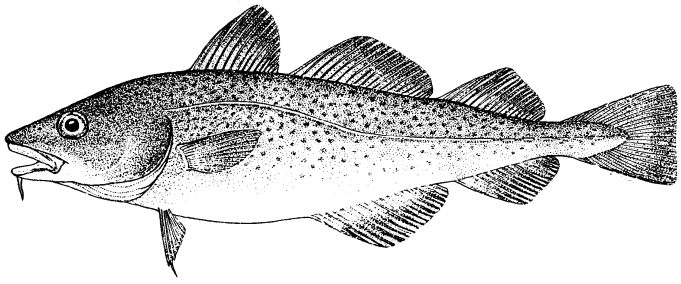
Public Hearing Document:
Draft Amendment 16
to the
Northeast Multispecies Fishery Management Plan



Prepared by the New England Fishery Management Council
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The Public Comment Process

Oral comments may be made at any of the scheduled public hearings.

Hearing schedule:

May 26th, 2009 5:30-9 p.m.	Wakefield, MA	Sheraton Colonial One Audubon Rd Wakefield MA
May 27th, 2009 6-9 p.m.	Portsmouth, NH	Sheraton Harborside 250 Market St Portsmouth NH
May 28th, 2009 5-8 p.m.	Portland, ME	Holiday Inn by the Bay 88 Spring St Portland ME
June 1st, 2009 1-3:30 p.m.	New London, CT	Radisson New London 35 Governor Winthrop Blvd New London CT
June 1st, 2009 6-9 p.m.	S. Kingston, RI	Holiday Inn 3009 Tower Hill Rd S. Kingston RI

Submitting Written Comments:

Submission period for written comments: April 24 - June 8, 2009. Comments must be received by 5:00 p.m. on June 8th, 2009 EST.

Written comments by mail:
Patricia Kurkul, Regional Administrator
National Marine Fisheries Service
Northeast Regional Office
55 Great Republic Drive
Gloucester, MA 01930
Subject line: "DEIS for Amendment 16 to the Northeast Multispecies FMP"

Written comments by FAX:
National Marine Fisheries Service
(978) 281-9207
Subject line: "DEIS for Amendment 16 to the Northeast Multispecies FMP"

Written comments by email:
Send to multsamendment16@noaa.gov
Subject line: "DEIS for Amendment 16 to the Northeast Multispecies FMP"

Amendment Schedule:

Groundfish Advisory Panel – May 26, 2009
Sheraton Colonial, 1 Audubon Rd, Wakefield MA

Recreational Advisory Panel – May 27, 2009
Sheraton Colonial, 1 Audubon Rd, Wakefield MA

Groundfish Oversight Committee – June 17, 2009
Holiday Inn Mansfield-Foxboro Hotel, 31 Hampshire St, Mansfield MA

Council meeting - June 23-25, 2009
Holiday Inn by the Bay, 88 Spring St, Portland ME
Final Council decision on Draft Amendment 16

Amendment 16 and the Public Hearing Document

This document describes the alternatives and options proposed in Draft Amendment 16 to the Northeast Multispecies Fishery Management Plan (FMP). It summarizes all of the major measures under consideration. Draft Amendment 16 and the full Draft Environmental Impact Statement (DEIS), however, are available on the Council website at **www.nefmc.org**. Paper copies are available on request by calling the Council office at 978/465-0492.

In this document, measures are shown in a different order than in the draft amendment document. In order to facilitate referral to the full amendment text, paragraph references are provided for major sections. Please note that the summarized measures in this document do not contain all of the details in the amendment, and you may wish to review the amendment text before providing comments.

The public hearing and written comments will be summarized and provided to the Council. Council members will choose the proposed action at their June 23-25 meeting in Portland, ME. Following the meeting, the Council staff will prepare a Final Amendment and Environmental Impact Statement that reflects the Council's decisions. The final version of the amendment will be submitted to the National Marine Fisheries Service (NMFS) and the Secretary of Commerce for review and approval. The Secretary of Commerce may approve, disapprove, or partially approve the amendment based on agency review.

If approved, NMFS will publish proposed regulations that implement Amendment 16 in the *Federal Register*, a step that triggers an additional 45-day comment period on the new rules. NMFS will respond to comments from the public on the proposed regulations when it publishes a final rule in the *Federal Register*, the official version of the new regulations. They are scheduled to take effect on May 1, 2010.

Why Is Amendment 16 Necessary, and What Is Its Purpose?

Amendment 16 is a broad-ranging suite of measures that meets several needs. Revisions to the Magnuson-Stevens Fishery Conservation and Management Act impose new legal requirements for the management of every fishery in the United States. In order to meet these requirements, certain measures must be adopted including annual catch limits and accountability measures.

In addition, several groundfish stocks have not been meeting rebuilding targets adopted by earlier amendments. Reductions in mortality on those stocks continue to be necessary, as are mitigating measures for the adverse economic impacts of such reductions. In addition to revised effort control measures, A16 proposes expanding the system of sector management, whereby part of the fishery would be subject to a hard TAC. Sectors are voluntary and self-selecting, and fishery participants who do not wish to seek sector membership can continue fishing under the "common pool" system. Thus, both DAS and hard TAC management systems are represented in this amendment. In October 2008 the Council stated its intention to move groundfish management to an output-based system beginning with Amendment 16; many view the adoption of additional sectors as a transition step toward the use of output controls for the entire New England multispecies fishery. Finally, this amendment includes various other measures related to fishing regulations and administration, which are detailed in the following sections.

Summary of Alternatives

Proposed Rules and Regulations Affecting Fishing Operations

Amendment 16 modifies and expands sector administration policies. In addition, new sector applications, and requests for modifications to existing sectors, have been submitted for inclusion in Amendment 16. The Council has determined that, if approved, new sectors will begin operating in FY 2010. Seventeen new sectors are proposed and changes are proposed for two existing sectors. Sectors will have an amount of pounds of fish that they are able to harvest. The total amount of fish allocated to a sector is termed Annual Catch Entitlement (ACE). Each sector's ACE is determined by adding the Potential Sector Contribution (PSC) of each member. PSC is also referred to as permit history.

Sector Policies

Joining a sector (Amendment 16 §4.3.3.1 and §4.3.3.2):

- It is proposed that confirmation of permit history (CPH) permits (CPH permits are those that are not currently on a vessel, but that show a history of landings) will not need to be activated in order to be associated with and/or join a sector. If no action is taken, CPH permits will need to be activated in order to do so.

- Furthermore, there are additional requirements proposed for information that will need to be included in a sector's operation plan. These are largely administrative measures.

Potential Sector Contributions (PSC)/Permit History (§4.3.3.3.4):

Six options are included for calculating baseline history (PSC) for sector vessels. For more information on PSC calculations, including example allocations, please see Appendix I. *The Council may choose a different allocation approach for this fishery in the future. The Council cannot guarantee decisions made by a future Council will use these same formulas.*

- Landings history only for the most recent five-year period prior to sector formation (No Action)
- Option 1: Landings history only during FY 1996-2006
- Option 2: 50 percent landings history and 50 percent of the vessel baseline capacity* for stocks landed by the permit during FY 1996-2006
- Option 3: 50 percent landings history and 50 percent of the vessel baseline capacity* for all stock for which ACE will be allocated during FY 1996-2006
- Option 4: 50 percent landings history and 50 percent A DAS[†] for all stocks for which ACE will be allocated during FY 1996-2006
- Option 5: For existing sectors (the GB Cod Hook Gear Sector and the Fixed Gear Sector), it is proposed that the allocation of GB cod will be done as adopted by Amendment 13. If no action is taken, the potential sector contribution for members of these sectors will be done as per A16.

