restrictive than that approved in the Addendum I schedule and reduces the maximum trap allocation in Year 1 from 2,920 traps to 2,656 traps and accelerates the sliding scale trap reduction schedule from five years to four years. As explained in Section I of this FSEIS, Amendment 3 and its Federal counterpart embodied the concept of adaptive management. It was not designed as a stand-alone measure, but instead was intended to provide the necessary foundation on which to base future management measures. Addendum I, Addendum II and the Federally proposed action that is the basis of this FSEIS are examples of such future measures. As such, they are components of the overall management regime that complement rather than distinguish existing management measures. NOAA Fisheries incorporated the revised Area 3 trap allocations and the accelerated four-year sliding scale trap reduction in this management

action to be compatible with the updated trap reduction schedule in Addendum II to Amendment 3 of the Commission's lobster ISFMP. For additional information on the Federal maximum trap allocation and sliding scale trap reduction schedule for Area 3 proposed in Addendum I, see the DSEIS for this action.

Table III.1. Area 3 Trap Reduction Schedule

Number of Traps Approved by the Regional Administrator	Trap Allocation by Fishing Year*			
	2002	2003	2004	2005 and beyond until changed
1200-1299	1200	1200	1200	1200
1300-1399	1200	1200	1200	1200
1400-1499	1290	1251	1213	1200
1500-1599	1388	1337	1297	1276
1600-1699	1467	1423	1380	1352
1700-1799	1548	1498	1452	1417
1800-1899	1628	1573	1523	1482
1900-1999	1705	1644	1589	1549
2000-2099	1782	1715	1654	1616
2100-2199	1856	1782	1715	1674
2200-2299	1930	1849	1776	1732
2300-2399	2003	1905	1836	1789
2400-2499	2076	1981	1896	1845
2500-2599	2197	2034	1952	1897
2600-2699	2218	2107	2008	1949
2700-2799	2288	2169	2063	2000
2800-2899	2357	2230	2117	2050
2900-2999	2425	2291	2171	2100
3000-3099	2493	2351	2225	2150
3100-3199	2575	2422	2288	2209
$3200	2656	2493	2351	2267

* Trap allocations below 1,200 will not be subject to further reductions.

4. Area 3 - Initial Qualification and Trap Allotment Process

After an analysis of landings, vessel trip report records, and permit histories, NOAA Fisheries intends to notify permit holders by letter of information NOAA Fisheries has regarding one or more of the criteria specified below. That is, if NOAA Fisheries has its own clear and convincing documentation relating to an element of a vessel's historical participation, the agency may in its discretion relieve the potential applicant of the need to document that element in its initial notice. However, NOAA Fisheries will not automatically issue any pre-qualification permits; any person or entity wishing to receive a historical participation allocation to fish with traps in Areas 3, 4, and/or 5, must submit a signed application and furnish the appropriate documentation necessary to demonstrate eligibility as outlined in this subsection.

Potential qualifiers must provide credible documentation as proof of each of the four qualifying elements described in Section III.2.A.4.(i -iv) above. At the same time, the potential qualifiers must also credibly document the number of traps fished at any one time in Area 3 during the qualifying year. This documentation will be limited to that which follows:

i. As proof of a valid Federal limited access lobster permit, NOAA Fisheries will accept a copy of the current Federal permit. The potential qualifier could, in lieu of providing a copy, provide NOAA Fisheries with such data that would allow NOAA Fisheries to identify the current permit holder in its data base, which would at a minimum include: the applicant's name and address; vessel name; and permit number.

ii. As proof of setting, soaking, hauling, and re-setting of 200 lobster traps in Area 3 during a two consecutive calendar month period during the qualifying year, NOAA Fisheries will accept – to the extent that the document establishes this criterion – copies of Federal Fishing Vessel Trip Reports (NOAA Form 88-30), Federal Port Agent Vessel Interview forms (NOAA Form 88-30), Federal Sea Sampling Observer Reports or a Federal Fishing Vessel and Gear Damage Compensation Fund Report (NOAA Form 88-176); personal vessel logbooks; state permit applications; official state reporting documentation showing the number of traps fished, including, but not limited to, state report cards, state vessel interview forms, license application forms, state sea sampling observer reports, and catch reports. These documents must have been created on or about the time of the activity stated in the document (e.g. NOAA Fisheries will not accept recent vessel log book entries or recent copies of other documents identified in this part as proof of fishing activity that occurred years prior).

iii. As proof of landing 25,000 pounds (11,340 kg) of lobster during the qualifying year, NOAA Fisheries will accept – to the extent that the document establishes this criterion – copies of Federal Fishing Vessel Trip Reports (NOAA Form 88-30); personal vessel logbooks; state permit applications; official state reporting documentation showing catch reports; and sales receipts or landing slips. These documents must have been created on or about the time of the activity stated in the document (e.g. NOAA Fisheries will not accept recent vessel log book entries

or recent copies of other documents identified in this part as proof of fishing activity that occurred years prior). Note: 25,000 pounds (11,340 kg) of lobster may be harvested from state or Federal waters throughout the range of the resource and the lobster does not have to be harvested solely from the Area(s) the applicant is basing his application on.

iv. As proof of the number of traps fished during the qualifying year, NOAA Fisheries will accept – to the extent that the document establishes this criterion – copies of Federal Fishing Vessel Trip Reports (NOAA Form 88-30); personal vessel logbooks; state and Federal permit applications; official state reporting documentation showing the number of traps fished, including, but not limited to, state report cards, state vessel interview forms, license application forms, and catch reports; tax returns and sales receipts; and an approved Federal Fishing Vessel and Gear Damage Compensation Fund Report (NOAA Form 88-176). These documents must have been created on or about the time of the activity stated in the document (e.g. NOAA Fisheries will not accept recent vessel log book entries or recent copies of other documents identified in this part as proof of fishing activity that occurred years prior).

v. NOAA Fisheries will also require a notarized Affidavit from each potential qualifier. In this Affidavit, the applicant shall swear under the penalties of perjury that he or she meets each of the four qualifying criteria, that he or she fished the number of traps alleged during the qualifying year and that the submitted supporting documentation is truthful, accurate and created contemporaneously with the dates identified in the documentation.

As a general note, if 1991 is chosen by the permit holder as the qualifying year, documentation should reflect relevant activity occurring only during the part of the 1991 calendar year that falls within the qualification period (March 25, 1991, through December 31, 1991). If the permit holder chooses 1999 as the qualifying year, the documentation submitted in response to the qualification criteria must reflect relevant fishing activity during the period of the 1999 calendar year that falls within the qualifying period (January 1, 1999, through September 1, 1999). If any other calendar year within the qualification period is chosen, documentation submitted with respect to the qualification criteria may reflect relevant activity during any portion of that calendar year.

Finally, NOAA Fisheries anticipates that the submitted documentation will vary in form, content and legibility. However, this documentation must be dated, created on or about the date of the activity described in the document, and must be clearly attributable to the qualifying vessel. A clear relationship may include a vessel name, state or Federal permit number, Coast Guard documentation number, or the name of the owner of the vessel at the time being used as the qualification period. NOAA Fisheries will require that each potential qualifier explain his or her proof in a cover letter to be included along with the above listed documents. Illegible documents will not be considered by NOAA Fisheries.

Further, submission of falsified information would subject the applicant both to general sanction, including revocation of his or her federal lobster permit as well as to prosecution under the applicable law.

5. Area 3/4/5 - Qualifying for More than One Lobster Management Area

Any Federal lobster permit holder applying for access to more than one of the 3 areas (Areas 3, 4, or 5) must use the same qualifying year for all areas in order to avoid a combined allocation greater than the number of traps that the permit holder ever fished with any one vessel at any one time during any one year. In addition, the current requirement that Federal permit holders who elect to fish in multiple areas must abide at all times by the most restrictive regulations, including trap allocations, in any one elected area regardless of the area being fished, will remain in effect. The Commission Lobster Management Board, in consultation with the states and LCMTs, is evaluating alternative options to the most restrictive regulations concerning trap allocations for vessels fishing in multiple Areas. However, no recommendation has been made at this time, and there is no clear consensus on a preferable alternative to the current measures in place. NOAA Fisheries may evaluate this issue further in future rulemaking at such time as the Commission reaches a consensus and provides a recommendation to NOAA Fisheries concerning a waiver of the most restrictive trap allocation.

B. Areas 4/5 Effort Control Program with a Maximum Trap Limit

1. Area 4/5 Coordinates

EEZ Nearshore Management Area 4 and EEZ Nearshore Management Area 5 are defined at 50 CFR 697.18(e) and (f), respectively. See the Appendix for a copy of a chart and latitude and longitude coordinates showing the American lobster EEZ management areas.

2. Area 4 - Qualification Criteria

With this action, NOAA Fisheries will limit the number of traps fished in Area 4 based on proof of historical participation in the Area 4 fishery and the numbers of traps fished by a vessel during a qualifying period from March 25, 1991, through September 1, 1999. In order to qualify to fish for lobster with traps in Area 4, Federal lobster permit holders will need to meet all of the following criteria:

i. They must possess a current Federal limited access lobster permit.

ii. They must have set, allowed to soak, hauled back and re-set at least 200 lobster traps in Area 4 during a 2-consecutive calendar month period in any calendar year during the qualification period, from March 25, 1991, through September 1, 1999.

Above criteria (i) and (ii) are identical to the first two criteria in the Area 3 qualification process.

Although these criteria were not specifically recommended by the Commission, the criteria certainly fall within the general recommendation that individuals must prove participation based upon historical participation. In leaving the details to the Federal government, the Commission gave NOAA Fisheries the ability to achieve some standardization in its management regime, not only an important practical consideration, but also a relevant consideration under the National Standards, particularly National Standards 3 and 8. Here, based upon the best information available to NOAA Fisheries and associated public comments received with respect to this rulemaking (and, importantly, the lack of comments suggesting otherwise) and balancing the Commission's recommendations with NOAA Fisheries' practical considerations and the applicable law against these considerations (and, indeed on occasion, against itself), NOAA Fisheries believes that the setting, soaking, hauling back, and re-setting of at least 200 lobster traps in Areas 4 or 5 during a 2-consecutive calendar month period in any calendar year during the qualification period represents a reasonable indicator of a fisherman's socio-economic reliance on the lobster fishery that true historic participants should be able to readily document. As previously discussed in the Area 3 qualification criteria - see Section III.2.A.2., this level of active participation is intended to allow permit holders with more than a minimal level of historic involvement in the lobster trap fishery continued access to the fishery. Restricting access to permit holders that can meet this baseline level of active participation would address concerns, as indicated in the most recent stock assessment, of potential expansion and/or redirection of effort from nearshore, in this case state waters, to offshore areas beyond three miles. The use of at least 200 lobster traps during 2 consecutive calendar months, on balance, indicates a meaningful level of trap fishing effort and a level of economic reliance on the lobster fishery for income. While difficult to identify a specific effort level, this baseline level of effort on balance may be more likely to maintain and effectively preserve the historic character of the lobster fishery on impacted coastal fishing communities. Specific rational relating to the dates used is identical to the rational set forth in the discussion of Area 3 criteria. See Section III.2.A. above.

Note that this same deliberative process resulted in NOAA Fisheries failing to include a landing requirement in Area 4 as it did in Area 3. NOAA Fisheries received commentary that 25,000 pounds (11,340 kg) landed might not, in all circumstances, be a reasonable indicator of historical participation, particularly the further south one fished in the area. Accordingly, NOAA Fisheries did not use that criterion in this area.

3. Area 5 - Qualification Criteria

With this action, NOAA Fisheries will limit the number of traps fished in Area 5 based on proof of historical participation in the Area 5 fishery and the numbers of traps fished by a vessel during a qualifying period from March 25, 1991, through September 1, 1999. In order to qualify to fish for lobster with traps in Area 5, Federal lobster permit holders will need to meet all of the following criteria:

i. They must possess a current Federal limited access lobster permit.

ii. They must have set, allowed to soak, hauled back and re-set at least 200 lobster traps in Area 5 during a 2-consecutive calendar month period in any calendar year during the qualification period, from March 25, 1991, through September 1, 1999.

NOAA Fisheries rationale in selecting criteria (i) and (ii) for Area 5 is identical to the rationale for so choosing such criteria for Area 4 and is set forth in greater detail in Section III.B.2. immediately above.

4. Area 4/5 - Trap Allocation Criteria

Once qualified, a lobster permit holder will be allocated a certain number of lobster traps, based upon the number of traps that the permit holder fished at any one time during the qualifying year. Note, this time may be, but need not be, during the two months used to qualify. Ultimate trap allocation will be based upon the supporting documentation and affidavit provided by the permit holder, but no Federal lobster permit holder qualifying in Area 4 and/or Area 5 will be given a lobster trap allocation of more than 1,440 lobster traps.

Commission recommendations for the Areas 4 and 5 fisheries, unlike those for the Area 3 fishery, do not contain either trap limits or trap reduction schedules. Although not recommended by the Commission, NOAA Fisheries is imposing a trap limit not to exceed 1,440 lobster traps per vessel to preclude excessive trap fishing effort on the lobster resource, and in response to public comment on this action. NOAA Fisheries has identified concerns regarding the potential lack of uniformity with which the industry may be able to submit the required documentation to demonstrate historical participation (see Section III.D. for additional discussion on this topic). While NOAA Fisheries considers the proposed documentation and qualification scheme to be both practical and just, and one that will result in less traps fished in the areas, NOAA can not state with certainty the exact number of permit holders who will qualify or the number of traps these individuals would fish if unregulated. Accordingly, NOAA Fisheries established a maximum trap limit as a safeguard against trap proliferation. NOAA Fisheries believes the removal of existing trap limits in Areas 4 and 5 (800 lobster traps per vessel under current Federal Regulations), without implementation of an alternative trap limit, could result in excessive lobster fishing mortality and obviate the expected managerial benefit of knowing the maximum projected effort in the area. A maximum trap limit in Areas 4 and 5 of 1,440 lobster traps per vessel was selected utilizing data provided by the State of New Jersey that indicated the majority of participants fished less than 1,440 traps (32 of 46 Federal permit holders that responded to the New Jersey survey of it's lobster industry). In addition, the 1,440 trap limit corresponds proportionately to the relationship between the existing fixed trap limits (800 traps for Areas 4 and 5, and 1,800 traps for Area 3) and the LCMA 3 maximum trap limit proposed by the Area 3 LCMT in Addendum I and the DSEIS for this action.

The implementation of a trap limit is also consistent with the measure for controlling lobster trap fishing effort on the basis of historical participation proposed for Area 3. A trap limit not to exceed 1,440 lobster traps was initially analyzed as a non-preferred alternative in the DSEIS. In accordance with Commission recommendations, NOAA Fisheries will not implement a trap

reduction requirement once the initial trap allocations have been determined for qualified participants in the Areas 4 and 5 trap fisheries.

5. Area 4 and/or 5 - Initial Qualification and Trap Allotment Process

After an analysis of landings, vessel trip report records, and permit histories, NOAA Fisheries intends to notify permit holders by letter of information NOAA Fisheries has regarding one or more of the criteria specified below. That is, if NOAA Fisheries has its own clear and convincing documentation relating to an element of a vessel's historical participation, the agency may in its discretion relieve the potential applicant of the need to document that element in its initial notice. However, NOAA Fisheries will not automatically issue any pre-qualification permits, and any person or entity wishing to receive a historical participation allocation to fish with traps in Areas 3, 4, and/or 5, must submit an application and furnish the appropriate documentation necessary to demonstrate eligibility as outlined in this subsection.

Potential qualifiers must provide credible documentation as proof of each of the two qualifying elements described in subpart 2(i-ii) or subpart 3(i-ii) above. At the same time, the potential qualifiers must also credibly document the number of traps fished at any one time in Area 4 or 5 during the qualifying year. This documentation will be limited to that which follows:

i. As proof of a Federal limited access lobster permit, NOAA Fisheries will accept a copy of the current Federal permit. The potential qualifier could, in lieu of providing a copy, provide NOAA Fisheries with such data that would allow NOAA Fisheries to identify the current permitee in its data base, which would at a minimum include: the applicant's name and address; vessel name; and permit number.

ii. As proof of setting, soaking, hauling, and re-setting of 200 lobster traps in Area 4 or Area 5 during a two consecutive calendar month period during the qualifying year, NOAA Fisheries will accept – to the extent that the document establishes this criterion – copies of Federal Port Agent Vessel Interview forms (NOAA Form 88-30), Federal vessel interview forms (NOAA Form 88-30), Federal sea sampling observer or a Federal Fishing Vessel and Gear Damage Compensation Fund Report (NOAA Form 88-176); personal vessel logbooks; state permit applications; official state reporting documentation showing the number of traps fished, including, but not limited to, state report cards, state vessel interview forms, license application forms, state sea sampling observer reports, and catch reports. These documents must have been created on or about the time of the activity stated in the document (e.g. NOAA Fisheries will not accept recent vessel log book entries or recent copies of other documents identified in this part as proof of fishing activity that occurred years prior)

iii. As proof of the number of traps fished during the qualifying year, NOAA Fisheries will accept – to the extent that the document establishes this criterion –

copies of Federal Fishing Vessel Trip Reports (NOAA Form 88-30); personal vessel logbooks; state and Federal permit applications; official state reporting documentation showing the number of traps fished, including, but not limited to, state report cards, state vessel interview forms, license application forms, and catch reports; tax returns and sales receipts; and an approved Federal Fishing Vessel and Gear Damage Compensation Fund Report (NOAA Form 88-176). These documents must have been created on or about the time of the activity stated in the document (e.g. NOAA Fisheries will not accept recent vessel log book entries or recent copies of other documents identified in this part as proof of fishing activity that occurred years prior)

iv. NOAA Fisheries will also require a notarized Affidavit from each potential qualifier. In this Affidavit, the applicant shall swear under the penalties of perjury that he or she meets each of the two qualifying criteria, that he or she fished the number of traps alleged during the qualifying year and that the submitted supporting documentation is truthful, accurate and created contemporaneously with the dates identified in the documentation.

As a general note, if 1991 is chosen by the permit holder as the qualifying year, documentation should reflect relevant activity occurring only during the part of the 1991 calendar year that falls within the qualification period (March 25, 1991, through December 31, 1991). If the permit holder chooses 1999 as the qualifying year, the documentation submitted in response to the qualification criteria must reflect relevant fishing activity during the period of the 1999 calendar year that falls within the qualifying period (January 1, 1999, through September 1, 1999). If any other calendar year within the qualification period is chosen, documentation submitted with respect to the qualification criteria may reflect relevant activity during any portion of that calendar year.

Finally, NOAA Fisheries anticipates that the submitted documentation will vary in form, content and legibility. However, this documentation must be dated, created on or about the date of the activity described in the document, and must be clearly attributable to the qualifying vessel. A clear relationship may include a vessel name, state or Federal permit number, Coast Guard documentation number, or the name of the owner of the vessel at the time being used as the qualification period. NOAA Fisheries will require that each potential qualifier explain his or her proof in a cover letter to be included along with the be above listed documents. Illegible documents will not be considered by NOAA Fisheries. Further, submission of falsified information would subject the applicant both to general sanction, including revocation of his or her federal lobster permit as well as to prosecution under the applicable law.

6. Area 3/4/5 - Qualifying for More than One Lobster Management Area

Any Federal lobster permit holder applying for access to more than one of the 3 areas (Areas 3, 4, or 5) must use the same qualifying year for all areas in order to avoid a combined allocation greater than the number of traps that the permit holder ever fished with any one vessel at any one

time during any one year. In addition, the current requirement that Federal permit holders who elect to fish in multiple areas must abide at all times by the most restrictive regulations, including trap allocations, in any one elected area regardless of the area being fished, will remain in effect. The Commission Lobster Management Board, in consultation with the states and LCMTs, is evaluating alternative options to the most restrictive regulations concerning trap allocations for vessels fishing in multiple Areas. However, no recommendation has been made at this time, and there is no clear consensus on a preferable alternative to the current measures in place. NOAA Fisheries may evaluate this issue further in future rulemaking at such time as the Commission reaches a consensus and provides a recommendation to NOAA Fisheries concerning a waiver of the most restrictive trap allocation.

C. Areas 3, 4, and/or 5 Appeals

If NOAA Fisheries denies an Area(s) 3, 4, and/or 5 permit after the potential qualifier undergoes the application process in above Section III.2.A.4. and/or III.2.B.5., that person may appeal the denial to the NOAA Fisheries Regional Administrator. There will only be two grounds for appeal. The first is that NOAA Fisheries erred in concluding that the vessel did not meet the stated criteria for the Area in question. This basis for appeal would provide a mechanism for correcting an improper finding based upon NOAA Fisheries clerical error. Examples of proper appeals on this basis include allegations that NOAA Fisheries' decision was based upon a ministerial or typographical error, or on a mistake in arithmetic. Such appeals do not contemplate the provision of additional corroborating documentation. Nor do they contemplate appealing matters within the discretion or judgment of the NOAA Fisheries decision maker.

The second basis of appeal is that of documentary hardship. In order to appeal on this basis, the appellant must have first applied in the manner set forth in above Section III.2.A.4. and/or III.2.B.5. and been denied because of an inability to document the qualifying criteria. An appellant in such a circumstance must establish two elements: 1) the appellant must document the nature of the hardship; and 2) the appellant must establish the necessary qualification and trap allocation elements by affidavit.

First, as to documenting the nature of the hardship, it is not enough to simply indicate that the applicant no longer possesses the necessary records. The hardship must have been caused by factors beyond the applicant's control. Examples of such would include documents lost in a flood or fire. Such a hardship would need to be corroborated by independent documents, such as by insurance claims forms or police and fire reports. Failure to create the document in the first instance, or simple loss of the document, or the intentional destruction or discarding of the document in the past by the appellant would not constitute grounds for a hardship under this action.

Second, after claiming and documenting hardship beyond his or her control, the appellant would then need to submit to NOAA Fisheries three (potentially four) affidavits. Of this total, the applicant must submit three (3) affidavits from current Federal permit holders that corroborates the applicant's claims that he or she meets the qualification and trap allocation criteria set forth

above for Area 3 in Section III.2.A.4.(i-iv) and/or for Areas 4 and 5 in Sections III.2.B.5.(i-ii). The Federal fishing permit holder need not necessarily be a lobster permit holder, although he or she may be. Each affidavit must clearly specify that the person signing the affidavit had personal knowledge that the applicant fished the area(s) in question during the qualification period and the person signing the affidavit fished the area(s) in question during the qualification period. Further, at least one affidavit must also corroborate the basis for the hardship claimed by the appellant, for example, by a representative of the insurance agency, police, or fire department if the hardship was the result of a flood or fire. The person signing this last affidavit need not be Federal permit holder, although he or she may be if the individual has personal knowledge of the hardship claimed by the applicant. Hence the potential for four (4) affidavits: if none of the three Federal permit holders can also document the hardship, then the appellant could submit a fourth affidavit from a non-permit holder to do so. Additional affidavits beyond that outlined herein are not necessary and will grant the appellant no advantage. In other words, if the three (or four, depending on the circumstances) affidavits establish the required elements, then additional affidavits are superfluous and will be given no extra weight. All affidavits must be signed under the penalties of perjury. As with submissions under the initial qualification process, any person submitting false information, including the permit holders submitting the supporting affidavits, will be subject to general sanction, including revocation of his or her Federal permit and further prosecution under the applicable law.

All appeals must be in writing and must be submitted to the Regional Administrator postmarked no later than 45 days after the date of the Notice of Denial. This 45 day period shall be a hard deadline, although the appellant may, in notifying the Regional Administrator of the appeal within the deadline, request an additional 30 day extension to procure the necessary affidavits and documentation. This 30 day extension shall be added to the initial 45 day period and calculated as extending from the original date of Notice of Denial. In other words, regardless of the date the request (so long as it is in keeping with above stated deadlines), the extension will be granted as extending 75 days from the date of the Notice of Denial.

Upon receipt of a complete written appeal with supporting documentation, the Regional Administrator may issue a Provisional Permit/Letter of Authorization to fish with traps in the area(s) in question under appeal (Areas 3, 4, and/or 5) that is valid for the period during the appeal. This Provisional Permit/Letter of Authorization will be subject to all Federal lobster regulations. While the appeal is pending, the vessel may fish up to 800 lobster traps, unless the vessel's Federal lobster permit is designated only Area 3, or Area 3 and the 2/3 Overlap, for lobster trap fishing, whereby, the vessel may fish up to 1,800 lobster traps in Area 3 only.

The Regional Administrator will appoint an appeals officer who will review the appeal documentation. The appeals officer may, at his or her discretion, contact the appellant with questions concerning the pending appeal. After completing a review of the appeal, the appeals officer will make findings and a recommendation, which shall be advisory only, to the Regional Administrator who shall make the final decision to issue a permit or deny the appeal. The Regional Administrator's decision is the final administrative action of the agency on the application.

If the appeal is finally denied, the Regional Administrator will send a Notice of Final Denial to the vessel owner; the Provisional Permit/Letter of Authorization to fish with traps in the area(s) in question under appeal (Areas 3, 4, and/or 5) will become invalid 5 days after receipt of the Notice of Final Denial, or 15 days after the date it was sent, whichever occurred first.

D. Historic Participation Implementation - Analysis

The above stated qualification process for Areas 3, 4, and/or 5 was the product of considerable deliberation. NOAA Fisheries' challenge was to create a limited access rule in Areas 3, 4, and 5 within the parameters of the Commission's Addendum I historical participation model and consistent with the legal requirements set forth in the Atlantic Coastal Act and other laws. Simply put, NOAA Fisheries' charge was to design a practical process that was flexible enough to qualify permit holders who met the relevant criteria and yet strict enough to keep out those who did not.

Any potential qualification process in the lobster fishery would be complicated by the lack of documentary uniformity in the industry. NOAA Fisheries, early on in this rulemaking process, noted with concern the lack of uniform mandatory reporting in the industry. In fact, the Commission in Addendum I also recognized the need to further evaluate documentary issues and called for the states, in consultation with the LCMTs, to submit a proposal to the Commission's Lobster Management Board on the method of allocating traps in situations where state and Federal (e.g., catch/trip) reports are neither suitable nor available. Unfortunately, although formally recommending that NOAA Fisheries limit access to Areas 3, 4, and 5 based on historical participation in Addendum I, the states have not formally submitted a proposal to the Commission on this ISFMP issue. Nevertheless, a majority of commentators agreed that limiting access to Areas 3, 4, and 5 be based upon the premise of documented historical participation. Accordingly, NOAA Fisheries sought and evaluated public comment relating to documentation concerns, reviewed the documentary and qualification processes in other fisheries, and gave great thought to the issue. On balance, NOAA Fisheries considers the proposed documentation and qualification scheme to be both practical and just, and that it otherwise supports the Commission's lobster management regime, is compatible with Addendum I and is consistent with the applicable laws.

Due to the varying degree to which certain types of documents were historically used throughout the fishery, the proposed action gives the potential qualifier flexibility in document submission. The use of Federal Fishing Vessel Trip Reports to document historical fishing effort (fishing location and number of traps fished) in the lobster fishery will be possible for the majority of Federal lobster permit holders (e.g., those holding other Federal species permits that, unlike lobster permits, require mandatory reporting). A review by NOAA Fisheries indicates that of 3,153 Federal lobster permit holders in 1997, 1,984 (approximately 62 percent) held Federal permits for other fisheries requiring mandatory reporting. The utility of these reports for documenting lobster fishing effort would be further restricted to those permit holders who accurately noted, on the reports, the number of individual lobster traps fished on an area-by-area basis. Similarly, an informal review of the utility of official state reports for determination of

lobster trapping effort concludes that such documents may be relevant only to Connecticut and Massachusetts residents (approximately 34 percent of Federal lobster permit holders).

Use of Federal Fishing Vessel and Gear Damage Compensation Reports (NOAA Form 88-176) will be limited to an unknown number of Federal lobster permit holders who have submitted compensation claims for gear loss under the provisions of the Fishermen's Protective Act (22 U.S.C. 1980 et seq.). Vessel logbooks, receipts from the sale of lobsters or the purchase of lobster traps, observer trip reports, and income tax forms provide other examples of readily available documentation that could be used to help substantiate previous levels of lobster fishing effort (e.g., number of traps). NOAA Fisheries further notes that its Federal Register Notices dated March 25, 1991 and September 1, 1999 put the industry on notice that future access to the lobster fishery could and would be limited to those with proof of historical participation. Given the general legal requirements to retain business records for years, NOAA Fisheries expects that the vast majority of those who should meet the criteria, either knew or should have known to preserve their documents and that they will be able to provide documentation as required under the proposed action.

The proposed qualification scheme is similar but slightly more rigid in its initial review than that which was identified in the DSEIS for this action. Specifically, the proposed scheme requires specific document types as proof, whereas the DSEIS left the proof open-ended by merely stating that certain types of documents "may be" used and leaving it up to the "discretion" of the applicant to choose the most appropriate type. NOAA Fisheries made this change because it believed that the less specific DSEIS language provided insufficient guidance and definition to both the applicant and the NOAA Fisheries' reviewer. For example, under the DSEIS, the submitted documentation could have been, quite literally, anything. Not only would it be difficult for the applicant to understand what he or she needed to do (leaving the applicant to guess about the sufficiency of his or her application) but NOAA Fisheries, in receipt of the various document types, would have had no choice but to grant the application even if doing so would exceed the norms of reason. Further, the less bright-lined approach of the DSEIS created interpretive problems for the NOAA Fisheries' reviewer (e.g.: determining the meaning and weight accorded to a cryptically hand-written scrap of paper), would be inordinately cumbersome to manage, and could potentially lead to disparate results (e.g.: NOAA Fisheries would have difficulty in creating a uniform method review without some standardization in forms). In addition, NOAA Fisheries agreed with the numerous comments it received relating that the vague documentary language in the DSEIS invited fraud and would not cap effort at historical levels.

NOAA Fisheries did, however, consider that some potential qualifiers may be denied access in this more rigid process because they, through no fault of their own, no longer had the documents specifically required under the proposed scheme. To ameliorate the harshness of such an eventuality, NOAA Fisheries considered an appeal on the basis of documentary hardship.

The documentary hardship appeal attempts to soften for some the rigidity of the proposed action's strict documentation scheme, while still maintaining standards that would prevent trap

fishing access to those who have not historically fished in Areas 3, 4, and/or 5. NOAA Fisheries was sensitive to the potential use of fraud as a means to exploit the proposed qualification system. In choosing three affidavits as an appropriate requirement of appellate proof, NOAA Fisheries sought a balance. It was generally believed that requiring merely one or two affidavits would be an insufficient and easily exploitable standard, while requiring five affidavits - the number proposed by one commentator – might make it too difficult for the legitimate appellant from a remote port. For this same reason, NOAA Fisheries broadened the supporting affidavit requirement: whereas it originally considered limiting supporting affidavits to those with Federal Lobster Permits, it now intends to consider affidavits from other Federal permit holders as well. Additionally, NOAA Fisheries believed that obtaining proof and corroboration of the hardship could be easily accomplished by the legitimate appellant, but would be far more difficult to fabricate for an inappropriate appellant. Finally, NOAA Fisheries believes that the use of potential sanction, including loss of a Federal fishing permit, could have a chilling effect on potential fraud, and that effect should be equally applicable to general Federal permit holders as to Federal lobster permit holders. Ultimately, however, human behavior can not be predicted to any degree of scientific exactitude, which is why NOAA Fisheries' approach of using public comment, analysis where possible, common sense and reasoned judgment to the greatest extent practicable is believed to have resulted in a reasonable, just and practical appellate (and qualification) process.

NOAA Fisheries considered but rejected as infeasible other documentary regimes. One comment suggested that an applicant be qualified solely upon provision of five affidavits from other Area 3 qualified fishers. NOAA Fisheries believed this proposal to be too strict for initial qualification. It also created a "catch-22" paradigm in that to qualify, one would first need five permit holders already qualified, which could not happen because nobody would be able to initially qualify. This rejected scheme is also prone to geographical limitations (e.g. potential qualifiers from less prominent, more remote ports might have difficulty procuring the requisite number of signatures) and creates potential issues of qualification by popularity contest, which NOAA Fisheries found troublesome.

Other infeasible schemes considered but rejected included setting a hierarchy of documents (as the Commission proposed). NOAA Fisheries found this scheme too vague and prone to interpretation, particularly since states did not have their anticipated document workshop, which could have provided context and basis for such an approach. NOAA Fisheries found the Commission's suggestion of having outside contractors perform the qualification analysis to be inefficient, impractical and expensive. It could also raise issues of confidentiality. Also qualification by adjudicatory process was considered but excluded. Formal administrative hearings would be costly and burdensome both to the applicant and agency. It would also be time intensive. Further, the benefits in creating such a bureaucracy do not, on balance, outweigh the costs, particularly when compared to the presently proposed process. That is, formal presentation of evidence to an administrative law judge would not necessarily lead to a more accurate result: to the extent discretion is given, disparate results could occur; to the extent no discretion is given, then the need for a judge diminishes.

NOAA Fisheries also considered but rejected as infeasible alternative appellate measures. For example, NOAA Fisheries considered having no appeal, but thought it too harsh, particularly given unpalatable result of denial based upon an easily correctable ministerial error. NOAA Fisheries also considered having an appeal for general hardship. Such grounds, however, were thought to be an exception that potentially engulfed and subverted the rule. That is, NOAA Fisheries believed that it would be interpreted by some as creating appellate grounds for every denial and that it would not lead to qualification based upon true historical participation levels. Additionally, it would 1) be extraordinarily difficult to define, and therefore administrate, such an appeal; 2) create a tremendous burden on the agency; and 3) on balance, appeared to create no more just a system (and perhaps one less just given the tremendous challenge in reaching similar results on similar facts) than that contemplated in the proposed action. An appeal based upon documentary hardship for reasons beyond the applicant's control adds flexibility to the process without undermining the rule's effectiveness. The appellate parameters may have harsh impacts for some -- e.g. for applicants lacking documents due to inadvertence, carelessness or excusable neglect – but inclusion of individuals who would qualify but for reasons beyond their control appears to be a just, logical, and reasonable place to draw such a line.

E. Area 1 Trap Limits for NH Lobster License Holders

Selected Action - Modify Area 1 Trap Limits for NH Lobster License Holders

Under current regulations, Federal lobster permit holders must abide by the stricter of either Federal or state lobster management measures. With this action, NOAA Fisheries will waive this requirement with respect to the number of lobster traps for Federal lobster permit holders who elect to fish in Area 1 and who fish 1,200 traps under a valid New Hampshire full commercial lobster license for Area 1. Specifically, NOAA Fisheries will not make any change in the number of traps allowed to be fished in the Federal waters of Area 1. However, a New Hampshire full commercial lobster licensee fishing aboard a federally permitted vessel will be allowed to fish an additional 400 lobster traps in New Hampshire state waters. The rationale in choosing this alternative is set forth in detail in Section III.2.H. (Environmental Consequences).

Area of Concern - Conservation Equivalency and Clarification of Procedures for Consideration of Conservation Equivalency Measures as They Apply to Federal Lobster Permit Holders

The ISFMP includes a provision which allows state jurisdictions to request approval, from the Commission, of management measures different from selected measures which otherwise would be required to satisfy state compliance with the plan. This approval is contingent upon a determination by the Commission that the alternate measures can be shown to have an equal or greater conservation benefit to the resource. Such alternative management measures are referred to as "conservation equivalent measures." For example, any state may request a change to regulations in waters under its jurisdiction pertaining to the default trap limits specified in the ISFMP. Such requests are reviewed by the Commission's Lobster Technical Committee, which provides its evaluation of the biological merit of such proposals to the Commission's Lobster

Board for subsequent policy review and approval. Upon approval of such measures, the Commission, under the provisions of the Atlantic Coastal Act, may decide to recommend modifications to Federal lobster regulations, as may be deemed necessary, to complement a state's conservation equivalent measures.

The New Hampshire proposal for conservation equivalent trap limits is a case in point. In October 1998, the Commission approved such a proposal from the State of New Hampshire and, as a result, the Commission has requested NOAA Fisheries to modify Federal lobster regulations as described in Section II.2. of this FSEIS. While NOAA Fisheries acknowledges the importance of the conservation equivalency, and the flexibility this provision allows to address unique socio-economic situations in state jurisdictions, complications arise when this results in a divergence between state and Federal regulations affecting operations of fishermen who possess both a state and Federal lobster permit. As in the present case, this will necessitate consideration of complementary regulations in the EEZ through lengthy Federal rulemaking and public comment
procedures. Consequently, continued approval of conservation equivalent proposals under the ISFMP which necessitate complementary Federal rulemaking, if left unchecked, could inadvertently increase the complexity of Federal regulatory involvement and undermine the management of a resource which is harvested predominantly in waters under state jurisdiction.

To address this concern, regulatory action will clarify a procedure by which NOAA Fisheries will consider such recommended conservation equivalent modifications to Federal lobster regulations as they may pertain to the activities of Federal lobster permit holders from the affected state(s). Specifically, NOAA Fisheries will only consider future Commission conservation equivalency recommendations that are formally submitted to the agency in writing by the Commission and that contain the following supporting information: (1) a description of how Federal regulations would be modified; (2) an explanation of how the recommended measure(s) would achieve a level of conservation benefits for the resource equivalent to the applicable Federal regulations; (3) an explanation of how Federal implementation of the conservation equivalent measure(s) would achieve ISFMP objectives, be consistent with the Magnuson-Stevens Act national standards, and be compatible with the effective implementation of the ISFMP; and (4) a detailed analysis of the biological, economic, and social impacts of the recommended conservation equivalent measure(s). After considering a recommendation for conservation equivalent measures and the necessary supporting information, NOAA Fisheries may issue a proposed rule to implement the conservation equivalent measures. After considering public comment, NOAA Fisheries may issue a final rule to implement such measures.

In the DSEIS prepared for this action, NOAA Fisheries expressed general concern that recommendations from the Commission for Federal implementation of conservation equivalent measures may unduly burden the agency, given that there are 15 member states in the Commission and that each state may seek Federal implementation of the conservation equivalent of several different types of measures under the ISFMP. NOAA Fisheries believes that receiving the supporting information and analyses along with a recommendation for Federal implementation of conservation equivalent measures is necessary to enable NOAA Fisheries to

respond to recommendations for Federal rulemaking in a more timely and efficient manner. This cooperative approach to the implementation of conservation equivalent measures would benefit the states, fishermen, and enforcement of fishery regulations by minimizing the time lag between state and Federal implementation of approved conservation equivalent measures and by reducing the time period during which state-only permit holders and Federal permit holders from the same state may be subject to different requirements.

F. Lobster Management Area Boundary Clarification

In Addendum I to Amendment 3 to the American Lobster ISFMP, the Commission revised the boundary lines for three of the LCMAs adjacent to Massachusetts, including Area 1, Area 2, and the Outer Cape Area, to bring the area boundaries more in line with traditional fishing practices in those areas and to correct an oversight in the specification of an Area 1 boundary line in Amendment 3 to the ISFMP.

Selected Action - Revised Boundary Description for Area 1, Area 2, and the Outer Cape Area

With this action, NOAA Fisheries will implement compatible boundary lines for Area 1, Area 2, and the Outer Cape Area to maintain consistency with the Commission's American lobster ISFMP and to avoid confusion if the Federal and Commission area boundaries and their associated lobster management measures differ. The revised coordinates for Federal Lobster Management Areas are described further on in this section. See the Appendix for a copy of a chart showing the affected American lobster management areas.

Cape Cod Canal Overlap

The Cape Cod Canal (Canal) cuts through the Cape Cod peninsula in Massachusetts and connects the waters of Cape Cod Bay to the north (within Area 1) with the waters of Buzzards Bay to the south (within Area 2). The Canal is large enough at certain points to allow the setting of lobster trap gear, and lobster fishermen from both Areas 1 and 2 have historically set trap gear in the Canal.

To allow fishermen in the adjacent areas of Area 1 and Area 2 to maintain their historical ability to fish in the Canal, the Cape Cod Canal will be considered an area of overlap between Areas 1 and 2. To establish this overlap area, the existing boundaries of both Area 1 and Area 2 will be modified to encompass the Cape Cod Canal.

Outer Cape Lobster Management Area's Northern Boundary

The boundary line coordinates in Amendment 3 to the ISFMP separating the Outer Cape Area from Area 1 did not extend to the shoreline of Massachusetts and, therefore, did not effectively separate these management areas. To correct this situation, under Addendum I to Amendment 3

to the ISFMP, the coordinates for the boundary line separating Area 1 and the northern boundary of the Outer Cape Area were revised and extended around the western tip of Cape Cod. This revision effectively extended the boundary line to the shoreline of Massachusetts and created an area of overlap between Area 1 and the Outer Cape Area in the area adjacent to Provincetown, Massachusetts.

With this action, NOAA Fisheries will revise the existing boundary line coordinates as follows: **Northern Boundary:** Following the LORAN C 9960-Y-44120 line to the intersection with the 9960-W-13850 line (42/04.25' N. lat., 70/17.22' W. long.), then following that line in a southeasterly direction to the intersection with the 9960-Y-44110 line (42°02.84' N. lat., 70°16.1! W. long.), then following that line in an easterly direction to Race Point (42°03.35' N. lat., 70°14.2! W. long.) in the town of Provincetown, MA.

Overlap Zone Boundary: Beginning at Race Point, MA (42°03.35' N. lat., 70°14.2! W. long.) following the LORAN C 9960-Y-44110 in a westerly direction to its intersection with 9960-W-13850 line (42°02.84' N. lat., 70°16.1! W. long.), then following that line in a southeasterly direction to its intersection with a 9960-X-25330 line (41°52! N. lat., 70°07.49! W. long.), then following that line in a northeasterly direction to where it meets the shoreline of Great Island in the town of Wellfleet, MA (41°54.46! N. lat., 70°03.99! W. long.), then following the shoreline in a northerly direction back to the beginning.

When the coordinates for the recommended revision to the Overlap Zone boundary between Area 1 and the Outer Cape Area were plotted, there was a discrepancy in the information provided in Addendum I. The chart included in the Addendum does not agree with the associated LORAN C coordinates. The chart in Addendum I indicates that the area of overlap extends to a point northeast of and beyond Race Point, MA, continuing around the tip of Cape Cod, while the coordinates denote an overlap area beginning at Race Point, MA. NOAA Fisheries developed the coordinates in this section based on consultation with the Commonwealth of Massachusetts and the Commission, and utilized the coordinates in Addendum I, i.e., not based upon the graphics (chart) depicted in Addendum I.

Revised Coordinates for EEZ Nearshore Management Area 1

EEZ Nearshore Management Area 1 is defined by the area including state and Federal waters that are nearshore in the Gulf of Maine. With this action, NOAA Fisheries will re-define Area 1 to be the area bounded by straight lines connecting the following points, in the order stated, and the coastline of Maine, New Hampshire, and Massachusetts to the northernmost point of Cape Cod:

Point	Latitude	Longitude
A	43°58! N.	67°22! W.
B	43°41! N.	68°00! W.
C	43°12! N.	69°00! W.
D	42°49! N.	69°40! W.
E	42°15.5' N.	70°40! W.

F	42/10' N.	69/56'W.
G	42°05.5' N.	70°14! W.
G1	42°04.25' N.	70°17.22! W.
G2	42°02.84' N.	70°16.1! W.
G3	42°03.35' N.	70°14.2! W.

From point "G3" along the coastline of Massachusetts, including the southwestern end of the Cape Cod Canal, continuing along the coastlines of Massachusetts, New Hampshire, Maine, and the seaward EEZ boundary back to Point A.

Boundary Change Between Area 2 and The Outer Cape Management Area

In Addendum I, the Commission revised the boundary separating Area 2 and the Outer Cape Area, which runs from the southeastern tip of Cape Cod to Nantucket Island, by shifting it west by 5 minutes of longitude, from 70/ W. Long. to 70/ 05' W. Long.

Revised Coordinates for EEZ Nearshore Management Area 2

EEZ Nearshore Management Area 2 is defined by the area, including state and Federal waters that are nearshore in Southern New England, bounded by straight lines connecting the following points, in the order stated:

Point	Latitude	Longitude
H	41°40! N.	70°05! W.
I	41°15! N.	70°05! W.
J	41°21.5! N.	69°16.5! W.
K	41°10! N.	69°06.5! W.
L	40°55! N.	68°54! W.
M	40°27.5! N.	71°14! W.
N	40°45.5' N.	71°34! W.
O	41°07! N.	71°43! W.
P	41°06.5! N.	71°47! W.
Q	41°11.5' N.	71°47.25! W.
R	41°18.5! N.	71°54.5! W.

From point "R" along the maritime boundary between Connecticut and Rhode Island to the coastal Connecticut/Rhode Island boundary and then back to point "H" along the Rhode Island and Massachusetts coast, including the northeastern end of the Cape Cod Canal.

Revised Coordinates for EEZ Nearshore Outer Cape Lobster Management Area

EEZ Nearshore Outer Cape Lobster Management Area is defined by the area, including state and Federal waters off Cape Cod, bounded by straight lines connecting the following points, in the order stated:

Point	Latitude	Longitude
F	42°10! N.	69°56! W.
G	42°05.5! N.	70°14! W.

G1	42°04.25! N.	70°17.22! W.
G2	42°02.84! N.	70°16.1! W.
G4	41°52! N.	70°07.49! W.
G5	41°54.46! N.	70°03.99! W.

From Point "G5" along the outer Cape Cod coast to Point "H"

H	41°40! N.	70°05! W.
H1	41/18' N.	70/05' W.

From Point "H1" along the eastern coast of Nantucket Island, MA to Point "I"

I	41°15! N.	70°00! W.
J	41°21.5! N.	69°16! W.

From Point "J" back to Point "F".

G. Clarification of Lobster Trap Tag Requirements

As part of this regulatory action, NOAA Fisheries includes a technical amendment to the regulations clarifying that Federal lobster permit holders must attach federally approved lobster trap tags to all lobster traps fished in any portion of any management area (whether in state or Federal waters). This requirement is not new, but was not as clearly specified in the regulatory text as it could have been. This amendment will clarify a tagging requirement that was previously specified by reading several sections in combination, including regulations found under 50 CFR 697.7 and 50 CFR 697.19. This technical amendment is intended to make the regulations easier to understand.

H. Environmental Consequences of Selected Actions

Effects on Lobster of the Selected Actions

Area 3 Trap Limits Based on Historical Participation

The lack of a mandatory data reporting requirement for Federal lobster permit holders complicated the analysis for this action. The data available is less than optimal, and will likely remain that way until the qualification process has been completed and the universe of vessels and their historic participation trap allocations has been finalized. Regardless, the current process used the best available information and it is NOAA Fisheries' best estimate that trap reductions are likely under the selected actions and that an appropriate reduction in fishing effort will be realized when these measures are implemented. As further discussed in this section, the premise is that this approach would result in fewer traps being fished in areas 3, 4, and 5, as compared to open access to all LCMAs by Federal lobster permit holders under an existing status quo fixed trap limit of 1,800 traps per vessel in LCMA 3 and 800 traps per vessel in LCMA 4 and LCMA 5. Based on available data, under this proposed action, the initial total fishing effort by LCMA 3 vessels would be reduced and capped at approximately 105,821 traps, decreasing to 96,419 traps after a four-year reduction period (see Table III.2.).

Due to limited 'area specific' fishing information available from existing NOAA Fisheries data,

and in an effort to fully analyze the environmental impacts of these proposed measures, NOAA Fisheries utilized data and information from state and LCMT 3 sources. This analysis made use of NOAA Fisheries data, including dealer landing records, and Vessel Trip Reports for those Federal lobster permit holders that possessed other Federal fishery permits that required mandatory reporting. This analysis also utilized information provided by LCMT 3 to the Commission's Lobster Technical Committee for evaluation of the LCMA 3 plan, that included information on the number of vessels (and the number of traps fished per vessel) that LCMT 3 estimated would qualify under the proposed LCMA 3 plan for historic participation in LCMA 3. In addition, this analysis utilized data on the number of vessels, and data on the number of traps fished per vessel, for lobster fishermen residing in New Jersey.

The management of trap fishing effort on the basis of historical participation was proposed by the associated LCMTs as a means to freeze, and in Area 3 to reduce, current levels of trap fishing effort on American lobster, contributing to decreased lobster fishing mortality in partial fulfillment of the ISFMP goal to end overfishing and rebuild American lobster stocks.

Although the specific number of fishermen who will ultimately qualify to fish in LCMA 3 can not be precisely determined until the implementation of the proposed LCMA 3 qualification procedures, the LCMT believe that under their plan only 64 of approximately 3,400 Federal lobster permit holders would qualify to participate in the LCMA 3 fishery, and that qualifying vessels fish the number of estimated traps shown in Table III.2. If the number of qualifying vessels exceeds 64, or if the proportion of vessels fishing at the higher trap categories (noted in Table III.2.) increases, then the magnitude in trap reductions would need to be recalculated and regulated through subsequent addenda as part of the ongoing adaptive management component built into Amendment 3. A review of the LCMA 3 plan by the Commission's Lobster Technical Committee concluded that the plan could result in a 20% reduction in the number of traps per vessel and an approximate 35% reduction in the number of total traps fished, compared to 1991-1993 estimated fishing effort in LCMA 3 (Table III.2. and Figure III.2.). The 1991-1993 time frame is the last period for which lobster permit information on estimated total numbers of traps fished by Federal permit holders is available to NOAA Fisheries. The extent to which total trapping effort has increased since 1991-1993 would reduce the projected reduction in number of traps being currently fished in Area 3 by some proportional, but variable factor. On the basis of more recent information for 1997 voluntarily provided by the Area 3 LCMT, projected trapping effort in year 4 would represent an approximate 5% overall reduction in the number of traps/vessel fished in LCMA 3, in comparison to a 20% reduction with respect to 1991-1993 figures (Table III.2. and Figure III.2.). Approval of the plan by the Commission's Lobster Technical Committee was tempered by concerns regarding whether or not more than 64 vessels have historically participated in the LCMA 3 fishery, thereby reducing the projected trap reductions; and the degree to which trap reductions may lead to increased harvesting efficiencies, thereby diminishing benefits to the resource. But there would remain a benefit in defining the universe of effort, and again, if necessary (and the best available information suggests that it will not be) NOAA Fisheries can recalibrate conservation measures through ongoing adaptive management.

Although the exact number of traps employed in the Area 3 fishery is unknown – the selected action, if nothing else, would be a significant advance in remedying this problem – NOAA Fisheries best estimate (NOAA Fisheries 1999) suggests that 297 vessels may be currently involved in the offshore lobster fishery, fishing an average of 1,321 traps per vessel, resulting in a total of 392,337 traps. Under current Federal regulations, Federal lobster permit holders may elect to fish in any LCMA, but must abide by the most restrictive measures in effect for any LCMA elected. For comparison purposes, approximately 22% (610) of year 2000 Federal lobster permit holders elected LCMA 3 as at least one of the lobster fishing areas where they intend to fish (Table III.3.). Of the 610, only 29 chose Area 3 only. So, it is possible that some fishers include Area 3 on their permit even though they do not fish there. Regardless, key to the LCMT is that prior to this proposed action, they all could fish in Area 3 and a great many do so. In any event, if each permit holder that chose to fish in LCMA 3 in 2000 does fish there with the maximum number of traps allowed per vessel, then the current pre-proposed action fishing effort level would be 517,000 traps in LCMA 3. Thus, the total number of traps fished under the proposed action (96,419 traps at the end of the 4 year trap reduction schedule) could be 81% fewer traps than the maximum possible current effort (517,000) and 25% fewer traps than NOAA Fisheries' best estimate of the current effort (392,337).

Table III.2. Trap Limits by Year under Addendum I Proposed LCMA 3 Plan - Historical Participation

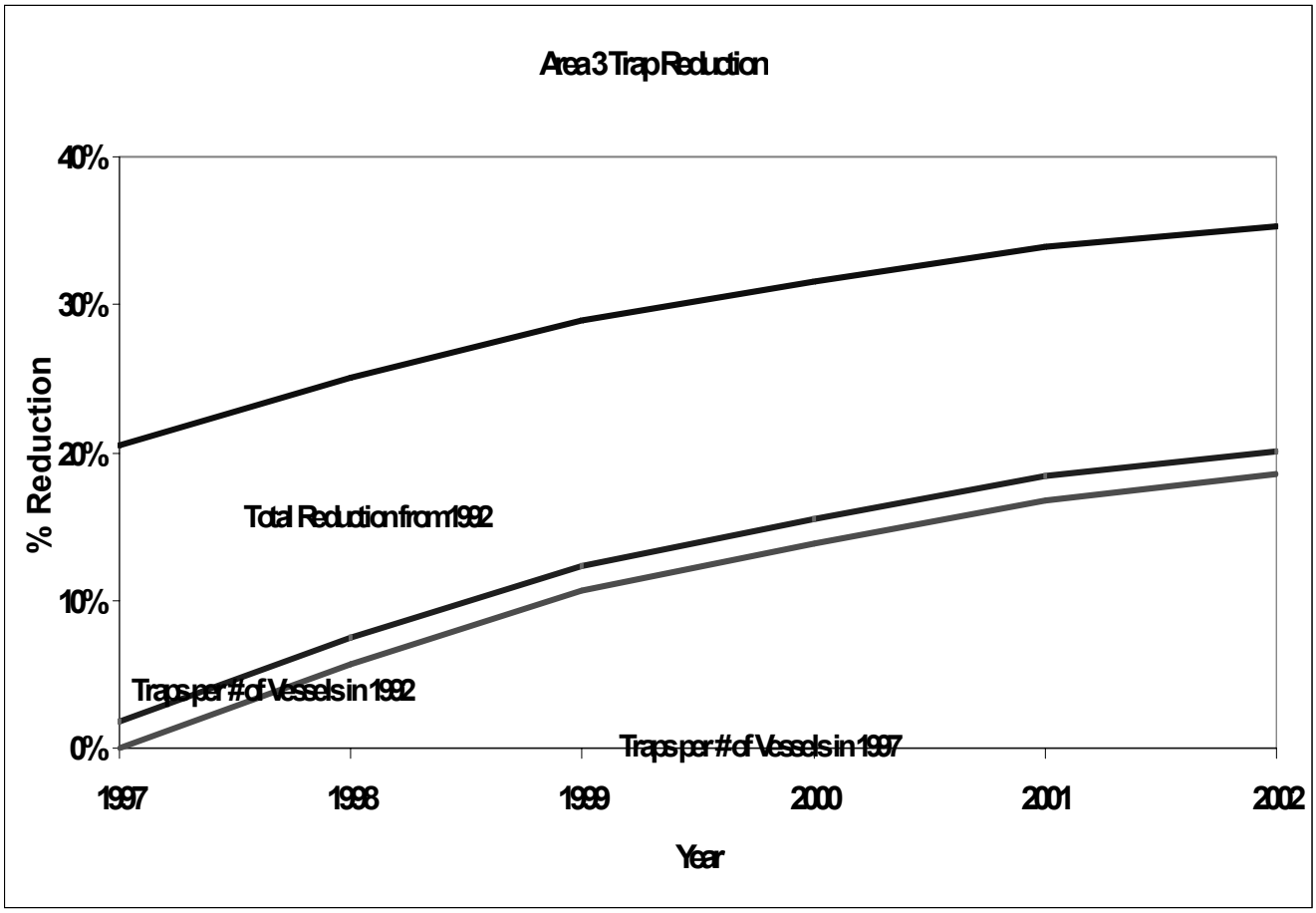
Trap Category	Boats in 1997	Percentage in Trap Category	Cumulative Percentage in Trap Category	Reduction Year1	Year2	Year34	Year4
850	1	2%	2%	850	850	850	850
900	1	2%	3%	900	900	900	900
1000	5	8%	11%	1000	1000	1000	1000
1200	3	5%	16%	1200	1200	1200	1200
1400	1	2%	17%	1290	1251	1213	1200
1500	13	20%	38%	1379	1337	1297	1276
1600	3	5%	42%	1467	1423	1380	1352
1800	7	11%	53%	1628	1573	1523	1492
1900	6	9%	63%	1705	1644	1589	1554
2000	8	13%	75%	1782	1715	1654	1616
2300	1	2%	77%	2003	1915	1836	1789
2400	3	5%	81%	2076	1981	1896	1845
2500	4	6%	88%	2147	2044	1952	1897
2700	3	5%	92%	2288	2169	2063	2000
2800	2	3%	95%	2357	2230	2117	2050
2900	1	2%	97%	2425	2291	2171	2100
3000	1	2%	98%	2493	2351	2225	2150
3250	1	2%	100%	2656	2493	2351	2267
Totals	64			105821	101982	98493	96419
# / boat				1653	1593	1539	1507
1992 # / boat	1885			88%	85%	82%	80%
1992 # of traps	148900			71%	68%	66%	65%

Table III.3. Lobster Conservation Management Fishing Areas (LCMAs) Elected by Federal Lobster Permit Holders for the 2000/2001 Fishing Year as of June 22, 2000*

LCMA	Number of Elections
Area 1	1,538
Area 2	447
Area 3	610
Area 2/3 Overlap	400
Area 4	179
Area 5	108
Area 6	45
Outer Cape Cod	146

*2,759 individual permits issued. Permit holders can elect to fish in more than one LCMA.

Figure III.2. Analysis of LCMA 3 Trap Reduction Plan



The above analysis, however, does not incorporate the consideration of additional reductions in the fixed trap limit, which are hypothetical and which may or may not occur, under existing Federal regulations. These current regulations, under 50 CFR 697, provide for implementation annually, of additional and/or different management measures for Federal waters if it is determined such measures are necessary, e.g., to achieve or be compatible with ISFMP objectives or to meet overfishing and stock rebuilding requirements. These management measures may include, but are not limited to, continued reductions of fishing effort or numbers of traps, increases in minimum size or decreases in maximum size, increases in the escape vent size, closed areas, closed seasons, landing limits, trip limits, and other potential area-specific measures. Quite simply, the proposed action neither prohibits nor requires such adaptive management measures.

Debates concerning trap limits have been acknowledged elsewhere (e.g., NOAA Fisheries 1999). In this regard, NOAA Fisheries acknowledges that the conservation benefits of trap limits and trap reductions, while obvious in a general sense, are difficult to specifically quantify with scientific precision due to such factors as gear efficiency and saturation, and changes in fishing practices. Nevertheless, based on information available at this time, NOAA Fisheries believes on balance that the proposed action provides for a structured, equitable approach to define, quantify and limit effort, as well as decrease lobster fishing mortality in the offshore EEZ. NOAA Fisheries believes that the selected action will result in decreased lobster mortality levels, which, when combined with other management measures present and anticipated, will significantly augment the overall effectiveness of the management regime in achieving ISFMP objectives to end overfishing and rebuild stocks of American lobster.

Areas 4 and 5 Trap Limits Based on Historical Participation

The impacts of implementing historical participation in LCMA 4 and LCMA 5 are also difficult to quantify. Geographical constraints are believed to limit the majority of Federal permit holders fishing in LCMA 4 to ports in the neighboring states of New York and New Jersey, and those fishing in LCMA 5 to ports in New Jersey south to North Carolina. This information is presented in Table III.4.

Table III.4. Number of Vessels by Primary Port State (New York and South) Holding Federal Lobster Permits (Fishing Year 2000/2001)

State	NY	NJ	DE	MD	VA	NC	TOTAL
Trap Gear	80	122	13	13	8	6	242
Non-Trap Gear	74	69	0	3	43	32	221

On the basis of this information, NOAA Fisheries estimates that approximately 202 and 162 Federal permit holders could be expected to participate in the LCMA 4 and 5 lobster trap fishery, respectively. These numbers represent an outer limit or maximum value. As expected, the actual

figures are less -- 179 and 108 for LCMA 4 and LCMA 5, respectively to which lobster permit holders have elected lobster fishing areas during the 2000/2001 fishing year (Table III.3.). Under current Federal regulations, Federal lobster permit holders may elect to fish in any LCMA and can change that designation every year when they renew their permit. These figures can fluctuate annually as additional permit holders decide to renew their current year lobster permits. The difference is believed to be due, in part, to a decision by some permit holders to fish entirely in the offshore EEZ waters of Area 3, where they can fish 1,800 vs. 800 lobster traps.

Using both sets of data, in the extreme case scenario, assuming that lobster permit holders fished up to the allowable maximum of 800 traps and restricted their fishing operations to these LCMAs under existing Federal regulations, the respective total number of traps fished could range from 143,200 traps to 161,600 traps in LCMA 4 (179-202 permit holders) and from 86,400 traps to 129,600 traps in LCMA 5 (108-162 permit holders).

Subsequent to adoption of Addendum I to Amendment 3 of the ISFMP, the states of New York and New Jersey canvassed state lobster permit holders in efforts to develop trap allocations in LCMA 4 and LCMA 5 on the basis of historical participation. New Jersey has provided the results of its survey to NOAA Fisheries indicating that 96 of 191 individuals who possess both a New Jersey resident lobster (pot) license and Federal lobster permit responded. The number of traps fished in Area 4 ranged from 0 to 2,500 traps, with an average fishing effort of 1,123 traps per vessel for respondents to the New Jersey survey that specifically provided data for traps fished in Area 4. Similarly, the number of traps fished in Area 5 ranged from 0 to 1,400 traps, with an average fishing effort of 639 traps per vessel for respondents to the New Jersey survey that specifically provided data for traps fished in Area 5. On the basis of information from the New Jersey survey, the implementation of an effort control program restricting numbers of traps fished to levels based on historical participation for LCMA 4 and LCMA 5 combined of 75,325 traps (56,170 traps reported as historically fished in LCMA 4, and 19,155 traps reported as historically fished in LCMA 5), assuming that all of the 96 respondents meet the proposed qualification criteria outlined in Section III.2.B.5. of this FSEIS, results in about the same number of traps currently allowed (76,800 traps) if each permit holder fished up to the maximum trap limit (800 traps) under existing Federal regulations. Assuming also that those dual state and Federal permit holders (approximately 50%) who did not respond to the New Jersey survey do not actively fish lobster traps, the selected action, which would exclude those individuals from the lobster trap fishery, will furthermore prevent a potential escalation of future trap fishing effort and associated lobster fishing mortality in these management areas.

The Commission Lobster Technical Committee, in its review of the respective historical participation proposals, concluded that implementation of the historical participation plans, by themselves, would not achieve the lobster management goals of the ISFMP. Rather, achievement of ISFMP objectives to end overfishing and rebuild stocks of American lobster is contingent upon the additional implementation of LCMT plan elements including potential regulations such as, but not limited to, an increase in the lobster minimum size (LCMA 3, 4 and 5), and the implementation of a maximum size limit in LCMA 4 and LCMA 5. The Commission has moved forward to address other ISFMP objectives with the development of Addendum II and Addendum

III to Amendment 3 of the ISFMP. Therefore, implementation of historical participation is not a stand-alone management action, but will build upon the groundwork begun with Amendment 3, and is continuing with Addenda II and III. See II.1.C. for additional information on Addenda II and III.

The Lobster Technical Committee furthermore cautioned that LCMA proposals were evaluated as autonomous areas, without considering the diminishing effects of combining inconsistent and/or incompatible measures that have been proposed by the LCMTs for adjacent areas, particularly within a given stock assessment area. These effects may reduce the projected egg production values of the lobster stock when the effectiveness of these measures to rebuild American lobster stocks is reassessed by the Lobster Technical Committee. In addition, any disparity in regulations among areas will likely create problems for enforcement, and may antagonize harvesters in different areas, and complicate the ability to scientifically assess impacts of the associated management measures. NOAA Fisheries believes, however, that the issues raised by the caution are inherent qualities, even if limitations, of the area management regime created by the Commission in Amendment 3. On balance, the benefits of area management were envisioned to outweigh the problems created by it. Certainly NOAA Fisheries is cognizant of the theoretical deficiencies created by area interplay, which is, again, a reason supportive of the present action. That is, the proposed action will allow managers to quantify effort -- heretofore a great variable -- in Areas 3, 4 and 5. As such, with more known quantities and less variability, managers will be able to better understand and analyze the efficacy and impacts of a measure in one area as it relates to another area.

Modification of LCMA 1 Trap Limits for New Hampshire Lobster License Holders with Federal Lobster Permits

New Hampshire implemented its two-tier commercial lobster license system on the basis that it, potentially, would result in 18,000 fewer traps in the water in comparison to a uniform 800 trap limit for fishermen licensed to harvest lobster by the State of New Hampshire. The Lobster Technical Committee, in reviewing the state's associated proposal for conservation equivalency, concluded that, in the absence of information on the actual numbers of traps actively fished by New Hampshire lobstermen, it was not possible to quantify whether the proposal would meet the conservation equivalency of a fixed 800 trap limit. The Lobster Technical Committee's analysis, however, noted that New Hampshire's two-tier licensing system incorporated a moratorium on new entrants into the "full license" category and established a ceiling for expansion of fishing effort by limited license holders at a level of 600 traps, which is more conservative than the 800 trap limit required by the ISFMP.

Current Federal regulations for LCMA 1 limit the fishing operations of Federal lobster permit holders to a maximum of 800 traps, unless otherwise regulated by more restrictive state regulations. New Hampshire information suggests that 48 individuals hold both a Federal lobster permit and a state lobster license and fish traps in both state and Federal waters. The selected action will allow 22 of these fishermen to use 400 additional traps over the Federal limit, as long as no more than 800 traps are fished in Federal waters. This, if taken alone, would result in a

potential increase of 8,800 traps being fished in LCMA 1. , However, the remaining 26 permit holders are limited to a maximum of 600 traps under state regulations (New Hampshire Fish and Game Department, personal communications), which potentially results in 5,200 fewer traps than would otherwise be allowed under a cap limit of 800 traps. Thus, the result of the selected action, if only based on activities of individuals holding both a Federal permit and state license, would be a net increase of 3,600 traps being fished in LCMA 1 by New Hampshire lobstermen. However, this increase is more than counter-balanced by data provided by the State of New Hampshire, which indicate that additional state permitted fishers who lack a Federal lobster fishing permit would be restricted to 600 instead of 800 traps otherwise allowed under the ISFMP. Therefore, implementation of the state's proposal for conservation equivalency, when incorporating fishing operations of all lobstermen fishing in state and Federal waters, would result in approximately 18,000 fewer traps in LCMA 1 (as reviewed by the Lobster Technical Committee) compared to what would otherwise be potentially fished under the current fixed limit of 800 traps.

NOAA Fisheries agrees with the findings of the Lobster Technical Committee that, without the ability to know specific numbers of traps employed by New Hampshire lobstermen within the established trap limits, it is difficult to translate the state's two-tier licensing system into specific conservation equivalent figures for easy comparison to a fixed 800 trap limit. Furthermore, it is similarly difficult to quantify the biological benefits that a reduction of 18,000 traps, if accomplished, would afford toward ISFMP objectives to end overfishing and rebuild stocks of American lobster. NOAA Fisheries has previously acknowledged, in the Final Environmental Impact Statement (FEIS) published in 1999 (64 FR 29026), that conservation benefits of trap reductions are difficult to quantify, due to such factors as gear efficiency and saturation, and changes in fishing practices. However, capping and potential reduction of fishing effort is an important step in reducing lobster fishing mortality at some threshold level, which when combined with other management measures, should increase the effectiveness of those measures in achieving ISFMP objectives. More to the point, improving on what would be the status quo, while preferable and in fact likely to some unknown degree here, is not the criterion. The objective in conservation equivalency is to be, at least, equivalent. The Commission's Lobster Management Board voted and approved it as such. NOAA Fisheries best available science concurs.

Effects on the Environment of the Selected Actions

The limitation of lobster trap fishing to historical participants in LCMA 3 and the subsequent reduction in number of traps fished over a four-year period is anticipated to result in a reduction of approximately 5% in the number of traps currently being fished per vessel in the absence of management measures based on historical participation. As explained in Section III.2.H., on the basis of more recent information for 1997 voluntarily provided by the Area 3 LCMT, projected trapping effort in year 4 of the trap reduction program would represent an approximate 5% overall reduction in the number of traps/vessel currently being fished in LCMA 3, in comparison to a projected 20% reduction compared to 1991-1993 data on traps fished per vessel as further described in Table III.2. and Figure III.2. Similarly, for LCMA 4 and LCMA 5, the selected action, on the basis of information from the New Jersey survey made available to NOAA

Fisheries, is anticipated to result in a reduction in the number of lobster traps fished in these management areas ranging from 2% if the 96 respondents fish their reported historic trap levels of 75,325 traps (compared to the current maximum trap limit of 800 traps) up to a 51% reduction if all 191 Federal participants in the New Jersey survey fished the maximum of 800 traps as currently allowed. The potential for an expansion of fishing effort from inshore to the offshore EEZ, and within nearshore EEZ waters between New York and North Carolina would be reduced -- in fact, NOAA Fisheries expects effort to contract within these waters -- thereby reducing habitat effects of lobster traps, reducing conflicts with mobile gear, and reducing the prevalence of "ghost gear" which is often the result of user conflicts and/or storms.

These benefits, however, could be offset to some unknown degree by a displacement of fishing effort by lobster fishermen unqualified to fish in LCMAs 3, 4, and 5 to other areas. Although potential displacement is unknown, being in large part dependant on the displaced fisher's state of mind, it is not expected to be significant. Geographical considerations – ports at the southern end of Areas 4 and in Area 5 – significantly limit a vessel's ability to transfer effort into other Lobster Conservation Management Areas. States adjacent to Areas 4 and 5 will similarly limit access based upon their version of the Commission's Addendum 1 historical participation plan. NOAA Fisheries believes that additional displacement into adjacent Federal Areas 1, 2 and the Outer Cape Management Area will be minimal because, apart from geographical limitation, potentially displaced fishers, having been given ample notice, are expected to have already diversified prior to the time the proposed action takes effect. In other words, those that would displace effort into these areas already fish there or that they are already prepared to prosecute other fisheries. Further, the lobster fishery is highly territorial and the ability to move from one completely different area to another is constrained by not only logistical and economic considerations but by local informal social prohibitions against fishing outside one's territory. These types of informal prohibitions have been described by Acheson (1988). Finally, as anticipated by the adaptive management regime in Amendment 3, these other areas are expected to consider future effort reduction measures beyond that at the current status quo (e.g. the Commission in Addendum III has proposed effort reduction based upon a variation of historical participation in the Outer Cape Management Area).

The selected action to modify trap limits for New Hampshire license holders who also possess a Federal lobster permit is part of a conservation equivalency approach approved by the Commission to further limit lobster trap fishing effort in LCMA 1. Based upon data provided by the State of New Hampshire and reviewed by the Lobster Technical Committee, implementation of the state's proposal is anticipated to achieve an 18,000 trap reduction compared to what otherwise would be achieved by a fixed 800 trap limit. This reduction has the potential to, similarly, reduce habitat effects of lobster traps and reduce the prevalence of ghost gear.

The selected measures to correct the boundaries of some lobster management areas is not expected to substantially affect the environment. This is primarily an administrative measure to correct prior omissions and/or to clarify area boundaries. The greatest benefit of this measure is that it may help to facilitate compliance, and to aid in law enforcement activities as necessary.

Effects on ESA Listed Marine Mammals and Sea Turtles of the Selected Actions

The selected measures analyzed in this action are intended to restrict lobster trap fishing effort in the EEZ by limiting the harvest of lobsters in the offshore EEZ (LCMA 3) and nearshore EEZ areas between New York and North Carolina (LCMA 4 and LCMA 5) to historical participants. Qualifying fishers in LCMA 3 will also be subject to trap reductions over the next four years that are expected to further reduce effort in the offshore lobster fishery. As described in the previously published FEIS (64 FR 29026), lobster trap limits are anticipated to have a beneficial effect on cetaceans and sea turtles if they decrease the amount of lobster gear being fished. This benefit could be particularly poignant in Area 3, within which resides the Atlantic Large Whale Take Reduction Plan's Seasonal Area Management East, much of Seasonal Area Management West and the great majority of the Great South Channel Critical Habitat Area. Although there is no way of specifically quantifying the anticipated benefit from reductions in gear, it is generally assumed that there will be fewer protected species-gear interactions with fixed gear if there is less gear in the water.

There is little information on where marine mammals and sea turtles become entangled in lobster gear. Lobster trap gear in offshore waters of LCMA 3 may pose less of a risk to species, such as right whales, that are more commonly found closer to shore. However, when they do occur, offshore entanglements may pose a greater risk to protected species since they are less likely to be observed and, when observed, are more difficult to disentangle due to the logistical difficulties of reaching and relocating them.

One aspect of the selected measures which may offset any benefit to protected species from gear reductions is the potential for effort displacement to other lobster management areas that do not limit participation to historical fishers. The LCMA 3 plan anticipates that only 64 of the 3,400 lobster permit holders will qualify to participate in the LCMA 3 fishery. At the start of the 2000 fishing year, the period used in the DSEIS analysis of this action, 610 Federal lobster permit holders had selected LCMA 3 as at least one of the lobster fishing areas where they intended to fish. Fishers who do not qualify as a historical participant in LCMA 3 could: 1) voluntarily relinquish their permit, 2) sell the permit with their vessel, 3) set their traps in one of the lobster management areas that is not limited to historical participation, 4) fish in LCMA 3 with non-trap gear, or 5) fish for other species. Regardless of the choice made, the overall number of traps is expected to be reduced since trap limits in other areas are lower than LCMA 3. Further, as discussed immediately above in Section III.2.H., displacement is expected to be minimal. Regardless, however, a displacement of effort from LCMA 3 to lobster management areas with unlimited participation could lead to increases in protected species-gear interactions, habitat impacts, and gear conflicts (leading to increases in ghost gear) in those areas. Given that the areas not requiring historical participation are nearshore areas, increased effort in these areas may result in a greater risk of gear interactions for endangered whales and turtles. (For additional discussion of the risk of possible gear interactions and effects of gear interactions on endangered right whales, humpback whales, fin whales, and leatherback turtles, and threatened loggerhead turtles, see the Section 7 Biological Opinion for this action (Consultation Number F/NER/2001/00651)).

