Draft Supplemental Environmental Impact Statement (DSEIS),

Regulatory Impact Review and Initial Regulatory Flexibility Analysis

FEDERAL LOBSTER MANAGEMENT

IN THE EXCLUSIVE

ECONOMIC ZONE

National Marine Fisheries Service
Northeast Region

November 2000

UNITED STATES DEPARTMENT OF COMMERCE
Office of the Under Secretary for
Oceans and Atmosphere
Washington, D.C. 20230

NOV 17 2000

Dear Reviewer:

In accordance with provisions of the National Environmental Policy Act of 1969, we enclose for your review our draft supplemental environmental impact statement (DSEIS) of Federal Lobster Management in the Exclusive Economic Zone (EEZ).

This DSEIS analyzes a management approach using historical participation as a means to control fishing effort in the offshore EEZ and nearshore EEZ waters south of New York. It also analyzes a conservation equivalency provision for trap limits in New Hampshire coastal waters, and boundary clarifications for lobster conservation management areas off Massachusetts.

Any written comments or questions you may have should be submitted to Harold Mears, Northeast Regional Office, National Marine Fisheries Service, One Blackburn Drive, Gloucester, Massachusetts 01930, by January 9, 2001. Also, one copy of your comments should be sent to me in room 6117, CS/EC, U.S. Department of Commerce, Washington, D.C. 20230.

Sincerely,

Susan Fruchter

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NEPA Coordinator

Enclosure

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Draft Supplemental Environmental Impact Statement (DSEIS)

I. INTRODUCTION

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 at an all-time high 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 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. 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.

1. Background

The New England Fishery Management Council=s Fishery Management Plan (FMP) for American Lobster was implemented in Federal waters for vessels with Federal fishing permits in 1983. Since approximately 80% of the fishery for American lobster occurs in state waters, the FMP objectives of maintaining a sustainable fishery and preventing overfishing of the resource could not be achieved effectively by Federal action alone. NMFS could no longer ensure that the FMP, which covered only Federal waters, was consistent with National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), which requires implementation of conservation and management measures to prevent overfishing. Therefore, a proposed rule was published in 1996 (61 FR 13478) to withdraw the Council FMP upon completion of an effective interstate management program.

The Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA), enacted in 1993, includes provisions to ensure state compliance with interstate fishery management plans (ISFMPs) developed by the Atlantic States Marine Fisheries Commission (Commission). That legislation also 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 MSA. In December 1997, the Commission approved Amendment 3 to the ISFMP, which contained measures to end overfishing of American lobster.

In March 1998, NMFS prepared a Draft Environmental Impact Statement (DEIS). A notice of availability for the DEIS was published on March 17, 1998 (63 FR 14922) which evaluated various management options in Federal waters to be consistent with MSA requirements regarding overfishing

and the rebuilding of American lobster stocks in cooperation with the Commission under the ACFCMA. A proposed rule was then prepared in November 1998 (64 FR 2708) which affirmatively responded to public comments urging NMFS to implement the Commission=s plan in Federal waters. It also acknowledged that the preponderance of the fishery occurs in state waters and that, once the lobster FMP under the MSA is withdrawn, state regulatory actions will be the key factor in rebuilding the lobster resource.

Subsequently, a notice of availability of a Final Environmental Impact Statement (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. The Final Rule transferred current regulations for management of the lobster fishery under the MSA (50 CFR Part 649) to the ACFCMA (50 CFR Part 697), and implemented new measures consistent with the Commission=s plan to end overfishing. These new measures include: extension of the current 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. This rule met the Commission=s request for NMFS to implement EEZ regulations compatible with the ISFMP for lobster, and is consistent with the National Standards of the MSA which is required when implementing Federal regulations under the ACFCMA.

The Commission, on August 3, 1999, approved Addendum 1 to Amendment 3 of the ISFMP for the determination of trap limits based upon historical participation, rather than fixed trap limits, in Lobster Management Area 3 (offshore EEZ), and Areas 4 and 5 (inshore EEZ areas south of New York). As a result of the Commission's Addendum 1 and its recommendations for NMFS to implement compatible measures in Federal waters, an advance notice of proposed rulemaking (ANPR) was published in the Federal Register on September 1, 1999 (64 FR 47756), to seek public comment on whether there is a need under the ACFCMA 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 NMFS established September 1, 1999, the publication date of the ANPR, as a potential control date, meaning that participation in the lobster fishery after that date may not be considered in determining trap limits based on historical participation. A Notice of Intent to prepare an Environmental Impact Statement (EIS) was subsequently published in the Federal Register on December 10, 1999 (64 FR 679227) to inform the public that NMFS would soon evaluate the Commission's August 1999 recommendations for modification of American lobster fishery regulations in the EEZ, with emphasis on the use of historical participation as a basis for restricting trap harvest of lobsters in the offshore EEZ (Area 3), as well as in the nearshore EEZ areas between New York and North Carolina (Areas 4 and 5).

2. Purpose and Need for Action

This DSEIS considers the biological, economic, and social impacts of several alternative actions for waters under Federal jurisdiction. These alternatives address recommendations made by the

Commission for implementation of fishery regulations in the EEZ compatible with Addendum 1 to Amendment 3 of the American lobster ISFMP. These include:

- 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..

The Commission has also recommended on February 11, 2000, that black sea bass pots in Lobster Management Area 5 be exempted from ACFCMA trap gear requirements. Since this request implicates the management of the black sea bass fishery under the MSA, NMFS has decided to address this recommendation under separate rulemaking procedures apart from this DSEIS due to the associated administrative complexities affecting two different fishery resources managed under separate Federal legislative authorities. Similarly, Commission recommendations concerning Federal rulemaking to implement a lobster minimum size increase and a ban on possession of lobsters taken by trap gear in certain areas of Lobster Conservation Management Area 4 (LCMA 4) were not included in the preferred alternative, for the reasons discussed in Section II.5 (issues to be resolved).

II. PREFERRED MANAGEMENT ACTION, RATIONALE, AND ENVIRONMENTAL CONSEQUENCES (COMMISSION RECOMMENDATIONS)

The preferred alternative discussed below addresses several recommendations made by the Commission for Federal management of American lobster. Components of these recommendations include implementation of historical participation measures to control effort by the lobster trap fishery in LCMAs 3, 4, and 5; implementation of conservation-equivalent trap limits in New Hampshire waters of LCMA 1; and clarification of lobster management area boundaries. This section also includes a discussion of vessel upgrades, areas of concern, and issues to be resolved, the topics of which all contribute to the information used by NMFS for development of the preferred alternative.

1. Effort Control in Lobster Management Areas 3, 4, and 5

In 1994, a five-year moratorium on new entrants in the EEZ lobster fishery was implemented via a limited access permit system. That moratorium, in December 1999, was extended indefinitely under Federal regulations found at 50 CFR Part 697. The Commission, based upon its approval of selected management measures proposed by the Area 3, 4, and 5 Lobster Conservation Management Teams (LCMTs), has recommended that access to, and levels of effort in, the lobster trap fishery in EEZ Offshore Area 3 (LCMA 3) and Nearshore EEZ waters of Area 4 and Area 5 (LCMA 4 and LCMA 5) be based on historical participation in these areas. Commission recommendations for qualification based on historical participation addressed associated 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 through provision of associated documentation. For example, the LCMA 3 plan requires both a landing and fishery intensity threshold, whereas the LCMA 4/5 plans include only a requirement to have held a lobster permit endorsed for traps during the qualification period (see details below). NMFS is proposing implementation of those recommendations as its preferred alternative, except as noted.

A. Area 3 Fishing Effort Control Program

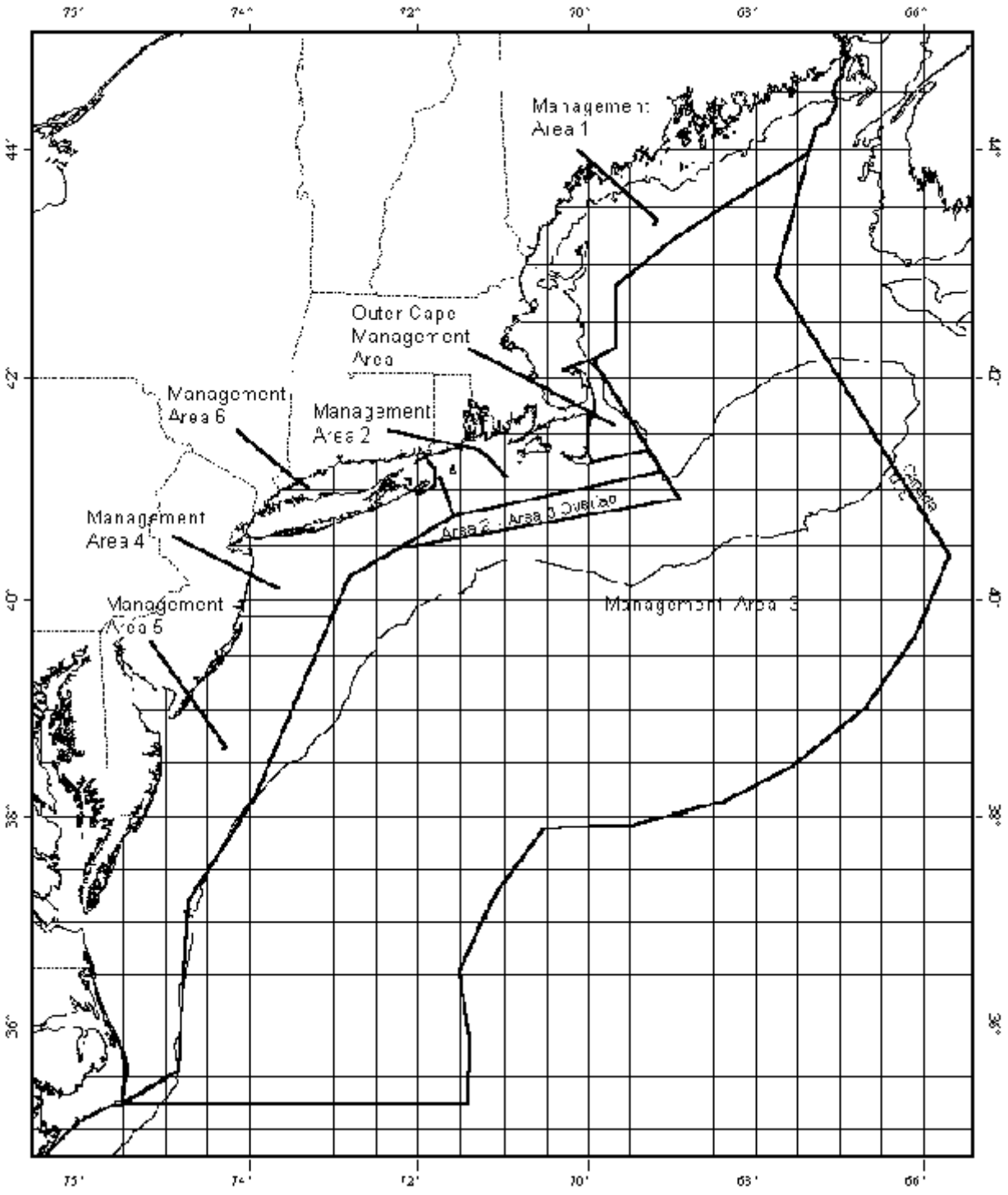
Area Coordinates

EEZ Offshore Management Area 3 (Figure 1) 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
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.	69°40' W.
F	42°10' N.	69°56' W.
K	41°10' N.	69°06.5' W.
N	40°45.5' N.	71°34' W.
M	40°27.5' N.	72°14' W.
U	40°12.5' N.	72°48.5' W.
V	39°50' N.	73°01' W.
X	38°39.5' N.	73°40' W.
Y	38°12' N.	73°55' W.
Z	37°12' N.	74°44' W.
ZA	35°34' N.	74°51' W.
ZB	35°14.5' N.	75°31' W.
ZC	35°14.5' N.	71°24' W.

From point “ZC” along the seaward EEZ boundary to point “A”.

Figure 1. Lobster Conservation Management Areas



Qualification Period and Establishment of a Federal Control Date

This alternative for LCMA 3 proposes to limit the number of traps based on proof of historical participation and numbers of traps fished by a vessel during a qualifying period from March 25, 1991 (date recommended by the Commission) to September 1, 1999. NMFS is not proposing to adopt an earlier ending date of November 1, 1997 for this qualification period, as recommended by the Commission because of NMFS' policy to provide advance notice of qualification dates. NMFS, on September 1, 1999, published an advance notice of proposed rulemaking (ANPR) in the Federal Register (64 FR 47756), which informed Federal American lobster permit holders and interested public that NMFS is considering September 1, 1999, the publication date of the ANPR, as a possible control date, which may be used as a cut-off date for establishing eligibility criteria for future access in the lobster trap fishery subject to Federal authority. This alternative follows closely with the recommendations pertaining to historical participation in the EEZ for Management Areas 3-5 approved under the ISFMP on August 1, 1999.

Qualification Criteria

Under this alternative, to qualify for participation in the Area 3 lobster trap fishery, Federal lobster permit holders must meet all of the following criteria:

1. Possession of a current Federal limited access lobster permit which was endorsed for use of trap gear during any calendar year during the qualification period from March 25, 1991 to September 1, 1999.
2. Provision of documentation to demonstrate a history of two consecutive calendar-months of active lobster trap fishing in Area 3 in any calendar year during the qualification period. A history of active trap fishing is defined as the fishing of at least 200 traps set in LCMA 3 for the duration of the two-month qualifying period. Documentation may include copies of vessel logbooks, state or Federal Fishing Trip Reports, permit applications, or any other form of certification which denotes area fished and harvest information.
3. Provision of sales receipts or records showing the landing of at least 25,000 pounds of lobster from throughout the range of the resource during the year used as the qualifying year referenced in the preceding paragraph (Criterion No. 2 above).