*The vessel baseline capacity in options 2 and 3 will be calculated using the following formula:
{(10xLength) + HP} x (allocated "A" DAS) = baseline capacity

†A DAS are the baseline category A DAS assigned to a permit under Framework 42

Operating in a sector (§4.3.3.3.1 through §4.3.3.3.3):

- Two options are proposed to determine what consequences will ensue in the event of a sector overage when a vessel leaves a sector or if a sector disbands after an overage occurs:
  - Option 1 - Each permit receives a percentage reduction in DAS equal to the maximum percentage overage of the sector. Example; the sector goes 5% over on stock A and 10% on stock B. Each permit receives a 10% DAS reduction; *or*
  - Option 2 - Each permit receives a flat DAS deduction based on the number of pounds of overage by the sector, divided by the number of vessels in the sector. Example: A sector of ten permits goes 10,000 pounds over on stock A and 20,000 pounds over on stock B. Each permit is responsible for 3,000 pounds of overage. Assume the sector averaged 1,000 pounds per day for the total catch of stock A and stock B. A DAS penalty will be calculated for each stock that is based on the total catch of that stock by the sector divided by the total DAS (or days absent if DAS are not tracked) used by the sector. In the example, the penalty is 1 DAS for every 1,000 pounds and each permit is penalized three DAS.

- Special provisions may be determined for the U.S./Canada area. Separate allocations could occur where sectors would be provided a specific ACE for those stocks that have a TAC that is specific to the Eastern U.S./Canada area. Otherwise, there would be no specific U.S./Canada area allocation. Sector participation in SAPs is also clarified.

- Sectors may also have special rules for the transfer of ACE, both between fishing years and between sectors. The preferred alternative is that a sector can carry up to 10 percent of unused ACE forward into the next fishing year. In addition, all or a portion of a sector's ACE of any stock could be transferred to another sector with no restrictions on the nature of the transfer of ACE between sectors. Such transfers could take place at any time up to 14 days into the next fishing year. If no action is taken, ACE transfer between sectors or fishing years would not be authorized.

- Sectors are automatically exempted from groundfish trip limit regulations, seasonal closed areas (not including the Gulf of Maine "rolling" closures), and groundfish DAS restrictions. They cannot be exempted from year-round closures, permitting restrictions, gear restrictions that minimize habitat impacts, and reporting requirements.

How does participation in a sector affect fishing for monkfish and skates?
Groundfish rules authorizing sectors do not modify the regulations for monkfish and skate fishing and all such provisions continue to apply. If those regulations require using a groundfish DAS, then a sector vessel must use a groundfish DAS to land those species. Sector vessels must comply with any trip limits for monkfish and skates.

Sector monitoring and enforcement (§4.3.3.5):

- Three options are included for defining sector members' liability for violations:
  - Option 1: Sector regulations at 50 CFR 648.87(b)(2)(x) are proposed to be modified to include the following sentence: "Each Sector, vessel, and vessel operator and/or vessel owner participating in the Sector may be charged jointly and severally for violations of Sector Operations Plan requirements as well as any other applicable Federal regulations, resulting in an assessment of civil penalties and permit sanctions pursuant to 15 CFR part 904." This sentence will be revised by removing the phrase "as well as any other applicable Federal regulations:"
  - Option 2: Sectors may be held jointly liable for violations of the following sector operations plan requirements: ACE overages, discarding of legal-sized fish, and misreporting of catch (landings or discards).
  - Option 3: Should a hard TAC allocated to a sector be exceeded in a given fishing year, the sector's allocation will be reduced by the overage in the following fishing year, and the sector, each vessel, and vessel operator and/or vessel owner participating in the sector may be charged, as a result of said overages, jointly and severally for civil penalties and permit sanctions pursuant to 15 CFR Part 904. If the sector exceeds its TAC in more than one (1) fishing year, the sector's share may be permanently reduced or the sector's authorization to operate may be withdrawn.

- Sectors will be required to have vessel landings verified by dockside monitors. By year three, new sectors will be required to develop an at-sea observer program. Both programs will be funded by sectors.

- For sector monitoring, either 100% or less than 100% dockside monitoring report coverage will be required. Additionally, less than 100% at-sea observation will be required and 100% or less than 100% electronic monitoring will be required.

- Until a sector establishes an at-sea observer program, sector landings will be expanded to catch using an assumed discard rate. There are two options to determine discard rates used in monitoring:

  - Option 1: The discard rate used will be based on the most recent assessment for the stock, using a gear specific estimate if available. The term "gear" means trawl, longline, gillnet, or other gear type and does not refer to specific gear configurations, such as a separator trawl, Ruhle trawl, etc., since discard estimates are not included in the assessments for specific gear configurations. If a gear specific rate is not available, the overall observed discard rate will be used; or
  - Option 2: A sector-specific discard rate would be calculated based on observer data from the previous year. If possible this will be calculated for each gear used in the sector. If this cannot be done, an overall rate will be used.

- Detailed requirements are proposed for providers of dockside and at-sea monitoring services.

New sectors proposed in A16 (§4.4.6):

- Sustainable Harvest Sector
- Port Clyde Community Groundfish Sector
- New Bedford Deep Water Trawl Sector
- New Bedford and Southern New England Fixed Gear Sector
- New Bedford Channel Trawl Sector
- New Hampshire and Southern Maine Fixed Gear Sector
- New Hampshire and Southern Maine Trawl Gulf of Maine Sector
- Gloucester Trawl/Western Gulf of Maine Sector
- Gloucester Fixed Gear Sector
- Gloucester/Boston Trawl Gulf of Maine and Georges Bank Sector
- South Shore Trawl Sector
- South Shore Fixed Gear Sector
- Point Judith and Southern New England Offshore Trawl Sector
- Point Judith and Southern New England Trawl Sector
- Tri-State Sector
- Pier 6 Initiative
- Martha's Vineyard Community Sector

Existing sectors proposed for modifications:

- Georges Bank Cod Hook Sector
- Fixed Gear Sector

Mortality Controls for the "Common Pool" Commercial Fishery

There are four options for mortality control for common pool vessels in the commercial fishery. Options are labeled 2A, 3A, 4, and the No Action alternative. Trip limits for all options are summarized in Table 1.

Notes on Option 2A, 3A, and 4:
- *Gear requirements while fishing on a Category A DAS that were implemented by Amendment 13, as modified by subsequent framework actions, remain in effect.*
- *The options do not modify the existing year-round, rolling, seasonal, or habitat closed areas.*

Non-sector vessels Option 2A – Differential DAS and Trip Limits (§4.4.2.2)

- This option does not quite achieve the rebuilding target for pollock and if selected as the proposed action measures may need to be modified to achieve that target.