For whales, if displacement of effort were to occur, measures implemented under the Atlantic Large Whale Take Reduction Plan (ALWTRP) could help to reduce interactions with endangered whales. The ALWTRP is applicable in both state and Federal waters, and is aimed at reducing the mortality and serious injury of certain marine mammals incidentally taken in commercial fisheries to levels approaching zero. The ALWTRP primarily addresses the threat of commercial fisheries to right whales, but humpback, fin and minke whales could also benefit. The ALWTRP focuses on reducing large whale serious injury and mortality due to entanglement in lobster trap and gillnet gear particularly of right whale entanglements, as well as reducing the risk of entanglement in those gear types. Measures implemented under the ALWTRP include lobster trap and gillnet gear modifications, Seasonal and Dynamic Area Management and continued gear research and modifications. See section IV.3.C. for additional information on these issues. Despite these measures, however, entanglements and mortality continue to occur.

For turtles, if a displacement of effort were to occur, an increase in lobster trap gear is likely and sea turtles may be affected by this action. Leatherback sea turtle entanglements in lobster trap gear are known to occur in New England and northern Mid-Atlantic state. Therefore, it is reasonable to conclude that lobster trap gear poses an entanglement risk for leatherback sea turtles, and that increasing the amount of gear set will increase the risk of entanglement. In addition, there are no existing management measures to help minimize this risk. There are no formal disentanglement programs for leatherback sea turtles entangled in lobster trap gear, and gear modifications (*e.g.*, weak links) intended to reduce serious injuries and mortality to large whales (*e.g.*, right, humpback, fin, and minke) from lobster trap gear are expected to be ineffective for the much smaller leatherback sea turtle. However, recommendations for a formal program for at-sea disentanglement of sea turtles are being considered by NOAA Fisheries pursuant to conservation recommendations issued with several recent section 7 consultations. There is an extensive network of Sea Turtle Stranding and Salvage Network (STSSN) participants along the Atlantic and Gulf of Mexico coasts which not only collects data on dead sea turtles, but also rescues and rehabilitates live stranded turtles. Entangled sea turtles found at sea in recent years have been disentangled by STSSN members, the whale disentanglement team, the USCG, and fishermen. Data collected by the STSSN are used to monitor stranding levels and identify areas where unusual or elevated mortality is occurring. All of the states that participate in the STSSN are collecting tissue for and/or conducting genetic studies to better understand the population dynamics of the small subpopulation of northern nesting loggerheads. These states also tag live turtles when encountered (either via the stranding network through incidental takes or in-water studies). Tagging studies help provide an understanding of sea turtle movements, longevity, and reproductive patterns, all of which contribute to our ability to reach recovery goals for the species. The NOAA Fisheries has also developed specific sea turtle handling and resuscitation techniques for sea turtles that are incidentally caught during scientific research or fishing activities. Persons participating in fishing activities or scientific research are required to take these measures to help prevent mortality of turtles caught in fishing or scientific research gear. Currently the measures are principally developed for hard-shelled turtles and have less applicability for leatherback sea turtles which lack a hard shell. However, activities to benefit sea turtles within the action area do not specifically address the activities that cause take (*e.g.*, the stranding network rehabilitates injured sea turtles but does not reduce the chance that further

interactions will occur). See section IV.3.C. for additional information on these issues.

In response to the jeopardy conclusion, NOAA Fisheries Protected Resources Division developed a Reasonable and Prudent Alternative (RPA) to minimize the overlap of right whales and lobster gear, and to expand gear modifications to Mid-Atlantic waters. These measures include: Seasonal and Dynamic Area Management, and continued gear research and modifications. See Section IV.3.C. for additional information on these issues. Together, these measures are designed to avoid the potential for gear interactions and to minimize adverse effects if interactions with gear occur. In addition, the RPA included measures to help monitor the its effectiveness. These include that if a right whale is killed or seriously injured in lobster trap gear, gear that is identifiable as being approved for use in the lobster fishery, or gear that cannot be identified as being associated with a specific fishery, this will be considered evidence that the measures outlined in the RPA are not demonstrably effective at reducing right whale injuries or death. Also, if the estimated number of right whale entanglements in any gear or scarring in 2002 and subsequent years increases or remains the same as the lowest annual level of the three preceding years (2002 would be compared with the lowest level that occurred in 1999, 2000, and 2001), this would also constitute evidence that the measures outlined in the RPA are not demonstrably effective at reducing right whale injuries or deaths. The number of new observed right whale entanglements for 1999, 2000, and 2001 were six, five, and three, respectively. Scarification analysis is completed on an annual basis after the end of the calendar year. Thus, scarification analysis for 2002 will be completed after the end of the 2002 calendar year.

As discussed in this FSEIS, the impacts of implementing historical participation in LCMA 4 and LCMA 5 are difficult to assess since it is not known how many fishers will qualify, or the number of traps each participant will be qualified to use. Again, one of the anticipated benefits of the proposed action is that it will define the universe of effort within the participating areas, which would thereby ameliorate this problem in future actions. In the absence of more detailed information, NOAA Fisheries used the best available information and estimated how many fishers might qualify as historical participants for LCMAs 4 and/or 5. An estimate of qualified participants was obtained by using available permit data and making certain assumptions related to the trap history of the vessel. By this method, NOAA Fisheries estimated that the total number of qualifiers for historical participation in LCMAs 4 and 5 ranged from 47 to 60 vessels (Table V.3.). Under the current lobster program, NOAA Fisheries estimates that 202 and 162 lobster permit holders could be expected to participate in LCMAs 4 and 5, respectively (Table III.4.). Therefore, it does appear that limiting LCMAs 4 and 5 to historical participants will result in a reduction of lobster trap fishing effort in these areas. A reduction in gear could be of benefit to marine mammals and sea turtles. Benefits could be offset by displacement of effort into areas that do not require historical participation, particularly areas with greater use by protected species. NOAA Fisheries, however, anticipates that geographical limitations will minimize displacement. To the extent that some unquantifiable amount of displacement occurs, NOAA Fisheries believes that the proposed action, on balance, will improve the present environment for marine mammals. In general, the issues discussed above for LCMA 3 apply to impacts on marine mammals and sea turtles. (For additional discussion of the risk of possible gear interactions and effects of gear interactions on endangered right whales, humpback whales, fin whales, and

leatherback turtles, and threatened loggerhead turtles, see the Section 7 Biological Opinion for this action (Consultation Number F/NER/2001/00651)).

NOAA Fisheries is also proposing to modify the lobster regulations to allow Federal lobster permit holders who also possess a New Hampshire full commercial lobster license to fish 400 additional lobster traps in New Hampshire's state waters. This change is proposed based on the Commission's approval of New Hampshire's two-tier lobster license system for state waters. New Hampshire developed the two-tiered system on the basis that it, potentially, would result in 18,000 fewer lobster traps in New Hampshire state waters as compared to a uniform allocation of 800 traps per lobster fisher. The Lobster Technical Committee concluded that, in the absence of information on the number of lobster traps actually being fished in New Hampshire, that it was not possible to specify the extent to which the two-tier approach would actually result in fewer traps fished. The Lobster Technical Committee's analysis noted, however, that New Hampshire's system included a moratorium on new entrants in the full license category and established more conservative trap limits for limited license holders. New Hampshire state lobster fishers who qualify for a full license may fish up to 1,200 lobster traps in state waters, and those in the limited category may fish a maximum of 600 lobster traps in state waters (200 less than the currently allowed 800 trap allocation). In addition, New Hampshire's two-tiered lobster license system also affected dual licensed lobster fishers who possess a federal lobster permit and a "limited" New Hampshire lobster license. Since these fishers also have to comply with the stricter of the lobster licensing requirements, these fishers can fish only 600 traps in accordance with New Hampshire's licensing requirements versus the 800 traps allowed by federal regulations.

None of the ESA listed cetacean species nor sea turtles species are known to regularly occur in New Hampshire state waters (see the Status of the Species Section of the Section 7 Biological Opinion for this action - Consultation Number F/NER/2001/00651). Given their preference for deeper waters, this action is not expected to affect sei whales or sperm whales. Although right whales, humpback whales and fin whales occur in New England waters their presence is believed to be infrequent given that foraging areas for each of these species occur outside of New Hampshire waters. Similarly, strandings of loggerhead sea turtles north of Massachusetts are infrequent, suggesting that loggerhead sea turtles do not routinely occur in inshore waters north of Massachusetts. However, loggerhead sea turtles strandings have occurred as far north as Maine and loggerhead sea turtles use southern New England inshore waters for foraging in the summer months and, while unlikely, there is a chance of gear interactions. Leatherback sea turtles are the most likely to occur in New Hampshire state waters, and, in addition, leatherback turtle entanglements in lobster trap gear have been recorded in waters from Connecticut through Maine. Therefore, it is reasonable to conclude that lobster trap gear set in New Hampshire state waters poses an entanglement risk for leatherback sea turtles, and that increasing the amount of gear set by Federal lobster permit holders in state waters will increase the risk of entanglement of leatherback sea turtles in lobster trap gear. While NOAA Fisheries believes that the two-tier license system may reduce the number of traps in New Hampshire state waters compared to the number of traps that could have been fished under the old licensing system, this Federal action could hypothetically increase the number of traps fished by Federal permit holders in New Hampshire state waters. However, it is not expected to negate the conservation benefit of New

Hampshire's trap reduction program since the number of affected Federal lobster fishers is small. For additional discussion of the impacts the Federal action will have on ESA and MMPA listed species, see the Section 7 Biological Opinion for this action (Consultation Number F/NER/2001/00651)).

The measure to correct the boundaries of some lobster management areas is not expected to substantially affect marine mammals or sea turtles. This is primarily an administrative measure to correct prior omissions and/or to clarify area boundaries. The greatest benefit of this measure to protected species is that it may help to facilitate compliance, and to aid in law enforcement activities as necessary.

Social, Cultural, and Economic Impacts of the Selected Actions

(See Section V.1. of this FSEIS for additional descriptions of the associated RFA/RIR economic impacts under this alternative.)

Historical Participation in Areas 3, 4, and 5

The proposed action was developed to recognize and accommodate the traditional and diverse fishing practices of the offshore lobster trap fishing fleet. It seeks to incorporate a mechanism by which any significant change from historical fishing practices can occur in an evolutionary fashion, rather than causing sudden disruptions in fishing practices. The selected actions are also anticipated to reduce gear conflicts by reducing the total number of traps in LCMA 3 over a four-year period and avoid disruption of traditional socio-economic patterns in the offshore EEZ fishery.

The selected actions for LCMA 3 will restrict, as one criterion, participation of Federal lobster permit holders, to those who have landed at least 25,000 pounds of lobster throughout the range of the resource during any one calendar year between March 25, 1991 and September 1, 1999. Based solely on the NOAA Fisheries Vessel Trip Report (VTR) database from 1994 - 1999 -- as noted in earlier Section III.2.- Selected Actions, NOAA Fisheries will consider other bases of information -- approximately 412 (about 12%) of 3,361 vessel owners holding lobster permits in the 1999 fishing year meet this particular qualification (Table III.7.), and 2,949 Federal permit holders would be excluded from the LCMA 3 trap fishery on the basis of this criterion. It is important to note that under current Federal regulations, there are no restrictions on the number of LCMA's a vessel may elect to fish in. In addition, vessels may switch gear types (from non-trap to trap) at any time without restriction. Therefore, this analysis includes the entire universe of current Federal lobster permit holders, including non-trap vessels, since implementation of historic participation criteria as specified would preclude non-qualifiers, including non-trap permit holders, from fishing with traps in LCMA 3 in the future. The analysis indicates about 85% of qualifying permit holders own a vessel measuring 31-50 feet in length (Table III.5.), with a gross weight of 5-50 tons (Table III.6.), and list their vessel port as either Massachusetts (36%), Maine (31%), or Rhode Island (20%) (Table III.7.). Four mobile gear vessels from Massachusetts would also qualify.

Table III.5. Number of Vessels by Length Category Landing at Least 25,000 Pounds of Lobster

Vessel Length	Less than 30 ft.	31-50 ft.	51-70 ft.	Over 70 ft.	TOTAL
Number of Vessels	10	350	28	24	412

Table III.6. Number of Vessels by Gross Tonnage Landing at Least 25,000 Pounds of Lobster

Vessel Tonnage	Less than 4 tons	5 - 50	51 - 150	150-500	TOTAL
No. of Vessels	4	364	41	3	412

Table III.7. Number of Vessels by Primary Port State Landing at Least 25,000 Pounds of Lobster

State Port	CT	MA	MD	ME	NH	NJ	NY	RI	TOTAL
No. of Vessels	6	151	1	138	15	14	9	78	412

For those permit holders who can provide documentation to meet the landing qualification, a second criterion will be documentation to demonstrate a fishing effort of at least 200 traps set in Area 3 for a period of two consecutive months during the qualifying year. This criterion will further limit the ability of Federal lobster permit holders to qualify for participation in the LCMA 3 fishery. Information provided through the VTR database lacks the resolution needed to estimate the total numbers of permit holders who may qualify under this access restriction. This is due primarily to the wide variation in how permit holders interpret the instructions for documenting quantity of lobster gear fished (e.g., number of traps hauled, numbers of traps set, number of traps per set, etc.) during each reporting period. However, based on the data provided by the LCMT 3 to the Lobster Technical Committee, the ultimate number of qualifying vessel owners could reasonably correspond with the 64 qualifying vessels referenced as a "baseline" in the LCMA 3 trap reduction plan. (See also Section IV. and Table IV.1., where additional analysis using NOAA Fisheries VTR and landings data indicated a range of from 53 to 117 vessels may qualify in LCMA 3.)

On the basis of information available to NOAA Fisheries using information provided by LCMT 3, approximately 546 of 610 Federal lobster permit holders who elected to fish at least some number of traps in LCMA 3 during the 2000/2001 fishing year, will no longer be able to fish

traps in Area 3 upon implementation of the selected action (based on their inability to meet the proposed historic qualification criteria for LCMA 3). The level of potential trapping effort in LCMA 3 for these 546 permit holders in the absence of the selected action is unknown, so NOAA Fisheries is unable to specify the precise anticipated impact on actual fishing operations, although if each of these 546 vessels fished the current maximum allotment, then 982,800 traps would be removed from Area 3 upon implementation of the proposed action.

Once Federal permit holders meet the qualification criteria to fish in LCMA 3, subsequent trap allocations would be determined on the basis of historical fishing effort for each Federal permit holder. The proposed allocation of 105,821 traps in Year One, decreasing to 96,419 traps in Year Four, among 64 qualifying permit holders (as estimated by the LCMA 3 plan) is shown in Table III.2. The plan contains an initial maximum trap cap of 2,656 traps that, according to LCMT 3, will require at least one permit holder to reduce number of traps by 58% from pre Amendment 3 (which established the 1,800 trap cap) historical levels. Each allocation of greater than 1,200 traps will be reduced on a sliding scale basis over four years. Trap reductions will not go below a baseline of 1,200 traps, and allocations of less than 1,200 traps (approximately 11% of qualifying vessels) will remain at their initial qualifying level and will not be permitted to increase up from that number. Sliding scale reductions would result in an approximate 20% and 35% reduction compared to number of traps fished in 1997 and 1992, respectively (Figure III.2.).

The selected action attempts to mitigate socio-economic impacts of reduced income from potential reduction in lobster harvest which may result from an 1,800 trap limit in LCMA 3 under current Federal regulations. As a preliminary matter, the proposed action seeks to allocate impacts proportionally based on historical levels of participation. Accordingly, although the proposed action is an effort reduction measure, it is designed to maintain the permit holder's market share at historic levels. Further, some fishers will actually experience an immediate and quantifiable positive impact: they will be able to fish an increased number of traps. That is, on the basis of information provided by the Area 3 LCMT, 30 (47%) of 64 Federal permit holders participating in the LCMA 3 fishery employed greater than 1,800 traps in 1998 (Table III.2.). Of these, 22 vessel owners (34%) fished between 1900-2500 traps, 7 (11%) fished between 2700-3000 traps, and one permit owner fished approximately 5,600 traps. At the end of the four-year trap reduction period, 15 vessels (23%) will be fishing more than the currently imposed trap limit of 1,800 traps in the LCMA 3 fishery. Thus, on the basis of information provided to NOAA Fisheries, the selected action will have a quantifiable impact to at least 15 Federal lobster permit holders (23% vs. 47% of the LCMA 3 fishery). Additionally, the proposed action imposes trap reductions over a four year period in an effort to spread out the economic impact and minimize sudden and immediate financial hardship to the extent possible. Finally, although difficult to quantify, trap reductions are not believed to directly correspond to decreased harvest. That is, the remaining traps are expected to fish more productively, with less time expended tending the gear or in gear conflicts.

The selected action in LCMA 4 and LCMA 5, similar to that for LCMA 3, was developed to recognize traditional fishing practices and the associated economic importance to historical participants. On the assumption that the LCMA 4 and LCMA 5 trap fishery is comprised

primarily of individuals with vessel ports in states from New York south, the selected action will limit participation to those Federal lobster permit holders whom historically fished for lobster with traps, which represents approximately 52% (242 individuals) of Federal permit holders in these states at the time this analysis was completed assuming current gear election data is representative of the qualification period. Although it can be assumed that there will be no immediate impact on the current fishing practices of non-trap permit holders since they do not harvest lobster with trap gear, the option to switch their harvest method to trap fishing in the future will be precluded since historical participation stipulates trap fishing effort as one of the qualification criteria.

This situation may also impact the "economic value" assigned to these permits in the event that these permit holders wish to sell their vessels to buyers who would otherwise desire to participate in the lobster trap fishery, but would be unable to do so. For example, during the public comment period, NOAA Fisheries received at least one letter from a Federal permit holder who had recently acquired lobster trap gear, with the intent to fish traps with no previous involvement in that fishery. Although the specific number of Federal permit holders in such situations is unknown, the selected action will result in some degree of economic restriction for those individuals. However, because this has historically been a highly regulated fishery, and because NOAA Fisheries published formal notices in the Federal Register both in 1991 and 1999 that warned fishers of potential access restrictions, NOAA Fisheries believes that potential non-qualifiers have been forewarned and, therefore, that their economic expectations were modified accordingly. Table V.4. suggests that potential economic impacts resulting from an inability to qualify for the LCMA 4 and LCMA 5 trap fisheries would be greatest for individuals with vessel ports in New York and New Jersey. Due to the lack of mandatory reporting for Federal lobster permit holders, results from the New Jersey survey referenced in Section III.2.B. were utilized in this analysis. The New Jersey survey suggests that 31 (33%) of 96 respondents who possess a Federal lobster permit would not qualify to participate in the trap fishery, due to inability to meet the historic qualification criteria.

In contrast, 46 Federal lobster permit holders (48% of those responding to the New Jersey survey) indicated that they have historically fished more than 800 traps, the current trap limit in LCMA 4 and LCMA 5. Accordingly, implementation of the selected action, which would remove the fixed trap limit in these LCMAs, but will establish a maximum trap allocation of 1,440 traps, will also remove any adverse impact on fishing practices or lost income associated with any reduced lobster harvest resulting from the current 800 trap limit regulation for 32 of the 46 Federal lobster permit holders that fished less than 1,440 traps. Based on available information provided by the State of New Jersey, approximately 14 vessels fished more than 1,440 traps in LCMA 4 and 5 combined. On average, these vessels fished 1,868 traps (with a range of 1500 - 2500 traps). On the basis of this information, establishment of a maximum trap limit for LCMA 4 and 5 would result in at least a reduction of 26,152 traps with a corresponding, but unquantifiable, reduction in lobster fishing mortality when compared to the lack of a maximum trap limit.

The selected action for all three LCMAs requires the provision of documentation as evidence of participation in the lobster trap fishery. This requirement is more intensive under the LCMA 3

plan, since participants must also provide information to show that at least 25,000 pounds (11,340 kg) of lobster were landed during any qualifying year between March 25, 1991 and September 1, 1999. Anticipated difficulty some permit holders may have in compiling this documentation is described in Section III.2.B. The "burden of proof" in meeting this requirement for qualification criteria in all three LCMAs and for purposes of trap allocation determinations in LCMA 3, will be greater for individuals who, for whatever reason, may not routinely retain records pertaining to fishing business operations, particularly if qualification can only be met on the basis of discarded documentation from earlier years of the qualification period. As stated earlier, however, in Section III.2.D., NOAA Fisheries believes that all potential qualifiers either knew or should have known to document their fishing business, and that the vast majority will be able to do so.

Without mandatory reporting for all Federal lobster permit holders, NOAA Fisheries acknowledges that there are data concerns for this action. The number of lobster fishermen who can not meet the qualification criteria for historical participation for LCMAs 3, 4, and 5 is unknown due to the lack of information which would indicate historical areas fished. Therefore, NOAA Fisheries cannot determine precisely the economic impacts of this selected action. Federal lobster permit holders in this situation may decide to move their lobster fishing operations to areas (LCMAs 1, 2, and Outer Cape Cod) not requiring historical participation. Alternately, affected individuals could decide to sell their fishing vessel, retain their lobster fishing permit but not use it, or leave the lobster fishery entirely and use their vessel and gear in other fisheries.

Communities Affected by Historic Participation in Lobster LMCA's 3, 4, and 5

National Standard 8 (NS8) requires that impacts on fishing communities be taken into account; to provide for these communities' sustained participation in fisheries; and to the extent practicable minimize any adverse impacts on fishing communities. Fishing communities are defined as being communities that are substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and/or economic needs. The Standard includes consideration of vessel owners, operators, crew, and processors that are based in the community.

By creating a definition of a fishing community, the Standard creates a distinction between communities that are substantially dependent or engaged in fishing (or processing) and those that are not. The Standard does not, however, provide guidance on what it means to be "substantially" dependent or engaged nor does the standard provide guidance on what community is contemplated. NOAA Fisheries guidance provides that community is to be a place-based concept but there remain open questions as to the spatial aspects or dimensions of "place". Clearly, both fishing and non-fishing social and economic activities that occur within the boundaries of a particular place are to be considered, but establishing the perimeter of the "place" can be problematic. In fact, recent work by Hall-Arber et. al. (2001) proposes that fishing communities be considered in the context of a regional network of social and economic resource flows that link several geographically distinct locations together as a "natural resource region".

Definitional issues of community and measurement of substantial involvement in fisheries aside,

practical data limitations for fisheries in general and lobster in particular make formal designation of community involvement in fisheries difficult. Much of the lobster fishery is prosecuted in state waters by state-permitted lobster boats having no Federal fishing permits. Reporting for both Federally permitted dealers and vessels is not required unless the dealer or vessel holds at least one other permit for which mandatory reporting is required. Consequently, a large proportion of lobster fishing activity cannot be attributed to a particular community or place. For example, dockside landings in the State of Maine for calendar year 1999 were valued at $184.7 million of which, only 14% could be assigned to a specific port. A higher proportion of total Massachusetts landings ($62.8 million) can be assigned to specific ports but still more than 10% of these landings cannot be assigned. In other cases, Connecticut and Delaware specifically, only summary data are reported so while it may be possible to assess the importance of the lobster fishery to a port, it is not possible to determine how many vessels may be active in that port.

Another complicating factor in identifying fishing communities and assessing community engagement is the large geographic area over which the lobster fishery, and indeed other Northeast region fisheries, takes place. To date, the most comprehensive examinations of fishing communities have been undertaken by Hall-Arber et. al. (2001) and McCay and Cieri (2000). The former study covered ports from Connecticut to Maine while the latter covered ports from New York to North Carolina. Of these studies, Hall-Arber covered each port in greater detail but still was only able to provide detailed port profiles and preliminary assessments of fishing dependence for 38 communities. Although several specific ports (approximately 39) were visited, the McCay study was designed to develop detailed profiles of fishing involvement at the county level, not at the community level. The McCay study also was designed to focus on fisheries and species that are managed by the Mid-Atlantic Fishery Management Council (MAFMC). This means that the places that were selected for site visits were based upon the importance to MAFMC fisheries and may not reflect places of concern for lobster. Nevertheless, in one form or another, about 80 different places were visited in these two studies where some level of information was gathered on the social and economic importance of fishing to the location.

Procedures

The focus of an assessment of the communities affected by historic participation will be primarily on locations where lobsters are landed by Federal permit holders or where Federal permit holders indicate either a home or principal port on their Federal permit application. The analysis is limited in this manner because only Federal lobster vessels and the communities in which they are based are expected to be impacted by historic participation. Given the nature of action and the area in which the action takes place NOAA Fisheries does not expect the overall supply of lobsters should not be affected by the proposed action. Therefore, neither dealers nor processors will experience a change in the expected availability of lobster products so these types of activities are unlikely to be affected.

Given the difficulties in defining communities and establishing substantial engagement in fishing, no attempt is made herein to distinguish between locations on the basis of dependence on fishing

in general or the lobster fishery in particular. Rather, all locations where there is some level of engagement in the lobster fishery are identified. From among these locations, available information is reported to characterize the level of engagement in lobster harvesting as compared to other Federal fisheries in the Northeast region.

In concept, historic participation may be expected to have only small effects on fishing communities since it is intended to maintain a relative position of all qualified participants. However, to the extent that certain vessels may not qualify for historic participation, given the proposed qualification standards, these vessels and the communities they are based in would no longer be able to participate in the fishery of interest. For this reason, the ensuing analysis attempts to identify whether and where specific locations have relatively large concentrations of vessels that will not qualify for historic participation in either LCMA 3, 4, or 5. Of particular interest is identification of possible reasons why vessels do not qualify, whether non-qualifiers have the capability to participate in an offshore fishery, and what, if any, alternative fisheries or alternative lobster fishing locations may be available to participants.

Data

NOAA Fisheries dealer data were used to identify locations where lobsters are landed. Total value of landings of lobsters and all other species combined for calendar year 1999 are reported as is the number of contributing vessels to landings. As discussed previously, these data may underestimate the level of engagement in fishing for any given location both in terms of relative value and numbers of vessels that are engaged in the lobster fishery. Further, these data may fail to identify certain locations as being a place that may be engaged in the lobster fishery.

NOAA Fisheries permit application data for permit year 2000 were used to identify home port, primary port and mailing address locations for all Federal lobster permit holders. Mailing address location was included because individuals may operate out of a particular location while living at another. For each location the total number of all Federal permit holders as well as the number of lobster permit holders is reported.

Data from permit applications are recorded essentially as provided by the applicant. This means that it is not possible to verify whether or not the individual actually engages in lobster fishing at all, and more specifically, whether the applicant intends to fish in any one or more of the areas indicated on the permit application. Further, since data are recorded exactly as written by the applicant, the permit data contains numerous spelling errors or references to marinas or similar locations that are not part of any particular town or municipality. Spelling errors were corrected as they were identified. Ambiguous locations were checked against the United States Geological Service (USGS) Geographic Names Information System (GNIS)(geonames.usgs.gov)data base to determine what type of "feature" the indicated location might have been. If the feature was a known populated place then the location as reported by the applicant was retained. Otherwise, the location was corrected based on the populated place (i.e. town) that was the closest fit to what was indicated on the original permit application. In cases where there was no corresponding location in the USGS GNIS to the self-reported location the self-reported location was retained.

Available data do not provide any information on crew; how many are working in the lobster fishery; and where they live. For this reason, historical participation must be recognized as affecting more than just vessel owners. In many cases crew will live and work out of the same communities or ports as the owner, but this is not universal. The inability to identify crew creates two problems. First, the number of communities that may be engaged, and/or the level of engagement, in fishing may be misidentified. And second, any assessments of impacted vessels must be multiplied by some uncertain factor to account for the number of individuals and the communities within which they are based that will be affected by historic participation in LCMA 3, 4, or 5.

Communities Engaged in Lobster Harvesting

A community may be said to be engaged in the lobster fishery by virtue of the exchange of lobsters between a vessel and a dealer; if it is a place where harvesters moor their vessel; or if it is a place where harvesters live. To determine which Northeast region communities may be engaged in the lobster fishery, both the dealer and permit application data bases were queried to identify places/ports of landings or where lobster harvesters reside. Specifically, port of landing from the 1999 dealer data, and designated home port, principal port, and home mailing address from the fishing year 2000 permit application data were all used to identify communities that may be engaged in one way or another in the lobster fishery. These queries resulted in a total of 687 different named places where an individual may have either landed lobster, tied up his/her boat, lived in, or received mail (See Appendix: Communities - Table 1.).

Given the inability to reliably match permit applications to activity data it is difficult to know which if any of the locations indicated in Appendix: Communities - Table 1. may not, in fact, be engaged in the lobster fishery in one form or another. Not surprisingly, Maine had the largest number of locations (227) that may be engaged in the lobster fishery followed by Massachusetts (169), New Jersey (78), New York (69), Rhode Island (43), Connecticut (35), New Hampshire (21), North Carolina and Virginia (16 each), Delaware (13) and Maryland (6). The balance of locations were in Pennsylvania, Florida, Alabama, Georgia, and South Carolina (with 4 or fewer in each state). Locations that were profiled in the Hall-Arber et. al. study are denoted by an asterisk (*) while locations that were visited in the McCay and Cieri study are denoted the symbol(†).

<u>Value of Lobster Landings</u>

According to NOAA Fisheries dealer data, there were a total of 69 different ports where lobsters were landed in calendar year 1999 where unique vessels were identified (See Appendix: Communities - Table 2.). Note that activity data for any port where the number of vessels was less than three is confidential. These instances are denoted with a “C” in Appendix: Communities - Table 2. Data for Connecticut and Delaware are not reported because these states report summary data so it is not possible to determine which data are confidential and which are not.

The data shown in Appendix: Communities - Table 2. are indicative of the reporting problem for lobster particularly in Maine. In Maine, with the exception of York Harbor, there were no more than 4 vessels recorded as having landed lobster in any given port, yet Maine has the largest fleet of lobster vessels of any state in the Northeast region. This means that establishing the degree of community engagement in the Maine lobster fishery cannot reliably be done using available NOAA Fisheries dealer data. While this problem is less severe in other states, the proportion of unattributable landings to a given location still hampers reliable assessment of community engagement in lobster fishing.

Number of Permit Holders

There were a total of 643 different locations listed by Federally permitted vessels that held at least a Federal lobster permit (i.e. including trap gear, non-trap gear, and recreational charter permits) for lobster permit year 2000 (Appendix: Communities - Table 3.). Among these locations, the largest number of permit holders listed the ports of Gloucester (MA), New Bedford (MA), Point Judith (RI), or Portland (ME) as either a home or principal port. Additionally, at least 50 individuals listed the ports of Beals (ME), Scituate (MA), Vinalhaven (ME), and Jonesport (ME) as a home or principal port on their permit application. In all of these ports vessels that held at least a lobster permit represented approximately 65% or more of the total number of Federal permit holders in the port. Note that there are quite a few locations (many of them in Maine) where 100% of the Federally permitted vessels held a lobster permit; the ports of Cape Porpoise (ME), Cushing (ME), and Bass Harbor (ME) are just a few examples.

Although Point Judith had 121 and 148 permitted lobster vessels by home and principal port respectively, none of these vessels listed Point Judith as a mailing address city. This suggests that while a large number of vessels use Point Judith as an operational base, the owners lived in a variety of surrounding towns (most often Narragansett, Wakefield, or Slocum). Locations like Point Judith (some other examples are Norfolk (VA), Shinnecock (NY), and Galilee (RI)) highlight the problem of defining the fishing community and may reinforce the concept of the fishing community as a networked "region" albeit on a small scale. Even though mailing address city or town may, in some cases, more accurately track income flows from fishing to a specific location, the mailing address city creates other practical difficulties in its use as a means for identifying and measuring community engagement in fishing.

Mailing address may have a tendency to disperse fishing activity of which the Point Judith case is an extreme example. When fishing activity gets dispersed among multiple locations it may give a particular location the appearance of being less engaged in fishing than it actually is. Where towns or municipalities are comprised of multiple unincorporated, yet distinct locales the mailing address city may be a misleading indicator of fishing engagement. For example, Chatham consists of North Chatham, South Chatham, Chatham Inlet, and West Chatham. Last, the mailing address city is the location where the vessel owner receives his/her permit and any other mailings from the Northeast Regional Office (NERO). For owner/operators there may a reasonable correspondence between the mailing address and where the owner actually lives. However, in many cases the mailing address is to a settlement house or other place of business rather than a

residence. For all of these reasons, all subsequent analyses will be based upon either home or principal port designations since they are assumed to be a more reliable indicator of locations where fishing activity may be based. Note, however, that home or principal port designations can only be used to identify where the candidate fishing communities might be. Without a reliable way to link permit data with lobster fishing activity it is not possible to determine whether any one location is either "substantially dependent on" or "substantially engaged in" fishing in general or lobster fishing in particular.

Communities With Vessels that May Qualify for LCMA 3 Historic Participation

To qualify for historic participation for LCMA 3 a vessel must meet several qualification criteria. These criteria require meeting a poundage standard, evidence of trap fishing in LCMA 3, and a Federal lobster permit. Procedures used to conduct a preliminary assessment of which vessels may qualify and which vessels may not were described in the RIR of the DSEIS (see p.52-53). In that analysis, assumptions regarding area fished were required due to the change-over in data collection methods that occurred during the qualifying period. Based on these methods, the number of potential LCMA 3 qualifiers was found to be sensitive to these assumptions due to overlapping boundaries between statistical area and LCMA 3 but was relatively insensitive to the assumed catch-per-trap. Due to the sensitivity to fishing area assumption, the potential number of communities that may be affected by LCMA 3 historic participation is based on an upper and lower bound estimate of the number of qualifiers and non-qualifiers. Given the more stringent assumptions for area fished to produce the lower bound estimate of qualification, this estimate may be regarded as conservative, yet more reliable than the upper bound estimate. That is, it is likely that the number of vessels and the communities in which they are based will be at least as great as the lower bound estimate.

Based on the lower bound estimate of qualifiers a total of 56 vessels would qualify for LCMA 3 historic participation (note that this estimate differs slightly from that reported in the DSEIS due to the fact that the DSEIS analysis was based on an incomplete permit year). These 56 vessels listed 24 different home ports and 19 different principal ports on their year 2000 permit applications (See Appendix: Communities - Table 4.). Ports with at least 4 qualifiers by home or principal port were Newington (NH), Newport, (RI), Point Judith (RI), Gloucester (MA), Sandwich (MA), Narragansett (RI), Westport (MA), and Tiverton (RI).

An upper bound of 118 vessels were estimated to qualify for LCMA 3 historic participation using less restrictive assumptions about area fished. These vessels listed 41 different home ports and 34 different principal ports on their 2000 permit application (See Appendix: Communities - Table 4.). With the exception of Montauk (NY), Fairhaven (MA), and New Bedford (MA) home or principal ports with at least 4 qualifying vessels were the same as that for the lower bound estimate. Compared to the lower bound estimate a total of 18 additional home or principal ports may have at least 1 qualifying vessel.

Communities With Vessels that May Not Qualify for LCMA 3 Historic Participation

A total of 782 lobster trap vessels selected one or more fishing areas for permit year 2000 that included LCMA 3. In developing its historic participation proposal the membership of LCMA 3 indicated that 64 vessels would qualify for historic participation and preliminary assessment of potential qualifiers based on available NOAA Fisheries data indicate that the number of qualifiers may range between 56 and 118 vessels. Clearly, the possibility exists that a large number of vessels that indicated LCMA 3 on their permit application might not not qualify for historic participation based upon NOAA Fisheries data (but see Section III.2.A-D., III.2.H. and Section V.1., on the limitations of projections based on NOAA Fisheries data). Reasons for non-qualification may include that the vessel has never actively fished in LCMA 3, the vessel may fish in LCMA 3 today but did not fish in LCMA 3 during the qualifying period, the vessel may not meet the qualification criteria even though it may have fished or may currently fish in LCMA 3, or available NOAA Fisheries data does not adequately capture the vessels history. Any given permit holder will have the opportunity to provide records to prove active trap fishing in LCMA 3.

In the near term, vessels and the communities in which they are based that may not be engaged in the LCMA 3 fishery are not likely to be affected by historic participation since the program will tend to favor and/or preserve the recent status quo. In the longer term, the option to pursue an offshore fishery in the future will be foreclosed although it is unlikely that a large number of vessels would choose this option given the rebuilding schedule proposed for LCMA 3, the fact that the fishery has historically supported a relatively small number of participants, and that entry into the fishery requires substantial specialized capital investment. By contrast, vessels and the communities in which they are based that do not qualify, but do rely on the LCMA 3 fishery for some or all of their lobster fishing income, will be negatively affected.

Given data issues described earlier in Section III.2.A-D: Selected Actions, at least some of the non-qualifiers are likely to qualify with the proper records. Otherwise, non-qualifying vessels that selected only LCMA 3, 4 or 5 or that only hold a Federal lobster permit, or have a vessel that may be immediately capable of fishing in LCMA 3 are likely to be negatively affected by historic participation in LCMA 3.

Although the ordinal ranking of number of non-qualifiers by home or principal port location differs, the absolute number of non-qualifiers is greatest for the lower bound estimate for determining qualification status. As such, the lower bound estimate of qualifiers provides an upper bound or "worst-case" assessment of potential non-qualifiers and the associated port or community impacts. For this reason, the ensuing analysis of impacts on non-qualifiers is based on the lower bound estimate of qualifiers.

The four ports with the largest number of non-qualifiers were Point Judith (RI), Gloucester (MA), Portland (ME), and Friendship (ME) (See Appendix: Communities - Table 5.). The State of Maine led all other states with 10 ports that have at least 10 non-qualifiers. Many of the vessels within these Maine ports did not hold any Federal permit that required mandatory reporting. In all, 231 vessels held only a lobster permit. Therefore, it is possible that at least some of these non-qualifiers will end up being able to participate in the LCMA 3 fishery by providing the

appropriate documentation.

Although smaller vessels may be able to access a portion of the LCMA 3 fishery, approximately 75% of the potential qualifiers' vessels exceed 50 feet in overall length. Further, as calculated from position coordinates in the VTR, distance traveled from port by vessels greater than 50 feet is considerably greater than that of smaller vessels. For example, the median distance traveled by vessels less than 35 feet that claimed LCMA 3 was approximately 4 nautical miles. Similarly, the median distance traveled by vessels 35 but less than 50 feet was 7.5 nautical miles. By contrast, median distance traveled by LCMA 3 qualifiers 50 feet or greater was 93.7 nautical miles. Thus, non-qualifiers whose vessel is at least 50 feet may be more likely to have fished or may at least be capable of fishing in LCMA 3 than smaller vessels. Consequently, these larger vessels may be more likely to be affected by historic participation in LCMA 3 if they do not qualify. These vessels tended to be concentrated in some of the larger Northeast region ports like Point Judith (RI), Gloucester (MA), Portland (ME), Boston (MA), Barnegat Light (NJ), and New Bedford (MA) (See Appendix: Communities - Table 5.). In all, a total of 100 non-qualifiers had vessels that are at least 50 feet long.

While historic participation may preclude non-qualifiers from fishing in LCMA 3, 4, and 5 it would not preclude any vessel from selecting from among any of the remaining LCMA's. In fact, vessels from ports in Maine, New Hampshire, Massachusetts and Rhode Island must traverse these other LCMA's to fish in LCMA 3. Further, of the 726 non-qualifiers for LCMA 3, only 60 vessels limited their selection to only LCMA 3, 4 or 5 on their 2000 permit application. The majority of these vessels hail from ports in New York - South and are likely to qualify for historic participation in either LCMA 4 or 5. Thus, the overwhelming majority of non-qualifiers for LCMA 3 had already selected at least one other LCMA on their 2000 permit application. Further, 495 of the 726 non-qualifiers held at least one other Federal permit during fishing year 2000. Thus, given the opportunities to freely select from other LCMA's as well as the overwhelming majority of non-qualifiers that are likely to already be fishing elsewhere, even in other fisheries, no one vessel or community in which it is based will be prevented from engaging in the lobster fishery as a result of lacking historic participation in LCMA 3. All of which makes sense intuitively since access pursuant to historic participation conceptually maintains traditional fishing patterns.

Communities With Vessels that May Qualify for LCMA 4&5 Historic Participation

To qualify for historic participation for LCMA 4 and/or 5 a vessel must meet two qualification criteria. These criteria require having a lobster permit and evidence of trap fishing in LCMA 4 and/or 5. See Section III.2.B. for a detailed discussion of the LCMA 4 and/or 5 qualification criteria. Procedures used to conduct a preliminary assessment of which vessels may qualify and which vessels may not were described in the RIR of the DSEIS (see p.52-53). In that analysis assumptions regarding area fished were required due to the change-over in data collection methods that occurred during the qualifying period. Based on these methods, the number of potential LCMA 4 and/or 5 qualifiers was found to be invariant to assumptions about statistical areas even though the boundaries between LCMA 3 and LCMA 4&5 overlap.

A total of 303 trap vessels selected LCMA 4 and/or 5 as at least one of their fishing areas for permit year 2000 (See Appendix: Communities - Table 6.). Of these, 63 vessels were determined to be qualified for historic participation in LCMA 4 and/or 5. With few exceptions, the locations in which the qualifiers were based were in the Southern New England and Mid-Atlantic regions. The majority of qualifiers were based out of locations in New Jersey with the ports of Belford, Point Pleasant, Shark River Inlet, Highlands, Neptune, and Sea Isle City, each accounting for four or more qualifiers. In all, qualifiers were based in 31 different home and/or principal port designations. Home ports included 11 in New Jersey, 4 in New York, 3 each in Connecticut and Massachusetts, 2 in Rhode Island, and 1 each in Virginia, Maryland, and Delaware. Principal ports included 13 in New Jersey, 5 in New York, 3 in Massachusetts, 2 in Rhode Island, and 1 each in Virginia, Maryland, and Delaware.

Communities With Vessels that May Not Qualify for LCMA 4&5 Historic Participation

A total of 303 lobster trap vessels selected one or more fishing areas for permit year 2000 that included LCMA 4 and/or 5. Comparison within the LCMA 4 and 5 paradigm, however, is difficult because the Commission's plan set forth in Addendum only vaguely calls for limited access based upon proof of historical participation without elaborating what criteria were anticipated. Based on LCMT 4&5's original proposal submitted to the Commission, all of these vessels would qualify for historic participation if the qualification merely required a lobster permit endorsed for traps in LCMA 4 and/or 5. If, however, additional criteria were required, such as that set forth in the proposed action, then the 243 vessels that claimed either Area 4 or 5 on their 2000 permit application would not qualify for historic participation based on available NOAA Fisheries data. As detailed previously, incomplete activity date for lobster makes it near certain that many of these non-qualifiers will qualify upon provision of appropriate records. For this reason, the 243 non-qualifiers should be regarded as an upper bound or "worst-case" estimate.

In the near term, vessels and the communities in which they are based that may not be engaged in the LCMA 4 or 5 fishery are not likely to be affected by historic participation since the program will tend to favor and/or preserve the status quo. In the longer term, the option to pursue this fishery in the future will be foreclosed to new entrants unless the new entrant purchases a qualified permit and vessel history.

Although the ordinal ranking of number of non-qualifiers by home or principal port location differs, the absolute number of non-qualifiers was greatest in the ports of Point Judith (RI), Belford (NJ), Point Pleasant (NJ), Montauk (NY), Gloucester (MA), Shinnecock (NY), Barnegat Light (NJ), Cape May (NJ), and Atlantic City (NJ)(See Appendix: Communities - Table 7.). Combined, these ports account for 103 and 114 by home and principal port respectively of the 243 non-qualifiers.

As was the case for qualifying vessels, the majority of locations for non-qualifiers were from New Jersey (24) followed by New York (19), Massachusetts (18), Maine (14), Rhode Island (8), Delaware (7), Connecticut (6), Virginia (3), North Carolina and Maryland (2 each), and Florida

and New Hampshire (1 each). In terms of numbers of non-qualifiers by home port the states of New Jersey, New York, Rhode Island, and Massachusetts combined accounted for 201 of the 243 non-qualifiers.

While historic participation may preclude non-qualifiers from fishing in LCMA 3, 4, and 5 it would not preclude any vessel from selecting from among any of the remaining LCMA's. Nevertheless, 93 or over one-third of all non-qualifiers LCMA 4&5 selected only LCMA 3, 4 or 5 on their 2000 permit application. Of these, 87 were from locations from New York - South. Even though these non-qualifiers may still elect to fish elsewhere, given the location of most of these ports, they would probably require a complete relocation of their base of operations in order to do so, which would affect not only the individual vessel owners but the communities in which they are based as well. Of these locations, the ports of Belford (NJ), Point Pleasant (NJ), Cape May (NJ), Atlantic City (NJ), and Ocean City (MD) had the largest numbers of non-qualifiers that only selected LCMA 3, 4, or 5 on their 2000 permit application and would be expected to be most affected by historic participation in LCMA 4&5.

Combined Effects of Historic Participation in LCMA 3, 4, and 5

Individual vessels and the communities within which they are based that will be most affected by historic participation will be vessels that do not qualify for either LCMA 3 or LCMA 4&5 historic participation yet selected only these areas on their 2000 permit application. The impacts on these vessels and their communities will be even greater if they possess no other Federal fishery permit.
According to existing data in the NOAA Fisheries database, there were a total of 105 Federal lobster permit holders that did not qualify for historic participation in either LCMA 3, 4, or 5 but selected only these areas on their 2000 permit application. These vessels were based in 54 different locations based on home port (See Appendix: Communities - Table 8.) and 45 different locations based on principal port (See Appendix: Communities - Table 9.). These estimates are likely to be higher than what will actually be experienced due to problems with documenting vessel activity using available data. Nevertheless, it is notable that the majority of the most-affected locations are in either New York or New Jersey.

From among those locations that had two or more LCMA 3,4, or 5-only non-qualifiers, the number of these vessels ranged from 2.7% to 50% of all Federally permitted vessels in that location. On the higher end of this range were the ports of Milford (DE), Baldwin (NY), Belford (NJ), and Shark River Inlet (NJ) all having one-third or greater of total permitted vessels that will not qualify for historic participation according to existing data in the NOAA Fisheries database. On the lower end of the range were the ports of Cape May (NJ), Norfolk (VA), and Portsmouth (NH) with less than 5% of total permitted vessels. While not all of these and other ports with historic participation non-qualifiers were profiled in either McCay and Cieri (2000) or Hall-Arber et. al. (2001), many of them were. The following provides a brief summary of the authors' findings with respect to the importance of fishing in general and lobster fishing in particular.

Ports in Delaware were described by McCay and Cieri as being predominantly oriented to

recreational fishing. Commercial fishing was marginal throughout the State being primarily devoted to the near-shore and inshore waters of Delaware Bay. For the most part, trap fisheries were described as targeting blue crabs, conch, and black sea bass. Boats that did fish lobster also tended to be multi-use vessels fishing part of the time with pots and traps while using gillnets the remainder of the fishing season. Therefore, even though the economic effects on individual non-qualifiers in Delaware ports may be significant even if uncertain, NOAA Fisheries can state with comfort that the overall effect of the proposed action on the Delaware locations of Milford, Lewes, and Indian River Inlet in which the non-qualifiers are based is not expected to be because the level of engagement in the lobster fishery is relatively minor.

Of the ports in Maryland described by McCay and Cieri the only one described in any detail is that of Ocean City. According to this profile Ocean City proper is dominated by the recreation and tourism industry and all commercial activity has moved to nearby West Ocean City. The information provided indicates that the area had been a major hub for the surf clam fishery much of which has moved elsewhere although a few surf clam boats still operate out of West Ocean City. Other commercial activities of significance were finfish dragging and gillnet fisheries. Lobsters were mentioned as being handled by local packing houses but no specific number of vessels or relative measure of its importance in the local fishing economy was described. The information provided indicates that West Ocean City is an important center of commercial fishing, and that when aggregated with recreational fishing and related support industries the combined area of Ocean City and West Ocean City may be substantially engaged in fishing. Although 4 of the 7 vessels endorsed for lobster traps potentially do not qualify for historical participation, 3 of these vessels will qualify. Without additional information on the relative contribution to the lobster fishery that these qualifiers and non-qualifiers make it is difficult to determine how non-qualification will affect the fishing community.

The ports of Baldwin, Island Park, and Freeport are located in Nassau County, New York. Of these, only Freeport was profiled in McCay and Cieri. The information provided indicates that only three vessels operate out of Freeport on a full-time basis and that relations between commercial fishing activities and other competing uses for waterfront land were not favorable to fishing. Other ports within Nassau county were described as being largely devoted to otter trawl fisheries for squid and whiting and to a lesser extent scup, weakfish, bluefish, summer flounder, butterfish, and Atlantic mackerel. Nowhere are lobster fisheries or lobster activity in general mentioned except for an enclave of lobster vessels in Mount Sinai and, even then, there is no mention of which Federal area the vessels fish, if they fish in Federal waters at all. The lack of information on the importance of lobster fishing in Baldwin, Island Park or Freeport makes it difficult to ascertain the relative engagement in fishing for these locations or what effect historic participation non-qualifiers will have.

The ports of Hampton Bays and Shinnecock are located in Suffolk County, New York. Both of these ports were profiled in McCay and Cieri although they are not distinguished from one another. The profile notes that Shinnecock/Hampton Bays is the second largest center for fishing activity in New York (second only to Montauk). There were approximately 30 vessels that based in Shinnecock/Hampton Bays but none of these were noted to be engaged in the lobster fishery.

Rather, the majority of activity was claimed to be dedicated squid although some vessels were pursuing groundfish on Georges Bank. Insufficient information is provided to determine the level of engagement in fishing vis à vis other activities. Given the fact that the port profile did not even mention lobster may indicate that the port will not be appreciably affected by failure to qualify for historic participation in LCMA 3, 4, or 5. This conclusion must be tempered by the fact that the McCay study focused on species of concern to the MAFMC and the interviews that were conducted would have been driven by the species of particular concern. It is not known to what extent the lack of any testimony about the role of the lobster fishery is due to its absence in the locale or to a lack of knowledge on the part of the key informants. In any event, the available information suggests that the proposed action's impact on the community will be relatively minor, if at all.

The ports of Belford and Shark River Inlet are located in Monmouth County, New Jersey. Of these ports, only Belford was visited in the McCay and Cieri study although they do indicate, without specifying, that there are several small lobstering enclaves along the Shark River itself. Belford was described as being predominantly engaged in the otter trawl fishery as well as a variety of in-shore finfish and shellfish activities. The profile notes that there are 30 vessels that are based in Belford but that approximately 70 vessels may be offloading or moored in the harbor on any given day. The Belford Seafood Cooperative has been in existence since 1954 and has 60 members. The profile does note the presence of lobster fishing in the port but does not provide sufficient information to assess how the port might be affected should some portion of the lobster fishers fail to qualify for historic participation.

The ports of Point Pleasant and Barnegat Light are in Ocean County, New Jersey both of which were visited by McCay and Cieri. Both ports support active commercial and recreational fisheries and both have fishing and fishing related infrastructure businesses that make recognized contributions to employment and the economy of their respective towns. The commercial vessels operating out of Point Pleasant were reported to be engaged in otter trawl fisheries for squid, whiting, and summer flounder as well as gillnet fisheries for dogfish and monkfish. While recreational fisheries had been dominated by highly migratory species (tunas, billfish, and sharks), regulatory changes in these were described as having had a negative effect on the Point Pleasant economy. Barnegat Light was described as being a center for commercial longline fisheries for tilefish, swordfish, sharks, and tunas. Other fisheries include sea scallops and gillnet fisheries for dogfish and monkfish. In neither of these two ports were lobster fisheries mentioned nor were there any field observations noting a lobstering presence on the waterfront. As noted previously, it is not known to what extent these observations reflect the absence or a low level of engagement in lobster in these ports or whether the primary subject of the investigations (i.e. species and fisheries of interest to the MAFMC) didn't pick up the presence of a lobster fishery.

Atlantic City is located in Atlantic County, New Jersey. Atlantic City was visited in the McCay and Cieri study and was described as being dominated by the hard clam fishery with lesser fisheries for blue crabs and a variety of fisheries for other bay and estuarine species. However, the field observations did note that 6 vessels were engaged in the black sea bass trap fishery. While these vessels are described as fishing a small number of traps the black sea bass fishery

came under management by the MAFMC only in 1998. This also means that these individuals and any others engaged in the black sea bass trap fishery (which is known to have some lobster bycatch) did not come under a mandatory reporting program until 1998. Consequently, these black sea bass/lobster vessels may not have been adequately represented in the dealer or VTR data from which the preliminary assessment of qualification was based. Therefore, lobster permits holders in Atlantic City, particularly those that had been engaged in the black sea bass trap fishery during the qualifying period, may qualify for historic participation. The same may be said of black sea bass/lobster trap vessels elsewhere in the Mid-Atlantic region.

The ports of Cape May and Sea Isle City are located in Cape May county, New Jersey. These ports were profiled in McCay and Cieri Cape May is the larger of the two and is the largest commercial fishing port in New Jersey. Cape May fisheries are dominated by otter trawl and scallop fisheries although the presence and importance of an offshore lobster fishery was noted in both Cape May and Sea Isle City. In Cape May at least 2 offshore lobster boats were observed and local sources of lobster were noted as being sold by local wholesalers to restaurants in Cape May. In Sea Isle City pot fisheries for conch, offshore lobster, and black sea bass were noted as comprising 30% of total fishery value. No information is provided with regard to relative number of vessels engaged in the offshore lobster fishery as compared to otter trawl, longline, and gillnet fisheries. Of 14 vessels with lobster permits and identifying their principal port as Cape May, New Jersey, 11 vessels were non-qualifiers under the LCMA 3 criteria. Eight of the 11 non-qualifiers had Federal permits in other fisheries. Of 7 vessels with lobster permits and identifying their principal port as Sea Isle City, New Jersey, 3 vessels were non-qualifiers under the LCMA 3 criteria. Two of the 3 non-qualifiers had Federal permits in other fisheries. (See Appendix: Communities - Table 9 for additional information).

Summary of Findings - Effects on Communities

There were a total of 687 different named places where some evidence of engagement in the lobster fishery was found. Unfortunately, due to a lack of mandatory reporting it is not possible to reliably determine the level of engagement of these locations in fishing in general or the lobster fishery in particular. Without mandatory reporting it is not possible to distinguish between non-qualifiers that simply do not fish in the area where historic participation has been proposed and those that will be forced to relocate or leave the fishery as a result. Given this limitation, much of the previous analysis may be regarded as worst case in terms of numbers of affected vessels and locations in which they are based. For example, the majority of potentially non-qualifying vessels that selected only LCMA 3, 4, or 5 on their 2000 permit application were based out of Mid-Atlantic ports. These vessels are most likely to be engaged in the LCMA 4 or 5 fishery but may not have held a permit that required mandatory reporting for much of the qualifying period. As such, the are categorized as non-qualifiers for the purposes of this analysis due to a lack of NOAA Fisheries data, even though NOAA Fisheries fully expects that these fishers will ultimately be able to qualify using their own data. Further, if these vessels are engaged in the black sea bass trap fishery it is quite likely that many of these vessels will eventually qualify upon provision of appropriate records since the black sea bass fishery itself only recently came under a mandatory reporting system.

The absence of mandatory reporting also presents a difficulty in assessing impacts on vessels and communities of the trap allocations that will eventually have to be determined. All of the previous analysis has focused only on access to LCMA 3, 4, or 5. Historic participation also requires determining level of access. For some vessels, the number of traps that will be allocated will be at least as important as gaining access in the first place. Unfortunately, while available data allows for preliminary assessment of qualification under landings and effort standards, it is not possible to anticipate how many traps any given vessel will receive.

Historic participation will tend to preserve the status quo but may, due to qualification criteria, limit future entry into the fishery as well as exclude current participants that may not meet the qualification standards. Under the provisions of the ISFMP even non-qualifiers will still be able to select to fish lobster in other LCMA's and may continue to fish lobster in state waters. Further, these individuals could also gain entry into the lobster fishery through purchase of a qualified vessels permit history or fish for other species. In general, the nature of the specific effect felt by the non-qualifier will depend on the extent to which that person engages in the available mitigation strategies. Therefore, while historic participation will affect individual fishing location choice, participation in the EEZ lobster fishery will still be sustained.

This does not necessarily mean that excluded vessels and the communities within which they are based will not be affected by historic participation. However, available data suggests that such effects will be less significant at the community level. Vessels that operate out of Mid-Atlantic ports in particular may find it difficult to adapt to losing access to LCMA 3, 4, or 5 because the density of lobsters in state waters is low and proximity to alternative LCMA's would make continuing to operate out of their former location less feasible. These ports were identified in Appendix: Communities - Table 9. as being predominantly in the states of New York and New Jersey. These ports, however, are diverse in their fishing activities, with the lobster fishery occupying a less prominent role.

Vessels that may have claimed any one of the LCMA 3, 4, or 5 areas but do not currently fish in any of these areas will be able to continue to operate as they were prior to historic participation. For the future, these vessels will lose the flexibility to enter any one of these offshore areas. Note, however, that flexibility in the lobster fishery does not mean quite the same thing as flexibility in the context of an annual round of fishing. Within the latter context, flexibility is important to allow vessels the ability to engage in a variety of fisheries and/or to be able to respond to resource and economic conditions as warranted. The lobster fishery is highly territorial and the ability to move from one completely different area to another is constrained by not only logistical and economic considerations but by local informal social prohibitions against fishing outside one's territory. These types of informal prohibitions have been described by Acheson (1988), and are in many respects, reflected in the underlying rationale for the lobster zone management approach in Maine and the LCMT's under the Commission ISFMP.

In general, the impacts of historic participation in LCMA 3 are more difficult to assess as compared to LCMA 4 and/or 5. Unlike the LCMA 3 qualification criteria, historic participation in LCMA 4 and/or 5 vessels only requires proof of fishing in the LCMA's. For reasons outlined

above, vessels that fish out of Mid-Atlantic ports were determined to be nonqualifiers for LCMA 4 and/or 5 based on available NOAA Fisheries data are likely to qualify for historic participation upon provision of the necessary records. Thus, most, if not all, current participants in the LCMA 4 or 5 fishery may be expected to qualify for historic participation, particularly vessels that are or were engaged in the black sea bass pot fishery. By contrast, LCMA 3 borders every other LCMA and there are an unknown number of vessels that have selected and fish within LCMA 3 for at least part of their income that may not qualify for historic participation.

LCMA 3 had the largest number of non-qualifiers that selected LCMA 3 as at least one of their potential fishing locations for permit year 2000. However, of the 105 vessels that only selected LCMA 3, 4 or 5 only 8 were from New England ports. As indicated earlier, the remaining 97 vessels are likely to at least qualify for historic participation in LCMA 4 and/or 5. Consequently, of the 782 vessels selecting LCMA 3, 677 either qualified (preliminary qualifiers range from 118 to 60) and/or elected to fish in at least one other LCMA. Further, the number of vessels that may be capable of prosecuting the offshore LCMA 3 fishery was also shown to be no more than 100 vessels. Thus, while in the longer term, non-qualifiers will still be excluded, the number of vessels that have been estimated to participate in the fishery (118 to 60) and the number of vessels that may be capable of participating in the offshore LCMA 3 fishery (no more than 100) is probably less than 25%(half of which are qualifiers) of the total number of vessels that selected LCMA 3 on their 2000 permit application. The communities or ports where these "offshore-capable" non-qualifiers are based were identified in Appendix: Communities - Table 5. Of these, nearly half are based out of 8 different ports which are; Point Judith (RI), Gloucester (MA), Portland (ME), Barnegat Light (NJ), Port Clyde (ME), Boston (MA), New Bedford (MA), and Belford (NJ). All of the above ports are diverse and non-qualification is not expected to significantly affect the communities based there.

Modification of Area 1 Trap Limits for New Hampshire Lobster License Holders with Federal Lobster Permits

The selected action will retain a trap limit of 800 traps in Federal waters for New Hampshire permit holders who fish for lobster in LCMA 1. It would, however, allow approximately 22 Federal lobster permit holders who also possess a New Hampshire full commercial lobster fishing license to fish a maximum of 400 additional traps in New Hampshire state waters.

Implementation of the Commission's request for modified trap limits in accordance with a proposal for conservation equivalency in the New Hampshire lobster fishery provides flexibility for the state's 300 commercial lobstermen. According to information provided by the state, an estimated 50 full-time lobstermen living in New Hampshire have historically fished up to 1,600-2,400 traps. Allowing those individuals who also hold a Federal lobster permit to fish 1,200 traps vs. 800 traps as currently required under Federal regulations would alleviate the associated impacts on fishing practices and income which would otherwise be imposed by a lower trap limit. In New Hampshire, the 1,200 trap limit will be available to those who possess a full commercial fishing license, a license category for which there is a moratorium on new entrants, and retirement and general attrition will reduce participants in this sector over time.

Although regulations under this selected action would affect only Federal lobster permit holders who fish with traps in state waters, New Hampshire's conservation equivalency program also involves approximately 250 lobstermen who do not possess a Federal permit and, accordingly, fish with traps in only waters under state jurisdiction. These individuals include part-time lobstermen who have fished historically between 400-700 traps. Overall, trap reductions are expected to result, but the reduction will be born by a large number of state permit holders, thereby lessening the potential for severe negative impact. As noted in earlier sections, trap reductions do not necessarily translate into proportional financial impacts.

Boundary Clarification

Revision and clarification of the boundary coordinates for LCMA 1, LCMA 2, and the Outer Cape Lobster Management Area, including the establishment of a Cape Cod Canal Overlap, will allow fishermen in Massachusetts waters to maintain traditional fishing practices and fish under the lobster management measures associated with the respective LCMA. Implementation of the selected action to these boundary lines will also maintain consistency with the identification of lobster management areas as established under the ISFMP and will avoid confusion which could result if ISFMP and Federal area boundaries and their associated lobster management measures differ.

3. Non-Selected Alternatives - Environmental Consequences

A. Effects on Lobster of Non-Selected Alternatives

Non-selected Alternative 1A – (The Commission's Addendum 1 approach)

Non-selected Alternative 1A would implement a historical participation approach to limit lobster fishing effort in LCMAs 3, 4, and 5. Much like the proposed action, this non-selected alternative would require the current possession of a Federal lobster fishing permit and evidence of a history of two consecutive months of active trap fishing for each elected area during any one calendar year within the period March 25, 1991 and September 1, 1999. In addition, qualification to participate in the Area 3 fishery would include a requirement to demonstrate that at least 25,000 pounds (11,340 kg) of lobster were harvested throughout the range of the resource during the qualifying year. Trap limits would be based on the associated qualification criteria and respective trap allocations similar to the preferred action measures described in Section III.2. of this FSEIS. But, while there would be a maximum trap limit and a sliding scale trap reduction schedule associated with each vessel qualifying to fish with traps in LCMA 3, this non-selected alternative would not establish a maximum trap limit of 1,440 traps for vessels qualifying to fish with traps in LCMA 4 and 5. NOAA Fisheries, however, has concern that this non-preferred alternative could actually result in trap proliferation and be anathema to the purpose and need of the rulemaking. As stated in earlier Section III.2.B, due to the present record keeping deficiencies in the fishery, NOAA Fisheries can not state with absolute precision the exact number of permit holders who will qualify in LCMA 4 and 5. Nor can NOAA Fisheries predict the maximum number of traps that those who do qualify would fish if unregulated, although it believes that

there could be incentive for qualifiers to fish traps in numbers that exceed the historical norm. Furthermore, this non-selected alternative, with no trap ceiling, would still prevent fishery managers and scientists from being able to quantify and therefore, to control, maximum effort in the areas. See Section III.2.B. for additional information on trap limits for LCMA 4 and 5 and for discussion of the basis of setting a trap cap.

The Commission gave NOAA Fisheries the ability to achieve some standardization in its management regime. For Area 3, the effects on lobster of the Non-selected Alternative 1A would be identical to those decribed in Section III.2.H. for the selected action. NOAA Fisheries believes the implementation of an alternative maximum trap limit of 1,440 traps in Areas 4 and 5 achieves standardization with the historic participation maximum trap limit measure for Area 3. In addition, implementation of a maximum trap limit in Areas 4 and 5, in combination with the qualification criteria for participation in the Areas 4 and 5 trap fishery, may preclude excessive trap fishing effort and corresponding levels of lobster fishing mortality. See earlier Section III.2.B : Selected Action, Area 4, 5 Program. Further, capping effort also helps NOAA Fisheries define the universe of effort and avoid the present quantification issues associated with undefined fishing levels. A maximum trap limit would also reduce the potential for gear conflicts and the amount of ghost gear. While NOAA Fisheries has a requirement under the Atlantic Coastal Act to support the ISFMP process and state management efforts -- NOAA Fisheries believes that the trap caps both support and are compatible with the ISFMP -- NOAA Fisheries must also be consistent with the National Standards of the Magnuson-Stevens Act, including the National Standard 1 objective to end overfishing and maintain a sustainable fishery. On balance, a maximum trap limit for LCMAs 4 and 5 is a risk averse approach to end overfishing and still implement historic participation effort controls in these LCMAs.

Non-selected Alternative 1B - (The status quo or "no-action" alternative)

Under non-selected Alternative 1B, fixed trap limits in LCMAs 3, 4, and 5 would continue, as implemented under current Federal regulations. Fixed trap limits were implemented for Federal permit holders to complement measures in Amendment 3 to the ISFMP, to foster corresponding reductions in lobster fishing mortality, as well as to enhance the effectiveness of other state and Federal management measures. In short, the present regulations and Amendment 3 anticipate future action. With the development of Addendum I to Amendment 3 to the ISFMP, interstate lobster management utilized area specific measures to address the rebuilding objectives mandated in the ISFMP. As such, a continuation of the status quo in this specific instance would likely not be supportive of the Commission's interstate fishery management efforts, a requirement under the Atlantic Coastal Act. See Section II – Purpose and Need for a more detailed discussion on the scientific, managerial and legal reasons to advance off of the status quo.

This non-selected alternative would potentially result in more traps being fished than the selected management action with associated higher lobster mortality. While the lack of mandatory reporting requirements in the lobster fishery is acknowledged in this FSEIS as an area of concern, the best data available and consideration of known variables indicate that it is reasonable to expect trap reductions are more likely with implementation of the selected management action for

LCMAs 3, 4, and 5. Under current Federal regulations, vessels may elect to fish with traps in any LCMA. There is the potential under the status quo option for vessels to shift effort yearly, without restriction, to alternate LCMA's. This non-selected alternative would likely result in more traps being fished in these LCMAs with no historical requirements to prevent effort shifts. It is likely that not all vessels are fishing up to the current allowable fixed trap limits and, while the preferred management action would cap effort at historic levels, the non-selected status quo alternative could allow vessels fishing below the current fixed trap limits to expand effort levels and potentially increase gear conflicts and the potential for an increase in the prevalence of ghost gear. In addition, the non-selected status quo alternative could allow vessels that currently do not fish with traps to shift gear types from non-trap to trap gear, especially if regulations and restrictions on non-trap gear increases.

Non-selected Alternative 1C

Non-selected Alternative 1C is the same as Alternative 1B except that qualification criteria must first be met to participate in the LCMA 3, 4, and 5 fisheries. It differs from the selected action by retaining existing trap limits vs. limits based on historical participation. This non-selected alternative would result in fewer traps being fished in these LCMAs than Alternative 1B, by virtue of precluding trapping effort by Federal permit holders who have not historically participated in these area fisheries. However, this alternative would not be supportive of the Commission's recommendations or state primacy as identified under the Atlantic Coastal Act. In addition, it is likely that not all vessels are fishing up to the current allowable fixed trap limits and, while the preferred management action would cap effort at historic levels, the non-selected status quo alternative could allow vessels fishing below the current fixed trap limits to expand effort levels, potentially resulting in a increase gear conflicts and an increase in the prevalence of ghost gear. While this alternative has a lower administrative burden since vessels would not have to provide documentation of the number of traps fished, the selected action is on balance, intended to take in to account the impact of regulations on fishing communities and individuals by maintaining effort and participation at historic levels in the impacted areas, something that the non-selected alternative does not do.

LCMA 1 Trap Limits in New Hampshire Waters

Restricting analysis of the New Hampshire proposal for conservation equivalency to fishing operations of only Federal lobster permit holders (and excluding those individuals who only possess a state lobster fishing license), non-selected Alternative 2B (status quo) could potentially result in 3,600 fewer Federally permitted lobster traps being fished in LCMA 1, although it is far more likely that Area 1 - EEZ effort will remain unchanged, but with a corresponding increase in effort in Area 1 - New Hampshire state waters (discussed in Section III.2.E.). Although this could result in some decrease in corresponding lobster fishing mortality in the unlikely scenario that New Hampshire Federal permit holders simply abandon their Federal permit, more than likely, the Federal permit will simply be transferred to somebody new, who will fish up to the same limit (i.e. 800 traps), with the former permit holder, now fishing only a New Hampshire permit, free to fish 1200 traps in state water. The net result would be an increase of 800 traps in

Area 1 - New Hampshire state waters per transfer. Further, even assuming the benefit to this non-preferred alternative (which as described above is doubtful), NOAA Fisheries believes, on balance and based on current information, that any benefit derived under this non-selected alternative is outweighed by the need to implement complementary Federal regulations consistent with New Hampshire conservation equivalency measures which overall, result in a potential reduction of 18,000 traps being fished in LCMA 1 and the associated corresponding reduction in gear conflicts and prevalence of ghost gear. Failure to implement trap limits identical to those of New Hampshire for Federal permit holders while fishing in New Hampshire state waters could interfere with the state's efforts under the ISFMP to manage trap limits on a consistent basis in New Hampshire waters of LCMA 1.

Lobster Management Area Boundary Clarification

Non-selected Alternative 3B (status quo) would have no significant effect on the lobster resource, because it is specific to a minor modification of coordinates for lobster area boundaries in Massachusetts waters.

B. Effects on Environment of Non-Selected Alternatives

Non-selected Alternative 1A – (The Commission's Addendum 1 approach)

For Area 3, the effects on lobster of the Non-selected Alternative 1A would be identical to those described in Section III.2.H. for the selected action since both have the same requirements. However, Non-selected Alternative 1A, with no maximum trap limit in Area 4 and 5, would result in more lobster traps being fished than the proposed action, and potentially more traps than are being fished presently. Additional traps would run counter to the National Standard 1 objective to end overfishing and maintain a sustainable fishery since an increase in traps would likely result in an increase in lobster fishing mortality in Area 4 and 5. The lack of a maximum trap limit would also increase the potential for gear conflicts between trap and non-trap fishermen and result in an increase in the amount of ghost gear resulting from gear conflicts. Additional traps would also negatively impact the habitat and result in more disturbed habitat. On balance, a maximum trap limit for LCMAs 4 and 5 is a risk averse approach to end overfishing and still implement historic participation effort controls in these LCMAs.

Non-selected Alternative 1B - (The status quo or "no-action" alternative)

Non-selected Alternative 1B would not change current effects of lobster management measures on the environment. However, compared to the selected action, the status quo alternative would allow vessels fishing below the current fixed trap limits to increase trap effort. Additional traps would run counter to the National Standard 1 objective to end overfishing and maintain a sustainable fishery since an increase in traps would likely result in an increase in lobster fishing mortality. Additional traps would result in more disturbed lobster habitat than the selected alternative. The non-selected status quo alternative would also allow vessels currently fishing with non-trap gear to shift gear effort to traps if non-trap gear regulations became more restrictive

or other target species declined in abundance. In addition, without restrictions on area selections, effort could shift from less productive lobster areas or areas faced with more restrictive measures as Addenda II and III measures are implemented on an area by area basis (see Section II.1.C. for Addenda II and III measures).

Non-selected Alternative 1C - Historical Participation with Existing Trap Limits

Non-selected Alternative 1C could result in fewer lobster traps being fished in LCMAs 3, 4, and 5, possibly resulting in more undisturbed habitat and reducing the prevalence of ghost gear compared to the non-selected status quo alternative. However, compared to the selected action, Non-selected Alternative 1C at least in Area 3, would allow vessels fishing below the current fixed trap limits to increase trap effort. This non-selected alternative likely has the least effect on the environment as compared to the other alternatives, including the proposed action. The need, however, for this level of effort reduction is not set forth in the scientific data presently available, was not recommended by the Commission, and on balance, does not sufficiently counterweight competing interests in National Standards other than National Standard 1, and in the applicable law. NOAA Fisheries notes that it has a requirement under the Atlantic Coastal Act to support the ISFMP process and state management efforts and the intent of the historic participation process to maintain the existing socio-economic characteristics of participants in LCMAs 3, 4, and 5, including historic trap effort levels.