Trap Allocations

Under this alternative, once a Federal permit holder qualifies to participate in the Area 3 lobster trap fishery, qualifying permit holders will also be required to provide a signed affidavit to NMFS, certifying the number of traps fished in Area 3 during the qualifying year. This certification must be based upon

information contained in: Federal Fishing Trip Reports (OMB Form 88-30); official state reporting documentation showing the number of traps fished including, but not limited to, state report cards, license application forms, and catch reports; a Federal Fishing Vessel and Gear Damage Compensation Fund Report (NOAA Form 88-176); and/or other forms of documentation (see below). Federal permit holders will be required, if requested by the Regional Administrator, to submit this information to support the affidavit.

The use of Federal Fishing Trip Reports to document historical fishing effort (fishing location and number of traps fished) in the lobster fishery would be relevant to some (e.g., those holding other species permits which, unlike lobster permits, require mandatory reporting), but not all, Federal lobster permit holders. A recent review (NMFS 1999) indicates that of 3,153 Federal lobster permit holders in 1997, 1,984 (approximately 62%) 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 (see related discussion and additional details in Section II.7.D). 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% of Federal lobster permit holders). Use of Federal fishing vessel and Gear Damage Compensation Reports 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. Vessel logbooks, receipts from the sale of lobsters, canceled checks from the purchase of lobster traps, observer trip reports, and income tax forms, provide other examples of documentation which can be used to help substantiate previous levels of lobster fishing effort (number of traps). Due to the varying degrees to which each of these forms of documentation may be either available or relevant for purposes of certifying historical trapping effort on a case by case basis, NMFS concludes that discretion should be left to the individual permit holder in deciding which documentation to use. Accordingly, NMFS does not agree with the Commission's recommendations that a priority ranking should be assigned to the use of any one form of documentation over another.

Thus, it is obvious that a combination of documents will be required to certify number of traps fished historically. NMFS recognizes the importance of this information as a basis to certify historical participation in the Area 3 fishery, yet is sensitive to the administrative impact which the associated NMFS review of these documents would have on the timely implementation of the respective lobster area management measures. The use of an affidavit, with the provision of supporting documentation to NMFS as required, minimizes any adverse impact which would otherwise be imposed. In the event that a more intensive review of documentation (e.g., for all lobster permit holders) becomes apparent, NMFS will address any new review requirements and associated appeal procedures as necessary, through continued Federal rulemaking and public comment procedures.

The Commission has also recommended that NMFS contract with an outside entity to determine and recommend trap allocations, and publish a notice that specifies initial trap allocations for each lobster

permit holder. NMFS disagrees. Such a contract could not be approved without a lengthy evaluation and clearance process under the auspices of the Federal Advisory Committee Act, leading to a delay in the implementation of area management plans involving historical

participation. In addition, Federal funds which may be required for this contractual assistance are not available, and the release of personal documents and records to an outside review body raises privacy issues. Nevertheless, intentional falsification of information required by Federal statute would be subject to the civil and criminal penalty provisions cited in 50 CFR 600.735. NMFS also believes that the publication of a public notice which would specify individual trap allocations for each Federal permit holder is an unjustifiable request due to privacy concerns of Federal lobster permit holders, but retains the authority to release such information at the discretion of the Regional Administrator, within the limitations of enabling Federal legislation.

Trap Reduction Plan

Once qualified, a lobster permit holder would be allocated a certain number of traps. Trap allocations would be based on affidavits provided by each Area 3 lobster fishery participant, but no Federal lobster permit holder shall be given an initial trap allocation of more than 3,250 traps. Each trap allocation of greater than 1,200 traps would be reduced on a sliding scale basis over five years. Trap reductions would not go below a baseline of 1,200 traps. Area 3 allocations of less than 1,200 traps would remain at their current level. The reduction schedule recommended by the Commission is shown in Table 1.

Table 1. Area 3 Trap Reduction Schedule

Initial	1201 -	1301 -	1400 -	1500 -	1600 - 1699	1700 - 1799	1800 -	1900 -1999	2000 -	2100 - 2199
first year	1200	1248	1344	1437	1530	1620	1709	1797	1884	1969
second	1200	1200	1290	1388	1467	1548	1628	1705	1782	1856
third year	1200	1200	1251	1337	1423	1498	1573	1644	1715	1782
fourth year	1200	1200	1213	1297	1380	1452	1523	1589	1654	1715
fifth year	1200	1200	1200	1276	1352	1417	1482	1549	1616	1674

Initial	2200 -	2300 -	2400 -	2500 -	2600 - 2699	2700 - 2799	2800 -	2900 - 2999	3000 -	3100 - 3199	3200 -
first year	2054	2140	2225	2309	2392	2475	2557	2640	2722	2821	2920
second	1930	2003	2076	2197	2218	2288	2357	2425	2493	2575	2656
third year	1849	1905	1981	2034	2107	2169	2230	2291	2351	2422	2493
fourth year	1776	1836	1896	1952	2008	2063	2117	2171	2225	2288	2351
fifth year	1732	1789	1845	1897	1949	2000	2050	2100	2150	2209	2267

Any Federal lobster permit holder applying for an Area 3 trap allocation who also applies for a trap allocation in Area 4, Area 5, or all three areas, must use the same qualifying year for all areas, to avoid

a combined trap allocation greater than the number of traps which an individual ever had in the water at any one time. In addition, the current requirement that Federal permit holders who elect to fish in multiple areas must abide by the most restrictive regulations in any one elected area at any one time, remains in effect.

Vessel Upgrades

NMFS is not proposing to adopt the Commission's recommendation to limit vessel upgrades for Federal permit holders receiving an LCMA 3 trap allocation. This limitation, if implemented, would preclude federally-permitted vessels in the LCMA 3 lobster fishery that measure over

50-feet in length (or upgrading to over 50-feet in length), from upgrades or replacement which would result in more than 10% increase in length overall, or a 20% increase in shaft horsepower, for two years.

NMFS does not concur with this recommendation. A prohibition on an increase in vessel length or an increase in horsepower, for a two year period, would require existing permit holders to legally substantiate existing baseline vessel characteristics. Lobster trap vessels are generally small, with an average length of 39 feet (35.7 meters). Many such vessels are not Coast Guard documented and many hold no other limited access permit. 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 survey or naval architect to verify existing baseline vessel characteristics can range from $150-600, with associated cost increasing with vessel size.

The proposed upgrade restriction would result in added delays for vessel replacement and transfers once implemented. Review of requests for transfers will take more time to process to verify whether the specific vessel with a limited access American lobster permit does qualify to fish in Area 3, and therefore is restricted by the upgrade provision.

The Commission's recommendation also specifies restrictions on the basis of shaft horsepower. NMFS does not agree because this recommendation could create difficulties for vessel owners that have another limited access permit with an upgrade restriction, because current NMFS vessel upgrade restrictions do not require a declaration of a vessel's "shaft" horsepower. Essentially, a vessel owner could have two horsepower baselines for the same engine.

Unlike restrictions on vessel and horsepower upgrades in the scallop and groundfish fisheries, NMFS concludes that the associated workload would be unnecessarily burdensome, especially given the

inability to quantify the related conservation benefits to the lobster resource. 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.

B. Area 4 and Area 5 Fishing Effort Control Program

Area Coordinates

EEZ Nearshore Management Area 4 (Figure 1) is defined as state and Federal waters that are near-shore in the northern Mid-Atlantic area, defined by the area bounded by straight lines connecting the following points:

Point	**Latitude**	**Longitude**
M	40E27.5'N.	72E14'W.
N	40E45.5'N.	71E34'W.
O	41E07'N.	71E43'W.
P	41E06.5'N.	71E47'W.
S	40E58'N.	72E00'W.
T	41E00.5'N.	72E00'W.

From Point “T”, along the New York/New Jersey coast to Point “W”

W	39E50'N.	74E09'W.
V	39E50'N.	73E01'W.
U	40E12.5'N.	72E48.5'W.

From Point “U” back to Point “M”.

EEZ Nearshore Management Area 5 (Figure 1) is defined as state and Federal waters that are near-shore in the southern Mid-Atlantic area, defined by the area bounded by straight lines connecting the following points, in the order stated:

Point	**Latitude**	**Longitude**
W	39E50'N.	74E09'W.
V	39E50'N.	73E01'W.

X	38E39.5'N.	73E40'W.
Y	38E12'N.	73E55'W.
Z	37E12'N.	74E44'W.
ZA	35E34'N.	74E51'W.
ZB	35E14.5"N.	75E31'W.

From Point "ZB" along the coasts of North Carolina, Virginia, Maryland, Delaware, New Jersey back to Point "W".

Qualification Period and Establishment of a Federal Control Date

Under this alternative, the ability of Federal lobster permit holders to fish with traps in the Area 4 and/or Area 5 fishery will be based on proof of historical participation and numbers of traps fished by a vessel during a qualifying period from March 25, 1991 to September 1, 1999. NMFS is unable to adopt an earlier ending date ("control date") of September 15, 1998 for this qualification period, as recommended by the Commission. See Area 3 discussion for associated rationale.

Qualification Criteria

To qualify for participation in the EEZ waters of the Area 4 and/or Area 5 lobster trap fishery under this alternative, Federal lobster permit holders must meet the following criteria:

1. Possession of a current Federal limited access lobster permit which was endorsed for use of trap gear during any calendar year during the qualification period from March 25, 1991 to September 1, 1999.

2. Provision of documentation to demonstrate a history of two consecutive calendar-months of active lobster trap fishing in Area 4 and/or Area 5 in any calendar year during the qualification period. A history of active trap fishing is defined as the fishing of at least 200 traps set for the duration of the two-month qualifying period. Documentation may include copies of vessel logbooks, state or Federal Fishing Trip Reports, permit allocations, or any other form of certification which denotes area fished and harvest information. Although not recommended by the Commission, NMFS believes that this criterion is necessary to effectively document historical participation, consistent with the qualification criteria of the Area 3 plan.

Trap Allocations

Similar to the preferred alternative for Area 3, Federal permit holders qualifying to participate in the Area 4 and/or Area 5 lobster trap fishery will be required to provide a signed affidavit to NMFS, certifying the number of traps fished in the elected area(s) during the qualifying year. See discussion of trap allocations for Area 3 of the preferred alternative for examples of

appropriate documentation which can be used for certification purposes. Federal lobster permit holders will be allocated the number of traps designated on the signed affidavit. Unlike Commission recommendations for the Area 3 fishery, those for the Area 4 and Area 5 fishery do not contain a provision for either a trap limit or a trap reduction requirement. Federal permit holders will be required, if requested by the Regional Administrator, to submit associated documentation to support the affidavit.

Any Federal lobster permit holder applying for an Area 4 and/or Area 5 trap allocation who also applies for a trap allocation in Area 3, must use the same qualifying year for all areas to avoid a combined allocation greater than the number of traps which an individual ever had in the water at any one time. In addition, the current requirement that Federal permit holders who elect to fish in multiple areas must abide by the most restrictive regulations in any one elected area at any one time, remains in effect.

State Agreements

NMFS may enter into agreements with requesting states to determine fulfillment of qualification criteria and associated determination of trap allocations for Federal lobster permit holders relating to historical participation in the LCMA 4 and LCMA 5 lobster fishery. The States of New Jersey and New York have conducted surveys in this regard for state lobster license holders. Since many state license holders also possess a Federal lobster permit, NMFS/state agreements on administration of historical participation would remove confusion which could be created if the states and NMFS conducted separate determinations of historical participation for fishermen permitted to harvest lobster in both state and Federal waters of these respective LCMAs.

NMFS is aware that neither New Jersey or New York are requiring the provision of documentation to demonstrate a history of two consecutive calendar months of lobster trap fishing during the 1991-1999 qualification period, as proposed under this DSEIS. In addition, the Commission, in November 1999,

approved a proposal for conservation equivalency submitted by New Jersey concerning an alternate method for determining qualification criteria for historical participation and associated trap allocations. That proposal included a provision for fishermen to qualify for a "default" 500 trap allocation who have not historically fished with traps to harvest lobster, with the condition that at least 2,000 pounds of lobster were caught and sold by another method during a defined time frame. The ability of NMFS to enter into agreements with states, depending on the extent of divergence between state and Federal lobster regulations, may involve future public comment and Federal rulemaking requirements under the ACFCMA.

2. Modification of LCMA 1 Trap Limits for New Hampshire Lobster License Holders

The ISFMP includes the flexibility for individual states to submit proposals for alternate regulations if those regulations are conservation-equivalent and consistent with area management measures under the ISFMP. Management measures for American lobster in the EEZ (64 FR 64228) also acknowledge the potential for conservation-equivalent measures to be proposed by the states and, if approved by the Commission, considered, as appropriate, for implementation under Federal regulations. Measures under 50 CFR 697.25 specify that NMFS may publish a proposed rule to implement any additional or different management measures in order to achieve ISFMP objectives or to be compatible with Commission measures or recommendations.

In October 1998, the Commission approved a proposal from the State of New Hampshire for trap limits which vary from the 800 trap limit in LCMA 1. That state's lobster management program provides for a two-tier lobster license system: state fishermen who provide documentation of landing more than 12,000 pounds of lobster in at least 2 years from 1994-1998 receive a full commercial lobster fishing license issued by the State of New Hampshire; those who cannot provide this documentation are issued a limited lobster commercial fishing license. Those fishermen who qualify for the full license can fish up to 1,200 traps; and those in the limited category can fish a maximum of 600 traps. Following approval of the New Hampshire proposal under the ISFMP, the Commission has recommended that NMFS modify Federal regulations to maintain the biological and socio-economic basis of New Hampshire's lobster management program. Similar proposals, although allowable, were not received from the States of Maine and Massachusetts, which also border LCMA 1. Specifically, the Commission has requested that NMFS modify Federal regulations to allow Federal permit holders who also possess a New Hampshire full commercial lobster fishing license to fish an additional 400 traps in New Hampshire state waters. The 800 Federal trap limit in the EEZ waters of LCMA 1 would remain unchanged.