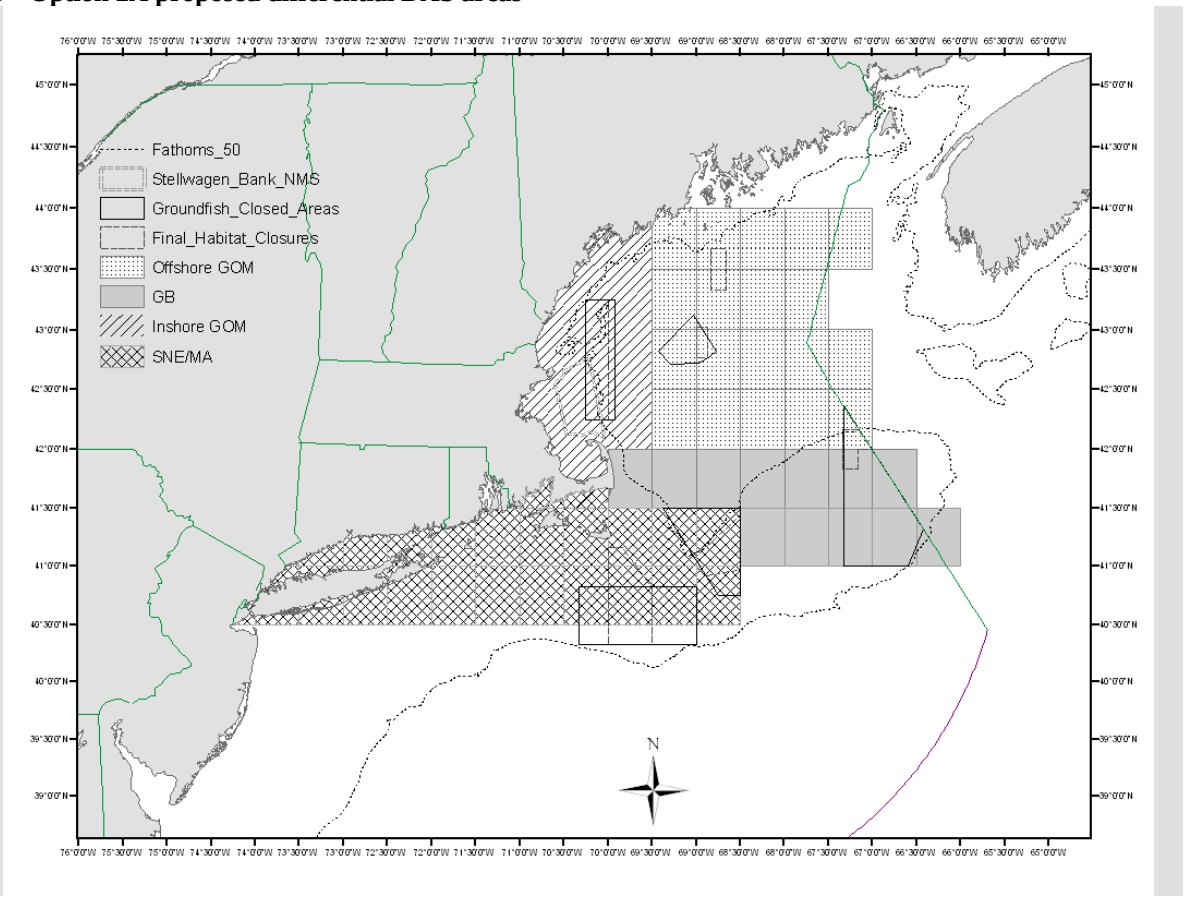
- DAS: The default change in the Category A/Category B DAS split that will be implemented May 1, 2009 is retained. The Category A/Category B split is 45/55.

- Differential DAS counting: Differential DAS counting areas are adopted as illustrated below (Figure 1); see Amendment 16 for exact coordinates. Differential DAS will be counted based on the location of the vessel as determined by VMS. There is no requirement for declaring into an area (other than requirements for the U.S. /Canada Area under regulations implementing the U.S./Canada Resources Sharing Understanding). DAS counting rates will be based on the first position in the differential DAS counting area and the first position out of the DAS counting area. The counting rates for the areas are:

  Gulf of Maine Inshore: 2.25:1
  Gulf of Maine Offshore: 1.25:1
  Georges Bank: 2.25:1
  Southern New England/Mid-Atlantic: 3:1

- Day gillnet vessel differential DAS counting: For day gillnet vessels that fish in more than one differential DAS counting area on the same trip, the differential DAS counting rate that applies is the highest rate for the areas fished. Because of the day gillnet 15 hour minimum rule, this applies for trips that are either three hours or less in length, or more than (15/differential DAS rate) in length. This is a change from the FW 42 practices in the SNE/MA differential DAS counting area. Examples of the application of this rule follow:
  - Fishes in one 2:1 area:
    - 0-3 hours: charged at 2 times the time spent on the trip
    - Over 3-7.5 hours: charged 15 hours
    - Over 7.5 hours: charged at 2 times the time spent on the trip
  - Fishes in a 2:1 area and a 2.25:1 area:
    - 0-3 hours: charged 2.25 times the time spent on the trip
    - Over 3 to 6.67 hours: charged at 15 hours
    - 6.6 hours: charged at 2.25 times the time spent on the trip

Figure 1 – Option 2A proposed differential DAS areas



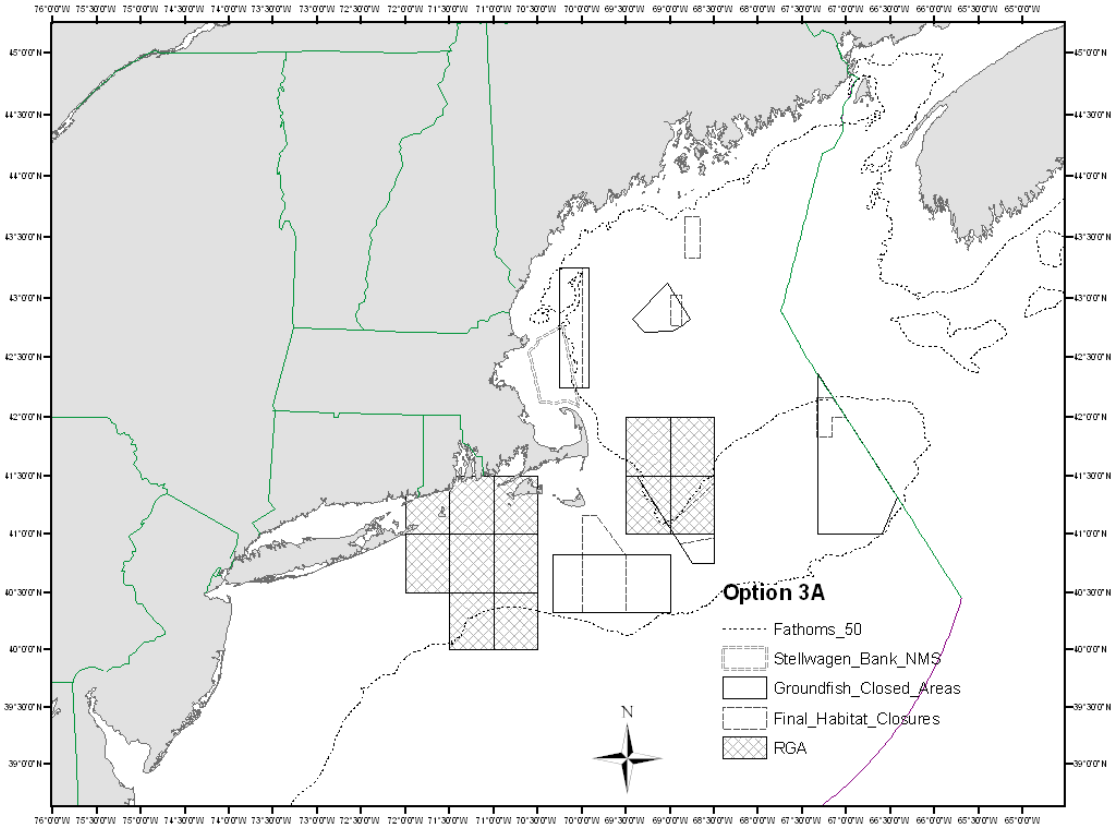
Non-sector vessels Option 3A – 24 hour clock and restricted gear areas (§4.4.2.3)

Eliminates differential DAS counting areas, reduces Category A DAS by 50 percent from the FW 42 allocations, and counts all DAS in 24-hour increments (i.e. 6 hours is counted as one DAS, 25 hours is counted as two DAS, etc.). The category A/Category B DAS split that results is 27.5%/72.5%. Most other current measures remain, including seasonal and rolling closures and gear requirements.

Two restricted gear areas are established as shown in Figure 2. For exact coordinates see the amendment text.