Non-selected Alternative 2B - Retain Current Trap Limits for Federal Permit Holders in New Hampshire Waters

Non-selected Alternatives 2B would not change current effects on the environment in Area 1 - EEZ, because this is the status quo alternative, although it would likely lead to a noticeable increase in traps in Area 1 - New Hampshire state waters. See Section III.2.E. and III.3. for a more detailed analysis. However, NOAA Fisheries has a requirement under the Atlantic Coastal Act to support the ISFMP process and state management efforts and the status quo alternative would result in unequal treatment for New Hampshire residents with both a state full commercial license and Federal lobster permit. In addition, incompatible management efforts would not facilitate joint state-federal compliance or enforcement activities, and would result in confusion on the part of impacted permit holders.

Non-selected Alternative 3B - No Change in the Boundaries

Non-selected Alternatives 3B would not change current effects on the environment, because this is the status quo alternative. However, NOAA Fisheries has a requirement under the Atlantic Coastal Act to support the ISFMP process and state management efforts and incompatible area boundaries would not facilitate joint state-federal compliance or enforcement activities, and would result in confusion on the part of impacted permit holders.

C. Effects on Marine Mammals and Sea Turtles of Non-Selected Alternatives

A formal intra-service Section 7 consultation on NOAA Fisheries' implementation of new management measures was initiated on July 11, 2001. The most recent Section 7 consultation for this action is based on information developed by NOAA Fisheries' State, Federal and Constituents Programs Office, and other sources of information. For a complete administrative record of this consultation including ship strike and entanglement impacts, refer to Consultation No. F/NER/2001/01263 on file at the NOAA Fisheries Northeast Regional Office, Office of Protected Resources, Gloucester, Massachusetts.

Non-selected Alternative 1A

This non-selected alternative would not provide a trap limit for LCMA 4 and LCMA 5, which does exist under the selected action. The lack of a maximum trap limit in LCMA 4 and 5 may result in additional vessel and gear interactions with protected and endangered species. All whales are potentially subject to vessel collisions. Of the 11 species of cetaceans known to be hit by ships, fin whales are struck most frequently while right whales, humpback whales and others are hit commonly (Laist *et al.* 2001). Under this non-selected alternative, there will be additional gear in the water, increasing the potential for vessel collisions from more frequent or longer trips. The lack of a maximum trap limit also increases the potential for gear proliferation and increased protected species-gear interactions. Specifically, while large whales and sea turtles cannot get caught in the lobster trap itself since the opening is small, and the bait used in lobster traps are inconsistent with typical prey, whales and leatherback sea turtles may become entangled in buoy lines and with polypropylene line between pots. Entanglements may lead to exhaustion and starvation due to increased drag, and repeated or prolonged entanglement results in sustained stress which may lead to more susceptibility to infections or disease. Younger animals are particularly at risk and the majority of large cetaceans that become entangled are juveniles (Angliss and Demaster 1998).

Non-selected Alternative 1B - No Action

The no action non-selected alternative could benefit marine mammals and sea turtles as previously described in the FEIS (64 FR 29026) by limiting each fisher to a set number of traps. However, since current measures do not limit the number of participants in any one lobster management area, the total number of traps set could actually increase if the number of fishers in each area increases. This would have the effect of negating any benefit of trap limits for cetaceans and sea turtles, and could increase the probability of protected species-gear interactions. In addition, the total number of traps set could actually increase if fishers are not currently fishing up to the existing trap limits. For further discussion of potential impacts resulting from increased vessel and gear interactions with protected and endangered species, see Non-selected Alternative 1A. Again, as earlier described in Section III.2.H: Environmental Consequences of Proposed Action, NOAA Fisheries expects the proposed action to be an improvement on the status quo that will lead to reduced effort, and consequently, reduced conflict with protected species.

Non-selected Alternative 1C - Historical Participation with Existing Trap Limits

Effects on marine mammals and sea turtles are anticipated to be similar to those for the selected action. Based on the estimated number of participants who would qualify as historical fishers in LCMA 3, 4 and 5, this non-selected alternative would reduce the amount of gear being fished. The amount of gear reductions may be greater or less than that expected with the selected action. This non-selected alternative would provide a trap limit for LCMA 4 and LCMA 5 which does not exist under the non-selected Alternative 1A, but is a component of the preferred Alternative 1D. As with the selected Alternative 1D, this could be of benefit to marine mammals and sea turtles if it results in fewer traps being fished as compared to the non-selected Alternative 1A. This non-selected alternative does not include a trap reduction schedule for LCMA 3 so the amount of gear fished in this area may not be reduced to the same extent as with the selected action or the non-selected Alternative 1A. Therefore, it is expected that this non-selected Alternative 1C would result in fewer traps being fished in Areas 4 and 5 due to a 1,440 maximum trap limit, it may allow for more gear in Area 3 than the selected Alternative 1D since it does not include a trap reduction schedule for LCMA 3. For further discussion of potential impacts resulting from increased vessel and gear interactions with protected and endangered species, see Non-selected Alternative 1A. As is the case with the selected action, effort displacement could result from fishers who do not qualify as historical participants, although it is not expected to be significant for the reasons set forth in earlier Section III.2.H: Environmental Consequences of Proposed Action. Thus, although not anticipated, if gear is displaced from Areas 3, 4 or 5 into other areas, there is the potential for increases in protected species-gear interactions in that other area, but with a decrease in potential conflict in Areas 3, 4 and 5.

Non-selected Alternative 2B - Retain Current Trap Limits for Federal Permit Holders in New Hampshire Waters

This non-selected alternative could result in a variety of responses on the part of impacted Federal permit holders. If NOAA Fisheries did not implement the selected action to allow fishers who qualify to use 1,200 traps in New Hampshire state waters, the impacted fisher could relinquish his Federal permit, sell the vessel and associated federal permit, or continue to fish for lobster with traps under the existing Area 1 trap limit (800 traps) in both state and Federal waters. Relinquishment of the Federal permit would result in less gear being fished in Federal waters although the 1,200 traps would still be fished, but entirely in state waters, potentially greatly increasing line density in state waters. However, given the economic value of a vessel with an associated Federal limited access lobster permit, it is unlikely that a fisher would simply relinquish the Federal permit. Sale of the vessel and permit to a fisher who did not possess a New Hampshire lobster permit would not be expected to result in a reduction in trap gear. It is likely that a sale would result in increased effort under the assumption that the seller would continue to fish the 1,200 traps entirely in state waters, thereby potentially greatly increasing line density in state waters, while the buyer of the vessel and Federal lobster permit could fish up to the maximum trap limit in Federal waters for the area(s) elected. There would be a neutral effect on effort in the Federal waters of Area 1 if the impacted fisher elects to continue to fish for lobster with traps under the existing Area 1 trap limit (800 traps) in both state and Federal waters. On

balance, it is unlikely an impacted fisher would relinquish his permit, and more likely that this non-selected status quo alternative would either result in no net gain in traps (if the impacted permit holder retained his Federal permit), or result in an increase in gear if the vessel and permit were sold. If this non-selected alternative results in additional gear in the water, it would increase the potential for vessel collisions with endangered or protected species and increase the likelihood of protected species-gear interactions. For further discussion of potential impacts resulting from increased vessel and gear interactions with protected and endangered species, see Non-selected Alternative 1A.

Non-selected Alternative 3B - No Change in the Boundaries

This non-selected alternative is not expected to substantially affect marine mammals or sea turtles. Under this non-selected alternative, state and Federal lobster area boundaries would not compatible, potentially resulting in constituent confusion and compliance and enforcement problems which may ultimately impact regulatory measures involving protection of endangered and protected species.

D. Social, Cultural, and Economic Impacts of Non-Selected Alternatives

(See Section V.1. of this FSEIS for additional description of associated economic impacts).

Fishing Effort Control Program for Areas 3, 4, and 5

Non-selected Alternative 1A

Non-selected Alternative 1A is the same as the selected action but, does not impose a maximum trap limit of 1,440 traps on LCMA 4 and LCMA 5 historical participants. Both the selected action and this non-selected alternative already include a maximum 2,656 trap limit for LCMA 3. Accordingly, analysis of the social, cultural and economic impacts of this non-selected alternative would result in substantially similar findings as compared to the analysis of the proposed action, except on the issue of the Area 4 and 5 trap cap.

Apart from the New Jersey survey, NOAA Fisheries has no data to empirically evaluate the impact of a trap cap for this non-selected alternative. That survey indicates, for Federal lobster permit holders who also possess a New Jersey pot license, only 15% (14 of 96 individuals responding) have historically fished greater than 1,440 traps in LCMA 4. The fishing effort for these 14 permit holders has ranged from 1500 to 2500 (with an average of 1868) traps, but is currently limited by an 800 trap limit under current Federal regulations. In contrast, the survey also indicated that none of the respondents who fish in LCMA 5 alone fish more than 1400 traps. Thus based upon the best available information of traditional fishing practices in the areas, this non-selected alternative would benefit, in comparison to the proposed action, only those lobster permit holders who have historically fished more than 1440 traps – a number no greater than 15% in Area 4 and 0% in Area 5 (this percentage in Area 4 could be even less if these 14 individuals also declared other LCMA's with more restrictive trap limits). Potential positive economic

impacts could include enhanced fishing business income consistent with historical income which may have resulted from higher lobster harvest resulting from fishing a higher number of traps, although the efficiency with which the added gear will fish is difficult to predict. If the New Jersey survey represented an average cross-section of Federal lobster permit holders fishing traps in LCMA 4 and LCMA 5, this alternate could impact 70% fewer fishers compared to non-selected Alternative 1C.

Non-selected Alternative 1B

Non-selected Alternative 1B would not change current effects of Federal lobster management measures, which are analyzed in the original FEIS (64 FR 29026)(NOAA Fisheries 1999).

Non-selected Alternative 1C

Non-selected Alternative 1C would retain current fixed trap limits for Federal lobster permit holders in LCMAs 3, 4, and 5, but would limit participation in these LCMA fisheries to fishers who can provide documentation and evidence of a history of two consecutive months of active trap fishing for each elected area during any one calendar year between March 25, 1991 and September 1, 1999. Participation in the LCMA 3 fishery would be further restricted to those who can provide written documentation of harvesting at least 25,000 pounds of lobster throughout the range of the resource during the qualifying year. The social, cultural, and economic impacts are the same as those described for the selected action in Section III.2.F. The retention of existing fixed trap limits under this non-selected alternative, versus those established on the basis of historical participation under the selected action, would require fishers who have historically fished a higher number of traps in these LCMAs to remain fishing at the current fixed trap limits (1,800 traps for LCMA 3 and 800 traps for LCMAs 4 and 5), which were implemented May 1, 2000. On the basis of information provided by the Area 3 LCMT and analyzed by the Lobster Technical Committee, this non-selected alternative, which would continue the existing 1,800 trap limit, would affect twice as many Federal lobster permit holders (30 vs. 15 vessel owners) by the requirement to fish a reduced number of traps compared to historical fishing effort (see Section III.2.H.). It would similarly impact 48% of Federal lobster permit holders (46 vessel owners) who responded to the New Jersey survey on historical participation in the lobster trap fishery, as referenced in Section III.2.H. Accordingly, this non-selected alternative would impose a greater economic impact, compared to the selected action, on those Federal permit holders who have historically derived a higher income from increased lobster harvest resulting from fishing a number of traps in excess of the fixed trap limit under current Federal regulations.

LCMA Trap Limits in New Hampshire Waters

Non-selected Alternative 2B would require Federal lobster permit holders who possess a New Hampshire full commercial fishing license to abide by a more restrictive (800 Federal vs. 1,200 State) trap limit when fishing in New Hampshire state waters. This alternative could reduce income for 22 fishers possessing the full state license which may potentially result from harvesting fewer lobsters due to the lower trap limit. For reasons described in Section III.2.H. of

this FSEIS, it is not possible to specifically quantify the extent of this impact. This non-selected alternative could also jeopardize continued public support by New Hampshire fishermen of the state's conservation equivalent lobster management measures to reduce overall fishing effort and associated lobster fishing mortality in LCMA 1.

Boundary Clarification Alternative

If NOAA Fisheries does not modify the existing boundary lines for Massachusetts waters under non-selected Alternative 3B, there will no longer be consistency between state and Federal LCMAs. Under the Commission ISFMP and Federal lobster regulations, management measures apply on an area by area basis. If NOAA Fisheries and Commission LCMA boundary lines differ, even within state waters, industry could be required to operate under different management measures when fishing side by side on the same fishing grounds, depending on whether or not the fisher holds a Federal fishing permit. Differing management measures could lead to problems with effective enforcement of LCMA-based management measures by state and Federal law enforcement officers. In addition, non-compatible LCMA boundary lines could create unnecessary confusion on the part of the fishing industry. Lobster fishermen would be required to accurately identify their vessels' fishing location at all times in order to comply with the more restrictive of state or Federal regulations, which may differ by management area.

IV. Affected Environment

1. Introduction

The affected environment has been described in the FEIS for Federal Lobster Management in the Exclusive Economic Zone (NOAA Fisheries 1999). Many of the following sections are not changed or updated since that FEIS (64 FR 29026), and this is noted as appropriate in each Section. Several significant events which have occurred since the FEIS include:

- an updated lobster stock assessment
- the declaration of a commercial fishery failure of American lobster in Long Island Sound
- an update on marine mammal and sea turtle population status and review of recent protected species management actions which affect the lobster fishery
- an update on the description of the lobster fishery

2. Physical Environment

The physical environment of the American lobster is the same as summarized in Section V of the FEIS (NOAA Fisheries 1999). The recent determination of a commercial fishery failure in a portion of Long Island Sound is summarized in following section of this FSEIS.

3. Biological Environment

The biological environment of the American lobster described in Section V of the FEIS (NOAA Fisheries 1999) is supplemented by the following:

A. Lobster Mortalities in Long Island Sound

Beginning in October 1999, a number of fishing operations in Western Long Island Sound reported hauling traps containing an unusual number of dead or "sleepy", lethargic American lobsters, a high proportion of which died soon after capture and transport to tanks or other holding areas. Throughout November and December, reports increased in number and geographic scope from lobster operations fishing western Long Island Sound east as far as Guilford, Connecticut, eventually coming from about 60% of the Sound with the heaviest concentrations appearing to be in the western third of the watershed.

This event occurred entirely in New York and Connecticut state jurisdictional waters as does the affected fishery. Routine resource surveys conducted by the State of Connecticut in the Sound also captured affected American lobster, as did opportunistic sampling trips conducted by New York State biologists aboard commercial vessels and at lobster houses. There is no specific estimate of the actual lobster mortality levels during this event, although some have reported more than half those hauled in commercial and state survey gear were affected.

Letters written to the Secretary of Commerce in December 1999, from Governor Pataki of New York, Governor Rowland of Connecticut, and United States Senators and Representatives from Connecticut and New York, requested that the Secretary declare a fishery resource disaster pursuant to Section 312 (a) of the Magnuson-Stevens Act for the commercial American lobster fishery occurring in state waters off Long Island.

At present, the cause of the event is unknown. Researchers have identified a protozoan parasite, Paramoeba species, as occurring in tissues of the nervous system from a sample of 75 lobsters exhibiting the typical symptoms of the event from Long Island Sound. Other less dramatic lobster die-offs have been reported off Long Island in recent years, sometimes attributed to Gaffkemia and shell disease. Given these various occurrences, a systematic environmental source of pollution cannot be eliminated as at least being a contributing factor to episodic lobster die-offs.

On January 26, 2000, the Secretary determined that a relative absence of American lobster has resulted in a fishery resource disaster of undetermined but probably natural causes, and that this resource disaster caused a commercial fishery failure to exist in parts of Long Island Sound. Following that determination, Congress appropriated funds, administered through NOAA, to address the problem, and on July 13, 2000, President Clinton signed the Military Construction Appropriations Act for FY 2001 (P.L. 106-246), which approved a $13.9 million Emergency Appropriation to address the commercial failure of the Long Island Sound lobster fishery.

A $6.6 million research program was established as part of the emergency appropriation. Several workshops involving the industry and state, Federal and academic researchers have been held to assimilate and discuss the status of past and current lobster mortalities, a framework for a research plan of action to address the significant health issues affecting the Long Island Sound lobster resource was developed, and research is ongoing. An additional $1 million in research funds were contributed by the State of Connecticut Bonding Commission to be administered through the Connecticut Department of Environmental Protection Long Island Sound Research Fund. The intent of this research program is to study the impacts and possible causes of the failure which will provide information to not only understand the lobster resource disaster, but also hopefully to prevent future failure of the LIS lobster fishery.

The fishery resource disaster resulted in significant financial loss in the bi-state commercial lobster fisheries in both New York and Connecticut. Using the emergency appropriation, NOAA Fisheries has awarded $ 7.3 million in grants ($3.65 million each) to the States of CT and NY for the following purposes: (1) to pay compensation to individuals for reductions in the number of lobsters caught in the LIS lobster fishery; (2) to provide sustaining aid to affected fishermen; and (3) to provide assistance to communities that are dependent on the LIS lobster fishery and have suffered losses from the resource disaster. These grants were awarded to CT and NY on May 1 and June 1, 2001, respectively. Specifically, these funds are being effectively utilized to support activities in the two states including economic compensation for reductions in fishery income, subsidization of interest costs on existing debts in the LIS fishing community, job retraining, and a trap tag buyback program.

B. Stock Assessment

A stock assessment conducted by state and Federal scientists during June 1996 concluded that American lobster is overfished, with a high risk of a sharp decline in abundance throughout the species range. In 1999, the Commission conducted an updated stock assessment as referenced in Section I.1. of this FSEIS. Under the ISFMP, the Commission's overfishing definition is the basis for management actions in order to protect lobster stocks and provide for sustained harvest over the long term. If any stock is determined to be overfished, management actions are required. The stock assessment was completed in March 2000 and supported previous assessments that fishing effort is intense and increasing throughout the range of the resource and vulnerable to collapse. The 2000 stock assessment noted that all three stock areas are growth overfished, and overfished according to the overfishing definition in the ISFMP. Growth overfishing means that the maximum yield is not produced because of high fishing mortality on smaller lobsters. The stock assessment did, however, report that all three stocks are not recruitment overfished. Recruitment overfishing means that the number of new lobsters available to the fishery each year is reduced by high fishing mortality rates.

An external peer review of that assessment by stock assessment experts was held during May 8-9, 2000. The results of the 2000 Peer Review supported the conclusions of the stock assessment and determined that additional regulatory restrictions are necessary. The Peer Review Panel (Panel) noted that abundance has shown increasing trends in all stock areas in recent years, and

recruitment has also been high and increasing or stable for all three stock areas since 1994. The Panel believes that favorable environmental/ecological conditions have resulted in high survival rates for early life history stages and possibly higher growth rates for all stages. Factors such as increased water temperature, improved environmental/ecological conditions generally, broadscale shifts in climatic conditions as indicated by the north Atlantic anomaly, and low abundance in groundfish stocks may all have contributed.

The Panel went beyond the initial stock assessment determinations and noted that, while the resource is not currently recruitment overfished, recruitment overfishing is occurring. While recruitment overfishing appears to have been occurring for some time, fortuitous strong recruitment has maintained the stock biomass well above an overfished level. The Panel cautioned that while strong recruitment could continue in the short term, it is unrealistic to expect it will do so indefinitely and under current conditions in some segments of the fishery, the risk of significant recruitment declines is unacceptably high. All three stock areas show evidence of truncated length-frequency distributions and a greater reliance on the first molt group above the legal minimum size. Since most egg production is from recruits and the first molt group above minimum legal size, a decline in recruitment will lead to a decline in egg production. The Panel noted that a shift in fishing effort from inshore to offshore areas has occurred in several of the stock areas. Further increases in offshore fishing effort may influence inshore abundance levels due to the possible dependence of inshore areas on offshore egg production. It is also clear that the pool of large lobsters (more prevalent in the offshore areas) cannot indefinitely maintain adequate egg production unless young lobsters are allowed to grow to sizes above the first molt group.

Therefore, the Panel cautioned that a precautionary approach is recommended to guard against significant stock declines and reduce the risk of future recruitment failure. The Panel suggested several management options to improve the status of the resource: reduce fishing mortality - reduce fishing effort, increase the minimum size, establish spacial closed areas, and increase the escape vent size. Actions identified in this FSEIS address the Panels recommendations to reduce fishing mortality through effort reduction. Other Panel recommendations will be addressed by future Federal rulemaking to implement measures identified in Addenda II/III to Amendment 3 to the ISFMP. See Section I.2. and II.1.C. for additional discussion on Addenda II/III measures.

The need for continuing measures to reduce very high fishing mortality rates was further justified when the 2001 Annual State and Federal Trawl Survey Update to the 2000 lobster stock assessment was presented to the Commission Lobster Board by the Commission Lobster Technical Committee in February 2002. While some states were unable to provide trawl survey updates for 2001, in the absence of a yearly assessment, trends derived from trawl surveys can provide a useful indicator of stock status. All three lobster stock areas were surveyed in 2001. General indications are that resource conditions have not improved since the last stock assessment in 2000. For pre-recruit lobsters, those lobsters within one-half inch (1.2 cm) of the legal minimum carapace size of 3-1/4 inches (8.26 cm), the mean number per tow generally declined throughout all stock areas for both sexes. In fact, several inshore surveys noted that in the Gulf of Maine and Southern New England both fully-recruited and pre-recruit indices were

well below the 20 year time series means and were at or near time series lows for both male and female lobsters. According to the best information available, as described in this FSEIS, measures to implement historic participation in Area 3, 4, and 5, and conservation equivalency for dual status Federal permit holders in New Hampshire, are intended to reduce fishing effort and thereby reduce high fishing mortality rates as recommended by the Panel.

C. Relationship to Other Species

•Bycatch

Black sea bass (*Centropristis striata*) and American lobster (*Homarus americanus*) are often harvested using similarly configured fish traps or pots, although black sea bass traps are not usually baited. In the Mid-Atlantic where the two fisheries have considerable overlap, the two management strategies come into conflict. Concerned about the impacts on commercial fishing enterprises from differing management systems, the Mid-Atlantic Council and the Commission requested NOAA Fisheries to provide an exemption from the lobster gear requirements to black sea bass fishers in the Mid-Atlantic area, specifically in Lobster Management Area 5 (LCMA 5). Black sea bass fishermen typically use smaller escape vents in their traps than that required by Federal lobster regulations. Black sea bass fishermen customarily use as many as 1,500 traps compared to the 800 maximum allowed by lobster regulations. LCMA5 has historically represented less than 2 percent of the total lobster landings. The Mid-Atlantic Council and Commission recommended further that the incidental lobster allowance that applies to non-trap lobster fishers be applied to exempted sea bass fishers. NOAA Fisheries received requests from the Commission and the Mid-Atlantic Fishery Management Council to provide regulatory relief to fishermen who harvest black sea bass as bycatch in the lobster trap fishery. As referenced in Section II.2 of this FSEIS, these requests were accommodated under separate rulemaking. Proposed and Final Rules on the black sea bass pots issue were published in the Federal Register on December 5, 2000 (65 FR 75916), and March 13, 2001 (66 FR 14500), respectively. This regulatory action exempts black sea bass fishers who concurrently hold limited access lobster and limited access black sea bass permits from the more restrictive gear requirements in the lobster regulations when fishing in Area 5 if they elect to be restricted to the non-trap lobster allowance while targeting black sea bass in Area 5.

Marine Mammals and Sea turtles

A thorough discussion of the potential impacts of lobster management actions on listed marine mammals and sea turtles was provided in the previously published FEIS (64 FR 29026). Information is provided here to review and update the discussion of the impact of the lobster trap fishery on ESA listed marine mammals and sea turtles.

Threatened and Endangered Species and Critical Habitat Not Affected

The wild population of Atlantic salmon found in rivers and streams from the lower Kennebec River north to the U.S.-Canada border are listed as endangered under the ESA. These include the

Dennys, East Machias, Machias, Pleasant, Narraguagus, Ducktrap, and Sheepscot Rivers and Cove Brook. Juvenile salmon in New England rivers typically migrate to sea in May after a two to three year period of development in freshwater streams, and remain at sea for two winters before returning to their U.S. natal rivers to spawn. In 2001, a commercial fishing vessel engaged in fishing operations captured an adult salmon. Although this was subsequently determined to be an escaped aquaculture fish, it does show the potential for take of ESA-listed salmon in commercial fishing gear. In addition, results from a 2001 post-smolt trawl survey in Penobscot Bay and the nearshore waters of the Gulf of Maine indicate that Atlantic salmon post-smolts are prevalent in the upper water column throughout this area in mid to late May. Commercial fisheries deploying small mesh active gear (pelagic trawls and purse seines within 10-m of the surface) may have the potential to incidentally take smolts. Nevertheless, neither the selected alternative nor any of the non-selected alternatives are expected to affect ESA-listed Atlantic salmon since operation of the lobster fishery will not occur in or near the rivers where concentrations of Atlantic salmon are most likely to be found and there have been no recorded takes of Atlantic salmon in lobster trap gear.

Blue whales are commonly found in Canadian waters, particularly the Gulf of St. Lawrence where they are present for most of the year, and other areas of the North Atlantic (Waring *et al.* 2000) but are only occasional visitors to east coast U.S. waters. In 1987, one report of a blue whale in the southern Gulf of Maine entangled in gear described as probable lobster pot gear was received from a whale watch vessel. However, the gear type was not confirmed and no recent entanglements of blue whales have been reported from the U.S. Atlantic. Given their infrequent occurrence in U.S. waters, this species is not likely to occur within the area of operation of this fishery, therefore, neither the selected alternative nor any of the non-selected alternatives are expected to affect blue whales.

Similarly, sei whales may in some circumstances occur within the operation area of this fishery, but are not typically found in these waters. Sei whales occur in deep water throughout their range, typically over the continental slope or in basins situated between banks (NMFS 1998). In the northwest Atlantic, the whales travel along the eastern Canadian coast in June, July, and autumn on their way to and from the Gulf of Maine and Georges Bank where they occur in winter and spring. There have been no known entanglements of sei whales in lobster trap gear. Given that this species is unlikely to occur within the operation area of this fishery and given that there have been no known entanglements of sei whales in lobster trap gear, neither the selected alternative nor any of the non-selected alternatives are expected to affect sei whales.

In the U.S. EEZ, sperm whales are distributed in a distinct seasonal cycle; concentrated east-northeast of Cape Hatteras in winter and shifting northward in spring when whales are found throughout the Mid-Atlantic Bight. Distribution extends further northward to areas north of Georges Bank and the Northeast Channel region in summer and then south of New England in fall, back to the Mid-Atlantic Bight (Waring *et al.* 1999). There have been no known entanglements of sperm whales in lobster trap gear. Given that this species is unlikely to occur within the area of operation of this fishery and given that there have been no known entanglements of sperm whales in lobster trap gear, neither the selected alternative nor any of the

non-selected alternatives are expected to affect sei whales.

Green sea turtles, Kemp's ridley sea turtles, and loggerhead sea turtles are unlikely to occur within the area of operation of this fishery. All of these turtle species are temperature limited. Green sea turtles occur in Long Island sounds and bays in the summer but are considered rare north of Cape Hatteras. Kemp's ridley sea turtles are known to use waters along Cape Cod for summer foraging but are not known to occur in Maine waters. Although large loggerheads are known to occur in northern pelagic waters, loggerheads do not appear to use nearshore or coastal Maine waters. Given that these species do not occur in the area of operation of this fishery, neither the selected alternative nor any of the non-selected alternatives are expected to affect these species.

Designated right whale critical habitat as well as other critical areas lie within the area of operation of this fishery. Not all of the habitats used by North Atlantic right whales have been identified. Genetics work performed by Schaeff et al., (1993) suggested the existence of at least one unknown nursery area. Satellite tracking efforts have also identified individual animals embarking on far-ranging excursions (Knowlton et al., 1992 and Mate et al., 1997). Within the known distribution of the species, however, the following five areas have been identified as critical to the continued existence of the species: (1) coastal Florida and Georgia; (2) the Great South Channel, which lies east of Cape Cod; (3) Cape Cod and Massachusetts Bays; (4) the Bay of Fundy; and (5) Browns and Baccaro Banks off southern Nova Scotia. The first three areas occur in U.S. waters and have been designated by NMFS as critical habitat (59 FR 28793). Whales are most abundant in Cape Cod Bay between February and April (Hamilton and Mayo 1990; Schevill et al., 1986; Watkins and Schevill 1982), in the Great South Channel in May and June (Kenney et al., 1986, Payne et al., 1990), and off Georgia/Florida from mid-November through March (Slay et al., 1996).

The potential of the lobster fishery to alter trophic levels in the Great South Channel and Cape Cod Bay designated critical habitat could reduce the availability of right whale prey within that critical habitat. However, as right whales feed primarily on copepods, this seems highly unlikely. Although the physical and biological processes shaping acceptable right whale habitat are poorly understood, there is no evidence that suggest that either the selected alternative or the non-selected alternatives is expected to affect the value of right whale critical habitat.

Threatened and Endangered Species Affected

Marine Mammals - Status of whales

All of the cetacean species described below were once the subject of commercial whaling which likely caused their initial decline. Right whales were probably the first large whale to be hunted on a systematic, commercial basis (Clapham *et al.* 1999). Records indicate that right whales in the North Atlantic were subject to commercial whaling as early as 1059. Between the 11th and 17th centuries an estimated 25,000-40,000 North Atlantic right whales are believed to have been taken. World-wide, humpback whales were often the first species to be taken and frequently

hunted to commercial extinction (Clapham *et al.* 1999) which means that their numbers had been reduced so low by commercial exploitation that it was no longer profitable to target the species. Wide-scale exploitation of the more offshore fin whale occurred later with the introduction of steam-powered vessels and harpoon gun technology (Perry *et al.* 1999).

Right Whales

Right whales have occurred historically in all the world's oceans from temperate to subarctic latitudes, with their distribution correlated to the distribution of their zooplankton prey (Perry *et al.* 1999). In both hemispheres they have been observed at low latitudes and nearshore waters where calving takes place, and then tend to migrate to higher latitudes during the summer (Perry *et al.* 1999).

Pacific Ocean and Southern Hemisphere. Very little is known of the size and distribution of right whales in the North Pacific and very few of these animals have been seen in the past 20 years. In 1996, a group of 3 to 4 right whales (which may have included a calf) were observed in the middle shelf of the Bering Sea, west of Bristol Bay and east of the Pribilof Islands (Goddard and Rugh 1998). In June 1998, a single whale was observed on historic whaling grounds near Albatross Bank off Kodiak Island, Alaska (Waite and Hobbs 1999). Surveys conducted in July of 1997–2000 in Bristol Bay reported observations of lone animals or small groups of right whales in the same area as the 1996 sighting (Hill and DeMaster 1998, Perryman *et al.* 1999). Surveys conducted in 1997 and 1999 suggest that the remaining North Pacific right whales occupy different habitat in the Southeastern Bering Sea than what had been observed during whaling in the 1940's and 1960's (Tynan *et al.* 2001). Whereas right whales in the southeastern Bering Sea concentrated in deep (>200m) waters north of Unalaska Island where they fed on an oceanic copepod (*Neocalanus cristatus*) during the 1940's-1960's, more recent sightings of North Pacific right whales have observed the animals in more shallow waters (50-80m) on the middle Southeast Bering Shelf where *Calanus marshallae* is the dominant copepod species (Tynan *et al.* 2001). Less is known about the winter distribution patterns of right whales in the Pacific. Sightings have been made along the coasts of Washington, Oregon, California, and Baja California south to about 27/ N in the eastern North Pacific (Scarff 1986; NMFS 1991b). Sightings have also been reported for Hawaii (Herman *et al.* 1980).

A review of southern hemisphere right whales is provided in Perry *et al.* (1999). Since these right whales do not occur in U.S. waters, there is no recovery plan or stock assessment report for southern hemisphere right whales. Southern hemisphere right whales appear to be the most numerous of the right whales. Perry *et al.* (1999) provide a best estimate of abundance for southern hemisphere right whales as 7,000 based on estimates from separate breeding areas. In addition, unlike North Pacific or North Atlantic right whales, southern hemisphere right whales have shown some signs of recovery in the last 20 years. However, like other right whales, southern hemisphere right whales were heavily exploited (Perry *et al.* 1999). In addition, Soviet catch records made available in the 1990's (Zemsky *et al.* 1995) revealed that southern hemisphere right whales continued to be targeted well into the 20th century. Therefore, any indications of recovery should be viewed with caution.

Atlantic Ocean. As described above, scientific literature on right whales has historically recognized distinct eastern and western populations or subpopulations in the North Atlantic Ocean (IWC 1986). Current information on the eastern population is lacking and it is unclear whether a viable population in the eastern North Atlantic still exists (Brown 1986, NMFS 1991b). This Opinion will focus on the western North Atlantic subpopulation of right whales which occurs in the action area.

North Atlantic right whales generally occur west of the Gulf Stream. They are not found in the Caribbean and have been recorded only rarely in the Gulf of Mexico. Like other baleen whales, they occur in the lower latitudes and more coastal waters during the winter, where calving takes place, and then tend to migrate to higher latitudes for the summer. The distribution of right whales in summer and fall appears linked to the distribution of their principal zooplankton prey (Winn *et al.* 1986). New England waters include important foraging habitat for right whales and at least some right whales are present in these waters throughout most months of the year. They are most abundant in Cape Cod Bay between February and April (Hamilton and Mayo 1990; Schevill *et al.* 1986; Watkins and Schevill 1982) and in the Great South Channel in May and June (Kenney *et al.* 1986, Payne *et al.* 1990) where they have been observed feeding predominantly on copepods, largely of the genera *Calanus* and *Pseudocalanus* (Waring *et al.* 1999). Right whales also frequent Stellwagen Bank and Jeffrey's Ledge, as well as Canadian waters including the Bay of Fundy and Browns and Baccaro Banks, in the spring and summer months. Mid-Atlantic waters are used as a migratory pathway from the spring and summer feeding/nursery areas to the winter calving grounds off the coast of Georgia and Florida.

There is, however, much about right whale movements and habitat that is still not known or understood. Based on photo-identification, it has been shown that of 396 identified individuals, 25 have never been seen in any inshore habitat, and 117 have never been seen offshore (IWC 2001). Telemetry data have shown lengthy and somewhat distant excursions into deep water off of the continental shelf (Mate *et al.* 1997). Photo-id data have also indicated excursions of animals as far as Newfoundland, the Labrador Basin, southeast of Greenland (Knowlton *et al.* 1992), and Norway (IWC 2001). During the winter of 1999/2000, appreciable numbers of right whales were recorded in the Charleston, S.C. area. Because survey efforts in the Mid-Atlantic have been limited, it is unknown whether this is typical or whether it represents a northern expansion of the normal winter range, perhaps due to unseasonably warm waters.

Data collected in the 1990's suggested that western North Atlantic right whales were experiencing a slow, but steady recovery (Knowlton *et al.* 1994). However, more recent data strongly suggest that this trend has reversed and the species is in decline (Caswell *et al.* 1999, Fujiwara and Caswell 2001).

While it is not possible to obtain an exact count of the number of western North Atlantic right whales, IWC participants from a 1999 workshop agreed that it is reasonable to state that the current number of western North Atlantic right whales is probably around 300 (+/- 10%) (IWC 2001). This conclusion was based, in large part, on a photo-id catalog comprising more than 14,000 photographed sightings of 396 individuals, 11 of which were known to be dead and 87 of

which have not been seen in more than 6 years. In addition, it was noted that relatively few new non-calf whales (whales that were never sighted and counted in the population as calves) have been sighted in recent years (IWC 2001) suggesting that the 396 individuals is a close approximation of the entire subpopulation. (Since the 1999 IWC workshop there have been at least 47 right whale births. At least four of the calves are known to be dead and a fifth was not resighted with its mother on the summer foraging grounds. Three adult right whales are known to have died and two are suspected of having died since the 1999 IWC workshop. For the purposes of this Opinion, NMFS considers the best approximation for the number of North Atlantic right whales to be 300 +/- 10% based on the count of known animals minus known and suspected dead animals.) The sightings data and genetics data also support the conclusion that, as found previously, calving intervals have increased (from 3.67 years in 1992 to 5.8 years in 1998) and the survival rate has declined (IWC 2001). Even more alarming, the mortality of mature, reproductive females has increased, causing declines in population growth rate, life expectancy and the mean lifetime number of reproductive events between the period 1980-1995 (Fujiwara and Caswell 2001). In addition, for reasons which are unknown, many (presumed) mature females are not yet known to have given birth (an estimated 70% of mature females are reproductively active). Simply put, the western North Atlantic right whale subpopulation is declining because the trend over the last several years has been a decline in births coupled with an increase in mortality.

Factors that have been suggested as affecting right whale reproductive success and mortality include reduced genetic diversity, pollutants, and nutritional stress. However, there is no evidence available to determine their potential effect, if any, on western North Atlantic right whales. The size of the western North Atlantic subpopulation of right whales at the termination of whaling is unknown, but is generally believed to have been very small. Such an event may have resulted in a loss of genetic diversity which could affect the ability of the current population to successfully reproduce (*i.e.*, decreased conceptions, increased abortions, and increased neonate mortality). Studies by Schaeff *et al.* (1997) and Malik *et al.* (2000) indicate that western North Atlantic right whales are less genetically diverse than southern right whales. However, several apparently healthy populations of cetaceans, such as sperm whales and pilot whales, have even lower genetic diversity than observed for western North Atlantic right whales (IWC 2001). Similarly, while contaminant studies have confirmed that right whales are exposed to and accumulate contaminants, researchers could not conclude that these contaminant loads were negatively affecting right whales since concentrations were lower than those found in marine mammals proven to be affected by PCB's and DDT (Weisbrod *et al.* 2000). Finally, although North Atlantic right whales appear to have thinner blubber than right whales from the South Atlantic (Kenney 2000), there is no evidence at present to demonstrate that the decline in birth rate and increase in calving interval is related to a food shortage. These concerns were also discussed at the 1999 IWC workshop where it was pointed out that since *Calanus* sp. is the most common zooplankton in the North Atlantic and current right whale abundance is greatly below historical levels, the proposal that food limitation was the major factor seemed questionable (IWC 2001).

Anthropogenic mortality in the form of ship strikes and fishing gear entanglements do, however,

appear to be affecting the status of western North Atlantic right whales. Data collected from 1970 through 1999 indicate that anthropogenic interactions are responsible for a minimum of two-thirds of the confirmed and possible mortality of non-neonate animals (Knowlton and Kraus 2001). Of the 45 right whale mortalities documented during this period, 16 were due to ship collisions and three were due to entanglement in fishing gear (there were also 13 neonate deaths and 13 deaths of non-calf animals from unknown causes) (Knowlton and Kraus 2001). Based on the criteria developed by Knowlton and Kraus (2001), 56 additional serious injuries and mortalities from entanglement or ship strikes are believed to have occurred between 1970 and 1999: 9 from ship strikes and 28 from entanglement. Nineteen were considered to be fatal interactions (16 ship strikes, 3 entanglements). Ten were possibly fatal (2 ship strikes, 8 entanglements), and 27 were non-fatal (7 ship strikes, 20 entanglements) (Knowlton and Kraus 2001). Scarification analysis also provides information on the number of right whales which have survived ship strikes and fishing gear entanglements. Based on photographs of catalogued animals from 1959 and 1989, Kraus (1990) estimated that 57 percent of right whales exhibited scars from entanglement and 7 percent from ship strikes (propeller injuries). This work was updated by Hamilton *et al.* (1998) using data from 1935 through 1995. The new study estimated that 61.6 percent of right whales exhibit injuries caused by entanglement, and 6.4 percent exhibit signs of injury from vessel strikes. In addition, several whales have apparently been entangled on more than one occasion. Some right whales that have been entangled were subsequently involved in ship strikes. Because some animals may drown or be killed immediately, the actual number of interactions is expected to be higher.

Humpback Whales

Humpback whales inhabit all major ocean basins from the equator to subpolar latitudes. They generally follow a predictable migratory pattern in both hemispheres, feeding during the summer in the higher near-polar latitudes and migrating to lower latitudes where calving and breeding takes place in the winter (Perry *et al.* 1999).

North Pacific, Northern Indian Ocean and Southern Hemisphere. Humpback whales range widely across the North Pacific during the summer months; from Port Conception, CA, to the Bering Sea (Johnson and Wolman 1984, Perry *et al.* 1999). Although the IWC recognizes only one stock (Donovan 1991) there is evidence to indicate multiple populations or stocks within the North Pacific Basin (Perry *et al.* 1999, Carretta *et al.* 2001). NMFS recognizes three management units within the U.S. EEZ for the purposes of managing this species under the MMPA. These are: the eastern North Pacific stock, the central North Pacific stock and the western North Pacific stock (Carretta *et al.* 2001). There are indications that the eastern North Pacific stock is increasing in abundance (Caretta *et al.* 2001) and the central North Pacific stock appears to have increased in abundance between the 1980's -1990's (Angliss *et al.* 2001). However, there is no reliable population trend data for the western North Pacific stock (Angliss *et al.* 2001).

Little or no research has been conducted on humpbacks in the Northern Indian Ocean so information on their current abundance does not exist (Perry *et al.* 1999). Since these humpback

whales do not occur in U.S. waters, there is no recovery plan or stock assessment report for the northern Indian Ocean humpback whales. Likewise, there is no recovery plan or stock assessment report for southern hemisphere humpback whales, and there is also no current estimate of abundance for humpback whales in the southern hemisphere although there are estimates for some of the six southern hemisphere humpback whale stocks recognized by the IWC (Perry *et al.* 1999). Like other whales, southern hemisphere humpback whales were heavily exploited for commercial whaling. Although they were given protection by the IWC in 1963, Soviet whaling data made available in the 1990's revealed that 48,477 southern hemisphere humpback whales were taken from 1947-1980, contrary to the original reports to the IWC which accounted for the take of only 2,710 humpbacks (Zemsky *et al.* 1995, IWC 1995, Perry *et al.* 1999).

North Atlantic. Humpback whales calve and mate in the West Indies and migrate to feeding areas in the northwestern Atlantic during the summer months. Most of the humpbacks that forage in the Gulf of Maine visit Stellwagen Bank and the waters of Massachusetts and Cape Cod Bays. Sightings are most frequent from mid-March through November between 41°N and 43°N, from the Great South Channel north along the outside of Cape Cod to Stellwagen Bank and Jeffrey's Ledge (CeTAP 1982) and peak in May and August. Small numbers of individuals may be present in this area year-round, including the waters of Stellwagen Bank. They feed on a number of species of small schooling fishes, particularly sand lance and Atlantic herring, by targeting fish schools and filtering large amounts of water for their associated prey. Humpback whales have also been observed feeding on krill (Wynne and Schwartz 1999).

In winter, whales from the six feeding areas (including the Gulf of Maine) mate and calve primarily in the West Indies where spatial and genetic mixing among these groups occur (Waring *et al.* 2000). Various papers (Clapham and Mayo 1990, Clapham 1992, Barlow and Clapham 1997, Clapham *et al.* 1999) summarized information gathered from a catalogue of photographs of 643 individuals from the western North Atlantic population of humpback whales. These photographs identified reproductively mature western North Atlantic humpbacks wintering in tropical breeding grounds in the Antilles, primarily on Silver and Navidad Banks, north of the Dominican Republic. The primary winter range also includes the Virgin Islands and Puerto Rico (NMFS 1991a). Calves are born from December through March and are about 4 meters at birth. Sexually mature females give birth approximately every 2 to 3 years. Sexual maturity is reached between 4 and 6 years of age for females and between 7 and 15 years for males. Size at maturity is about 12 meters.

Humpback whales use the Mid-Atlantic as a migratory pathway to and from the calving/mating grounds, but it may also be an important winter feeding area for juveniles. Since 1989, observations of juvenile humpbacks in the Mid-Atlantic have been increasing during the winter months, peaking January through March (Swingle *et al.* 1993). Biologists theorize that non-reproductive animals may be establishing a winter feeding range in the Mid-Atlantic since they are not participating in reproductive behavior in the Caribbean. Swingle *et al.* (1993) identified a shift in distribution of juvenile humpback whales in the nearshore waters of Virginia, primarily in winter months. Identified whales using the Mid-Atlantic area were found to be residents of the

Gulf of Maine and Atlantic Canada (Gulf of St. Lawrence and Newfoundland) feeding groups, suggesting a mixing of different feeding populations in the Mid-Atlantic region. Strandings of humpback whales have increased between New Jersey and Florida since 1985 consistent with the increase in Mid-Atlantic whale sightings. Strandings were most frequent during September through April in North Carolina and Virginia waters, and were composed primarily of juvenile humpback whales of no more than 11 meters in length (Wiley *et al.* 1995).

It is not possible to provide a reliable estimate of abundance for the Gulf of Maine humpback whale feeding group at this time (Waring *et al.* 2000). Available data are too limited to yield a precise estimate, and additional data from the northern Gulf of Maine and perhaps elsewhere are required (Waring *et al.* 2000). Photographic mark-recapture analyses from the Years of the North Atlantic Humpback (YONAH) project gave an ocean-basin-wide estimate of 10,600 (95% c.i. = 9,300 - 12,100) (Waring *et al.* 2000). For management purposes under the MMPA, the estimate of 10,600 is regarded as the best available estimate for the North Atlantic population (Waring *et al.* 2000).

Humpback whales, like other baleen whales, may also be adversely affected by habitat degradation, habitat exclusion, acoustic trauma, harassment, or reduction in prey resources due to trophic effects resulting from a variety of activities including the operation of commercial fisheries, coastal development and vessel traffic. However, evidence of these is lacking. There are strong indications that a mass mortality of humpback whales in the southern Gulf of Maine in 1987/1988 was the result of the consumption of mackerel whose livers contained high levels of a red-tide toxin. It has been suggested that red tides are somehow related to increased freshwater runoff from coastal development but there is insufficient data to link this with the humpback whale mortality (Clapham *et al.* 1999). Changes in humpback distribution in the Gulf of Maine have been found to be associated with changes in herring, mackerel, and sand lance abundance associated with local fishing pressures (Waring *et al.* 2000). However, there is no evidence that humpback whales were adversely affected by these trophic changes.

As is the case with other large whales, the major known sources of anthropogenic mortality and injury of humpback whales occur from commercial fishing gear entanglements and ship strikes. Sixty percent of Mid-Atlantic humpback whale mortalities that were closely investigated showed signs of entanglement or vessel collision (Wiley *et al.* 1995). Between 1992 and 2001 at least 92 humpback whale entanglements and 10 ship strikes (this includes an interaction between a humpback whale and a 33' pleasure boat) were recorded. There were also many carcasses that washed ashore or were spotted floating at sea for which the cause of death could not be determined. Based on photographs of the caudal peduncle of humpback whales, Robbins and Mattila (1999) estimated that at least 48 percent --- and possibly as many as 78 percent --- of animals in the Gulf of Maine exhibit scarring caused by entanglement. These estimates are based on sightings of free-swimming animals that initially survive the encounter. Because some whales may drown immediately, the actual number of interactions may be higher.

Fin Whale

Fin whales inhabit a wide range of latitudes between 20-75° N and 20-75° S (Perry *et al.* 1999). Fin whales spend the summer feeding in the relatively high latitudes of both hemispheres, particularly along the cold eastern boundary currents in the North Atlantic and North Pacific Oceans and in Antarctic waters (IWC 1992).

North Pacific and Southern Hemisphere. Within the U.S. waters in the Pacific, fin whales are found seasonally off of the coast of North America and Hawaii, and in the Bering Sea during the summer (Angliss *et al.* 2001). NMFS recognizes three fin whale stocks in the Pacific for the purposes of managing this species under the MMPA. These are: Alaska (Northeast Pacific), California/Washington/Oregon, and Hawaii (Angliss *et al.* 2001). Reliable estimates of current abundance for the entire Northeast Pacific fin whale stock are not available (Angliss *et al.* 2001). Stock structure for fin whales in the southern hemisphere is unknown. Prior to commercial exploitation, the abundance of southern hemisphere fin whales is estimated to have been at 400,000 (IWC 1979, Perry *et al.* 1999). There are no current estimates of abundance for southern hemisphere fin whales. Since these fin whales do not occur in U.S. waters, there is no recovery plan or stock assessment report for the southern hemisphere fin whales.

North Atlantic. During 1978-1982 aerial surveys, fin whales accounted for 24% of all cetaceans and 46% of all large cetaceans sighted over the continental shelf between Cape Hatteras and Nova Scotia (Waring *et al.*1998). Underwater listening systems have also demonstrated that the fin whale is the most acoustically common whale species heard in the North Atlantic (Clark 1995). The single most important area for this species appeared to be from the Great South Channel, along the 50m isobath past Cape Cod, over Stellwagen Bank, and past Cape Ann to Jeffrey's Ledge (Hain *et al.*1992).

Like right and humpback whales, fin whales are believed to use North Atlantic waters primarily for feeding, and more southern waters for calving. However, evidence regarding where the majority of fin whales winter, calve, and mate is still scarce. Clark (1995) reported a general pattern of fin whale movements in the fall from the Labrador/Newfoundland region, south past Bermuda and into the West Indies, but neonate strandings along the U.S. Mid-Atlantic coast from October through January suggest the possibility of an offshore calving area (Hain *et al.* 1992).

Fin whales achieve sexual maturity at 5-15 years of age (Perry *et al.* 1999), although physical maturity may not be reached until 20-30 years (Aguilar and Lockyer 1987). Conception is believed to occur during the winter with birth of a single calf after a 12 month gestation (Mizroch and York 1984). The calf is weaned 6-11 months after birth (Perry *et al.* 1999). The mean calving interval is 2.7 years (Agler *et al.* 1993).

The predominant prey of fin whales varies greatly in different geographical areas depending on what is locally available (IWC 1992). In the western North Atlantic, fin whales feed on a variety of small schooling fish (*i.e.*, herring, capelin, sand lance) as well as squid and planktonic crustaceans (Wynne and Schwartz 1999). As with humpback whales, fin whales feed by filtering large volumes of water for their prey through their baleen plates.

NMFS has designated one population of fin whale for U.S. waters of the North Atlantic (Waring *et al.* 1998) where the species is commonly found from Cape Hatteras northward although there is information to suggest some degree of separation. A number of researchers have suggested the existence of fin whale subpopulations in the North Atlantic based on local depletions resulting from commercial overharvesting (Mizroch and York 1984) or genetics data (Bérubé *et al.* 1998). Photoidentification studies in western North Atlantic feeding areas, particularly in Massachusetts Bay, have shown a high rate of annual return by fin whales, both within years and between years (Seipt *et al.* 1990) suggesting some level of site fidelity. In 1976, the IWC's Scientific Committee proposed seven stocks (or populations) for North Atlantic fin whales. These are: (1) North Norway, (2) West Norway-Faroe Islands, (3) British Isles-Spain and Portugal, (4) East Greenland-Iceland, (5) West Greenland, (6) Newfoundland-Labrador, and (7) Nova Scotia (Perry *et al.* 1999). However, it is uncertain whether these boundaries define biologically isolated units (Waring *et al.* 1999).

Various estimates have been provided to describe the current status of fin whales in western North Atlantic waters. One method used the catch history and trends in Catch Per Unit Effort to obtain an estimate of 3,590 to 6,300 fin whales for the entire western North Atlantic (Perry *et al.* 1999). Hain *et al.* (1992) estimated that about 5,000 fin whales inhabit the Northeastern United States continental shelf waters. The 2001 Stock Assessment Report (SAR) gives a best estimate of abundance for fin whales of 2,814 (CV = 0.21). The minimum population estimate for the western North Atlantic fin whale is 2,362 (Waring *et al.* 2001). However, this is considered an underestimate since the estimate derives from surveys over a limited portion of the western North Atlantic.

Like right whales and humpback whales, anthropogenic mortality and injury of fin whales include entanglement in commercial fishing gear and ship strikes. Of 18 fin whale mortality records collected between 1991 and 1995, four were associated with vessel interactions, although the proximal cause of mortality was not known. From 1996-July 2001, there were nine observed fin whale entanglements and at least four ship strikes. It is believed to be the most commonly struck cetacean by large vessels (Laist *et al.* 2001). In addition, hunting of fin whales continued well into the 20th century. Fin whales were given total protection in the North Atlantic in 1987 with the exception of a subsistence whaling hunt for Greenland (Gambell 1993, Caulfield 1993). However, Iceland reported a catch of 136 whales in the 1988/89 and 1989/90 seasons, and has since ceased reporting fin whale kills to the IWC (Perry *et al.* 1999). In total, there have been 239 reported kills of fin whales from the North Atlantic from 1988 to 1995.

Status of Sea Turtles

Sea turtles continue to be affected by many factors occurring on the nesting beaches and in the water. Poaching, habitat loss (because of human development), and nesting predation by introduced species affect hatchlings and nesting females while on land. Fishery interactions from many sources affect sea turtles in the pelagic and benthic environments. As a result, sea turtles still face many of the original threats that were the cause of their listing under the ESA.

Leatherback Sea Turtle

Leatherback sea turtles are widely distributed throughout the oceans of the world, and are found in waters of the Atlantic and Pacific Oceans, the Caribbean Sea, and the Gulf of Mexico (Ernst and Barbour 1972). Leatherback sea turtles are the largest living turtles and range farther than any other sea turtle species; their large size and tolerance of relatively low temperatures allows them to occur in northern waters such as off Labrador and in the Barents Sea (NMFS and USFWS 1995). In 1980, the leatherback population was estimated at approximately 115,000 (adult females) globally (Pritchard 1982). By 1995, this global population of adult females had declined to 34,500 (Spotila *et al.* 1996).

Although leatherbacks are a long lived species (> 30 years), they mature at a younger age than loggerhead turtles, with an estimated age at sexual maturity of about 13-14 years for females, and an estimated minimum age at sexual maturity of 5-6 years, with 9 years reported as a likely minimum (Zug and Parham 1996) and 19 years as a likely maximum (NMFS SEFSC 2001). In the U.S. and Caribbean, female leatherbacks nest from March through July. They nest frequently (up to 7 nests per year) during a nesting season and nest about every 2-3 years. During each nesting, they produce 100 eggs or more in each clutch and thus, can produce 700 eggs or more per nesting season (Schultz 1975). However, a significant portion (up to approximately 30%) of the eggs can be infertile. Thus, the actual proportion of eggs that can result in hatchlings is less than this seasonal estimate. The eggs will incubate for 55-75 days before hatching. Based on a review of all sightings of leatherback sea turtles of <145 cm curved carapace length (ccl), Eckert (1999) found that leatherback juveniles remain in waters warmer than 26°C until they exceed 100 cm ccl.
Pacific Ocean. Based on published estimates of nesting female abundance, leatherback populations have collapsed or have been declining at all major Pacific basin nesting beaches for the last two decades (Spotila *et al*., 1996; NMFS and USFWS 1998b; Sarti, *et al.* 2000; Spotila, *et al*. 2000). Leatherback turtles had disappeared from India before 1930, have been virtually extinct in Sri Lanka since 1994, and appear to be approaching extinction in Malaysia (Spotila *et al*. 2000). For example, the nesting assemblage on Terengganu (Malaysia) - which was one of the most significant nesting sites in the western Pacific Ocean - has declined severely from an estimated 3,103 females in 1968 to 2 nesting females in 1994 (Chan and Liew 1996). The size of the current nesting assemblage represents less than 2 percent of the size of the assemblage reported from the 1950s; with one or two females nesting in this area each year (P. Dutton, personal communication, 2000). Nesting assemblages of leatherback turtles along the coasts of the Solomon Islands, which supported important nesting assemblages historically, are also reported to be declining (D. Broderick, personal communication, *in* Dutton *et al*. 1999). In Fiji, Thailand, Australia, and Papua-New Guinea (East Papua), leatherback turtles have only been known to nest in low densities and scattered colonies.

Only an Indonesian nesting assemblage has remained relatively abundant in the Pacific basin. The largest, extant leatherback nesting assemblage in the Indo-Pacific lies on the north Vogelkop coast of Irian Jaya (West Papua), Indonesia, with over 1,000 nesting females during the 1996 season (Suarez *et al*. in press). During the early-to-mid 1980s, the number of female leatherback

turtles nesting on the two primary beaches of Irian Jaya appeared to be stable. More recently, however, this population has come under increasing threats that could cause this population to experience a collapse that is similar to what occurred at Terengganu, Malaysia. In 1999, for example, local Indonesian villagers started reporting dramatic declines in sea turtle populations near their villages (Suarez 1999); unless hatchling and adult turtles on nesting beaches receive more protection, this population will continue to decline. Declines in nesting assemblages of leatherback turtles have been reported throughout the western Pacific region where observers report that nesting assemblages are well below abundance levels that were observed several decades ago (for example, Suarez 1999).

In the western Pacific Ocean and South China Seas, leatherback turtles are captured, injured, or killed in numerous fisheries including Japanese longline fisheries. Leatherback turtles in the western Pacific are also threatened by poaching of eggs, killing of nesting females, human encroachment on nesting beaches, incidental capture in fishing gear, beach erosion, and egg predation by animals.

In the eastern Pacific Ocean, nesting populations of leatherback turtles are declining along the Pacific coast of Mexico and Costa Rica. According to reports from the late 1970s and early 1980s, three beaches located on the Pacific coast of Mexico support as many as half of all leatherback turtle nests. Since the early 1980s, the eastern Pacific Mexican population of adult female leatherback turtles has declined to slightly more than 200 during 1998-99 and 1999-2000 (Sarti *et al*. 2000). Spotila *et al*. (2000) reported the decline of the leatherback turtle population at Playa Grande, Costa Rica, which had been the fourth largest nesting colony in the world. Between 1988 and 1999, the nesting colony declined from 1,367 to 117 female leatherback turtles. Based on their models, Spotila *et al*. (2000) estimated that the colony could fall to less than 50 females by 2003-2004.

In the eastern Pacific Ocean, leatherback turtles are captured, injured, or killed in commercial and artisanal swordfish fisheries off Chile, Columbia, Ecuador, and Peru; purse seine fisheries for tuna in the eastern tropical Pacific Ocean, and California/Oregon drift gillnet fisheries. Because of the limited available data, we cannot accurately estimate the number of leatherback turtles captured, injured, or killed through interactions with these fisheries. However, between 8 and 17 leatherback turtles were estimated to have died annually between 1990 and 2000 in interactions with the California/ Oregon drift gillnet fishery; 500 leatherback turtles are estimated to die annually in Chilean and Peruvian fisheries; 200 leatherback turtles are estimated to die in direct harvests in Indonesia; and before 1992, the North Pacific driftnet fisheries for squid, tuna, and billfish captured an estimated 1,002 leatherback turtles each year, killing about 111 of them each year.

Although all causes of the declines in leatherback turtle colonies have not been documented, Sarti *et al*. (1998) suggest that the decline results from egg poaching, adult and sub-adult mortalities incidental to high seas fisheries, and natural fluctuations due to changing environmental conditions. Some published reports support this suggestion. Sarti *et al*. (2000) reported that female leatherback turtles have been killed for meat on nesting beaches like Píedra de

Tiacoyunque, Guerrero, Mexico. Eckert (1997) reported that swordfish gillnet fisheries in Peru and Chile contributed to the decline of leatherback turtles in the eastern Pacific. The decline in the nesting population at Mexiquillo, Mexico occurred at the same time that effort doubled in the Chilean driftnet fishery. In response to these effects, the eastern Pacific population has continued to decline, leading some researchers to conclude that the leatherback is on the verge of extinction in the Pacific Ocean (*e.g.* Spotila *et al*. 1996; Spotila, *et al*. 2000).

Atlantic Ocean. Evidence from tag returns and strandings in the western Atlantic suggests that adults engage in routine migrations between boreal, temperate and tropical waters (NMFS and USFWS 1992). A 1979 aerial survey of the outer Continental Shelf from Cape Hatteras, North Carolina to Cape Sable, Nova Scotia showed leatherbacks to be present throughout the area with the most numerous sightings made from the Gulf of Maine south to Long Island. Shoop and Kenney (1992) also observed concentrations of leatherbacks during the summer off the south shore of Long Island and off New Jersey. Leatherbacks in these waters are thought to be following their preferred jellyfish prey. This aerial survey estimated the leatherback population for the northeastern U.S. at approximately 300-600 animals (from near Nova Scotia, Canada to Cape Hatteras, North Carolina).

Leatherbacks are predominantly a pelagic species and feed on jellyfish (*i.e.*, *Stomolophus, Chryaora*, and *Aurelia* (Rebel 1974)), and tunicates (salps, pyrosomas). Leatherbacks may come into shallow waters if there is an abundance of jellyfish nearshore. For example, leatherbacks occur annually in places such as Cape Cod and Narragansett Bays during certain times of the year, particularly the fall (C. Ryder, pers comm.)

Leatherback populations in the eastern Atlantic (*i.e.* off Africa) and Caribbean appear to be stable, but there is conflicting information for some sites (Spotila, pers. comm) and it is certain that some nesting populations (*e.g.*, St. John and St. Thomas, U.S. Virgin Islands) have been extirpated (NMFS and USFWS 1995). Data collected in southeast Florida clearly indicate increasing numbers of nests for the past twenty years (9.1-11.5% increase), although it is critical to note that there was also an increase in the survey area in Florida over time (NMFS SEFSC 2001). The largest leatherback rookery in the western North Atlantic remains along the northern coast of South America in French Guiana and Suriname. Recent information suggests that Western Atlantic populations declined from 18,800 nesting females in 1996 (Spotila *et al.* 1996) to 15,000 nesting females by 2000 (Spotila, pers. comm). The nesting population of leatherback sea turtles in the Suriname-French Guiana trans-boundary region has been declining since 1992 (Chevalier and Girondot 1998). Poaching and fishing gear interactions are, once again, believed to be the major contributors to the decline of leatherbacks in the area (Chevalier *et al.* in press, Swinkels *et al.* in press). While Spotila *et al.*(1996) indicated that turtles may have been shifting their nesting from French Guiana to Suriname due to beach erosion, analyses show that the overall area trend in number of nests has been negative since 1987 at a rate of 15.0 -17.3 % per year (NMFS SEFSC 2001). If turtles are not nesting elsewhere, it appears that the Western Atlantic portion of the population is being subjected to mortality beyond sustainable levels, resulting in a continued decline in numbers of nesting females. Tag return data emphasize the global nature of the leatherback and the link between these South American nesters and animals

found in U.S. waters. For example, a nesting female tagged May 29, 1990, in French Guiana was later recovered and released alive from the York River, VA. Another nester tagged in French Guiana on June 21, 1990, was later found dead in Palm Beach, Florida (STSSN database).

Of the Atlantic turtle species, leatherbacks seem to be the most vulnerable to entanglement in fishing gear. This susceptibility may be the result of their body type (large size, long pectoral flippers, and lack of a hard shell), and their attraction to gelatinous organisms and algae that collect on buoys and buoy lines at or near the surface, and perhaps to the lightsticks used to attract target species in longline fisheries. They are also susceptible to entanglement in gillnets (used in various fisheries) and capture in trawl gear (*e.g.*, shrimp trawls). Sea turtles entangled in fishing gear generally have a reduced ability to feed, dive, surface to breathe or perform any other behavior essential to survival (Balazs 1985). They may be more susceptible to boat strikes if forced to remain at the surface, and entangling lines can constrict blood flow resulting in necrosis.

Leatherbacks are exposed to pelagic longline fisheries in many areas of their range. Unlike loggerhead turtle interactions with longline gear, leatherback turtles do not ingest longline bait. Therefore, leatherbacks are foul hooked (*e.g.*, on the flipper or shoulder area) rather than mouth or throat hooked by longline gear. According to observer records, an estimated 6,363 leatherback sea turtles were caught by the U.S. Atlantic tuna and swordfish longline fisheries between 1992-1999, of which 88 were released dead (NMFS SEFSC 2001). Since the U.S. fleet accounts for only 5-8% of the hooks fished in the Atlantic Ocean, adding up the under-represented observed takes of the other 23 countries actively fishing in the area would likely result in annual take estimates of thousands of leatherbacks over different life stages. Leatherbacks also make up a significant portion of takes in the Gulf of Mexico and South Atlantic areas, but are more often released alive. The Hawaii based pelagic longline fishery is known to take leatherback sea turtles as well (McCracken 2000).

Leatherbacks are susceptible to entanglement in the lines associated with trap/pot gear used in several fisheries. In the Northeast, leatherbacks are known to become entangled in lobster trap gear. One hundred nineteen leatherback entanglements were reported from New York through Maine for the years 1980 - 2000, but the majority (92) were reported from 1990-2000 (NMFS 2001b) and these represented known entanglements between the months of June and October, only (NEFSC, unpublished data). Entanglement in lobster pot lines was cited as the leading determinable cause of adult leatherback strandings in Cape Cod Bay, Massachusetts (Prescott 1988; R. Prescott, pers. comm.). In addition, many of the stranded leatherbacks for which a direct cause of death could not be documented showed evidence of rope scars or wounds and abraded carapaces, implicating entanglement. Data collected by the NEFSC in 2001 also support that whelk pot gear was involved in a number of reported leatherback entanglements in Massachusetts and New Jersey waters. The Mid-Atlantic blue crab fishery is another potential source of leatherback entanglement. In North Carolina, two leatherback sea turtles were reported entangled in a crab pot buoy inside Hatteras Inlet (D. Fletcher, pers.comm.). A third leatherback was reported entangled in a crab pot buoy in Pamlico Sound off of Ocracoke. This turtle was disentangled and released alive; however, lacerations on the front flippers from the lines were evident (D. Fletcher, pers.comm.). In the Southeast, leatherbacks are vulnerable to entanglement

in Florida's lobster pot and stone crab fisheries as documented on stranding forms. In the U.S. Virgin Islands, where one of five leatherback strandings from 1982 to 1997 were due to entanglement (Boulon 2000), leatherbacks have been observed with their flippers wrapped in the line of West Indian fish traps (R. Boulon, pers. comm.). Since many entanglements of this typically pelagic species likely go unnoticed, entanglements in fishing gear may be much higher.

Leatherback interactions with the southeast shrimp fishery are also common. The National Research Council Committee on Sea Turtle Conservation identified incidental capture in shrimp trawls as the major anthropogenic cause of sea turtle mortality (NRC 1990). Leatherbacks are likely to encounter shrimp trawls working in the nearshore waters off the Atlantic coast as they make their annual spring migration north. Turtle Excluder Devices (TEDs), typically used in the southeast shrimp fishery to minimize sea turtle/fishery interactions, are less effective for the large-sized leatherbacks. Therefore, NMFS has used several alternative measures to protect leatherback sea turtles from lethal interactions with the shrimp fishery. These include establishment of a Leatherback Conservation Zone (60 FR 25260). NMFS established the zone to restrict, when necessary, shrimp trawl activities from off the coast of Cape Canaveral, Florida to the Virginia/North Carolina Border. It allows NMFS to quickly close the area or portions of the area to shrimp fishermen who do not use TEDs with an escape opening large enough to exclude leatherbacks on a short-term basis when high concentrations of normally pelagic leatherbacks are recorded in more coastal waters where the shrimp fleet operates.

Other emergency measures may also be used to minimize interactions between leatherbacks and the shrimp fishery. For example, in November 1999 parts of Florida experienced an unusually high number of leatherback strandings. In response, NMFS required shrimp vessels operating in a specified area to use TEDs with a larger opening for a 30-day period beginning December 8, 1999 (64 FR 69416) so that leatherback sea turtles could escape if caught in the gear. Because of these high leatherback strandings occurring outside the leatherback conservation zone, the lack of aerial surveys conducted in the fall, the inability to conduct required replicate surveys due to weather, equipment or personnel constraints, and the possibility that a 2-week closure was insufficient to ensure that leatherbacks had vacated the area, NMFS published an Advanced Notice of Proposed Rulemaking in April 2000 (65 FR 17852, April 5, 2000) indicating that NMFS was considering publishing a proposed rule to provide additional protection for leatherback turtles in the shrimp fishery. NMFS did publish a proposed rule in October 2001 (66 FR 50148) that would modify the requirements for TED openings to ensure that they are wide enough to exclude leatherbacks as well as large loggerheads and green turtles. This rule has not yet been finalized.

The southeast shrimp trawl fishery is not the only trawl fishery that can interact with leatherback sea turtles. In October 2001, a Northeast Fisheries Center Observer documented the take of a leatherback in a bottom otter trawl fishing for *Loligo* squid off of Delaware.

Gillnet fisheries operating in the nearshore waters of the Mid-Atlantic states are likely to take leatherbacks when these fisheries and leatherbacks co-occur. However, there is very little quantitative data on capture rate and mortality. Data collected by NMFS' NEFSC Fisheries

Observer Program from 1994 through 1998 (excluding 1997) indicate that a total of 37 leatherbacks were incidentally captured (16 lethally) in drift gillnets set in offshore waters from Maine to Florida during this period. Observer coverage for this period ranged from 54% to 92%. NMFS' NEFSC Fisheries Observer Program also had observers on the bottom coastal gillnet fishery which operates in the Mid-Atlantic. No takes of leatherback sea turtles were observed in the Mid-Atlantic bottom coastal gillnet fishery from 1994-1998 but observer coverage of this fishery was low, ranging from <1% to 5%. In North Carolina, a leatherback was reported captured in a gillnet set in Pamlico Sound at the north end of Hatteras Island in the spring of 1990 (D. Fletcher, pers.comm.). It was released alive by the fishermen after much effort. Five other leatherbacks were released alive from nets set in North Carolina during the spring months: one was from a net (unknown gear) set in the nearshore waters near the North Carolina/Virginia border (1985); two others had been caught in gillnets set off of Beaufort Inlet (1990); a fourth was caught in a gillnet set off of Hatteras Island (1993), and a fifth was caught in a sink net set in New River Inlet (1993). In addition to these, in September 1995 two dead leatherbacks were removed from a large (11-inch) monofilament shark gillnet set in the nearshore waters off of Cape Hatteras, North Carolina.

Poaching is not known to be a problem for nesting populations in the continental U.S. However, NMFS' SEFSC (2001) notes that poaching of juveniles and adults is still occurring in the U.S. Virgin Islands. In all, four of the five strandings in St. Croix were the result of poaching (Boulon 2000). A few cases of fishermen poaching leatherbacks have been reported from Puerto Rico, but most of the poaching is on eggs.

Leatherback sea turtles may be more susceptible to marine debris ingestion than other species due to their pelagic existence and the tendency of floating debris to concentrate in convergence zones that adults and juveniles use for feeding areas and migratory routes (Lutcavage *et al.* 1997; Shoop and Kenney 1992). Investigations of the stomach contents of leatherback sea turtles revealed that a substantial percentage (44% of the 16 cases examined) contained plastic (Mrosovsky 1981). Along the coast of Peru, intestinal contents of 19 of 140 (13%) leatherback carcasses were found to contain plastic bags and film (Fritts 1982). The presence of plastic debris in the digestive tract suggests that leatherbacks might not be able to distinguish between prey items and plastic debris (Mrosovsky 1981). Balazs (1985) speculated that the object may resemble a food item by its shape, color, size or even movement as it drifts about, and induce a feeding response.

It is important to note that, like marine debris, fishing gear interactions and poaching are problems for leatherbacks throughout their range. Entanglements are common in Canadian waters where Goff and Lien (1988) reported that 14 of 20 leatherbacks encountered off the coast of Newfoundland/Labrador were entangled in fishing gear including salmon net, herring net, gillnet, trawl line and crab pot line. Leatherbacks are reported taken by the many other nations, including Taipei, Brazil, Trinidad, Morocco, Cyprus, Venezuela, Korea, Mexico, Cuba, U.K., Bermuda, People's Republic of China, Grenada, Canada, Belize, France, and Ireland that participate in Atlantic pelagic longline fisheries (see NMFS SEFSC 2001, for a complete description of take records). Leatherbacks are known to drown in fish nets set in coastal waters of Sao Tome, West Africa (Castroviejo *et al.* 1994; Graff 1995). Gillnets are one of the suspected

causes for the decline in the leatherback sea turtle population in French Guiana (Chevalier *et al.*1999), and gillnets targeting green and hawksbill turtles in the waters of coastal Nicaragua also incidentally catch leatherback turtles (Lagueux *et al.*1998). Observers on shrimp trawlers operating in the northeastern region of Venezuela documented the capture of six leatherbacks from 13,600 trawls (Marcano and Alio 2000). An estimated 1,000 mature female leatherback sea turtles are caught annually off of Trinidad and Tobago with mortality estimated to be between 50-95% (Eckert and Lien 1999). However, many of the turtles do not die as a result of drowning, but rather because the fishermen butcher them in order to get them out of their nets (NMFS SEFSC 2001). In Ghana, nearly two thirds of the leatherback sea turtles that come up to nest on the beach are killed by local fishermen.

Loggerhead sea turtle (*Carettta caretta*) Threatened

Atlantic Ocean. Loggerheads commonly occur throughout the inner continental shelf from Florida through Cape Cod, Massachusetts, and may occur as far north as Nova Scotia when oceanographic and prey conditions are favorable (NEFSC survey data 1999). Loggerhead sea turtles originating from the western Atlantic nesting aggregations are believed to lead a pelagic existence in the North Atlantic Gyre for as long as 7-12 years before settling into benthic environments where they opportunistically forage on crustaceans and mollusks (Wynne and Schwartz 1999). However, some loggerheads may remain in the pelagic environment for longer periods of time or move back and forth between the pelagic and benthic environment (Witzell, in prep). Loggerheads that have entered the benthic environment appear to undertake routine migrations along the coast that appear to be limited by seasonal water temperatures. Loggerhead sea turtles are found in Virginia foraging areas as early as April but are not usually found on the most northern foraging grounds in the Gulf of Maine until June. The large majority leave the Gulf of Maine by mid-September but some may remain in Mid-Atlantic and Northeast areas until late Fall. During November and December loggerheads appear to concentrate in nearshore and southerly areas influenced by warmer Gulf Stream waters off North Carolina (Epperly *et al.* 1995a).