There are approximately 80 Federal lobster permit holders with vessel ports in New Hampshire (1998 data) who harvest lobster primarily with trap gear. Twenty-two of these individuals also possess a full commercial lobster license and 26 possess a limited lobster license issued by the State of New Hampshire (New Hampshire Fish and Game Department, personal communication, 2000).

Proposed Trap Limit for Federal Lobster Permit Holders who Fish in New Hampshire Waters

Under current regulations, Federal lobster license holders must abide by the stricter of either Federal or state lobster management measures. Under this preferred alternative, a "waiver" would be given to this requirement, with respect to restrictions and number of lobster traps, to Federal lobster permit holders who also are licensed to fish in New Hampshire waters of LCMA 1. Specifically, a federally permitted lobsterman who also has a New Hampshire full commercial lobster license would be restricted to fishing no more than 800 traps in Federal waters, but would be allowed to fish an additional 400 traps in state waters in accordance with state regulations.

3. Lobster Management Area Boundary Clarification

Addendum I to the Commission's American lobster ISFMP revised the boundary lines for three of the LCMA's adjacent to Massachusetts, including LCMA 1, LCMA 2, and the Outer Cape LCMA. These boundary lines were modified by the Commission in Addendum I to bring the area boundaries more in line with traditional fishing practices for the impacted areas, and to correct an oversight when a section of the LCMA 1 boundary line was initially approved under Amendment 3 to the ISFMP.

Proposed Clarification

NMFS proposes to implement compatible boundary lines for LCMA 1, LCMA 2, and the Outer Cape LCMA, to maintain consistency with the Commission's American lobster ISFMP and to avoid confusion which could result if the Federal and Commission area boundaries and their associated lobster management measures differ.

Cape Cod Canal Overlap

The Cape Cod Canal bisects the Cape Cod peninsula in Massachusetts and connects the waters of Cape Cod Bay to the north (which falls within the boundaries of LCMA 1) with the waters of Buzzards

Bay to the south (which falls within the boundaries of LCMA 2). The Canal is large enough at certain points to allow the setting of lobster trap gear, and lobster fishermen from LCMA 1 and LCMA 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 historic ability to fish in the Canal, the Cape Cod Canal shall be an area of overlap between LCMA 1 and LCMA 2. To establish this overlap area, the existing boundaries of LCMA 1 and LCMA 2 will be modified to encompass the Cape Cod Canal.

Outer Cape Lobster Management Area's Northern Boundary

As the result of an oversight contained in Amendment 3 to the ISFMP, the initial boundary line coordinates separating the Outer Cape LCMA from LCMA 1 did not extend to the shoreline of Massachusetts and therefore did not effectively separate these LCMAs. In addition, according to constituents' input, the original boundary lines did not adequately represent the traditional fishing practices for fishermen in the impacted areas of the Outer Cape LCMA and LCMA 1. To correct this situation, under Addendum I to the Commission's American lobster ISFMP, the LCMA coordinates for the boundary line separating LCMA 1 and the northern boundary of the Outer Cape LCMA were revised and extended around the western tip of Cape Cod, Massachusetts. This revision effectively extended the boundary line to the shoreline of Massachusetts and created an area of overlap between LCMA 1 and the Outer Cape LCMA.

NMFS proposes under this alternative to revise the existing boundary line coordinates as follows:

> Overlap Zone Boundary: beginning at Race Point, Massachusetts following the LORAN C 9960-Y-44110 in a westerly direction to its intersection with 9960-W-13850 line, then following that line in a southeasterly direction to its intersection with the 9960-X-25330 line (latitude/longitude needed), then following that line in a northeasterly direction to where it meets the shoreline of Great Island in the town of Wellfleet (latitude/longitude needed), 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 LCMA 1 and the Outer Cape LCMA were plotted, there was a discrepancy identified in the information provided in Addendum I. As a result, 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, Massachusetts, continuing around the tip of Cape Cod, while the coordinates erroneously denote an overlap area beginning at Race Point, Massachusetts. NMFS developed the coordinates in this section based on the coordinates in

Addendum I, not the graphics (chart) in Addendum I. The Commission has been informed of this discrepancy.

Boundary Change Between Area 2 And The Outer Cape Management Area

To address concerns from fishermen that the boundary in the Nantucket Sound area of Massachusetts, separating LCMA 2 and the Outer Cape LCMA, did not correspond with historic fishing practices, Addendum I to the ISFMP addressed this issue. The boundary running from the south-eastern tip of Cape Cod to Nantucket Island, Massachusetts separating LCMA 2 and the Outer Cape LCMA was revised and shifted west by 5 minutes, from 70 degrees West Longitude to, 70 degrees 5 minutes West Longitude.

Revised Boundary Description for LCMA 1, LCMA 2, and the Outer Cape LCMA.

EEZ Nearshore Management Area 1.

EEZ Nearshore Management Area 1 is defined by the area, including state and Federal waters that are near-shore 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
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.	69°40' 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.
G4	41°52' N.	70°07.49' W.
G5	41°54.46' N.	70°03.99' W.

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

EEZ Nearshore Management Area 2.

EEZ Nearshore Management Area 2 is defined by the area, including state and Federal waters that are near-shore 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' W.
K	41°10' N.	69°06.5' W.
L	40°55' N.	68°54' W.
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.
Q	41°11'30" 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.

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 G3 along the outer Cape Cod coast to Point H

H	41°40' N.	70°05' W.
I	41°15' N.	70°05' W.
J	41°21.5' N.	69°16' W.

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

4. Areas of Concern

Successful implementation of measures relating to historical participation for controlling fishing effort in certain LCMAs is dependent upon the ability of Federal permit holders to provide documentation to substantiate previous involvement in the American lobster fishery. The preferred alternative also responds to a request from the Commission for the implementation of Federal regulations consistent with trap limits in New Hampshire, which have been determined to be conservationally-equivalent to an 800-trap limit which otherwise would be required under the ISFMP. Consideration of future requests by the states for conservation equivalency under the ISFMP will likely result in additional requests to NMFS for Federal consistency on a case by case basis. Potential proliferation of these requests will stress Federal rulemaking procedures and add to the complexity of Federal regulations for the American lobster fishery.

A. Implementation of management measures for historical participation.

Addendum 1 to Amendment 3 of the ISFMP included guidelines for the evaluation and implementation of management measures for historical participation in LCMAs 3, 4, and 5. These guidelines address the potential use of various forms of documentation for purposes of qualifying and establishing individual trap allocations for state and Federal lobster permit holders. A cursory analysis by NMFS of the extent to which each form of documentation may or may not apply to Federal permit holders suggests that a combination of documents may be needed to certify historical levels of lobster fishing effort. The ISFMP includes various other options for documenting historical fishing effort in the absence of state or Federal reports which can perhaps be utilized, including receipts from sales of lobsters or purchase of bait for lobster traps, port agent interviews, and income tax forms. Recognizing that the guidelines for

evaluating historical fishing effort need to be further evaluated, the Commission, via the ISFMP, calls for the states, in consultation with the LCMTs, to submit a proposal to the Commission's Lobster Management Board (Board) on the method of allocating traps in situations where state and Federal (e.g., catch/trip) reports are neither suitable nor available. That proposal has not yet been submitted. Despite the uncertainty regarding the extent to which Federal permit holders may be able to easily assemble supporting documentation to certify historical lobster fishing effort, a majority (about 70%) of respondents to the ANPR indicated agreement that participation in, and access to the American lobster fishery in Federal waters should be further restricted in Areas 3, 4, and 5, along with the establishment of an associated control date to substantiate historical participation. Those opposed to a control date include individuals who have not previously participated in the trap fishery, those who have recently invested in new equipment to begin participation, and others who indicate that the value of permits will be diminished for non-qualifying vessels.

The development of this DSEIS is strongly guided by the recommendations of the Commission and the Area 3, 4, and 5 LCMTs, conferring strong industry and public support for lobster management measures based upon historical participation. Nevertheless, it should be noted that NMFS is proposing some modifications to the implementation of the recommendations in Federal waters due to associated administrative, timing, and legal considerations noted later in this document.

The success of implementing area-wide measures for historical participation in LCMA 4 and LCMA 5 ultimately depends on the consistent implementation of associated management measures in the state and Federal waters comprising these management areas. As of this writing, NMFS is aware that proposed New Jersey regulations for historical participation for state waters of Area 4 may differ from those in New York state waters and those in Federal waters of Area 4 identified in this DSEIS. Inconsistencies, to the maximum extent possible, must be minimized among states and between state and Federal waters, to effectively achieve ISFMP area and resource management objectives.

B. Conservation Equivalency

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.

In October 1998, the Commission approved such a proposal from the State of New Hampshire and, as a result, the Commission has requested NMFS to modify Federal lobster regulations as described in Section II.2. of this DSEIS. While NMFS 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 in the management of a resource which is harvested predominantly in waters under state jurisdiction.

5. Issues to be Resolved

The preferred alternative identified in this DSEIS is part of an iterative approach by state and Federal jurisdictions to end overfishing of American lobster by the year 2005. Additional deliberations under the ISFMP are continuing on the best strategy, in cooperation with the LCMTs, to rebuild stocks of American lobster throughout the species' range. Issues to be resolved include an evaluation of the potential for an increase of the minimum harvestable size as a measure to help achieve ISFMP objectives; use of the best available (stock assessment) information upon which to base continuing management decisions; and the evaluation of closed areas and/or marine protected areas as a potential management tool.

A. Minimum Size Increase – Request for Public Comments

Subsequent to the Commission's approval of Addendum 1 to the ISFMP, the Commission also requested that NMFS 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 will be considered, and subsequently approved in Addendum II to Amendment 3 of the ISFMP, which has been scheduled for formal approval by the Commission during August 2001. NMFS concurs with the need for consistent and timely implementation of regulations throughout the range of the lobster resource. However, NMFS faces a dilemma in not knowing if, in fact, a gauge increase will be approved (or even considered) under the forthcoming ISFMP addendum, the benefit of a gauge increase in ending overfishing of the American lobster resource can be achieved only if concurrently implemented in state waters, where a majority of lobster harvest occurs. Similarly, different minimum carapace lengths across management areas could present significant enforcement problems. Nevertheless, NMFS requests public comment at this time to facilitate potential future rulemaking for regulating the minimum size of harvested lobster by the Lobster Conservation Management Teams.

The current minimum carapace length for American lobster harvested in the EEZ is 3 1/4 inches (8.26 cm). The increases advocated (but not yet adopted in state waters) under the ISFMP reach 3 5/16

inches (8.44 cm) in Area 6 and 3 3/8 inches (8.59 cm) in Areas 2-5 and the Outer Cape Management Area, with annual incremental increases of 1/32 inch (.11 cm). Such a measure would provide for an increase in minimum size of American lobster in the EEZ, similar to that which was authorized in 1987 under the New England Fishery Management Council's FMP, but subsequently postponed in 1991, pending the development of a comprehensive management approach to rebuild stocks of American lobster. For further background, see Final Environmental Impact Statement and Regulatory Impact Review for Federal Lobster Management in the EEZ and its notice of availability published in the Federal Register on May 28, 1999 (64 FR 29026).

On the basis of recent stock assessments for American lobster and management measures currently in place, scientific analysis of a gauge increase to 3 3/8 inches, with no change in current fishing effort levels, would result in a small increase in egg production, but not enough of an increase to achieve the ISFMP goal of ending resource overfishing. In general, currently high fishing mortality rates, in the absence of additional measures to further decrease fishing mortality, render moderate gauge increases less effective in rebuilding American lobster stocks. This is because more than 50% of the animals are immature, even at a gauge size of 3 ½ inches. A decrease in overall fishing mortality or larger increase in gauge size is needed to allow the majority of American lobster populations to spawn at least once. This evaluation is anticipated to continue through development of Addendum II to the ISFMP.

From a management perspective, gauge increases, to the extent possible, should be implemented concurrently among the ISFMP's lobster management areas to maximize benefits to the resource and minimize industry and market conflicts. Similarly, consistency in gauge size among the management areas is needed to afford effective enforcement of gauge size increases in both state and Federal jurisdictions.

B. Relationship Between an Updated Stock Assessment and Needed Management Measures

The most recent lobster stock assessment (ASMFC 2000) concluded that even though recruitment and abundance of small lobsters have increased in recent years, the resource continues to be overfished according to the ISFMP overfishing definition. The assessment emphasized the observation of growth overfishing, with the attendant loss of benefits to the fishery in the form of landings in weight. A subsequent peer review of that assessment concluded that fishing rates are unacceptably high and that overfishing of American lobster is occurring throughout the species range. The results of that review are being evaluated further to help refine methods to scientifically evaluate the status of American lobster stocks and to suggest additional ways to establish goals for rebuilding the resource. This information is expected to provide guidance to the Commission for developing additional measures for achieving management objectives through the development of Addendum II to Amendment 3 of the ISFMP. It will also help provide the basis for associated recommendations by the Commission for complementary management measures in Federal waters. The timing of these management decisions is critical to meet

the 8-year resource building schedule established by the plan, and to accommodate the regulatory timetable (50 CFR 697) established by Federal lobster regulations under the ACFCMA. That timetable calls for the provision by the Commission of additional management recommendations to NMFS by December 1, 2000 to facilitate the implementation of continued Federal rulemaking and associated biological and socio-economic analysis of needed management measures to rebuild American lobster stocks.