How does changing the way groundfish DAS are counted affect vessels using Monkfish Category C or D Permits?
Vessels with monkfish Category C and D permits are generally required to use a groundfish DAS when using a monkfish DAS. Options 2A and 3A change the way DAS are counted. For common pool vessels, the groundfish DAS used while fishing for monkfish will be counted as described in each option. As a result, the vessel's groundfish DAS may be used before the vessel uses all of its monkfish DAS. If a vessel's groundfish DAS allocation is less than its monkfish DAS allocation the vessel is given monkfish only DAS in the amount equivalent to that vessel's annual monkfish allocation minus its annual allocation of NE multispecies. This provision does not apply to different DAS counting rates – using the groundfish DAS at a higher rate than the monkfish DAS does not entitle the vessel to additional monkfish only DAS. Burning up the groundfish DAS in 24-hour increments, or at a differential DAS rate, does not, at present, entitle a vessel to use monkfish-only DAS.

Figure 2 – Option 3A, 24-hour clock, restricted gear areas



Non-sector vessels Option 4 – DAS Reduction and Restricted Gear Areas (§4.4.2.4)

Reduces Category A DAS by 40 percent from FW 42 allocations. This results in a Category A/Category B DAS split of 33/67. Most other current measures remain, including seasonal and rolling closures and gear requirements. This option does not quite achieve the rebuilding target for

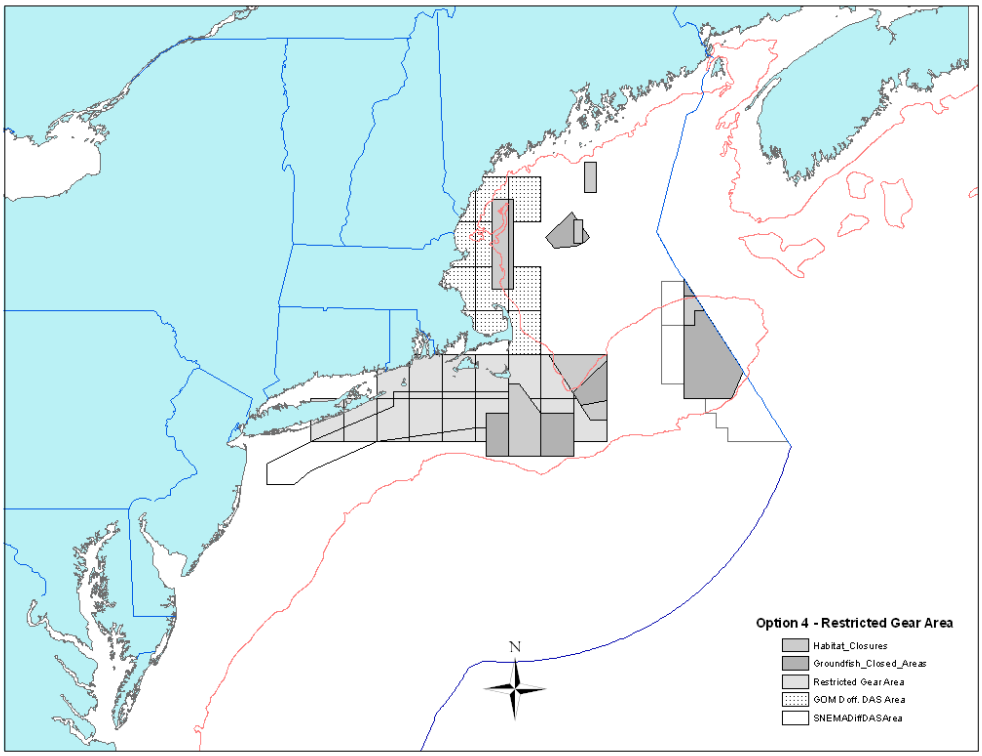
pollock and if selected as the proposed action measures may need to be modified to achieve that target.

A key feature of this option is the addition of an area in southern New England where only specific gear can be used while fishing on a groundfish DAS. The area is shown in Figure 3; see the amendment text for exact coordinates. In the gear areas, gear may be restricted to those gears that do not catch yellowtail flounder and winter flounder. Allowed gear is identified in the text box below.

Options 3A and 4: gears being considered for restricted gear areas include:

- *Trawl Gear: Haddock separator trawl, eliminator trawl, five-point trawl, raised-footrope trawl, rope trawl. The haddock separator trawl, eliminator trawl, and raised footrope trawl are described in the regulations.*
  - *Rope trawl: The design includes a four-panel structure to increase headline height and large mesh in the front part of the trawl. The separator panel is made from a series of parallel ropes of different lengths. The panel is one-third from the fishing line in the vertical plane. There is a large escape opening in the bottom of the trawl.*
  - *Five-point trawl: A modified three-bridle, four-panel box trawl based on a sweepless raised footrope trawl design that separates fish by exploiting differences between the behaviors of cod and haddock. The net flies over cod while retaining haddock, which generally move upward as the trawl approaches. Specifically, the net only contacts the bottom with 5 "drop chains" along the footrope*
- *Sink gillnets (no tiedown nets allowed unless using mesh over eight inches)*
- *Longline/tub trawls*
- *Handgear*

Figure 3– Option 4, restricted gear area



Non-sector vessels No Action alternative (§4.4.2.1)

An 18% DAS reduction is scheduled to occur in FY 2009 unless certain conditions are met: (overfishing is not occurring on any stock and additional fishing mortality reductions are not needed to rebuild any stock). Gear requirements, closed areas, and differential DAS counting continue as implemented by Amendment 13 and subsequent frameworks. *Please note the Interim Action measures implemented May 1, 2009, **are not** the No Action alternative; the No Action alternative is the measures in place in FY 2008, plus the 18% reduction in Category A DAS implemented May 1, 2009.*.

This alternative does not meet the amendment's mortality objectives.

Table 1 – Trip limits for A16 effort control options

Stock	Option 2A	Option 3A	Option 4	No Action
GOM Cod*	2,000 lbs./DAS; maximum 12,000 lbs./trip in GOM, 20,000 lbs./trip in GB, with the exception of the Eastern U.S./Canada area, where the Regional Administrator will specify the appropriate trip limit at the beginning of the fishing year (the default trip limit for this area remains 500 lbs./DAS, up to a maximum of 5,000 lbs./trip).	2,000 lbs./DAS; maximum 12,000 lbs/trip in GOM, 20,000 lbs/trip in GB; with the exception of the Eastern U.S./Canada area, where the Regional Administrator will specify the appropriate trip limit at the beginning of the fishing year (the default trip limit for this area remains 500 lbs./DAS, up to a maximum of 5,000 lbs./trip).	2,000 lbs./DAS; maximum 12,000 lbs/trip	800 lbs./DAS up to 4,000 lbs./trip
GB Cod*			1,000 lbs./DAS; maximum 10,000 lbs./trip, with the exception of the Eastern U.S./Canada area, where the Regional Administrator will specify the appropriate trip limit at the beginning of the fishing year (the default trip limit for this area remains 500 lbs./DAS, up to a maximum of 5,000 lbs./trip).	1000 lbs./DAS up to 10,000 lbs./trip
CCGOM Yellowtail Flounder	500 lbs./DAS up to a maximum of 3,000 lbs./trip	250 lbs./ DAS up to a maximum of 1,500 lbs./trip	250 lbs./DAS up to a maximum of 1,500 lbs./trip	250 lbs./DAS up to 1000 lbs./trip
SNE/MA Yellowtail Flounder	500 lbs./DAS up to a maximum of 3,000 lbs./trip	250 lbs./ DAS up to a maximum of 1,500 lbs./trip	250 lbs./DAS up to a maximum of 1,500 lbs./trip	250 lbs./DAS up to 1000 lbs./trip
GB Yellowtail Flounder	N/A	N/A	10,000 lbs./trip (unless adjusted consistent with US/CA area regulations)	10,000 lbs./trip
SNE/MA Winter Flounder	0	0	0	N/A
Windowpane Flounder	0	0	0	N/A
Atlantic Halibut	One fish/trip	One fish/trip	One fish/trip	One fish/trip
GB Winter Flounder	N/A	N/A	N/A	5,000 lbs./trip
White Hake	N/A	N/A	N/A	1,000 lbs./DAS up to 10,000 lbs./trip

**Special note on handgear permits:*
The trip limits for both GB and GOM cod in Options 2A, 3A, and 4 would be:

- Handgear A Permits: Consistent with the automatic adjustment in landing limits for this category adopted in A13, the landing limit for cod is increased to 750 lbs./trip. The automatic adjustment mechanism is retained.
- Handgear B Permits: Consistent with the automatic adjustment in landing limits for this category adopted in A13, the landing limit for GOM cod is increased to 200 lbs./trip. The automatic adjustment mechanism is retained.