In the western Atlantic, most loggerhead sea turtles nest from North Carolina to Florida and along the gulf coast of Florida. Between 1989 and 1998, the total number of nests laid along the U.S. Atlantic and Gulf coasts ranged from 53,014 to 92,182, annually with a mean of 73,751. On average, 90.7% of these nests were of the south Florida subpopulation, 8.5% were from the northern subpopulation, and 0.8% were from the Florida Panhandle nest sites. There is limited nesting throughout the Gulf of Mexico west of Florida, but it is not known to what subpopulation the turtles making these nests belong. Nesting data is also used to indirectly estimate both the number of females nesting in a particular year (based on an average of 4.1 nests per nesting female, Murphy and Hopkins (1984)) and the number of adult females in the entire population (based on an average remigration interval of 2.5 years; Richardson *et al.* 1978). However, an important caveat is that this data may reflect trends in adult nesting females, but it may not reflect overall population growth rates. With this in mind, using data from 1989-1998, the average adult female loggerhead population was estimated to be 44,970. Assuming an average remigration rate of 2.5 years, the total number of nesting and non-nesting adult females in the northern

subpopulation is estimated at 3,810 adult females (TEWG 1998, 2000).

The status of the northern subpopulation is particularly relevant to activities that occur from New England through the Mid-Atlantic since turtles from the northern subpopulation may be more prevalent on spring and summer foraging grounds in New England and northern Mid-Atlantic waters as compared to loggerheads from other subpopulations. Although foraging grounds contain cohorts from nesting colonies from throughout the Western North Atlantic, loggerhead subpopulations are not equally represented on all foraging grounds. In general, south Florida turtles are more prevalent on southern foraging grounds and their concentrations decline to the north. Conversely, loggerhead turtles from the northern nesting group are more prevalent on northern foraging grounds and less so in southern foraging areas.

Further testing of loggerhead turtles from foraging areas north of Virginia are needed to assess the proportion of northern subpopulation turtles that occur on northern foraging grounds. However, the currently available data suggests that at least 46% of foraging turtles occurring north of Virginia are from the northern subpopulation. Finally, the role of males from the northern subpopulation appears to be vital to sustaining the whole population. Unlike the much larger south Florida subpopulation which produces predominantly females (80%), the northern subpopulation produces predominantly males (65%; NMFS SEFSC 2001). New results from nuclear DNA analyses indicate that males do not show the same degree of site fidelity as do females. It is possible then that the high proportion of males produced in the northern subpopulation are an important source of males throughout the southeast U.S., lending even more significance to the critical nature of this small subpopulation (NMFS SEFSC 2001). The number of nests in the northern subpopulation from 1989 to 1998 ranged from 4,370 to 7,887 with a 10-year average of 6,247 nests (TEWG 2000). The status of the northern population based on the number of loggerhead nests has been classified as stable or declining (TEWG 2000).

The diversity of a sea turtle's life history leaves them susceptible to many natural and human impacts, including impacts while they are on land, in the benthic environment, and in the pelagic environment. Hurricanes are particularly destructive to sea turtle nests. Sand accretion and rainfall that result from these storms as well as wave action can appreciably reduce hatchling success. Other sources of natural mortality include cold stunning and biotoxin exposure. Anthropogenic factors that impact hatchlings and adult female turtles on land, or the success of nesting and hatching include: beach erosion, beach armoring and nourishment; artificial lighting; beach cleaning; increased human presence; recreational beach equipment; beach driving; coastal construction and fishing piers; exotic dune and beach vegetation; and poaching. An increased human presence at some nesting beaches or close to nesting beaches has lead to secondary threats such as the introduction of exotic fire ants, feral hogs, dogs and an increased presence of native species (*e.g.*, raccoons, armadillos, and opossums) which raid and feed on turtle eggs. Although sea turtle nesting beaches are protected along large expanses of the northwest Atlantic coast (in areas like Merrit Island, Archie Carr, and Hobe Sound National Wildlife Refuges), other areas along these coasts have limited or no protection. Loggerhead sea turtles are affected by a completely different set of anthropogenic threats in the marine environment. These include oil and gas exploration, coastal development, and transportation; marine pollution; underwater

explosions; hopper dredging, offshore artificial lighting; power plant entrainment and/or impingement; entanglement in debris; ingestion of marine debris; marina and dock construction and operation; boat collisions; poaching, and fishery interactions. In the pelagic environment loggerheads are exposed to a series of long-line fisheries. In the benthic environment in waters off the coastal U.S., loggerheads are exposed to a suite of fisheries in Federal and State waters including trawl, purse seine, hook and line, gillnet, pound net, longline, and trap fisheries.

Summary of Status for Loggerhead Sea Turtles

The global status and trend of loggerhead turtles is difficult to summarize. In the Pacific Ocean, loggerhead turtles are represented by a northwestern Pacific nesting aggregation (located in Japan) and a smaller southwestern nesting aggregation that occurs in Australia (Great Barrier Reef and Queensland), New Caledonia, New Zealand, Indonesia, and Papua New Guinea. The abundance of loggerhead turtles on nesting colonies throughout the Pacific basin have declined dramatically over the past 10 to 20 years. Data from 1995 estimated the Japanese nesting aggregation at 1,000 female loggerhead turtles (Bolten *et al*. 1996), but has probably declined since 1995 and continues to decline (Tillman 2000). The nesting aggregation in Queensland, Australia, was as low as 300 females in 1997.

NMFS recognizes five subpopulations of loggerhead sea turtles in the western Atlantic based on genetic studies. Although these subpopulations mix on the foraging grounds, cohorts from the northern subpopulation appear to be predominant on the northern foraging grounds. Based on nesting data from several sources (Frazer 1983, TEWG 1998, TEWG 2000, and NMFS SEFSC 2001), NMFS considers the northern subpopulation to be stable, at best, or declining. In contrast, nest rates for the south Florida subpopulation have increased at a rate of 3.9 - 4.2% since 1990 (approximately 83,400 nests in 1998). Results from analysis of nuclear DNA suggests that the high proportion of males produced by the northern subpopulation are an important source of males throughout the southeast U.S., lending even more significance to the critical nature of this small subpopulation (NMFS SEFSC 2001).

All loggerhead subpopulations are faced with a multitude of natural and anthropogenic effects. Many anthropogenic effects occur as a result of activities outside of U.S. jurisdiction (*i.e.*, fisheries in international waters). For the purposes of this consultation, NMFS will assume that the northern subpopulation of loggerhead sea turtles is declining (the conservative estimate) or stable (the optimistic estimate) and the southern Florida subpopulation of loggerhead sea turtles is increasing (the optimistic estimate).

Recent Protected Species Management Actions Affecting the Lobster Fishery

The ALWTRP was developed pursuant to the Marine Mammal Protection Act to reduce the level of serious injury and mortality of all whales in East Coast lobster trap and gillnet fisheries. The ALWTRP measures vary by designated areas that roughly approximate the LCMAs designated in the Federal lobster regulations. These ALWTRP measures are: For Northern Nearshore Waters (includes LCMAs 1, 2, and the Outer Cape (AOC), but excludes the critical habitat areas and the

Stellwagen Bank/Jeffrey's Ledge Restricted Area):

- Knotless weak links at the buoy with a breaking strength of 600 lbs or less
- Multiple-trap trawls only (single-trap trawls are not allowed)
- Limit of one buoy line on all trawls up to and including five traps
- Gear must be marked (Red - 4" long) midway on the buoy line.

For Offshore Waters (LCMAs 3 and the 2/3 Overlap, excluding the Great South Channel Restricted Lobster Area):

- Knotless weak links at the buoy with a breaking strength of 2000 lbs or less (effective February 2002)
- Multiple-trap trawls only (single-trap trawls are not allowed)
- Limit of one buoy line on all trawls up to and including five traps
- Gear must be marked (Black - 4" long) midway on the buoy line.

For Southern Nearshore Waters (LCMAs 4 and 5)

- Knotless weak links at the buoy with a breaking strength of 600 lbs or less (effective February 2002)
- Multiple-trap trawls only (single-trap trawls are not allowed)
- Limit of one buoy line on all trawls up to and including five traps
- Gear must be marked (Orange - 4" long) midway on the buoy line.

In addition to new requirements for gear modifications, included above, which became effective as of February 11, 2002, NOAA Fisheries also recently issued new rules for Seasonal Area Management ((SAM); seasonal restrictions of specific fishing areas when right whales are present), and Dynamic Area Management ((DAM); restriction of defined fishing areas when specified concentrations of right whales occur unexpectedly) that were effective as of March 1 and February 8, 2002, respectively. The measures for SAM apply to two defined areas called SAM West and SAM East, in which additional gear restrictions for lobster trap (and anchored gillnet gear) are required. SAM West and SAM East will occur on an annual basis for the period March 1 through April 30 and May 1 through July 31, respectively. The dividing line between SAM West and SAM East is at the 69°24' W Longitude line (67 FR 1142). The measures for DAM apply to areas north of 40°N latitude, and would allow for establishment of a zone within which NOAA Fisheries might impose restrictions on fishing or fishing gear within the zone for a period of 15 days. If no restrictions are imposed, NOAA Fisheries will issue an alert to fishers, and request that fishers voluntarily remove lobster trap (and gillnet gear) from the zone, and not set additional gear within the zone for a minimum of 15 days (67 FR 1130).

Under the MMPA, NOAA Fisheries must place a commercial fishery on the List of Fisheries (LOF) under one of three categories, based upon the level of serious injury and mortality of marine mammals that occur incidental to that fishery. The categorization of a fishery in the LOF determines whether participants in that fishery are subject to certain provisions of the MMPA,

such as registration, observer coverage, and take reduction plan requirements. The LOF includes the Northeast/Mid-Atlantic Lobster Trap/Pot fishery as a Category I fishery. Fishers fishing for lobster using trap gear must abide by the requirements for a Category I fishery. These are:

- Owners of vessels or gear engaging in a Category I fishery are required to register with NOAA Fisheries and obtain a marine mammal authorization from NOAA Fisheries in order to lawfully incidentally take a marine mammal in a commercial fishery;
- Any vessel owner or operator participating in a Category I fishery must report all incidental injuries or mortalities of marine mammals that occur during commercial fishing operations to NOAA Fisheries;
- Fishers participating in a Category I fishery are required to take an observer aboard the vessel upon request.

These measures do not, in themselves, reduce the chance that a protected species-gear interaction will occur. They are intended, however, to identify the number and severity of interactions that do occur so action can be taken to reduce the likelihood of additional interactions. The management area for the Federal lobster regulations is all EEZ waters from Maine to Cape Hatteras, North Carolina. Therefore, the primary geographic area affected by this action includes Northeast and Mid-Atlantic waters of the United States EEZ within the management area. In addition, territorial waters for Maine through North Carolina are affected through the regulation of activities of Federal permit holders fishing in those areas.

NOAA Fisheries has documented right whale entanglements in lobster pot gear. Right whales occur where the Federal lobster fishery operates. In general, New England waters include important foraging habitat for right whales and at least some right whales are present in these waters throughout most months of the year. They are most abundant in Cape Cod Bay between February and April (Hamilton and Mayo 1990; Schevill *et al.* 1986; Watkins and Schevill 1982) and in the Great South Channel in May and June (Kenney *et al.* 1986; Payne *et al.* 1990) where they have been observed feeding predominantly on copepods, largely of the genera *Calanus* and *Pseudocalanus* (Waring *et al.* 1999). Right whales also frequent Stellwagen Bank and Jeffrey's Ledge, as well as Canadian waters including the Bay of Fundy and Browns and Baccaro Banks, in the spring and summer months. Mid-Atlantic waters are sued as a migratory pathway from the spring and summer feeding/nursery areas to the winter calving grounds off the coast of Georgia and Florida.

Anthropogenic mortality in the form of ship strikes and fishing gear entanglements appear to be affecting the status of western North Atlantic right whales. Based on photographs of catalogued animals from 1959 and 1989, Kraus (1990) estimated that 57 percent of right whales exhibited scars from entanglements. This work was updated by Hamilton *et al.* (1998) using data from 1935 through 1995. The new study estimated that 61.6 percent of right whales exhibit injuries caused by entanglements. In addition, several whales have apparently been entangled on more than one occasion. Some right whales that have been entangled were subsequently involved in ship strikes. Because some animals may drown or be killed immediately, the actual number of interactions from entanglements and ship strikes is expected to be higher.

Reducing Threats to ESA-listed Cetaceans

A number of activities are in progress that may ameliorate some of the threats posed to threatened and endangered species. These include education/outreach activities, gear modifications, fishing gear time-area closures and whale disentanglement, and measures to reduce ship and other vessel impacts to protected species. Many of these measures have been implemented to reduce risk to critically endangered right whales. Despite the focus on right whales, other cetaceans and some sea turtles will likely benefit from the measures as well.

The ALWTRP is a major component of NOAA Fisheries' activities to reduce threats to listed cetaceans. It is a multi-faceted plan that includes both regulatory and non-regulatory actions. Regulatory actions are directed at reducing serious entanglement injuries and mortality of right, humpback, fin, and minke whales (a non-ESA listed species) from fixed gear fisheries to levels approaching zero within five years of its implementation. The four fisheries principally affected by the ALWTRP are American lobster, Northeast multispecies, spiny dogfish, and monkfish.

The regulatory component of the ALWTRP includes a combination of broad fishing gear modifications and time-area closures supplemented by progressive gear research to reduce the chance that entanglements will occur, or that whales will be seriously injured or die as a result of an entanglement. The long-term goal, established by the 1994 Amendments to the MMPA, is to reduce entanglement related serious injuries and mortality of right, humpback, fin, and minke whales to insignificant levels approaching zero within five years of its implementation. The ALWTRP is a "work-in-progress", and revisions are made as new information and technology becomes available. Because gear entanglements of right, humpback, fin, and minke whales have continued to occur, including serious injuries and mortality, new and revised regulatory measures are anticipated. These changes are made with the input of the Atlantic Large Whale Take Reduction Team (ALWTRT), which is comprised of representatives from federal and state government, the fishing industry, and conservation organizations. The non-regulatory component of the ALWTRP is composed of four principal parts: (1) gear research and development, (2) disentanglement, (3) the Northeast Implementation Team, and (4) the Sighting Advisory System. These components of the ALWTRP address both fishing gear entanglements and ship strikes; the two primary anthropogenic causes of right whale mortality. For additional discussion on the ALWTRP, see the introduction to this subsection - Marine Mammals and Sea turtles.

Reducing Threats to Sea Turtles

Unlike cetaceans, there is no organized, formal program for at-sea disentanglement of sea turtles. However, recommendations for such programs are being considered by NOAA Fisheries. There is an extensive network of Sea Turtle Stranding and Salvage Network (STSSN) participants along the Atlantic and Gulf of Mexico coasts which not only collects data on dead sea turtles, but also rescues and rehabilitates live stranded turtles. Entangled sea turtles found at sea in recent years have been disentangled by STSSN members, the whale disentanglement team, the USCG, and fishermen. Data collected by the STSSN are used to monitor stranding levels and identify areas

where unusual or elevated mortality is occurring. All of the states that participate in the STSSN are collecting tissue for and/or conducting genetic studies to better understand the population dynamics of the small subpopulation of northern nesting loggerheads. These states also tag live turtles when encountered (either via the stranding network through incidental takes or in-water studies). Tagging studies help provide an understanding of sea turtle movements, longevity, and reproductive patterns, all of which contribute to our ability to reach recovery goals for the species. The NOAA Fisheries has also developed specific sea turtle handling and resuscitation techniques for sea turtles that are incidentally caught during scientific research or fishing activities. Persons participating in fishing activities or scientific research are required to take these measures to help prevent mortality of turtles caught in fishing or scientific research gear. However, the measures are principally developed for hard-shelled turtles and have less applicability for leatherback sea turtles which lack a hard shell.

Summary and Conclusion of the Status of ESA Listed Species

The potential for vessels, military activities, fisheries, *etc*. to adversely affect right, humpback, fin, sei and sperm whales as well as loggerhead and leatherback sea turtles remains throughout the prosecution of this fishery. Recovery actions have been undertaken as described and continue to evolve. However, activities to benefit sea turtles do not specifically address the activities that cause take (*e.g.*, the stranding network rehabilitates injured sea turtles but does not reduce the chance that further interactions will occur). Activities to benefit cetaceans are in progress but it may be years before a measurable level of benefit to the species is apparent. In addition, these recovery activities may be less effective at reducing the risk of non-regulated fisheries, affecting changes to international shipping, and addressing the disparity for protecting these ESA-listed species when they occur outside of U.S. jurisdiction. Finally, the continuation of many of these activities relies on annual funding which cannot always be guaranteed.

Quantifying the effects of all human impacts on ESA-listed species is difficult. For example, NOAA Fisheries SEFSC (2001) summarized what is known about the effects of human activities on loggerhead and leatherback populations. However, it was not possible to quantify the total number of turtles affected since some effects cannot be quantified and, for those which can be quantified, values are not directly comparable (some represent estimates, some are observed, observations are at different levels of effort, *etc.)*. Nevertheless, even without quantified data, it is obvious that thousands of sea turtles of all species are being taken annually from various activities with varying levels of associated mortality. This means that many of the factors contributing to their original listing have not yet been alleviated, particularly fishing-related mortality; a priority recovery activity. Therefore, minimizing takes of sea turtles in all fishery-related activities is still imperative.

Similarly, while we cannot quantify the effects of all human activities on right whales, humpback whales, fin whales, sei whales and sperm whales, it is apparent that these species continue to be affected by two primary anthropogenic activities; fishing gear entanglements and ship strikes. The extent to which ship strikes and fishing gear entanglements impede the recovery of these species depends, in part, on their current status. For the right whale, minimizing all mortality is

vital for this critically endangered species. The Gulf of Maine humpback whale population appears to be increasing. However, the exact population size is undeterminable at this time and the level of fishing gear entanglements, based on scarification analysis, is high. A population estimate cannot be provided for fin, sei, or sperm whales given the lack of information currently available. It is, therefore, prudent to minimize all known activities that result in serious injury or mortality to these species.

Based on the most current information available, the selected alternative is not expected to increase the risk of lobster vessel collisions with ESA-listed cetaceans or sea turtles since: (1) the proposed action will not result in an increase in the number of vessels operating in the area, (2) vessels are much smaller than those known to cause serious injury and mortality to large whales, and (3) the vessels will be operated at lower speeds by experienced fishers who will be able to detect and avoid a whale.

The selected alternative is expected to result in a reduction of effort as a result of limiting participation in LCMAs 3, 4 and 5 and requiring trap reductions over a four-year period for LCMA 3. Protected species known to become entangled in lobster trap gear, namely right, humpback, and fin whales as well as leatherback sea turtles, are expected to benefit from trap gear reductions in LCMAs 3, 4, and 5. Historic participation in LCMAs 3, 4, and 5 may also result in a shift in effort to nearshore areas. However, additional adverse effects to ESA-listed cetaceans and sea turtles are not expected given that the overall effort in the fishery will decrease and there are management measures in place to reduce the number and severity of large whale entanglements in lobster gear. Some of these management measures are expected to be of benefit to sea turtles as well, such as by reducing the amount of line in the water. Sperm whales, and sei whales are not expected to occur in sufficient numbers in affected nearshore areas such that an increase in lobster gear in these areas will result in the addition of adverse affects to these species.

The selected alternative for conservation equivalency for New Hampshire, while likely reducing the overall number of traps fished by state and Federal permit holders combined, could result in the addition of lobster trap gear fished by Federal permit holders in New Hampshire waters. As a result, additional entanglements of leatherback sea turtles in lobster trap gear could occur. There have been no known entanglements of leatherback sea turtles in New Hampshire state waters. However, NOAA Fisheries believes entanglements do occur given that entanglements of this species in lobster trap gear are known to occur in state waters from New York to Maine. The most recent Section 7 consultation for this fishery has identified that the proposed activity for implementation of conservation equivalency for federal lobster fishers who also possess a full-time commercial New Hampshire lobster license will directly affect leatherback sea turtles as a result of entanglement in lobster trap gear set in New Hampshire waters. No other direct or indirect effects to ESA-listed species are expected as a result of the activity.

Based on past patterns of entanglements of leatherback sea turtles in lobster trap gear, the proposed measure that would allow federal lobster fishers who also possess a full-time commercial New Hampshire lobster license to fish up to 400 additional lobster traps each in New Hampshire waters could potentially result in the capturing, injuring, or killing of leatherback sea

turtles, incidental to the use of trap gear in the fishery. Although the extent of impacts to this species are of concern, given that the loss of up to nine (four takes annually as anticipated by the June 14, 2001, Biological Opinion for this fishery plus an additional take biennially as a result of the conservation equivalency measures for New Hampshire) leatherback sea turtles biennially from the Atlantic population is not expected to reduce the numbers of this population, the proposed action is not expected to appreciably reduce the numbers, distribution, or reproduction of the species overall. Therefore, the lobster fishery may adversely affect leatherback sea turtles but is not expected to reduce the species' likelihood of surviving and recovering in the wild.

4. Human Activities

A description of human activities associated with American lobster management was summarized in Section V.4 of the FEIS (NOAA Fisheries 1999). A threshold analysis of economic impacts of possible Federal lobster management actions is presented in Section V.1. (Regulatory Impact Review) of this FSEIS. A discussion of social/cultural and economic impacts is incorporated in Sections III.2.H. and III.3.D.

A. Federal Lobster Regulations Implemented Since the Original FEIS

On December 6, 1999 NOAA Fisheries issued a Final Rule (64 FR 68228) that transferred its Federal lobster fishery regulations from the Magnuson-Stevens Act (50 CFR Part 649) to the Atlantic Coastal Act (50 CFR Part 697), and implemented new regulations. These new regulations included: extension of the moratorium on new entrants into the EEZ fishery; designation of lobster management areas; near-shore and off-shore area trap limits; a 5-inch maximum carapace size in Area 1; trap size restrictions; a trap escape vent size increase; trap tag requirements; and annual specification of additional management measures necessary to end overfishing and rebuild American lobster stocks. The regulations issued in that Federal Final Rule were designed in keeping with the new regulatory standard of state primacy as set forth in the Atlantic Coastal Act: 1) that the regulations be consistent with the National Standards set forth in the Magnuson-Stevens Act; and 2) that the regulations be compatible with the Commission's lobster ISFMP. Agreements between NOAA Fisheries and state fishery agencies in Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut have been approved in efforts to streamline state and Federal trap tagging regulatory requirements, and to preclude the need for some lobster fishers to purchase both state and Federal trap tags. For further information on Federal lobster regulations implemented see the Final Rule (64 FR 68228).

The Commission also recommended, on February 11, 2000, that black sea bass pots in Lobster Management Area 5 be exempted from Atlantic Coastal Act trap gear requirements. Following that recommendation, under separate Federal rulemaking, a Proposed and Final Rule on the black sea bass pots were published in the Federal Register on December 5, 2000 (65 FR 75916), and March 13, 2001 (66 FR 14500), respectively. This regulatory action exempts black sea bass fishers who concurrently hold limited access lobster and limited access black sea bass permits from the more restrictive gear requirements in the lobster regulations when fishing in Area 5 if they elect to be restricted to the non-trap lobster allowance while targeting black sea bass in Area

5. For additional discussion on this action, see Section IV.4.A. This regulation also clarifies that lobster trap regulations do not affect trap gear requirements for fishermen who do not possess a Federal limited access American lobster permit. The intent of these regulations is to relieve restrictions on fishers that were unintended, without compromising lobster conservation goals.

B. Lobster Research

In addition to the lobster research for Long Island Sound referenced in Section IV.3.A., studies involving the characterization of the Gulf of Maine fishery have expanded in recent years. In 1999, NOAA Fisheries awarded a grant to the Maine Department of Marine Resources to augment fishery-dependent data available on Gulf of Maine lobster stocks. The objectives of the ongoing investigation include determining the characteristics of the inshore lobster population using sea samplers to collect detailed catch, effort, and biological data on fishing vessels; involving Maine lobstermen in the conduct of lobster gear studies; and testing an automated data recording device (electronic logbook) to collect information provided by fishermen for use in lobster stock assessments. During 2000-2002, NOAA Fisheries also approved grants with the Massachusetts Division of Marine Fisheries and New Hampshire Fish and Game Department for expansion of Gulf of Maine lobster population studies in state coastal waters.

The Massachusetts' study includes lobster sea sampling, and incorporates an investigation of juvenile lobster benthic distribution, as well as the monitoring of bottom water temperatures for correlation with lobster molting patterns and catch rate variability. Research by New Hampshire similarly focuses on lobster sea sampling, and involves improvement of lobster catch and effort information through an intensified logbook reporting system, and implementation of a lobster dealer reporting system in conjunction with protocols established by the Commission's Atlantic Coastal Cooperative Statistics Program.

A final example of recently funded research is a NOAA Fisheries grant awarded in 1999 to the Rhode Island Lobstermen's Association. Fishermen under that study are tagging lobsters in coastal waters of LCMA 2 in an effort to collect information for scientific analysis of lobster molt probabilities. Results from that investigation are anticipated to provide additional data collected by lobster industry representatives for use in future lobster stock assessments.

V. RELATIONSHIP TO APPLICABLE OTHER LAW

1. Regulatory Flexibility Act (RFA)/Regulatory Impact Review (RIR)

The following RIR has been prepared to meet the requirements of Executive Order 12866. A regulatory flexibility analysis is also conducted to the extent possible with the available data. The preferred management actions: to provide for effort control in Area 3, Area 4, and Area 5; modify the trap limits for Area 1 permit holders that also possess a New Hampshire lobster license; and modify boundary lines for three of the LCMA's adjacent to Massachusetts, has been determined

to be significant for the purposes of Executive Order 12866. The preferred management actions raise novel legal and policy issues arising out of legal mandates.

Economic Effects of the Selected Lobster Management Actions

The preferred management action would implement a program to limit entry to LCMAs 3, 4, and 5 to vessels that had historically fished traps in these areas. Participants in the Federal lobster fishery are small entities as defined in the RFA and thus, any analysis of impacts in the EIS also applies here. The action would also implement conservation equivalency measures for Federal permit holders that also hold a New Hampshire state license and would modify the current delineation of the boundaries between LCMAs. In addition to the preferred management actions, 3 non-selected alternatives for historical participation were considered in the DSEIS for this regulatory action, including the no-action/status quo alternative. No action/status quo alternatives were also considered for both the New Hampshire conservation equivalency measures and the boundary changes.

In all, four scenarios were constructed to address the alternatives identified in the DSEIS completed for this action. The no-action/status quo scenario considers the economic effects under the assumption that the proposed regulatory actions are not taken. This non-selected no-action/status quo alternative forms the baseline from which the remaining scenarios are compared. Generally, the non-selected status quo alternative may also be termed the "no action" alternative. However, given the statutory obligation to achieve lobster conservation objectives, the term "status quo" should not be construed as being equivalent to doing nothing at all. Within this context, the non-selected "status quo" alternative refers to what would be most likely to occur in the absence of implementing the proposed regulation. Should the current suite of management measures fail to achieve conservation targets, trap limits may have to be further reduced and other measures including but not limited to changes in lobster size limits, trap limits, escape vent size, closed areas or seasons, landing limits and other area-specific measures may have to be implemented. In this action, since the selected management action would result in an 18.5% reduction (from an initial allocation baseline) in traps fished in LCMA 3 (Table III.2.), and the imposition of a historical trap limit with a maximum limit of 1,440 traps in LCMA 4 & 5, the non-selected no action/status quo alternative was evaluated under the assumption that similar levels of trap reduction would be achieved through changes in trap caps.

For each scenario potential impacts on several features of interest are discussed. These features include changes in lobster landings and prices, consumer benefits, numbers of traps fished, harvesting costs, enforcement costs, and distributive effects. Due to the lack of a quantitative relationship between the primary management instrument (trap numbers) considered in the current action and changes in fishing mortality a qualitative approach to the economic assessment was adopted. However, quantitative measures are provided wherever possible.

Throughout the evaluation of the selected management actions and non-selected alternatives, the economic effects between alternatives may result in non-significant differences in lobster landings and prices, consumer benefits, numbers of traps fished, harvesting costs, enforcement

costs, and distributive effects. However, as discussed in Section II.1. of this FSEIS, the selected actions identified in this FSEIS are part of an iterative approach by state and Federal jurisdictions to end overfishing of American lobster. In particular Addenda II and III to the ISFMP, discussed in Section II.1.C., represent the ongoing evolution under the Commission's lobster ISFMP on the best strategy, in cooperation with the LCMTs, to rebuild stocks of American lobster throughout the species' range. While economic effects may result in non-significant differences, ultimately the selected actions are intended to be in keeping with the regulatory standard as set forth in the Atlantic Coastal Act: 1) that the regulations be consistent with the National Standards set forth in the Magnuson-Stevens Act; and 2) that the regulations be compatible with the Commission's lobster ISFMP. Also of note, the lobster fishery remains essentially a coastal trap fishery and the Federal government's role in this fishery is overshadowed by landings from state waters. Even today, only 20% of the lobster resource is prosecuted in Federal waters beyond 3 miles from shore. Therefore, given that the total harvest in Federal waters accounts for a small percentage of total domestic supply, changes in Federal regulations in Areas 3, 4, and 5, are more likely to have a minimal relative economic impact on the overall domestic lobster market.

Selected Management Action - Historic Participation

The selected management action will implement a historic participation limited entry program in LCMA 3, 4, and 5. In addition, LCMA 3 will establish an initial trap allocation baseline and implement an 18.5% reduction in the number of traps over a four year period (Table III.2.), while LCMA 4 & 5 will establish an initial trap allocation baseline with a maximum limit of 1,440 traps. Voluntary data provided by a group of LCMA 3 participants indicate that there are at least 64 vessels that would qualify for the historic participation plan. Due to the lack of any mandatory data collection for Federal lobster permit holders, the actual number of qualifiers will not be known with certainty until after plan implementation. However, using available permit and activity data and adopting some simple decision rules an estimate of the potential number of qualifiers may be estimated.

LCMA 3 and LCMA 4 and 5 qualifiers were estimated by matching permit application data to identify all vessels that have a current lobster permit against combined dealer and logbook to estimate qualification based on poundage and trap history requirements. In the latter case, trap history was approximated by assuming some minimum poundage that may be expected to be produced from at least 200 traps on a given trip. If, for example, average catch per trap were 2 pounds and if 200 traps were hauled on a given trip then at least 400 pounds would be produced. Any vessel with at least one trip in excess of 400 pounds of lobster in two consecutive calendar months in the appropriate LCMA was deemed to meet the trap history requirement for that calendar year.

An upper bound and lower bound estimate of historic participation qualifiers was estimated by using a sensitivity analysis on the catch per trip assumption and by adopting two different delineations for trips taken in the required LCMA. In the latter case, statistical area was used to delineate trips that took place in LCMA 3 and LCMA 4 and 5. Since statistical areas overlap the LCMA boundaries a lower bound estimate of participants was developed by dropping all

statistical areas that had any overlap with either LCMA 3 or LCMA 4 and 5 boundaries. An upper bound estimate was developed by including statistical area overlaps. This procedure was necessary due to a lack of more precise latitude and longitude data in dealer data.

The total number of qualifiers for the LCMA 3 historic participation program ranged from a low of 53 to a high of 117 vessels (Table V.1.). The total number of qualifiers for the LCMA 4 and 5 historic participation ranged from 47 to 60 vessels. Note that the estimated number of participants was relatively robust with respect to the assumed catch per trip but the LCMA 3 estimates were sensitive to the delineation of the LCMA boundary based on statistical areas. The potential economic effects of the historic participation program are described below.

Table V.1. Summary of Number of Qualifying Vessels for Historic Participation

	Catch-per-trap = 4		Catch-per-trap = 3		Catch-per-trap = 2		Catch-per-trap = 1	
	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
LCMA 3	99	53	106	55	111	55	117	58
LCMA 4&5	47	47	50	50	54	54	60	60

Numbers of Traps

While available data can be used to estimate the number of vessels that may qualify for historic participation, it cannot be used to estimate initial trap allocations. Assuming that the data reported in Table III.2. is representative of the average number of traps fished in the LCMA 3 fishery, then the total number of traps fished in LCMA 3 may be expected to range between 92 and 204 thousand traps in year 1 and be reduced to between 80 and 176 thousand traps by the end of year 4. For consistency across alternatives the number of traps reported in Table III.2. will be assumed to be a "best" estimate of traps fished under the selected management action.

The primary difference between the non-selected no action/status quo alternative and the selected management action is that the selected management action is a closed system. Therefore, additional entry by non-qualified Federal lobster permit holders would not be possible and the projected trap reductions would be achieved with certainty. Under the non-selected no action/status quo alternative, new entry by Federal lobster permit holders who had not fished in LCMA 3 and the level of surplus traps would provide little assurance that the trap reduction targets for LCMA 3 could be achieved. Similarly, the numbers of traps fished in LCMA 4 and 5 would not be allowed to increase once the initial allocations have been determined while under the non-selected no action/status quo alternative there would be no such assurance. The maximum trap allocation in LCMA 4 & 5 will be 1,440 traps. Based on available information, approximately 14 vessels fished more than 1,440 traps in LCMA 4 and 5 combined. On average, these 14 vessels fish 1,868 traps, therefore total trap numbers of LCMA 4 and 5 could be reduced by approximately 6,000 traps.

Lobster Landings

Under the selected management action, the number of traps fished may be expected to decline for all three impacted areas. LCMA 3 traps will be reduced over a four year period (Table III.2.). For LCMA 4 and/or 5, trap levels will be frozen for the majority of vessels except for approximately 14 vessels that fished more than the 1,440 maximum trap limit. On average, these 14 vessels fish 1,868 traps, therefore total trap numbers of LCMA 4 and 5 could be reduced by approximately 6,000 traps. As described earlier, adjustments in fishing practices may be made to mitigate the trap losses but there are likely to be fewer opportunities for making these adjustments in the offshore fishery, as compared to nearshore and inshore areas. Therefore, the scheduled trap reduction is likely to result in a small yet unquantifiable reduction in LCMA 3 landings. Landings in LCMA 4 and 5 may be reduced if vessels that would otherwise have qualified for an initial allocation of more than 1,440 traps are unable to alter their fishing practices to mitigate their trap losses. Nevertheless, lobster landings region-wide may not be affected since the LCMA 4 and 5 fishery accounts for only a small proportion of overall landings. While it is clear that the best available data as described in this FSEIS indicates that the number of traps may be expected to decline for all three impacted areas, the actual number of participants and their associated final trap allocations will be unknown until the actual qualification process is completed. If, following implementation, the number of participants and/or associated traps does not decrease, landings are expected to be unaffected.

Lobster Prices

Any change in lobster landings due to regulatory action may be expected to be due to the trap reductions. These trap reductions will be scheduled in increments over a four year period in LCMA 3 and upon qualifying for approximately 14 vessels that would otherwise have qualified for an initial allocation of more than 1,440 traps in LCMA 4 and 5. As indicated above, the trap reductions may result in reduced landings from the LCMA 3, 4 and 5 fishery. However, since the trap reductions will take place over a four year period in LCMA 3, the expected change in landings may be expected to be small, and the fact that landings from LCMA 3 comprise a relatively small proportion of lobster market supplies, lobster markets may be expected to be unaffected by the change in LCMA 3 landings. Impacts on landings is expected to be minimal in LCMA 4 and 5, since this fishery accounts for only a small proportion of overall landings and, according to the analysis, approximately 14 vessels are impacted by the maximum trap limit. Impacted vessels may also compensate for trap reductions by increasing the number and the frequency of trips, thereby offsetting the impact of trap reductions. If markets are affected, the effect is likely to be quite small and may occur in a limited segment of the market for larger lobsters (i.e. the offshore fishery lands larger lobsters, on average, than other components of the lobster fishery as a whole). If lobster prices do increase, however, the potential for an increase in supply for Canadian producers, and vessels fishing in areas not subject to historic participation, and, where expansion of trap effort is possible (ie. the trap cap is non-binding), may increase their effort and offset any reduction in landings from the impacted LCMAs. In this dynamic setting, lobster prices are likely to be unaffected by regulatory action.

Consumer Surplus

Should prices remain largely unaffected consumer surplus may be expected to remain unchanged under the selected management action. To the extent that lobster prices (particularly in the large lobster segment of the market) do increase, consumer surplus may decline. As discussed above, however, the market dynamic that may stimulate Canadian imports and encourages increased effort in LCMAs that are not constrained by limited entry or trap caps is likely to result in no net change in lobster prices so consumer surplus may be expected to remain unaffected by regulatory action.

Harvest Costs

Under the selected management action, harvest costs may be expected to remain unaffected for vessels fishing below the 1,440 maximum trap limit in LCMA 4 and 5, since numbers of traps fished will not change appreciably as a result of regulatory action. Due to the scheduled reduction in numbers of traps fished in LCMA 3, and for those vessels in LCMA 4 and 5 fishing above the 1,440 maximum trap limit, the costs of tending, maintaining, and replacing lost traps may be expected to be reduced. However, these cost savings may be offset, because participants may make adjustments to fishing practices by increasing the number and frequency of trips, thereby increasing variable fishing costs such as food and fuel. The exact nature of these adjustments and their attendant costs cannot be anticipated but are not likely to result in increased costs relative to the status quo.

Producer Surplus

Vessel profits for vessels fishing below the 1,440 maximum trap limit in LCMA 4 and 5 are likely to be unaffected by regulatory action since harvesting costs and lobster prices are expected to be generally unchanged. Assuming lobster landings are reduced for approximately 14 vessels in LCMA 4 and 5 fishing above the 1,440 maximum trap limit and for vessels in LCMA 3 and prices remain unchanged, then gross revenues to fishery participants may be reduced. However, some have observed that decreases in traps do not result in decreases in harvest. (Acheson, 1997). Reasons for such include increased trap efficiencies -- e.g. the same number of lobsters are caught, but concentrated in fewer traps – and increased time and ability to more frequently tend the traps existing. To the extent that these revenue losses are offset by cost savings and increased efficiencies, profits may remain unchanged.

Enforcement Costs

The selected management action will introduce the additional burden of enforcing individual trap allocations and preventing vessels that do not qualify for historic participation from setting traps in LCMA 3 and LCMA 4 and 5. From a budgetary perspective, enforcement expense may not change. However, the opportunity cost of diverting enforcement services to these added measures will increase.

Distributive Effects

Each of the measures of the selected management actions will have some distributive impacts. In LCMA 4 and 5 and LCMA 3, the selected management actions will tend to preserve the competitive position of each fishing enterprise. It will also, to some but unknown extent, increase the relative share of landings in these LCMAs for those who are able, compared to those who are not able, to meet the qualification criteria for participating in the trap fisheries in these management areas. The extent to which non-qualifiers would potentially decide to move trap fishing operations to other LCMAs not requiring historical participation is unknown. By contrast, the non-selected no action/status quo alternative would likely result in a realignment of firms in a manner that would tend to result in all firms being of roughly equivalent size in terms of numbers of traps fished.

Non-selected Alternative 1A

The non-selected Alternative 1A, was, in substance, recommended by the Commission. This non-selected alternative would implement limited entry in the LCMA 3, 4, and 5 lobster trap fishery, but would not impose a maximum trap limit of 1,440 traps for qualified participants in LCMA 4 and 5. The data and assumptions used to estimate the number of qualifiers was the same as explained earlier in this section for the selected management action. Briefly, data provided by a group of LCMA 3 participants indicate that there are at least 64 vessels that would qualify for the historic participation plan. LCMA 3 and LCMA 4 and 5 qualifiers were estimated by matching current year permit application data to identify all vessels that have been endorsed to fish with traps against combined dealer and logbook to estimate qualification based on poundage and trap history requirements. The total number of qualifiers for the LCMA 3 historic participation program ranged from a low of 53 to a high of 117 vessels (Table V.1.). The total number of qualifiers for the LCMA 4 and 5 historic participation ranged from 47 to 60 vessels (Table V.1.).

Numbers of Traps

Given that the qualification criteria are the same as that for the selected management action, the number of potential qualifiers would be the same as for the selected management action. The number of traps in all other LCMAs would be the same as that for the selected management action. The number of traps fished in LCMA 4 and 5 would be approximately 6,000 more than that of the selected management action since this non-selected alternative would not impose the maximum allocation of 1,440 traps. Based on available information, approximately 14 vessels fished more than 1,440 traps in LCMA 4 and 5 combined. On average, these 14 vessels fish 1,868 traps, so total trap numbers of LCMA 4 and 5 under this non-selected alternative would be approximately 6,000 traps above the total number of traps in the selected alternative.

The primary difference between the non-selected no action/status quo alternative and this non-selected alternative is that this this non-selected alternative results in a closed system. Therefore, additional entry by non-qualified Federal lobster permit holders would not be possible and the

projected trap reductions would be achieved with certainty. Under the non-selected no action/status quo alternative, new entry by Federal lobster permit holders who had not fished in LCMA 3 and the level of surplus traps would provide little assurance that the trap reduction targets for LCMA 3 could be achieved. Similarly, the numbers of traps fished in LCMA 4 and 5 would not be allowed to increase once the initial allocations have been determined while under the non-selected no action/status quo alternative there would be no such assurance.

Lobster Landings

Under this non-selected alternative, the number of traps fished may be expected to remain unchanged in all areas except for LCMA 3 where traps will be reduced over a four year period. As described earlier under the selected action discussion, adjustments in fishing practices may be made to mitigate the trap losses in LCMA 3 by increasing the number and frequency of fishing trips, but there are likely to be fewer opportunities for making these adjustments in the offshore fishery, as compared to nearshore and inshore areas. Therefore, the scheduled trap reduction is likely to result in a small yet unquantifiable reduction in LCMA 3 landings. Landings in LCMA 4 and 5 should remain unchanged and lobster landings region-wide may not be affected since the landings in the impacted areas account for only a small proportion of overall domestic landings.

Lobster Prices

Any change in lobster landings due to regulatory action may be expected to be due to the trap reductions in LCMA 3. These trap reductions will be scheduled in increments over a four year period. As indicated above, the trap reductions may result in reduced landings from the LCMA 3 fishery. However, since the trap reductions will take place over a four year period, the expected change in landings may be expected to be small, and the fact that landings from LCMA 3 comprise a relatively small proportion of lobster market supplies, lobster markets may be expected to be unaffected by the change in LCMA 3 landings. If markets are affected, the effect is likely to be quite small and may occur in a limited segment of the market for larger lobsters (i.e. the offshore fishery lands larger lobsters, on average, than other components of the lobster fishery as a whole). If lobster prices do increase, however, the market effects may also be mitigated by an increase in imports by Canadian suppliers. Also, vessels fishing in areas not subject to historic participation and where expansion of trap effort is possible (i.e. the trap cap is non-binding) may increase their effort and offset any reduction in landings from LCMA 3. In this dynamic setting, lobster prices are likely to be unaffected by regulatory action.

Consumer Surplus

Should prices remain largely unaffected, consumers surplus may be expected to remain unchanged under this non-selected alternative. To the extent that lobster prices (particularly in the large lobster segment of the market) do increase, consumers surplus may decline. As discussed above, however, the market dynamic that encourages increased imports of Canadian product or effort in LCMA's that are not constrained by limited entry or trap caps is likely to result in no net change in lobster prices so consumer surplus may be expected to remain

unaffected by regulatory action.

Harvest Costs

Under this non-selected alternative, harvest costs may be expected to remain unaffected in LCMA 4 and 5 since numbers of traps fished will not change appreciably as a result of regulatory action. Due to the scheduled reduction in numbers of traps fished in LCMA 3, the costs of tending, maintaining, and replacing lost traps may be expected to be reduced. These cost savings may be offset by the cost of making adjustments to fishing practice, such as increasing the number and frequency of fishing trips and an increase in the associated fuel and food costs. However, there are likely to be fewer opportunities for making these adjustments in the offshore fishery, as compared to nearshore and inshore areas. The nature of these adjustments and their attendant costs cannot be anticipated but are not likely to result in increased costs.

Producer Surplus

Vessel profits in LCMA 4 and 5 are likely to be unaffected by regulatory action since harvesting costs and lobster prices are expected to be unchanged. Assuming lobster landings are reduced in LCMA 3 and prices remain unchanged, then gross revenues to LCMA 3 fishery participants may be reduced. To the extent that these revenue losses are offset by cost savings associated with less tending, maintaining, and replacing of lost traps, LCMA 3 profits may remain unchanged. However, since there are likely to be fewer opportunities for increased efficiencies in the offshore fishery, as compared to nearshore and inshore areas, gross revenues to LCMA 3 fishery participants may be reduced by a small yet unquantifiable degree.

Enforcement Costs

As with the selected action, this non-selected alternative would introduce the additional burden of enforcing individual trap allocations and preventing vessels that do not qualify for historic participation from setting traps in LCMA 3 and LCMA 4 and 5. From a budgetary perspective, enforcement expense may not change. However, the opportunity cost of diverting enforcement services to these added measures will increase.

Distributive Effects

Each of the measures of this non-selected alternative would have some distributive impacts. Similar to the selected action, in LCMA 4 and 5 and LCMA 3, this non-selected alternative would tend to preserve the competitive position of each fishing enterprise. It would also, to some but unknown extent, increase the relative share of landings in these LCMAs for those who are able, compared to those who are not able, to meet the qualification criteria for participating in the trap fisheries in these management areas. The extent to which non-qualifiers would potentially decide to move trap fishing operations to other LCMAs not requiring historical participation is unknown.

Non-selected No Action/Status Quo Alternative 1B

Generally, the non-selected status quo alternative may also be termed the "no action" alternative. However, as explained earlier in this section, given the statutory obligation to achieve lobster conservation objectives, the term "status quo" should not be construed as being equivalent to doing nothing at all. Within this context, the non-selected "status quo" alternative refers to what would be most likely to occur in the absence of implementing the proposed regulation. Should the current suite of management measures fail to achieve conservation targets, trap limits may have to be further reduced and other measures including but not limited to changes in lobster size limits, trap limits, escape vent size, closed areas or seasons, landing limits and other area-specific measures may have to be implemented. In this action, since the selected management action would result in an 18.5% reduction (from an initial allocation baseline) in traps fished in LCMA 3 (Table III.2.), and a freeze on the number of traps historically fished in LCMA 4 & 5, the non-selected no action/status quo alternative was evaluated under the assumption that similar levels of trap reduction would be achieved through changes in trap caps.

Number of Traps

Under current Federal regulations, permit holders may elect to participate in any or all of the LCMAs. For the purpose of this analysis, based on permit applications as of July 19, 2000, there were a total of 75 permits issued with LCMA 3 and/or LCMA 2/3 Overlap (but not LCMA 2) area designations. There were an additional 576 permits issued that had an LCMA 3 and at least one other nearshore or inshore LCMA area designation. The maximum number of traps that could be fished by the 75 LCMA 3-only permit holders is 135,000 (75 x 1,800 traps/permit) and the maximum number of traps that could be fished by permit holders that may fish in LCMA 3 and some other LCMA is 460,800 (576 x 800 traps/permit). The number of traps actually fished is not known. However, as of July 19, 2000, 69 of the 75 LCMA 3-only permit holders have purchased 96,732 tags (1,401 tags per vessel). Similarly, 287 of the 576 permit holders with nearshore and LCMA 3 area designations have purchased 149,445 trap tags (521 tags per vessel). Note that these trap estimates are based on documented sales through the NOAA Fisheries-approved contractor or from data provided by states with a Memorandum of Understanding and exclude the 10% allowance for replacement tags. Assuming that documented average trap tag purchases is representative of undocumented purchases, the total number of traps that may be fished in LCMA 3 would be 105,075 by LCMA 3-only vessels (75 x 1401 traps/permit) and 300,096 by vessels that may fish in LCMA 3 and some other LCMA (576 x 521 traps/permit).

Assuming that just LCMA 3-only vessels set traps in LCMA 3 then a 20% reduction in traps fished in the LCMA could be accomplished with a cap of 1,440 traps; just slightly higher than the estimated average number traps fished (assuming the purchase of a tag represents an intention to fish an equivalent number of traps). However, since participation in the LCMA 3 fishery is available to any Federal permit holder and there is sufficient capability for replacing traps above the trap cap with traps below the cap the LCMA 3 fishery is not a closed system. Thus, the actual trap cap necessary to effectively reduce the number of traps fished in LCMA 3 may have to be substantially less than 1,440 traps.

To provide some basis for comparison, the data reported in Table III.2. will be used as a proxy measure for numbers of traps fished in LCMA 3. Based on these data, there would be a total of 118,400 traps by 64 vessels prior to the adoption of the preferred management action. Assuming that vessels operating below the cap do not increase traps, the total number of traps fished would be 102,650. Under this assumption, the trap cap would have to be reduced to approximately 1,630 traps to achieve an 18.5% reduction in traps fished. However, assuming that the removed traps were at least marginally profitable, then it will be profitable for vessels operating below the trap cap to replace every trap removed above the trap cap. Under the latter assumption, the trap cap would have to be lowered to 1,500 traps to reach the reduction target under the non-selected no action/status quo alternative that would be compatible to the 18.5% reduction for Area 3 under the selected management action.

Lobster Landings

A number of adjustments in fishing practices may be made to accommodate trap reduction while leaving total production unchanged. Available evidence suggests that the ability to make such adjustments is weaker in the offshore fishery but it is unlikely that reductions in landings would be proportional to trap reductions. But, if vessels are unable to increase efficiencies to compensate for trap reductions, a reduction in landings will occur. However, the ability of Federal lobster permit holders who are non-historical participants in the LCMA 3 or the LCMA 4/5 fisheries to enter these area fisheries in the future under the status quo alternative, coupled with the potential for lobstermen who fish a lower number of traps to increase fishing effort up to the respective trap caps in these LCMAs, make a reduction in lobster landings unlikely.

Lobster Prices

The status quo alternative assumes a 18.5% reduction in the number of lobster traps fished in Area 3 and a freeze on lobster traps in Area 4 and Area 5 (as discussed earlier under Status Quo Alternative), while the preferred alternative freezes participation and reduces traps in Area 3 while imposing a freeze on lobster trap numbers in Areas 4 and 5. Since adjustments in fishing practices may be made to accommodate trap reductions while leaving total production unchanged. Vessels may set gear to "hold ground" or claim seasonally productive lobster territory rather than always setting gear to maximize catch levels. If total production is unchanged, due to adjustments in fishing practices, it is likely that the status quo alternative will not result in any change in lobster landings, or any anticipated change in lobster prices. But, if vessels are unable to increase efficiencies and make adjustments in fishing practices to compensate for trap reductions, a reduction in landings will occur. Although a small component of overall domestic supply, if landings do decline, the ability of Federal lobster permit holders who are non-historical participants in the LCMA 3 or the LCMA 4/5 fisheries to enter these area fisheries in the future under the status quo alternative, coupled with the potential for lobstermen who fish a lower number of traps to increase fishing effort up to the respective trap caps in these LCMAs, make a reduction in lobster prices unlikely. In this dynamic setting, even if landings do decline, demand may attract Canadian supply and mitigate any potential rise in prices.

Consumer's Surplus

Assuming lobster prices will not be affected under the scenario constructed above, consumers surplus may be expected to remain unchanged under the statu quo alternative. To the extent that lobster prices (particularly if reductions in Area 3 impact on the large lobster segment of the market) do increase, consumers surplus may decline. As discussed above, however, the market dynamic that may stimulate Canadian imports and encourages increased effort in LCMA's that

are not constrained by limited entry or trap caps is likely to result in no net change in lobster prices so consumer surplus may be expected to remain unaffected by regulatory action.

Harvest Costs

In contrast to the preferred alternative, which proposes to restrict future entry in the Area 3, 4, and 5 lobster trap fishery, in the status quo open system where entry to the LCMA 3 can occur at any time, the total number of traps fished in LCMA 3 is most likely to remain at or near current levels. Given this conclusion, the costs of baiting, maintaining, and replacing traps may be assumed to remain relatively constant. However, since the status quo alternative assumes a 18.5% reduction in the number of lobster traps fished in Area 3, and there are likely to be fewer opportunities for increased efficiencies in the offshore fishery, as compared to the nearshore and inshore areas, trap reductions may result in a small yet unquantifiable increase in harvest costs for the offshore sector.

Producer Surplus

With no expected change in lobster prices or costs attributable to the regulatory environment industry profits or producer surplus is not expected to change under the status quo. If trap reductions cannot be offset by increased efficiencies and result in an increase in harvesting costs for the offshore sector, industry profits may decline.

Enforcement Costs

Properly defined, enforcement costs are not equivalent to the budgetary expense of dockside or at-sea inspection of vessels. Rather, enforcement costs from an economic perspective, are measured by the opportunity cost in terms of foregone enforcement services that must be diverted to enforcing lobster regulations as compared to some other enforcement activity. Nevertheless, under the status quo scenario enforcement costs are not expected to be affected since changes in trap caps will only affect a change in allowable trap limits and will introduce no new enforcement burden.

Distributive Effects

Relative to status quo conditions, trap caps may have substantial distributive impacts. This may

be particularly true in areas like LCMA 3 where there is a wide range of traps used by fishery participants. Based on the data provided in Table III.2., 30 of the 64 participating vessels would be fishing more than 1,800 traps during the baseline period. Given the limited range for adapting to reductions in traps in the offshore fishery, vessels that must reduce traps will lose fishing income which will also negatively affect their competitive position in the industry. By contrast, vessels that may be able to increase trap numbers will see improvements in income and may be able to garner a larger share of industry revenues.

Non-Preferred Alternative 1C

The non-selected alternative would limit participation in LCMA 3 and LCMA 4 and 5 to qualifiers, but would not implement trap allocations based on historic participation. Instead, trap caps equivalent to the status quo would be implemented.

Number of Traps

Since the qualification criteria for limited entry to the LCMA 3 and LCMA 4 and 5 fisheries are the same as that for the preferred management action, the potential number of qualifiers is the same as that reported in Table V.1. Using the data provided in Table III.2., a limit on entry and a trap cap of 1,800 traps could result in a net decrease in numbers of traps fished in year 1 since the average number of traps (1,850) is slightly above the trap cap. However, in order to achieve an equivalent trap reduction to that of the selected management action, the trap cap would have to be reduced to approximately 1,500 traps. The notable difference between non-selected alternative 1C and the status quo is that the trap caps could be adjusted with far greater certainty of reaching a trap reduction target due to the limit on participation.

For LCMA 4 and 5, the number of trap tags purchased by qualifiers is approximately 800 tags. Therefore, this non-selected alternative would result in approximately the same number of traps fished as the non-selected no action/status quo alternative assuming that the status quo reflects approximately the same number of vessels and that no new vessels enter the LCMA 4 and 5 fishery.

Lobster Landings

If trap caps are not adjusted to achieve equivalent trap reductions in LCMA 3 as that of the selected management action, then lobster landings may be expected to be equivalent to that of the status quo. A number of adjustments in fishing practices may be made to accommodate trap reduction while leaving total production unchanged. Available evidence suggests that the ability to make such adjustments is weaker in the offshore fishery but it is unlikely that reductions in landings would be proportional to trap reductions. But, if vessels are unable to increase efficiencies to compensate for trap reductions, a reduction in landings will occur. Unlike the status quo alternative, this non-selected alternative does not allow Federal lobster permit holders who are non-historical participants in the LCMA 3 or the LCMA 4/5 fisheries to enter these area

fisheries in the future. If trap caps are adjusted to achieve an equivalent trap reduction, then lobster landings may be expected to be equivalent to that of the selected management action. Therefore, the scheduled trap reduction is likely to result in a small yet unquantifiable reduction in LCMA 3 landings. Landings in LCMA 4 and 5 may be reduced if vessels that would otherwise have qualified for an initial allocation of more than 1,440 traps are unable to alter their fishing practices to mitigate their trap losses. Nevertheless, lobster landings region-wide may not be affected since the LCMA 4 and 5 fishery accounts for only a small proportion of overall landings. While it is clear that the best available data as described in this FSEIS indicates that the number of traps may be expected to decline for all three impacted areas, the actual number of participants and their associated final trap allocations will be unknown until the actual qualification process is completed. If, following implementation, the number of participants and/or associated traps does not decrease, landings are expected to be unaffected.

Lobster Prices

As was the case for the no action/status quo alternative and the selected management action lobster prices are unlikely to be affected by regulatory action. This is due to the likelihood that lobster landings will not be substantially affected because any price increases may induce and influx of Canadian product, and increased effort in areas other than LCMA 3,4, and 5, since trap caps in these areas are not binding.

Consumer's Surplus

In the absence of change in lobster prices and landings consumers surplus may be expected to be unaffected by regulatory action. However, if there is a reduction in landings, consumer's surplus may decline.

Harvesting Costs

Harvesting costs may be roughly equivalent in LCMA 4 and 5 relative to the status quo since average trap purchases are already at or near the trap caps. Similarly, if trap caps are adjusted, harvest costs in LCMA 3 may be equivalent to that of the no action/status quo alternative since the estimated trap cap in year 4 for the non-selected alternative 1C would be the same as for the status quo alternative.

Producer Surplus

Since prices, landings, and harvest cost may be expected to be similar to that of the status quo alternative, producer surplus or fishery profits are likely to be unchanged relative to the status quo.

Enforcement Costs

Non-selected alternative 1C would require that non-qualified vessels do not set traps in either

LCMA 3 or LCMA 4 and 5. Otherwise, the enforcement burden would be similar to that of the status quo alternative. In this respect, the economic cost of enforcement (measured in terms of opportunity cost) for non-selected alternative 1C would be higher as compared to the status quo alternative.

Summary of Impacts

The impact of each of the regulatory alternatives relative to the non-selected non-selected status quo scenario is summarized in Table V.2. A “decrease" indicates that the level of the given feature would be reduced given action as compared to the non-selected status quo scenario. A “increase" indicates that the level of the given feature would increase relative to the non-selected status quo scenario and a “no change" is indicative of no change. Although the non-selected status quo scenario assumed that a similar trap reduction to that of the selected management action would be accomplished through reductions in trap caps, the fact that the non-selected status quo scenario is an open system with respect to the offshore fishery makes it unlikely that an effective trap cap reduction schedule alone could achieve the desired results. Therefore, since each of the regulatory scenarios analyzed in this section are closed systems in the offshore fishery, they offer a greater likelihood of achieving trap reduction targets. On balance, the selected management action, with a trap cap in LCMA 3, 4, and 5, and a trap reductions in LCMA 3, provides the greatest likelihood of effectively reducing fishing mortality.

Table V.2. Qualitative Comparative Summary of Economic Effects of Regulatory Scenarios Relative to the Status Quo Scenario

Feature	Selected Action	Non-Selected Alternative 1A	Non-Selected Alternative 1C
Number of Traps	decrease	decrease	decrease
Lobster Landings	no change (?)	no change (?)	no change (?)
Lobster Prices	no change	no change	no change
Consumer Surplus	no change	no change	no change
Harvest Costs	decrease	decrease	no change
Producer Surplus	decrease (?)	no change (?)	no change (?)
Enforcement Costs	increase	increase	increase
Distributive Impacts	increase	increase	no change
Likelihood of capping or reducing overfishing	increase	increase	increase

"decrease" denotes a reduction in the identified feature relative to status quo,
"no change" denotes no change in the identified feature from status quo
"increase" denotes an increase in the identified feature relative to status quo

The effect on lobster landings is difficult to project, given uncertain relationships between trap reductions and possible adaptations in fishing practices to mitigate trap losses. On a fishery-wide basis, adjustments in fishing practices and possible effort expansion in areas other than LCMA 3 and LCMA 4 and 5 will most likely result in landings that are similar to that of the non-selected status quo scenario. Given the probable impact on landings, lobster prices and consumer's surplus are not likely to differ from the non-selected status quo scenario.

Due to anticipated reductions in numbers of traps fished, harvest costs are likely to be lower when compared to the non-selected status quo scenario. These cost savings are associated with lowered baiting and gear repair and replacement costs. Changes in producer surplus are uncertain. On balance, producer surplus is not likely to change appreciably relative to the non-selected status quo scenario but given the uncertain effect on landings it is not clear whether possible reductions in landings will be more than offset by costs savings.

The economic cost of enforcement under each of the regulatory alternatives is likely to be greater than the non-selected status quo scenario. This increased cost is due to the need to enforce individual trap limits in the selected management action and non-selected alternative 1A and the need to enforce limited entry under all three regulatory alternatives.

Reliance of traps caps alone may result in a realignment of the competitive position of vessels participating in the fishery. In this respect, the non-selected status quo scenario and non-selected alternative 1C may be expected to have similar effects. By contrast, the historic participation and trap allocations under the selected management action and non-preferred alternative 1A will tend to preserve the competitive position of firms in the LCMA 3 and LCMA 4 and 5 fishery. Assuming that maintaining the competitive structure of the industry is desirable the distributive impact for the selected management action and non-preferred alternative 1A is denoted as "increase."

Given the fact that entry by Federal lobster permit holders to the effected fisheries in LCMA 3, 4, and 5 is not limited and the situation that current participants may increase the number of traps they fish up to the 800 trap limit (LCMA 4 and 5) and 1,800 trap limit (LCMA 3), the non-selected status quo scenario provides little assurance that trap reduction objectives can be met. The establishment of a maximum trap limit in LCMA 4 and 5, and the trap limit and graduated reduction schedule in LCMA 3 in the selected management action will provide a greater assurance that trap reduction objectives could be accomplished in the effected fisheries in LCMA 3, 4, and 5. Further, in a closed system, additional management measures to effectively reduce fishing mortality would have a greater chance of success since additional effort would not be able to enter the fishery. Thus, the selected management action will have a higher likelihood of effectively capping or reducing overfishing in the effected fisheries in LCMA 3, 4, and 5 than the non-selected status quo scenario, or non-selected alternative 1C, and to a lesser degree 1A.

Selected Management Action - New Hampshire Conservation Equivalency

Number of Traps

Under the assumptions for the New Hampshire conservation equivalency plan, there would be no net increase in traps fished in LCMA 1. In fact, as discussed in Section III.H., data provided by the State of New Hampshire to the Commission's lobster Technical Committee indicates that implementation of the state's proposal, when incorporating fishing operations of all lobstermen fishing in state and Federal waters of LCMA 1 would result in approximately 18,000 fewer traps in LCMA 1 compared to what would otherwise be potentially fished under the current fixed limit of 800 traps. As noted by the Technical Committee, the number of traps fished in New Hampshire state waters could increase if the number of limited licenses issued by the state is not limited. However, this would be true whether the state trap limit is 600 traps or 800 traps for limited license holders. The impact on Federal permit holders is less significant. Permit data indicates 48 individuals hold both a Federal lobster permit and a state lobster license and fish traps in both state and Federal waters. The selected action will allow 22 of these fishermen to use 400 additional traps over the Federal limit, as long as no more than 800 traps are fished in Federal waters. This, if taken alone, would result in a potential increase of 8,800 traps being fished in LCMA 1. , However, the remaining 26 permit holders are limited to a maximum of 600 traps under state regulations (New Hampshire Fish and Game Department, personal communications), which potentially results in 5,200 fewer traps than would otherwise be allowed under a cap limit of 800 traps. Thus, the result of the selected action, if only based on activities of individuals holding both a Federal permit and state license, would be a net increase of 3,600 traps being fished in the state waters of New Hampshire LCMA 1 by New Hampshire lobstermen.

Lobster Landings

New Hampshire full license holders may be able to increase their relative share of landings compared to other non-New Hampshire LCMA 1 participants because New Hampshire full license holders will be allowed to fish more traps in New Hampshire state waters.

Lobster Prices

Any change in lobster landings due to regulatory action may be expected to be due to the expected combined overall trap reductions by state and Federal permit holders. The trap reductions may result in reduced landings, however, since New Hampshire accounted for less than 3% of domestic supply in 2001, the expected change in landings may be expected to be small and lobster markets may be expected to be unaffected by the change in landings. If markets are affected, the effect is likely to be quite small, and in this dynamic setting, lobster prices are likely to be unaffected by regulatory action.

Consumer Surplus

Should prices remain largely unaffected, consumers surplus may be expected to remain

unchanged under the selected management action. To the extent that lobster prices do increase, consumers surplus may decline. As discussed above, however, market dynamics are likely to result in no net change in lobster prices so consumer surplus may be expected to remain unaffected by regulatory action.

Harvest Costs

Under the selected management action, harvest costs may be expected to remain unaffected for vessels in LCMA 1, since numbers of traps fished by Federal permit holders will not change appreciably as a result of this regulatory action. For participants in possession of a New Hampshire full commercial lobster license, the cost of tending, maintaining, and replacing lost traps may be expected to increase. However, the impact of an expected reduction in traps overall by state and Federal permit holders may reduce gear conflict and associated lost/ghost gear. Participants in possession of a New Hampshire limited commercial lobster license may make adjustments to fishing practices by increasing the number and frequency of trips, thereby increasing the variable fishing costs such as food and fuel. The exact nature of these adjustments and their attendant costs cannot be anticipated but are not likely to result in increased costs relative to the status quo.

Producer Surplus

Vessel profits in LCMA 1 are likely to be unaffected by regulatory action since harvesting costs and lobster prices are expected to be unchanged. For purposes of this analysis, using information provided by New Hampshire analyzed for this action, it is assumed that the 48 individuals who hold both a Federal lobster permit and a state lobster license, fish traps in both state and Federal waters. The selected action will allow 22 of these fishermen to use 400 additional traps over the Federal limit, as long as no more than 800 traps are fished in Federal waters. Assuming lobster landings are increased for vessels fishing above the 800 maximum trap limit and prices remain unchanged, then gross revenues to fishery participants may be increased. To the extent that these revenue increases are offset by equipment expenses, profits may remain unchanged. Conversely, 26 of 48 permit holders are limited to a maximum of 600 traps under state regulations (New Hampshire Fish and Game Department, personal communications). Assuming lobster landings are decreased for approximately 26 vessels fishing below the 800 maximum trap limit and prices remain unchanged, then gross revenues to fishery participants may be decreased. To the extent that these revenue losses are offset by cost savings, profits may remain unchanged.

Enforcement Cost

The selected management action will introduce the additional burden of enforcing a two tier trap allocation system in state and Federal waters. From a budgetary perspective, enforcement expense may not change. However, the opportunity cost of diverting enforcement services to these added measures will increase.

Distributive Effect

In the case of the New Hampshire conservation equivalency program, full license holders may be able to increase their relative share of landings compared to other non-New Hampshire LCMA 1 participants because New Hampshire full license holders will be allowed to fish more traps.

Non-selected Status Quo Alternative 2B- New Hampshire Conservation Equivalency

Number of Traps

Implementation of the state's proposal for conservation equivalency, when incorporating fishing operations of all lobstermen fishing in state and Federal waters, would result in approximately 18,000 fewer traps in LCMA 1 (as reviewed by the Lobster Technical Committee) compared to the status quo alternative with a fixed limit of 800 traps. If the state's proposal for conservation equivalency is not implemented, participants in possession of a New Hampshire full commercial license may elect to sell their vessel and Federal permit and fish only in state waters. If the vessel and associated permit is sold, the number of traps fished in Federal waters may increase if traps are set up to the maximum for LCMA 1. An absence of information on the actual numbers of traps actively fished by lobstermen in possession of a New Hampshire limited commercial license makes it impossible to quantify the actual number of trap reductions by limited license holders. Any potential reduction is tempered by the situation that any substantial increase in the number of state limited lobster licenses could result in more traps being fished in state waters of LCMA 1, potentially undermining any reduction in lobster fishing mortality.

Lobster Landings

Not taking action to allow New Hampshire full license holders to fish an additional 400 traps in New Hampshire state waters may result in less lobster being landed by 22 of 48 Federal permit holders impacted by this action. Not taking action to establish a 600 trap ceiling for 26 of 48 Federal limited license holders, a more conservative limit than the 800 trap limit required by the ISFMP, may result in an increase in lobster landings for license holders actually fishing above the 600 trap limit. However, an absence of information on the actual numbers of traps actively fished by New Hampshire lobstermen makes it impossible to quantify the impact on landings by limited license holders. If New Hampshire full license holders elect to sell the vessel and associated Federal lobster permit and fish only in state waters, landings may increase if the vessel and associated permit result in additional traps being fished in Federal waters. However specific reactions by impacted Federal permit holders are difficult to determine or quantify. Given the likelihood that the status quo will not result in any change in lobster landings, there is no anticipated change in lobster landings as a result of not taking regulatory action.

Lobster Prices

Given the likelihood that the status quo will not result in any change in lobster landings, there is no anticipated change in lobster prices as a result of not taking regulatory action.

Consumer Surplus

Assuming lobster prices will not be affected under the status quo scenario, there will be no corresponding change in consumer surplus.

Harvest Costs

Given the status quo system, the total number of traps fished by Federal permit holders with a New Hampshire lobster license will remain unchanged. Given this conclusion, the costs of baiting, maintaining, and replacing traps may be assumed to remain relatively constant.

Producer Surplus

With no expected change in lobster prices or costs attributable to the regulatory environment industry profits or producer surplus is not expected to change under the status quo.

Enforcement Cost

Properly defined, enforcement costs are not equivalent to the budgetary expense of dockside or at-sea inspection of vessels. Rather, enforcement costs from an economic perspective, are measured by the opportunity cost in terms of foregone enforcement services that must be diverted to enforcing lobster regulations as compared to some other enforcement activity. Nevertheless, under the status quo scenario enforcement costs are not expected to be affected and will introduce no new enforcement burden.

Distributive Effect

Given the status quo system, the total number of traps fished by Federal permit holders with a New Hampshire lobster license will remain unchanged. With no expected change in lobster prices or costs attributable to the regulatory environment, there are expected to be no distributive effects under the non-selected status quo alternative.

Boundary Clarification Alternatives

There are not expected to be any economic impacts associated with the regulatory action to change the boundary lines for Massachusetts waters. Implementation of the selected action will ensure impacted permit holders will operate under compatible state and Federal area specific management measures within the same Lobster Conservation Management Area boundaries. Enforcement of area specific management measures will also be facilitated by Federal implementation of the recommended ISFMP boundaries.

Small Entity Impacts: Regulatory Flexibility Analysis

The economic impacts of the selected regulatory action and the non-selected alternatives were described at a broad industry level above, rather than at the individual firm or business level. In this section, potential economic effects are examined from the perspective of the individual firm

or business. In this regard, a distinction is drawn between small entities that would qualify for historic participation and those that would not qualify for historic participation. For purposes of this section, a small entity is defined as being any vessel with gross sales not exceeding $3.5 million annually, consistent with that of the size standards of the Small Business Administration. Under this definition, all entities that are permitted to fish and that participate in the American lobster fishery are small.

The purpose and need for Federal management of American lobster in the EEZ is described in Section I of this FSEIS. Regulatory action to control fishing effort on the basis of historical participation is a component of an iterative process to end overfishing of American lobster throughout their range. The legislative basis for Federal management of American lobster is found in Section 804 of the Atlantic Coastal Act, which provides authority for the implementation of management measures in Federal waters which are compatible with an ISFMP and consistent with the National Standards specified in Section 301 of the Magnuson-Stevens Act. See Section II of this FSEIS for additional information. Descriptions of the projected reporting, record keeping, and compliance requirements for the selected regulatory action and the non-selected alternatives relating to historical participation are presented in Section III.2. and III.3. respectively. Special professional skills would not be required to fulfill associated record keeping and compliance requirements. Management actions relating to modification of LCMA 1 trap limits for New Hampshire lobster license holders and a clarification of lobster management area boundaries are also discussed. The selected regulatory action and the non-selected alternatives are presented and evaluated in Sections III.2., and III.3. of this FSEIS. For New Hampshire trap limits, the selected regulatory action allows a Federally permitted lobsterman who also has a New Hampshire full commercial lobster license to fish an additional 400 traps in state waters in accordance with state regulations. The non-selected no action/status quo alternative would not allow the fishing of these additional traps, and would restrict fishing to no more than 800 traps, regardless of fishing location. For the boundary clarification, the selected regulatory action will revise lobster management area boundary lines adjacent to Massachusetts to be consistent with boundary lines under the ISFMP. The non-selected no action/status quo alternative would retain current boundaries for the associated lobster management areas. The economic impacts associated with the selected management action and non-selected New Hampshire trap limit and Massachusetts boundary line alternatives are described in Sections III.2. and III.3. of this FSEIS, and are incorporated herein by reference.

There are no other Federal regulations which overlap or duplicate the selected regulatory action and the non-selected lobster management alternatives discussed in this FSEIS. The selected regulatory action and the non-selected alternatives would affect only those entities that hold a Federal lobster permit. Based on permit application records analyzed for this action as of July 2000, a total of 2,901 vessels hold Federal lobster permits. Of these vessels, 18 hold only recreational permits, 6 hold both recreational and non-trap commercial permits, and 2065 vessels held Federal commercial lobster trap permits. Due to a lack of mandatory data collection in the lobster fishery, activity data to discern between vessels that merely hold a permit and vessels that have participated or are currently participating in the fishery cannot be determined with any degree of reliability. All Federal permit holders must be considered as potential industry

participants, therefore, a regulatory flexibility analysis (RFA) was conducted. The RFA provides information on the expected economic impacts of the selected regulatory action and the non-selected alternatives on affected small entities, i.e. Federal permit holders engaged in the lobster fishery to the extent possible.