The measures proposed in this DSEIS are an element of the ISFMP's adaptive management provisions, by which NMFS is collaborating with the Commission and its LCMTs to develop resource-wide approaches in area management for both state and Federal waters. These measures once implemented, along with other recent regulations (e.g., trap limits, increased vent size in lobster gear, LCMA 1 maximum carapace size, etc.) in the EEZ, will be evaluated with

respect to future Federal rulemaking to end overfishing of American lobster. Some of the additional measures that might be considered include continued reductions in fishing effort (e.g., number of traps fished), increases in the minimum harvestable size, closed areas, closed seasons, and other measures identified by the LCMTs through the ISFMP's adaptive management provisions.

C. Closed Areas

Under the provisions of Addendum 1 to Amendment 3 of the ISFMP (recommendations for actions in Federal waters), the Commission has requested that NMFS implement a ban on possession of lobster taken by trap gear in the following four "closed areas" (Figure 2) of LCMA 4:

Fire Island:

POINT	LATITUDE (EN)	LONGITUDE (EW)	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 (EN)	LONGITUDE (EW)	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:

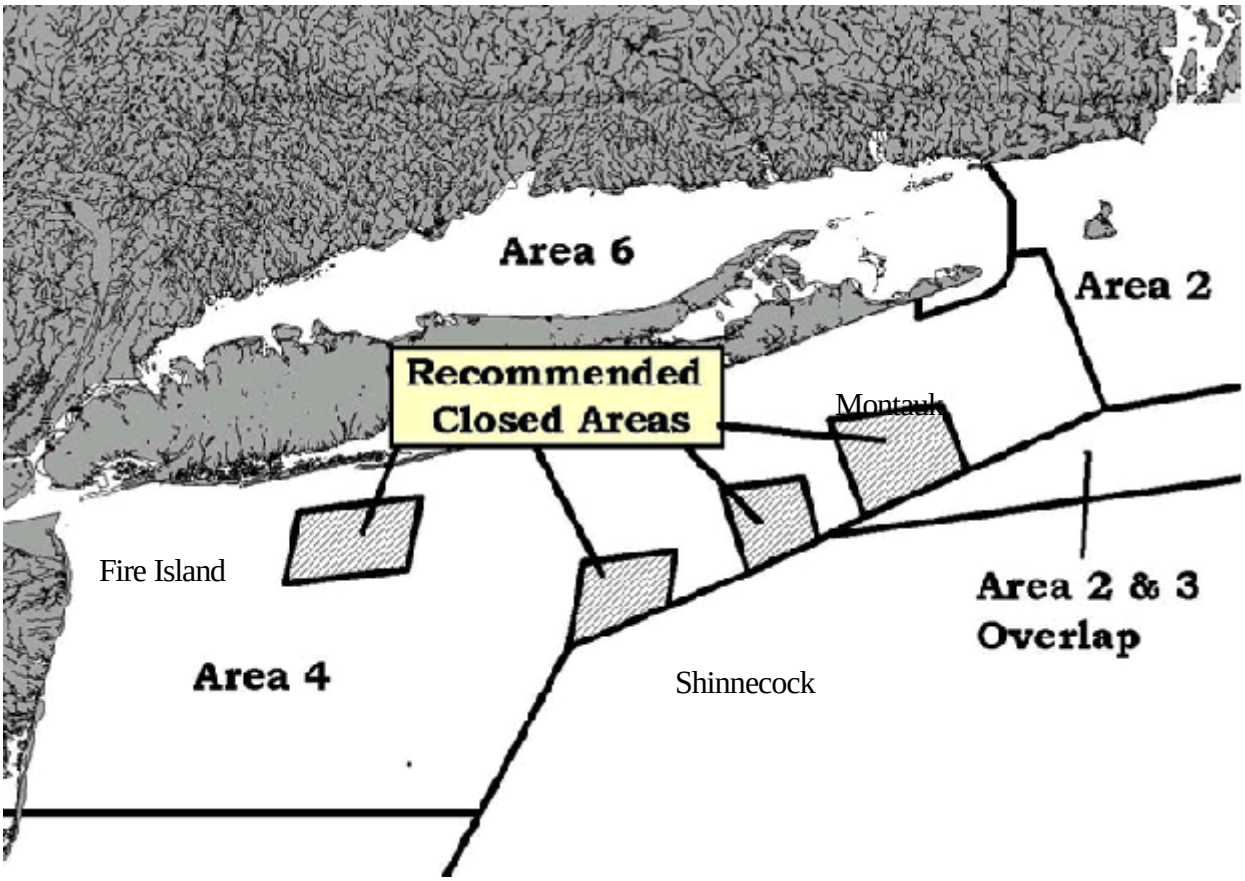
POINT	LATITUDE (EN)	LONGITUDE (EW)	LORAN
A (NW)	40 34.389	072 27.420	14960 / 43670
B (NE)	40 35.904	072 13.117	14890 / 43670
C (SE)	40 27.997	072 13.117	To the Area 3 boundary along the 14890 line
D (SW)	40 23.105	072 23.782	To the Area 3 boundary line along the 14960 line

Montauk:

POINT	LATITUDE (EN)	LONGITUDE (EW)	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 2. Map of Proposed Area 4 Closures.



These four areas represent approximately 11% of LCMA 4 and comprise approximately 520 square miles. The Commission's Lobster Technical Committee (LTC), 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 NMFS' 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, NMFS agrees at this time with the LTC'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.

NMFS, however, encourages the continued consideration of closed or marine protected areas (MPAs) as a means to achieve ISFMP objectives. MPAs have been receiving increased attention (e.g., Newkirk 1998) as an adjunct to more traditional methods of management such as catch limits, effort/trip limits, closed seasons, gear restrictions, and size limits. Closed areas (or MPAs) can provide important benefits such as protection of spawning finfish and shellfish populations and creation of undisturbed habitat and refuge for overfished stocks. Closed areas as a management measure are currently in use for Federally managed species such as groundfish and sea scallops. Executive Order 13158, signed by the President on May 26, 2000, requires that MPAs incorporate practical science-based criteria and protocols for monitoring and evaluating their effectiveness. NMFS urges the Commission to conduct a scientific peer analysis on the potential use of MPAs in lobster management. In conjunction with such an analysis, there should be a clear public articulation of associated impacts relative to basic species biology, interspecies relationships (e.g., migratory movements of finfish and shellfish into and out of closed areas), user conflicts, socio-economic impacts on the fishing industry, and a clear indication if the MPA will be used on an interim vs. permanent management strategy. NMFS also believes that there should be a strong state, Federal, and industry partnership to monitor

the associated resources (e.g., species assemblages) in the encompassed habitat before, during, and subsequent to MPA management measures being implemented.

6. Affected Environment

A. Introduction

The affected environment has recently been described in the Final Environmental Impact Statement (FEIS) for Federal Lobster Management in the Exclusive Economic Zone (NMFS 1999). Many of the following sections are not changed or updated since that FEIS, 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

B. Physical Environment

The physical environment of the American lobster is the same as summarized in Section V of the FEIS (NMFS 1999). The recent determination of a commercial fishery failure in a portion of Long Island Sound is summarized in Section II.6.C(1) of the DSEIS.

C. Biological Environment

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

(1) 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 sp. 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, a workshop involving the industry and state, Federal and academic researchers was convened in April to assimilate and discuss the status of past and current lobster mortalities and to develop the framework for a research plan of action to address the significant health issues affecting the Long Island Sound lobster resource.

(2) Stock Assessment

A stock assessment conducted by state and Federal scientists during June 1996 concluded that American lobster is overfished throughout its range, 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 of this DSEIS. An external peer review of that assessment by stock assessment experts was held during May 8-9, 2000. That review included a focus on the following terms of reference:

- Review and evaluate assessment methods used to assess American lobster stocks, including, but not limited to the following:

  - Quantity and quality of input data for models (in particular, trawl survey abundance indices and catch in numbers for DeLury models);

- < Validity and utility of length cohort analysis and DeLury models, including model assumptions and parameter estimation techniques;

- < Methods used to blend multiple DeLury model results into unit stock estimates of fishing mortality;

- < Characterization of uncertainty associated with model results, reference points estimation, and sensitivity to model parameters;

- < Potential validity and utility of new assessment model (Mark model) developed for this assessment.

! Evaluate the current status of American lobster stocks, and trends in abundance and fishing mortality, by examining model based indices and alternative indices derived from fishery-dependent and -independent data.

! Comment on explanations for stable and increasing abundance despite the low estimates of recent egg production per recruit.

! Evaluate methods used to estimate the overfishing definition (F10%) for American lobster and if appropriate, suggest additional reference points or analyses which could be used to define overfishing.

! Review management and research recommendations and identify any additional research necessary to improve future stock assessments for American lobster.

The results of the stock assessment external peer review (ASMFC 2000) are being further evaluated by the Commission for future consideration of resource management strategies to rebuild stocks of American lobster.

(3) 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 ASMFC requested NMFS 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 ASMFC recommended further that the incidental lobster allowance that applies to non-trap lobster fishers be applied to exempted sea bass fishers. NMFS has 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 I.2 of this DSEIS, consideration of these requests is being accommodated under separate rulemaking.

••Marine Mammals and Sea Turtles

A thorough discussion of the potential impacts of lobster management actions on 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 marine mammals and sea turtles.

Several species of marine mammals and sea turtles are known to become entangled in lobster trap gear. These include right whale, humpback whale, fin whale, minke whale, blue whale, sperm whale, harbor seal, leatherback sea turtle, and loggerhead sea turtle. Updated status reports of each of these marine mammal species is provided in Waring *et al.*, (1999). The most recent information on sea turtle status is contained in the 1995 and 1997 status reviews of listed turtles prepared jointly by NMFS and the U.S. Fish and Wildlife Service (NMFS and USFWS 1995 and 1997).

The lobster fishery remains a Category I fishery on the List of Fisheries, compiled by NMFS as required by Section 118 of the MMPA. The fishery was first listed as a Category I fishery in 1997 when it was determined that the serious injury rate and mortality of right whales in this fishery exceeded 50% of the Potential Biological Removal level of the right whale stock during the 1990-1994 period. The MMPA also requires NMFS to develop a plan to reduce mortalities and serious injuries to marine mammals incidentally taken in commercial fisheries to levels less than the PBR, approaching a zero mortality and serious injury rate. The Atlantic Large Whale Take Reduction Plan (ALWTRP) was developed to meet this requirement of the MMPA. It primarily focuses on right whales, but it is also expected to reduce entanglements of humpback, fin, and minke whales. The ALWTRP applies to lobster trap gear and gillnet gear.

Pursuant to its responsibilities under Section 7 of the Endangered Species Act of 1973 (ESA), the NMFS has conducted several ESA consultations on the American lobster fishery. These consultations assessed the impacts of Federal lobster management actions on endangered and threatened species of whales, sea turtles and fish under NMFS jurisdiction as well as impacts on critical habitat areas designated for the northern right whale. On December 13, 1996, NMFS completed a section 7 consultation which concluded that the fishery was likely to jeopardize the continued

existence of the northern right whale. A reasonable and prudent alternative was included to remove the threat of jeopardy to right whales as a result of the lobster pot fishery. On November 15, 1997, the Atlantic Large Whale Take Reduction Plan (ALWTRP) was substituted for the previously issued reasonable and prudent alternative to remove the likelihood of jeopardy to right whales in the lobster fishery. As a result of entanglement events in 1999, including one mortality of a right whale, the NMFS is currently revising the ALWTRP with changes or additional measures necessary to meet the plan objectives. The NMFS has reinitiated the ESA section 7 consultation on the lobster fishery to determine whether the revised ALWTRP will be an acceptable reasonable and prudent alternative to remove the likelihood of jeopardy to right whales caused by the lobster fishery.

No regulations have been issued to explicitly address impacts of the lobster fishery on sea turtles. The Biological Opinion issued by the NMFS on December 17, 1998, included an Incidental Take Statement (ITS) for loggerhead and leatherback sea turtles. This ITS allows for the take of up to 10 loggerhead sea turtles or 4 leatherback sea turtles in the lobster fishery. Non-discretionary Reasonable and Prudent Measures were also included to minimize the level of incidental take of sea turtles in the lobster fishery. There is no new information regarding the effects of the fishery on listed sea turtles.

D. Human Activities

A description of human activities associated with American lobster management was summarized in Section V.4 of the FEIS (NMFS 1999). A threshold analysis of economic impacts of possible Federal lobster management actions is presented in Section IV (Regulatory Impact Review) of this DSEIS. A discussion of social/cultural and economic impacts is incorporated in Sections II and III.

(1) Recently Implemented Regulations

In January 2000, Federal lobster regulations including lobster trap limits, management area designations for vessels fishing with traps, and trap tagging requirements, were implemented under the ACFCMA (64 FR 68228). Effective May 1, 2000, Federal lobster permit holders fishing traps in nearshore and offshore lobster management areas are restricted to 800 and 1800 traps per vessel, respectively. A trap tagging requirement, initially to be implemented on May 1, was subsequently delayed until June 1, 2000, due to logistics associated with purchase and distribution of trap tags. Agreements between NMFS and state fishery agencies in Maine, New Hampshire, Massachusetts, 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. As of this writing, 2,973 (88%) of an estimated 3,361 Federal lobster permit holders have renewed their lobster permit for the 2000/2001 fishing year. Numbers of permit holders requesting authority to fish with traps in each of the lobster conservation management areas are provided in Table 3. In the absence of a mandatory reporting requirement for those who only possess a Federal lobster permit, the specific

extent to which permit holders requesting authorization to fish in each LCMA or in multiple LCMAs will actually fish in those areas is unknown.

Similarly, the extent to which Federal permit holders who purchase tags up to the Federal trap limit, and may not necessarily utilize the entirety of tags purchased, is unknown. Whether or not Federal permit holders may be inclined to alter traditional fishing practices and customary business operations in response to Federal lobster regulations is a key consideration in evaluating alternatives for lobster management actions, particularly with respect to actions based upon historical participation in the American lobster fishery.