Rules and Regulations Affecting the Recreational Fishery

Allocation of Groundfish to the Commercial and Recreational Groundfish Fisheries (§4.3.5)

The Council is considering an allocation certain regulated groundfish stocks to the commercial and recreational components of the fishery. For this action, an allocation will be determined after accounting for state waters catches taken outside of the FMP. An allocation will not be made in the case of stocks that are not fully harvesting the ACL. An allocation will also not be made if the recreational harvest, after accounting for state waters catches outside the management plan, is less than five percent of the removals. A defined time period will be used to calculate the allocation: either fishing years 1996-2006 or 2001-2006. If no action is taken, there will be no allocation of groundfish among the commercial and recreational fisheries.

Stock	Years	Preliminary Estimate of Recreational Allocation
GOM Cod (1)	1996 – 2006	25.1%
GOM Cod (2)	2001 – 2006	33.7%
GOM Haddock (1)	1996 – 2006	17.6%
GOM Haddock (2)	2001 – 2006	27.5%

Measures to reduce mortality in the recreational fishery (§4.4.3.3)

Whether additional controls are needed for the recreational fishery depends on the allocation decision that is made.

Options for GOM Haddock (if the selected allocation years are 1996-2006):

- **Option 1**: The minimum size for GOM haddock is increased to 21 inches. There is no change to the bag limit or the season.
- **Option 2**: A bag limit for GOM haddock is implemented as nine fish per angler per trip. There is no change to the minimum size or season.
- **Option 3**: The minimum size for GOM haddock is reduced to 18 inches and a bag limit of 7 fish per angler per trip is adopted. There is no change to the season.

Options for GOM cod (if the selected allocation years are 1996-2006):

- **Option 1:** The minimum size for GOM cod is increased to 26 inches. There is no change to the bag limit or the season.
- **Option 2**: The bag limit for GOM cod is six fish per angler per trip. There is no change to the minimum size or season.
- **Option 3**: Landing of GOM cod is prohibited from November 1 through April 15. There is no change to the minimum size or bag limit.

Option if the selected allocation years are 2001-2006 or if no allocation is made:

- The minimum size for GOM haddock is reduced to 18 inches. There is no bag limit and no change in seasons.

Provisions for landing fillets (§4.4.3.1)

Two proposed alternatives would change the rules regarding on-board skinning of fillets. If no action is taken, the current prohibition on landing fillets would remain.

- Under Option 1, recreational fishermen would be allowed to land fillets with the skin off. The number of fillets would be converted to whole fish at the place of landing by dividing the fillet number by two. If fish are filleted into single (butterfly) fillets, each fillet would be deemed to be from one whole fish. Fillets must be taken from legal-sized fish.
- Under Option 2, recreational (including party/charter) fishermen would also be allowed to land fillets, but species with a recreational allocation of an ACL must have at least two square inches of skin are on the fillet. The skin must be contiguous and must allow ready identification of the fish species. Fillets must meet minimum size limits.

Removal of the limit on hooks (§4.4.3.2)

It is proposed that recreational fishermen no longer be limited to two hooks per line. Fishermen would continue to be limited to one line per angler.

Additional Fishing Rules and Special Programs

❖ *Proposed changes to minimum sizes (§4.4.4):*

Atlantic halibut: increased to 41 inches (104.1 cm.), total length, for all groundfish vessels. Haddock (GOM and GB): changed to 18 inches for commercial groundfish vessels.

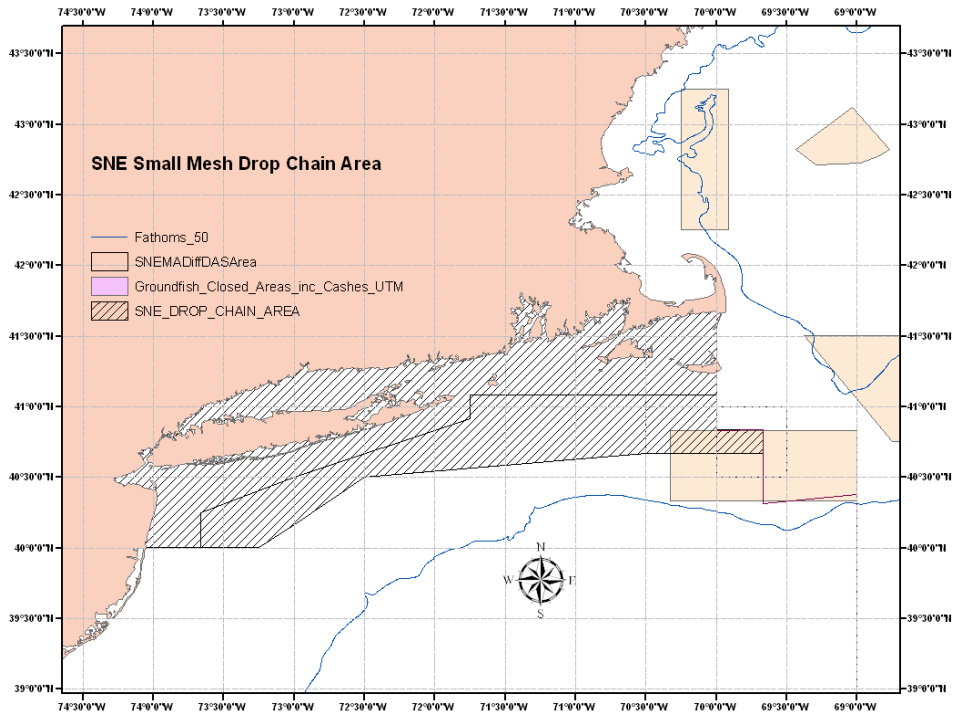
❖ *Atlantic wolffish management measures (§4.3.2 and §4.4.5):*

It is proposed that Atlantic wolffish would be added to the FMP and managed as an additional groundfish stock. Furthermore, a prohibition on retention, landing, and sale of Atlantic wolffish is proposed for any vessel, including all commercial vessels and all recreational (private, party, and charter) vessels. All Atlantic wolffish caught by any gear would need to be returned to the sea unharmed as quickly as possible. Status determination criteria are defined, and Essential Fish Habitat is also identified for this stock.

❖ *SNE/MA small mesh fisheries gear (§4.4.2.5):*

It is proposed that all vessels in the SNEMA area fishing with bottom trawl gear that uses a cod end smaller than 6.5 inches, square or diamond, must use drop chains of at least 12 inches. Nets that use large mesh, 24 inches or greater in the face of the net, are exempt from the drop chain requirement.