Economic Effects on Historic Participation Qualifiers

Based on data provided by the LCMA 3 participants, there are at least 64 vessels that will qualify for historic participation in LCMA 3. No such data is available for LCMA 4 and 5 nor does the information provided in Table III.2. mean that the number of eventual qualifiers for historic participation will be limited to 64. The analysis presented earlier in this section indicates that available data suggest that the number of qualifiers could be as many as 117 vessels for the LCMA 3 fishery and 60 vessels for LCMA 4 and 5 (Table V.1.). Of the qualified vessels for LCMA 3, the majority had home ports in either Rhode Island or Massachusetts (Table V.3.). For LCMA 4 and 5, the majority of qualified vessels were from home ports in the states of New York and New Jersey. These data are consistent with known patterns of participation in both LCMA 3 and LCMA 4 and 5. Nevertheless, given problems with data collection for the lobster fishery these qualification estimates are likely to under-estimate the number of vessels that will qualify for historic participation.

Table V.3. Summary of Home Port of Historic Participation Qualifiers by LCMA

	LCMA 3		LCMA 4&5	
Home Port State	Lower Bound	Upper Bound	Lower Bound	Upper Bound
DE	1	1	1	1
MA	52	58	2	3
MD	0	0	0	1
NH	1	1	0	0
NJ	7	7	24	31
NY	1	7	14	16
RI	35	41	3	3
VA	0	0	0	1
OTHER	2	2	3	4
Total	99	117	47	60

The effect of limiting access to historic participants will have several major economic effects. Limiting access will protect qualifiers from effort expansion in the impacted offshore and

nearshore LCMA's of Areas 3 ,4, and 5. The selected management action will result in a closed system, restricting future participation in these areas to a known universe of qualified vessels. A closed universe of participants will effectively cap effort in Areas 4 and 5 at historic levels and, in Area 3, is intended to result in an estimated 20% reduction in gear after a four year trap reduction period compared to 1991-1993 estimated fishing effort (see Section III.2.H. and Table III.2. and Figure III.2. for additional information on this issue). A reduction in participants will also reduce the likelihood of gear conflicts and reduce associated loss of gear. A halt in effort expansion will effectively prevent a shift in effort by non-qualifiers from non-trap to trap gear in the impacted areas, and prevent a geographic shift by non-qualifiers from other areas that may be attracted to participate in the impacted areas for a variety of reasons, including potential financial incentives, localized overcrowding, or a resource decline such as that experienced in Long Island Sound - see Section IV.3.A.

A major economic effect of trap allocations based on historical participation will be to preserve the competitive position of fishing businesses in the offshore fishery. Vessels that have historically fished a greater volume of gear will be able to more effectively set gear to hold productive ground or claim seasonally productive lobster territory rather than always setting gear to maximize catch levels. It will also, to some unknown extent, increase the relative share of landings in these LCMAs for those who are able to meet the qualification criteria. However, increased trap usage may correlate into increased costs for qualifiers since increasing the numbers of traps fished brings with it increases in cost in purchasing and maintaining those extra traps, additional costs for bait, as well as the added time and fuel expenses necessary to tend the extra gear.

Assuming that the data provided in Table III.2. is representative of the majority of vessels that currently fish and that may eventually qualify for historic participation, the economic effect of the selected regulatory action may be viewed in contrast to the trap caps under the non-selected status quo alternative and that of non-selected Alternative 1C.

Under a trap cap, nearly half of the 64 vessels reporting trap numbers in Table III.2. would be forced to reduce their traps by at least 100 traps and 16 vessels would have to reduce their traps fished by at least 500 traps. By contrast, 27 vessels would be able to increase trap numbers by at least 200 traps and 10 vessels would be able to increase trap numbers by at least 600 traps. The potential for increased trap usage by 27 vessels and possible decreased trap usage by 30 vessels does not necessarily correlate to increased or decreased vessel profits for these respective vessels. That is, increasing the numbers of traps fished brings with it increases in cost in purchasing and maintaining those extra traps, additional costs for bait, as well as the added time and fuel expenses necessary to tend the extra gear. Similarly, decreases in traps usage will result in savings in time and costs. In fact, some have observed that decreases in traps do not result in decreases in harvest. (Acheson, 1997). Reasons for such include increased trap efficiencies -- e.g. the same number of lobsters are caught, but concentrated in fewer traps – and increased time and ability to more frequently tend the traps existing. Certainly, based upon available data, many vessels fish below their current cap limit, presumably in order to maximize the economic efficiencies of their own circumstances. NOAA Fisheries anticipates this practice to continue,

further ameliorating the expected financial impacts and disparity of the proposed action. In any event, trap allocations based on historical participation is not designed to create new financial positioning so much as it will preserve the historical competitive position and structure of the offshore fishery.

Among the regulatory alternatives considered in this action, the non-selected Alternative 1C would compromise the historic competitive balance of the offshore fishery by allowing vessels that currently fish below the existing fixed trap limits to increase effort and would permit some room for growth among the small entities (in terms of numbers of traps fished). Vessels currently fishing below the current cap may be able to use surplus gear above their current effort level and below the current trap cap to more effectively set gear to hold productive ground or claim seasonally productive lobster territory rather than always setting gear to maximize catch levels. It will also, to some unknown extent, increase the relative share of landings in these LCMAs for vessels fishing below the current cap at the expense of reducing industry share for entities that have historically fished above the trap cap. Vessels that have historically fished above the current trap cap may find increased competition for seasonally productive lobster territory. However, on balance, both the selected regulatory action and the non-selected Alternative 1C would have the same general economic effect among qualifiers. Given the similarities, as explained throughout this FSEIS, ultimately the selected actions are intended to be in keeping with the regulatory standard to implement Federal regulations that are compatible with the Commission's lobster ISFMP.

Economic Effects on Historic Participation Non-Qualifiers

Given the relatively small number of historic participation qualifiers there will be a large number of vessels that will not qualify. Note, however, that the number of vessels that have participated in the offshore fishery has historically been low so the selected regulatory action will primarily affect vessels that may currently be actively pursuing entry into the offshore fishery (i.e. Permit holders who have a vessel under construction or agreement, for example) and vessels that have participated in the offshore fishery but may not qualify due to one or more of the qualification criteria. However, as explained in Section III.2.H., NOAA Fisheries believes that potentially displaced fishers, having been given ample notice, are expected to have already diversified prior to the time the proposed action takes effect.

Under current Federal regulations, Federal lobster permit holders may elect to fish in any LCMA, but must abide by the most restrictive measures in effect for any LCMA elected. Based on an upper bound estimate of 60 qualifiers in LCMA 4 and 5, there is a total of 2,189 vessels that will not qualify to fish for lobster with traps under the selected regulatory action. This number, however, is potentially misleading because it represents all Federal permit holders across the range of the fishery, from Maine to North Carolina. As such, the number includes permit holders who have never fished in Areas 3, 4 or 5 and who have no intention of ever doing so, but who could potentially put Areas 3, 4 or 5 on their permit because current regulations do not prohibit such. Accordingly, the figure represents a theoretical upper boundary useful for analysis, but not intended to suggest the actual suspected impact set.

More realistic, however, is that of the 2,000 plus potential qualifiers, only 185 vessels designated at least area 4 or area 5 (or both) on their permit application. These vessels represent the set of permit holders that are most likely to be potentially impacted by historic participation in LCMA 4 and 5. Similarly, of the total theoretical upper boundary set of non-qualifiers for LCMA 3, 569 permit holders elected area 3 on the permit application. This set of 569 can be further reduced because many permit holders declare into an area even if they have no intention of fishing in that area. Reasons for this include maintaining fishing flexibility and the idea that in declaring an area one is preserving his or her right to fish there in the future if access to that area is limited. Certainly commentators have suggested that the number of vessels that actually fish in Area 3 is quite limited. Consistent with the findings for qualifying vessels, the majority of LCMA 4 and 5 non-qualifiers would be from home ports in New York and New Jersey (Table V.4.). However, vessels from home ports in Maine would comprise the majority of LCMA 3 non-qualifiers and are believed to be predominantly Area 1 fishers.

To examine the restrictiveness of the qualification criteria, the alternative levels of qualification were developed to determine how many vessels might qualify under less restrictive requirements. Specifically, qualification for LCMA 3 historic participation for alternative poundage qualification levels of 10,000, 15,000 and 20,000 pounds was estimated. The various levels of assumed catch per trap were also retained. Note that since qualification for LCMA 4 and 5 historic participation has no poundage requirement, the number of qualifiers would only be affected by the ability to demonstrate historic levels of trap fishing. The sensitivity for LCMA 4 and 5 qualifiers to the assumed level of catch per trap was reported in Table V.1.

The lower bound estimates for the LCMA 3 historic participation program were similarly insensitive to the poundage qualification criteria and were not particularly sensitive to the assumption of average catch per trap. By contrast, the upper bound estimates for LCMA 3 were sensitive to the poundage qualification criterion and this sensitivity increased as the assumed average catch per trap was reduced. Nevertheless, lowering the poundage criterion would result in, at most, a 37 vessel increase in LCMA 3 qualifiers.

Table V.4. Summary of Home Port State for Historic Participation Non-Qualifiers for Permit Applications Selecting LCMA 3 or LCMA 4&5

Home Port State	LCMA 4&5 Non-Qualifiers	LCMA 3 Non-Qualifiers
CT	2	0
DE	6	4
MA	29	161
MD	4	4
ME	11	269
NC	1	0

NH	2	18
NJ	49	43
NY	49	21
RI	27	38
OTHER	5	8
Total	185	566

Table V.5. Sensitivity Analysis of Qualifiers by Poundage Criterion

Poundage Requirement	CPU = 4 Pounds (number)	CPU = 3 Pounds (number)	CPU = 2 Pounds (number)	CPU = 1 Pounds (number)
Upper Bound Estimate for Area 3				
25000 lbs	99	106	111	117
20000 lbs	105	114	124	131
15000 lbs	110	121	133	144
10000 lbs	111	127	140	154
Lower Bound Estimate for Area 3				
25000 lbs	53	55	55	58
20000 lbs	55	57	57	59
15000 lbs	57	59	59	62
10000 lbs	57	60	60	64

The results reported in Table V.5. are based upon limited data. Vessel history that may not be fully represented in NOAA Fisheries data may increase the number of qualifiers. Nevertheless, vessels that will not qualify for either LCMA 3 or LCMA 4 and 5 historic participation, will not be able to expand their businesses into these areas. The economic effects will be more severe for those vessels that are currently fishing some portion of their traps but will not qualify for historic participation because they could not meet one or more of the qualification criteria. These vessels will either have to: sell their Federal permit and fish their allowable number of traps in state waters, assuming they qualify under their individual state program; move their trap fishing effort to other management areas not requiring historic participation; or, use their vessel and gear in some alternative fishery. Thus, non-qualifying vessels will likely to be able to offset some of their losses by fishing other areas or in other fisheries, but associated operations may not be as profitable as before.

A less obvious economic effect is that the value of the non-qualifier's Federal lobster permit might be eroded while that of qualifying vessels could increase in certain hypothetical situations. Thus, while there may be no distinct operational effect the equity position of the business could be affected. The normal cost associated with baiting and hauling traps may not change but if the value of the lobster permit is capitalized into the value of the vessel, then the value of the owners business could similarly be reduced. Since owner equity is an important component of obtaining favorable loan conditions non-qualifiers may be put at some competitive disadvantage when seeking business loans. If nothing else, the resale value of the business could be affected in

certain circumstances.

Impacts of Historic Participation Alternatives on Small Entities

On balance, the non-selected Alternatives 1A and 1C will not have significant differential impacts on non-qualifiers. Thus, under alternative 1A and 1C, non-qualifiers that are participants in the offshore fishery will still be forced to seek alternative fishing locations. These vessels will suffer some loss in profitability since alternative areas are likely to be already heavily fished. Non-qualifiers may also suffer a decline in the value of their business affecting resale and possibly putting them at a competitive disadvantage when seeking business loans.

Non-selected Alternative lA will have approximately the same impact as that of the selected regulatory action except that vessels in LCMA 4 and 5 may be less negatively affected relative to the selected regulatory action. The possible negative effect of the selected action is due to the imposition of a cap on initial trap allocations. Such a cap would require some portion of qualifying vessels to reduce the number of traps fished proportionally more than vessels that will qualify for initial allocations at or below the cap.

Non-selected Alternative 1C may have mixed effects on qualifying vessels in LCMA 3 and LCMA 4 and 5. Vessels that are operating above the cap will have to reduce traps while vessels below the cap will be able to increase their traps. On balance, approximately the same number of vessels will be forced to reduce as will be able to increase their traps. At an industry level, this non-selected alternative may result in an equalization of competitiveness but will do so by negatively impacting relatively larger businesses.

Rationale for Selecting this Regulatory Action

Based on information available at this time, NOAA Fisheries concludes that the selected regulatory action is the best among the considered alternatives. The reader is referred to Section III of this FSEIS for a detailed description of the selected regulatory action and its rationale and environmental consequences.

Impacts of New Hampshire Conservation Equivalency on Small Entities

Selected Action - New Hampshire Conservation Equivalency

Under the selected management action, Federal permit holders with New Hampshire full licenses may be able to increase their relative share of landings compared to New Hampshire limited license holders and other non-New Hampshire LCMA 1 Federal participants because full license holders will be allowed to fish up to 400 more traps in New Hampshire state waters than is allowed under the current trap cap. Gross revenues for New Hampshire full license holders fishing above the current 800 maximum trap limit in the state waters of New Hampshire may be increased. To the extent that revenue increases are offset by equipment expenses (i.e. the procurement, tending, and maintenance of more gear), profits may remain unchanged. New

Hampshire full license holders may also be able to more efficiently "hold ground" or claim seasonally productive lobster territory. However, gear conflicts may increase and offset the benefits of increased landings. Limited license holders fishing below the current maximum trap limit may experience reduced landings, and, since prices are expected to remain unchanged, gross revenues may decrease. However, reduced equipment expenses and the ability to increase efficiencies through an increase in the number of trips and more frequent trips may offset revenue losses and profits may remain unchanged.

Non-Selected No Action/Status Quo Alternative 2B - New Hampshire

Under the non-selected status quo alternative, Federal permit holders with New Hampshire full license will be restricted to the current 800 maximum trap limit. This non-selected alternative could result in a variety of responses on the part of impacted Federal permit holders. If NOAA Fisheries did not implement the selected action to allow fishers who qualify to use 1,200 traps in New Hampshire state waters, the impacted fisher could relinquish his Federal permit, sell the vessel and associated federal permit, or continue to fish for lobster with traps under the existing Area 1 trap limit (800 traps) in both state and Federal waters. Relinquishment of the Federal permit would result in less gear being fished in Federal waters although the 1,200 traps would still be fished, but entirely in state waters, potentially greatly increasing line density in state waters. However, given the economic value of a vessel with an associated Federal limited access lobster permit, it is unlikely that a fisher would simply relinquish the Federal permit. Sale of the vessel and permit to a fisher who did not possess a New Hampshire lobster permit would not be expected to result in a reduction in trap gear. It is likely that a sale would result in increased effort under the assumption that the seller would continue to fish the 1,200 traps entirely in state waters, thereby potentially greatly increasing line density in state waters, while the buyer of the vessel and Federal lobster permit could fish up to the maximum trap limit in Federal waters for the area(s) elected. If the impacted fisher elects to continue to fish for lobster with traps under the existing Area 1 trap limit (800 traps) in both state and Federal waters, vessels unable to increase efficiencies and make adjustments to fishing practices to compensate for trap reductions may experience a reduction in profits. Not taking action to establish a 600 trap ceiling for Federal limited license holders, a more conservative limit than the 800 trap limit required by the ISFMP, may result in an increase in lobster landings for license holders actually fishing above the 600 trap limit. However, an absence of information on the actual number of traps actively fished by New Hampshire lobstermen makes it impossible to quantify the impact on landings.

Selected Action 3A - Change Boundaries

The selected action will implement compatible boundary lines for Area 1, Area 2, and the Outer Cape Area to maintain consistency with the Commission's lobster ISFMP. Impacted vessels will benefit from compatible boundary lines, by the elimination of potential regulatory differences between state and Federal area specific regulations, and the elimination of differential enforcement as interpreted by state and Federal agencies.

Non-selected No Action Status Quo Alternative 3B - Boundaries

This non-selected alternative would result in incompatible boundary lines for Area 1, Area 2, and the Outer Cape Area. Incompatible boundaries could result in differential enforcement of area specific management measures as interpreted by state and Federal agencies as well as confusion on the part of impacted Federal permit holders.

2. Coastal Zone Management Act (CZMA)

The principal objective of the CZMA is to encourage and assist states in developing coastal management programs, to coordinate state activities, and to safeguard regional and national interest in the coastal zone. Section 307(c) of the CZMA requires Federal activity affecting the land or water uses or natural resources of a state's coastal zone be consistent with that state's approval coastal management program, to the maximum extent practicable. NOAA Fisheries provided a copy of the DSEIS and a consistency determination to the state coastal management agency in every state with a Federally-approved coastal management program whose coastal uses or resources are affected by these lobster management measures. NOAA Fisheries has determined that these proposed regulations will be implemented in a manner that is consistent to the maximum extent practicable with the coastal zone management programs of the Atlantic states that have approved programs.

3. Paperwork Reduction Act (PRA)

The purpose of the Paperwork Reduction Act is to reduce the paperwork burden on the public. The Director of the Office of Management and Budget (OMB) has the authority to manage information collection and record keeping requirements in order to reduce paperwork burdens. This authority encompasses the establishment of guidelines and policies and the approval of information collection requests.

The selected management actions in this FSEIS contain new collection-of-information requirements subject to the PRA which have been submitted to OMB for approval. These requirements include the compilation of information by Federal permit holders pertaining to historical fishing operations in the lobster fishery, and the submission of one or more affidavits to NOAA Fisheries, certifying the information provided to qualify based on the area specific qualification criteria number in LCMAs 3, 4, and 5. The public reporting burden for each collection of information per response is indicated in parentheses in the following list of new requirements, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The new requirements are as follows: 1. Provision of documentation of possession of a current valid Federal lobster permit (5 minutes); 2. Provision of documentation to demonstrate at least

200 lobster traps were set, allowed to soak, hauled back, and re-set in Areas 3, 4, or 5 during a 2-consecutive calendar month period in any calendar year during the qualification period from March 25, 1991, through September 1, 1999 (15 minutes); 3. (For Area 3 only) Provision of documents pertaining to the sale of lobsters indicating the landing of at least 25,000 pounds of lobster from any location during the year used as the qualifying year from March 25, 1991, to September 1, 1999 (10 minutes); 4. Provision of documentation for proof of historical participation in two rather than one lobster management area (additional 15 minutes if different consecutive two-month periods of trap fishing are used); 5. Provision of documentation for proof of historical participation in three rather than one lobster management area (additional 30 minutes if three different consecutive two-month periods are used); 6. Completion of lobster trap fishing area eligibility application form (2 minutes for each area selected); 7. Provision of affidavit stating total number of individual lobster traps the permit holder set, allowed to soak, hauled back, and re-set in Areas 3, 4, or 5 at any one time during the qualifying year (15 minutes); 8. Provision of a written appeal request to the Regional Administrator by non-qualifying permit holders (15 minutes); and Provision of affidavits in support of documentary hardship written appeal request to the Regional Administrator by non-qualifying permit holders (60 minutes).

4. Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA)

Section 7(a)(2) of the Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.) requires that each federal agency shall ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species. When the action of a federal agency may affect species listed as threatened or endangered, that agency is required to consult with either the National Marine Fisheries Service (NOAA Fisheries) or the U.S. Fish and Wildlife Service (FWS), depending upon the species that may be affected. In instances where NOAA Fisheries or FWS are themselves proposing an action that may affect listed species, the agency must conduct intra-service consultation. Since the action described in this document is proposed to be authorized by NOAA Fisheries' Northeast Region (NERO), this office has requested formal intra-service section 7 consultation with NOAA Fisheries' Northeast Region Protected Resources Division.

Informal consultation on the selected alternative concluded on March 1, 2001, that parts of the action, as proposed, were likely to adversely affect ESA-listed right whales, humpback whales, fin whales, sei whales, sperm whales, leatherback sea turtles and loggerhead sea turtles as a result of displacement of lobster trap gear from LCMAs 3, 4, and 5 to nearshore lobster management areas where these species are known to occur.

Formal intra-service Section 7 consultation on NOAA Fisheries' implementation of new management measures was initiated on July 11, 2001. The most recent Section 7 consultation for this action is based on information developed by NOAA Fisheries' State, Federal and Constituents Programs Office, and other sources of information. A complete administrative record of this consultation is on file at the NOAA Fisheries Northeast Regional Office, Office of Protected Resources, Gloucester, Massachusetts [Consultation No. F/NER/2001/01263].

The formal Section 7 consultation concluded on October 31, 2002, that the selected alternative is not likely to jeopardize the continued existence of right whales, humpback whales, fin whales, sei whales, or sperm whales, loggerhead or leatherback sea turtles. Critical habitat for right whales has been designated within the action area, but the action is not likely to affect that critical habitat. Therefore, the proposed action is not likely to destroy or adversely modify designated critical habitat.

The selected alternative is expected to result in a reduction of effort as a result of limiting participation in LCMAs 3, 4 and 5 and requiring trap reductions over a four-year period for LCMA 3. Protected species known to become entangled in lobster trap gear, namely right, humpback, and fin whales as well as leatherback sea turtles, are expected to benefit from trap gear reductions in LCMAs 3, 4, and 5. Historic participation in LCMAs 3, 4, and 5 may also result in a shift in effort to nearshore areas. However, additional entanglements of ESA-listed cetaceans and sea turtles are not expected given that the overall effort in the fishery will decrease and there are management measures in place to reduce the number and severity of large whale entanglements in lobster gear. Some of these management measures are expected to be of benefit to sea turtles as well, such as by reducing the amount of line in the water. Sperm whales, and sei whales are not expected to occur in sufficient numbers in affected nearshore areas such that an increase in lobster gear in these areas will result in the addition of adverse affects to these species.

The selected alternative for conservation equivalency for New Hampshire, while likely reducing the overall number of traps fished by state and Federal permit holders combined, could potentially result in the addition of lobster trap gear fished by Federal permit holders in New Hampshire state waters. The Opinion for this action has identified that the proposed activity for implementation of conservation equivalency for federal lobster fishers who also possess a full-time commercial New Hampshire lobster license will directly affect leatherback sea turtles as a result of entanglement in lobster trap gear set in New Hampshire waters. NOAA Fisheries has determined that this level of anticipated take is not likely to jeopardize the continued existence of leatherback sea turtles. Reasonable and Prudent Measures and Terms and Conditions are provided with the opinion to minimize the take of sea turtles in the lobster trap fishery.

For additional discussion on the most recent Section 7 consultation for this action, see Section IV.3.C. - Marine Mammals and Sea Turtles.

5. Magnuson-Stevens Act

Compliance with National Standards - Atlantic Coastal Act requires that Federal regulations be consistent with the national standards of the Magnuson-Stevens Act.

National Standard 1 requires that conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the U.S. fishing industry. The American lobster fishery is currently overfished throughout its range. By itself, the selected management action will not end overfishing and restore stocks of American lobster, but will complement the continuation of fishing effort reduction measures in a longer-

term management strategy to achieve these purposes (NOAA Fisheries 1999). The implementation of historical participation measures to freeze, quantify and to likely reduce, current levels of fishing effort on American lobster is consistent with National Standard 1 because it has the potential to reduce the number of traps fished in LCMAs 3, 4, and 5, compared to the maximum level which otherwise would be possible under current lobster regulations and because it will help quantify effort which will aid the analysis of future actions. For example, in LCMA 3, the total number of traps fished in the year 4 would be 82% fewer traps than current fixed trap limits would allow under the worst case scenario (Section III.2.). A similar reduction in fishing effort pertains to the implementation of proposed lobster trap limits for permit holders who fish in New Hampshire waters. Conservation benefits of trap limits and trap reductions are difficult to quantify, due to such factors as gear efficiency and saturation. The degree to which the selected management action will limit fishing effort and associated lobster mortality is unknown. Nevertheless, it is anticipated that the decrease in fishing effort associated with the selected management action when combined with other management measures, will increase the overall effectiveness of those measures in achieving ISFMP objectives and to end overfishing and rebuild stocks of American lobster under National Standard 1. The ISFMP calls for a threefold increase in egg production in the Gulf of Maine, a sixfold increase on Georges Bank and South, and up to a fivefold increase in the Southern Cape Cod-Long Island Sound region to help achieve stock rebuilding objectives. Additional lobster management measures in both state and Federal waters will be needed in the future in accordance with the resource management requirements addressed by the ISFMP to end resource overfishing. See Section II for additional discussion of future state and Federal lobster rulemaking.

National Standard 2 requires that management measures be based upon the best scientific information available. The information base for historical participation and New Hampshire trap limits is based upon the best scientific information available and incorporates the scientific review and associated approval by state and Federal lobster scientists through the Commission's Lobster Technical Committee. For example, the March 2000 Commission Stock Assessment Report, the July 2000 Stock Assessment Peer Review Report and the 2001 Annual State and Federal Trawl Survey Update, all of which suggest American lobster is overfished, provide the basic underpinnings of the proposed action.

National Standard 3 requires, as practicable, that an individual stock be managed as a unit throughout its range, and that interrelated stocks be managed as a unit or in close coordination. NOAA Fisheries believes that the proposed action illustrates the consistency and coordination sought by this National Standard. Three stock areas for American lobster have been defined: (1) The Gulf of Maine; (2) Southern Cape Cod to Long Island Sound; and (3) Georges Bank and south to Cape Hatteras. The three stocks are being managed, throughout the range of the population from Maine to North Carolina, through an area management approach in coordination with state jurisdictional management and Federal management through the Commission's ISFMP and complimentary Federal regulations. A further specific example is that the proposed action unifies the three LCMAs that encompass the Georges Bank south to Cape Hatteras stock – that is, Areas 3, 4 and 5 – under the uniform management concept of limited access by historical participation. For additional detail, see Section I.2. and II. for additional discussion on the

coordination of state and Federal management of American lobster.

National Standard 4 requires that conservation and management measures not discriminate between residents of different states. As a preliminary matter, the principle action is not state specific. That is, all Federal permit holders must adhere to the same qualification criteria regardless of the state from which they hail. Further, far from being discriminatory, the proposed action is premised on preserving participation in the fishery based upon historical levels taken from a time when access to these areas was open and unrestricted.

As in any rule that affects a broad and diverse expanse, there remains the possibility that certain individuals will be impacted to varying degrees, although if that be an effect, it was certainly not NOAA Fisheries intent. The selected management actions for the EEZ were developed in consultation with the Commission and the lobster industry through its LCMT program, and take into account the social and economic distinction among the nearshore and offshore EEZ fisheries. NOAA Fisheries gave great consideration to the expertise of the LCMTs, whose membership is appointed by the involved states, and who were presumed to have intimate knowledge of how their proposal would effect their state's fishery. Further, despite a dearth of information due to the lack of mandatory reporting, NOAA Fisheries examined the best available information to discern any unintended discriminatory effect and used its best efforts to create counter measures to guard against such unexpected eventualities. For example, see Section III.2.B-E: Selected Action Qualification Procedure, Appeal and Analysis. Accordingly, to the extent that the associated management measures, affects residents of different states to varying degrees, the impact will be dependant upon where and how they have historically fished traps for American lobster, and be irrespective of state of citizenship.

National Standard 5 requires that, where applicable, conservation and management measures promote efficiency in the utilization of fishery resources. The proposed action is consistent with such a standard. Historically, harvest has not declined proportionally with trap reductions, and the remaining traps after this proposed action are expected to fish more efficiently. Further, the selected management actions, which would implement fishing effort controls on the basis of historical participation in LCMAs 3, 4, and 5 provides a means to improve economic revenues and efficiency of fishing practices for those who have traditionally participated in the offshore EEZ (LCMA 3) lobster fishery and the nearshore EEZ fishery (LCMA 4 and LCMA 5) from New York south.

National Standard 6 requires that conservation and management measures take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches. The selected management actions takes into account the variations in fisheries, fishery resources, and catches, in consultation with the Commission and industry groups through coordination with LCMTs, among the inshore and offshore EEZ fisheries through measures to control lobster fishing effort in LCMAs 3, 4, and 5, and New Hampshire waters of LCMA 1, based upon historical fishing practices.

National Standard 7 requires that, where practicable, conservation and management measures

minimize costs and avoid unnecessary duplication. The implementation of historical participation measures in LCMAs 3, 4, and 5 (relating to associated expenses for compiling and submitting documentation to provide evidence for previous levels of lobster fishing effort) will increase costs for industry members in those lobster management areas. Those costs, however, are expected to be minimal and have been mitigated to the extent practicable. NOAA Fisheries may, by agreement with state agencies, recognize determination of lobster trap allocations for Federal lobster permit holders by those agencies relating to historical participation in the LCMA 4 and LCMA 5 lobster fishery. Such agreements could help avoid unnecessary duplication for fishermen permitted to harvest lobster in both state and Federal waters of these respective LCMAs.

National Standard 8 requires that, consistent with fishery conservation requirements, conservation and management measures take into account the importance of fishery resources to fishing communities. As a preliminary matter, the proposed action is premised on access according to historical participation, which should thereby similarly maintain the integrity of reliant fishing communities at historical levels. NOAA Fisheries examination of available data showed no incongruence with that expectation. The selected management actions, with respect to trap limits in LCMAs 3, 4, and 5, and conservation equivalent trap limits in New Hampshire waters, through a management approach based on historical participation, minimize the impact which uniform trap limits would otherwise have on the associated fishing communities. Sustained participation of communities and consideration of economic impacts is facilitated through the ISFMP's area management provisions, which allow fishing communities to participate in, and provide public comment on, proposed management measures.

National Standard 9 requires that, to the extent practicable, conservation and management measures minimize bycatch, and to the extent bycatch cannot be avoided, minimize the mortality of such bycatch. Generally, in the lobster trap fishery, bycatch of non-legal lobster has been addressed through trap configuration requirements such as escape vents and ghost panels, and lobster fishing practices are designed to keep the lobster bycatch alive and therefore, bycatch is returned to the sea alive. The selected actions to control fishing effort as determined by historical participation in the lobster trap fisheries conducted in Areas 3, 4, and 5, in NOAA Fisheries best estimate, will result in fewer traps being fished in Areas 3, 4, and 5, as compared to open access to all LCMAs by Federal lobster permit holders under existing statu quo fixed trap limits. Fewer traps should result in reduced bycatch in Areas 3, 4, and 5. Based on data provided by the State of New Hampshire, the selected action to implement conservation equivalency and associated trap limits for owners of vessels in possession of a Federal lobster permit fishing in New Hampshire state waters is anticipated to achieve an 18,000 trap reduction compared to what otherwise would be achieved by a fixed 800 trap limit. Fewer traps fished by New Hampshire fishers should result in reduced bycatch. The selected measures to correct the boundaries of some lobster management areas will have no anticipated impact on bycatch.

National Standard 10 requires that, to the extent practicable, conservation and management measures promote the safety of human life at sea. The selected management actions will have no anticipated impact on safety at sea, because it would not result in any changes in historical fishing

practices.

6. Essential Fish Habitat (EFH)

Section 305(b) of the Magnuson-Stevens Act requires all Federal agencies to consult with NOAA Fisheries' Habitat Conservation Division on any future action that may adversely affect EFH. NOAA Fisheries conducted an initial EFH consultation on May 28, 1999 in preparation of its FSEIS (64 FR 29026) that analyzed promulgating regulatory recommendations from the Commission under Atlantic Coastal Act rather than from the New England Fishery Management Council under the Magnuson-Stevens Act. The consultation involved trap reduction and conservation equivalent measures throughout the range of the fishery, including areas 3, 4 and 5 that are the subject of the presently proposed action. At that time, it was concluded that the regulations would not adversely impact EFH for any Federally managed species (see below table).

The proposed action is also not expected to adversely impact EFH. As a preliminary matter, the proposed action involves fixed gear set in areas that have been historically fished for decades, perhaps longer. Further, and perhaps most importantly, the proposed action is an effort reduction measure designed to reduce the number of traps set. Trap reductions are anticipated to decrease the likelihood of gear conflicts and associated impacts on EFH of lost/ghost gear. Geographical limitations and more restrictive regulation in other management areas are expected to minimize possible effort displacement into other areas. Accordingly, the proposed action is not expected to have an adverse impact on EFH and further EFH consultation, therefore, would not be required.

Council/Management Authority	FMPs
New England Fishery Management Council (NEFMC)	Multispecies; Sea Scallop; Monkfish
Mid-Atlantic Fishery Management Council	Summer Flounder, Scup, and Black Sea Bass; Squid, Atlantic Mackerel, and Butterfish; Surf Clam and Ocean Quahog
South Atlantic Fishery Management Council	Coastal Migratory Pelagics; Red Drum; Golden Crab
NOAA Fisheries	Atlantic Highly Migratory Species; Atlantic Billfishes

7. Executive Order 13132

This rule does not contain policies with Federalism implications sufficient to warrant preparation of a Federalism assessment under E.O. 12612.

8. Executive Order 12630

The chief component of the proposed action is an effort reduction measure that directly responds to the latest scientific data that indicates the American lobster fishery is overfished. The proposed action will not result in a regulatory taking. As a preliminary matter, there is no physical taking of actual property because individuals who fail to qualify in Areas 3, 4 or 5 would retain use of their vessels, could sell gear and/or fish in other areas or target other species. Additionally, there would be no taking of any intangible property -- for example, the "right" to fish -- because there is no general property right to harvest wildlife and because NOAA Fisheries's Federal lobster permits lack the traditional hallmarks of property and are more akin to a revocable license. Further, the proposed action is non targeting and is not retroactive. Finally, any potential diminution of fair market value of a nonqualifier's gear, aside from being highly speculative, would not effect a taking because reasonable expectations should have been tempered by the following: 1) the fishery has long been highly regulated and the proposed action is consistent with past regulations; and 2) historical participation had been long discussed as a management option and notices were published in the Federal Register.

9. Executive Order 12866

This regulatory action has been determined to be significant for the purposes of EO 12866. The selected management actions: to provide for effort control in Area 3, Area 4, and Area 5; modify the trap limits for Area 1 permit holders that also possess a New Hampshire lobster license; and modify boundary lines for three of the LCMA's adjacent to Massachusetts, has been determined to be significant for the purposes of Executive Order 12866. The preferred management actions are significant because they raise novel legal and policy issues arising out of legal mandates.

10. Executive Order 13211

Executive Order 13211, which became effective on May 18, 2001, addresses "actions concerning regulations that significantly affect Energy supply, distribution, or use". To the extent permitted by law, an agency is obligated to prepare a Statement of Energy Effects for those matters identified as a significant energy action. According to E.O. 13211, "significant energy action" means "any action by an agency that promulgates or is expected to lead to the promulgation of a final rule or regulation: (1) that is a significant regulatory action under Executive Order 12866 or any successor order, and; (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy. Based on this criteria, the regulatory actions identified in this FSEIS does not require a Statement of Energy Effects, since these regulatory actions are not likely to have a significant adverse effect on the supply, distribution or use of energy.

VI. CONCLUSION

Federal authority for management of American lobster in the EEZ has been transferred from the Magnuson-Stevens Act (50 CFR Part 649) to the Atlantic Coastal Act (50 CFR Part 697). An FEIS and Final Rule were published in the Federal Register on May 28, 1999 (64 FR 29026) and December 6, 1999 (64 FR 68228), respectively. That action transferred the then existing regulations for management of the American lobster fishery and implemented new measures consistent with the Commission's plan to end overfishing.

Unlike the Magnuson-Stevens Act, the Atlantic Coastal Act focuses on interjurisdictional fisheries management for fish and shellfish which occur predominantly in state waters and assigns responsibility to the Federal government (Secretary of Commerce, through NOAA Fisheries) to support and facilitate effective stewardship of interjurisdictional fisheries throughout their range. The Atlantic Coastal Act acknowledges the importance for the Federal government to complement management actions for species found primarily in state waters by providing the authority to implement regulations in the EEZ portion of the species range which are compatible with the effective implementation of a coastal fishery management plan (ISFMP) and which are consistent with the national standards set forth in the Magnuson-Stevens Act. These regulations may include measures recommended by the Commission to the Secretary that are necessary to support the provisions of the ISFMP.

The selected management actions discussed in this FSEIS responds to Commission recommendations involving the control of fishing effort in the American lobster trap fisheries conducted in LCMAs 3, 4, and 5 on the basis of historical participation; the implementation of conservation-equivalent trap limits for Federal lobster permit holders fishing with traps in New Hampshire waters of LCMA 1; and a clarification of lobster management area boundaries in Massachusetts waters. Discussion of the selected management actions also includes reference to other recommendations made by the Commission, but not analyzed for this action. These include upgrade limitations for vessels participating in the LCMA 3 trap fishery, an increase in the minimum gauge size in Federal waters, and "closed areas" which would prohibit harvest of lobsters taken by trap gear in selected portions of LCMA 4. The selected management actions also includes a discussion of concerns raised by NOAA Fisheries relative to the ability of Federal permit holders to compile and provide documentation which will be required to certify historical participation on the basis of the qualification criteria, and the ability of NOAA Fisheries to accommodate recommendations from the Commission for Federal rulemaking responding to conservation-equivalent management measures specific to state jurisdictional waters.

The most recent lobster stock assessment (Commission 2000) concludes that the American lobster resource continues to be overfished throughout its range. The selected management actions analyzed, and issues identified, in this FSEIS are integral to the ISFMP's adaptive management provisions, by which NOAA Fisheries is collaborating with the Commission and its LCMTs to develop resource-wide approaches in area management for both state and Federal waters. The current and future prognosis for a sustainable American lobster fishery is contingent upon state actions under the ISFMP, concurrent with the implementation of regulatory actions for

Federal waters under the Atlantic Coastal Act to effectively manage the resource in a consistent manner across all jurisdictional boundaries.

VII. FSEIS CIRCULATION LIST

A copy of the FSEIS is being forwarded to the following individuals representing government agencies and industry organizations. Other interested parties may obtain a copy via NOAA Fisheries Northeast Region Homepage on the Internet at http://www.nero.noaa.gov or from NOAA Fisheries Northeast Region, State, Federal, and Constituent Programs Office, One Blackburn Drive, Gloucester, MA 01930 (telephone: 978-281-9327).

State and U.S. Agencies

Sanctuary Manager
Stellwagen Bank Ntl. Marine Sanctuary
175 Edward Foster Road
Scituate, MA 02066-4342

Commander, Office of Law Enforcement
First Coast Guard District
408 Atlantic Avenue
Boston, MA 02210-3350

U.S. Army Corps of Engineers
New England Division
696 Virginia Road, Suite 1
Concord, MA 01742-2751

Dr. Romona Haebler
Environmental Protection Agency
27 Tarzwell Drive
Narragansett, RI 02882

Administrator
EPA Region I
JFK Federal Building
Boston, MA 02203

Director of Office of Fisheries Affairs
Department of State
Room 5806
Washington, D.C. 20520-7818

Col. Joe Fessenden
ME Marine Patrol
21 State House Station
Augusta, ME 04333

Chief Counsel for Advocacy
Small Business Administration
7th Floor, Suite 7800
409 3rd Street, S.W.
Washington, D.C. 20416

Director
Office of Environmental Affairs
Department of Interior
Washington, D.C. 20240

Director
Office of Environmental Policy &
Compliance
U.S. Department of the Interior
Mail Stop 2340, 1849 C Street NW
Washington, DC 20240

Regional Director
U.S. Fish and Wildlife Service
300 Westgate Center Drive
Hadley, MA 01035-9589

Adminstrator
EPA Region II
26 Federal Place
New York, NY 20278

Director
DEP, Division of Marine Fisheries
79 Elm Street
Hartford, CT 06106

Director
Division of Fish and Wildlife
Dept. of Natural Resources
P. O. Box 1401, 89 Kings Highway
Dover, DE 19903

Director
MD DNR, Fisheries Service
Tawes State Office Building
580 Taylor Avenue
Annapolis, MD 21401

Executive Director
Fish and Game Department
2 Hazen Drive
Concord, NH 03301

Director
Division of Fish and Wildlife
P.O. Box 400, 501 E. State Street, 3rd Floor
Trenton, NJ 08625

Commissioner
VA Marine Resources Commission
P. O. Box 756
Newport News, VA 23607

Commissioner
ME Department of Marine Resources
State House, Station 21
Augusta, ME 04333

Director
MA Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, MA 02202

Director
NYDEC Division of Marine Resources
205 N. Belle Mead Road, Suite 1
East Setauket, NY 11733

Chief
RI Division of Fish and Wildlife
Stedman Government Center
4808 Tower Hill Road
Wakefield, RI 02879

Asst. Director
RIDEM, Division of Fish and Wildlife
235 Promenade Street
Providence, RI 02908

Chief
Marine Fisheries Division
NH Fish & Game Department
225 Main Street
Durham, NH 03824-4732

Terry Stockwell
Maine Dept. of Marine Resources
P.O. Box 8
West Boothbay Harbor, ME 04575

Daniel J. McKiernan
MA Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, MA 02114

Chief, Coastal Bureau
MA Environmental Police
349 Lincoln Street, Bldg 45
Hingham, MA 02043

Deputy Director
MA Environmental Police
175 Portland Street
Boston, MA 02114

Dr. Thomas W. French
MA Division of Fish and Wildlife
NHESP
Route 135
Westborough, MA 01581

Director
MASSPORT, Maritime Dept
Fish Pier East II
Northern Avenue
Boston, MA 02210

Robert Glenn
MA Division of Marine Fisheries
50A Portside Drive
Pocasset, MA 02559

Preston Pate, Jr., Director
NC Dept. Of Environment, Health and Natural Resources
DMF - Box 769
Morehead City, NC 28557

Carl Wilson
ME Dept. of Marine Resources
P.O. Box 8
W. Boothbay Harbor, ME 04575

Coordinator, Coastal Program
ME State Planning Office
State House Station #38
Augusta, ME 04333

Chief
Division of Coastal Programs
PA Department of Environmental Resources
P.O. Box 8555
Harrisburg, PA 17105-8555

Director
Coastal Resources Division
MD Department of Natural Resources
Tawes State Office Bldg.
Annapolis, MD 21401

Coastal Program Manager
New Hampshire Coastal Program
Office of State Planning
2½ Beacon Street
Concord, NH 03301

Executive Director
RI Coastal Resources Management Council
Stedman Office Building
4808 Tower Hill Road
Wakefield, RI 02879

Director
CT Department of Environmental Protection
Office of Long Island Sound Programs
79 Elm Street
Hartford, CT 06106-5127

Director
NY Division of Coastal Resources & Waterfront Revitalization
162 Washington Street, Department of State
Albany, NY 12231

Administrator
Delaware Coastal Mgmt. Program
Division of Soil & Water Conserv.
P.O. Box 1401
Dover, DE 19903

Laura McKay
Chesapeake Bay & Coastal Program
Department of Environmental Quality
629 East Main St., 6th Floor
Richmond, VA 23219

Director
NC Division of Coastal Mgt.
225 North McDowell Street
P.O. Box 27687
Raleigh, NC 27602

Councils and Commissions

Executive Director
New England Fishery Management Council
50 Water Street, Mill 2
Newburyport, MA 01950

Executive Director
Mid-Atlantic Fishery Management Council
Federal Bldg., 300 S. New Street, Rm 2115
Dover, DE 19901

Executive Director
Atlantic States Marine Fisheries
Commission
1444 Eye Street, NW, 6th Floor
Washington, D.C. 20005

Heather Stirrat
Atlantic States Marine Fisheries
Commission
1444 Eye Street, NW, 6th Floor
Washington, D.C. 20005

Amy Schick
Pew Oceans Commission
2101 Wilson Blvd
Suite 550
Arlington, VA 22201

Other Interested Parties

President
The Ocean Conservancy
1725 DeSales Street, NW
Washington, DC 20036

David N. Wiley
Whale & Dolphin Cons. Society
70 East Falmouth Highway
East Falmouth, MA 02536

Environmental Defense Fund
1875 Connecticut Ave. NW, Suite 1016
Washington, DC 20009

Dr. Charles A. Mayo
Center for Coastal Studies
59 Commercial Street
P.O. Box 1036
Provincetown, MA 02657

Mason Weinrich
Cetacean Research Unit
Post Office Box 0159
Gloucester, MA 01930

Eleanor M. Dorsey
Conservation Law Foundation
62 Summer Street
Boston, MA 02110-1008

Susan Jones
Commercial Fisheries News
Editorial/Publishing Office
P.O. Box 37
Stonington, ME 04681

John Our, Jr.
Cape Cod Gillnetter's Association
169 Indian Hill Road
Chatham, MA 02633

President
Maine Gillnetters Association
P.O. Box 317
Stonington, ME 04681

President
Massachusetts Netters Assn.
65 Elm Street
Marshfield, MA 02050

Executive Director
Massachusetts Lobstermen's Assn.
8 Otis Place
Scituate, MA 02066

Executive Director
Rhode Island Lobstermen's Assn.
P.O. Box 421
Wakefield, RI 02880

Executive Director
Maine Lobstermen's Association
P.O. Box 725
York, ME 03909

Director
Manomet Center for Conservation Sciences
P.O. Box 1770
Manomet, MA 02345

President
NH Commercial Fishermen's Assn.
38 Georges Terrace
Portsmouth, NH 03801

Nick Jenkins
Shafmaster Fishing Co.
18 Old Dover Road
Newington, NH 03801

Steve Kelly
S. Shore Lobstermen's Assoc.
120 Halfway Pond Road
Plymouth, MA 02360

Dick Allen
35 Bliss Road
Wakefield, RI 02747

Vice President
Downeast Lobstermen's Assn.
RR1, Box 521A
Deer Isle, ME 04627

Dr. Robert Kenney
University of Rhode Island
Graduate School of Oceanography
Narragansett, RI 02881

Dr. Judith Pederson
MIT, Sea Grant College Program
Building E38-300
292 Main Street
Cambridge, MA 02139

Scott D. Kraus
Edgerton Research Laboratory
New England Aquarium
Central Wharf
Boston, MA 02110

Amy Knowlton
Edgerton Research Laboratory
New England Aquarium
Central Wharf
Boston, MA 02110

President
Cape Ann Gillnetters Assoc.
79 Livingstone Avenue
Beverly, MA 01915

President
Cape Cod Commercial Hook
Fishermen's Assoc.
210 Orleans Road
N. Chatham, MA 02650

President
Chatham Fishermen's Assoc.
Box 586
W. Chatham, MA 02669

Acting Executive Director
30 Butler Ave., #1
Maynard, MA 01754-1446

Executive Director
East Coast Fisheries Federation, Inc.
P.O. Box 649
Narragansett, RI 02882

Professor Paul Friesema
Environmental Policy Program, IPR
Northwestern University
2040 Sheridan Road
Evanston, IL 60208-4100

Chairman
West End Fishermen's Assoc.
160 Gordon Place
Freeport, NY 11520

Executive Director
MA Fisheries Recovery Commission
Community Development Dept.
22 Poplar Street
Gloucester, MA 01930

President
Gloucester Fishermen's Wives Assoc.
3 Beauport Avenue
Gloucester, MA 01930

Ms. Maggie Raymond
Associated Fisheries of Maine
14 Sewall Road
S. Berwick, ME 03908

Vice President
National Fisheries Institute
1901 N. Ft. Meyer Drive, Suite 700
Arlington, VA 22209

Gary Golas
New Bedford Seafood Industry Coalition
P.O. Box 71
Fairhaven, MA 02719

Executive Director
New Jersey Seafood Harvesters Assoc.
3840 Tarwood Drive
Doylstown, PA 18901

Executive Director
LI Sound Lobstermen's Assoc.
220 East Mill Road
Mattituck, NY 11952-1288

President
So. Maine Lobstermen's Assoc.
10 Island Avenue
Kittery, ME 03904-1614

Executive Director
SNEFALA
11 Devon Drive
Pawcatuck, CT 06379-1232

Geoff Thomas
Cape Ann Lobstermen's Assoc.
10 Haskell Ct.
Gloucester, MA 01930-3827

Ross Brewer
102 Townsend Avenue
Boothbay Harbor, Maine 04538-1835

Helen Gordon
HCR 32 Box 0
Sullivan, ME 04664

David Spencer
Spencer Fish and Lobster
20 Friendship Street
Jamestown, RI 02835

Mr. Will Bland
Little Bay Lobster Co.
18 Old Dover Rd.
Newington, NH 03801

Mr. Ed Bradley
P.O. Box 269
Portland, ME 04112

Mr. Royce Randlett
Box 414
Hamilton, MA 01936

Mr. David Jordan
2641 Harkney Hill Road
Coventry, RI 02816

Mr. Wesley Penney
41 Mason Avenue
Billerica, MA 01862

Kari L. Lavalli, Ph.D
The Lobster Conservancy
55 Algonquin Street
Buzzards Bay, MA 02532

Ms. Sara Brewer
P.O. Box 385
West Southport, ME 04576

Jon Hodgdon
RR #1, Box 250
Boothbay, ME 04537

Gary Snowman
HC 66, Box 442
West Southport, ME 04576

John Cavanaugh
99 Pease Boulevard
Portsmouth, NH 03801

Senator Robert C. Smith
1 Harbor Place, Suite 435
Portsmouth, NH 03801

Chad Hanna
906 State Route 32
Round Pond, ME 04564

Arthur Smith
49 Country Drive
Charlestown, RI 02813

Michael Miller
1102 Pensacola Drive
Forked River, NJ 08731

Chris Stien
Box 131
Menemsha, MA 02552

Ralph Mallozzi
Stoffel Seals Corp.
P.O. Box 825
Nyack, NY 10960

Al King
King & Sons
138 Mt. Pleasant Ave.
Gloucester, MA 01930

Maggie Moonie-Seus
New England Aquarium
Conservation Department
177 Milk Street
Boston, MA 02110-3399

Susan Pollard
65 Langdon Street
Cambridge, MA 02138

Outer Cape Lobstermen's Association
Attn: Stephen Smith
Box 1234
Orleans, MA 02653

Steven Robbins
P.O. Box 649
Stonington, ME 04681

Dan Riley
7 Charles Lane
Eliot, ME 03903

Lauri Schreiber
Bar Harbor Times
P.O. Box 68
Bar Harbor, ME 04609

John Butler
19 Chamberlain Road
Scarboro, ME 04074

Rod Perkins
444 West Main Road
Little Compton, RI 02837

John Eddy
5 Danforth Road
Rindge, NH 03461

Mike Waldron
3 Spinney Cove Drive
Kittery, ME 03904

John Waldron
18 Foyes Lane
Kittery Point, ME 03905

Bill Crowe
P.O. Box 253
Gouldsboro, ME 04607

Richard Parke
RFD 1, Box 1480
Stonington, ME 04681

Alice Wilkinson
P.O. Box 36
Stonington, Maine 04681

Lex Scorby
Orion Seafoods
P.O. Box 77
Portsmouth, NH 03802

William C. Harvey
255 Ten Rod Road
N. Kingston, RI 02852

Arthur Sawyer
368 Concord Street
Gloucester, MA 01930

Todd Jesse
27 Olmstead Terrace
Plymouth, MA 02360

Donald Bickford
400 Harrington Road
Pemaquid, ME 04548

F/V Captain Sam II
42 Fish Pier
Boston, MA 02100

John Garvey
110 Heather Hollow Drive
Wakefield, RI 02879

John Coffin
30 Johns Road
Freeport, ME 04032

Greenport Seafood Dock
222 Atlantic Ave
Greenport, NY 11944

Bob Putnam
Route 1, Box 135
Chebeague Island, ME 04017

Mr. Dennis M. Hamel
6 Picott Road
Kittery, ME 03904-5554

Closson F. Alley, Jr.
Box 39
Beals, ME 04611

Richard Neidich
7 Sachuest Drive
Middletown, RI 02842

Willard Dyer
RR1, Box 191
Chebeague Island, Maine 04017

Erica Bridges
46 Old Post Road
York, ME 03909

Kevin Sullivan
44 Francis Lane
Little Compton, RI 02837

Ronald Lawrence
P.O. Box 221
Kittery Point, ME 03905

Aaron Beal
Wyman Road
Box 55a
Milbridge, ME 04658

Louis Egnatovich
491 Palmer Ave.
West Kenasburg, NJ 07734

Bowen Fisheries
26 Knollwood Drive
Gilford, NH 03249-6577

Kevin Mello
44 Osbourne Street
Westport, MA 02790

Noreen Joyce
RR1, Box 968
Stonington, ME 04681

Charles C. Johnson
1613 Lesley Street
Wall, NJ 07719

Dan Desmond
333 Nahant Road
Nahant, MA 01908

George Doll
70 Seaview Avenue
Northport, NY 11768

Cee Dee, Inc
1523 Drift Road
Westport, MA 02790

John Borden
1477 Main Road
Westport, MA 02790

Edward Bogaert
10 Ronarm Drive
Mountain Lakes, NJ 07046-1418

David Costa
P.O. Box 1129
Truro, MA 02666

David Williams
73 Fernald Street
Gloucester, MA 01930

Polly Bradley
SWIM
c/o Northeastern University Marine Science Ctr
East Point
Nahant, MA 01908

Rob Stevenson
Dept. of Biology
UMASS - Boston
100 Morrissey Blvd.
Boston, MA 02125-3391

Glenn Westcott
20 Ram Head Road
Narragansett, RI 02882

Dennis Ingram
3 Lee Drive
Warren, Rhode Island 02885

Trip Whilden
1026 Ten Rod Road
Wickford, RI 02852

Paul Bennett
89 Paradise Ave
Middletown, RI 02840

Peter E. Brodeur
One Hahn Ave.
Wakefield, RI 02879

Wayne Fredette
Box 814
Charlestown, RI 02813

Andrea Incollingo
525 Kingstown Road
WestKingston, RI 02892

Allison Delong
URI/GSO
Narragansett Bay Campus
Narragansett, RI 02882

John J. Swoboda, Jr.
31 Larkins Pond Road South
West Kingston, RI 02892

Louis Fusco
51 Queens River Drive
West Kingston, RI 02892

Jim Flaherty
42 Neptune Ave.
Hampton Bays, NY 11946

Charles Butler
P.O. Box 1243
Nantucket, MA 02554

Charles Long
121 Walpole Street
Dover, MA 02030

Justin Thompson
P.O. Box 179
Port Clyde, ME 04855

Bill MacDonald
RR 2 Box 3690
Winthrop, ME 04364-9725

Pike Bartlett
570 Cushing Road
Friendship, ME 04547

William H. Welte
Welte & Welte, P.A.
13 Wood Street
Camden, ME 04843

Butch Thompson
P.O. Box #176
Port Clyde, ME 04855

James Benner
131 Grieson Road
South Thomaston, ME 04858

Gordon Connell
P.O. Box 69
Spruce Head, ME 04859

John L. Chipman, Jr.
RFD 1, Box 24
Milbridge, ME 04658

Joe Chalmers
346 Seawall Road
Southwest Harbor, ME 04679

John Wirnell
P.O. Box 994
Northeast Harbor, ME 04662

Richard Dorr
Box 133A
Milbridge, ME 04658

Theone Look
P.O. Box 40
Jonesboro, ME 04648

Reginald Alley
Box 445
Jonesport, ME 04649

J. Tedrow
11 Wilder Drive
New Harbor, ME 04554

M. Hatch
HC32 Box 41C
Owls Head, ME 04854

Wilbur Fuller
RR1, Box 1800
Freedom, ME 04941

Cindy Crowley
31 Crowley Island
Corea, ME 04624

Jen Harry
P.O. Box 769
Bar Harbor, ME 04609

Ralph Backman
P.O. Box 82
Beals, ME 04611

Richard Jordan
P.O. Box 42
Machias, ME 04654

Brian Sawyer
Box 52
McFarland Shore Road
New Harbor, ME 04554

C. Blaisdell
2 Atlantic Ave.
South Bristol, ME 04568

Noah Ames
Box 14
Spruce Head, ME 04859

Joe Young
P.O. Box 87
Corea, ME 04624

Ricky Trundy
10 Christmas Drive
Deer Isle, ME 04627

Mike Grinelle
Box 242
Brooksville, ME 04617

Greg Norton
151 Eastside Road
Steuben, ME 04680

Carol Bridges
P.O. Box 27
Sunset, ME 04683

Lewis P. Dorr
Box 1123
Pigeon Hill Road
Steuben, ME 04680

Bob Williams
P.O. Box 2905
Stonington, ME 04681

Clay Rumery
Box 79B
Milbridge, ME 04658

Roman Rozenski
Spruce Road
Frenchboro, ME 04635

Trevor Corson
17 Bishop Allen Drive
Cambridge, MA 02139

Keith Desmond
25 Revere Street
Gloucester, MA 01930

Barbara Audet
Box 646
Blue Hill, ME 04614

Lee Snead
Jaspan
300 Garden City Plaza
Garden City, NY 11530

Ed Gilsill
Environmental Studies Program
Boden College
Brunswick, ME 04011

Al Rosinha
F/V Rebecca
86 Cadmans Neck Road
Westport, MA 02790

Dennis Colbert
Box 1049
Manomet, MA 02345

Peter McNelis
2-36 McFarland Point Drive
Boothbay Harbor, ME 04538

Joseph Finke
3 Laurel Place
Bayville, NY 11709

Royce Perkins
Penobscot State Representative
RR1 Box 22C
Penobscot, ME 04476

Arthur Medieros
236 North Water Street
Stonington, CT 06378

Herbert Cheney
833 High Street
Bath, ME 04530

Bullwinkle Fisheries
P.O. Box N236
Westport, MA 02790

Peggy Bowen
558 Trenton Ave.
Oakhurst, NJ 07755

Monographs Acquisition
c/o State University Libraries
Fort Collins, CO 80523-1019

Jack Fullmer
443 Chesterfield - Arneytown Road
Allentown, NJ 08501

Vernon Lewis
108 Green Grove Road
Neptune, NJ 07753-3914

F/V Last Fling
P.O. Box 146
West Creek, NJ 08092

George Garrett
P.O. Box 491
Narragansett, RI 02882

Rich Brunelle
7 High Street
Farmington, NH 03835

F/V Sea Duck
Michael J. Nee
162 Arlington Street
Quincy, MA 02170

Rich Arnold
102 Marlboro Beach Road
Lamoine, ME 04605

Warren Apel
Co-Chair Area 4 LCMT
14 Creek Road
Port Monmouth, NJ 07758

Elliot Thomas
45 Ledge Road
Yarmouth, ME 04096

Brian Dirlam
17 Center Drive
Ledyard, CT 06339

Bob Welsh
P.O. Box 376
Cutler, ME 04626

Tom Rossi
2700 Pacific Avenue
Wildwood, NJ 08260

Joe Wagner
130 Woodvine Ocean View Road
Ocean View, NJ 08230

Mark A. McSally
Kelly, Kelleher, Reilly & Simpson
The Francis Building
146 Westminster Street, Ste 500
Providence, RI 02903

Gary Ostrom
36 Sunhill Road
W. Barnstable, MA 02668

Marlene Thibedeau
Senator Susan Collins Office
168 Capital Street
Augusta, ME 04330

Tom O'Connell
MD Department of Natural Resources,
Fisheries Service
Tawes State Office Building
580 Taylor Avenue
Annapolis, MD 21401

NJ Division of Fish, Game & Wildlife
Nacote Creek Research Station
Attn: Bill Andrews
P.O. Box 418
Port Republic, NJ 08241

John Donaldson
Narragansett Bay Lobsters, Inc.
P.O. Box 747
Narragansett, RI 02882

Neil Rossman
455 Puritan Road
Swampscott, MA 01907

Marissa Rozenski
13 Spruce Road
Frenchboro, ME 04635

George Whidden
P.O. Box 306
Narragansett, RI 02882

Steven Driscoll
366 High Street
Hampton, NH 03842-2304

Susan Lewis
Bayside Documentation
1602 Bayside Road
Trenton, ME 04605

Peter Roberts
379 Fiddlers Reach Road
Phippsburg, ME 04562

Barbara Cavanaugh
57 Long Highway
Little Compton, RI 02837

Heather E. Krans
Stein, Volinsky and Callaghan
P.O. Box 2159
Concord, NH 03302-2159

VIII. LITERATURE CITED

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IX. APPENDIX

1. DSEIS Public Comment

NOAA Fisheries published a Notice of Availability of a DSEIS for measures described in this FSEIS on November 24, 2000 (65 FR 70567). The DSEIS responded to recommendations made by the Commission, and considered the biological, economic, and social impacts of several alternative actions for waters under Federal jurisdiction. The public comment period on the DSEIS ended on January 9, 2001. In November and December 2000, NOAA Fisheries held public meetings in Maine, Rhode Island, New York, and New Jersey, to receive comments on the biological, economic and social impacts addressed in the DSEIS.

For a summary of public comments received during the public comment period, from November 24, 2000 through January 9, 2001, and NOAA Fisheries' responses, see Appendix IX.1.A.

For a summary of the public hearings held during the DSEIS public comment period, see Appendix IX.1.B.

A. DSEIS Written Comments and Responses

Summary of Comments Received in Response to the American lobster DSEIS, published in November 2000. NOAA Fisheries received 240 written comments (letters or postcards) on the DSEIS. Comments were solicited from November 24, 2000, to January 9, 2001. Fourteen comments were either received after the deadline or electronically and, therefore, could not be considered. Comments were received from 205 individuals, 11 state coastal zone management agencies, 1 Federal agency, 7 associations or representatives of associations, and 1 non-profit organization. Additionally, NOAA Fisheries received comments from 5 state agencies or commissions, 3 senators, 2 congressional representatives, 2 state representatives, 2 state assemblymen, and 1 state governor.

Of the comments received, 169 supported the implementation of historical participation in lobster conservation management areas (LCMAs/Areas) 3, 4 and 5, while 34 opposed this measure. Two respondents expressed support for the area boundary revisions as presented in the preferred alternative of the DSEIS with none specifically opposed. Fifteen respondents support the proposed alternative for conservation equivalency of the two-tiered trap limits for New Hampshire lobstermen with 8 opposed to this measure. Two comments were received in favor of closed areas, with two opposed to closed areas. Eight comments supported vessel upgrade restrictions and 3 comments were received in opposition to this measure.

Although not part of the preferred alternative and not analyzed in the DSEIS, comments were also solicited by NOAA Fisheries on potential changes to the minimum and maximum gauge sizes, based on measures adopted by the Commission in Addendum II to Amendment 3 of the ISFMP for American Lobster in February 2000. Addendum II identifies management measures, including changes to the minimum and maximum gauge sizes, proposed by the LCMTs for achieving egg production targets specified in the ISFMP. Twenty-three respondents wrote in favor of some manner of gauge size changes, with 6 in opposition.

All of the comments were carefully considered. Responses to questions, concerns and opposition to NOAA Fisheries' preferred alternatives in the DSEIS and responses to comments on gauge sizes are provided in this section. Cumulative comments that generally address either support or opposition to one or more management measures are also addressed here. The cumulative number of comments below is not intended to reconcile with the total overall number of letters received since some correspondence had comments on more than one issue.

HISTORICAL PARTICIPATION (HP)

HP Comment 1: One hundred and thirty-three comments were received in support of NOAA Fisheries' DSEIS preferred alternative to implement historical participation in LCMAs 3, 4 and 5.

Response: NOAA Fisheries concurs and intends to implement a historical participation effort control program compatible with that recommended by the Commission and developed by the LCMTs and consistent with the National Standards set forth in the Magnuson-Stevens Act

(MSA), with some variation.

HP Comment 2: Thirty-six additional letters were received that favor historical participation in general. However, some of these respondents do not fully concur with all aspects of the NOAA Fisheries selected actions including, but not limited to, the trap allocation process, trap reduction plan for LCMA 3, and the historical participation qualification criteria.

Response: NOAA Fisheries believes that the selected actions in the FSEIS will meet the intended goals of the ISFMP, are compatible with the Commission's recommendations for action in Federal waters, consistent with the National Standards of the MSA, and are a fair and equitable means of implementing necessary management measures in consideration of LCMT recommendations. Specific concerns expressed within the context of these comments are addressed further in this section.

HP Comment 3: Two respondents expressed their support for historical participation but recommend retaining the existing Federal fixed trap limits to minimize potential enforcement problems and reduce the potential for submission of bogus documentation by fishermen who may unlawfully attempt to increase their initial trap allocations if historical trap allocations are allowed.

Response: Historical participation with fixed trap limits was analyzed as non-selected alternative 1C of the FSEIS (see Section 3 of the FSEIS for more detail). This non-selected alternative would impose a greater economic impact, compared to the selected action, on those Federal permit holders who have historically derived a higher income from increased lobster harvest from fishing a number of traps in excess of the fixed trap limits. Also, this non-selected action would impact twice as many Federal permit holders by requiring them to fish a reduced number of traps, than would the proposed action, and would result in more traps being fished than under the proposed action. Historical trap allocations under the proposed action can be effectively enforced through a trap tagging program, similar to what is currently in place coastwide. The non-selected alternative 1C would impose a lower administrative burden since documentation in support of historical trap levels would not need to be submitted or analyzed. On balance, the proposed action is more compatible with the recommendations of the Commission for Federal management.

HP Comment 4: One supporter of historical participation comments that all vessels that fish in LCMA 3 are not equal and, therefore, should be allowed to fish their historical trap allocations, not a flat trap cap with equal trap allocations for all vessels. Vessel size, work ethic of the permit holder, and versatility of the vessel and fishing operation all play a part in the amount of traps a vessel is capable of fishing in LCMA 3.

Response: NOAA Fisheries agrees that each qualifying vessel be allocated an initial number of traps consistent with that vessel's historical allocation. Under NOAA Fisheries' proposed action, this allocation will not exceed 2,656 traps for any one vessel, consistent with the revised LCMA 3 trap reduction schedule adopted by the Commission in Addendum II. Each vessel's initial

allocation will be subject to annual reductions over a four-year period which may be reduced further at a later date if necessary. NOAA Fisheries acknowledges the new regulatory standard of state primacy as set forth in the Atlantic Coastal Act and the benefits of an area management approach to American lobster management which allows the industry, in conjunction with state and Federal agencies, to craft a lobster management program that considers the area-specific conservation goals for the resource, and avoids disruption of the social and economic patterns of the lobster trap fishery in each lobster management area.

HP Comment 5: Thirty-four individual letters were received that generally oppose historical participation.

Response: NOAA Fisheries disagrees. See responses to Comments 1 and 2. Specific concerns expressed within the context of these comments are addressed further in this section.

HP Comment 6: Nine individuals commented that they oppose historical participation because it will unfairly exclude fishermen from certain areas. They believe that the current trap limits are effective and fair, and historical participation will benefit relatively few fishermen at the expense of many others.

Response: NOAA Fisheries disagrees. Implementation of a historical participation program in LCMAs 3, 4 and 5 will decrease the number of participating vessels and is projected to result in a reduction in the overall number of traps fished in these areas when compared to the maximum number of traps allowed under the current fixed trap limits. The latest lobster stock assessment, completed in 2000, indicates that the resource is growth overfished and overfished based on the overfishing definition in the ISFMP. A peer review of this assessment supported these conclusions and recommended that additional regulatory action be taken to improve the condition of the resource. Historical participation has been endorsed by the Commission and the respective LCMTs, and when coupled with other measures to increase lobster egg production, is an integral step in achieving ISFMP objectives.

HP Comment 7: Eight individuals stated that historical participation will place a hardship on permit holders by impacting the future value of Federal lobster permits and limiting the ability of Federal lobster permit holders to transfer permits to others intending to fish with traps outside the historical fishing area of that permit.

Response: Those Federally permitted vessels that may not qualify to fish with traps in one or more of LCMAs 3, 4 or 5 will still be eligible to fish for lobster with non-trap gear or with trap gear in the other lobster management areas not bound by a historical participation requirement. Also, Federal lobster permits are transferrable and those with proven eligibility can be transferred to other vessels and entities. The trap reductions associated with a system of historical participation in Areas 3, 4 and 5 will reduce fishing mortality and limit effort shift to other areas, consistent with the recommendations of the 2000 stock assessment and peer review. Further, NOAA Fisheries' proposed action is consistent with the Commission's recommendations for Federal action in the Exclusive Economic Zone (EEZ). See previous response.

HP Comment 8: Two respondents indicated that they had planned to buy and sell fishing vessels without prior knowledge that participation in the lobster trap fishery in selected LCMAs could be limited due to pending regulations, adding that NOAA Fisheries gave no prior indication that lobster permits would be rescinded.

Response: NOAA Fisheries published an advance notice of proposed rulemaking in the Federal Register on September 1, 1999, to seek public comment on whether there is a need to restrict access of Federal permit holders in the lobster EEZ fishery on the basis of historical participation and to inform the public that September 1, 1999, was being considered as a cut-off date for determining eligibility for future access to certain lobster management areas. That notice also served to discourage shifts into new areas by Federal lobster trap vessels and to discourage non-trap vessels from entering the trap fishery based on economic speculation while NOAA Fisheries further evaluated historical participation as recommended by the Commission. On December 10, 1999, NOAA Fisheries published a Notice of Intent to prepare an environmental impact statement to evaluate the biological, social and economic impacts of historical participation. In November of 2000, this assessment was published as the DSEIS. A 45-day written comment period was provided, during which four public hearings, one each in Portland, ME; Narragansett, RI; Riverhead, NY; and Toms River, NJ were held to solicit public comment. All Federal lobster permit holders and interested parties were subsequently notified of these actions and urged to provide comments. Prior notification of public hearing dates was also provided. These procedures satisfy the public notification requirements of the Administrative Procedure Act.

HP Comment 9: Four respondents are concerned that historical participation will deny mobile gear fishermen access to the lobster resource because eligibility will be determined by recent trap use. They believe this action will put further limitations on the trawler fleet which is already limited in the number of lobsters it can land. This group has also been impacted by the groundfish crisis and the loss of trawlable bottom due to the presence of lobster trap gear.

Response: NOAA Fisheries disagrees. The proposed action will not affect Federal lobster vessels that fish with non-trap gear, as these vessels will not be required to qualify for access to LCMAs 3, 4 and 5 and will not be excluded from fishing with non-trap gear for lobster in these areas, or any other portion of the EEZ. NOAA Fisheries previously included in the Federal regulations a landing limit of 100 lobster per day, 500 lobster per trip of five days or more to address lobster fishing effort in the non-trap sector, consistent with the ISFMP.

HP Comment 10: One individual commented that Federal fisheries regulations should be uniform throughout the range of the resource.

Response: NOAA Fisheries disagrees. Uniform regulations throughout the range of the lobster resource would be inconsistent with the area management approach of the Commission's lobster ISFMP and counter to the Commission's recommendations for Federal action in the EEZ. Since approximately 80% of the lobster fishery occurs in state waters, NOAA Fisheries acknowledges that maintaining a sustainable lobster fishery and preventing overfishing of the resource could not be achieved by Federal action alone. The lobster resource in state and Federal waters is managed

under the authority of the Atlantic Coastal Act (ACA) (see Section II.1.(A-B) of the FSEIS for more detail). Under ACA authority, Federal lobster regulations must be consistent with the National Standards set forth in the MSA and compatible with the Commission's lobster ISFMP. The ISFMP establishes stock-specific conservation goals and relies on area-specific management measures that meet the biological targets of the plan while considering the specific social and economic situation of the industry.

HP Comment 11: Two commentators said that if some LCMA 1 lobstermen are excluded from LCMA 3 based on historical participation, then those who are allowed access to LCMA 3 should be excluded from LCMA 1.

Response: NOAA Fisheries disagrees. These commentators offer no foundation for their proposal. Further, such a regulation in the context of this rulemaking would be less compatible with NOAA Fisheries mandates under the Atlantic Coastal Act, particularly since LCMA 1 has not proposed a plan for historical participation. See previous response.

HP Comment 12: Three individuals stated that historical participation will economically devastate those lobstermen who recently began fishing in Areas 3, 4 or 5, specifically those who were displaced by the Long Island Sound lobster die-off in 1999. This would result in long-time lobstermen who have resumed their lobstering in a different area being denied access to the trap fishery in LCMAs 3, 4 and 5.

Response: NOAA Fisheries empathizes with all those affected by the Long Island Sound lobster die-off and notes that it helped administer Federal funds to assist those affected who sought assistance. However, NOAA Fisheries intends to adhere to the control dates and qualification periods as proposed in the FSEIS to decrease fishing mortality by reducing fishing effort in LCMAs 3, 4 and 5. To do otherwise as the commentators suggest would create an unmanageable exemption incompatible with the lobster ISFMP that could significantly undermine the effectiveness of the proposed action. These control dates provided notice and are, in fact, more liberal than those dates originally proposed by the Commission. To the extent the three individuals began fishing in Areas 3, 4 or 5 in 1999, there still remains the potential to qualify based upon historical participation depending on the individual circumstances.

HP Comment 13: One individual recommended that the control date be moved to September 1, 2000, to allow those fishermen who left Area 6 due to the Long Island Sound lobster disaster and subsequently began fishing in Area 4 to qualify for access to Area 4.