(2) Lobster Research

In addition to the lobster research for Long Island Sound referenced in Section II.6.C(1), studies involving the characterization of the Gulf of Maine fishery have expanded in recent years. In 1999, NMFS 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. In 2000, NMFS 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 will similarly focus on lobster sea sampling, and will also involve 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 NMFS 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.

7. Environmental Consequences

A. Effects on Lobster

Trap Limits Based on Historical Participation in LCMA 3

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. Under this plan, the initial total fishing effort by LCMA 3 vessels would be 118,400 traps, decreasing to 96,419 traps after a five-year reduction period. The premise is that this approach would result in fewer traps being fished in these areas as compared to open access to all LCMAs by Federal lobster permit holders under an existing fixed trap limit of 1800 traps per vessel in LCMA 3 and 800 traps per vessel in LCMA 4 and LCMA5.

The LCMA 3 plan was developed also on the premise that only 64 of approximately 3,400 Federal lobster permit holders will qualify to participate in the LCMA 3 fishery, and that qualifying vessels fish the number of estimated traps shown in Table 2. At the current time, the specific number of fishermen who will qualify to fish in LCMA 3 is unknown, pending the implementation of LCMA 3 qualification procedures. If the number of qualifying vessels exceeds 64, or if the proportion of vessels fishing at the higher trap categories (noted in Table 2) increases, then the magnitude in trap reductions would need to be recalculated. A review of the LCMA 3 plan by the LTC 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 2 and Figure 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 NMFS. 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 unknown factor. On the basis of more recent information for 1997 voluntarily provided by the Area 3 LCMT, projected trapping effort in the year 2006 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 2 and Figure 3). Approval of the plan by the LTC was tempered by unresolvable 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. The number of vessels participating historically in the Area 3 fishery would be reconciled if and when the qualification requirements are implemented.

The number of traps currently being employed by Federal lobster permit holders in LCMA 3, in the absence of qualification requirements pertaining to historical participation, is unknown. A recent analysis (NMFS 1999) estimated that 297 vessels may be involved in the offshore lobster fishery, fishing an average of 1,321 traps per vessel, resulting in a total of 392,337 traps. For comparison purposes, approximately 22% (610) of Federal lobster permit holders who have renewed their fishing permit for the 2000 fishing year, have elected LCMA 3 as at least one of the lobster fishing areas where they intend to fish (Table 3). Of these, 29 vessel owners will be restricting the setting of lobster traps to Area 3 only. If each permit holder that can fish in LCMA 3 does fish there and decides to fish the maximum number of traps allowed per vessel, the maximum annual fishing effort level would be 517,000 traps in LCMA 3. Thus, the total number of traps fished under the LCMA 3 plan (96,419

traps in the year 2006) could be, theoretically, 81% fewer traps than current fixed trap limits would allow.

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

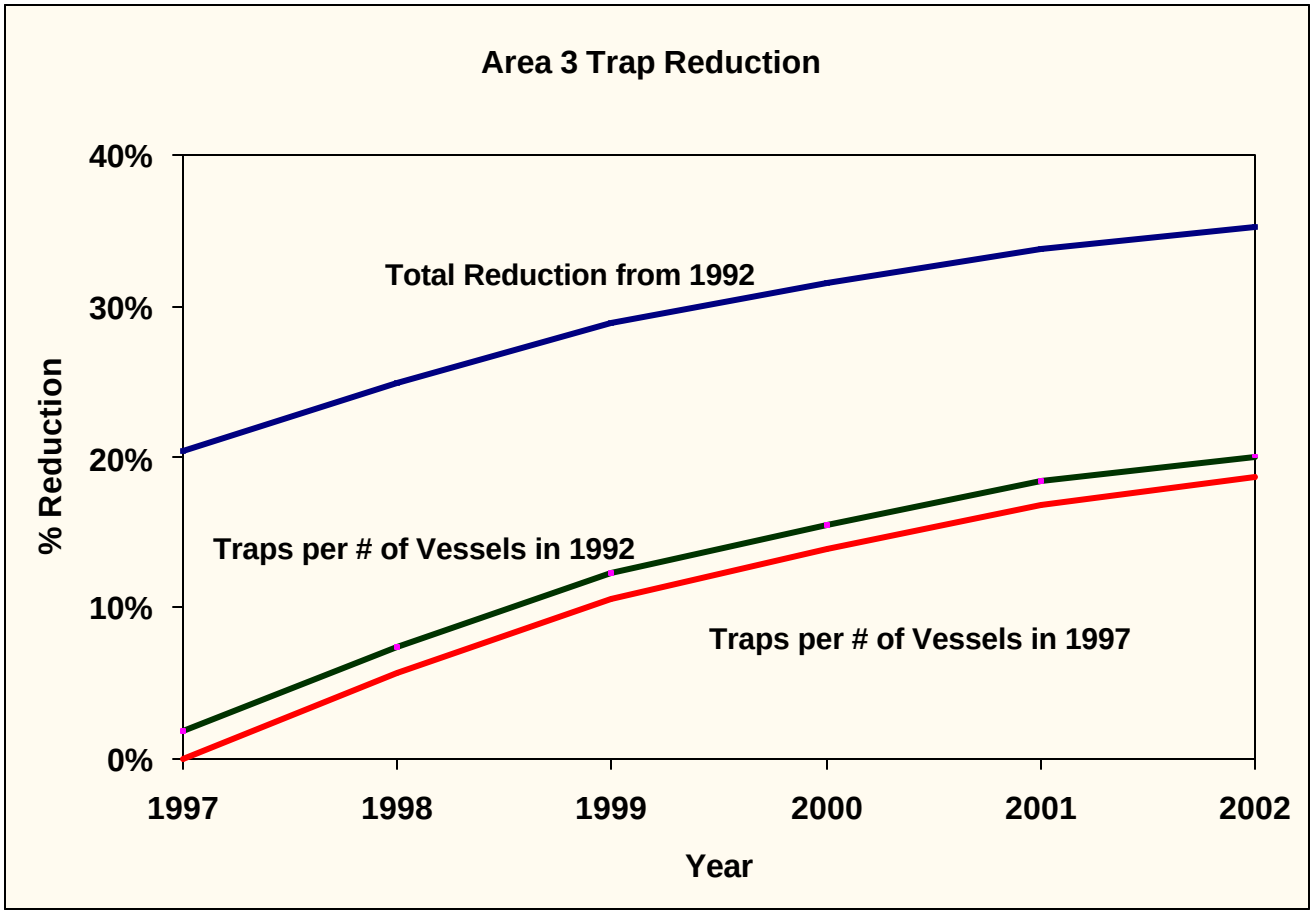
Trap Category	Boats in 1998	Percentage in Trap Category	Cumulative Percentage in Trap Category	Reductions Year1	Year2	Year3	Year4	Year5
850	1	2%	2%	850	850	850	850	850
900	1	2%	3%	900	900	900	900	900
1000	5	8%	11%	1000	1000	1000	1000	1000
1200	3	5%	16%	1200	1200	1200	1200	1200
1400	1	2%	17%	1344	1290	1251	1213	1200
1500	13	20%	38%	1437	1379	1337	1297	1276
1600	3	5%	42%	1530	1467	1423	1380	1352
1800	7	11%	53%	1709	1628	1573	1523	1492
1900	6	9%	63%	1797	1705	1644	1589	1554
2000	8	13%	75%	1884	1782	1715	1654	1616
2300	1	2%	77%	2140	2003	1915	1836	1789
2400	3	5%	81%	2225	2076	1981	1896	1845
2500	4	6%	88%	2309	2147	2044	1952	1897
2700	3	5%	92%	2475	2288	2169	2063	2000
2800	2	3%	95%	2557	2357	2230	2117	2050
2900	1	2%	97%	2640	2425	2291	2171	2100
3000	1	2%	98%	2722	2493	2351	2225	2150
3250	1	2%	100%	2920	2656	2493	2351	2267
Totals	64			111654	105821	101982	98493	96419
# / boat				1745	1653	1593	1539	1507
1992 # / boat	1885			93%	88%	85%	82%	80%
1992 # of traps	148900			75%	71%	68%	66%	65%

Table 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 3. 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 may or may not occur, under existing Federal regulations. These current regulations, under 50 CFR 697, provide for implementation, beginning February 15, 2001, and annually thereafter, of additional 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 of the MSA. 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.

Debates concerning trap limits have been acknowledged elsewhere (e.g., NMFS 1999). In this regard, NMFS acknowledges that the conservation benefits of trap limits and trap reductions are difficult to quantify, due to such factors as gear efficiency and saturation, and changes in fishing practices.

Nevertheless, on balance based on information available at this time, NMFS believes that the LCMA 3 plan provides for a structured, equitable approach to further limit effort and decrease lobster fishing mortality in the offshore EEZ, compared to the worst case scenario which could occur if 610 Federal lobster permit holders decided to fish exclusively in Area 3, in the absence of an historical participation management strategy. To the extent the preferred alternative will result in decreased lobster mortality levels, when combined with other management measures, the effectiveness of those measures in achieving ISFMP objectives to end overfishing and rebuild stocks of American lobster will be increased.

Trap Limits Based on Historical Participation in LCMAs 4 and 5

The impacts of implementing historical participation in LCMA 4 and LCMA 5 are even more difficult to quantify. It can be reasonably assumed that a majority of Federal permit holders fishing in LCMA 4 have vessel ports in the neighboring states of New York and New Jersey, and those fishing in LCMA 5 have vessel ports in New Jersey south to North Carolina. This information is presented in Table 4.

Table 4. Number of Vessels by Primary Port State (New York and South) Holding Federal Lobster Permits

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, NMFS 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 estimates exceed the actual extent (179 and 108 for LCMA 4 and LCMA 5, respectively) to which lobster permit holders have designated lobster fishing areas to date during the 2000/2001 fishing year. These figures could change as additional permit holders may decide to renew their current year lobster permits, but the disparity could also be due to a decision by some permit holders to fish entirely in the offshore EEZ waters of Area 3, where they can fish 1800 vs. 800 lobster traps.

Using both sets of data, in the extreme case scenario, whereby 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 107,200 traps to 161,600 traps in LCMA 4 and from 68,800 traps to 129,600 traps in LCMA 5.

Subsequent to adoption of Addendum 1 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 NMFS

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 585 traps per vessel. Similarly, the number of traps fished in Area 5 ranged from 0 to 1,400 traps, with an average fishing effort of 200 traps per vessel. 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 (75,325 traps), assuming that all of the 96 respondents meet the proposed qualification criteria outlined in Section II.1.B. of this DSEIS, 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 preferred alternative, 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 LTC, in its review of the respective 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 and LCMA 4), and the implementation of a maximum size limit in LCMA 4. The Commission intends to evaluate these, and perhaps additional, components of LCMA plans during the development of Addendum II to Amendment 3 of the ISFMP.

The LTC 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 LTC. In addition, any disparity in regulations among areas will likely create problems for enforcement, and may antagonize harvesters in different areas, and complicate ability to scientifically assess impacts of the associated management measures. See Section 5.A of this DSEIS for related details concerning lobster minimum size regulations.

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 LTC, in reviewing the state's associated proposal for conservation equivalency, concluded that, in the absence of information, 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 LTC'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. For purposes of this analysis, 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 preferred alternative would 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 results in a potential increase of 8,800 traps being fished in LCMA 1. 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), 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 preferred alternative, 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 counter-balanced by data provided by the State of New Hampshire, which indicate that an additional 252 fishers without a Federal lobster fishing permit are licensed to harvest lobsters in state waters, where they are restricted to 600 instead of 800 traps otherwise allowed under the ISFMP. 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 LTC) compared to what would otherwise be potentially fished with a fixed limit of 800 traps. This reduction is tempered by the situation that any substantial increase in the number of state lobster licenses could result in more traps being fished in state waters of LCMA 1, potentially undermining any reduction in lobster fishing mortality.

NMFS agrees with the findings of the LTC that, without the ability to know specific numbers of traps to be employed by New Hampshire lobstermen within the established trap limits, it is difficult to determine conclusively whether or not the state's two-tier licensing system is conservation equivalent to a fixed 800 trap limit. Furthermore, it is similarly difficult to assess 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. NMFS (FEIS-1999) has previously

acknowledged that conservation benefits of trap reductions are difficult to quantify, due to such factors as gear efficiency and saturation, and changes in fishing practices. Nevertheless, the 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.

The Commission's request for complementary Federal regulations as they may impact the fishing practices of Federal lobster permit holders in New Hampshire state waters underscores the importance of the preferred alternative toward public acceptance for maintaining New Hampshire's fishing effort reduction program. Accordingly, on balance, NMFS concludes that the potential but unquantifiable benefits of the preferred alternative in reducing lobster fishing effort and associated lobster mortality outweigh the uncertainties associated with not being able to specifically define the action's contribution toward rebuilding American lobster stocks. Similarly, any biological adversity to lobster resulting from the potential for some Federal lobster permit holders to fish up to a maximum of 400 more traps in New Hampshire state waters

than would otherwise be allowed under existing Federal lobster regulations, would be outweighed by the greater overall reduction in the potential number of traps fished by state and Federal fishers combined under the provisions of the state's trap management program.

B. Effects on the environment

The limitation of lobster trap fishing to historical participants in LCMA 3 and the subsequent reduction in number of traps fished over a five-year period is anticipated to result in a reduction of approximately 5% in the number of traps currently being fished per vessel, and a reduction of up to 90% in the potential number of traps fished in the absence of management measures based on historical participation. Similarly, for LCMA 4 and LCMA 5, the preferred alternative, on the basis of information available to NMFS, is anticipated to result in a 2-51% reduction in the number of lobster traps fished in these management areas. 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, thereby enhancing the availability of undisturbed habitat, reducing conflicts with mobile gear, and reducing the prevalence of "ghost gear" which is often the result of user conflicts and/or storms.