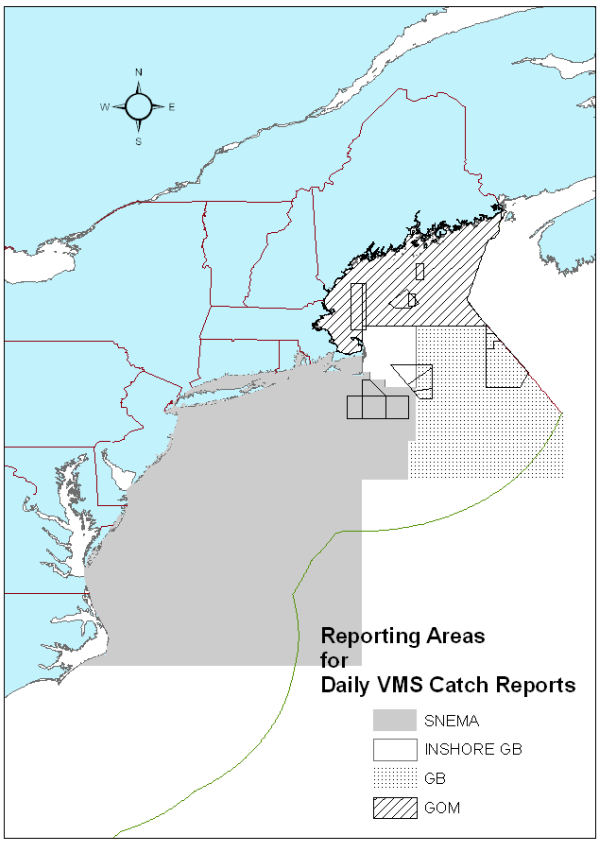
Figure 4 – Proposed area for drop chain requirement



❖ *Reporting Requirements (§4.3.4):*

Several changes are proposed to the reporting requirements currently in place for fishing vessels.

- One option would create area-specific reporting requirements. Four broad reporting areas will be established. Vessels fishing in more than one area on a trip would be required to submit daily catch reported via VMS.



- The requirement to monitor ACLs means that catch (landings and discards) must be estimated for non-sector vessels. For non-sector vessels in the commercial fishery, a discard rate, by gear, will be determined and applied to the landings for each trip. NMFS may apply this discard estimate in one of two ways: either based on the total landings of a stock, by gear, or on a trip-by-trip basis.
- The discard rate used will be based on either 1) the most recent assessment for the stock, using a gear specific estimate if available, or 2) observer data from the previous year by vessels that are not in sectors.

❖ *Possession of a limited access multispecies permit and a limited access scallop permit by the same vessel (§4.3.9):*

The draft amendment proposes removal of the current restriction; a vessel would be able to possess a limited access multispecies permit and a limited access scallop permit at the same time, even if the scallop dredge vessel did not qualify for a limited access multispecies vessel combination permit. If no action is taken, the restriction would remain.

❖ *GOM Haddock Sink Gillnet Pilot Program (§4.4.2.6):*

A pilot program is considered for authorization to facilitate the targeting of haddock in the GOM by sink gillnet vessels.

❖ *Changes to the DAS Transfer and Leasing Programs (§4.3.6):*

The Council's preferred alternative is to eliminate the conservation tax on DAS transfers. There is also a preferred position that no adjustment will be made for permits previously charged the tax. A different alternative allows permits that were previously charged a conservation tax to have their tax refunded.

Other alternatives include: to set a tax on DAS leasing that is equivalent to the tax adopted for the DAS transfer program, or to allow DAS transfers (consolidating the DAS and catch history of multiple permits onto a single vessel) exempt from the DAS conservation tax during a specific time period (between three months and one fishing year).

Finally, the Council's preferred measure would be to allow CPH permits to participate in the DAS leasing or transfer programs without being activated (placed on a vessel).

If no action is taken, the DAS transfer and leasing programs will remain as currently implemented.

❖ *Special Management Programs (§4.3.7):*

The specific stocks subject to incidental catch TACs and the allocations to SAPs are revised.

CAI Hook Gear Haddock SAP revisions:
- Season extended to nine months; area of the SAP expanded; other minor revisions

Eastern U.S./Canada Haddock SAP:
- Reauthorize the SAP with the following revision: trawl vessels fishing in the SAP can use codends with a minimum mesh size of six inch square or diamond mesh. If no action is taken, the SAP will expire on December 31, 2008

CAII Yellowtail Flounder SAP:
- Modify the existing SAP to provide an opportunity to target GB haddock in the SAP area even when the area is not open to target GB YT flounder.

SNE/MA Winter Flounder SAP:
- SAP area is suspended until stock conditions warrant its re-implementation

Category B DAS program:

- Revised to focus Category B DAS effort on three stocks: GB haddock, GOM haddock, and redfish. In addition, because pollock is approaching an overfished condition, catches of pollock in this program are limited to the incidental catch limit of 100 lbs./DAS with a maximum of 1,000 lbs./trip. Trawl gear requirements are also modified to allow using a six-inch codend when using selective trawl gear.

❖ *Approval of additional gear (§4.3.7.7):*

If accepted by the Council, the Regional Administrator of NMFS would be authorized to permanently approve additional selective gear for use in any special program that requires the use of selective gear.

Proposed Rules and Regulations Affecting Fishery Administration and Addressing New Legal Requirements

Annual Catch Limits and Accountability Measures (§4.3.1 and §4.4.7)

Amendment 16 proposes a method for calculating ACLs as required by the recent revisions to the MSA. In addition to the ACL, an Overfishing Level and Acceptable Biological Catch must be determined for each stock. Recommendations for these figures will come from the Plan Development Team (PDT) and the Council will approve final numbers. ACLs may be broken into sub-components for different segments of the fishery. If an ACL is exceeded in one year, the amount of the overage could be evaluated to determine if the ACL in year two should be adjusted in order to prevent overfishing.

Two AM options are being considered for common pool vessels in the commercial fishery.

- The first is a "hard TAC" backstop, under which the fishery will be suspended upon reaching the year's TAC. Most commercial groundfish fishing by common pool vessels would cease in a stock area when it is projected that the TAC of a stock will be caught.
- The second is an option where DAS reductions and more strict differential DAS counting would be put into place in the year following an overage. If ACLs will be exceeded, NMFS will adjust DAS counting for the following fishing year. If an ACL for any stock is exceeded, NMFS will calculate the differential DAS rate change needed to prevent the ACL for that stock from being exceeded the following year.

Three AM options are under consideration for the recreational fishery. The options are similar and differ primarily in the process used to determine the AM:

- **Option 1**: The recreational AM will be either/or adjustments to season, adjustments to minimum size, or adjustments to bag limits. Separate AMs will be determined for the private boat and party/charter components of the recreational fishery – that is, the AMs may be different for these two components. When evaluating whether a recreational ACL has been exceeded to determine if the AM needs to be implemented, the three-year average of recreational catch (calculated consistent with the catch used on the assessment) will be compared to the three-year average of the ACL. : If catches exceed the ACL, the Council will determine the measures necessary to prevent exceeding the ACL. Council decisions will be forwarded to NMFS which will initiate the process for implementation of the measures using procedures consistent with the APA.
- **Option 2**: Same as above, but AMs will be determined in priority order: changes in season, then adjustments to minimum size, then adjustments to bag limits. If catches exceed the ACL, the NMFS will determine the measures necessary to prevent exceeding the ACL and publish the accountability measures (AMs) that will be put into effect using procedures consistent with the APA.
- **Option 3**: Same as Option 1, but if catches exceed the ACL, NMFS will determine the measures necessary to prevent exceeding the ACL in future years following consultation with the Council and publish the accountability measure that would be put into effect using procedures consistent with the APA.

Periodic adjustment process (§4.3.8)

Changes are proposed to the list of measures that may be modified by framework action. All measures in this amendment, including changes to the ACL and AM process or implementation, modifications to sector administration policies, and reporting requirements could all be addressed in a framework to the amendment. Additionally, membership of the groundfish Plan Development Team (PDT) is proposed to be revised to be consistent with Council policy that all members be technical personnel.

Updates to Status Determination Criteria and Formal Rebuilding Programs (§4.2.1 and §4.2.2)

Status determination criteria are used to monitor the condition of fish stocks by providing definitions for overfishing and stocks that are "in an overfished condition". If overfishing is occurring, the harvest rate is above a defined fishing mortality limit. If a stock is in an overfished condition, it is below a prescribed biomass threshold or level.