Response: NOAA Fisheries disagrees. See previous response.

HP Comment 14: A respondent asked why historical participation should be implemented if, as NOAA Fisheries stated at a public hearing, a gauge increase would provide the biggest benefit for lobster conservation?

Response: As a preliminary matter, NOAA Fisheries is obligated by law to support the fishery

management efforts of the Commission, including where applicable, the issuance of regulations that are compatible with Commission measures. In this case, the Commission addressed overfishing by issuing an effort control measure first -- i.e. historical participation in Addendum I that is the subject of this rulemaking -- and an egg production measure second -- i.e. gauge increases in Addenda II and III that are the subject of future Federal rulemaking. Because the Commission management regime contemplates both historical participation in conjunction with later gauge increases, and because such a plan is consistent with the National Standards, at least as analyzed through this rulemaking, the proposed action will involve historical participation with the understanding that gauge increases will be reviewed in subsequent rulemaking.

HP Comment 15: Four respondents expressed concern that if a historical participation program is improperly administered, the opportunity will exist for submission of fraudulent documentation to substantiate eligibility and may result in individual vessel trap allocations in excess of the historical number (at least one respondent is in favor of historical participation for LCMA 3).

Response: NOAA Fisheries agrees. NOAA Fisheries identified fraud early on as a concern. In selecting and fashioning the proposed action, NOAA Fisheries gave tremendous thought and went to great lengths to fashion a program that would safeguard against fraud. For example, it has provided specific qualification criteria and valid forms of documentation have been identified in the FSEIS in support of eligibility and historical trap allocations. Further, Federal permit holders who submit fraudulent documentation may be subject to fines, imprisonment, and loss of permit. The qualification process, together with its safeguards against fraud are described in detail in section III.2(A-D) of the FSEIS. Ultimately, however, the only way to assuredly prevent fraud with certainty in the qualification process would be to abandon the process altogether, which would result in incompatibility with the Commission's recommendations. On balance, however, NOAA Fisheries believes that its process will result in a just qualification process.

HP Comment 16: Five commentators discussed the need for "tight" eligibility criteria to ensure that only a set number of vessels are deemed eligible for participation in Area 3, and avoid a floating number of vessels to decide each year whether or not to declare into the Area 3 trap fishery.

Response: NOAA Fisheries agrees. As a preliminary matter, floating yearly re-qualification would be tremendously burdensome and inefficient in administration and would not satisfy a stated goal of defining the universe of participation in the area. Nor would such be compatible with the Commission's ISFMP. As to the issue of establishing "tight" criteria, NOAA Fisheries understands the need and believes that it has done so. For example, the proposed action requires specific documents for qualification rather than leaving documentary requirements open-ended, as was originally described in the prior DSEIS. Section III.2.(D) describes NOAA Fisheries thinking on this matter in greater detail. NOAA Fisheries also refers the commentators to its response to Comment 15.

HP Comment 17: Four individuals stated that vessel logbooks should take precedent over receipts as a more credible form of documentation of historical participation. Three of these

individuals suggested that NOAA Fisheries use the following priority ranking of documentation: 1. Federal or state records; 2. vessel loran logbook; 3. one or both of 1 and 2, plus a signed affidavit. Those without any of such documentation could appeal to NOAA Fisheries and provide three signed affidavits from other LCMA 3 fishermen.

Response: NOAA Fisheries gave documentary issues tremendous thought in this rulemaking. Ultimately, NOAA Fisheries opted not to give documents a priority ranking in part because of the lack of uniformity in mandatory reporting documentation. For example, some, but not all, who should qualify were required to complete and submit records of lobster catch to the Federal and state governments as a requirement of other non-lobster fishing permits. In fact, a NOAA Fisheries analysis indicates that approximately 38% of Federal lobster permit holders do not hold another Federal fishery permit and therefore are not required to report any landings or effort data to NOAA Fisheries. Therefore, holding Federal logbooks in higher regard would unnecessarily penalize the Federal lobster permit holders who, through no fault of their own, did not possess a Federal permit for another species that required reporting. In general, because NOAA Fisheries believes that equally qualified individuals will possess different documents, the proposed action gives equal weight to a variety of documents, at least some of which all potential qualifiers should have. Also, NOAA Fisheries wanted to avoid, to the extent possible, a process that required qualitative analysis and judgment calls made by the agency decision maker. These issues are discussed in detail in Section III.2.(A-D) of the FSEIS.

NOAA Fisheries considered but rejected initial qualification based on the submission of affidavits only. The basis of this rejection is due to a desire to maintain integrity to the process. See Comments 15 and 16. The concept of affidavits did, however, provide the basis of the documentary hardship appeal that is discussed in great detail in FSEIS Section III.2.(C-D).

HP Comment 18: One individual stated that priority ranking of documentation is appropriate and would expedite the qualification procedure during the audit process.

Response: See previous response. NOAA Fisheries disagrees. Given the inconsistencies in reporting requirements amongst Federal lobster permit holders, attributing a higher rank to certain types of documentation would put some applicants at a disadvantage. It could also be unjust in its administration insofar as it would require a qualitative weighing of the relative merits by the agency decision maker.

HP Comment 19: One individual suggested that Federal permit holders be allowed to sever their trap history upon sale of the vessel to allow vessels to be sold between regions and allow individual permit holders to retain the fishing history.

Response: The Federal regulations do allow a Federal permit holder to retain a permit's history when transferred if properly indicated in the bill of sale of a vessel and associated Federal permit. However, the Federal regulations do not allow the history of one Federal lobster permit to be stacked or added to another Federal lobster permit. More to the point, the commentator's suggestion goes far beyond the pale of the present rulemaking and involves quasi-Individual

Transferable Quota type issues on which the Commission is engaged in ongoing deliberation.

HP Comment 20: One individual commented that lobster habitat is more limited and feeding patterns of lobster are more diverse in the Norfolk Canyon /Lindenkohl Canyon area than in more northern areas. As a result, fishermen need the ability to search a larger area for lobster to be productive. Many trap fishermen have also been displaced due to heavy dragging in the squid fishery and have had to leave certain traditional areas. Therefore, historical participation should be implemented, but pounds of lobster landed should not be a factor in deciding a fishermen's ability to qualify for access in certain LCMAs.

Response: The intent of the historical participation program is to implement a system that caps fishing effort at historical levels, likely reduces effort from current levels, and reflects the traditional fishing practices of the offshore fishing fleet. The 25,000 lb. landing requirement is intended to be used as an eligibility requirement for LCMA 3 only, and was specifically recommended as an appropriate measure of economic reliance on lobstering by the industry experts on the Commission's Area 3 LCMT. Under the NOAA Fisheries proposed action, these landings may have occurred from anywhere within the range of the lobster resource, not just LCMA 3.

NOAA Fisheries has not included a landing requirement for determining eligibility in LCMAs 4 and 5. Available information indicates that LCMA 4 and 5 fishermen generally participate in a directed trap fishery for lobster on a seasonal basis and rely on other fisheries throughout the year in addition to lobster. For example, only a relatively small percentage of the lobster resource has been historically harvested from LCMAs 4 and 5, which is consistent with seasonal fishing activity. Accordingly, a 25,000 lb. landing threshold may unnecessarily restrict and not accurately reflect the historical nature of the fishery in those areas. Such is not the case, generally, for historical participants of the Area 3 offshore fishery who tend to fish directly for lobster on a more full-time basis throughout the year.

NOAA Fisheries is aware of the longstanding gear conflicts between draggers and lobster trap fishermen in the mid-Atlantic and expects that the resulting reductions in the numbers of traps fished will likely decrease the potential for gear conflicts and provide eligible vessels with more area for trap fishing.

HP Comment 21: One person suggested that there be no historical landing requirement for LCMAs 4 and 5.

Response: NOAA Fisheries agrees. See previous response.

HP Comment 22: One individual recommended that a 2,000 lb. landing requirement be implemented as an eligibility requirement for gaining access to the LCMA 4 and 5 trap fishery.

Response: NOAA Fisheries disagrees. See response to HP Comment 20. A landing requirement was not part of either the LCMT 4 or LCMT 5 plan and was not a component of the

Commission's recommendations to the Secretary of Commerce for adoption into the Federal management program. It is NOAA Fisheries' belief that a poundage requirement in these nearshore areas at the extreme southern end of the range could result in an inaccurate representation of the historical lobster fishery in those management areas.

HP Comment 23: One commentator suggested that historical eligibility criteria in LCMA 3 be limited to landings only and that a 1,000-2,000 lbs. annual landings figure be used rather than the currently proposed amount of 25,000 lbs., thus allowing non-trap gear fishermen to qualify for access to LCMA 3.

Response: NOAA Fisheries disagrees. See Comment 20. The historical participation program contemplated by the Commission and recommended to NOAA Fisheries is primarily an effort (trap) reduction measure. The qualification requirements for LCMAs 3, 4 and 5 are aimed only at the trap sector of the lobster fishery, which direct their effort on and are responsible for the majority of the lobster harvest in these LCMAs. Non-trap gear vessels will not be required to qualify under the proposed criteria to gain access to these areas to fish for lobster with non-trap gear. Non-trap vessels will, however, be required to qualify like everyone else if they intend to fish for lobster with traps.

HP Comment 24: Six commentators were concerned about the ability of seasonal lobstermen in the southern end of the lobster range (southern NJ, DE, MD, VA) to meet the proposed 25,000 lb. qualification requirement for Area 3, claiming that fishermen from this region rely on a variety of fisheries to remain profitable and only fish for lobster during a few months out of the year, usually when the black sea bass fishery is closed. The lobsters in this area mostly occur in the 50 fathom area which straddles the Area 3/Area 5 boundary. Due to seasonal variability in the availability of lobster in Area 5 and continuing conflicts with mobile gear fishermen, these trap fishermen often pursue lobster in both Areas 3 and 5. They recommend either lowering the 25,000 lb. landing requirement for eligibility in Area 3, creating an overlap area between Areas 3 and 5, or extending the Area 5 seaward boundary into Area 3 to include the area where these fishermen routinely fish for lobster.

Response: Addendum III to Amendment 3 of the ISFMP was approved by the Commission in February 2002. This addendum adopted an LCMA 3/LCMA 5 overlap area to allow seasonal lobster trap fishermen at the southern end of the resource range to continue to fish in their traditional areas without having to meet the 25,000 lb. landing limit for LCMA 3. This measure would essentially extend LCMA 5 approximately 5 miles east of the former LCMA5/LCMA 3 boundary. NOAA Fisheries is currently analyzing this measure as part of a separate rulemaking package.

HP Comment 25: Two commentators suggest that NOAA Fisheries, the Commission and the fishery managers for the State of New Jersey develop a conservation equivalency program to allow the State to determine who qualifies for a permit and the associated level of participation, rather than revoke the permits of some and increase the allocations of traps for other fishermen.

Response: The proposed action would not result in the revocation of any Federal lobster permits, but would limit access to Areas 3, 4 and 5 to a specific number of vessels that meet the eligibility requirements. NOAA Fisheries intends to cooperate with state agencies to the extent practicable and legal to determine the eligibility of Federal permit holders to fish in Areas 3, 4 and or 5. However, NOAA Fisheries' determination of eligibility for each applicant will be based on the specific qualifying criteria and documentation as identified in Section III.2. of the FSEIS, consistent with that proposed by the LCMTs and recommended for EEZ implementation by the Commission, of which the State of New Jersey is an active participant and voting member.

HP Comment 26: One commentator wrote that he already qualified for a Federal lobster permit in the early 1990's, which gave him access to everywhere in the EEZ. Those that have already qualified should be grandfathered into LCMA 3.

Response: NOAA Fisheries disagrees. The intent of historical participation is to cap trap fishing effort at historical levels by limiting participation in the LCMA 3, 4 and 5 trap fishery to only those vessels that have historically fished there for lobster with traps. Allowing every vessel with a limited access Federal lobster permit into LCMA 3 would be essentially, to do nothing and adopt the status quo. Aside from being incompatible with ASFMC recommendations, the status quo does not account for latent effort and would not be consistent with the findings of the Lobster Stock Assessment Peer Review Panel which cautioned against shifts in trap effort from inshore to offshore areas. Leaving fishing effort unchecked could result in increased fishing mortality, thereby compromising the intent of the ISFMP to end overfishing and rebuild lobster stocks.

HP Comment 27: One individual wrote to suggest that if historical participation is implemented that a hardship clause should be added to protect those that did not fish or otherwise meet the qualification criteria through no fault of their own.

Response: NOAA Fisheries gave the matter great thought but ultimately disagrees with the commentator. To allow for such would be to allow for an exemption that would engulf the rule. Further, such an exemption would depend largely on qualitative measures and subjective analysis, lead to disparate results, and be unduly burdensome to administer. The FSEIS contains a discussion of this issue in Section III.2.(C-D). However, the proposed action does include an appeals procedure for applicants who are initially denied eligibility because they are no longer in possession of the necessary supporting documentation due to no fault of their own. Refer to Section III.2.(C) in the FSEIS.

HP Comment 28: Five individuals question the proposed eligibility dates for historical participation which would require a vessel to have participated in the lobster trap fishery in Areas 3, 4 and 5 during the period from March 25, 1991 to September 1, 1999. Lobster trap fishermen that fished in these areas before 1991 are the truly historical lobstermen and, therefore, should be considered for eligibility.

Response: NOAA Fisheries disagrees. Whether and what is "truly historical" is subjective, relative and prone to multiple interpretations. If the commentators are suggesting that those who

fished there prior to 1991 but abandoned the fishery thereafter, then NOAA Fisheries disagrees that these permit holders should qualify based on the historical participation model recommended by the Commission. If, however, these commentators are only speaking generally of those who fished both prior to 1991 as well as currently, then NOAA Fisheries believes that these individuals will, in fact, qualify because common sense dictates that they likely fished at least one season during the nine years in between. Certainly, NOAA Fisheries received no comments suggesting that long absences were typical, or that they even occurred at all for those who historically fished in these areas. In any event, NOAA Fisheries believes its qualification period to be quite fair and will result in qualification based upon historical participation in the area fisheries. The first date, March 25, 1991, was recommended by the Commission and was originally established as a control date by the New England Fishery Management Council to determine eligibility for future access to the Federal lobster fishery. The second date, September 1, 1999, is the date of publication of an ANPR in the Federal Register that informed the public that NOAA Fisheries was considering that date as a potential cut off date for determining eligibility for future access to LCMAs 3, 4 and 5. Accordingly, NOAA Fisheries believes that all had notice of the potential for limited access, that the period is broad enough to include those whose personal circumstances required unavoidable temporary absence (e.g. illness, etc.), and that it will result in the accurate qualification of permit holders based upon historical participation.

HP Comment 29: Two individuals commented that the 25,000 lb. requirement should include activity as far back as the early 1980's since some vessels fished for lobster then but were forced to diversify into other fisheries.

Response: NOAA Fisheries disagrees. See previous response.

HP Comment 30: Three commentators recommend that the qualification period be extended to December 31, 2000.

Response: NOAA Fisheries disagrees. Limited access based upon historical participation has been long discussed in the industry, was the subject of Addendum I which the Commission passed in August 1999, was discussed in public meetings by the Commission and its LCMTs long before then and was the subject of a Federal Register Notice as late as September 1999. Accordingly, notice was given, the need to establish parameters is intrinsic to rulemaking in general, and the commentator suggests no reason to extend the period for a further year . The use of the control dates are discussed in FSEIS Section III.2.(A-C) and in the responses to Comments 8 and 28.

HP Comment 31: Two individuals commented that the proposed action could constitute a "taking" since implementing historical participation would restrict many from the opportunity to harvest lobsters in a portion of Federal waters.

Response: The proposed action for implementing a program of historical participation for future access into LCMAs 3, 4, and 5 results in neither the actual nor de facto taking of physical or

intangible property. Although non-qualifiers will be restricted from trap fishing in LCMAs 3, 4 and 5, they would still retain their Federal Lobster permit. As such, the non-qualifiers could still fish for lobster in those restricted areas using non-trap gear, or they may fish for lobster using traps in other Federal LCMAs, or they may fish for lobster in State waters. Further, these individuals could use their vessel and gear to target other fisheries or sell their gear, vessel and vessel permit history. Additionally, there is no taking of intangible property because there is no inalienable right to harvest lobster in LCMA 3. As such, the Federal Lobster Permit is not itself property but merely a license. The FSEIS Section V.9. discusses this issue in greater detail.

HP Comment 32: One individual recommended that NOAA Fisheries begin LCMA 3 trap reductions at the year-two level.

Response: NOAA Fisheries agrees. See Section III.2.(A) of the FSEIS. The proposed action accelerates the sliding scale trap reduction schedule for Area 3 from five years to four years.

HP Comment 33: An individual commented that it is impossible for a vessel to fish more than 2,000 lobster traps. Therefore, allowing an allocation in excess of this will increase gear conflicts between lobster trap fishermen and mobile gear fishermen.

Response: The data available to NOAA Fisheries, and the position taken by the industry experts on the LCMA 3 LCMT contradicts the commentator's supposition. The impacts analysis in the FSEIS considered information from NOAA Fisheries data as well as from state and LCMT 3 sources. The LCMT 3 plan adopted by the Commission under Addendum I indicates that in 1997, approximately 24 vessels fished between 2,000 and 3,250 traps in LCMA 3. See III.2.(H), Table 2 in the FSEIS. The proposed action is estimated to result in less traps in the water overall when compared to the current fixed trap limits and, therefore, may reduce the potential for gear conflicts between mobile and trap gear fishermen when implemented.

HP Comment 34: Three respondents suggested that the vessels that have historically fished a high number of traps should bear the brunt of conservation rather than be rewarded for "overfishing".

Response: NOAA Fisheries disagrees. First, the proposed action is intended neither to punish nor reward past actions, but is a measure directed to ending overfishing henceforth. Second, it does not necessarily correlate that those who fish more traps harvest a proportionately larger total of the stock than those who fish less traps because of the great variables relating gear efficiencies, tending time, area fished, etc. See FSEIS Section V.1. for more detail. Third, to the extent that a vessel historically fished at high trap levels -- e.g. those fishing 3,000 plus traps -- that vessel may, in fact, experience greater cut backs than those vessels fishing less traps, albeit at proportional levels. Finally, allowing eligible vessels to fish their historical trap allocations, up to a maximum level, is compatible with the Commission's recommendations for Federal action in the EEZ.

HP Comment 35: Two commentators suggest that trap allocations be issued based on the

documented length of the vessel and that a pre-determined number of traps be allocated per foot of the vessel's length. For example, an eighty foot vessel would likely have higher overhead and operating expenses than a smaller vessel and would need a higher allocation of traps to be profitable.

Response: NOAA Fisheries disagrees. This scenario may result in trap allocations that are higher than what the vessel may have historically fished. Theoretically, this may increase the number of traps than would otherwise be allocated under the proposed action. In the absence of any vessel upgrade restrictions in the lobster trap fishery, this may also prompt fishermen to upgrade to larger vessels to increase their trap allocations.

HP Comment 36: One respondent disagrees with NOAA Fisheries' assessment that historical participation in LCMA 3 "recognizes and accommodates the traditional and diverse fishing practices of the offshore trap fishing fleet", because it will exclude approximately 546 Federal permit holders who may have fished in LCMA 3. This individual is also concerned about NOAA Fisheries' worst case scenario in the DSEIS of all 610 permit holders qualifying for access to the LCMA 3 and be eligible for the highest trap allocations possible.

Response: See section III.2.(H) of the FSEIS. NOAA Fisheries acknowledges that some vessels that may have fished in LCMA 3 may not qualify due to lack of necessary supporting documentation. However, the proposed action is compatible with the recommendations of the Commission for Federal action in LCMA 3. NOAA Fisheries intends to avoid the worst case scenario as described by implementing a qualification process that would accept only specific types of documentation to support historic participation. Additionally, NOAA Fisheries made the projection on the worst case scenario based on trap area designations from the Federal permits database. Since any Federal lobster permit holder fishing with trap gear can select any or all LCMAs, this number does not accurately reflect the number of vessels that are currently or have historically fished with traps in LCMA 3. In other words, the worst case scenario is projected in order to set parameters for theoretical modeling and analysis. Such a scenario is not at all expected.

HP Comment 37: One individual commented that uniform trap limits within regions or permit categories should be implemented.

Response: NOAA Fisheries disagrees. Trap limits alone will not reach the effort reduction and egg production goals of the ISFMP. Trap numbers must be reduced and consistent trap numbers throughout the range of the resource would not fully reflect the historical nature of the fishery, may result in increased effort and would undermine the coastal lobster management process with respect to the LCMTs, state and Federal regulations and mandates. Further, in doing so, the lobster resource will be subjected to continued risk of collapse with substantial environmental, social and economic consequences.

HP Comment 38: One individual identified that it could be problematic if states developing their own limited access requirements that differ from the final eligibility criteria under a Federal plan

for historical participation.

Response: NOAA Fisheries agrees and has included qualification criteria in the proposed action that are compatible with those recommended by the Commission in the ISFMP and urges states to do the same.

CLOSED AREAS (CA)

CA Comment 1: Two commentators are opposed to closed areas because this measure will further restrict fishermen and will likely concentrate fishing effort into smaller areas.

Response: NOAA Fisheries assessed the concept of closing four specific zones in LCMA 4 as recommended by the Commission in Addendum I. Specifically, Addendum I recommended that NOAA Fisheries implement a ban on possession of lobster taken by trap gear in these specified areas in the EEZ portion of LCMA 4 in the proximity of Fire Island, NY; Moriches, NY; Shinnecock, NY; and Montauk, NY. In addressing this issue in the DSEIS NOAA Fisheries reviewed the lobster vessel trip report database which includes lobster landings statistics for those Federal lobster permit holders required to report landings under a Federal permit issued for the harvest of other species. This review of the data covering the period from 1994-1999 indicated that approximately 4% of the trips by vessels fishing in LCMA 4 with lobster traps occurred within at least one of the proposed closed areas. These trips accounted for approximately 3% of the annual lobster trap harvest in LCMA 4. Additionally, there are indications of a steady decline of trap fishing activity and lobster harvest in these areas since 1995. This analysis, and the conclusion by the Lobster Technical Committee that closed areas as proposed were unlikely to sufficiently increase lobster egg production, form the basis for NOAA Fisheries' decision not to include these closed areas as part of the EEZ management program for the lobster trap fishery in LCMA 4. However, NOAA Fisheries does acknowledge the benefits of closed areas with respect to habitat protection and as refuge areas for spawning finfish and other fishery resources and advocates the continued consideration of this concept in the future as a means of reaching the goals of the ISFMP. See FSEIS Section III.1.(E) for additional detail.

CA Comment 2: Two comments were received in support of closed areas.

Response: NOAA Fisheries disagrees that the closed areas as defined in Addendum I be adopted. See previous response.

CA Comment 3: An individual wrote that offshore lobstermen have depleted the large lobsters and the inshore New Jersey lobster boats no longer catch 5-15 lb. lobsters. Therefore, offshore closed areas should be established in the Canyons and a maximum size limit implemented on lobsters of 5 lbs. or more.

Response: NOAA Fisheries' analysis of closed areas in the FSEIS focused solely on the LCMA 4 closed areas as adopted in Addendum I. The Commission did not recommend that NOAA Fisheries implement closed areas in other LCMAs that contain deep-water canyon environments,

such as LCMAs 3 and 5. Therefore, closed areas were not further analyzed as a potential management option outside the scope of the Commission's recommendations in Addendum I. With respect to the respondent's concern for conservation of larger lobsters, Addendum III to Amendment 3 does contain provisions for a maximum size requirement in LCMAs 4 and 5 if deemed necessary. NOAA Fisheries will analyze this management measure under a separate rulemaking action.

CA Comment 4: One individual objects to closed areas in LCMA 4 and was concerned that they may apply to charter and dive boats as well as trap gear since the areas identified include important wrecks for divers.

Response: See previous responses. NOAA Fisheries has not proposed to implement the closed areas as recommended due to perceived lack of conservation benefits and difficulties associated with enforcement of the closures. The closed areas as recommended in Addendum I only pertain to trap gear.

VESSEL UPGRADES (VU)

VU Comment 1: Eight comments were received in favor of vessel upgrade restrictions and three comments were received in opposition to this measure.

Response: See responses to VU Comments 2 and 3.

VU Comment 2: One individual recommends that vessel size and horsepower limitations should be implemented, similar to the groundfish fishery.

Response: NOAA Fisheries does not concur with this recommendation since it would require permit holders to legally substantiate existing vessel baseline characteristics. Many small lobster trap vessels are not Coast Guard documented and have no other Federal fishing permits that would have previously required them to have baseline characteristics documented. If NOAA Fisheries implemented a vessel upgrade restriction, these vessels would likely need to acquire the services of a marine surveyor or naval architect to document the legal vessel specifications which could result in a substantial cost burden ranging from $150-$600 with associated costs increasing with vessel size. This proposed restriction could cause added delays in vessel replacement and transfer procedures and will also increase the time needed to determine whether a vessel qualifies for access to the lobster trap fishery in Area 3. The shaft horsepower upgrade restrictions recommended by the Commission deviate from the current NOAA Fisheries upgrade restrictions for other fisheries and could result in one vessel having two horsepower baselines for the same engine. Finally, NOAA Fisheries believes that trap limits, rather than vessel size and horsepower restrictions, are a more effective means of limiting fishing effort in the lobster trap fishery. See FSEIS Section III.1.(E) for additional detail.

VU Comment 3: Five individuals commented that the vessel upgrade provision should be implemented because the larger vessels generally have larger landings and more trap hauls which

may be relevant with the recent arrival of large factory vessels from the west coast.

Response: NOAA Fisheries disagrees. As previously stated, NOAA Fisheries believes that vessel length and horsepower are not an effective means of controlling lobster trap fishing effort and contends that trap limits are the best measure for limiting fishing effort on the lobster resource. It is reasonable to assume that as size and power of a vessel increases, so does the frequency of the number of trap hauls. The issue is whether or not the ability of a vessel to haul a static number of traps over a shorter time period will result in higher fishing effort or higher landings. For example, an increase in vessel size and or horsepower could allow a fisherman to haul his entire allocation of traps in half the time but if he continues to fish every day, his set-over-days or soak time would decrease by 50% as well. This could result in lower landings which may not justify the additional expenses of an upgrade.

One can clearly equate an ability to haul gear in less time with economic benefits of having to spend less time fishing and therefore lower overhead/operating expenses, etc. But it is unclear how hauling the same amount of gear more quickly will equate to higher lobster fishing mortality and this would depend upon abundance, the time of year and area fished. NOAA Fisheries will consider traps hauled per vessel as a potential mechanism for measuring a vessel's fishing capacity but feels that trap limits will be more instrumental in limiting effort and lobster fishing mortality. Additionally, the administrative burden of implementing a vessel upgrade restriction and the economic burden on permit holders makes this a non-preferred alternative to the status quo. Also, larger lobster trap vessels may have higher landings historically, not because they can haul their traps faster than smaller vessels, but because, prior to fixed trap limits, could fish more traps, could stay at sea longer and withstand inclement weather more efficiently than a smaller vessel.

NEW HAMPSHIRE CONSERVATION EQUIVALENCY (NH)

NH Comment 1: Fifteen comments were received in support of conservation equivalency for the two-tiered trap limits for New Hampshire lobstermen, while eight comments were received that oppose this measure.

Response: The best available information supports the Commission's finding that New Hampshire's proposal is a conservation equivalent to current management measures. In fact, available information suggests that it will actually reduce effort. As such, this action satisfies NOAA Fisheries' legal obligations insofar as it is consistent with the National Standards and is supportive of the Commission's ISFMP that allows conservation equivalency. Accordingly, the NOAA Fisheries' final action will allow a New Hampshire full commercial license holder fishing aboard a federally permitted lobster vessel to fish an additional 400 lobster traps in New Hampshire state waters. This action will not result in more traps fished in the Federal waters of LCMA 1.

NH Comment 2: Four commentators stated that the New Hampshire two-tiered trap limit which would allow full commercial lobster license holders in New Hampshire to fish up to 1,200 traps

in state waters is a violation of National Standard 4 of the MSA.

Response: The proposed action is a self-contained state measure that does not distinguish among citizens in different states or advantage the citizens of one state over another. NOAA Fisheries' final action on this issue merely acknowledges the Commission's approval of the New Hampshire conservation equivalency proposal. As a preliminary matter, the current 800 trap limitation existing in the EEZ in Area 1 remains unchanged and would not allow any additional lobster traps in Federal waters. In fact, analysis of available information suggests an actual decrease in traps fished in Area 1, both in the EEZ and in New Hampshire State waters. As such, the measure reflects an internal repositioning of traps within New Hampshire borders that is not expected to have any extraterritorial impacts or impact citizens of other states. In other words, to the extent, if at all, that the increase to 1,200 traps benefits some New Hampshire permit holders (see FSEIS Section V.1. for discussion on economic effects of trap limitations), then that benefit is internally counterbalanced by the New Hampshire permit holders whose trap limits will decrease to 600 traps. Accordingly, an overall conservation benefit is expected in furtherance of National Standard 1 with no corresponding degradation of the standards set forth in National Standard 4.

NH Comment 3: One respondent said that New Hampshire should have consistent trap limits like Massachusetts and Maine.

Response: See previous response. NOAA Fisheries acknowledges the right of New Hampshire or any other state to utilize the process for alternative state management regimes outlined in the law and Amendment 3 of the ISFMP to address specific socio-economic or industry-related situations. Importantly, New Hampshire's conservation equivalency proposal is a self-contained measure that is not expected to create extra-territorial responsibilities for her sister states or the Federal government, nor is it expected to have any extra-territorial impacts. However, NOAA Fisheries does note that continued creation and approval of conservation equivalent measures by the Commission could, depending on the measure, unintentionally increase the complexity of the present management system, burdening all parties, including sister states, industry and the Federal government, and thereby greatly decreasing the efficiency and effectiveness of the overall ISFMP.

NH Comment 4: One commentator would support the New Hampshire proposal for a two-tiered trap limit if the number of full commercial licenses is capped. Another respondent indicated that this proposal will not necessarily decrease the number of traps in the water because the limited license category is open to new entrants.

Response: See Section III.2.(E) of the FSEIS, Area 1 Trap Limit for New Hampshire Lobster License Holders. Under New Hampshire's two-tiered trap limit program, the total number of full commercial lobster license holders is capped indefinitely at 22 individuals. Information provided by New Hampshire Fish and Game indicates that the two-tiered trap limit will reduce the number of traps fished in the State's waters by 18,000 traps as compared to a fixed trap limit for all state license holders. Any new entrants into the State's lobster trap fishery may be admitted under the

600 trap limited license category, but few new entrants are expected based on the qualification criteria established under New Hampshire regulations with regard to length of state residency. In any event, new entrants would be limited to 600 traps as a result of the conservation equivalency, as opposed to 800 traps under the present regulations. Therefore, with every new entrant – a variable that exists with or without the proposed program – 200 less traps would be used than would be used otherwise. On balance, NOAA Fisheries concludes that any biological impacts to the lobster resource resulting from this action would be outweighed by the overall reduction in the potential number of traps fished by state and Federal lobstermen combined under the State's two-tiered licensing program. See Section III.2.(H), Environmental Consequences of Selected Actions.

NH Comment 5: One commentator expressed that non-trap gear limitations and state-specific conservation equivalency in general violate National Standard 4 of the MSA.

Response: NOAA Fisheries disagrees as a general rule, although it can contemplate certain hypothetical non-trap gear limitations or conservation equivalency programs that could create National Standard 4 issues. NOAA Fisheries notes, however, that the present action has no such problems as explained in the above responses. Further, the proposed action does not establish non-trap gear limitations and, as such, the comment thereon is not presently germane.

AREA BOUNDARY REVISIONS (AB)

AB Comment 1: Two comments were received in favor of the revisions to the Area 1, Area 2, and Outer Cape Area boundary lines as recommended by the Commission, with none specifically opposed.

Response: NOAA Fisheries will implement compatible boundary lines for Area 1, Area 2, and the Outer Cape Area to maintain consistency with the ISFMP and to avoid confusion if the Federal and Commission area boundaries and their associated lobster management measures differ. See Section III.2.(F) of the FSEIS.

GAUGE SIZE CHANGES (GS)

GS Comment 1: Twenty-three comments were received in support of some manner of changes to the minimum or maximum lobster gauge size, while six wrote in general opposition to this measure.

Response: NOAA Fisheries will analyze minimum gauge size increases along with other measures adopted by the Commission in Addenda II and III to Amendment 3 of the ISFMP in a future Federal rulemaking package. The impacts of gauge increases in Federal waters will require a thorough examination of the biological and socio-economic impacts of such a measure, including the interstate and U.S.-Canada trade implications. It would be premature to enact such in this present action.

GS Comment 2: Gauge increases are needed as evidenced by the Long Island Sound die off, shell disease in southern New England and the declining recruitment levels shown in several recent surveys.

Response: Addenda II and III to Amendment 3 of the ISFMP include gauge increases for LCMA 6 (Long Island Sound) as well as in LCMAs 2, 3, 4, 5 and the Outer Cape Management Area. In future rulemaking actions, NOAA Fisheries will address the implementation of such increases as recommended by the Commission.

GS Comment 3: One person commented that Maine has experienced record lobster harvests over the last several years, therefore, no gauge increases are needed since the stock is at such as high level of abundance.

Response: See previous response and refer to Section IV.3.(B), Stock Assessment, in the FSEIS. As a preliminary matter, anecdotal evidence of increased resource abundance is not dispositive of the issue since the observations might reflect the status of a small sub-area, or relate to environmental conditions, or be caused by more efficient gear and harvesting practices that are taking more lobster from the sea and contributing to overfishing. The 2000 lobster stock assessment and subsequent peer review indicate that all three stocks of American lobster are growth overfished with a high risk of sharp decline in abundance throughout the range of the resource. The peer review report recommended that reductions in fishing mortality could be achieved through effort reductions. However, the report also indicated that the relationship between effort reductions and fishing mortality is difficult to quantify and that additional measures such as increases in the lobster minimum size may be necessary. Such measures, however, are not the substance of this proposed action, nor does this action involve Federal Area 1 waters that abut the Maine coast.

GS Comment 4: One individual is opposed to any minimum gauge size increase.

Response: See previous response. NOAA Fisheries has not yet analyzed gauge increases as a management measure for lobster in the EEZ. This analysis will be conducted under a separate rulemaking action.

GS Comment 5: One individual commented that gauge increases and trap limits, without historical participation, will provide the means to reach the biological goals needed for the fishery.

Response: See response to comment 1 and refer to Section I.1., Science, and Section IV.3.(B), Stock Assessment.

GS Comment 6: One commentator questioned the biological benefits of increasing the minimum gauge size since it would only result in small increases in egg production. Also, LCMA 3 is known to land a larger average sized lobster than inshore areas, raising questions about the biological benefits of a gauge increase. Further, National Standard 3 requires that a stock be

managed as a unit throughout its range. Since both LCMAs 1 and 3 constitute the Gulf of Maine lobster stock ,a gauge increase in LCMA 3 only is inappropriate.

Response: Gauge increases are not proposed in the current action, but have been proposed in future actions and will be evaluated at that time. See previous responses.

GS Comment 7: Two individuals stated that if gauge increases are implemented, they should be uniform throughout the range of the resource. One of these individuals thought this would facilitate law enforcement.

Response: The lobster resource is overfished throughout its range, which includes seven different management areas overlapping three distinct stocks coastwide. According to an analysis by the Lobster Technical Committee, this situation makes it difficult for the egg-per-recruit model to predict the outcome of competing measures when management areas overlap multiple stock assessment areas. Regardless, given the differing human and environmental factors affecting lobsters in the various stock and management areas, certain management measures may be more effective in increasing egg production in some management areas than in others. The current area-based management approach to lobster management was created to allow for distinct measures in each management area that are most effective with respect to lobster conservation while considering the unique social and economic factors in that area.

A uniform gauge size may facilitate the enforcement of lobster regulations and limit impacts to various lobster markets but may not be the best approach with respect to lobster conservation. The extent to which gauge increases benefit the resource varies amongst the different lobster conservation areas given that three different lobster stocks occur throughout the range of the resource and that other natural and human factors (fishing practices) influence the degree of benefit of harvesting lobster at a larger minimum size. These factors will be fully analyzed under a future Federal rulemaking action.

GS Comment 8: Two individuals said that they are opposed to differential gauge sizes within the range of the lobster resource.

Response: See previous response.

GS Comment 9: One commentator is against any gauge increases in LCMAs 2, 3 and the Outer Cape Area because lobster are abundant and it would create differential minimum sizes in Massachusetts.

Response: See previous response.

GS Comment 10: One respondent is opposed to a maximum lobster carapace size because the measure it is not effective in increasing egg production and is based on questionable science.

Response: NOAA Fisheries disagrees. Data indicate that lobster fecundity increases with size.

Therefore, larger lobsters theoretically contribute more to egg production than lobsters of a smaller size. Maximum size limitations may not, however, provide a significant means of egg production in all LCMAs. NOAA Fisheries will conduct a full analysis of gauge size implications as a separate rulemaking action.

GS Comment 11: One comment stated that maximum gauge sizes for LCMAs 4 and 5 as proposed in LCMT plans should be implemented, otherwise, the egg production goals of the ISFMP may not be achieved.

Response: See previous response.

MARINE MAMMALS (MM)

MM Comment 1: Three respondents indicated they favored the proposed action because it would reduce the number of traps in the water and reduce the threat to marine mammals.

Response: NOAA Fisheries agrees. An updated Biological Opinion under Section 7 of the Endangered Species Act was issued for the American lobster fishery on June 14, 2001. The updated Biological Opinion concluded that the Federal American lobster fishery is likely to jeopardize the continued existence of the western North Atlantic right whale, but is not likely to destroy or adversely modify critical habitat designated for the right whale. The Biological Opinion also concluded that the Federal American lobster fishery is not likely to jeopardize the continued existence of the humpback, fin, sei, blue, and sperm whales, or loggerhead, Kemp's ridley, green, leatherback, and hawksbill sea turtles. Following release of the updated Biological Opinion on June 14, 2001, a formal consultation was initiated on the effects of the proposed rule published on January 3, 2002, on endangered and threatened species.

MM Comment 2: One individual commented that the LCMA 3 proposal is a concern to Cape Cod Bay fishermen who may face closures in Cape Cod Bay due to Right Whale critical habitat issues and would prefer to have access to LCMA 3 should they need to move offshore in the event of a closure.

Response: NOAA Fisheries agrees that dynamic area closures may result in the event of an aggregation of right whales in this area. Since much of Cape Cod Bay is considered right whale critical habitat, the chances of a whale aggregation may be greater there than in other areas. Federal lobster permit holders who do not qualify for access in LCMA 3 if a historical participation program is employed, would have the option of moving their lobster gear into other sections of LCMA 1, or the Outer Cape LCMA, both of which are more immediately accessible to Cape Cod Bay than LCMA 3, or to LCMA 2 in the event of a closure of Cape Cod Bay due to marine mammal concerns.

GENERAL COMMENTS (GC)

GC Comment 1: Three individuals question the biological rationale driving the need for

additional lobster regulations since there is no scientific information to indicate that the American lobster stock is in trouble.

Response: NOAA Fisheries disagrees. The latest lobster stock assessment conducted in March 2000 indicates that all three stocks of American lobster are growth overfished and overfished according to the overfishing definition in the ISFMP. A subsequent peer review of that assessment by an external stock assessment peer review panel supported the conclusions of the 2000 stock assessment and determined that additional regulatory measures area necessary. The review panel also concluded that although the resource is not recruitment overfished, recruitment overfishing is occurring, which could result in recruitment failure. The panel further noted that shifts in fishing effort from nearshore areas to offshore areas has occurred. Allowing such effort shifts to continue could negatively impact lobster egg production. Refer to FSEIS Section I.1., Science, and Section IV.3.(B)., Stock Assessment.

GC Comment 2: One individual stated that so many restrictions have been imposed on the lobster fishery without allowing enough time to analyze the effectiveness of those measures already in place.

Response: NOAA Fisheries disagrees. The ISFMP contemplated additional measures when originally adopted and currently includes one amendment with three separate addenda, each with its own suite of management measures, compliance schedules, and deadlines for state implementation, and was not intended to be implemented all at once. The success of the ISFMP relies on the collective implementation of management measures at both the state and Federal level that are consistent with the measures adopted by the Commission.

GC Comment 3: One commentator asked whether or not a social impact assessment was conducted to assess the social and economic impacts of the proposed regulations.

Response: The comments addressed here were solicited in the NOAA Fisheries Draft Supplemental Environmental Impact Statement (DSEIS) published in November 2000. Although an environmental impact statement in title, the DSEIS analyzes the social, economic and biological impacts of several alternative actions for management measures for waters under Federal jurisdiction as required under the National Environmental Policy Act of 1969, as amended. The document also includes a regulatory impact review and regulatory flexibility analysis as required under the Regulatory Flexibility Act. That assessment has been updated in this document, the Final Supplemental Environmental Impact Statement. See in particular FSEIS Section III.3.(D) and V.1.

GC Comment 4: One commentator suggested implementing an owner/operator provision in all LCMAs as a conservation measure.

Response: Such a measure has not, to date, been proposed for consideration in the ISFMP and would be beyond the scope of reasonable alternatives to the present rulemaking. Therefore, it has not been analyzed as a potential management measure in the Federal rulemaking process.

However, it is open for future consideration under the adaptive management procedures set forth in the ISFMP and NOAA Fisheries would consider this option if compatible with Commission measures and proposals for adoption in Federal waters as part of the ISFMP.

GC Comment 5: One individual commented that problems with lobster stock may be linked to impacts to lobster habitat, such as dredge and fill projects conducted by the U.S. Army Corps of Engineers and mortality due to ghost traps, and not exclusively due to overfishing.

Response: NOAA Fisheries' best available information and the latest stock assessment indicates that the American lobster resource is growth overfished and that effort must be reduced and egg production increased in order to rebuild the stocks. The measures in the Commission's ISFMP have been determined to meet these goals and NOAA Fisheries' proposed action is consistent with the Commission's recommendations for Federal action in the ISFMP. NOAA Fisheries is currently funding research being conducted by state agencies to determine areas of critical habitat and important juvenile larval settlement for lobster, including mapping of these areas using Geographic Information System technology.

GC Comment 6: An apprenticeship program should be introduced where an individual would be required to work as a deckhand for 1-2 years with a licensed lobster fisherman before being allowed to purchase a license.

Response: NOAA Fisheries can neither agree nor disagree at present although the commentator's proposal does not appear to be a conservation measure. NOAA Fisheries did not conduct a detailed analysis of this proposal because it was not recommended by the Commission, because it would create compatibility issues with their management of the resource and because it does not appear to be a conservation measure within the scope of the present rulemaking.

GC Comment 7: One person stated that Individual Fishing Quotas (IFQs) are more effective than trap reductions in limiting catch through total catch quotas or transferrable IFQs.

Response: IFQs as a management tool is highly controversial. The IFQ moratorium in the Magnuson-Stevens Act is and has been the subject of intense Congressional debate at the time of the analysis of this proposed action, and has been the subject of ongoing deliberation by a specially appointed Commission Task Force. The concept of IFQs was not proposed by the Commission as part of this action and public comment has yet to be solicited on this issue. Therefore, to address such an action in the context of this present rulemaking would result in incompatibility issues between the Federal regulations and the Commission's ISFMP. NOAA Fisheries may consider this measure in future rulemaking if recommended by the Commission at a later time.

Public Hearing Summary - Narragansett, R.I. - December 12, 2000
Lobster Draft Supplemental Environmental Impact Statement

B. DSEIS Public Hearing Summaries

Location: Narragansett Town Hall Assembly Room, 25 Fifth Street, Narragansett, RI.
Time: 3:00 p.m. ~ 4:15 p.m.
Attendance: 66 - individuals that filled out the sign-in sheet.

Introduction:

Harry Mears, Director, State, Federal, and Constituent Programs Office, Northeast Region, NMFS, ran the public meeting, provided the introductory remarks and gave a brief summary of proposed lobster management options presented in the DSEIS. In summary, the preferred alternatives analyzed in the DSEIS would establish a management approach using historical participation to control fishing effort in the lobster trap fishery and establish trap limits based on documentation of historical trap effort in the offshore EEZ (Lobster Conservation Management Area 3 (LCMA 3)) and nearshore EEZ waters from New York south to Cape Hatteras, North Carolina (LCMAs 4 and 5). Alternatives in the DSEIS also evaluate a conservation equivalency provision for trap limits in New Hampshire coastal waters, and boundary clarifications for lobster conservation management areas off Massachusetts. The DSEIS also seeks public comment on a proposed increase in the legal minimum size of harvested lobster to facilitate potential future rulemaking associated with the legal minimum size. After the introductory remarks, the hearing was open to public comment, first by the general public who indicated a desire to speak when initially registering, and then an open podium for others wishing to comment.

Overview:

Public comments were provided by 36 individuals. The majority of speakers voiced their support for the recent Rhode Island increase in the minimum legal size of lobsters and strongly supported similar gauge increases for neighboring states and Federal waters. Most speakers also supported historic participation and specifically voiced support for the offshore Area 3 proposal, the NMFS preferred alternative, which includes historic participation criteria and documentation of trap allocations based on historic effort levels. A minority expressed support for historic participation, but preferred the existing fixed trap levels for all participants who qualify. A significant minority of speakers expressed opposition to any form fishing restrictions based on historical participation. Several speakers argued that they had already gone through a qualification process in the mid-1990's to retain their federal limited access lobster permit and no further area restrictions were warrented. Speakers also supported the Federal control date of 9/1/99, voiced concerns regarding a lack of data to prove some of the historical participation qualification requirements, and showed mixed support for vessel upgrade restrictions. The N.H. proposal to allocate 400 additional traps in N.H. state waters was not supported. A significant minority of speakers also expressed concern regarding the lack of adequate enforcement of existing lobster regulations, especially the current trap tag requirements.

General Comments:

- Let each lobster area do its own plan
- Support transferability of traps.
- Regulatory process needs to better link regulations for ASMFC and NMFS to same timeline.
- Lobster regs need more law enforcement attention.
- Mandatory reporting should be implemented.
- Speaker worried about his future and his ability to fish federal waters if historic participation is implemented.
- We want more active enforcement of existing regulations.
- Concern about environmentalists and where

will they go next.
- NMFS can't come up with all these plans without enforcement.
- Need mandatory reporting to get a better grip on real effort in the water.
- Have bait checked at dock or have black box.
- Enforcement is a joke now, there are no tags on some of these guys pots.
- Use a call in Days-at-Sea approach to effort restrictions.
- Speaker lost 300 traps and complains that it takes weeks for replacement tags now.
- Industry wants more enforcement of lobster regulations.
- Complaint about meeting schedule, wants a meeting in MA.
- Enforcement is definitely an issue, all this means nothing if we can't enforce the regulations.

Historic Participation Areas 3, 4, 5:

C Support the preferred alternative lobster Area 3 plan.
- In favor of historic participation.

C Letter from Fishing vessel with 8 crew, all in support of the preferred Area 3 plan.
- Area 3 plan in DSEIS achieves objectives of plan to end overfishing.
- Questions data in SEIS, why only 64 vessels qualify for lobster Area 3, there must be more.
- The preferred alternative gives everything to offshore fishing vessels.
- NMFS needs to consider medium size vessels, too and not exclude them.
- This Area 3 proposal contains the first landing requirement, and 25,000 pounds is too restrictive
- Historic participation qualification criteria is well defined.
- Discretion on which documents to use should be left to each permit holder, documents should not be ranked.
- Questions NMFS statement in DSEIS about cost and staff time for historic participation.
- In 1991, large offshore operators started this proposal for only historic participation and now we're stuck with it.
- NMFS should look at getting some form of grant aid to help out with qualifications.
- Offshore trap reductions - agree with concept.
- Supports lobster Area 3 plan, has fished Area 3 for 15 years.
- In support of fixed trap allocations because a fixed trap allocation evens the playing field
- Stands behind the Area 3 fixed 1800 trap limit.
- Supports Lobster Area 3 preferred alternative.
- Supports historical diversity.
- Supports ultimately having less traps fishing.
- Area 3 proposal leaps and bounds ahead of a fixed 1800 trap cap.
- Totally opposed to use of historical participation in any area.
- Lobster Area 3 plan driven by a few large operators.
- Most lobster Area 3 participants purchased less than the 1800 traps allowed
- Who's on the LCMA 3 team, and how did they come up with this historic approach?
- Supports lobster Area 3 preferred alternative.
- Support for historic participation.
- Supports preferred alternative except for trip limit, use 1800 as maximum limit.
- Historical participation is necessary now, there is no more room for new traps.
- Strongly supports lobster Area 3 preferred alternative.
- Supports preferred alternative for historic.
- Area management is essential if we want measures to succeed.
- The Area 3 plan is not here to promote expansion of effort.
- The lobster Area 3 plan is the proper approach to rebuilding the resource.
- Info on logbooks and state records is variable, creating concern about loose qualifying criteria for historic.
-

The Area 3 plan will allow the fewest number of traps compared to status quo .

- The Area 3 plan will reduce gear conflict
- It is necessary to prioritize documents for qualifying trap allocations.
- Lobster Area 3 plan is an aggressive plan.
- Additional gauge increases are also proposed for Area 3.
- Lobster Area 3 plan is the best management plan for resource.
- Strongly supports preferred Alt. for historic participation.
- Thumbs down to managing lobster fishery with historic, NMFS is trying to do all this too fast.
- NMFS is rushing things, but right approach
- Historical participation - we've already proved our access through the first control date process in the early 1990's.
- This historic proposal is trying by different method to exclude current fishermen.
- NMFS should be considering ways to get new blood into the lobster fishery, not restrict current lobstermen further.
- Favors area specific management.
- Floating scale trap reductions is a violation of the Magnuson-Stevens Act.
- NMFS needs to start all lobstermen off on an even playing field with trap allocations.
- All rules and laws on trap limits are unenforceable.
- Industry needs to reduce the amount of pots in the water.
- NMFS needs to know the number of fishermen and the number of traps.
- For lobster Area 3, - historical participation is vital.
- Doesn't like historic participation.
- Support preferred alternative for historic participation.
- Speaker doesn't like 25000 pound requirement - we have already proven ourselves in past, why re-prove ourselves?
- Lobstermen need to reduce gear, but this proposal is creating a "select" group the way the preferred alternative is written.
- Lobstermen will need to pay for future access to lobster Area 3 in under this plan.
- Historic participation is o.k., but set the trap cap at 1800, not at 3250.

N.H. Conservation Equivalency:

- C No support for an extra 400 traps in NH, its an enforcement nightmare.
- C No support for the NH proposal to allow extra trap allocations.
- The NH proposal almost impossible to enforce.

Area Boundary Line Revisions:

- The boundary revision for lobster Area 2 is a good idea.

Minimum Gauge/Carapace Size:

- Supports gauge increase, sooner is better.
- Supports gauge increase, get on the ball across entire resource.
- Strongly support gauge increase for areas identified.
- Support gauge increase throughout range.
- C Supports gauge increase, lets get NMFS on board with gauge increases.
- C Go ahead with the gauge increases.
- Time to qualify vessels into areas may negatively impact work on gauge increases.
- Gauge increase - urge NMFS to do synchronized gauge increase.
- Support gauge increase.
- Supports gauge increases - get on with them.
- Supports gauge increase as soon as possible.
- There is wide support for a 3-1/2" minimum gauge size.
- Get going on gauge increases, its better now.
- Strongly supports gauge increase.
- Recommend gauge increase and process, but we must get neighboring states to increase their gauge too.
- NMFS needs to implement a gauge increase, and the bureaucracy shouldn't delay a gauge increase.

- Strongly supports gauge increases - totally believes it's the best way to get to egg production goals.
- The RI gauge increase is good and needs support in federal waters.
- Need a gauge increase in all areas.
- Put a gauge increase on front burner.
- Support the gauge increase across all states, otherwise landings will go up in states with smaller gauge size requirements.

Closed Areas:

- No support for closed areas - it will be another enforcement nightmare.

Vessel Upgrades:

- NMFS missed boat on vessel upgrade
- Fishing vessel upgrades - agree not necessary
- Vessel upgrades are still necessary, trap hauls can be increased with larger vessels.

Control Date:

- Control date of 9/1/99 is good, keep it.
- The 9/1/99 control date is a reasonable date and reasonable plan.

Participating NMFS Staff:

C Harry Mears, Bob Ross, Peter Burns, Nicole Bouchard, Richard Maney, and Susan Olsen.

Other NMFS Officials Attending:

C None

Federal, state, and local government officials or their representatives:

C Scott Olszewski, RI Dept. Env. Management, Div. Of Fish and Wildlife.
C Thomas Angell, RI Dept. Env. Management, Div. Of Fish and Wildlife.

Known Media Coverage:

C None
Meeting was tape recorded, 1 cassette tape.

LOBSTER DEIS PUBLIC HEARING - SUMMARY OF COMMENTS

TOTAL ATTENDANCE: 66
NUMBER SPEAKERS:36

APPROXIMATE NUMBER OF SPEAKERS DISCUSSING SPECIFIC COMMENTS:
23 In general support of historic participation;
22 In support of gauge increases as a management tool;
19 In support of the LCMA 3 plan;
8 Opposed to the preferred LCMA 3 plan;
7 In support of additional enforcement for lobster fishermen;
4 Questions availability of data needed to qualify vessels for historic participation;
3 In support of historic participation but with existing fixed trap limits;

3 In support of trap reductions;
3 Opposed to the N.H. preferred alternative to allow 1200 traps in state waters;
2 In support of prioritizing documentation used to qualify for historic participation;
2 In support of NMFS Control Date of 9/1/00;
1 Opposed to prioritizing documentation used to qualify for historic participation;
1 In support of allowing for the transfer of traps and trap tags;
1 In support of vessel upgrade restrictions;
1 Opposed to vessel upgrade restrictions;
1 In support of mandatory reporting;
1 In support of NMFS proposed Area boundary revisions to match ASMFC;
1 Opposed to Closed Areas.

Public Meeting Summary - Portland, Maine - December 13, 2000
Lobster Draft Supplemental Environmental Impact Statement

Location: Holiday Inn by the Bay, 88 Spring Street, Portland, ME.
Time: 3:00 p.m. ~ 4:40 p.m.
Attendance: 47 - individuals that filled out the sign-in sheet.

Introduction:

Harry Mears, Director, State, Federal, and Constituent Programs Office, Northeast Region, NMFS, ran the public meeting, provided the introductory remarks and gave a brief summary of proposed lobster management options presented in the DSEIS. In summary, the preferred alternatives analyzed in the DSEIS would establish a management approach using historical participation to control fishing effort in the lobster trap fishery and establish trap limits based on documentation of historical trap effort in the offshore EEZ (Lobster Conservation Management Area 3 (LCMA 3)) and nearshore EEZ waters from New York south to Cape Hatteras, North Carolina (LCMAs 4 and 5). Alternatives in the DSEIS also evaluate a conservation equivalency provision for trap limits in New Hampshire coastal waters, and boundary clarifications for lobster conservation management areas off Massachusetts. The DSEIS also seeks public comment on a proposed increase in the legal minimum size of harvested lobster to facilitate potential future rulemaking associated with the legal minimum size. After the introductory remarks, the hearing was open to public comment, first by the general public who indicated a desire to speak when initially registering, and then an open podium for others wishing to comment.

Overview:

Public comments were provided by 25 individuals. The majority of speakers voiced their opposition to the offshore Area 3 proposal, the NMFS preferred alternative. Several speakers also expressed opposition to any form of fishing restrictions based on historical participation. Some speakers did express support for some form of historic participation, including some who supported the Area 3 proposal as written, while other speakers preferred historic participation but with the current fixed trap limits rather than trap allocations based on historic trap numbers. Speakers also voiced concern regarding a lack of data to prove some of the historical participation qualification requirements. There was strong opposition to an increase in the minimum gauge size. Various speakers presented alternatives to increasing the gauge, including support for a maximum gauge size in all areas and use of alternative conservation equivalent measures, such as a ban on non-trap harvest or continued trap reductions. There was also strong opposition to the N.H. proposal to allocate 400 additional traps in N.H. state waters. Several speakers considered it unfair that lobstermen from one state should be allowed to fish more trap gear. Other public comment included mixed support for Marine Protected Areas, support for the proposed area boundary revision, and several speakers who objected to the timing and/or location of these public meetings on the DSEIS.

General Comments:

- Government allows non-trap landings, and it shouldn't.
- Speaker doesn't see what issue is, landings are up
- Government always steps in and regulates
- Look at wording in ASMFC, historic is not a forever situation
- Object to timing conflicts with state lobster zone meetings
- NMFS should have better meeting coordination with states
- ME DMR concurs with overall approach of cooperation management w/ASMFC
- Don't believe numbers scientists use for eggers
- Government can't end overfishing by 2005.
- NMFS must look seriously at individual fishing quotes.

- Why does Canada use an Egg Production Goal of F5, while NMFS uses F10?
- Need hearings farther north, several hundred were not able to attend this meeting
- Extend the comment period 30 days if feasible
- Wants a public meeting in eastern Maine - Ellsworth is good
- NMFS should move date to end overfishing from 2005 to 2008 to be compatible with ASMFC Addendum II.
- Having a hearing in Portland, 4-5 hours from eastern ME, is an insult to Eastern Mainers

Historic Participation Areas 3, 4, 5:

- The current federal plan with fixed trap limits is good
- Strongly opposes Lobster Area 3 historic plan, it puts small boats out of business.
- Criteria for Lobster Area 3 vague - please clarify because lobster permit holders aren't required to provide logbooks
- Historic Area 3 plan is trying to put little guy out of business, it's absurd and its not conservation
- Speaker doesn't agree with shutting people out.
- Lobstermen haven't been required to report, so where is the documentation going to come from?
- Historic is more governmental intrusion
- Support historical participation but not trap allocations
- Opposes sliding scale trap reduction, need to consider way traps are fished, just because a boat fishes less traps doesn't mean he catches less
- Fishing vessel with higher number of traps would get competitive advantage
- Value of permit will be effected by number of traps allocated
- Government should question honesty of trap numbers provided, anyone could easily falsify documentation over past 6+ years
- Allow fishing vessels of equal size to remain competitive with fixed trap allocations
- Concern about "one size fits all" trap cap
- A history based fishery is the way of the future, supports preferred alternative
- Historical participation - not particularly supportive
- Once resource recovers, then historic participation may not be necessary
- Strictly opposed to Lobster Area 3 plan
- Doesn't fish Area 3 now, but still wants the option to fish there in the future
- Opposed to closing people out of Lobster Area 3
- Opposed to historic plan - another way to take options away from inshore guys
- Doesn't support what we're proposing for Lobster Area 3
- Decrease in Lobster Area 3 traps will do nothing, even with existing trap limits, effort is still going up in ME
- Under historic, trap limits will only protect 64 fishing vessels.
- Trap limits don't take into account trap efficiency.
- Young people start off near the shore and then move offshore and historic will end that.
- Trap caps do nothing for resource - some are forced to cut trap numbers and others are allowed to increase traps.
- It is a mistake to keep Maine lobstermen out of Lobster Area 3 because they don't qualify under this proposal
- Bigger fishing vessels fishing in Area 3 are more aggressive than nearshore vessels
- Historic participation is good, but when talking about smaller vessels, be more lenient with qualifications
- Trap allocations are not equitable, vessels from Downeast Maine don't have the vessel size to compete.
- Lobster Area 3 LCMT member - corporate interests involved
- Permits with more trap allocations will have far greater economic value in future
- Historic lobster Area 3 proposal - concern about a plan that allows only 64 fishing vessels to fish in a very large area - some areas getting

very crowded and lobstermen want the option to expand to Lobster Area 3.
- The Lobster Area 3 proposal gives special privileges with large trap allocations to a few
- Lobster Area 3 deemed overfished now - if influx of additional vessels, then conditions will worsen.
- Under the Lobster Area 3 plan - once Lobster Area 3 no longer overfished, plan will allow for new entrants
- There are lots of small lobsters in Lobster Area 3
- Historic participation keeps the cultural and socio-economics of the area
- Sliding scale trap reductions greatly reduce number of traps in water and helps marine mammals
- Under historic participation, the Lobster Area 3 plan is trying to cap effort
- Sliding scale reduction in Lobster Area 3 - LCMT accelerating trap reductions will make a big difference
- Historic participation is a thinly veiled attempt by corporate entities to exclude others, especially ME Fishing vessels owner/operators
- Opposed to Lobster Area 3 proposal - not fair to restrict future access

N.H. Conservation Equivalency:

C These regulations will increase number of traps in the water

C N.H. conservation equivalency is inconsistent with Ntl Std 4

- If fishermen from all states that qualify as full timers could get 1200 traps it would compromise the lobster fishery
- NH - how can anyone justify cons. equivalency with 400 extra traps for 22 people
- Lobstermen from states on both sides of NH will be upset
- NH proposal is unenforceable and may put the Area 1 plan at risk
- Strictly opposed to NH plan
- How is it NH proposal conservation equivalent?
- If NH allowed to fish 1200 traps, government should allow all to fish 1200 in A1
- There are 32 inactive federal permits in NH and they can be transferred, increasing effort
- What about the Endangered Species Act and Marine Mammal Protection Act - increasing the number of traps in NH will increase entanglements.
- Opposed to N.H. conservation equivalency proposal
- N.H. proposal - this will open a can of worms if allowed
- In NH, there is no limited entry for part time losbtermen so more people and traps can come in to the fishery at any time.
- Oppose NH special status to fish 1200 traps - have equal treatment for all Area 1 lobstermen
- Oppose NH proposal - trap reductions created a great deal of pain in Maine too
- ME hasn't gotten credit for current ME regulations like lower trap limits, a maximum gauge size, and a trap only lobster fishery.
- The NH proposal may bring down the house of cards in terms of Maine participation, it is a question of fairness
- NH plan ridiculous - we need the same rules for everyone

Area Boundary Line Revisions:
- MA boundaries - support consistency between ASMFC and NMFS

Minimum Gauge/Carapace Size:
- Recommend gauge increase
- A gauge increase is ridiculous - don't use 3-1/4", reduce maximum gauge instead
- Support gauge increase
- Really supportive of gauge increase
- Consider conservation equivalency instead of an increase in the minimum gauge size - if states elect other measures, like reduced trap numbers or a ban on non-trap harvest, those measures should be given credit
- Opposed to gauge increase - adopt a maximum

gauge increase throughout the range instead
- Gauge size limits won't offset latent permits
- Gauge increase - concern that gauge increase will not produce the Egg Production Goal needed to end overfishing.
- Consider a maximum gauge in all areas, it's much better for Egg Production Goals
- Gauge increase good if throughout resource including Canada
- Gauge increase - totally opposed to gauge increase until can be shown to do something in GOM
- South of Cape Cod gauge increase may do something
- Without large lobsters more possible to have crash in stock
- Upper gauge more effective
- 5" maximum has biggest bang for buck compared to the minimum gauge size increase. Protect 5" lobsters, they are the most productive
- Going up on the minimum gauge reduces legal range and hurts Maine more than other states.
- Go with a maximum lobster size, don't increase the minimum size.
- Protect large lobsters, the V-notch is not honored elsewhere, especially federal waters.

Closed Areas:
- Marine protected areas - separate LCMA 1/3 by a Marine Protected Area
- Oppose Marine Protected Areas - the lobster fishery is not as mobile to move around and if Marine Protected Area is near someone, then it creates a major upheaval
- Marine Protected Areas sound pretty nice but have concern - Marine Protected Areas could create problems if they block off areas in the Gulf Of Maine -- displacing fishermen creates problem
- Enforcement will be difficult if using Marine Protected Areas

Vessel Upgrades:
- Support for a 2 year restriction on vessel upgrades, intended to prevent an increase in effort

Participating NMFS Staff:
C Harry Mears, Bob Ross, Peter Burns, Nicole Bouchard, and Richard Maney.

Other NMFS Officials Attending:
C Steve Link, Portland, ME.

Federal, state, and local government officials or their representatives:
C Lewis Flagg, Maine DMR
C David G. Lemoine, Chair, Marine Resources Committee, Harpswell, ME.

Known Media Coverage:
C WMTW TV
- WESH 6 TV

Meeting was tape recorded, 1 cassette tape.

LOBSTER DEIS PUBLIC HEARING - SUMMARY OF COMMENTS

TOTAL ATTENDANCE: 47
NUMBER SPEAKERS:25

APPROXIMATE NUMBER OF SPEAKERS DISCUSSING SPECIFIC COMMENTS:

15 Opposed to the historic participation preferred alternative LCMA 3 plan;
5 Generally opposed to any form of historic participation;
4 In general support of any form of historic participation;
3 In support of the historic participation preferred alternative LCMA 3 plan;
2 In support of historic participation but with existing fixed trap limits;
2 In support of fixed trap limits under current regulations;
8 Opposed to a minimum size gauge increase;
5 Consider implementation of maximum gauge size instead of increasing the minimum gauge size;
3 In support of minimum size gauge increase;
3 Allow conservation equivalent measures (maximum gauge size, ban on non-trap harvest) instead of an increase in the minimum gauge size;
1 Support gauge increase only if applied in all areas, including Canada;
3 Historic participation and trap allocation criteria are vague;
2 Questions availability of data needed to qualify vessels for historic participation;
2 In support of mandatory reporting;
9 Opposed to the N.H. preferred alternative to allow 1200 traps in state waters;
3 Poor timing and/or need better locations for public meetings on these proposals;
2 In support of additional enforcement for lobster fishermen;
2 In support of Marine Protected Areas/Closed Areas;
2 Opposed to Marine Protected Areas/Closed Areas;
2 Extend deadline to end overfishing of resource from 2005 to 2008;
2 No need for additional management measures, resource is fine;
1 In support of vessel upgrade restrictions;
1 In support of NMFS proposed Area boundary revisions to match ASMFC;
1 Ban non-trap landings of lobsters;
1 Work with Canada and standardize all regulations.

Public Meeting Summary - Riverhead, N.Y. - December 14, 2000
Lobster Draft Supplemental Environmental Impact Statement

Location: Riverhead Town Board Room at Town Hall, 200 Howell Ave, Riverhead, NY.
Time: 4:30 p.m. ~ 5:30 p.m.
Attendance: 11 - individuals that filled out the sign-in sheet.

Introduction:

Harry Mears, Director, State, Federal, and Constituent Programs Office, Northeast Region, NMFS, ran the public meeting, provided the introductory remarks and gave a brief summary of proposed lobster management options presented in the DSEIS. In summary, the preferred alternatives analyzed in the DSEIS would establish a management approach using historical participation to control fishing effort in the lobster trap fishery and establish trap limits based on documentation of historical trap effort in the offshore EEZ (Lobster Conservation Management Area 3 (LCMA 3)) and nearshore EEZ waters from New York south to Cape Hatteras, North Carolina (LCMAs 4 and 5). Alternatives in the DSEIS also evaluate a conservation equivalency provision for trap limits in New Hampshire coastal waters, and boundary clarifications for lobster conservation management areas off Massachusetts. The DSEIS also seeks public comment on a proposed increase in the legal minimum size of harvested lobster to facilitate potential future rulemaking associated with the legal minimum size. After the introductory remarks, the hearing was open to public comment, first by the general public who indicated a desire to speak when initially registering, and then an open podium for others wishing to comment.

Overview:

Public comments were provided by 6 individuals. Comments on two key issues, historic participation and gauge increases, were mixed with two speakers voiced opposition, while one speaker voiced support. Several speakers questions their ability to provide the required documentation to support historic participation due to a lack of official documents at either the state or Federal level. One speaker wished that trap reductions continue in place of a gauge increase. One speaker questioned the overriding management focus on meeting the overfishing definition based on an egg production goal of F10.

General Comments:

C Process is too focused on egg production goals, and it doesn't make a lot of sense to the speaker.

Historic Participation Areas 3, 4, 5:

C Documentation - there was never any requirement if only lobstering, even NY doesn't require documentation.
- If fishermen are limited to certain areas, like Long Island Sound where not too many lobsters are left now, we'd be stuck to that area and we'd be out of business.
- Opposed to restricting participation in any area.
- By initial limitations in March 1991 lobstermen are already restricted to a limited access lobster permit.
- The Long Island Sound die-off left a lot of people no where to fish. If speaker moves, why should NMFS tell speaker that he can't fish somewhere else.
- Historic is unnecessarily restrictive and overbearing.
- If the lobster resource in an area can't support a commerical fishery and fishermen can't go elsewhere, then resource will suffer because everyone will continue to fish on an already overfished stock.

C What about transferability of licenses with historic?
- The Area 3 plan is the best plan.

- NY didn't have historic records prior to 1995, but from 1995 on, information on trap effort levels is available in NY.

Minimum Gauge/Carapace Size:
- Opposes a gauge increase, when will it end?
- Does NMFS know how a gauge increase effect markets? Does NMFS look at market effects?
- Management shouldn't have stopped gauge increases.
- Without a reduction in effort, process will keep gauge increases going up forever.

Participating NMFS Staff:
C Harry Mears, and Bob Ross.

Other NMFS Officials Attending:
C Eric Braun, Fisheries Statistics Office, East Hampton, NY.

Federal, state, and local government officials or their representatives:
C Byron Young, N.Y. Dept. of Environmental Conservation, Marine Resources (DEC,MR)
C Carl LoBue, NY DEC,MR
- Peter Anderson, NY DEC,MR
- Philip LoCicero, NY DEC,MR

Known Media Coverage:
C None

LOBSTER DEIS PUBLIC HEARING - SUMMARY OF COMMENTS

TOTAL ATTENDANCE: 11
NUMBER SPEAKERS:6

APPROXIMATE NUMBER OF SPEAKERS DISCUSSING SPECIFIC COMMENTS:
2 Opposed to historic participation;
1 In general support of historic participation;
1 In support of the LCMA 3 plan;
2 Opposed to gauge increase as a management tool;
1 In support of gauge increases as a management tool;
1 Questions availability of data needed to qualify vessels for historic participation;
1 In support of trap reductions;
1 Management process is too focused on achieving egg production targets.

Public Meeting Summary - Tom's River, N.J. - December 15, 2000
Lobster Draft Supplemental Environmental Impact Statement

Location: Community Room at the Municipal Complex, 33 Washington Street, Toms River, NJ.
Time: 1:00 p.m. ~ 4:00 p.m.
Attendance: 29 - individuals that filled out the sign-in sheet.

Introduction:

Harry Mears, Director, State, Federal, and Constituent Programs Office, Northeast Region, NMFS, ran the public meeting, provided the introductory remarks and gave a brief summary of proposed lobster management options presented in the DSEIS. In summary, the preferred alternatives analyzed in the DSEIS would establish a management approach using historical participation to control fishing effort in the lobster trap fishery and establish trap limits based on documentation of historical trap effort in the offshore EEZ (Lobster Conservation Management Area 3 (LCMA 3)) and nearshore EEZ waters from New York south to Cape Hatteras, North Carolina (LCMAs 4 and 5). Alternatives in the DSEIS also evaluate a conservation equivalency provision for trap limits in New Hampshire coastal waters, and boundary clarifications for lobster conservation management areas off Massachusetts. The DSEIS also seeks public comment on a proposed increase in the legal minimum size of harvested lobster to facilitate potential future rulemaking associated with the legal minimum size. After the introductory remarks, the hearing was open to public comment, first by the general public who indicated a desire to speak when initially registering, and then an open podium for others wishing to comment.

Overview:

Public comments were provided by 12 individuals. A majority of speakers objected to the proposals in the DSEIS to implement historic participation. Of speakers in opposition to historic participation, a majority opposed historic participation in lobster Area 3 and most objected to the 25000 pound qualification criteria for Lobster Area 3. Several speakers argued that the high landing criteria was impossible for fishermen in the southern end of the range to meet. Opposition to historic participation in lobster Area 5 was also voiced. Several speakers suggested that some type of trap allocation should be provided to those who cannot meet the qualification criteria for historic participation. Several speakers identified the location of the current boundary line between lobster Area 3 and 5 was too close to shore and, as a result, most lobstermen straddled the boundary line, especially in the summer. Several speakers objected to the dates identified for proof of historic participation and several requested the dates begin in 1980 instead of 1991. In addition, at least one speaker: objected to a gauge increase; objected to any trap cap or trap reduction; questioned the science used to determine lobster is overfished; supported the use of state historic data to qualify vessels; and requested NMFS implement vessel upgrade restrictions.

General Comments:

- What data exists to prove it's necessary to have cutbacks?
- A recent NY Times article shows lobsters stocks are growing, why create new regulations?
- How can government drive people to unemployment over hypothesis of stock decline?
- Speaker is glad to see NMFS moving forward with compatible measures to the Interstate plan..
- NMFS shouldn't have turned over lobster management to ASMFC.

Historic Participation Areas 3, 4, 5:

- The lobster Area 3 qualification criteria of 25000 pounds will cripple us and will push us in to Lobster Area 5 only. We fish full time and have never caught that much lobster this

far south.