The preferred alternative 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 LTC, 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, enhance the availability of undisturbed habitat for American lobster and reduce the prevalence of ghost gear. 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 areas (LCMAs 1, 2, and Outer Cape Cod) not requiring historical participation.

C. Effects on Marine Mammals and Sea Turtles

The proposed measures analyzed in this DSEIS 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 five years that are expected to further reduce effort in the offshore lobster fishery. As described in the previously published Final Environmental Impact Statement (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. Although there is no way of quantifying the anticipated benefit from reductions in gear, it is generally assumed that there will be fewer protected species-gear interactions 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 proposed 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 was developed on the premise 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, 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, or 3) set their traps in one of the lobster management areas that is not limited to historical participation. 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. 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 right, humpback and fin whales.

If displacement of effort were to occur, the Atlantic Large Whale Take Reduction Plan (ALWTRP) could help to reduce interactions. 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 has focused on gear modifications of lobster trap gear and gillnet gear. Despite these measures, several entanglements, including one right whale mortality in 1999, have occurred. The ALWTRP is, therefore, being revised with additional measures or modifications necessary to meet the objectives of the ALWTRP.

As discussed in this DSEIS, 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. For similar reasons, it is unclear whether the preferred alternative to allow New Hampshire fishers that possess both state and Federal lobster permits to fish an additional 400 traps in state waters will result in a reduction in gear. In general, the issues discussed above for LCMA 3 apply. 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.

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.

D. Social, Cultural, and Economic Impacts (See Section IV.1 of this DSEIS for additional description of the associated economic impacts under this alternative.)

Historical Participation in LCMAs 3, 4, and 5

The LCMA 3 plan 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 preferred alternative is also anticipated to reduce gear conflicts by reducing the total number of traps in LCMA 3 over a six-year period and avoid disruption of traditional socio-economic patterns in the offshore EEZ fishery.

The preferred alternative would 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 1, 1991 and September 1, 1999. According to the NMFS Vessel Trip Report (VTR) database from 1994 - 1999, approximately 412 (about 12%) of 3,361 vessel owners holding lobster permits in the 1999 fishing year meet this qualification, and 2,949 Federal permit holders would be excluded from the LCMA 3 trap fishery on the basis of this criterion. About 85% of qualifying permit holders own a vessel measuring 31-50 feet in length (Table 5), with a gross weight of 5-50 tons (Table 6), and list their vessel port as either Massachusetts (36%), Maine (31%), or Rhode Island (20%) (Table 7). Four mobile gear vessels from Massachusetts would also qualify.

Table 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 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 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 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. Thus, in the absence of other available data, one may assume that 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.

On the basis of information available to NMFS, approximately 546 of 610 Federal lobster permit holders who have 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 preferred alternative. The level of potential trapping effort in LCMA 3 for these 546 permit holders in the absence of the preferred alternative is unknown, so NMFS is unable to specify the anticipated impact on actual fishing operations.

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 118,400 traps in 2001, decreasing to 90,884 traps in 2006, among 64 qualifying permit holders (as estimated by the LCMA 3 plan) is shown in Table 1. The plan contains an initial maximum trap cap of 3,250 traps which, according to LCMT 3, will require at least one permit holder to reduce number of traps by 58%. Each allocation of greater than 1,200 traps will be reduced on a sliding scale basis over 5 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 3).

The preferred alternative would alleviate socio-economic impacts of reduced income from potential reduction in lobster harvest which may result from an 1800 trap limit in LCMA 3 under current Federal regulations. 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 1800 traps in 1998 (Table 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 five-year trap reduction period, 15 vessels (23%) will be fishing more than the currently imposed trap limit of 1800 traps in the LCMA 3 fishery. Thus, on the basis of information provided to NMFS, the preferred alternative will impact 15 fewer Federal lobster permit holders (23% vs. 47% of the LCMA 3 fishery), and will spread the economic impact of trap reductions over a five-year period.

The preferred alternative 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 south of New York, the preferred alternative will limit participation to those Federal lobster permit holders whose permits are endorsed for use of lobster trap gear, which represents approximately 52% (242 individuals) of Federal permit holders in these states. Although it can be assumed that there will be no immediate impact on the current fishing practices of non-qualifying permit holders since they do not harvest lobster with trap gear, the option to do so in the future will be precluded under a trap fishing effort program based on historical participation. 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. Similarly, during the NOI public comment period, NMFS 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 preferred alternative will result in some degree of economic disadvantage for those individuals. Table 11 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. Results from the New Jersey survey referenced in Section II.7.A. suggest 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 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 preferred alternative, which would remove the fixed trap limit in these LCMAs, would 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.

The preferred alternative 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 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 II.4.A. 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.

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, NMFS cannot determine precisely the economic impacts of this alternative. 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.

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

The preferred alternative would 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 1600-2400 traps. Allowing those individuals who also hold a Federal lobster permit to fish 1200 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 1200 trap limit will be afforded 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 preferred alternative 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. The 600 trap limit for this industry segment provides an opportunity for many to increase trapping effort, but at a level which is less than an 800 trap limit would otherwise be allowed under the ISFMP.

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 proposed revision 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.

III. ALTERNATIVES TO PREFERRED Federal ACTION

1. Summary

This section presents five alternatives to specific components of the preferred alternative. Three of these 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 preferred alternative relating to LCMA 1 trap

limits for Federal lobster permit holders fishing in New Hampshire waters and LCMA boundary clarifications, only one alternative (no action-status quo) is presented for each of these two components of the preferred alternative.

2. Effort Control Alternatives in Lobster Management Areas 3, 4, and 5

Alternative 1A. Preferred Alternative

The preferred alternative would implement a historical participation approach to limit lobster fishing effort in LCMAs 3, 4, and 5, through the associated qualification criteria and respective trap allocations described in Section II.1.

Alternative 1B. No Action/Status Quo

Under the no action 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 NMFS 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 1800 traps.

Alternative 1C. Implement Historical Participation Requirement for LCMA 3, 4, and 5 and Retain Current Trap Limits

This alternative would require the current possession of a Federal lobster fishing permit endorsed for traps 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 the same as those described in the no-action/status quo alternative.

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

This alternative would implement the measures contained in the preferred alternative, 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 would 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.

This maximum limit is established using information included in the Commission's recommendation for a maximum trap limit in LCMA 3. The maximum trap limit (1.8 x the current trap limit of 800 traps in LCMA 4 and LCMA 5) is derived using the same multiplication factor (1.8 x the current trap limit of 1800 traps in LCMA 3) associated with the maximum trap limit of 3,250 traps recommended by the Commission for LCMA 3.

3. Trap Limit Alternative for New Hampshire Waters of LCMA 1

Alternative 2A. Preferred Alternative

The preferred alternative would allow Federal permit holders who fish for lobster in LCM1 and who also possess a New Hampshire full commercial lobster fishing license to fish a maximum of 400 additional traps in New Hampshire state waters, as described in Section II.2.

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

Federal lobster permit holders who also possess a New Hampshire commercial lobster license would have to abide by an 800-trap limit, whether they fish in state or Federal waters. This alternative would result in a dichotomy between the number of traps state only permit holders can fish and the number of traps Federal permit holders can fish in state waters, counter to a Commission recommendation. Federal permit holders who decide to fish more than 800 traps would have to terminate their Federal lobster permit and restrict lobster fishing to New Hampshire state waters.

4. Alternative for Boundary Clarifications

Alternative 3A. Preferred Alternative

The preferred alternative would implement compatible boundary lines for LCMA 1, LCMA 2, and the Outer Cape LCMA to maintain consistency with the Commission's ISFMP, as described in Section II.3.

Alternative 3B. - Retain Current Boundaries (Status Quo)

NMFS can maintain the existing boundary lines for all LCMAs including the three LCMA s adjacent to Massachusetts: LCMA 1, LCMA 2, and the Outer Cape LCMA. These Federal boundary lines were established as a result of extensive public comment and industry input. The changes to the boundaries for the three existing LCMAs adjacent to Massachusetts identified by the Commission in Addendum I and recommended to NMFS are all within state waters of Massachusetts and do not directly impact Federal permit holders fishing in Federal waters.

5. Environmental Consequences

A. Effects on Lobster

Alternative 1B

Under Alternative 1B (no action), fixed trap limits in LCMAs 3, 4, and 5 would continue, as implemented under current Federal regulations. On May 1, 2000, the trap limit for LCMA 3 and LCMA 4/5 decreased from 2000 to 1800, and from 1,000 to 800 traps per vessel, respectively. These trap limits were established to curtail proliferating fishing effort evidenced in the lobster fishery in recent years (See Section III.5 of the FEIS). Additional reductions in trap limits may be considered in 2001 to achieve ISFMP stock rebuilding objectives, in consultation with the Commission and the LCMAs. Fixed trap limits have been implemented to foster corresponding reductions in lobster fishing mortality, as well as to enhance the effectiveness of other management measures. This alternative would potentially result in more traps being fished than the preferred alternative with associated higher lobster mortality.

Alternative 1C

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 preferred alternative by retaining existing trap limits vs. limits based on historical participation. This 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. This alternative has a much lower administrative burden since vessels would not have to provide documentation of the number of traps fished.

Alternative 1D

Alternative 1D is similar to the preferred alternative, except that it would impose a 1,440 maximum trap limit for participants in the LCMA 4 and LCMA 5 fisheries, as well as the 3,250 trap limit proposed for LCMA 3. Although NMFS has no Federal data to determine the potential extent of trap effort and lobster mortality reduction under this alternative, data provided to NMFS by New Jersey, summarizing the results of a recent survey of New Jersey lobstermen, indicate that approximately 15% (14 individuals) of fishermen who possess both a New Jersey pot license and a Federal lobster permit responding to the survey have fished with greater than 1440 traps in LCMA 4. The fishing effort for these 14 permit holders has ranged from 1500 to 2500 (with an average of 1868) traps. On the basis of this information, establishment of a

maximum trap limit for LCMA 4 would result in at least a reduction of 26,152 traps, with a corresponding, but unquantifiable, reduction in lobster fishing mortality.

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), Alternative 2B could potentially result in 3,600 fewer lobster traps being fished in LCMA 1 (discussed in Section II.7.A.). Although this could result in some decrease in corresponding lobster fishing mortality, NMFS believes, on balance and based on current information, that any benefit derived under this 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. 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.

Alternative 3B would have no direct 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

Alternative 1B would not change current effects of lobster management measures on the environment. Alternatives 1C and 1D would 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.

Alternatives 2B and 3B would not change current effects on the environment, because they are status quo alternatives.

C. Effects on Marine Mammals and Sea Turtles

Alternative 1B - No Action

A no action alternative could benefit marine mammals and sea turtles as previously described in the FEIS 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.

Alternative 1C - Historical Participation with Existing Trap Limits

Effects on marine mammals and sea turtles are anticipated to be similar to those for the preferred alternative. Based on the estimated number of participants who will qualify as historical fishers in LCMA 3, 4 and 5, this alternative would reduce the amount of gear being fished. The amount of gear reductions may

be greater or less than that expected with the preferred alternative. This alternative would provide a trap limit for LCMA 4 and LCMA 5 which does not exist under the preferred alternative. This could be of benefit to marine mammals and sea turtles if it results in fewer traps being fished as compared to the preferred alternative. This 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 preferred alternative. As is the case with the preferred alternative, effort displacement could result from fishers who do not qualify as historical participants. Thus there is the potential for increases in protected species-gear interactions if gear is moved to areas that are not limited by historical participation.

Alternative 1D - A 1440 Maximum Trap limit in Areas 4 and 5

This alternative would provide a trap limit for LCMA 4 and LCMA 5 which does not exist under the preferred alternative. This measure could be of benefit to marine mammals and sea turtles if it results in a reduction in the amount of gear fished. However, given the uncertainties of how many fishers will qualify as historical participants or the number of traps they would be qualified to use under the proposed action, there is no way of clearly determining whether a maximum trap limit of 1440 traps would be of greater or less benefit to marine mammals as compared to the preferred alternative or alternative 1C. Fishers who normally set more than 1440 traps would have to reduce the number of traps fished. However, this trap limit would benefit fishers who would have qualified to use fewer traps, possibly outweighing any benefit of trap reductions from those who have historical fished greater than 1440 traps.

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

This alternative could result in a reduction in gear in Federal waters. Fishers who qualify to use 1200 traps in New Hampshire state waters, and who also possess a Federal lobster trap permit would have to either voluntarily relinquish their Federal permit, or sell their permit with the vessel. Relinquishment of the Federal permit would result in less gear being fished in Federal waters. 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 gear reduction.

Alternative 3B - No Change in the Boundaries

This alternative is not expected to substantially affect marine mammals or sea turtles.

D. Social, Cultural, and Economic Impacts (See Section IV.1 of this DSEIS for additional description of associated economic impacts).

Alternative 1B would not change current effects of Federal lobster management measures, which are analyzed in the FEIS (NMFS 1999). 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 preferred alternative in Section II.7.D. The retention of existing fixed trap limits under this alternative, versus those established on the basis of historical participation under the preferred alternative, would require fishers who have historically fished higher number of traps in these LCMAs to remain fishing at the current fixed trap limits (1800 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 LTC, this alternative, which would continue the existing 1800 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 II.7.D.). It would similarly impact 48% of Federal lobster permit holders (46 vessel owners) who have recently responded to the New Jersey survey on historical participation in the lobster trap fishery, as referenced in Section II.7.A. Accordingly, this alternative would impose a greater economic impact, compared to the preferred alternative, 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.