If the limits are exceeded, management actions in the form of reductions in fishing mortality or rebuilding plans must be implemented to reverse the situation.

Status determination criteria developed by the Northeast Fisheries Science Center (NEFSC) during its 2008 assessment may be adopted in Amendment 16. This action would result in changes to the fishing mortality targets that are set to achieve rebuilding based on the recent stock assessments.

Table 2 - Numerical estimates of revised status determination criteria from GARM III assessment meetings and the Data Poor Working Group

Species	Stock	Model	Bmsy or proxy (mt)	Fmsy or proxy	MSY (mt)
Cod	GB	VPA	148,084	0.25	31,159
Cod	GOM	VPA	58,248	0.24	10,014
Haddock [(1)]	GB	VPA	153,329	0.35	33,604
Haddock	GOM	VPA	5,900	0.43	1,360
Yellowtail Flounder	GB	VPA	43,200	0.25	9,400
Yellowtail Flounder	SNE/MA	VPA	27,400	0.25	6,100
Yellowtail Flounder	CC/GOM	VPA	7,790	0.24	1,720
American Plaice	GB/GOM	VPA	21,940	0.19	4,011
Witch Flounder		VPA	11,447	0.20	2,352
Winter Flounder	GB	VPA	16,000	0.26	3,500
Winter Flounder	GOM	VPA	3,792	0.28	917
Winter Flounder	SNE/MA	VPA	38,761	0.25	9,742
Redfish		ASAP	271,000	0.04	10,139
White Hake	GB/GOM	SCAA	56,254	0.13	5,800
Pollock	GB/GOM	AIM	2.00 kg/tow	5.66 c/i	11,320
Windowpane Flounder	GOM/GB	AIM	1.40 kg/tow	0.50 c/i	700
Windowpane Flounder	SNE/MA	AIM	0.34 kg/tow	1.47 c/i	500
Ocean Pout		Index Method	4.94 kg/tow	0.76 c/i	3,754
Atlantic Halibut		Replacement Yield	49,000	0.07	3,500
Atlantic Wolffish		SCALE	800 – 1000 mt	< 0.35	138 – 150 mt

Table 3 – Revised rebuilding fishing mortality rates based on current stock status.
Boldfaced italics identify phased reduction strategies; other rebuilding programs use the adaptive strategy. Two rebuilding periods are being considered for pollock.

SPECIES	STOCK	Rebuilt Year / Probability of Success	Fishing mortality rates for adopted rebuilding programs in year:									
			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cod	***GB***	2026/50%	***0.184***	***0.184***	***0.184***	***0.184***	***0.184***	***0.184***	***0.184***	***0.184***	***0.184***	***0.184***
	(add ten years)		***0.184***	***0.185***	***0.184***	***0.184***	***0.184***	***0.184***	***0.184***			
	GOM	2014/50%	0.237	0.237	0.237	0.237	0.237	0.237	0.237	0.237	0.237	0.237
Haddock	GB	2014/50%	*No formal rebuilding program required*									
	GOM	2014/50%	*No formal rebuilding program required*									
Yellowtail Flounder	GB	2014/75%	0.109	0.109	0.109	0.109	0.109					
	SNE/MA	2014/50%	***0.072***	***0.072***	***0.072***	***0.072***	***0.072***					
	CC/GOM	2023/50%	***0.238***	***0.238***	***0.238***	***0.238***	***0.238***	***0.238***	***0.238***	***0.238***	***0.238***	***0.238***
	(add ten years)		***0.238***	***0.238***	***0.238***	***0.238***						
American Plaice		2014/50%	***0.190***	***0.190***	***0.190***	***0.190***	***0.190***					
Witch Flounder		2017/75%	0.162	0.162	0.162	0.162	0.162	0.162	0.162	0.162	0.162	
Winter Flounder	GB	2017/75%	0.205	0.205	0.205	0.205	0.205	0.205	0.205	0.205	0.205	
	GOM		*Unable to determine stock status; cannot calculate a rebuilding mortality if overfished*									
	SNE/MA	2014/50%	0	0	0	0	0	0	0			
Redfish		2051/50%	.038	.038	.038	.038	.038	.038	.038	.038	.038	.038
White Hake		2014/50%	***0.084***	***0.084***	***0.084***	***0.084***	***0.084***					
Pollock		2020	4.838	4.838	4.838	4.838	4.838	4.838	4.838	4.838	4.838	4.838
		2017	4.564	4.564	4.564	4.564	4.564	4.564	4.564	4.564	4.564	
Windowpane Flounder	North		*Unable to calculate rebuilding mortality*									
	South	2014/50%	*Unable to calculate rebuilding mortality*									
Ocean Pout		2014/50%	*Unable to calculate rebuilding mortality*									
Atlantic Halibut		2056/50%	0.044 through 2055									

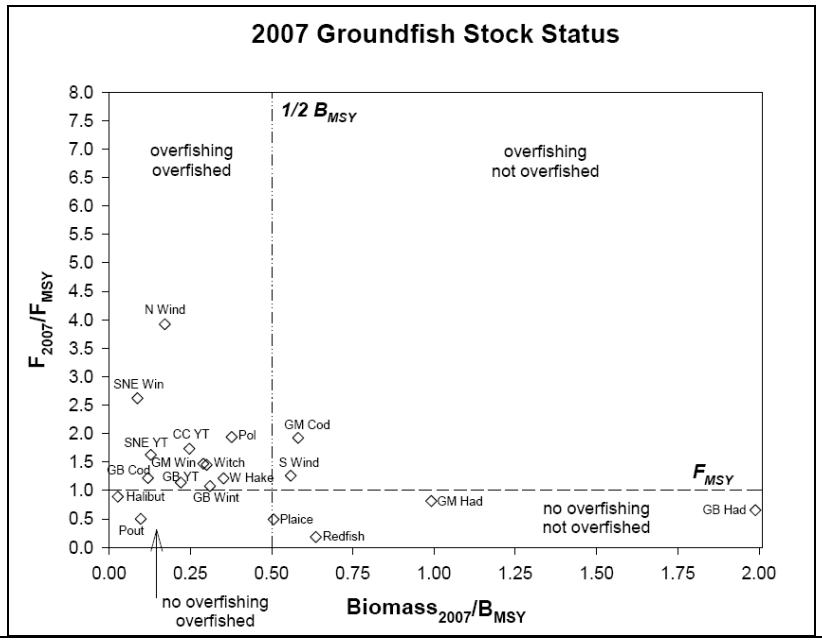
Table 4 – Summary of rebuilding reductions needed to achieve desired fishing mortality. When $F_{rebuild}$ is in grey font, it exceeds F_{MSY} and F_{MSY} is used for all projections.