- How about allowing us to use 800 traps in Lobster Area 3 if we don't qualify under the 25,000 pound criteria?
- NMFS will wipe out the DE/MD/VA lobster fishery with these proposed regulations.
- All fishermen in this area have historical participation in Lobster Area 3 and Lobster Area 5, but the proposed 25000 pound landing requirement will cut us out of Lobster Area 3.
- Speaker wants the historic timeframe to go back to 1980 instead of 1993. Lots of lobster fishermen dropped out of the fishery in 1985, so NMFS should go back to 1980-90 and toss out guys that have started lobstering since 1990.
- Does the Governor of NJ have a backup plan to support those that will be excluded under historic participation?
- Speakers relative fished Long Island Sound until the die-off, and he is now fishing off NJ and won't qualify now because he just started to fish off NJ.
- The Atlantic States Marine Fisheries Commission agreed to setting limits based on historic participation.
- The NMFS proposed criteria for Lobster Area 4 and 5 requiring proof of fishing two consecutive calendar months was not recommended by the Commission and impact resulting from the lack of documentation isn't addressed in the DSEIS.
- The DSEIS affidavit requirement a good one.
- Speaker suggests adding the port agent interview and gear damage compensation form as a valid documents.
- Speaker suggests adding an independent auditor process.
- Speaker supports allocating trap numbers based on historic effort levels and doesn't want a trap cap or trap reductions for Lobster Area 4 and 5.
- Dates for historical participation should be from 1980-90, and 1990-2000 isn't historical.
- If someone sell a vessel today, the first question asked is what kind of permits do you have?
- Today, a lobster permit is worth about a third of the cost of a fishing vessel and if there is no permit on the vessel, you can't sell the vessel anymore.
- This proposed historic plan is illegal and its not right.
- These plans are too restrictive.
- The qualifying period from 3/25/91-9/1/95 is laughable, a majority of NJ permit holders object to this qualification period.
- Until 13 years ago lobstermen didn't need license, but now the license process has destroyed the industry.
- Congress didn't intend to exclude fishermen from any federal waters.
- The definition of historical doesn't say recent participants can set regulations for everyone.
- Speaker has a license, but hasn't fished since 1988 because he had an accident and had to get a signed letter from NMFS to keep the license, but under this proposal he won't qualify to fish.
- On Nov. 6, 2000 speaker bought a new fishing vessel but with historic he can't fish.
- Need something for those that don't meet all the area requirements.
- Speaker confused about new regulations, but speaker can't make a living with 800 pots, he used to fish 2000 black sea bass and 1200 lobster traps.
- From New Jersey south, there is only small (3 month) window to fish in Lobster Area 3 and the 25000 pounds requirement is too restrictive.
- In the south, lots of small vessels only fish Lobster Area 3 in the summer.
- Today, the value of a boat is in the value of its permits. Now, the 25000 pound requirement in lobster Area 3 will exclude smaller vessels who have traditionally fished there.
- Speaker wants it to be OK to fish least amount of traps historically allocated in any area.
- Leave Federal waters open the way it is now and keep the 800 and 1800 trap limits.
- Smaller boats in Lobster Area 3 that haven't landed 25000 pounds will be excluded.
- There is nothing in this proposal to let a new

generation of fishermen in to fishery.
- If selling a vessel, speaker doesn't know what to tell someone regarding ability to fish in any given area with the permits he has on vessel now.

Area Boundary Line Revisions:
- The boundary line between Lobster Area 3 and Lobster Area 5 is a problem and in the beginning it was difficult to get an LCMT 5 team together to discuss the issue.
- It would be appropriate to move the Lobster Area 5/Lobster Area 3 line about 10 miles to east.
- NJ has 4-5 people interested in joining the LCMT 5 team and they will look at the Lobster Area 3/Lobster Area 5 boundary.
- Where did the boundary lines between lobster Area 3 and 5 come from? Lobster Area 3 covers thousands of miles, yet Lobster Area 5 is a small area.
- The Area 3 LCMT was not a ware of the boundary issue with lobster Area 5, and are willing to meet to review the issue.

Minimum Gauge/Carapace Size:
- Speaker concerned about gauge increase.

Closed Areas:
- Closed Areas - LCMT 4 made recommendation for closed areas to avoid gear conflicts as well as for lobster conservation and they should be considered in the future.

Vessel Upgrades:
- Speaker disappointed that NMFS did not present a vessel upgrade restriction since it originated from fishermen.
- People can increase vessel size and increase their efficiency.
- Speaker asks NMFS to reconsider vessel upgrades, fishermen considered impacts when it was recommended.

Participating NMFS Staff:
C Harry Mears, and Bob Ross.

Other NMFS Officials Attending:
C Eugene Steady, Fishery Statistics, Toms River, NJ.
- Nicole Wesley, Fishery Statistics, Toms River, NJ.

Federal, state, and local government officials or their representatives:
C Bruce Freeman, Div. Of Fish and Wildlife, Dept. of Environmental Protection, Trenton, NJ.

Known Media Coverage:
C None

LOBSTER DEIS PUBLIC HEARING - SUMMARY OF COMMENTS

TOTAL ATTENDANCE: 29
NUMBER SPEAKERS:12

APPROXIMATE NUMBER OF SPEAKERS DISCUSSING SPECIFIC COMMENTS:
7 In general opposition to historic participation;
2 In general support of historic participation;

5 In opposition to historic participation in LCMA 3;
5 The 25000 pound landing requirement for Area 3 is too high;
1 In general support of historic participation in lobster Area 3;
3 In opposition to historic participation in LCMA 5;
2 Allow trap allocation to those who can't not meet the criteria for historic participation;
1 In opposition to a gauge increase as a management tool;
1 In opposition to trap caps or trap reductions;
5 Opposed to the NMFS Control Date of 3/25/91, and supported date starting in 1980;
1 In support of using state data to qualify fishermen for historic participation;
1 In support of vessel upgrade restrictions;
1 In support of Closed Areas;
1 Questions the science used to determine lobsters are overfished;
1 Opposed to having the ASMFC manage lobsters.

2. Lobster Management Area Coordinates and Chart

TODO - UPDATE FILE W/ NEW COORDINATES HERE

FEDERAL LOBSTER MANAGEMENT AREA LATITUDE/LONGITUDE COORDINATES

The following lobster management areas are established for purposes of implementing the management measures specified in the Code of Federal Regulations §697. Follow listed coordinates down and then across in the order stated. Current Federal lobster management measures can be found at the following NOAA Fisheries Northeast Region website: http://www.nero.noaa.gov.

■ **Nearshore Lobster Management Area 1.**

Nearshore Lobster Management Area 1 is defined by the area, including state and Federal waters that are nearshore in the Gulf of Maine, bounded by straight lines connecting the following points, in the order stated, and the coastline of Maine, New Hampshire, and Massachusetts to the northernmost point on Cape Cod:

Point	Latitude	Longitude	Point	Latitude	Longitude
A	43/58' N.	67/22' W.	G	42/05.5' N.	70/14' W.
B	43/41' N.	68/00' W.	G1	42/04.25' N.	70/17.22' W.
C	43/12' N.	69/00' W.	G2	42/02.84' N.	70/16.1' W.
D	42/49' N.	69/40' W.	G3	42/03.35' N.	70/14.2' W.
E	42/15.5' N.	69/40' W.			
F	42/10' N.	69/56' W.			

From point "G3" along the coastline of Massachusetts, New Hampshire, Maine, and the seaward EEZ boundary back to point A.

■ **Nearshore Lobster Management Area 2.**

Nearshore Lobster Management Area 2 is defined by the area, including state and Federal waters that are nearshore in Southern New England, bounded by straight lines connecting the following points, in the order stated:

Point	Latitude	Longitude	Point	Latitude	Longitude
H	41/40' N.	70/00' W.	N	40/45.5' N.	71/34' W.
I	41/15' N.	70/00' W.	O	41/07' N.	71/43' W.
J	41/21.5' N.	69/16' W.	P	41/06.5' N.	71/47' W.
K	41/10' N.	69/06.5' W.	Q	41/11'30" N.	71/47'15" W.
L	40/55' N.	68/54' W.	R	41/18'30" N.	71/54'30" W.
M	40/27.5' N.	72/14' W.			

From point "R" along the maritime boundary between Connecticut and Rhode Island to the coastal Connecticut/Rhode Island boundary and then back to point "H" along the Rhode Island and Massachusetts coast.

■ **Area 2/3 Overlap.**

The Area 2/3 Overlap is defined by the area, comprised entirely of Federal waters, bounded by straight lines connecting the following points, in the order stated:

Point	Latitude	Longitude	Point	Latitude	Longitude
K	41/10' N.	69/06.5' W.	M	40/27.5' N.	72/14' W.
L	40/55' N.	68/54' W.	N	40/45.5' N.	71/34' W.

■ **Offshore Management Area 3.**

Offshore Management Area 3 is defined by the area, comprised entirely of Federal waters, bounded by straight lines connecting the following points, in the order stated:

Point	Latitude	Longitude	Point	Latitude	Longitude
A	43/58' N.	67/22' W.	U	40/12.5' N.	72/48.5' W.
B	43/41' N.	68/00' W.	V	39/50' N.	73/01' W.
C	43/12' N.	69/00' W.	X	38/39.5' N.	73/40' W.
D	42/49' N.	69/40' W.	Y	38/12' N.	73/55' W.
E	42/15.5' N.	69/40' W.	Z	37/12' N.	74/44' W.
F	42/10' N.	69/56' W.	ZA	35/34' N.	74/51' W.
K	41/10' N.	69/06.5' W.	ZB	35/14.5' N.	75/31' W.
N	40/45.5' N.	71/34' W.	ZC	35/14.5' N.	71/24' W.
M	40/27.5' N.	72/14' W.			

From point "ZC" along the seaward EEZ boundary to point "A".

■ **Nearshore Lobster Management Area 4.**

Nearshore Lobster Management Area 4 is defined by the area, including state and Federal waters that are nearshore in the northern Mid-Atlantic, bounded by straight lines connecting the

following points, in the order stated:

Point	Latitude	Longitude
M	40/27.5' N.	72/14' W.
N	40/45.5' N.	71/34' W.
O	41/07' N.	71/43' W.
P	41/06.5' N.	71/47' W.

From Point "P", boundary follows the 3 mile limit of New York as it curves around Montauk Point to Point "S"

S	40/58' N.	72/00' W.
T	41/00.5' N.	72/00' W.

From Point "T", along the New York/New Jersey coast to Point "W"

W	39/50' N.	74/09' W.
V	39/50' N.	73/01' W.
U	40/12.5' N.	72/48.5' W.

From Point "U" back to Point "M".

■ **Nearshore Lobster Management Area 5.**

Nearshore Lobster Management Area 5 is defined by the area, including state and Federal waters that are nearshore in the southern Mid-Atlantic, bounded by straight lines connecting the following points, in the order stated:

Point	Latitude	Longitude	Point	Latitude	Longitude
W	39/50' N.	74/09' W.	Z	37/12' N.	74/44' W.
V	39/50' N.	73/01' W.	ZA	35/34' N.	74/51' W.
X	38/39.5' N.	73/40' W.	ZB	35/14.5' N.	75/31' W.
Y	38/12' N.	73/55' W.			

From Point "ZB" along the coasts of North Carolina, Virginia, Maryland, Delaware, New Jersey back to Point "W".

■ **Nearshore Lobster Management Area 6.**

The Nearshore Lobster Management Area 6 is defined by the area, including New York and Connecticut state waters, bounded by straight lines connecting the following points, in the order stated:

Point	Latitude	Longitude
T	41/00.5' N.	72/00' W.
S	40/58' N.	72/00' W.

From Point "S", boundary follows the 3 mile limit of New York as it curves around Montauk Point to Point "P"

P	41/06.5' N.	71/47' W.
Q	41/11'30" N.	71/47'15" W.
R	41/18'30" N.	71/54'30" W.

From point "R", along the maritime boundary between Connecticut and Rhode Island to the coast; then west along the coast of Connecticut to the western entrance of Long Island Sound; then east along the New York coast of Long Island Sound and back to Point "T".

■ **Nearshore Outer Cape Lobster Management Area.**

Nearshore Outer Cape Lobster Management Area is defined by the area, including state and Federal waters off Cape Cod, bounded by straight lines connecting the following points, in the order stated:

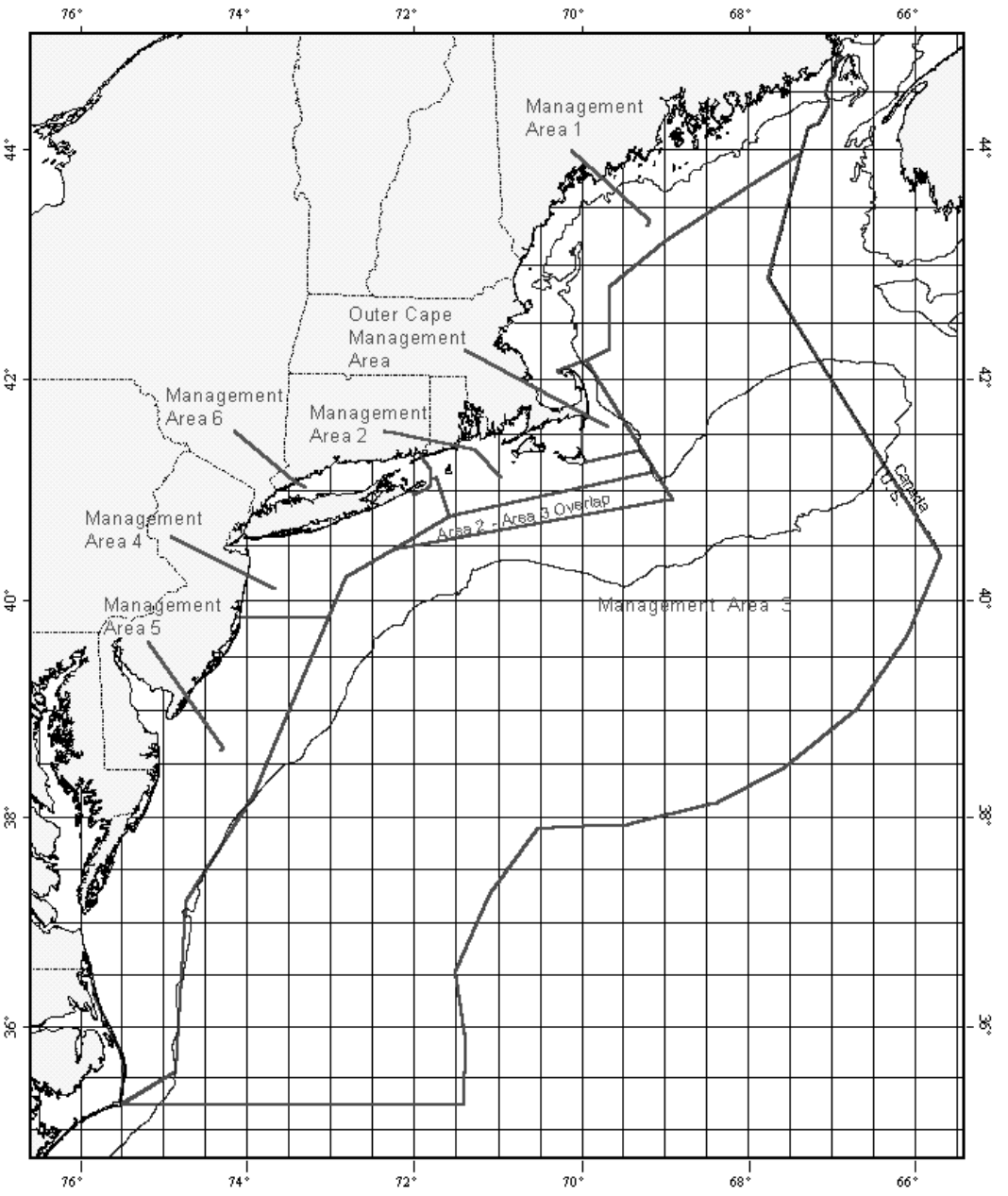
Point	Latitude	Longitude	Point	Latitude	Longitude
F	42/10' N.	69/56' W.	G2	42/02.84' N.	70/16.1' W.
G	42/05.5' N.	70/14' W.	G3	42/03.35' N.	70/14.2' W.
G1	42/04.25' N.	70/17.22' W.			

From Point G3 along the outer Cape Cod coast to Point H

H	41/40' N.	70/00' W.
I	41/15' N.	70/00' W.
J	41/21.5' N.	69/16' W.

From Point "J" back to Point "F".

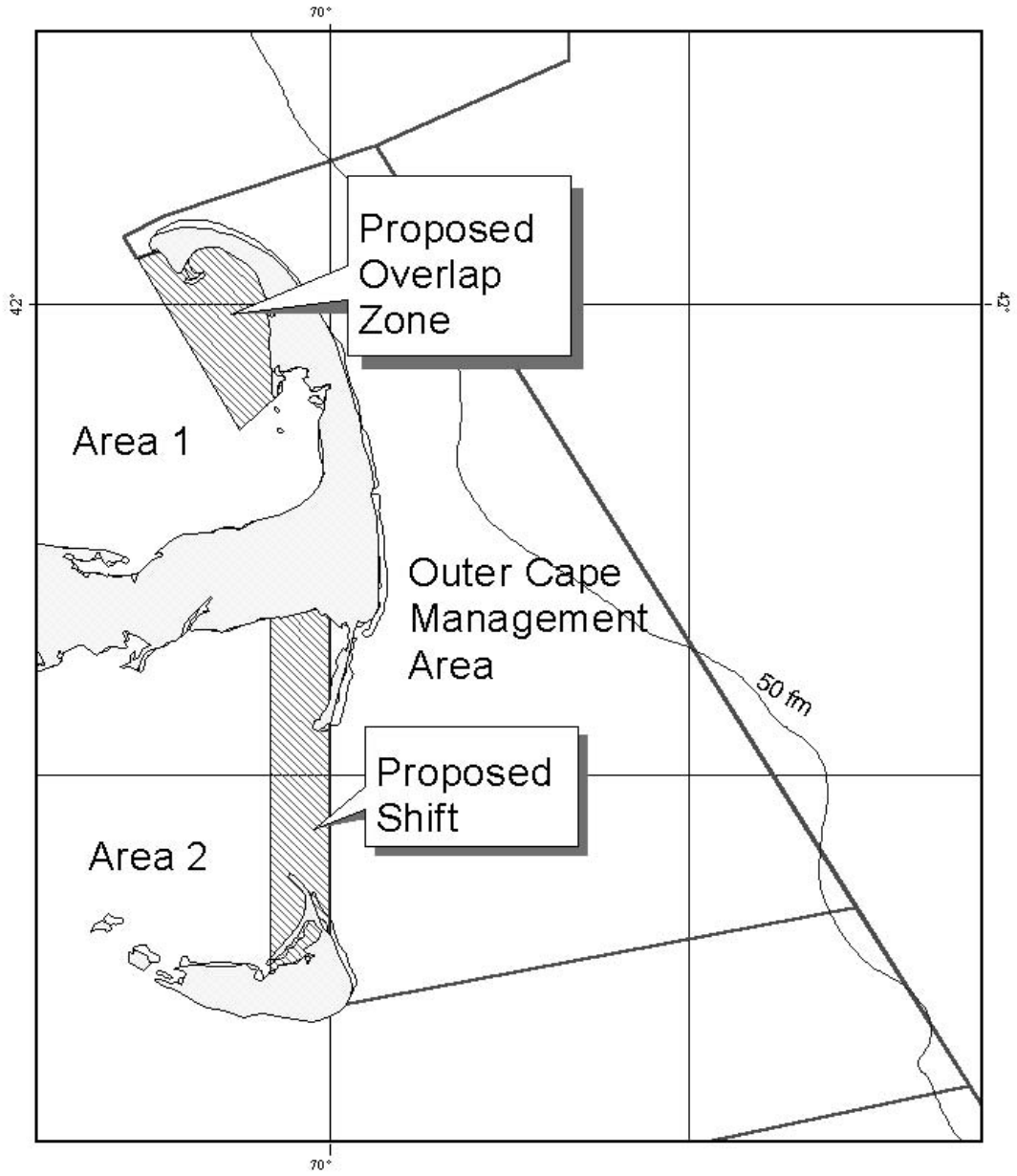
American Lobster Management Areas



NOAA Fisheries
Northeast Regional Office
Gloucester, MA

11/10/99

3. Lobster Management Area Boundary Clarification Chart



4. Communities Affected by Historic Participation Measures - Data Tables

Appendix: Communities - Table 1. List of Northeast Region Communities that are Engaged in The Lobster Fishery

State	Community/Place	County
AL	Bayou La Batre	Mobile
CT	Bridgeport*	Fairfield
CT	Darien	Fairfield
CT	Fairfield	Fairfield
CT	Greenwich	Fairfield
CT	Norwalk	Fairfield
CT	Stamford	Fairfield
CT	Stratford	Fairfield
CT	Westport	Fairfield
CT	West Hartford	Hartford
CT	Clinton	Middlesex
CT	Deep River	Middlesex
CT	East Haddam	Middlesex
CT	Old Saybrook	Middlesex
CT	Westbrook	Middlesex
CT	Branford	New Haven
CT	Derby	New Haven
CT	East Haven	New Haven
CT	Guilford	New Haven
CT	Hamden	New Haven
CT	Madison	New Haven
CT	Milford	New Haven
CT	New Haven	New Haven
CT	East Lyme	New London
CT	Groton*	New London
CT	Ledyard Center	New London
CT	Mystic	New London
CT	New London*	New London
CT	Noank	New London
CT	North Stonington	New London
CT	Norwich	New London
CT	Old Lyme	New London
CT	Pawcatuck	New London
CT	Stonington*	New London
CT	Waterford	New London
CT	North Grosvenor Dale	Windham
DE	Wilmington	New Castle
DE	Dagsboro	Sussex
DE	Ellendale	Sussex
DE	Frankford	Sussex

DE	Indian River Inlet*	Sussex
DE	Laurel	Sussex
DE	Lewes	Sussex
DE	Lincoln	Sussex
DE	Long Neck	Sussex
DE	Milford	Sussex
DE	Millsboro	Sussex
DE	Milton	Sussex
DE	Rehoboth Beach	Sussex
FL	Cape Canaveral	Brevard
FL	Merritt Island	Brevard
FL	Miami	Dade
FL	Marathon	Monroe
GA	Darien	Mcintosh
MA	Barnstable	Barnstable
MA	Bourne	Barnstable
MA	Brewster	Barnstable
MA	Buzzards Bay	Barnstable
MA	Chatham*	Barnstable
MA	Chatham Inlet	Barnstable
MA	Dennis	Barnstable
MA	East Dennis	Barnstable
MA	East Harwich	Barnstable
MA	East Sandwich	Barnstable
MA	Eastham	Barnstable
MA	Harwich	Barnstable
MA	Harwichport	Barnstable
MA	Hyannis*	Barnstable
MA	Marstons Mills	Barnstable
MA	Mashpee	Barnstable
MA	Monument Beach	Barnstable
MA	North Chatham	Barnstable
MA	North Truro	Barnstable
MA	Orleans	Barnstable
MA	Osterville	Barnstable
MA	Pocasset	Barnstable
MA	Provincetown*	Barnstable
MA	Sagamore	Barnstable
MA	Sandwich*	Barnstable
MA	Sesuit Harbor	Barnstable
MA	South Wellfleet	Barnstable
MA	South Chatham	Barnstable
MA	South Dennis	Barnstable
MA	South Orleans	Barnstable
MA	South Yarmouth	Barnstable

MA	Truro	Barnstable
MA	Wellfleet	Barnstable
MA	West Barnstable	Barnstable
MA	West Chatham	Barnstable
MA	West Dennis	Barnstable
MA	West Yarmouth	Barnstable
MA	Wianno	Barnstable
MA	Woods Hole	Barnstable
MA	Yarmouth	Barnstable
MA	Acushnet	Bristol
MA	Fairhaven*	Bristol
MA	Fall River	Bristol
MA	New Bedford*	Bristol
MA	North Dartmouth	Bristol
MA	Raynham	Bristol
MA	Somerset	Bristol
MA	South Dartmouth	Bristol
MA	South Easton	Bristol
MA	Swansea	Bristol
MA	Taunton	Bristol
MA	Westport*	Bristol
MA	Westport Point	Bristol
MA	Aquinnah	Dukes
MA	Chilmark	Dukes
MA	Cuttyhunk	Dukes
MA	Edgartown	Dukes
MA	Gosnold	Dukes
MA	Martha's Vineyard	Dukes
MA	Menemsha	Dukes
MA	Oak Bluffs	Dukes
MA	Tisbury	Dukes
MA	Vineyard Haven*	Dukes
MA	West Tisbury	Dukes
MA	Amesbury	Essex
MA	Andover	Essex
MA	Beverly	Essex
MA	Beverly Farms	Essex
MA	Byfield	Essex
MA	Danvers	Essex
MA	Essex	Essex
MA	Georgetown	Essex
MA	Gloucester*	Essex
MA	Hamilton	Essex
MA	Ipswich	Essex
MA	Lynn	Essex

MA	Magnolia	Essex
MA	Manchester	Essex
MA	Marblehead*	Essex
MA	Nahant	Essex
MA	Newburyport	Essex
MA	Peabody	Essex
MA	Pigeon Cove	Essex
MA	Plum Island	Essex
MA	Rockport*	Essex
MA	Rowley	Essex
MA	Salem	Essex
MA	Salisbury	Essex
MA	Saugus	Essex
MA	South Hamilton	Essex
MA	Swampscott	Essex
MA	West Newbury	Essex
MA	Belchertown	Hampshire
MA	Bedford	Middlesex
MA	Chelmsford Center	Middlesex
MA	Dracut	Middlesex
MA	Hudson	Middlesex
MA	Lowell	Middlesex
MA	Medford	Middlesex
MA	North Billerica	Middlesex
MA	North Chelmsford	Middlesex
MA	North Reading	Middlesex
MA	Tyngsboro	Middlesex
MA	Wakefield	Middlesex
MA	Waltham	Middlesex
MA	Winchester	Middlesex
MA	Woburn	Middlesex
MA	Nantucket	Nantucket
MA	Braintree	Norfolk
MA	Canton	Norfolk
MA	Cohasset	Norfolk
MA	Dover	Norfolk
MA	Holbrook	Norfolk
MA	Milton	Norfolk
MA	North Weymouth	Norfolk
MA	Quincy	Norfolk
MA	South Weymouth	Norfolk
MA	Stoughton	Norfolk
MA	Wellesley	Norfolk
MA	Westwood	Norfolk
MA	Weymouth	Norfolk

MA	Wrentham	Norfolk
MA	Brant Rock	Plymouth
MA	Carver	Plymouth
MA	Duxbury	Plymouth
MA	East Kingston	Plymouth
MA	Gorham	Plymouth
MA	Green Harbor	Plymouth
MA	Halifax	Plymouth
MA	Hanover	Plymouth
MA	Hanson	Plymouth
MA	Hingham	Plymouth
MA	Houghs Neck	Plymouth
MA	Hull	Plymouth
MA	Humarock	Plymouth
MA	Kingston	Plymouth
MA	Manomet	Plymouth
MA	Marion	Plymouth
MA	Marshfield	Plymouth
MA	Mattapoisett	Plymouth
MA	Middleboro	Plymouth
MA	North Marshfield	Plymouth
MA	North River	Plymouth
MA	North Scituate	Plymouth
MA	Norwell	Plymouth
MA	Ocean Bluff	Plymouth
MA	Onset	Plymouth
MA	Pembroke	Plymouth
MA	Plymouth*	Plymouth
MA	Plympton	Plymouth
MA	Rochester	Plymouth
MA	Rockland	Plymouth
MA	Scituate*	Plymouth
MA	Wareham	Plymouth
MA	Whitman	Plymouth
MA	Boston*	Suffolk
MA	Brighton	Suffolk
MA	Dorchester	Suffolk
MA	Point of Pines	Suffolk
MA	Revere	Suffolk
MA	South Boston	Suffolk
MA	Winthrop	Suffolk
MA	Auburn	Worcester
MA	Grafton	Worcester
MA	Hopedale	Worcester
MA	Northbridge	Worcester

MA	Princeton	Worcester
MA	Sterling	Worcester
MA	Whitinsville	Worcester
MD	Newark	Cecil
MD	Secretary	Dorchester
MD	Berlin	Worcester
MD	Newark	Worcester
MD	Ocean City†	Worcester
MD	West Ocean City	Worcester
ME	Durham	Andoscoggin
ME	Bailey Island	Cumberland
ME	Brunswick	Cumberland
ME	Cape Elizabeth	Cumberland
ME	Casco	Cumberland
ME	Casco Bay	Cumberland
ME	Chebeague Island	Cumberland
ME	Cliff Island	Cumberland
ME	Cumberland Center	Cumberland
ME	Cundys Harbor	Cumberland
ME	East Harpswell	Cumberland
ME	Falmouth	Cumberland
ME	Freeport	Cumberland
ME	Gorham	Cumberland
ME	Gray	Cumberland
ME	Great Diamond Island Landing	Cumberland
ME	Harpswell Center*	Cumberland
ME	Long Island	Cumberland
ME	Mackerel Cove	Cumberland
ME	North Yarmouth	Cumberland
ME	Orrs Island	Cumberland
ME	Pine Point	Cumberland
ME	Portland*	Cumberland
ME	Pownal	Cumberland
ME	Quahog Bay	Cumberland
ME	Scarborough	Cumberland
ME	Sebago	Cumberland
ME	South Freeport	Cumberland
ME	South Harpswell	Cumberland
ME	South Portland	Cumberland
ME	Westbrook	Cumberland
ME	Windham	Cumberland
ME	Yarmouth	Cumberland
ME	Bar Harbor	Hancock
ME	Bass Harbor	Hancock
ME	Bernard	Hancock

ME	Birch Harbor	Hancock
ME	Blue Hill	Hancock
ME	Brooklin	Hancock
ME	Brooksville	Hancock
ME	Bunkers Harbor	Hancock
ME	Burnt Coat Harbor	Hancock
ME	Cape Rosier	Hancock
ME	Corea	Hancock
ME	Cranberry Isles	Hancock
ME	Deer Isle*	Hancock
ME	Ellsworth	Hancock
ME	Franklin	Hancock
ME	Frenchboro	Hancock
ME	Goose Cove	Hancock
ME	Gouldsboro	Hancock
ME	Harborside	Hancock
ME	Hulls Cove	Hancock
ME	Islesford	Hancock
ME	Lamoine	Hancock
ME	Lunt Harbor	Hancock
ME	Manset	Hancock
ME	Mount Desert	Hancock
ME	North Brooklin	Hancock
ME	Northeast Harbor	Hancock
ME	Oceanville	Hancock
ME	Prospect Harbor	Hancock
ME	Salsbury Cove	Hancock
ME	Seal Cove	Hancock
ME	Seal Harbor	Hancock
ME	Sorrento	Hancock
ME	South Gouldsboro	Hancock
ME	Southeast Harbor	Hancock
ME	Southwest Harbor	Hancock
ME	Stonington*	Hancock
ME	Sunset	Hancock
ME	Sunshine	Hancock
ME	Surry	Hancock
ME	Swans Island	Hancock
ME	Trenton	Hancock
ME	West Tremont	Hancock
ME	Winter Harbor	Hancock
ME	Wonsqueak Harbor	Hancock
ME	Mosquito Harbor	Hancock
ME	Camden	Knox
ME	Carvers Harbor	Knox

ME	Criehaven	Knox
ME	Cushing	Knox
ME	East Friendship	Knox
ME	Friendship	Knox
ME	Great Pond Island	Knox
ME	Isle Au Haut	Knox
ME	Martinsville	Knox
ME	Matinicus	Knox
ME	Owls Head	Knox
ME	Pleasant Point	Knox
ME	Port Clyde	Knox
ME	Rockland*	Knox
ME	Rockport	Knox
ME	Saint George	Knox
ME	South Thomaston	Knox
ME	Spruce Head	Knox
ME	Tenants Harbor	Knox
ME	Thomaston	Knox
ME	Vinalhaven*	Knox
ME	Warren	Knox
ME	Wheeler Bay	Knox
ME	Boothbay	Lincoln
ME	Boothbay Harbor*	Lincoln
ME	Bremen	Lincoln
ME	Bristol	Lincoln
ME	Damariscotta	Lincoln
ME	East Boothbay	Lincoln
ME	Edgecomb	Lincoln
ME	Medomak	Lincoln
ME	Monhegan	Lincoln
ME	New Castle	Lincoln
ME	New Harbor	Lincoln
ME	Newagen	Lincoln
ME	Nobleboro	Lincoln
ME	Pemaquid	Lincoln
ME	Pemaquid Harbor	Lincoln
ME	Round Pond	Lincoln
ME	South Bristol*	Lincoln
ME	Southport	Lincoln
ME	Trevett	Lincoln
ME	Waldoboro	Lincoln
ME	Walpole	Lincoln
ME	West Boothbay Harbor	Lincoln
ME	West Southport	Lincoln
ME	Westport	Lincoln

ME	Whitefield	Lincoln
ME	Denmark	Oxford
ME	Arrowsic	Sagadahoc
ME	Bath	Sagadahoc
ME	Bay Point	Sagadahoc
ME	Five Islands	Sagadahoc
ME	Georgetown*	Sagadahoc
ME	Hermit Island	Sagadahoc
ME	Phippsburg*	Sagadahoc
ME	Popham Beach	Sagadahoc
ME	Sebasco	Sagadahoc
ME	Sebasco Estates	Sagadahoc
ME	Small Point	Sagadahoc
ME	Small Point Harbor	Sagadahoc
ME	Topsham	Sagadahoc
ME	West Bath	Sagadahoc
ME	West Point	Sagadahoc
ME	Athens	Somerset
ME	Poverty Knob	Unk
ME	West Point Phippsburg	Unk
ME	Belfast	Waldo
ME	Stockton Springs	Waldo
ME	Addison	Washington
ME	Beals*	Washington
ME	Bucks Harbor	Washington
ME	Columbia	Washington
ME	Columbia Falls	Washington
ME	Cutler*	Washington
ME	Dennysville	Washington
ME	East Machias	Washington
ME	Eastern Harbor*	Washington
ME	Eastport*	Washington
ME	Edmunds	Washington
ME	Harrington	Washington
ME	Jonesboro	Washington
ME	Jonesport	Washington
ME	Lubec*	Washington
ME	Machias	Washington
ME	Machiasport	Washington
ME	Meddybemps	Washington
ME	Milbridge	Washington
ME	Perry	Washington
ME	Pigeon Hill Bay	Washington
ME	Pigeon Hill	Washington
ME	Pleasant Point	Washington

ME	Roque Bluffs	Washington
ME	South Addison	Washington
ME	Steuben	Washington
ME	Trescott	Washington
ME	West Jonesport	Washington
ME	Arundel	York
ME	Biddeford	York
ME	Biddeford Pool	York
ME	Buxton	York
ME	Camp Ellis	York
ME	Cape Neddick	York
ME	Cape Poroise Harbor*	York
ME	Cape Porpoise	York
ME	Dayton	York
ME	Eliot	York
ME	Kennebunk	York
ME	Kennebunkport*	York
ME	Kittery	York
ME	Kittery Point	York
ME	North Berwick	York
ME	Ocean Park	York
ME	Ogunquit	York
ME	Old Orchard Beach	York
ME	Perkins Cove	York
ME	Saco	York
ME	South Berwick	York
ME	Wells	York
ME	West Buxton	York
ME	West Kennebunk	York
ME	York	York
ME	York Beach	York
ME	York Harbor	York
NC	Aurora	Beaufort
NC	Belhaven†	Beaufort
NC	Atlantic	Carteret
NC	Beaufort	Carteret
NC	Newport	Carteret
NC	Salter Path	Carteret
NC	New Bern	Craven
NC	Manns Harbor	Dare
NC	Manteo	Dare
NC	Wanchese†	Dare
NC	Scranton	Hyde
NC	Swanquarter	Hyde
NC	Bayboro	Pamlico

NC	Lowland	Pamlico
NC	Vandemere	Pamlico
NC	Elizabeth City	Pasquotank
NH	Gilford	Belknap
NH	Whitefield	Coos
NH	East Kingston	Rockingham
NH	Epping	Rockingham
NH	Exeter	Rockingham
NH	Greenland	Rockingham
NH	Hampton*	Rockingham
NH	Hampton Beach	Rockingham
NH	Hampton Falls	Rockingham
NH	Hampton Harbor	Rockingham
NH	Kensington	Rockingham
NH	Kingston	Rockingham
NH	New Castle	Rockingham
NH	Newington	Rockingham
NH	North Hampton	Rockingham
NH	Portsmouth*	Rockingham
NH	Raymond	Rockingham
NH	Rye	Rockingham
NH	Seabrook*	Rockingham
NH	Stratham	Rockingham
NH	Dover	Strafford
NJ	Absecon	Atlantic
NJ	Atlantic City†	Atlantic
NJ	Brigantine	Atlantic
NJ	Egg Harbor Township	Atlantic
NJ	Somers Point	Atlantic
NJ	Allendale	Bergen
NJ	Englewood	Bergen
NJ	Marlton	Burlington
NJ	Medford Lakes	Burlington
NJ	Blue Anchor	Camden
NJ	Gloucester City	Camden
NJ	Jackson	Camden
NJ	Cape May†	Cape May
NJ	Cape May Court House	Cape May
NJ	Eldora	Cape May
NJ	Erma	Cape May
NJ	Middletown	Cape May
NJ	North Cape May	Cape May
NJ	Ocean View	Cape May
NJ	Rio Grande	Cape May
NJ	Sea Isle City†	Cape May

NJ	Seaville	Cape May
NJ	Wildwood†	Cape May
NJ	Wildwood Crest	Cape May
NJ	Woodbine	Cape May
NJ	West Caldwell	Essex
NJ	Red Bank	Gloucester
NJ	Kearney	Hudson
NJ	East Brunswick	Middlesex
NJ	Old Bridge	Middlesex
NJ	Spotswood	Middlesex
NJ	Atlantic Highlands	Monmouth
NJ	Belford†	Monmouth
NJ	Belmar	Monmouth
NJ	Bradley Beach	Monmouth
NJ	Brielle	Monmouth
NJ	Fair Haven	Monmouth
NJ	Hamilton	Monmouth
NJ	Hazlet	Monmouth
NJ	Highlands	Monmouth
NJ	Howell	Monmouth
NJ	Keansburg	Monmouth
NJ	Leonardo	Monmouth
NJ	Manasquan	Monmouth
NJ	Middletown	Monmouth
NJ	Neptune	Monmouth
NJ	North Middletown	Monmouth
NJ	Port Monmouth	Monmouth
NJ	Red Bank	Monmouth
NJ	Sea Bright	Monmouth
NJ	Shark River Inlet	Monmouth
NJ	Union Beach	Monmouth
NJ	Wall	Monmouth
NJ	West Keansburg	Monmouth
NJ	Lake Hiawathia	Morris
NJ	Middletown	Morris
NJ	Barnegat	Ocean
NJ	Barnegat Light†	Ocean
NJ	Bay Head	Ocean
NJ	Bricktown	Ocean
NJ	Forked River	Ocean
NJ	Lakewood	Ocean
NJ	Little Egg Harbor	Ocean
NJ	Long Beach/Barnegat Light†	Ocean
NJ	Mystic Islands	Ocean
NJ	Point Pleasant†	Ocean

NJ	Point Pleasant Beach†	Ocean
NJ	Ship Bottom	Ocean
NJ	Surf City	Ocean
NJ	Toms River	Ocean
NJ	Tuckerton	Ocean
NJ	Waretown	Ocean
NJ	West Creek	Ocean
NJ	Hamilton	Somerset
NJ	Hillsborough	Somerset
NJ	Point Pleasant	Sussex
NJ	Frick	Unk
NJ	Townbank	Unk
NY	Brooklyn	Cattaraugus
NY	Oakdale	Columbia
NY	Brooklyn	Delaware
NY	Baldwin	Essex
NY	Sheepshead Bay	Kings
NY	Atlantic Beach	Nassau
NY	Baldwin	Nassau
NY	Bayville	Nassau
NY	East Rockaway	Nassau
NY	Fox Point	Nassau
NY	Franklin Square	Nassau
NY	Freeport†	Nassau
NY	Glen Cove	Nassau
NY	Hewlett	Nassau
NY	Island Park	Nassau
NY	Merrick	Nassau
NY	Point Lookout†	Nassau
NY	Port Washington	Nassau
NY	Seaford	Nassau
NY	Wantagh	Nassau
NY	Woodbury	Nassau
NY	New York	New York
NY	Woodbury	Orange
NY	Astoria	Queens
NY	Rockaway Park	Queens
NY	Staten Island	Richmond
NY	Amagansett†	Suffolk
NY	Amity Harbor	Suffolk
NY	Babylon	Suffolk
NY	Bayshore	Suffolk
NY	Cutchogue	Suffolk
NY	Dix Hills	Suffolk
NY	East Hampton	Suffolk

NY	East Islip	Suffolk
NY	East Quogue	Suffolk
NY	Greenlawn	Suffolk
NY	Greenport†	Suffolk
NY	Hampton Bay	Suffolk
NY	Hampton Bays†	Suffolk
NY	Huntington Station	Suffolk
NY	Islip	Suffolk
NY	Lake Grove	Suffolk
NY	Long Island	Suffolk
NY	Manorville	Suffolk
NY	Mastic Beach	Suffolk
NY	Mattituck†	Suffolk
NY	Miller Place	Suffolk
NY	Montauk†	Suffolk
NY	Mount Sinai	Suffolk
NY	Northport	Suffolk
NY	Oakdale	Suffolk
NY	Orient Point	Suffolk
NY	Port Jefferson	Suffolk
NY	Riverhead	Suffolk
NY	Setauket Harbor	Suffolk
NY	Shelter Island	Suffolk
NY	Shinnecock†	Suffolk
NY	Southampton	Suffolk
NY	Three Mile Harbor†	Suffolk
NY	West Sayville	Suffolk
NY	Westhampton	Suffolk
NY	Waverly	Tioga
NY	Manorville	Ulster
NY	Holliswood	Unk
NY	Lironkonkoma	Unk
NY	Rockville Center	Unk
NY	Hampton	Washington
NY	Waverly	Westchester
NY	Yonkers	Westchester
PA	Aldan	Delaware
PA	Huntingdon Valley	Montgomery
PA	Philadelphia	Philadelphia
RI	Barrington	Bristol
RI	Bristol	Bristol
RI	Warren	Bristol
RI	Coventry	Kent
RI	East Greenwich	Kent
RI	Warwick	Kent

RI	West Warwick	Kent
RI	Adamsville	Newport
RI	Jamestown*	Newport
RI	Little Compton	Newport
RI	Middletown	Newport
RI	Newport*	Newport
RI	Portsmouth	Newport
RI	Sakonnet*	Newport
RI	Tiverton*	Newport
RI	Cranston	Providence
RI	North Scituate	Providence
RI	Providence	Providence
RI	Allen Harbor	Washington
RI	Ashaway	Washington
RI	Block Island	Washington
RI	Bradford	Washington
RI	Charlestown	Washington
RI	Exeter	Washington
RI	Galilee*	Washington
RI	Jerusalem	Washington
RI	Kenyon	Washington
RI	Kingston	Washington
RI	Narragansett	Washington
RI	New Shoreham	Washington
RI	North Kingston	Washington
RI	North Kingstown	Washington
RI	Peace Dale	Washington
RI	Point Judith*	Washington
RI	Saunderstown	Washington
RI	Slocum	Washington
RI	Snug Harbor	Washington
RI	South Kingstown	Washington
RI	Wakefield	Washington
RI	West Kingston	Washington
RI	West Kingstown	Washington
RI	Westerly	Washington
RI	Wickford	Washington
SC	Saint Helena Island	Beaufort
VA	Bloxom	Accomack
VA	Chincoteague†	Accomack
VA	Parksley	Accomack
VA	Gloucester	Gloucester
VA	Hampton†	Hampton (City)
VA	Carrollton	Isle of Wight
VA	Grafton	Middlesex

VA	Newport News†	Newport News (City)
VA	Norfolk	Norfolk (City)
VA	Cheriton	Northampton
VA	Oyster†	Northampton
VA	Poquoson	Poquoson (City)
VA	Suffolk	Suffolk (City)
VA	Virginia Beach†	Virginia Beach (City)
VA	Grafton	York
VA	Seaford†	York
WA	Seattle	King
WA	Lynnwood	Snohomish

* Denotes community that was profiled in Hall-Arber et. al. (2001)
† Denotes community that was profiled in McCay and Cieri (2000)

Appendix: Communities - Table 2. Summary of Community Engagement in Lobster Harvesting (NMFS 1999 Dealer Data)

State	Community/Place	County	Vessels that Landed Lobster	Percent of Total Number of Vessels	Total Port Landed Value ($1,000)	Total Port Landed Value of Lobster ($)	Percent of Total Port Landings Value	Percent of Total Landed Value for Lobster Vessels
MA	Chatham	Barnstable	8	3.9%	9,184.9	5,917	0.1%	0.4%
MA	Harwichport	Barnstable	1	0.6%	4,031.5	C	C	C
MA	Provincetown	Barnstable	25	25.8%	3,509.2	37,572	1.1%	1.6%
MA	Sandwich	Barnstable	9	25.7%	3,744.8	1,632,616	43.6%	67.8%
MA	Fall River	Bristol	3	60.0%	6,470.9	C	C	C
MA	New Bedford	Bristol	132	29.8%	129,369.5	4,226,135	3.3%	8.4%
MA	Westport	Bristol	10	41.7%	1,700.3	975,345	57.4%	63.7%
MA	Gloucester	Essex	114	31.1%	25,239.3	637,033	2.5%	4.0%
MA	Marblehead	Essex	5	21.7%	349.7	11,042	3.2%	5.0%
MA	Newburyport	Essex	6	28.6%	322.1	11,211	3.5%	5.0%
MA	Rockport	Essex	1	5.0%	287.8	C	C	C
MA	Nantucket	Nantucket	1	3.0%	509.0	C	C	C
MA	Plymouth	Plymouth	4	7.4%	970.4	1,748	0.2%	2.2%
MA	Scituate	Plymouth	18	18.9%	2,088.9	47,473	2.3%	7.9%
MA	Boston	Suffolk	19	44.2%	9,395.0	316,148	3.4%	3.8%
MD	Ocean City	Worcester	17	30.9%	6,127.5	69,594	1.1%	5.5%
ME	Bailey Island	Cumberland	1	25.0%	737.6	C	C	C
ME	Cundys Harbor	Cumberland	1	5.0%	643.5	C	C	C
ME	East Harpswell	Cumberland	1	5.3%	348.9	C	C	C
ME	Freeport	Cumberland	1	100.0%	C	C	C	C
ME	Portland	Cumberland	4	2.6%	22,130.5	591,082	2.7%	29.7%
ME	South Harpswell	Cumberland	1	100.0%	C	C	C	C
ME	Yarmouth	Cumberland	1	100.0%	C	C	C	C
ME	Southwest Harbor	Hancock	1	3.8%	1,104.5	C	C	C
ME	Tenants Harbor	Knox	1	50.0%	C	C	C	C
ME	Boothbay Harbor	Lincoln	1	4.3%	779.9	C	C	C
ME	Bremen	Lincoln	1	25.0%	214.4	C	C	C
ME	East Boothbay	Lincoln	1	100.0%	C	C	C	C
ME	Medomak	Lincoln	1	100.0%	C	C	C	C
ME	New Harbor	Lincoln	1	7.7%	610.1	C	C	C
ME	Pemaquid	Lincoln	1	14.3%	340.5	C	C	C
ME	South Bristol	Lincoln	1	2.2%	2,104.0	C	C	C

ME	Five Islands	Sagadahoc	2	28.6%	223.7	C	C	C
ME	Hermit Island	Sagadahoc	1	50.0%	C	C	C	C
ME	West Point	Sagadahoc	2	7.4%	407.5	C	C	C
ME	Biddeford Pool	York	1	33.3%	91.0	C	C	C
ME	Kennebunkport	York	1	3.7%	540.8	C	C	C
ME	Kittery	York	2	15.4%	689.5	C	C	C
ME	York	York	1	7.7%	293.8	C	C	C
ME	York Harbor	York	10	58.8%	410.8	145,373	35.4%	79.8%
NH	Hampton/seabrook	Rockingham	26	42.6%	1,540.0	233,606	15.2%	23.7%
NH	Portsmouth	Rockingham	5	7.7%	3,854.7	3,385	0.1%	1.3%
NJ	Atlantic City	Atlantic	4	12.9%	20,011.7	11,510	0.1%	26.4%
NJ	Cape May	Cape May	12	9.3%	22,282.5	585,231	2.6%	24.0%
NJ	Sea Isle City	Cape May	5	38.5%	1,633.4	128,351	7.9%	24.9%
NJ	Wildwood	Cape May	4	19.0%	4,244.3	7,233	0.2%	2.7%
NJ	Belford	Monmouth	23	54.8%	2,837.2	796,925	28.1%	33.2%
NJ	Belmar	Monmouth	2	66.7%	C	C	C	C
NJ	Highlands	Monmouth	4	100.0%	332.4	330,429	99.4%	99.4%
NJ	Neptune	Monmouth	13	56.5%	923.9	846,181	91.6%	97.4%
NJ	Barnegat Light	Ocean	1	1.6%	11,881.2	C	C	C
NJ	Point Pleasant	Ocean	30	24.8%	17,244.7	900,354	5.2%	18.1%
NY	Freeport	Nassau	7	15.9%	1,392.4	44,015	3.2%	27.3%
NY	Hampton Bay	Suffolk	13	16.0%	8,313.5	44,760	0.5%	2.3%
NY	Mattituck	Suffolk	1	11.1%	75.7	C	C	C
NY	Montauk	Suffolk	28	15.3%	12,020.6	261,851	2.2%	14.5%
RI	Jamestown	Newport	5	71.4%	239.6	233,528	97.5%	100.0%
RI	Little Compton	Newport	1	5.9%	1,640.5	C	C	C
RI	Newport	Newport	31	40.3%	7,367.1	2,119,093	28.8%	36.2%
RI	Portsmouth	Newport	4	50.0%	711.9	73,912	10.4%	75.1%
RI	Tiverton	Newport	27	67.5%	2,526.6	445,729	17.6%	20.0%
RI	New Shoreham	Washington	4	30.8%	96.5	35,384	36.7%	100.0%
RI	North Kingstown	Washington	7	33.3%	6,214.2	57,070	0.9%	53.3%
RI	Point Judith	Washington	106	44.5%	43,157.7	12,962,392	30.0%	56.1%
RI	South Kingstown	Washington	3	50.0%	123.9	C	C	C
VA	Chincoteague	Accomac	2	4.1%	1,933.5	C	C	C
VA	Hampton	City of Hampton	8	13.3%	8,608.1	25,466	0.3%	2.1%
VA	Newport News	City of Newport News	1	1.4%	19,190.0	C	C	C

Appendix: Communities - Table 3. Summary of Communities Engaged in the Lobster Fishery by Home Port, Principal Port, and Mailing Address

State	Community/Place	County	Number of Permitted Lobster Vessels by Home Port	Percent of Total Home Port Vessels	Number of Permitted Lobster Vessels by Principal Port	Percent of Total Principal Port Vessels	Number of Permitted Lobster Vessels by Address	Percent of Total Address Vessels
AL	Bayou La Batre	Mobile	1	100.0%	0	0.0%	0	0.0%
CT	Bridgeport	Fairfield	3	60.0%	2	66.7%	2	100.0%
CT	Norwich	Fairfield	0	0.0%	0	0.0%	1	50.0%
CT	West Hartford	Hartford	0	0.0%	0	0.0%	1	50.0%
CT	Clinton	Middlesex	0	0.0%	0	0.0%	1	100.0%
CT	Deep River	Middlesex	0	0.0%	0	0.0%	1	50.0%
CT	East Haddam	Middlesex	0	0.0%	0	0.0%	1	100.0%
CT	Old Saybrook	Middlesex	1	33.3%	1	25.0%	0	0.0%
CT	Guilford	New Haven	1	100.0%	0	0.0%	0	0.0%
CT	Hamden	New Haven	0	0.0%	0	0.0%	1	100.0%
CT	Groton	New London	6	66.7%	6	66.7%	2	50.0%
CT	Ledyard Center	New London	1	100.0%	0	0.0%	1	100.0%
CT	Mystic	New London	0	0.0%	0	0.0%	7	100.0%
CT	New London	New London	5	33.3%	5	27.8%	2	50.0%
CT	Noank	New London	6	66.7%	7	70.0%	4	66.7%
CT	North Stonington	New London	0	0.0%	0	0.0%	1	100.0%
CT	Pawcatuck	New London	0	0.0%	0	0.0%	6	85.7%
CT	Stonington	New London	17	94.4%	22	95.7%	8	80.0%
CT	Waterford	New London	0	0.0%	0	0.0%	1	12.5%
CT	North Grosvenor Dale	Windham	0	0.0%	0	0.0%	1	100.0%
DE	Wilmington	New Castle	3	42.9%	0	0.0%	1	50.0%
DE	Dagsboro	Sussex	1	100.0%	1	100.0%	2	100.0%
DE	Ellendale	Sussex	0	0.0%	0	0.0%	1	100.0%
DE	Frankford	Sussex	0	0.0%	0	0.0%	1	100.0%
DE	Indian River Inlet	Sussex	3	75.0%	4	100.0%	0	0.0%
DE	Laurel	Sussex	0	0.0%	0	0.0%	2	100.0%
DE	Lewes	Sussex	3	33.3%	2	25.0%	2	66.7%
DE	Lincoln	Sussex	2	100.0%	0	0.0%	0	0.0%
DE	Long Neck	Sussex	1	100.0%	0	0.0%	0	0.0%
DE	Milford	Sussex	2	50.0%	1	33.3%	5	55.6%
DE	Millsboro	Sussex	0	0.0%	0	0.0%	2	40.0%

DE	Milton	Sussex	0	0.0%	0	0.0%	1	100.0%
DE	Rehoboth Beach	Sussex	1	100.0%	1	100.0%	1	33.3%
FL	Cape Canaveral	Brevard	0	0.0%	1	5.9%	0	0.0%
FL	Merritt Island	Brevard	0	0.0%	0	0.0%	1	25.0%
FL	Miami	Dade	2	33.3%	0	0.0%	0	0.0%
FL	Marathon	Monroe	1	50.0%	0	0.0%	0	0.0%
GA	Darien	Mcintosh	0	0.0%	1	50.0%	1	50.0%
MA	Barnstable	Barnstable	5	33.3%	5	31.3%	2	33.3%
MA	Bourne	Barnstable	0	0.0%	0	0.0%	1	33.3%
MA	Brewster	Barnstable	0	0.0%	0	0.0%	3	17.6%
MA	Buzzards Bay	Barnstable	1	50.0%	1	50.0%	3	60.0%
MA	Chatham	Barnstable	43	33.1%	44	29.9%	15	31.9%
MA	Chatham Inlet	Barnstable	0	0.0%	1	100.0%	0	0.0%
MA	Dennis	Barnstable	6	33.3%	5	31.3%	3	25.0%
MA	East Dennis	Barnstable	3	33.3%	3	30.0%	2	33.3%
MA	East Harwich	Barnstable	0	0.0%	0	0.0%	2	50.0%
MA	East Sandwich	Barnstable	1	50.0%	1	50.0%	4	44.4%
MA	Eastham	Barnstable	2	20.0%	0	0.0%	5	35.7%
MA	Harwich	Barnstable	7	11.7%	8	10.1%	6	18.8%
MA	Hyannis	Barnstable	6	35.3%	6	33.3%	3	27.3%
MA	Marstons Mills	Barnstable	0	0.0%	0	0.0%	2	25.0%
MA	Mashpee	Barnstable	1	100.0%	1	100.0%	1	100.0%
MA	Monument Beach	Barnstable	0	0.0%	0	0.0%	1	100.0%
MA	North Chatham	Barnstable	0	0.0%	0	0.0%	4	28.6%
MA	North Truro	Barnstable	0	0.0%	0	0.0%	4	50.0%
MA	Orleans	Barnstable	12	29.3%	12	32.4%	8	38.1%
MA	Pocasset	Barnstable	1	100.0%	1	100.0%	1	50.0%
MA	Quincy	Barnstable	2	50.0%	2	66.7%	8	100.0%
MA	Sagamore	Barnstable	2	100.0%	0	0.0%	3	100.0%
MA	Sandwich	Barnstable	16	55.2%	18	56.3%	5	55.6%
MA	Sesuit Harbor	Barnstable	0	0.0%	1	100.0%	0	0.0%
MA	South Chatham	Barnstable	0	0.0%	0	0.0%	5	29.4%
MA	South Dennis	Barnstable	0	0.0%	0	0.0%	3	33.3%
MA	South Orleans	Barnstable	0	0.0%	0	0.0%	6	42.9%
MA	Truro	Barnstable	1	16.7%	1	20.0%	4	30.8%
MA	Wellfleet	Barnstable	2	25.0%	0	0.0%	2	28.6%
MA	West Barnstable	Barnstable	1	50.0%	0	0.0%	2	25.0%
MA	West Chatham	Barnstable	0	0.0%	0	0.0%	10	43.5%

MA	West Dennis	Barnstable	0	0.0%	0	0.0%	1	50.0%
MA	West Yarmouth	Barnstable	0	0.0%	0	0.0%	2	22.2%
MA	Woods Hole	Barnstable	4	50.0%	4	57.1%	3	75.0%
MA	Yarmouth	Barnstable	0	0.0%	0	0.0%	2	25.0%
MA	Acushnet	Bristol	0	0.0%	0	0.0%	4	100.0%
MA	Fairhaven	Bristol	34	66.7%	34	68.0%	48	73.8%
MA	Fall River	Bristol	2	33.3%	0	0.0%	2	25.0%
MA	New Bedford	Bristol	167	79.5%	179	79.2%	132	87.4%
MA	North Dartmouth	Bristol	0	0.0%	0	0.0%	6	54.5%
MA	Revere	Bristol	1	100.0%	2	66.7%	4	57.1%
MA	Somerset	Bristol	0	0.0%	0	0.0%	1	50.0%
MA	South Dartmouth	Bristol	3	50.0%	3	42.9%	8	66.7%
MA	South Easton	Bristol	0	0.0%	0	0.0%	1	100.0%
MA	Swansea	Bristol	0	0.0%	0	0.0%	1	50.0%
MA	Taunton	Bristol	0	0.0%	0	0.0%	1	14.3%
MA	Westport	Bristol	31	68.9%	29	67.4%	32	78.0%
MA	Westport Point	Bristol	3	100.0%	2	100.0%	0	0.0%
MA	Aquinnah	Dukes	1	100.0%	0	0.0%	0	0.0%
MA	Chilmark	Dukes	7	100.0%	6	85.7%	14	93.3%
MA	Cuttyhunk	Dukes	2	100.0%	1	100.0%	0	0.0%
MA	Edgartown	Dukes	4	66.7%	4	80.0%	4	57.1%
MA	Gosnold	Dukes	0	0.0%	0	0.0%	1	100.0%
MA	Martha's Vineyard	Dukes	0	0.0%	0	0.0%	1	100.0%
MA	Menemsha	Dukes	11	84.6%	15	88.2%	2	66.7%
MA	Oak Bluffs	Dukes	4	66.7%	4	80.0%	3	100.0%
MA	Tisbury	Dukes	0	0.0%	0	0.0%	1	100.0%
MA	Vineyard Haven	Dukes	5	83.3%	2	66.7%	6	85.7%
MA	West Tisbury	Dukes	0	0.0%	0	0.0%	1	100.0%
MA	Amesbury	Essex	0	0.0%	0	0.0%	2	100.0%
MA	Andover	Essex	0	0.0%	0	0.0%	1	100.0%
MA	Beverly	Essex	22	62.9%	23	65.7%	17	60.7%
MA	Beverly Farms	Essex	0	0.0%	0	0.0%	1	100.0%
MA	Byfield	Essex	0	0.0%	0	0.0%	2	100.0%
MA	Danvers	Essex	2	25.0%	2	28.6%	8	72.7%
MA	Essex	Essex	1	50.0%	1	100.0%	5	62.5%
MA	Georgetown	Essex	1	100.0%	0	0.0%	4	100.0%
MA	Gloucester	Essex	172	64.2%	186	63.9%	129	62.9%
MA	Hamilton	Essex	0	0.0%	0	0.0%	2	66.7%

MA	Ipswich	Essex	5	55.6%	5	62.5%	8	66.7%
MA	Lynn	Essex	3	21.4%	2	16.7%	4	33.3%
MA	Magnolia	Essex	0	0.0%	0	0.0%	2	66.7%
MA	Manchester	Essex	9	64.3%	7	70.0%	10	100.0%
MA	Marblehead	Essex	20	87.0%	18	85.7%	15	75.0%
MA	Nahant	Essex	7	100.0%	6	100.0%	10	100.0%
MA	Newburyport	Essex	14	29.2%	17	28.8%	10	27.0%
MA	Peabody	Essex	0	0.0%	0	0.0%	2	33.3%
MA	Pigeon Cove	Essex	9	90.0%	9	90.0%	1	100.0%
MA	Plum Island	Essex	1	100.0%	1	100.0%	0	0.0%
MA	Rowley	Essex	0	0.0%	1	25.0%	0	0.0%
MA	S Wellfleet	Essex	0	0.0%	0	0.0%	1	100.0%
MA	Salem	Essex	7	70.0%	2	40.0%	14	82.4%
MA	Salisbury	Essex	5	25.0%	4	20.0%	4	40.0%
MA	Saugus	Essex	8	80.0%	8	80.0%	7	70.0%
MA	South Hamilton	Essex	0	0.0%	0	0.0%	1	100.0%
MA	Swampscott	Essex	9	81.8%	7	77.8%	11	91.7%
MA	West Newbury	Essex	2	100.0%	0	0.0%	4	57.1%
MA	Belchertown	Hampshire	0	0.0%	0	0.0%	1	100.0%
MA	Bedford	Middlesex	1	100.0%	0	0.0%	0	0.0%
MA	Chelmsford Center	Middlesex	0	0.0%	0	0.0%	1	50.0%
MA	Dracut	Middlesex	0	0.0%	0	0.0%	1	20.0%
MA	Hudson	Middlesex	0	0.0%	0	0.0%	1	50.0%
MA	Medford	Middlesex	0	0.0%	0	0.0%	1	25.0%
MA	North Billerica	Middlesex	0	0.0%	0	0.0%	1	50.0%
MA	North Chelmsford	Middlesex	0	0.0%	0	0.0%	2	100.0%
MA	North Reading	Middlesex	0	0.0%	0	0.0%	1	100.0%
MA	Tyngsboro	Middlesex	0	0.0%	0	0.0%	1	100.0%
MA	Wakefield	Middlesex	0	0.0%	0	0.0%	3	60.0%
MA	Waltham	Middlesex	0	0.0%	0	0.0%	1	100.0%
MA	Winchester	Middlesex	0	0.0%	0	0.0%	1	33.3%
MA	Woburn	Middlesex	0	0.0%	0	0.0%	1	50.0%
MA	Nantucket	Nantucket	5	38.5%	4	33.3%	5	38.5%
MA	Braintree	Norfolk	0	0.0%	0	0.0%	1	33.3%
MA	Canton	Norfolk	0	0.0%	0	0.0%	2	40.0%
MA	Cohasset	Norfolk	12	92.3%	13	92.9%	8	72.7%
MA	Dover	Norfolk	1	100.0%	0	0.0%	1	100.0%
MA	Holbrook	Norfolk	0	0.0%	0	0.0%	2	100.0%

MA	Milton	Norfolk	0	0.0%	0	0.0%	1	50.0%
MA	North Weymouth	Norfolk	2	100.0%	1	100.0%	2	100.0%
MA	Raynham	Norfolk	0	0.0%	0	0.0%	1	33.3%
MA	South Weymouth	Norfolk	0	0.0%	0	0.0%	1	100.0%
MA	Stoughton	Norfolk	0	0.0%	0	0.0%	2	40.0%
MA	Wellesley	Norfolk	0	0.0%	0	0.0%	1	50.0%
MA	Westwood	Norfolk	0	0.0%	0	0.0%	1	100.0%
MA	Weymouth	Norfolk	3	75.0%	2	50.0%	4	66.7%
MA	Wrentham	Norfolk	0	0.0%	0	0.0%	1	100.0%
MA	Brant Rock	Plymouth	14	73.7%	15	78.9%	15	78.9%
MA	Carver	Plymouth	0	0.0%	0	0.0%	1	25.0%
MA	Duxbury	Plymouth	5	62.5%	4	57.1%	7	50.0%
MA	East Kingston	Plymouth	0	0.0%	0	0.0%	1	100.0%
MA	Gorham	Plymouth	0	0.0%	0	0.0%	1	100.0%
MA	Green Harbor	Plymouth	21	45.7%	22	43.1%	7	70.0%
MA	Halifax	Plymouth	1	50.0%	0	0.0%	3	75.0%
MA	Hanover	Plymouth	0	0.0%	0	0.0%	4	80.0%
MA	Hanson	Plymouth	0	0.0%	0	0.0%	2	50.0%
MA	Hingham	Plymouth	7	100.0%	9	100.0%	0	0.0%
MA	Houghs Neck	Plymouth	1	100.0%	0	0.0%	0	0.0%
MA	Hull	Plymouth	20	87.0%	18	90.0%	18	90.0%
MA	Humarock	Plymouth	1	33.3%	1	33.3%	2	66.7%
MA	Kingston	Plymouth	2	66.7%	2	50.0%	8	88.9%
MA	Manomet	Plymouth	1	100.0%	0	0.0%	3	100.0%
MA	Marion	Plymouth	3	100.0%	1	100.0%	3	50.0%
MA	Marshfield	Plymouth	24	57.1%	22	56.4%	25	55.6%
MA	Mattapoisett	Plymouth	6	75.0%	6	85.7%	7	70.0%
MA	Middleboro	Plymouth	0	0.0%	0	0.0%	2	40.0%
MA	North Marshfield	Plymouth	0	0.0%	0	0.0%	1	100.0%
MA	North River	Plymouth	0	0.0%	1	100.0%	0	0.0%
MA	North Scituate	Plymouth	1	100.0%	0	0.0%	1	100.0%
MA	Norwell	Plymouth	0	0.0%	0	0.0%	4	80.0%
MA	Ocean Bluff	Plymouth	1	100.0%	0	0.0%	3	75.0%
MA	Onset	Plymouth	1	33.3%	1	25.0%	1	100.0%
MA	Pembroke	Plymouth	0	0.0%	0	0.0%	4	40.0%
MA	Plymouth	Plymouth	30	63.8%	28	59.6%	24	66.7%
MA	Plympton	Plymouth	0	0.0%	0	0.0%	1	50.0%
MA	Rockland	Plymouth	1	100.0%	0	0.0%	0	0.0%

MA	Rockport	Plymouth	20	74.1%	20	76.9%	33	82.5%
MA	Scituate	Plymouth	52	73.2%	52	68.4%	41	82.0%
MA	Wareham	Plymouth	1	16.7%	2	33.3%	1	20.0%
MA	Whitman	Plymouth	0	0.0%	0	0.0%	1	50.0%
MA	Boston	Suffolk	26	70.3%	45	71.4%	2	50.0%
MA	Brighton	Suffolk	0	0.0%	0	0.0%	1	100.0%
MA	Dorchester	Suffolk	0	0.0%	0	0.0%	1	50.0%
MA	Point of Pines	Suffolk	1	100.0%	1	100.0%	0	0.0%
MA	Rochester	Suffolk	0	0.0%	0	0.0%	4	66.7%
MA	South Boston	Suffolk	3	100.0%	1	100.0%	0	0.0%
MA	Winthrop	Suffolk	3	42.9%	2	33.3%	2	50.0%
MA	Auburn	Worcester	0	0.0%	0	0.0%	1	25.0%
MA	Grafton	Worcester	1	100.0%	0	0.0%	1	100.0%
MA	Hopedale	Worcester	0	0.0%	0	0.0%	1	100.0%
MA	Northbridge	Worcester	1	100.0%	0	0.0%	0	0.0%
MA	Provincetown	Worcester	20	52.6%	22	48.9%	12	63.2%
MA	Sterling	Worcester	0	0.0%	0	0.0%	1	100.0%
MA	Whitinsville	Worcester	0	0.0%	0	0.0%	1	50.0%
MD	Secretary	Dorchester	0	0.0%	0	0.0%	1	100.0%
MD	Berlin	Worcester	0	0.0%	0	0.0%	5	50.0%
MD	Newark	Worcester	0	0.0%	0	0.0%	1	100.0%
MD	Ocean City	Worcester	11	55.0%	15	41.7%	5	55.6%
MD	West Ocean City	Worcester	1	50.0%	1	50.0%	0	0.0%
ME	Durham	Andoscoggin	1	100.0%	1	100.0%	1	100.0%
ME	Bailey Island	Cumberland	17	89.5%	21	95.5%	13	100.0%
ME	Brunswick	Cumberland	2	50.0%	3	75.0%	5	62.5%
ME	Cape Elizabeth	Cumberland	8	80.0%	6	75.0%	16	88.9%
ME	Casco	Cumberland	0	0.0%	0	0.0%	1	100.0%
ME	Casco Bay	Cumberland	1	100.0%	1	100.0%	0	0.0%
ME	Chebeague Island	Cumberland	9	90.0%	9	90.0%	9	100.0%
ME	Cliff Island	Cumberland	1	100.0%	1	100.0%	0	0.0%
ME	Cumberland Center	Cumberland	0	0.0%	0	0.0%	2	100.0%
ME	Cundys Harbor	Cumberland	14	77.8%	15	93.8%	3	100.0%
ME	East Harpswell	Cumberland	3	60.0%	2	66.7%	0	0.0%
ME	Falmouth	Cumberland	5	83.3%	3	100.0%	6	85.7%
ME	Freeport	Cumberland	10	90.9%	9	90.0%	10	83.3%
ME	Gorham	Cumberland	1	100.0%	0	0.0%	2	100.0%
ME	Gray	Cumberland	0	0.0%	0	0.0%	1	100.0%
ME	Great Diamond Island	Cumberland	1	100.0%	0	0.0%	0	0.0%

ME	Landing Harpswell Center	Cumberland	34	91.9%	28	84.8%	43	78.2%
ME	Long Island	Cumberland	15	100.0%	8	100.0%	14	100.0%
ME	Mackeral Cove	Cumberland	0	0.0%	1	100.0%	0	0.0%
ME	North Yarmouth	Cumberland	0	0.0%	0	0.0%	2	100.0%
ME	Orrs Island	Cumberland	6	85.7%	5	83.3%	18	100.0%
ME	Pine Point	Cumberland	2	100.0%	1	50.0%	0	0.0%
ME	Portland	Cumberland	87	76.3%	111	74.0%	28	65.1%
ME	Pownal	Cumberland	0	0.0%	0	0.0%	1	100.0%
ME	Quahog Bay	Cumberland	0	0.0%	1	100.0%	0	0.0%
ME	Scarborough	Cumberland	9	81.8%	11	84.6%	18	90.0%
ME	Sebago	Cumberland	0	0.0%	0	0.0%	1	100.0%
ME	South Freeport	Cumberland	1	50.0%	1	50.0%	2	66.7%
ME	South Harpswell	Cumberland	7	70.0%	7	77.8%	5	71.4%
ME	South Portland	Cumberland	7	50.0%	5	62.5%	15	71.4%
ME	Westbrook	Cumberland	0	0.0%	0	0.0%	8	88.9%
ME	Windham	Cumberland	0	0.0%	0	0.0%	7	77.8%
ME	Yarmouth	Cumberland	4	80.0%	2	66.7%	3	100.0%
ME	Bar Harbor	Hancock	17	85.0%	18	94.7%	19	86.4%
ME	Bass Harbor	Hancock	19	100.0%	20	100.0%	10	90.9%
ME	Bernard	Hancock	0	0.0%	0	0.0%	3	100.0%
ME	Birch Harbor	Hancock	8	100.0%	6	100.0%	21	95.5%
ME	Blue Hill	Hancock	1	33.3%	1	33.3%	1	25.0%
ME	Brooklin	Hancock	1	33.3%	2	66.7%	2	50.0%
ME	Brooksville	Hancock	1	16.7%	2	28.6%	1	25.0%
ME	Bunkers Harbor	Hancock	4	80.0%	7	87.5%	0	0.0%
ME	Burnt Coat Harbor	Hancock	0	0.0%	1	100.0%	0	0.0%
ME	Cape Rosier	Hancock	2	100.0%	2	100.0%	0	0.0%
ME	Corea	Hancock	20	95.2%	24	96.0%	15	93.8%
ME	Cranberry Isles	Hancock	4	100.0%	3	100.0%	4	100.0%
ME	Deer Isle	Hancock	12	100.0%	11	100.0%	22	95.7%
ME	Ellsworth	Hancock	0	0.0%	0	0.0%	1	50.0%
ME	Franklin	Hancock	0	0.0%	0	0.0%	1	100.0%
ME	Frenchboro	Hancock	5	83.3%	5	83.3%	4	80.0%
ME	Goose Cove	Hancock	1	100.0%	1	100.0%	0	0.0%
ME	Gouldsboro	Hancock	1	50.0%	1	50.0%	12	100.0%
ME	Harborside	Hancock	0	0.0%	0	0.0%	2	66.7%
ME	Hulls Cove	Hancock	0	0.0%	0	0.0%	1	100.0%
ME	Islesford	Hancock	13	92.9%	14	93.3%	13	92.9%