Alternative 1D is the same as the preferred alternative but, in addition, would impose a maximum trap limit of 1,440 traps on LCMA 4 and LCMA 5 historical participants. The preferred alternative already includes a maximum 3,250 trap limit for LCMA 3. Except for the New Jersey survey, NMFS has no data to evaluate the impact of this alternate. That survey indicates, for Federal lobster permit holders who also possess a New Jersey pot license, 15% (14 of 96 individuals responding) have historically fished greater than 1,448 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, this alternative would impact the fishing practices of only those respondents who either fish lobster traps only in LCMA 4, or fish in more than one LCMA. This impact could include reduced fishing business income compared to historical income which may have resulted from higher lobster harvest resulting from fishing a higher number of traps. 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 Alternative 1C.

LCMA Trap Limits in New Hampshire Waters

Alternative 2B would require Federal lobster permit holders who possess a New Hampshire full commercial fishing license to abide by a more restrictive (800 vs. 1200) 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 II.7.A. of this DEIS, it is not possible to specifically quantify the extent of this impact. This 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 NMFS does not modify the existing boundary lines for Massachusetts waters under 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 NMFS 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. 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. An initial regulatory flexibility analysis (IRFA) is also conducted to the extent possible with the available data.

Economic Effects of Lobster Management Alternatives

The preferred alternative 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 alternative, 3 alternatives for historical participation where considered (including the status quo). Status quo alternatives were also considered for both the New Hampshire conservation equivalency measures and the boundary changes. The following provides an assessment of the potential economic effects of implementing one or more of the regulatory alternatives. In all, four scenarios were constructed. The first scenario considers the economic effects under the assumption that the proposed regulatory actions are not taken. This alternative forms the baseline from which the remaining alternatives are compared. The second scenario considers the economic effects of regulatory action assuming that the preferred alternative for each measure is implemented. The third scenario considers the economic effects of regulatory action under the assumption that Alternative 1C is implemented for historic participation while the preferred alternative is implemented for all other measures. The fourth scenario considers economic effects under the assumption that Alternative 1D is implemented for historic participation while the preferred alternative is implemented for all other measures.

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.

Status Quo or "No Action" Alternative

The status quo may also be termed the "no action" alternative. However, given the statutory obligation to achieve lobster conservation objectives, the term "no action" should not be construed as being equivalent to doing nothing at all. Within this context, the "no action" 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. For purposes of analysis, the status quo will be evaluated under the assumption that the primary measure for achieving the conservation objectives will be through changes in trap limits. Further, since the preferred alternative would result in an 18.5% reduction (from an initial allocation baseline) in traps fished in LCMA 3 (Table 2), and a freeze on the number of traps fished in LCMA 4 & 5, the status quo will be evaluated under the assumption that similar levels of trap reduction would be achieved through changes in trap caps.

Number of Traps

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 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. The number of traps actually fished is not known. However, 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 NMFS-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 and 300,096 by vessels that may fish in LCMA 3 and some other LCMA.

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 across alternatives, the data reported in Table 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 alternative. 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. Assuming that the LCMA 3 fishery is operating in a spatial/economic equilibrium then any removed traps will be replaced until the trap cap becomes constraining. Under the latter assumption, the trap cap would have to be lowered to 1,500 traps to reach the reduction target.

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 if at all. Further, current 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, 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, also make a reduction in lobster landings unlikely.

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 landings as a result of not taking regulatory action.

Consumer's Surplus

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

Harvest Costs

Given the status quo open system where entry to the LCMA 3 can occur at any time and assuming the spatial/economic equilibrium described previously, 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.

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 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 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.

Preferred Alternative

The preferred alternative would implement limited entry to the LCMA 3, 4, and 5, the New Hampshire conservation equivalency plan, and the modified boundaries. 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&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. 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&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&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 8). The total number of qualifiers for the LCMA 4&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 8. Summary of Number of Qualifying Vessels for Historic Participation

	Catch-per-trip = 4		Catch-per-trip = 3		Catch-per-trip = 2		Catch-per-trip = 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 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 5. For consistency across alternatives the number of traps reported in Table 2 will be assumed to be a “best” estimate of traps fished under the preferred alternative.

The primary difference between the status quo and the preferred alternative is that the preferred alternative 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 status quo, 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&5 would not be allowed to increase once the initial allocations have been determined while under the status quo there would be no such assurance. Under the assumptions for the New Hampshire conservation equivalency plan, there would be no net increase in traps fished in LCMA 1 although the number of traps fished in New Hampshire state waters could increase if the number of limited licenses is not limited.

Lobster Landings

Under the preferred 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 five year period. 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.

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 five 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 five 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, 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 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 the preferred 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 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 the preferred alternative, harvest costs may be expected to remain unaffected in LCMA 4&5 and LCMA 1 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. The 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 4&5 and LCMA 1 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, LCMA 3 profits may remain unchanged.

Enforcement Costs

The preferred alternative 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&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 preferred alternative will have some distributive impacts. 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. In LCMA 4&5 and LCMA 3, the preferred alternative 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 status quo 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.

<u>Non-Preferred Alternative 1C</u>

The non-preferred alternative would limit participation in LCMA 3 and LCMA 4&5 to qualifiers, but would not implement trap allocations based on historic participation. Instead, trap caps equivalent to the status quo would be implemented. Under this scenario, the preferred alternatives for conservation equivalency for New Hampshire and boundary delineations are assumed to be implemented.

Number of Traps

Non-preferred alternative 1C would not affect numbers of traps fished in LCMA 1 since the New Hampshire conservation equivalency program was assumed to result in no net increase in traps fished in LCMA 1. Since the qualification criteria for limited entry to the LCMA 3 and LCMA 4&5 fisheries are the same as that for the preferred alternative, the potential number of qualifiers is the same as that reported in Table 8. Using the data provided in Table 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 preferred alternative, the trap cap would have to be reduced to approximately 1,500 traps. The notable difference between non-preferred 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&5, the number of trap tags purchased by qualifiers is approximately 800 tags. Therefore, the non-preferred alternative would result in approximately the same number of traps fished as the status quo assuming that the status quo reflects approximately the same number of vessels and that no new vessels enter the LCMA 4&5 fishery.

Lobster Landings

If trap caps are not adjusted to achieve equivalent trap reductions in LCMA 3 as that of the preferred alternative, then lobster landings may be expected to be equivalent to that of the status quo. If trap caps are adjusted to achieve an equivalent trap reduction then lobster landings may be expected to be equivalent to that of the preferred alternative.

Lobster Prices

As was the case for the status quo and preferred alternative 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 increased effort in areas other than LCMA 3 or LCMA 4&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.

Harvesting Costs

Harvesting costs in LCMA 1 will remain unchanged since the New Hampshire conservation equivalency program is assumed to lead to no net increase in traps fished. Harvesting costs may be roughly equivalent in LCMA 4&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 the LCMA 3 may be equivalent to that of the status quo

since the estimated trap cap in year 5 for non-preferred alternative 1C would be the same as for the status quo.

Producer Surplus

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

Enforcement Costs

Non-preferred alternative 1C would require that non-qualified vessels do not set traps in either LCMA 3 or LCMA 4&5. Otherwise, the enforcement burden would be similar to that of the status quo. In this respect, the economic cost of enforcement (measured in terms of opportunity cost) for non-preferred alternative 1C would be higher as compared to the status quo.

Non-Preferred Alternative 1D

Non-preferred alterative 1D would implement historic participation in LCMA 3 and 4&5, the New Hampshire conservation equivalency, and the LCMA boundary delineations. However, a maximum allocation of 1,440 traps would be implemented for LCMA 4&5.

Number of Traps

Given that the qualification criteria are the same as that for the preferred alternative, the number of potential qualifiers would be the same as for the preferred alternative. The number of traps in all other LCMAs would be the same as that for the preferred alternative. The number of traps fished in LCMA 4&5 would be less than that of the preferred alternative since the maximum allocation would be 1,440 traps. Based on available information, approximately 14 vessels fished more than 1,440 traps in LCMA 4&5 combined. On average, these 14 vessels fish 1,868 traps, so total trap numbers of LCMA 4&5 could be reduced by approximately 6,000 traps.

Lobster Landings

Lobster landings in all areas except LCMA 4&5 would be equivalent to that of the preferred alternative. Landings in LCMA 4&5 may reduced relative to the preferred alternative 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&5 fishery accounts for only a small proportion of overall landings.

Lobster Prices

Given that lobster landings may be expected to not be affected by regulatory action, lobster prices are likely to be similar to that of the status quo or preferred alternative.

Harvest Costs

Since trap numbers will be the same as that for the preferred alternative in all areas other than LCMA 4&5, harvest costs in those areas will be that same as that for the preferred alternative. Harvest costs may decline relative to the preferred alternative for those vessels that have historically fished more than 1,440 traps.

Producer Surplus

Producer surplus or vessel profit for all vessels other than LCMA 4&5 vessels that have fished more than 1,440 traps will be equivalent to that of the preferred alternative. Vessel profits for LCMA 4&5 vessels that will be limited by the 1,440 maximum trap allocation will lose profits if the proportional change in cost savings is not at least as great as the proportional change in landings accounting for adjustments in fishing practices.

Enforcement Costs

Non-preferred alternative 1D has the same additional enforcement burden as the preferred alternative. Therefore, the economic cost of enforcement will be the same as that for the preferred alternative.

Distributive Impacts

Like the preferred alternative, non-preferred alternative 1D will tend to preserve the competitive position of businesses that will qualify for LCMA 3 and LCMA 4&5. Therefore the distributive impacts will be similar to that of the preferred alternative.

Summary of Impacts

The impact of each of the regulatory alternatives relative to the status quo is summarized in Table 9. A "-1" indicates that the level of the given feature would be reduced given action as compared to the status quo. A "+1" indicates that the level of the given feature would increase relative to the status quo and a "0" is indicative of no change. Although the status quo scenario assumed that a similar trap reduction to that of the preferred alternative would be accomplished through reductions in trap caps, the fact that the status quo 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 alternatives are closed systems in the offshore fishery, they offer a greater likelihood of achieving trap reduction targets.

Table 9. Qualitative Comparative Summary of Economic Effects of Regulatory Alternatives Relative to the Status Quo

Feature	Preferred Alternative	Non-Preferred Alternative 1C	Non-Preferred Alternative 1D
Number of Traps	-1	-1	-1
Lobster Landings	0 (?)	0 (?)	0 (?)
Lobster Prices	0	0	0
Consumer Surplus	0	0	0
Harvest Costs	-1	0	-1
Producer Surplus	0 (?)	0 (?)	-1 (?)
Enforcement Costs	+1	+1	+1
Distributive Impacts	+1	0	+1
Likelihood of capping or reducing overfishing	+1	+1	+1

-1 denotes a reduction relative to status quo,
0 denotes no change from status quo
+1 denotes an increase 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&5 will most likely result in landings that are similar to that of the status quo. Given the probable impact on landings, lobster prices and consumer's surplus are not likely to differ from the status quo.

Due to anticipated reductions in numbers of traps fished, harvest costs are likely to be lower when compared to the status quo. 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 status quo 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 status quo. This increased cost is due to the need to enforce individual trap limits in the preferred alternative and non-preferred alternative 1D 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 offshore fishery. In this respect, the status quo and non-preferred alternative 1C may be expected to have similar effects. By contrast, the historic participation and trap allocations under the preferred

alternative and non-preferred alternative 1D will tend to preserve the competitive position of firms in the LCMA 3 and LCMA 4&5 fishery. Assuming that maintaining the competitive structure of the industry is desirable the distributive impact for the preferred alternative and non-preferred alternative 1D is denoted as "+1."

Given the fact that entry by Federal lobster permit holders to the offshore fishery is not limited and the situation that current participants may increase the number of traps they fish up to the 1800 trap limit, the status quo provides little assurance that trap reduction objectives can be met. Any one of the regulatory alternatives to the status quo would provide a greater assurance that trap reduction objectives could be accomplished in the offshore fishery. Further, in a closed system, additional management measures to effectively reduce fishing mortality in the offshore fishery would have a greater chance of success since additional effort would not be able to enter the fishery. Thus, any one of the regulatory alternatives would have a higher likelihood of effectively capping or reducing overfishing in the offshore fishery than the status quo.

Small Entity Impacts: Initial Regulatory Flexibility Analysis

The economic impacts of the regulatory alternatives were described at an industry 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 less than $3 million 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 DSEIS. Proposed 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 during an eight-year stock rebuilding period. The legislative basis for the management alternatives under this DSEIS is Section 804 of the ACFCMA, 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 MSA. Descriptions of the projected reporting, record keeping, and compliance requirements for the preferred and non-preferred alternatives relating to historical participation are presented in Section II.1 and Section III.2, 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. Preferred and non-preferred alternatives are presented and evaluated in Sections II.2, II.3, III.3, and III.4 of the DSEIS. For New Hampshire trap limits, two alternatives are identified. The preferred alternative 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-preferred 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 proposed boundary clarification, the preferred alternative would revise lobster

management area boundary lines adjacent to Massachusetts to be consistent with boundary lines under the ISFMP. The non-preferred alternative would retain current boundaries for the associated lobster management areas. The economic impacts associated with the preferred and non-preferred New Hampshire trap limit and Massachusetts boundary line alternatives are described in Sections II.7, III.5, and IV.1 of this DSEIS, and are incorporated herein by reference.

There are no other Federal regulations which overlap or duplicate the preferred or non-preferred lobster management alternatives discussed in this DSEIS. The regulatory alternatives would affect only those entities that hold a Federal lobster permit. Based on current permit application records, a total of 2,901 vessels hold a Federal lobster permit. Of these vessels, 18 hold only a recreational permit, 6 hold both a recreational and a non-trap commercial permit, and 2065 vessels hold a Federal permit endorsed for traps. 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. Therefore, all Federal permit holders must be considered as potential industry participants. Given this deficiency, there is insufficient basis for making a determination of non-significance for purpose of certification under the Regulatory Flexibility Act. Therefore, an initial regulatory flexibility analysis (IRFA) is being conducted. The IRFA provides information on the expected economic impacts of the preferred action and alternatives on affected small entities, i.e. Federal permit holders engaged in the lobster fishery to the extent possible.