ME	Lamoine	Hancock	1	50.0%	1	50.0%	1	50.0%
ME	Lunt Harbor	Hancock	1	100.0%	1	100.0%	0	0.0%
ME	Manset	Hancock	1	100.0%	0	0.0%	1	100.0%
ME	Mount Desert	Hancock	0	0.0%	0	0.0%	3	50.0%
ME	North Berwick	Hancock	0	0.0%	0	0.0%	1	25.0%
ME	Northeast Harbor	Hancock	2	100.0%	3	75.0%	3	100.0%
ME	Oceanville	Hancock	1	100.0%	1	100.0%	0	0.0%
ME	Prospect Harbor	Hancock	10	90.9%	11	84.6%	6	85.7%
ME	Salsbury Cove	Hancock	1	100.0%	1	100.0%	0	0.0%
ME	Seal Cove	Hancock	0	0.0%	0	0.0%	1	100.0%
ME	Seal Harbor	Hancock	1	100.0%	1	100.0%	1	100.0%
ME	Sorrento	Hancock	3	100.0%	3	100.0%	3	100.0%
ME	South Gouldsboro	Hancock	4	100.0%	4	100.0%	0	0.0%
ME	Southeast Harbor	Hancock	1	100.0%	1	100.0%	0	0.0%
ME	Southwest Harbor	Hancock	13	65.0%	15	65.2%	13	68.4%
ME	Stonington	Hancock	39	79.6%	39	81.3%	28	80.0%
ME	Sunset	Hancock	0	0.0%	0	0.0%	2	66.7%
ME	Sunshine	Hancock	2	100.0%	3	100.0%	0	0.0%
ME	Surry	Hancock	0	0.0%	0	0.0%	1	100.0%
ME	Swans Island	Hancock	36	92.3%	36	92.3%	38	95.0%
ME	Trenton	Hancock	0	0.0%	0	0.0%	1	100.0%
ME	West Tremont	Hancock	0	0.0%	0	0.0%	3	100.0%
ME	Winter Harbor	Hancock	22	88.0%	21	87.5%	18	85.7%
ME	Wonsqueak Harbor	Hancock	1	100.0%	0	0.0%	0	0.0%
ME	Mosquito Harbor	Hancock	1	100.0%	0	0.0%	0	0.0%
ME	Camden	Knox	0	0.0%	0	0.0%	1	100.0%
ME	Carvers Harbor	Knox	0	0.0%	1	100.0%	0	0.0%
ME	Criehaven	Knox	4	100.0%	4	100.0%	0	0.0%
ME	Cushing	Knox	25	100.0%	25	100.0%	24	100.0%
ME	East Friendship	Knox	0	0.0%	0	0.0%	1	100.0%
ME	Friendship	Knox	34	91.9%	34	91.9%	31	93.9%
ME	Great Pond Island	Knox	2	100.0%	2	100.0%	0	0.0%
ME	Isle Au Haut	Knox	2	100.0%	2	100.0%	2	100.0%
ME	Martinsville	Knox	1	100.0%	0	0.0%	0	0.0%
ME	Matinicus	Knox	9	100.0%	9	100.0%	7	100.0%
ME	Owls Head	Knox	11	61.1%	6	66.7%	11	61.1%
ME	Port Clyde	Knox	22	75.9%	21	75.0%	14	87.5%
ME	Rockland	Knox	23	79.3%	3	23.1%	9	64.3%

ME	Rockport	Knox	0	0.0%	0	0.0%	1	100.0%
ME	Saint George	Knox	5	83.3%	5	100.0%	2	40.0%
ME	South Thomaston	Knox	10	90.9%	8	88.9%	21	95.5%
ME	Spruce Head	Knox	30	93.8%	38	95.0%	29	90.6%
ME	Tenants Harbor	Knox	17	89.5%	21	91.3%	27	87.1%
ME	Thomaston	Knox	0	0.0%	0	0.0%	3	75.0%
ME	Vinalhaven	Knox	52	88.1%	52	88.1%	51	87.9%
ME	Warren	Knox	0	0.0%	0	0.0%	1	100.0%
ME	Wheeler Bay	Knox	4	100.0%	5	100.0%	0	0.0%
ME	Boothbay	Lincoln	11	78.6%	8	72.7%	16	88.9%
ME	Boothbay Harbor	Lincoln	34	89.5%	40	88.9%	22	88.0%
ME	Bremen	Lincoln	7	58.3%	6	54.5%	5	50.0%
ME	Bristol	Lincoln	1	100.0%	2	100.0%	5	71.4%
ME	Damariscotta	Lincoln	0	0.0%	0	0.0%	1	33.3%
ME	East Boothbay	Lincoln	9	90.0%	8	88.9%	13	100.0%
ME	Edgecomb	Lincoln	0	0.0%	0	0.0%	4	66.7%
ME	Medomak	Lincoln	5	83.3%	5	100.0%	5	100.0%
ME	Monhegan	Lincoln	9	90.0%	6	85.7%	6	85.7%
ME	N Brooklin	Lincoln	0	0.0%	0	0.0%	1	100.0%
ME	New Castle	Lincoln	0	0.0%	0	0.0%	1	50.0%
ME	New Harbor	Lincoln	14	82.4%	20	87.0%	21	100.0%
ME	Newagen	Lincoln	0	0.0%	1	100.0%	0	0.0%
ME	Pemaquid	Lincoln	8	100.0%	7	100.0%	8	88.9%
ME	Pemaquid Harbor	Lincoln	5	100.0%	5	100.0%	0	0.0%
ME	Round Pond	Lincoln	10	90.9%	7	87.5%	11	91.7%
ME	South Bristol	Lincoln	19	86.4%	21	84.0%	12	100.0%
ME	Southport	Lincoln	9	81.8%	8	88.9%	5	83.3%
ME	Trevett	Lincoln	1	100.0%	0	0.0%	3	75.0%
ME	Waldoboro	Lincoln	0	0.0%	0	0.0%	2	50.0%
ME	Walpole	Lincoln	0	0.0%	0	0.0%	4	80.0%
ME	West Boothbay Harbor	Lincoln	0	0.0%	0	0.0%	1	100.0%
ME	West Southport	Lincoln	2	100.0%	2	100.0%	5	100.0%
ME	Westport	Lincoln	5	83.3%	5	100.0%	4	80.0%
ME	Whitefield	Lincoln	0	0.0%	0	0.0%	1	100.0%
ME	Arrowsic	Sagadahoc	1	100.0%	0	0.0%	1	50.0%
ME	Bath	Sagadahoc	4	66.7%	2	66.7%	6	75.0%
ME	Bay Point	Sagadahoc	3	75.0%	2	100.0%	0	0.0%
ME	Five Islands	Sagadahoc	9	75.0%	9	75.0%	3	100.0%

ME	Georgetown	Sagadahoc	4	80.0%	5	83.3%	12	75.0%
ME	Phippsburg	Sagadahoc	3	42.9%	3	60.0%	30	78.9%
ME	Popham Beach	Sagadahoc	5	83.3%	4	66.7%	0	0.0%
ME	Sebasco	Sagadahoc	2	66.7%	1	50.0%	1	50.0%
ME	Sebasco Estates	Sagadahoc	13	81.3%	12	70.6%	7	77.8%
ME	Small Point	Sagadahoc	6	100.0%	7	100.0%	0	0.0%
ME	Small Point Harbor	Sagadahoc	0	0.0%	1	100.0%	0	0.0%
ME	Topsham	Sagadahoc	0	0.0%	0	0.0%	2	100.0%
ME	West Bath	Sagadahoc	1	100.0%	0	0.0%	0	0.0%
ME	West Point	Sagadahoc	11	73.3%	11	64.7%	1	100.0%
ME	Athens	Somerset	0	0.0%	0	0.0%	1	100.0%
ME	Poverty Knob	Unk	1	100.0%	1	100.0%	0	0.0%
ME	Belfast	Waldo	1	50.0%	1	100.0%	1	100.0%
ME	Stockton Springs	Waldo	0	0.0%	1	50.0%	1	50.0%
ME	Addison	Washington	9	69.2%	10	71.4%	12	60.0%
ME	Beals	Washington	57	91.9%	47	92.2%	69	88.5%
ME	Bucks Harbor	Washington	14	70.0%	14	66.7%	5	100.0%
ME	Columbia	Washington	1	100.0%	0	0.0%	0	0.0%
ME	Columbia Falls	Washington	0	0.0%	0	0.0%	2	66.7%
ME	Cutler	Washington	16	88.9%	16	88.9%	15	88.2%
ME	Dennysville	Washington	0	0.0%	0	0.0%	1	25.0%
ME	East Machias	Washington	0	0.0%	0	0.0%	1	100.0%
ME	Eastern Harbor	Washington	1	50.0%	1	50.0%	0	0.0%
ME	Eastport	Washington	4	57.1%	4	57.1%	1	50.0%
ME	Edmunds	Washington	1	100.0%	1	100.0%	0	0.0%
ME	Harrington	Washington	4	66.7%	2	100.0%	6	75.0%
ME	Jonesboro	Washington	0	0.0%	0	0.0%	1	50.0%
ME	Jonesport	Washington	45	76.3%	54	74.0%	23	79.3%
ME	Lubec	Washington	4	30.8%	2	18.2%	6	50.0%
ME	Machias	Washington	0	0.0%	0	0.0%	2	100.0%
ME	Machiasport	Washington	1	100.0%	1	100.0%	8	61.5%
ME	Meddybemps	Washington	0	0.0%	0	0.0%	1	100.0%
ME	Milbridge	Washington	10	83.3%	13	86.7%	14	82.4%
ME	Perry	Washington	0	0.0%	0	0.0%	2	50.0%
ME	Pigeon Hil Bay	Washington	0	0.0%	1	100.0%	0	0.0%
ME	Pigeon Hill	Washington	1	100.0%	1	100.0%	0	0.0%
ME	Pleasant Point	Washington	1	100.0%	1	100.0%	0	0.0%
ME	Roque Bluffs	Washington	1	33.3%	1	50.0%	2	50.0%

ME	South Addison	Washington	0	0.0%	1	50.0%	2	100.0%
ME	Steuben	Washington	14	70.0%	13	76.5%	14	73.7%
ME	Trescott	Washington	2	100.0%	4	100.0%	0	0.0%
ME	West Jonesport	Washington	2	100.0%	2	100.0%	2	100.0%
ME	Arundel	York	0	0.0%	0	0.0%	7	87.5%
ME	Biddeford	York	5	71.4%	3	60.0%	10	83.3%
ME	Biddeford Pool	York	8	88.9%	10	100.0%	1	100.0%
ME	Buxton	York	0	0.0%	0	0.0%	1	50.0%
ME	Camp Ellis	York	1	50.0%	1	50.0%	0	0.0%
ME	Cape Neddick	York	1	100.0%	0	0.0%	8	88.9%
ME	Cape Poroise Harbor	York	0	0.0%	1	100.0%	0	0.0%
ME	Cape Porpoise	York	37	100.0%	35	100.0%	12	92.3%
ME	Dayton	York	0	0.0%	0	0.0%	2	100.0%
ME	Eliot	York	3	60.0%	2	100.0%	6	60.0%
ME	Kennebunk	York	1	25.0%	1	25.0%	9	75.0%
ME	Kennebunkport	York	16	72.7%	15	68.2%	24	85.7%
ME	Kittery	York	21	65.6%	22	71.0%	24	75.0%
ME	Kittery Point	York	10	76.9%	9	90.0%	9	100.0%
ME	Nobleboro	York	0	0.0%	0	0.0%	3	100.0%
ME	Ocean Park	York	0	0.0%	0	0.0%	1	100.0%
ME	Ogunquit	York	13	100.0%	16	100.0%	13	86.7%
ME	Old Orchard Beach	York	0	0.0%	0	0.0%	6	100.0%
ME	Perkins Cove	York	6	75.0%	4	66.7%	0	0.0%
ME	Saco	York	16	76.2%	15	75.0%	11	84.6%
ME	South Berwick	York	0	0.0%	0	0.0%	1	25.0%
ME	Wells	York	7	58.3%	7	58.3%	12	85.7%
ME	West Buxton	York	0	0.0%	0	0.0%	1	100.0%
ME	West Kennebunk	York	0	0.0%	0	0.0%	1	100.0%
ME	York	York	10	71.4%	9	75.0%	14	73.7%
ME	York Beach	York	0	0.0%	0	0.0%	2	100.0%
ME	York Harbor	York	15	88.2%	16	84.2%	6	100.0%
ME	W Point Phippsburg		0	0.0%	0	0.0%	1	100.0%
NC	Aurora	Beaufort	0	0.0%	0	0.0%	1	50.0%
NC	Belhaven	Beaufort	0	0.0%	0	0.0%	1	6.3%
NC	Atlantic	Carteret	4	80.0%	0	0.0%	0	0.0%
NC	Beaufort	Carteret	6	33.3%	9	40.9%	9	50.0%
NC	Newport	Carteret	1	50.0%	2	66.7%	2	50.0%
NC	Salter Path	Carteret	0	0.0%	0	0.0%	1	33.3%
NC	New Bern	Craven	3	50.0%	1	20.0%	3	37.5%

NC	Manns Harbor	Dare	1	50.0%	0	0.0%	1	33.3%
NC	Manteo	Dare	1	6.3%	1	11.1%	1	5.9%
NC	Wanchese	Dare	12	25.5%	13	22.8%	7	22.6%
NC	Swanquarter	Hyde	0	0.0%	1	14.3%	1	16.7%
NC	Bayboro	Pamlico	2	33.3%	2	66.7%	4	66.7%
NC	Lowland	Pamlico	1	11.1%	1	14.3%	0	0.0%
NC	Vandemere	Pamlico	0	0.0%	3	50.0%	0	0.0%
NC	Elizabeth City	Pasquotank	1	50.0%	0	0.0%	0	0.0%
NE	Saco	Unk	0	0.0%	1	100.0%	0	0.0%
NH	Gilford	Belknap	0	0.0%	0	0.0%	1	50.0%
NH	Whitefield	Coos	0	0.0%	0	0.0%	1	100.0%
NH	East Kingston	Rockingham	0	0.0%	0	0.0%	2	66.7%
NH	Epping	Rockingham	0	0.0%	0	0.0%	2	66.7%
NH	Exeter	Rockingham	0	0.0%	0	0.0%	4	66.7%
NH	Greenland	Rockingham	0	0.0%	0	0.0%	3	42.9%
NH	Hampton	Rockingham	20	46.5%	19	47.5%	15	57.7%
NH	Hampton Beach	Rockingham	2	40.0%	1	25.0%	1	20.0%
NH	Hampton Falls	Rockingham	2	66.7%	0	0.0%	4	66.7%
NH	Hampton Harbor	Rockingham	0	0.0%	1	50.0%	0	0.0%
NH	Kensington	Rockingham	1	100.0%	0	0.0%	2	66.7%
NH	Kingston	Rockingham	0	0.0%	0	0.0%	1	33.3%
NH	New Castle	Rockingham	1	33.3%	1	25.0%	2	100.0%
NH	Newington	Rockingham	7	87.5%	7	87.5%	10	83.3%
NH	North Hampton	Rockingham	0	0.0%	0	0.0%	2	66.7%
NH	Portsmouth	Rockingham	34	56.7%	37	50.0%	15	71.4%
NH	Raymond	Rockingham	0	0.0%	0	0.0%	1	50.0%
NH	Rye	Rockingham	17	68.0%	16	66.7%	17	68.0%
NH	Seabrook	Rockingham	19	63.3%	20	58.8%	18	66.7%
NH	Stratham	Rockingham	0	0.0%	0	0.0%	1	25.0%
NH	Dover	Strafford	2	100.0%	2	100.0%	3	50.0%
NJ	Absecon	Atlantic	0	0.0%	0	0.0%	1	33.3%
NJ	Atlantic City	Atlantic	8	25.8%	10	29.4%	2	100.0%
NJ	Brigantine	Atlantic	1	100.0%	0	0.0%	3	100.0%
NJ	Egg Harbor Township	Atlantic	0	0.0%	0	0.0%	1	33.3%
NJ	Somers Point	Atlantic	1	33.3%	0	0.0%	1	50.0%
NJ	Allendale	Bergen	0	0.0%	0	0.0%	1	100.0%
NJ	Englewood	Bergen	0	0.0%	0	0.0%	1	100.0%
NJ	Marlton	Burlington	1	100.0%	0	0.0%	1	50.0%

NJ	Medford Lakes	Burlington	0	0.0%	0	0.0%	1	50.0%
NJ	Blue Anchor	Camden	0	0.0%	0	0.0%	1	100.0%
NJ	Gloucester City	Camden	1	100.0%	0	0.0%	1	100.0%
NJ	Jackson	Camden	0	0.0%	0	0.0%	3	60.0%
NJ	Cape May	Cape May	45	37.5%	49	37.4%	27	35.5%
NJ	Cape May Court House	Cape May	0	0.0%	0	0.0%	6	37.5%
NJ	Eldora	Cape May	0	0.0%	0	0.0%	1	100.0%
NJ	Erma	Cape May	0	0.0%	0	0.0%	3	100.0%
NJ	Middletown	Cape May	0	0.0%	0	0.0%	3	60.0%
NJ	North Cape May	Cape May	0	0.0%	0	0.0%	4	44.4%
NJ	Ocean View	Cape May	0	0.0%	0	0.0%	3	100.0%
NJ	Rio Grande	Cape May	1	100.0%	0	0.0%	1	9.1%
NJ	Sea Isle City	Cape May	8	57.1%	8	57.1%	3	37.5%
NJ	Seaville	Cape May	0	0.0%	0	0.0%	1	33.3%
NJ	Wildwood	Cape May	3	16.7%	3	17.6%	2	22.2%
NJ	Wildwood Crest	Cape May	0	0.0%	0	0.0%	1	33.3%
NJ	Woodbine	Cape May	0	0.0%	0	0.0%	1	100.0%
NJ	West Caldwell	Essex	0	0.0%	0	0.0%	1	100.0%
NJ	Kearney	Hudson	0	0.0%	0	0.0%	1	100.0%
NJ	East Brunswick	Middlesex	1	50.0%	0	0.0%	0	0.0%
NJ	Old Bridge	Middlesex	0	0.0%	0	0.0%	1	33.3%
NJ	Spotswood	Middlesex	0	0.0%	0	0.0%	1	33.3%
NJ	Atlantic Highlands	Monmouth	1	7.1%	1	6.3%	1	12.5%
NJ	Belford	Monmouth	31	88.6%	27	90.0%	11	73.3%
NJ	Belmar	Monmouth	4	19.0%	3	13.6%	2	66.7%
NJ	Bradley Beach	Monmouth	0	0.0%	0	0.0%	2	100.0%
NJ	Brielle	Monmouth	3	16.7%	3	15.8%	2	20.0%
NJ	Fair Haven	Monmouth	0	0.0%	0	0.0%	1	100.0%
NJ	Hamilton	Monmouth	0	0.0%	0	0.0%	1	100.0%
NJ	Hazlet	Monmouth	0	0.0%	0	0.0%	1	100.0%
NJ	Highlands	Monmouth	4	30.8%	4	33.3%	4	100.0%
NJ	Howell	Monmouth	0	0.0%	0	0.0%	5	100.0%
NJ	Keansburg	Monmouth	1	50.0%	1	100.0%	0	0.0%
NJ	Leonardo	Monmouth	0	0.0%	0	0.0%	3	60.0%
NJ	Manasquan	Monmouth	1	11.1%	2	20.0%	0	0.0%
NJ	Neptune	Monmouth	5	100.0%	6	100.0%	2	50.0%
NJ	North Middletown	Monmouth	0	0.0%	0	0.0%	1	100.0%
NJ	Port Monmouth	Monmouth	0	0.0%	1	100.0%	4	100.0%

NJ	Red Bank	Monmouth	0	0.0%	0	0.0%	1	25.0%
NJ	Sea Bright	Monmouth	1	25.0%	1	25.0%	0	0.0%
NJ	Shark River Inlet	Monmouth	7	77.8%	7	87.5%	0	0.0%
NJ	Union Beach	Monmouth	0	0.0%	0	0.0%	3	100.0%
NJ	Wall	Monmouth	0	0.0%	0	0.0%	3	50.0%
NJ	West Keansburg	Monmouth	0	0.0%	0	0.0%	1	100.0%
NJ	Lake Hiawathia	Morris	0	0.0%	0	0.0%	1	100.0%
NJ	Barnegat	Ocean	0	0.0%	0	0.0%	1	16.7%
NJ	Barnegat Light	Ocean	23	33.8%	21	30.0%	13	33.3%
NJ	Bay Head	Ocean	0	0.0%	0	0.0%	1	100.0%
NJ	Bricktown	Ocean	4	44.4%	2	33.3%	16	53.3%
NJ	Forked River	Ocean	0	0.0%	0	0.0%	1	16.7%
NJ	Lakewood	Ocean	0	0.0%	0	0.0%	3	100.0%
NJ	Little Egg Harbor	Ocean	0	0.0%	0	0.0%	1	25.0%
NJ	Mystic Islands	Ocean	1	25.0%	1	33.3%	0	0.0%
NJ	Point Pleasant	Ocean	33	53.2%	34	50.0%	8	44.4%
NJ	Point Pleasant Beach	Ocean	5	62.5%	7	70.0%	6	85.7%
NJ	Ship Bottom	Ocean	0	0.0%	0	0.0%	1	100.0%
NJ	Surf City	Ocean	0	0.0%	0	0.0%	1	50.0%
NJ	Toms River	Ocean	2	33.3%	1	25.0%	5	45.5%
NJ	Tuckerton	Ocean	0	0.0%	0	0.0%	3	60.0%
NJ	Waretown	Ocean	2	12.5%	2	13.3%	2	14.3%
NJ	West Creek	Ocean	0	0.0%	0	0.0%	3	60.0%
NJ	Hillsborough	Somerset	0	0.0%	0	0.0%	1	100.0%
NJ	Frick	Unk	0	0.0%	0	0.0%	1	100.0%
NJ	Townbank	Unk	0	0.0%	0	0.0%	1	100.0%
NY	Brooklyn	Delaware	7	46.7%	8	44.4%	7	25.0%
NY	Baldwin	Essex	2	50.0%	2	50.0%	2	66.7%
NY	Sheepshead Bay	Kings	1	14.3%	0	0.0%	0	0.0%
NY	Atlantic Beach	Nassau	1	100.0%	1	100.0%	0	0.0%
NY	Bayshore	Nassau	0	0.0%	0	0.0%	1	100.0%
NY	E Rockaway	Nassau	0	0.0%	0	0.0%	1	100.0%
NY	Fox Point	Nassau	1	100.0%	1	100.0%	0	0.0%
NY	Franklin Square	Nassau	0	0.0%	0	0.0%	1	50.0%
NY	Freeport	Nassau	6	20.7%	6	21.4%	7	35.0%
NY	Glen Cove	Nassau	2	40.0%	1	50.0%	0	0.0%
NY	Hewlett	Nassau	0	0.0%	0	0.0%	1	100.0%
NY	Island Park	Nassau	2	22.2%	2	22.2%	1	12.5%

NY	Merrick	Nassau	0	0.0%	0	0.0%	1	50.0%
NY	Point Lookout	Nassau	5	41.7%	6	46.2%	1	25.0%
NY	Port Washington	Nassau	0	0.0%	0	0.0%	1	50.0%
NY	Seaford	Nassau	0	0.0%	0	0.0%	1	33.3%
NY	Wantagh	Nassau	0	0.0%	0	0.0%	1	50.0%
NY	Woodbury	Nassau	0	0.0%	0	0.0%	1	100.0%
NY	New York	New York	8	34.8%	12	40.0%	1	33.3%
NY	Astoria	Queens	0	0.0%	0	0.0%	1	100.0%
NY	Rockaway Park	Queens	0	0.0%	0	0.0%	1	100.0%
NY	Staten Island	Richmond	0	0.0%	0	0.0%	1	16.7%
NY	Amagansett	Suffolk	0	0.0%	0	0.0%	2	40.0%
NY	Amity Harbor	Suffolk	1	100.0%	0	0.0%	1	100.0%
NY	Babylon	Suffolk	1	33.3%	1	25.0%	0	0.0%
NY	Bayville	Suffolk	0	0.0%	0	0.0%	1	100.0%
NY	Cutchogue	Suffolk	0	0.0%	0	0.0%	1	50.0%
NY	Dix Hills	Suffolk	0	0.0%	0	0.0%	2	66.7%
NY	East Hampton	Suffolk	0	0.0%	0	0.0%	4	30.8%
NY	East Islip	Suffolk	1	100.0%	0	0.0%	1	50.0%
NY	East Quogue	Suffolk	0	0.0%	0	0.0%	6	66.7%
NY	Greenlawn	Suffolk	0	0.0%	0	0.0%	2	50.0%
NY	Greenport	Suffolk	8	80.0%	7	87.5%	5	100.0%
NY	Hampton Bays	Suffolk	10	45.5%	10	45.5%	22	68.8%
NY	Huntington Station	Suffolk	0	0.0%	0	0.0%	1	100.0%
NY	Islip	Suffolk	2	66.7%	2	66.7%	2	66.7%
NY	Lake Grove	Suffolk	0	0.0%	0	0.0%	1	100.0%
NY	Long Island	Suffolk	1	50.0%	2	66.7%	0	0.0%
NY	Manorville	Suffolk	0	0.0%	0	0.0%	1	50.0%
NY	Mastic Beach	Suffolk	1	25.0%	0	0.0%	2	50.0%
NY	Mattituck	Suffolk	2	50.0%	1	50.0%	2	66.7%
NY	Miller Place	Suffolk	0	0.0%	0	0.0%	2	100.0%
NY	Montauk	Suffolk	35	21.2%	37	21.0%	27	26.5%
NY	Mount Sinai	Suffolk	1	50.0%	1	50.0%	0	0.0%
NY	Northport	Suffolk	4	57.1%	3	50.0%	2	50.0%
NY	Oakdale	Suffolk	0	0.0%	0	0.0%	1	25.0%
NY	Orient Point	Suffolk	1	33.3%	1	33.3%	0	0.0%
NY	Port Jefferson	Suffolk	1	50.0%	1	50.0%	2	66.7%
NY	Riverhead	Suffolk	0	0.0%	0	0.0%	1	25.0%
NY	Setauket Harbor	Suffolk	1	100.0%	1	100.0%	0	0.0%

NY	Shelter Island	Suffolk	1	25.0%	1	25.0%	2	40.0%
NY	Shinnecock	Suffolk	22	62.9%	22	57.9%	0	0.0%
NY	Southampton	Suffolk	0	0.0%	0	0.0%	3	60.0%
NY	Threemile Harbor	Suffolk	1	100.0%	1	100.0%	0	0.0%
NY	West Sayville	Suffolk	1	33.3%	1	33.3%	0	0.0%
NY	Westhampton	Suffolk	0	0.0%	0	0.0%	1	100.0%
NY	Holliswood	Unk	0	0.0%	0	0.0%	1	50.0%
NY	Lironkonkoma	Unk	0	0.0%	0	0.0%	1	100.0%
NY	Rockville Center	Unk	0	0.0%	0	0.0%	1	33.3%
NY	Hampton	Washington	0	0.0%	0	0.0%	1	100.0%
NY	Waverly	Westchester	0	0.0%	0	0.0%	1	100.0%
NY	Yonkers	Westchester	0	0.0%	0	0.0%	1	100.0%
PA	Aldan	Delaware	0	0.0%	0	0.0%	1	100.0%
PA	Huntingdon Valley	Montgomery	0	0.0%	0	0.0%	1	100.0%
PA	Philadelphia	Philadelphia	0	0.0%	2	28.6%	0	0.0%
RI	Barrington	Bristol	1	20.0%	0	0.0%	1	16.7%
RI	Bristol	Bristol	1	33.3%	1	33.3%	4	50.0%
RI	Warren	Bristol	1	50.0%	2	66.7%	3	75.0%
RI	Coventry	Kent	2	100.0%	0	0.0%	7	70.0%
RI	East Greenwich	Kent	0	0.0%	0	0.0%	3	75.0%
RI	Warwick	Kent	2	28.6%	4	50.0%	6	30.0%
RI	West Warwick	Kent	0	0.0%	0	0.0%	1	50.0%
RI	Adamsville	Newport	0	0.0%	0	0.0%	1	100.0%
RI	Jamestown	Newport	7	70.0%	7	70.0%	10	71.4%
RI	Little Compton	Newport	5	100.0%	8	88.9%	12	100.0%
RI	Middletown	Newport	0	0.0%	0	0.0%	11	91.7%
RI	Newport	Newport	45	80.4%	47	77.0%	13	86.7%
RI	Portsmouth	Newport	3	60.0%	2	100.0%	8	66.7%
RI	Sakonnet	Newport	9	100.0%	8	100.0%	0	0.0%
RI	Tiverton	Newport	9	60.0%	13	76.5%	12	63.2%
RI	Cranston	Providence	0	0.0%	0	0.0%	1	20.0%
RI	North Scituate	Providence	0	0.0%	0	0.0%	1	100.0%
RI	Providence	Providence	10	83.3%	0	0.0%	0	0.0%
RI	Allen Harbor	Washington	2	100.0%	1	100.0%	0	0.0%
RI	Ashaway	Washington	0	0.0%	0	0.0%	2	100.0%
RI	Block Island	Washington	9	75.0%	7	77.8%	9	81.8%
RI	Bradford	Washington	0	0.0%	0	0.0%	1	100.0%
RI	Charlestown	Washington	5	71.4%	1	100.0%	19	76.0%
RI	Exeter	Washington	1	100.0%	0	0.0%	4	66.7%

RI	Galilee	Washington	11	55.0%	18	60.0%	0	0.0%
RI	Jerusalem	Washington	2	50.0%	1	50.0%	0	0.0%
RI	Kenyon	Washington	0	0.0%	0	0.0%	2	100.0%
RI	Kingston	Washington	0	0.0%	0	0.0%	1	100.0%
RI	Narragansett	Washington	26	76.5%	20	71.4%	49	77.8%
RI	North Kingston	Washington	0	0.0%	0	0.0%	3	60.0%
RI	North Kingstown	Washington	2	66.7%	3	75.0%	13	68.4%
RI	Peace Dale	Washington	0	0.0%	0	0.0%	3	33.3%
RI	Point Judith	Washington	121	79.1%	148	79.1%	0	0.0%
RI	Saunderstown	Washington	1	100.0%	1	100.0%	8	72.7%
RI	Slocum	Washington	3	100.0%	1	100.0%	7	100.0%
RI	Snug Harbor	Washington	2	15.4%	2	14.3%	1	50.0%
RI	South Kingstown	Washington	0	0.0%	0	0.0%	2	66.7%
RI	Wakefield	Washington	18	64.3%	5	41.7%	77	84.6%
RI	West Kingston	Washington	0	0.0%	0	0.0%	8	88.9%
RI	West Kingstown	Washington	0	0.0%	0	0.0%	1	100.0%
RI	Westerly	Washington	3	42.9%	0	0.0%	5	55.6%
RI	Wickford	Washington	12	75.0%	13	76.5%	2	66.7%
SC	Saint Helena Island	Beaufort	1	100.0%	1	100.0%	1	100.0%
VA	Bloxom	Accomack	0	0.0%	0	0.0%	1	33.3%
VA	Chincoteague	Accomack	2	8.3%	4	12.5%	2	12.5%
VA	Parksley	Accomack	0	0.0%	0	0.0%	1	50.0%
VA	Gloucester	Gloucester	0	0.0%	0	0.0%	1	50.0%
VA	Hampton	Hampton (City)	1	9.1%	7	24.1%	15	48.4%
VA	Carrollton	Isle of Wight	3	75.0%	1	33.3%	2	28.6%
VA	Newport News	Newport News (City)	9	42.9%	12	36.4%	5	50.0%
VA	Norfolk	Norfolk (City)	32	42.7%	2	13.3%	0	0.0%
VA	Cheriton	Northampton	0	0.0%	0	0.0%	1	33.3%
VA	Oyster	Northampton	1	100.0%	1	33.3%	0	0.0%
VA	Poquoson	Poquoson (City)	0	0.0%	0	0.0%	1	16.7%
VA	Suffolk	Suffolk (City)	0	0.0%	0	0.0%	1	100.0%
VA	Virginia Beach	Virginia Beach (City)	1	2.9%	0	0.0%	6	12.2%
VA	Grafton	York	0	0.0%	0	0.0%	2	100.0%
VA	Seaford	York	0	0.0%	18	94.7%	12	92.3%
WA	Seattle	King	1	50.0%	0	0.0%	0	0.0%
WA	Lynnwood	Snohomish	0	0.0%	0	0.0%	1	100.0%

Appendix: Communities - Table 4. Summary of Communities with Qualifying Trap Vessels for Historic Participation in LCMA 3 by Home and Principal Port Designations (Permit Year 2000)

Home Port						Principal Port					
ST	Community/Place	Number of Permitted Trap Vessels	Number of LCMA 3 Vessels	Total Qualified Vessels for LCMA 3 (Upper Bound)	Total Qualified Vessels for LCMA 3 (Lower Bound)	ST	Community/Place	Number of Permitted Trap Vessels	Number of LCMA 3 Vessels	Total Qualified Vessels for LCMA 3 (Upper Bound)	Total Qualified Vessels for LCMA 3 (Lower Bound)
NH	Newington	7	7	7	7	RI	Newport	40	19	9	7
RI	Newport	37	19	8	6	NH	Newington	7	7	7	7
RI	Narragansett	19	9	7	5	RI	Point Judith	107	44	23	6
MA	Westport	31	14	12	4	MA	Gloucester	133	42	6	5
MA	Gloucester	118	33	5	4	MA	Sandwich	13	6	5	5
MA	Sandwich	12	6	4	4	RI	Tiverton	12	8	5	4
RI	Point Judith	88	37	15	3	MA	Westport	29	12	10	3
RI	Tiverton	9	6	4	3	RI	Narragansett	16	7	5	3
MA	Westport Point	3	3	3	3	MA	Fairhaven	20	11	5	2
MA	Hyannis	3	2	2	2	MA	New Bedford	27	12	4	2
NJ	Neptune	4	4	2	2	MA	Hyannis	3	2	2	2
RI	Galilee	8	3	3	1	MA	Westport Point	2	2	2	2
RI	Providence	9	2	3	1	NJ	Neptune	5	5	2	2
RI	Sakonnet	9	2	3	1	NJ	Cape May	14	9	3	1
NJ	Belford	29	8	2	1	RI	Galilee	15	4	3	1
NJ	Cape May	12	8	2	1	NJ	Belford	26	6	2	1
NJ	Point Pleasant	24	10	2	1	NJ	Point Pleasant	24	10	2	1
RI	Wakefield	15	6	2	1	MA	Provincetown	9	2	1	1
MA	Hull	20	5	1	1	RI	Portsmouth	2	1	1	1
MA	Manomet	1	1	1	1	NY	Montauk	21	6	5	0
MA	North Weymouth	2	1	1	1	MA	Chatham	35	9	2	0
MA	West Newbury	1	1	1	1	RI	Sakonnet	8	1	2	0
NH	Rye	9	1	1	1	MA	Menemsha	15	0	1	0
RI	Portsmouth	3	1	1	1	MA	Plymouth	24	7	1	0
NY	Montauk	20	5	5	0	MA	Rockport	17	4	1	0
MA	Fairhaven	19	12	4	0	MA	Rowley	1	1	1	0
MA	Chatham	34	9	2	0	MA	Scituate	43	10	1	0
RI	Charlestown	4	1	2	0	MD	Ocean City	10	5	1	0
DE	Lewes	3	3	1	0	ME	Sebasco Estates	12	3	1	0
MA	New Bedford	20	6	1	0	ME	Tenants Harbor	21	13	1	0
MA	Plymouth	25	7	1	0	ME	Threemile Harbor	1	0	1	0
MA	Rockport	16	3	1	0	RI	Little Compton	8	2	1	0
MA	Scituate	43	10	1	0	RI	Wickford	13	1	1	0
MA	South Dartmouth	3	0	1	0						
MA	Vineyard Haven	5	0	1	0						
ME	Sebasco Estates	13	3	1	0						
ME	Tenants Harbor	17	13	1	0						
NY	Threemile Harbor	1	0	1	0						
RI	Little Compton	5	2	1	0						
RI	Wickford	12	0	1	0						

Appendix: Communities - Table 5. Summary of Home Port Locations with Trap Vessels that do not Qualify for Historic Participation in LCMA 3 (Permit Year 2000)

Home Port	Principal Port

ST	Community/Place	Non-Qualifiers	Non-Qualifiers With No VTR	Offshore Capable Non-Qualifiers	Non-Qualifiers With Other Permits
RI	Point Judith	34	5	15	29
MA	Gloucester	29	3	5	26
ME	Portland	27	8	4	19
ME	Friendship	18	16	0	2
ME	Harpswell Center	16	7	0	9
ME	Swans Island	15	11	0	4
ME	Jonesport	13	6	0	7
ME	Tenants Harbor	13	8	0	5
RI	Newport	13	7	3	6
MA	Fairhaven	12	2	2	10
ME	Stonington	12	7	0	5
NH	Portsmouth	12	1	1	11
ME	Kittery	11	4	0	7
NJ	Barnegat Light	11	0	4	11
MA	Scituate	10	0	2	10
MA	Westport	10	0	1	10
ME	Beals	10	7	0	3
ME	Long Island	10	7	0	3
MA	Chatham	9	0	0	9
ME	Boothbay Harbor	9	0	2	9
ME	Port Clyde	9	2	5	7
NJ	Point Pleasant	9	2	3	7
ME	Bailey Island	8	7	0	1
ME	Bar Harbor	8	6	1	2
MA	Boston	7	1	5	6
MA	Plymouth	7	0	0	7
ME	Cushing	7	6	0	1
ME	Deer Isle	7	4	0	3
ME	Spruce Head	7	4	1	3
NJ	Belford	7	0	4	7
NJ	Cape May	7	0	3	7
MA	New Bedford	6	0	5	6

ST	Community/Place	Non-Qualifiers	Non-Qualifiers With No VTR	Offshore Capable Non-Qualifiers	Non-Qualifiers With Other Permits
ME	Portland	38	13	5	25
RI	Point Judith	38	8	16	30
MA	Gloucester	37	4	6	33
ME	Friendship	17	16	0	1
ME	Jonesport	15	7	0	8
ME	Swans Island	15	11	0	4
ME	Stonington	14	8	0	6
ME	Harpswell Center	13	6	0	7
ME	Tenants Harbor	13	8	0	5
ME	Boothbay Harbor	12	1	2	11
NH	Portsmouth	12	1	1	11
RI	Newport	12	7	2	5
ME	Kittery	11	5	0	6
MA	New Bedford	10	0	7	10
MA	Scituate	10	0	2	10
ME	Port Clyde	10	2	5	8
NJ	Barnegat Light	10	0	3	10
MA	Boston	9	1	6	8
MA	Chatham	9	0	0	9
MA	Fairhaven	9	2	2	7
MA	Westport	9	0	1	9
ME	Beals	9	6	0	3
NJ	Point Pleasant	9	2	3	7
ME	Bailey Island	8	7	0	1
ME	Bar Harbor	8	6	1	2
ME	Spruce Head	8	4	1	4
NJ	Cape May	8	0	3	8
MA	Plymouth	7	0	0	7
ME	Cundys Harbor	7	2	1	5
ME	Cushing	7	6	0	1
ME	Corea	6	4	0	2
ME	Long Island	6	4	0	2

ME	Boothbay	6	3	0	3	NJ	Shark River Inlet	6	3	0	3
ME	Cundys Harbor	6	1	1	5	NY	Montauk	6	0	3	6
ME	Kittery Point	6	3	0	3	MD	Ocean City	5	0	2	5
NJ	Shark River Inlet	6	3	0	3	ME	Deer Isle	5	3	0	2
MA	Marblehead	5	0	0	5	ME	Kittery Point	5	2	0	3
ME	Corea	5	3	0	2	ME	Orrs Island	5	1	0	4
ME	Vinalhaven	5	3	0	2	ME	South Bristol	5	0	3	5
ME	Winter Harbor	5	3	0	2	ME	Winter Harbor	5	3	0	2
NH	Hampton	5	0	0	5	NH	Seabrook	5	0	0	5
NH	Seabrook	5	0	0	5	NJ	Belford	5	0	2	5
NY	Montauk	5	0	3	5	MA	Cohasset	4	2	0	2
RI	Wakefield	5	0	2	5	MA	Green Harbor	4	0	0	4
MA	Cohasset	4	2	0	2	MA	Harwich	4	0	0	4
MA	Green Harbor	4	0	0	4	MA	Hull	4	0	0	4
MA	Harwich	4	0	0	4	MA	Marblehead	4	0	0	4
MA	Hull	4	0	0	4	MA	Rockport	4	0	1	4
MD	Ocean City	4	0	1	4	ME	Boothbay	4	2	0	2
ME	Cape Porpoise	4	3	0	1	ME	Cape Porpoise	4	3	0	1
ME	Chebeague Island	4	3	0	1	ME	Chebeague Island	4	3	0	1
ME	Freeport	4	2	0	2	ME	Freeport	4	2	0	2
ME	Monhegan	4	2	0	2	ME	Islesford	4	4	0	0
ME	Orrs Island	4	1	0	3	ME	Monhegan	4	2	0	2
ME	Rockland	4	3	0	1	ME	South Harpswell	4	3	0	1
ME	South Bristol	4	0	3	4	ME	Steuben	4	2	0	2
ME	South Harpswell	4	3	0	1	ME	Vinalhaven	4	2	0	2
ME	Steuben	4	2	0	2	ME	Westport	4	1	0	3
ME	Westport	4	1	0	3	ME	York Harbor	4	2	0	2
ME	York Harbor	4	2	0	2	NH	Hampton	4	0	0	4
RI	Narragansett	4	3	1	1	NJ	Point Pleasant Beach	4	0	1	4
DE	Lewes	3	0	1	3	NY	New York	4	0	2	4
MA	Brant Rock	3	0	1	3	RI	Narragansett	4	1	2	3
MA	Hingham	3	0	0	3	RI	Tiverton	4	0	0	4
MA	Marshfield	3	2	0	1	MA	Brant Rock	3	0	1	3
MA	Rockport	3	0	1	3	MA	Hingham	3	0	0	3
ME	Biddeford Pool	3	1	0	2	MA	Marshfield	3	2	0	1
ME	Falmouth	3	0	0	3	ME	Biddeford Pool	3	1	0	2
ME	Islesford	3	3	0	0	ME	New Harbor	3	0	0	3
ME	Owls Head	3	2	1	1	ME	Ogunquit	3	0	0	3
ME	Phippsburg	3	0	0	3	ME	Phippsburg	3	0	0	3
ME	Saco	3	2	0	1	ME	Saco	3	2	0	1

ME	Sebasco Estates	3	1	0	2	ME	Sebasco Estates	3	1	0	2
ME	South Gouldsboro	3	2	0	1	ME	South Gouldsboro	3	2	0	1
ME	South Thomaston	3	3	0	0	ME	West Point	3	0	0	3
ME	Southport	3	1	0	2	NJ	Highlands	3	0	1	3
ME	West Point	3	0	0	3	NJ	Neptune	3	1	0	2
ME	Yarmouth	3	0	0	3	NJ	Sea Isle City	3	0	1	3
NJ	Highlands	3	0	1	3	NY	Northport	3	0	1	3
NJ	Sea Isle City	3	0	1	3	NY	Shinnecock	3	0	0	3
NY	Northport	3	0	1	3	RI	Galilee	3	0	2	3
NY	Shinnecock	3	0	0	3	VA	Chincoteague	3	0	0	3
RI	Tiverton	3	0	0	3	CT	Stonington	2	0	2	2
CT	Stonington	2	0	2	2	DE	Indian River Inlet	2	0	0	2
DE	Indian River Inlet	2	0	0	2	DE	Lewes	2	0	0	2
MA	Beverly	2	0	0	2	MA	Beverly	2	0	0	2
MA	Kingston	2	0	0	2	MA	Kingston	2	0	0	2
MA	Manchester	2	0	0	2	MA	Orleans	2	0	0	2
MA	Pigeon Cove	2	0	0	2	MA	Pigeon Cove	2	0	0	2
MA	Sandwich	2	0	1	2	ME	Addison	2	2	0	0
ME	Addison	2	2	0	0	ME	Birch Harbor	2	1	0	1
ME	Bath	2	1	0	1	ME	Cutler	2	1	0	1
ME	Birch Harbor	2	1	0	1	ME	East Boothbay	2	2	0	0
ME	Cape Elizabeth	2	1	0	1	ME	Falmouth	2	0	0	2
ME	Cutler	2	1	0	1	ME	Georgetown	2	1	0	1
ME	East Boothbay	2	2	0	0	ME	Kennebunkport	2	0	0	2
ME	East Harpswell	2	0	0	2	ME	Matinicus	2	0	0	2
ME	Harrington	2	1	0	1	ME	Milbridge	2	2	0	0
ME	Kennebunkport	2	0	0	2	ME	Northeast Harbor	2	1	0	1
ME	Matinicus	2	0	0	2	ME	Owls Head	2	2	0	0
ME	Milbridge	2	2	0	0	ME	Prospect Harbor	2	1	0	1
ME	Northeast Harbor	2	1	0	1	ME	Rockland	2	0	1	2
ME	Ogunquit	2	0	0	2	ME	South Portland	2	1	0	1
ME	Perkins Cove	2	1	0	1	ME	South Thomaston	2	2	0	0
ME	Prospect Harbor	2	1	0	1	ME	Southport	2	1	0	1
ME	Round Pond	2	0	0	2	ME	Southwest Harbor	2	2	0	0
ME	Saint George	2	1	0	1	ME	Wells	2	2	0	0
ME	Small Point	2	1	0	1	NJ	Brielle	2	0	1	2
ME	South Portland	2	1	0	1	NJ	Wildwood	2	0	1	2
ME	Southwest Harbor	2	2	0	0	NY	Brooklyn	2	0	0	2
ME	Wells	2	2	0	0	RI	Jamestown	2	0	0	2
NJ	Bricktown	2	0	0	2	RI	Little Compton	2	0	1	2

NJ	Brielle	2	0	1	2	RI	Wakefield	2	0	0	2
NJ	Neptune	2	1	0	1	CT	New London	1	0	1	1
NY	Brooklyn	2	0	0	2	DE	Milford	1	0	0	1
NY	New York	2	0	0	2	MA	Barnstable	1	0	0	1
RI	Galilee	2	0	0	2	MA	Dennis	1	0	0	1
RI	Jamestown	2	0	0	2	MA	Duxbury	1	0	0	1
RI	Little Compton	2	0	1	2	MA	Ipswich	1	0	0	1
VA	Chincoteague	2	0	0	2	MA	Lynn	1	0	0	1
CT	New London	1	0	1	1	MA	Mattapoisett	1	0	0	1
DE	Lincoln	1	0	1	1	MA	Newburyport	1	0	0	1
DE	Milford	1	0	0	1	MA	Oak Bluffs	1	0	0	1
FL	Miami	1	0	1	1	MA	Provincetown	1	0	0	1
MA	Barnstable	1	0	0	1	MA	Quincy	1	0	0	1
MA	Dennis	1	0	0	1	MA	Rowley	1	0	0	1
MA	Duxbury	1	0	0	1	MA	Sandwich	1	0	0	1
MA	Eastham	1	0	0	1	MA	Saugus	1	0	0	1
MA	Georgetown	1	0	0	1	MA	Weymouth	1	0	0	1
MA	Ipswich	1	0	0	1	ME	Bass Harbor	1	1	0	0
MA	Lynn	1	0	0	1	ME	Bath	1	0	0	1
MA	Marion	1	0	0	1	ME	Biddeford	1	0	0	1
MA	Mattapoisett	1	0	0	1	ME	Blue Hill	1	0	0	1
MA	Menemsha	1	0	1	1	ME	Bremen	1	1	0	0
MA	Newburyport	1	0	0	1	ME	Brooklin	1	1	0	0
MA	Oak Bluffs	1	0	0	1	ME	Brooksville	1	0	0	1
MA	Orleans	1	0	0	1	ME	Brunswick	1	1	0	0
MA	Provincetown	1	0	0	1	ME	Bucks Harbor	1	0	0	1
MA	Quincy	1	0	0	1	ME	Cape Elizabeth	1	0	0	1
MA	Salem	1	1	0	0	ME	Carvers Harbor	1	1	0	0
MA	Saugus	1	0	0	1	ME	Criehaven	1	1	0	0
MA	South Boston	1	0	0	1	ME	Durham	1	1	0	0
MA	Swampscott	1	0	0	1	ME	East Harpswell	1	0	0	1
MA	Weymouth	1	0	0	1	ME	Edmunds	1	0	0	1
ME	Arrowsic	1	0	0	1	ME	Eliot	1	0	0	1
ME	Bass Harbor	1	1	0	0	ME	Gouldsboro	1	0	0	1
ME	Biddeford	1	0	0	1	ME	Harrington	1	1	0	0
ME	Blue Hill	1	0	0	1	ME	Lamoine	1	0	0	1
ME	Bremen	1	1	0	0	ME	Lubec	1	0	0	1
ME	Brooksville	1	0	0	1	ME	Mackeral Cove	1	1	0	0
ME	Brunswick	1	1	0	0	ME	Medomak	1	0	0	1
ME	Bucks Harbor	1	0	0	1	ME	Newagen	1	0	0	1

ME	Criehaven	1	1	0	0	ME	Perkins Cove	1	1	0	0
ME	Durham	1	1	0	0	ME	Popham Beach	1	1	0	0
ME	Edmunds	1	0	0	1	ME	Quahog Bay	1	0	0	1
ME	Eliot	1	0	0	1	ME	Saint George	1	1	0	0
ME	Georgetown	1	1	0	0	ME	Scarborough	1	1	0	0
ME	Gorham	1	1	0	0	ME	Seal Harbor	1	1	0	0
ME	Gouldsboro	1	0	0	1	ME	Sebasco	1	0	0	1
ME	Lamoine	1	0	0	1	ME	Small Point	1	1	0	0
ME	Lubec	1	0	0	1	ME	Small Point Harbor	1	0	0	1
ME	Medomak	1	0	0	1	ME	South Freeport	1	0	0	1
ME	New Harbor	1	0	0	1	ME	Trescott	1	0	0	1
ME	Pemaquid	1	0	0	1	ME	West Jonesport	1	0	0	1
ME	Pine Point	1	1	0	0	ME	Wheeler Bay	1	1	0	0
ME	Popham Beach	1	1	0	0	ME	Yarmouth	1	0	0	1
ME	Seal Harbor	1	1	0	0	ME	York	1	1	0	0
ME	Sebasco	1	0	0	1	NH	Rye	1	0	0	1
ME	South Freeport	1	0	0	1	NJ	Manasquan	1	1	0	0
ME	Trescott	1	0	0	1	NY	Long Island	1	0	0	1
ME	Trevett	1	0	0	1	NY	Point Lookout	1	0	1	1
ME	West Jonesport	1	0	0	1	NY	Port Jefferson	1	0	0	1
ME	York	1	1	0	0	RI	Sakonnet	1	0	0	1
NH	Hampton Falls	1	0	0	1	RI	Wickford	1	1	0	0
NJ	Belmar	1	0	0	1	VA	Carrollton	1	0	1	1
NJ	Manasquan	1	1	0	0	VA	Norfolk	1	0	1	1
NJ	Point Pleasant Beach	1	0	0	1	VA	Oyster	1	0	1	1
NJ	Rio Grande	1	0	0	1						
NJ	Wildwood	1	0	1	1						
NY	Amity Harbor	1	0	0	1						
NY	Glen Cove	1	0	0	1						
NY	Point Lookout	1	0	1	1						
NY	Port Jefferson	1	0	0	1						
RI	Charlestown	1	0	1	1						
RI	Providence	1	1	1	0						
RI	Sakonnet	1	0	0	1						
RI	Slocum	1	1	0	0						
VA	Carrollton	1	0	1	1						
VA	Norfolk	1	0	0	1						
VA	Oyster	1	0	1	1						
WA	Seattle	1	0	1	1						

Appendix: Communities - Table 6. Summary of Communities with Qualifying Trap Vessels for Historic Participation in LCMA 4 and/or LCMA 5 by Home and Principal Port (Permit Year 2000)

Home Port					Principal Port			
ST	Community/Place	Total Trap Vessels	Vessels Selecting LCMA 4 or 5	Total Qualifiers	ST	Community/Place	Total Trap Vessels	Vessels Selecting LCMA 4 or 5	Total Qualifiers
NJ	Belford	29	29	14	NJ	Belford	26	26	12
NJ	Point Pleasant	24	24	9	NJ	Point Pleasant	24	24	9
NJ	Shark River Inlet	7	7	5	NJ	Highlands	4	4	4
NJ	Highlands	4	4	4	NJ	Neptune	5	5	4
NJ	Sea Isle City	7	6	4	NJ	Sea Isle City	7	6	4
MD	Ocean City	7	6	3	NJ	Shark River Inlet	7	7	4
NJ	Cape May	12	9	3	MD	Ocean City	10	8	3
NJ	Neptune	4	4	3	DE	Indian River Inlet	4	4	2
DE	Indian River Inlet	3	3	2	NJ	Cape May	14	11	2
NY	Brooklyn	5	5	2	NY	Brooklyn	6	6	2
RI	Newport	37	2	2	RI	Newport	40	2	2
MA	Barnstable	5	0	1	MA	Barnstable	5	0	1
MA	Gloucester	118	10	1	MA	Gloucester	133	14	1
MA	Westport Point	3	0	1	MA	Westport Point	2	0	1
NJ	Atlantic City	8	8	1	NJ	Atlantic City	9	9	1
NJ	Belmar	2	2	1	NJ	Belmar	1	1	1
NJ	Bricktown	3	3	1	NJ	Point Pleasant Beach	5	5	1
NJ	Sea Bright	1	1	1	NJ	Port Monmouth	1	1	1
NY	Freeport	3	3	1	NJ	Sea Bright	1	1	1
NY	Northport	4	4	1	NJ	Wildwood	2	2	1
NY	Point Lookout	2	2	1	NY	Freeport	3	3	1
RI	Narragansett	19	6	1	NY	New York	7	7	1
VA	Chincoteague	2	1	1	NY	Northport	3	3	1
CT	Bridgeport	3	1	0	NY	Point Lookout	2	2	1
CT	Groton	5	1	0	RI	Point Judith	107	23	1
CT	Ledyard Center	1	1	0	VA	Chincoteague	3	1	1

Appendix: Communities - Table 7. Summary of Communities with Non-Qualifying Trap Vessels for Historic Participation in LCMA 4 and/or 5 by Home and Principal Port (Permit Year 2000)

Home Port								Principal Port							
ST	Community/Place	Number of Trap Vessels	Number of LCMA 4 and/or 5 Vessels	Number of Non-Qualifiers	Non-Qualifiers With No VTR	Non-Qualifiers Selecting Only Area 3, 4, or 5	Non-Qualifying Vessels With Other Permits	ST	Community/Place	Number of Trap Vessels	Number of LCMA 4 and/or 5 Vessels	Number of Non-Qualifiers	Non-Qualifiers With No VTR	Non-Qualifiers Selecting Only Area 3, 4, or 5	Non-Qualifying Vessels With Other Permits
RI	Point Judith	88	20	20	7	0	13	RI	Point Judith	107	23	23	6	0	17
NJ	Belford	29	29	15	0	15	15	NJ	Point Pleasant	24	24	15	2	8	13
NJ	Point Pleasant	24	24	15	2	9	13	NJ	Belford	26	26	14	0	14	14
NY	Montauk	20	12	12	1	1	11	MA	Gloucester	133	14	14	0	0	14
MA	Gloucester	118	10	10	0	0	10	NY	Montauk	21	14	14	1	1	13
NY	Shinnecock	9	9	9	0	3	9	NJ	Cape May	14	11	10	0	8	10
NJ	Barnegat Light	12	8	8	0	2	8	NY	Shinnecock	9	9	9	0	3	9
NJ	Cape May	12	9	7	0	5	7	NJ	Atlantic City	9	9	8	2	8	6
NJ	Atlantic City	8	8	7	2	7	5	NJ	Barnegat Light	11	7	7	0	2	7
RI	Narragansett	19	6	6	2	0	4	MD	Ocean City	10	8	6	0	5	6

RI	Wakefield	15	5	5	0	0	5
MD	Ocean City	7	6	4	0	3	4
MA	Scituate	43	4	4	0	0	4
NY	New York	4	4	4	0	0	4
NY	Brooklyn	5	5	3	0	2	3
NY	Northport	4	4	3	0	0	3
MA	Marblehead	20	3	3	0	0	3
ME	Bailey Island	17	3	3	3	0	0
NY	Hampton Bays	3	3	3	0	3	3
NJ	Shark River Inlet	7	7	2	2	2	0
NJ	Sea Isle City	7	6	2	0	1	2
NJ	Bricktown	3	3	2	0	1	2
NY	Freeport	3	3	2	0	2	2
CT	New London	3	2	2	0	1	2
DE	Lewes	3	2	2	0	1	2
DE	Milford	2	2	2	0	2	2
MA	Brant Rock	13	2	2	0	0	2
MA	Green Harbor	21	2	2	0	0	2
MA	New Bedford	20	2	2	0	0	2
ME	Boothbay Harbor	34	2	2	0	0	2
ME	Portland	66	2	2	0	1	2
NH	Portsmouth	27	2	2	0	0	2
NJ	Brielle	2	2	2	0	1	2
NJ	Point Pleasant Beach	2	2	2	1	1	1
NY	Baldwin	2	2	2	1	2	1
NY	Glen Cove	2	2	2	0	0	2
NY	Greenport	2	2	2	0	0	2
NY	Island Park	2	2	2	0	2	2
RI	Block Island	9	2	2	0	0	2
RI	Galilee	8	2	2	0	0	2
RI	Newport	37	2	2	0	0	2
RI	Tiverton	9	2	2	0	0	2
RI	Wickford	12	2	2	1	0	1
NJ	Neptune	4	4	1	1	1	0
DE	Indian River Inlet	3	3	1	0	1	1
NJ	Belmar	2	2	1	0	1	1
NY	Point Lookout	2	2	1	0	0	1
CT	Bridgeport	3	1	1	0	0	1
CT	Groton	5	1	1	1	0	0
CT	Ledyard Center	1	1	1	0	0	1
CT	Old Saybrook	1	1	1	0	0	1
CT	Stonington	8	1	1	0	1	1
DE	Dagsboro	1	1	1	0	1	1
DE	Long Neck	1	1	1	0	1	1
DE	Rehoboth Beach	1	1	1	0	1	1

NY	New York	7	7	6	0	2	6
RI	Galilee	15	5	5	2	0	3
RI	Narragansett	16	5	5	0	0	5
NY	Brooklyn	6	6	4	0	2	4
NJ	Point Pleasant Beach	5	5	4	1	2	3
MA	Scituate	43	4	4	0	0	4
NJ	Shark River Inlet	7	7	3	2	3	1
MA	New Bedford	27	3	3	0	0	3
ME	Bailey Island	21	3	3	3	0	0
ME	Portland	84	3	3	1	1	2
NY	Hampton Bays	3	3	3	0	3	3
RI	Wickford	13	3	3	2	0	1
NJ	Sea Isle City	7	6	2	0	1	2
DE	Indian River Inlet	4	4	2	0	2	2
NY	Freeport	3	3	2	0	2	2
NY	Northport	3	3	2	0	0	2
CT	Stonington	11	2	2	0	2	2
DE	Lewes	2	2	2	0	1	2
MA	Brant Rock	15	2	2	0	0	2
MA	Green Harbor	21	2	2	0	0	2
ME	Boothbay Harbor	40	2	2	0	0	2
NJ	Brielle	2	2	2	0	1	2
NY	Baldwin	2	2	2	1	2	1
NY	Greenport	2	2	2	0	0	2
NY	Island Park	2	2	2	0	2	2
NY	Long Island	2	2	2	0	1	2
RI	Newport	40	2	2	0	0	2
RI	Tiverton	12	2	2	0	0	2
RI	Wakefield	5	2	2	0	0	2
NJ	Neptune	5	5	1	1	1	0
NJ	Wildwood	2	2	1	0	1	1
NY	Point Lookout	2	2	1	0	0	1
CT	Groton	5	1	1	1	0	0
CT	New London	3	1	1	0	0	1
CT	Noank	6	1	1	0	0	1
CT	Old Saybrook	1	1	1	0	0	1
DE	Dagsboro	1	1	1	0	1	1
DE	Milford	1	1	1	0	1	1
DE	Rehoboth Beach	1	1	1	0	1	1
GA	Darien	1	1	1	0	1	1
MA	Beverly	23	1	1	0	0	1
MA	Boston	30	1	1	0	0	1
MA	Chatham	35	1	1	0	0	1
MA	Cohasset	13	1	1	1	0	0
MA	East Dennis	3	1	1	0	0	1

DE	Wilmington	1	1	1	0	1	1	MA	Fairhaven	20	1	1	0	1	1
FL	Miami	2	1	1	0	1	1	MA	Hingham	9	1	1	0	0	1
MA	Beverly	22	1	1	0	0	1	MA	Hull	18	1	1	0	0	1
MA	Boston	18	1	1	0	0	1	MA	Marblehead	18	1	1	0	0	1
MA	Chatham	34	1	1	0	0	1	MA	Marshfield	22	1	1	0	0	1
MA	Cohasset	12	1	1	1	0	0	MA	Plymouth	24	1	1	0	0	1
MA	Cuttyhunk	2	1	1	0	0	1	MD	West Ocean City	1	1	1	0	1	1
MA	East Dennis	3	1	1	0	0	1	ME	Freeport	9	1	1	0	0	1
MA	Fairhaven	19	1	1	0	1	1	ME	Matinicus	9	1	1	0	0	1
MA	Hingham	7	1	1	0	0	1	ME	Monhegan	6	1	1	0	0	1
MA	Hull	20	1	1	0	0	1	ME	Orrs Island	5	1	1	0	0	1
MA	Marshfield	24	1	1	0	0	1	ME	Southport	8	1	1	0	0	1
MA	Plymouth	25	1	1	0	0	1	ME	Swans Island	36	1	1	0	0	1
MA	Westport	31	1	1	0	1	1	ME	Tenants Harbor	21	1	1	0	0	1
MD	West Ocean City	1	1	1	0	1	1	ME	Vinalhaven	52	1	1	0	0	1
ME	Freeport	10	1	1	0	0	1	ME	Yarmouth	2	1	1	0	0	1
ME	Matinicus	9	1	1	0	0	1	ME	York Harbor	16	1	1	0	0	1
ME	Monhegan	9	1	1	0	0	1	NC	Beaufort	1	1	1	0	1	1
ME	Orrs Island	5	1	1	0	0	1	NC	Manteo	1	1	1	0	1	1
ME	South Portland	7	1	1	1	0	0	NJ	Bricktown	1	1	1	0	1	1
ME	Southport	9	1	1	0	0	1	NJ	Keansburg	1	1	1	0	1	1
ME	Swans Island	36	1	1	0	0	1	NJ	Manasquan	1	1	1	1	0	0
ME	Tenants Harbor	17	1	1	0	0	1	NJ	Mystic Islands	1	1	1	0	1	1
ME	Vinalhaven	52	1	1	0	0	1	NJ	Toms River	1	1	1	0	1	1
ME	Yarmouth	4	1	1	0	0	1	NJ	Waretown	1	1	1	0	1	1
ME	York Harbor	15	1	1	0	0	1	NY	Glen Cove	1	1	1	0	0	1
NC	Beaufort	1	1	1	0	1	1	NY	Islip	1	1	1	0	0	1
NC	Manteo	1	1	1	0	1	1	NY	Mount Sinai	1	1	1	0	0	1
NJ	Brigantine	1	1	1	0	1	1	NY	Threemile Harbor	1	1	1	0	0	1
NJ	Keansburg	1	1	1	0	1	1	VA	Carrollton	1	1	1	0	0	1
NJ	Manasquan	1	1	1	1	0	0	VA	Norfolk	1	1	1	0	1	1
NJ	Mystic Islands	1	1	1	0	1	1	VA	Oyster	1	1	1	0	1	1
NJ	Rio Grande	1	1	1	0	1	1	NJ	Highlands	4	4	0	0	0	0
NJ	Somers Point	1	1	1	0	1	1	NJ	Belmar	1	1	0	0	0	0
NJ	Toms River	1	1	1	0	1	1	NJ	Port Monmouth	1	1	0	0	0	0
NJ	Waretown	1	1	1	0	1	1	NJ	Sea Bright	1	1	0	0	0	0
NJ	Wildwood	1	1	1	0	1	1	VA	Chincoteague	3	1	0	0	0	0
NY	Amity Harbor	1	1	1	0	0	1	MA	Barnstable	5	0	0	0	0	0
NY	Islip	1	1	1	0	0	1	MA	Westport Point	2	0	0	0	0	0
NY	Long Island	1	1	1	0	1	1								
NY	Mastic Beach	1	1	1	0	1	1								

NY	Mount Sinai	1	1	1	0	0	1
NY	Sheepshead Bay	1	1	1	0	0	1
NY	Threemile Harbor	1	1	1	0	0	1
VA	Carrollton	1	1	1	0	0	1
VA	Norfolk	2	1	1	0	1	1
VA	Oyster	1	1	1	0	1	1

Appendix: Communities - Table 8. Communities With LCMA 3, 4, or 5-Only Vessels that do not Qualify for Historic Participation in Any Area by Home Port (Permit Year 2000)

ST	Community/Place	All Trap Vessels	Trap Vessels not Claiming LCMA 3,4, or 5	Trap Vessels Claiming LCMA 3, 4, or 5	Number of Qualifiers	Number of Non-Qualifiers	LCMA 3 4, 5, Only Non-Qualifiers	LCMA 3, 4, 5 Only Non-Qualifiers with Only Lobster Permits	LCMA 3, 4, 5 Only Non-Qualifiers with Other Permits
NJ	Belford	29	0	29	14	15	15	0	15
NJ	Point Pleasant	24	0	24	9	15	9	0	9
NJ	Atlantic City	8	0	8	1	7	7	2	5
NJ	Barnegat Light	12	0	12	0	12	5	0	5
NJ	Cape May	12	0	12	4	8	5	0	5
NY	Shinnecock	9	0	9	0	9	3	0	3
MD	Ocean City	7	0	7	3	4	3	0	3
NY	Hampton Bays	3	0	3	0	3	3	0	3
NJ	Sea Isle City	7	0	7	4	3	2	0	2
NJ	Shark River Inlet	7	0	7	5	2	2	2	0
NY	Brooklyn	5	0	5	2	3	2	0	2
DE	Lewes	3	0	3	0	3	2	0	2
NY	Freeport	3	0	3	1	2	2	0	2
DE	Milford	2	0	2	0	2	2	0	2
NY	Baldwin	2	0	2	0	2	2	1	1
NY	Island Park	2	0	2	0	2	2	0	2
VA	Norfolk	2	0	2	0	2	2	0	2
MA	Gloucester	118	81	37	4	33	1	0	1
ME	Portland	66	38	28	0	28	1	0	1
MA	Westport	31	17	14	4	10	1	0	1
NH	Portsmouth	27	15	12	0	12	1	0	1
NY	Montauk	20	5	15	0	15	1	0	1
MA	Fairhaven	19	6	13	0	13	1	0	1
MA	Brant Rock	13	10	3	0	3	1	0	1
MA	Cohasset	12	8	4	0	4	1	1	0
CT	Stonington	8	5	3	0	3	1	0	1

NJ Neptune	4	0	4	3	1	1	1	0
CT New London	3	1	2	0	2	1	0	1
DE Indian River Inlet	3	0	3	2	1	1	0	1
NJ Bricktown	3	0	3	1	2	1	0	1
FL Miami	2	1	1	0	1	1	0	1
NH Hampton Falls	2	1	1	0	1	1	0	1
NJ Belmar	2	0	2	1	1	1	0	1
NJ Brielle	2	0	2	0	2	1	0	1
NJ Point Pleasant Beach	2	0	2	0	2	1	1	0
VA Chincoteague	2	0	2	1	1	1	0	1
DE Dagsboro	1	0	1	0	1	1	0	1
DE Long Neck	1	0	1	0	1	1	0	1
DE Rehoboth Beach	1	0	1	0	1	1	0	1
DE Wilmington	1	0	1	0	1	1	0	1
MD West Ocean City	1	0	1	0	1	1	0	1
NC Beaufort	1	0	1	0	1	1	0	1
NC Manteo	1	0	1	0	1	1	0	1
NJ Brigantine	1	0	1	0	1	1	0	1
NJ Keansburg	1	0	1	0	1	1	0	1
NJ Mystic Islands	1	0	1	0	1	1	0	1
NJ Rio Grande	1	0	1	0	1	1	0	1
NJ Somers Point	1	0	1	0	1	1	0	1
NJ Toms River	1	0	1	0	1	1	0	1
NJ Waretown	1	0	1	0	1	1	0	1
NJ Wildwood	1	0	1	0	1	1	0	1
NY Long Island	1	0	1	0	1	1	0	1
NY Mastic Beach	1	0	1	0	1	1	0	1
VA Oyster	1	0	1	0	1	1	0	1

Appendix: Communities - Table 9. Communities With LCMA 3, 4, or 5-Only Vessels that do not Qualify for Historic Participation in Any Area by Principal Port (Permit Year 2000)

ST	Community/Place	All Trap Vessels	Trap Vessels not Claiming LCMA 3,4, or 5	Trap Vessels Claiming LCMA 3, 4, or 5	Number of Qualifiers	Number of Non-Qualifiers	LCMA 3 4, 5, Only Non-Qualifiers	LCMA 3, 4, 5 Only Non-Qualifiers with Only Lobster Permits	LCMA 3, 4, 5 Only Non-Qualifiers with Other Permits
NJ	Belford	26	0	26	12	14	14	0	14
NJ	Point Pleasant	24	0	24	9	15	8	0	8
NJ	Cape May	14	0	14	3	11	8	0	8
NJ	Atlantic City	9	0	9	1	8	8	2	6
MD	Ocean City	10	0	10	3	7	6	0	6
NJ	Barnegat Light	11	0	11	0	11	5	0	5
NY	Shinnecock	9	0	9	0	9	3	0	3
NJ	Shark River Inlet	7	0	7	4	3	3	2	1
NY	Hampton Bays	3	0	3	0	3	3	0	3
NH	Portsmouth	31	19	12	0	12	2	0	2
CT	Stonington	11	7	4	0	4	2	0	2
NJ	Sea Isle City	7	0	7	4	3	2	0	2
NY	New York	7	0	7	1	6	2	0	2
NY	Brooklyn	6	0	6	2	4	2	0	2
NJ	Point Pleasant Beach	5	0	5	1	4	2	1	1
DE	Indian River Inlet	4	0	4	2	2	2	0	2
NY	Freeport	3	0	3	1	2	2	0	2
VA	Chincoteague	3	0	3	1	2	2	0	2
NY	Baldwin	2	0	2	0	2	2	1	1
NY	Island Park	2	0	2	0	2	2	0	2
MA	Gloucester	133	86	47	5	42	1	0	1
ME	Portland	84	44	40	0	40	1	0	1
NY	Montauk	21	4	17	0	17	1	0	1
MA	Fairhaven	20	8	12	2	10	1	0	1
MA	Brant Rock	15	12	3	0	3	1	0	1
MA	Cohasset	13	9	4	0	4	1	1	0
NJ	Neptune	5	0	5	4	1	1	1	0
DE	Lewes	2	0	2	0	2	1	0	1
NJ	Brielle	2	0	2	0	2	1	0	1
NJ	Wildwood	2	0	2	1	1	1	0	1
NY	Long Island	2	0	2	0	2	1	0	1

DE	Dagsboro	1	0	1	0	1	1	0	1
DE	Milford	1	0	1	0	1	1	0	1
DE	Rehoboth Beach	1	0	1	0	1	1	0	1
GA	Darien	1	0	1	0	1	1	0	1
MD	West Ocean City	1	0	1	0	1	1	0	1
NC	Beaufort	1	0	1	0	1	1	0	1
NC	Manteo	1	0	1	0	1	1	0	1
NJ	Bricktown	1	0	1	0	1	1	0	1
NJ	Keansburg	1	0	1	0	1	1	0	1
NJ	Mystic Islands	1	0	1	0	1	1	0	1
NJ	Toms River	1	0	1	0	1	1	0	1
NJ	Waretown	1	0	1	0	1	1	0	1
VA	Norfolk	1	0	1	0	1	1	0	1
VA	Oyster	1	0	1	0	1	1	0	1

X. LIST OF PREPARERS

This document was prepared by: Harold Mears, Robert Ross, Peter Burns, Kurt Wilhelm, Lynn Lankshear, and Dianne Stephan of NOAA Fisheries, Gloucester, MA; Charles Lynch and Julie Williams, General Counsel, Northeast Region, Gloucester, MA; Eric Thunberg, and Josef Idoine, NOAA Fisheries Science Center (NEFC), Woods Hole, MA; and, Tom Fletcher, Alaska Region, Juneau, AK. This document was reviewed by individuals in the NOAA Fisheries Regional Office, the NEFC, Tom Meyer, and Theo Brainerd, of NOAA Fisheries, Silver Spring, MD; Mark Millikin, and Steve Kokkinakis, of the NOAA Office of Strategic Planning; and Richard Roberts, of the NOAA Office of Information Resources Management.