Economic Effects on 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&5 nor does the information provided in Table 2 mean that the number of eventual qualifiers for historic participation will be limited to 64. The analysis presented earlier 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&5 (Table 8). Note that an additional 10 or 15 non-trap vessels could qualify for historic participation but do not at this time because they have not applied for a permit endorsed for traps. Of the qualified vessels for LCMA 3, the majority had home ports in either Rhode Island or Massachusetts (Table 10). For LCMA 4&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&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 10. 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 two major economic effects. First, limiting access will protect qualifiers from effort expansion in nearshore and inshore LCMA's. Second, trap allocations based on historical participation will preserve the competitive position of fishing businesses in the offshore fishery. Assuming that the data provided in Table 2 is representative of the majority of vessels that currently fish and that may eventually qualify for historic participation, the economic effect of the preferred alternative may be viewed in contrast to the trap caps under the status quo and that of non-preferred alternative 1C.

Under a trap cap, nearly half of the 64 vessels reporting trap numbers in Table 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. Under these circumstances, 30 vessels would be made worse off while 27 vessels would be made better off (assuming that trap numbers are positively correlated with vessel profits). By contrast, trap allocations based on historical participation will preserve the competitive position and structure of the offshore fishery. The economic consequence will mean that relative profitability of all participating entities will be maintained at the expense of constraining the growth of relatively smaller entities.

Among the regulatory alternatives considered, the non-preferred alternative 1C would compromise the competitive balance of the offshore fishery but would permit some room for growth among the smallest entities (in terms of numbers of traps fished). This would, of course, come at the expense of reducing industry share for entities above the trap cap. Both the preferred alternative and non-preferred alternative 1C would have the same general economic effect among qualifiers.

Economic Effects on 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 preferred alternative will primarily affect vessels that may currently be actively pursuing entry into the offshore fishery (ie. 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.

Based on an upper bound estimate of 60 qualifiers in LCMA 4&5, there is a total of 2,189 vessels that would not qualify. However, of these vessels only 185 vessels designated at least area 4 or area 5 (or both) on their permit application. These vessels are most likely to be negatively impacted by historic participation in LCMA 4&5. Similarly, of the non-qualifiers for LCMA 3, 569 of the more than 2,000 permit holders selected area 3 on the permit application. Consistent with the findings for qualifying vessels, the majority of LCMA 4&5 non-qualifiers would be from home ports in New York and New Jersey (Table 11). However, vessels from home ports in Maine would comprise the majority of LCMA 3 non-qualifiers.

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&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&5 qualifiers to the assumed level of catch per trap was reported in Table 8.

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 11. 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	569

Table 12. 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 12 are based upon limited data. Vessel history that may not be fully represented in NMFS data may increase the number of qualifiers. Nevertheless, vessels that will not qualify for either LCMA 3 or LCMA 4&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 still be able to fish their allowable number of traps but they will have to do so by moving their traps into nearshore or inshore LCMAs that are already congested. Thus, non-qualifying vessels that may be participants in the offshore fishery will likely to be able to offset some of their losses by fishing other areas but may not be as profitable as before.

A less obvious economic effect is that the value of the non-qualifier's Federal lobster permit will be eroded while that of qualifying vessels will increase. Thus, while there may be no distinct operational effect the

equity position of the business will 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 will 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 will be affected.

Impacts of Alternatives on Small Entities

None of the non-preferred alternatives will have differential impacts of non-qualifiers. Thus, 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-preferred alternative lD will have approximately the same impact as that of the preferred alternative except that vessels in LCMA 4&5 may be more negatively affected relative to the preferred alternative. The possible negative effect 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-preferred alternative 1C will have mixed effects on qualifying vessels in LCMA 3 and LCMA 4&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 alternative may result in an equalization of competitiveness but will do so by negatively impacting relatively larger businesses.

Rationale for Selecting the Preferred Alternative

Based on information available at this time, NMFS concludes that the preferred alternative is the best among the considered alternatives. The reader is referred to Section II of this DSEIS for a detailed description of the preferred alternative and its rationale and environmental consequences.

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. NMFS is providing 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.

3. PAPERWORK REDUCTION ACT (PRA)

The preferred alternative involves collection of information requirements subject to the PRA. These requirements include the compilation of information by Federal permit holders pertaining to historical fishing operations in the lobster fishery, and the submission of an affidavit to NMFS, certifying the number of traps fished during a qualifying year in LCMAs 3, 4, and 5.

4. ENDANGERED SPECIES ACT (ESA) AND MARINE MAMMAL PROTECTION ACT (MMPA)

The relevance of the preferred alternative to the ESA and MMPA is addressed in Section II.6.C.(3).

5. EXECUTIVE ORDER 13132

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

6. MAGNUSON-STEVENS ACT

Compliance with National Standards - ACFCMA 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 preferred alternative 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 (NMFS 1999). The implementation of historical participation measures to freeze, and in LCMA 3 to 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. For example, in LCMA 3, the total number of traps fished in the year 2006 would be 82% fewer traps than current fixed trap limits would allow under the worst case scenario (Section II.7.A.). A similar reduction in fishing effort pertains to the implementation of proposed lobster trap limits for lobstermen 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 preferred alternative will limit fishing effort and associated lobster mortality is unknown. Nevertheless, it is anticipated that the decrease in fishing effort associated with the preferred alternative 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 over the period 1999-2005 to help achieve stock rebuilding objectives. Additional lobster management measures in both state and Federal waters will be needed in the near future in accordance with the resource management requirements addressed by the ISFMP to end resource overfishing.

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, as proposed, 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.

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. 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 through the Commission's ISFMP.

National Standard 4 requires that conservation and management measures not discriminate between residents of different states. The proposed regulations for the EEZ were developed in consultation with the Commission and the lobster industry and take into account the social and economic distinction among the nearshore and offshore EEZ fisheries. The preferred alternative includes measures to control trap fishing effort by Federal lobster permit holders on the basis of historical fishing participation in LCMAs 3, 4, and 5, as well as in New Hampshire state waters. These measures would accommodate adaptive management and conservation equivalency provisions of the ISFMP, under which the Commission may recommend Federal lobster management actions under the ACFCMA on an area by area or for areas adjoined by multiple states, on a state by state basis with supporting justification. The associated management measures, which may effect residents of different states to varying degrees, depending on where and how they have historically fished traps for American lobster, strive to maintain historical participation levels in the U.S. American lobster fishery.

National Standard 5 requires that, where applicable, conservation and management measures promote efficiency in the utilization of fishery resources. The preferred alternative, 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) south of New York.

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 preferred alternative 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 are expected to be minimal. NMFS 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 and the confusion which could result if the states and NMFS conducted separate determinations of historical participation 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. The preferred alternative, 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. The preferred alternative 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 preferred alternative will have no anticipated impact on safety at sea, because it would not result in any changes in historical fishing practices..

V. SUMMARY

Federal authority for management of American lobster in the EEZ has been transferred from the MSA (50 CFR Part 649) to the ACFCMA (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. These new measures included: extension of a moratorium on new entrants in the EEZ fishery; designation of lobster management areas; near-shore and off-shore 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.

Unlike the MSA, the ACFCMA 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 NMFS) to support and facilitate effective stewardship of interjurisdictional fisheries throughout their range. The ACFCMA 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 MSA. These regulations may include measures recommended by the Commission to the Secretary that are necessary to support the provisions of the ISFMP.

The preferred alternative discussed in this DSEIS 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 preferred alternative also includes reference to other recommendations made by the Commission, but not analyzed in DSEIS. These include upgrade limitations for vessels participating in the LCMA 3 trap fishery and "closed areas" which would prohibit harvest of lobsters taken by trap gear in selected portions of LCMA 4. The preferred alternative also includes a discussion of concerns raised by NMFS relative to the ability of Federal permit holders to compile and provide documentation which would be required to certify historical participation on the basis of the proposed qualification criteria, and the ability of NMFS to accommodate recommendations from the Commission for Federal rulemaking responding to conservation-equivalent management measures specific to state jurisdictional waters.

Additional topics pertinent to Commission recommendations are also included in this DSEIS which address a preliminary request for public comments on the implementation of an increase of the minimum legal carapace length for American lobster harvested in Federal waters. The Commission has made this recommendation to promote synchronization of state-Federal regulations, anticipating that such a regulation will be proposed for consideration during development of Addendum II to Amendment III of the ISFMP, which has been scheduled for formal approval by the Commission during August 2001. NMFS concurs that preliminary public comment at this time is desirable, and that such a measure should be implemented concurrently in state and Federal waters to maximize benefits to the resource and minimize industry and market conflicts.

The most recent lobster stock assessment (ASMFC 2000) concludes that the American lobster resource continues to be overfished throughout its range. The preferred measures analyzed, and issues identified, in this DSEIS are integral to the ISFMP's adaptive management provisions, by which NMFS 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 ACFCMA to effectively manage the resource in a consistent manner across all jurisdictional boundaries.

VI. DSEIS CIRCULATION LIST

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VII. LITERATURE CITED

Atlantic States Marine Fisheries Commission. 1999. Addendum I to Amendment 3 of the Interstate Fishery Management Plan for American Lobster. August 1999.

Atlantic States Marine Fisheries Commission. 2000. Terms of reference and advisory report for the American lobster stock assessment peer review. Stock Assessment Peer Review Report No. 00-01 of the Atlantic States Marine Fisheries Commission. July 2000.

Atlantic States Marine Fisheries Commission. 2000. American lobster stock assessment report for peer review. Stock Assessment Report No. 00-01 (Supplement) of the Atlantic States Marine Fisheries Commission. July 2000.

National Marine Fisheries Service. 1999. Final Environmental Impact Statement (FEIS) and Regulatory Impact Review for Federal Lobster Management in the Exclusive Economic Zone. National Marine Fisheries Service, Northeast Regional Office. April 1999.

National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1995. Status reviews for sea turtles listed under the Endangered Species Act of 1973. National Marine Fisheries Service, Silver Spring, Maryland.

National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1997. Synopsis of the biological data on the green turtle *Chelonia mydas* (Linnaeus 1758). Biological Report 97(1). August 1997. Fish and Wildlife Service. U.S. Department of the Interior. Washington, D.C.

Newkirk, Sarah G. 1998. Marine protected areas and lobster management. Draft manuscript. Environmental Defense Fund. August 1998.

Waring, G.T., D.L. Palka, P.J. Clapham, S. Swartz, M.C. Rossman, T.V.N. Cole, L.J. Hansen, K.D. Bisack, K.D. Mullin, R.S. Wells, D.K. Odell, and N.B. Barros. 1999. U.S. Atlantic and Gulf of Mexico marine mammal stock assessments ? 1999. NOAA Tech. Mem. NMFS-NE-153, 196p.

VIII. APPENDIX - NOI PUBLIC COMMENTS AND RESPONSES

NMFS received 106 written comments on the American Lobster NOI for this proposed action during the public comment period which ran from December 10, 1999 - January 10, 2000. Comments included responses from the Atlantic States Marine Fisheries Commission, one state fishery agency, one state fisheries council, one fishing industry association, and 104 individuals. The comments and responses were very similar in nature, and can be grouped generally under either support for, or lack of support for, a fishing effort control strategy based on historical participation.

1. Comment: The Atlantic States Marine Fisheries Commission, the New Jersey Division of Fish, Game and Wildlife, the New Jersey Marine Fisheries Council, the Atlantic Offshore Lobstermen's Association, and 89 individuals (in the form of pre-printed postcards and letters) supported historical participation vs. uniform faxed trap limits as a means to control lobster fishing effort in LCMAs 3, 4, and 5, as recommended in Addendum 1 to Amendment 3 of the ISFMP. Many commentors indicated their belief that latent fishing effort is not being considered in the current Federal regulations, and fishermen who have not traditionally fished for lobster, restricted by regulations in other fisheries, will redirect fishing effort to the lobster fishery.

Response: The preferred alternative would implement a fishing effort control strategy based on historical participation in LCMAs 3, 4, and 5. It prevents fishermen who cannot demonstrate previous participation in the lobster fishery, as defined by the associated qualification criteria, from harvesting lobster by trap gear in these lobster management areas.

2. Comment: Eight individuals were opposed to the use of historical participation as a means to control fishing effort in LCMA 3. One commentor remarked that a small number of vessel owners who actually support an historical participation approach are merely attempting to obtain exclusive rights to a resource that they, themselves, have overfished. Another individual contended that the LCMA 3 plan benefits non-owner operated vessels and penalizes smaller vessel operator-owners. One individual commented that historical participation is only fair to large, over-priced operations who should not dictate the future course of the lobster fishery. Overall, these commenters believed that the existing fixed trap limits should remain in place in Federal waters. Inconsistent trap allocations among lobstermen fishing in the same area would be difficult to enforce, would result in certain permit holders fabricating false historical documentation, and would result in permits with higher trap allocations being "more valuable" than those with lower allocations. Subsequent to the public comment period, NMFS received ten additional letters. Two of these specifically opposed a historical participation management strategy in Federal waters for American lobster. The remainder of the letters supported the continuation of current fixed trap limits as implemented under current Federal regulations.

Response: NMFS acknowledges there are differences of opinion regarding the impacts which an historical participation management strategy would have on lobster fishing effort, fishing practices and fishermen behavior, and the socio-economics of the lobster industry. On the basis of the best available information, NMFS has analyzed the respective impacts in this DSEIS.