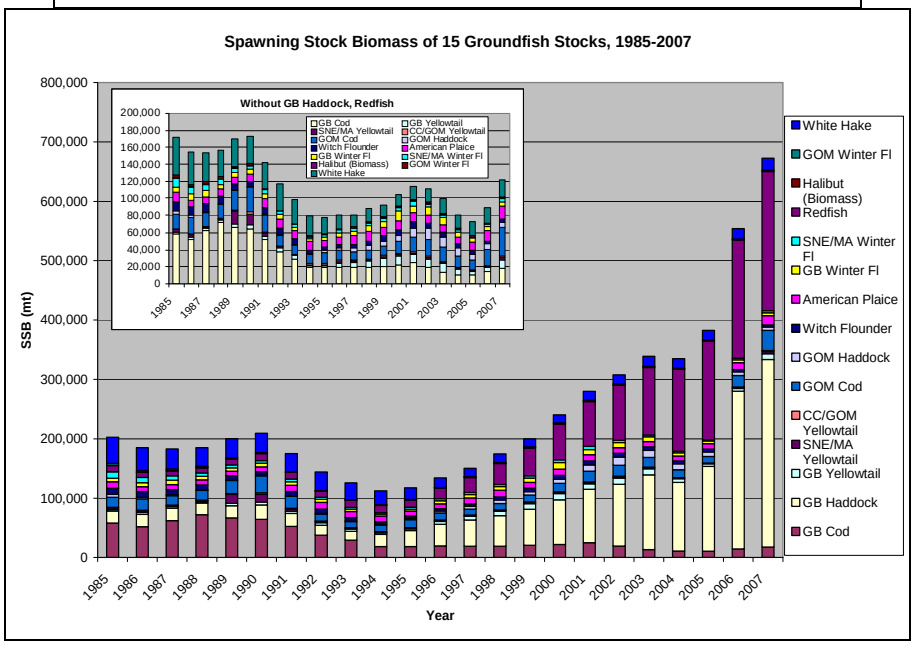
Species	Stock	2007 Fishing Mortality	Frebuild	Fmsy	2008 F from 2008 Estimated Catch	% Change in F necessary to achieve Frebuild using catch and F 2008
Cod	GB	0.300	0.184	0.2466	0.410	-55%
Cod	GOM	0.456	0.275	0.237	0.300	-21%
Haddock	GB	0.230	n/a	0.350	0.079	343%
Haddock	GOM	0.350	n/a	0.430	0.250	72%
Yellowtail Flounder	GB	0.289	0.109	0.254	0.130	-16%
Yellowtail Flounder	SNE/MA	0.413	0.072	0.254	0.120	-40%
Yellowtail Flounder	CC/GOM	0.414	0.238	0.239	0.289	-18%
American Plaice	GB/GOM	0.090	0.208	0.190	0.099	92%
Witch Flounder		0.290	0.162	0.200	0.296	-45%
Winter Flounder	GB	0.280	0.205	0.260	0.131	56%
Winter Flounder	GOM	0.417	N/A4	0.283	0.317	NA
Winter Flounder	SNE/MA	0.649	0.000	0.248	0.265	-100%
Redfish		0.005	n/a	0.038	0.008	375%
White Hake	GB/GOM	0.150	0.084	0.125	0.065	29%
Pollock	GB/GOM	10.464	4.838 / 4.564	5.66	11.249	-57% / -59%
Windowpane	GOM/GB	1.960	n/a	0.50	n/a	NA
Windowpane	SNE/MA	1.850	n/a	1.47	n/a	NA
Ocean Pout		0.380	n/a	0.760	n/a	n/a
Atlantic Halibut		0.065	0.044	0.073	0.060	-27%

Summary of Affected Environment

Status of Regulated Groundfish Stocks (§5.1.8)

This amendment uses the most recent groundfish assessments as the basis for its management measures. While the biomass of many groundfish stocks has increased since 1995, many stocks are still overfished and overfishing is continuing. The Groundfish Assessment Review Meeting III (GARM III) assessed the stocks through 2007 and found that thirteen stocks were overfished (low biomass) and thirteen stocks were subject to overfishing (high fishing mortality).





Status of Commercial and Recreational Groundfish Fishing Activity

Additional details can be found in the amendment document.

Commercial Fishing Activity (§5.2.3)

Landings of groundfish by groundfish permit holders declined from FY 2001 through FY 2006, and then increased slightly in FY 2007. The number of vessels using groundfish DAS declined from 1,094 in FY 2001 to 574 in FY 2007.

Table 5 – Groundfish landings by multispecies vessels by home port state, FY 2001-FY 2007

Home Port State	2001	2002	2003	2004	2005	2006	2007
ME	15,319,317	11,649,857	12,854,761	12,015,318	11,531,491	8,544,873	11,206,799
NH	4,712,053	3,313,107	3,445,717	3,262,416	3,065,318	2,679,237	3,915,885
MA	67,392,307	54,942,388	50,527,509	49,674,945	39,614,736	30,536,323	37,530,105
RI	7,239,855	7,225,382	7,596,776	6,101,959	5,294,117	3,622,723	3,564,536
CT	115,152	206,295	205,084	164,476	96,101	159,799	189,617
NY	4,199,723	3,589,125	3,373,185	1,722,828	1,315,533	1,000,326	959,129
NJ	854,198	502,831	658,452	681,537	599,701	556,646	518,097
DE	795,924	510,232	520,868	738,535	669,252	456,846	383,076
MD	2,115	2,437	423	459	39	439	Conf.
VA	847,588	149,890	271,458	166	343		16,938
NC	1,254,276	866,766	1,010,968	1,356,422	1,113,498	411,144	359,947
FL		Conf.	Conf.				
Other	2,057,355	1,554,819	1,674,084	734,577	0	Conf.	0
Grand Total	**104,789,863**	**84,513,129**	**82,139,285**	**76,453,638**	**63,300,129**	**47,968,356**	**58,644,129**

Table 6 – Groundfish revenues by multispecies vessels by home port state, FY 2001-FY 2007

Home Port State	2001	2002	2003	2004	2005	2006	2007
ME	14,080,005	12,309,933	11,464,247	10,620,918	12,035,740	9,302,543	10,171,625
NH	4,343,507	3,715,925	3,318,173	3,205,983	3,086,101	2,542,924	3,508,104
MA	65,020,184	64,152,683	52,129,610	47,096,109	46,217,349	40,920,743	42,524,732
RI	6,971,015	8,150,757	7,457,243	4,790,717	5,586,243	5,455,708	4,841,772
CT	99,883	214,561	229,002	161,469	89,676	266,773	281,002
NY	4,066,979	4,120,634	3,352,344	1,594,984	1,632,795	1,490,096	1,282,824
NJ	708,091	511,135	719,633	686,845	634,854	872,590	807,000
DE	792,687	550,411	531,387	732,081	797,839	563,008	328,244
MD	2,415	2,864	160	443	15	1,029	Conf.
VA	833,612	209,756	246,452	116	203	0	31,984
NC	1,108,424	851,153	888,326	914,520	1,022,124	616,975	466,700
FL		Conf.	Conf.	0	0	0	0
Other	610,491	470,625	478,117	225,332	0	Conf.	0
Grand Total	98,637,293	95,260,436	80,814,694	69,388,232	71,102,940	62,032,388	63,745,304

Recreational Fishing Activity (§5.2.5)

Recent recreational harvest of winter flounder, pollock, GOM haddock, and cod is summarized below. Party/charter groundfish fishing activity shows the number of vessels participating is lower in 2007 than in 2001, the number of trips in FY 2007 was 4.6 percent lower than in 2001, and the number of anglers carried has declined.

Table 7 - Winter flounder harvest by stock area and mode (numbers of fish)

	Gulf of Maine Stock			SNE/MA Stock		
Year	Party/ Charter	Private Boat	Shore	Party/ Charter	Private Boat	Shore
2001	1,387	58,504	9,269	34,574	638,583	156,550
2002	441	48,502	10,273	28,772	268,754	98,786
2003	1,721	39,926	11,212	51,146	448,776	42,264
2004	312	25,951	12,568	47,526	221,769	75,718
2005	6,150	21,264	17,729	6,502	147,270	43,744
2006	0	46,931	5,102	2,214	191,811	51,009
2007	5,283	36,789	7,157	1,089	200,292	6,151

Table 8 - Gulf of Maine Haddock Harvested by Mode (numbers of fish)

Year	Party/Charter	Private Boat
2001	60,773	56,536
2002	31,249	47,832
2003	53,938	65,586
2004	118,368	147,133
2005	225,843	211,363
2006	177,921	87,683
2007	104,946	235,806

Table 9 - Number of Harvested Pollock by Mode

Year	Party/Charter	Private Boat	Shore
2001	87,345	242,015	13,762
2002	22,846	183,603	33,988
2003	22,586	134,875	7,117
2004	71,638	144,873	8,703
2005	60,762	92,764	3,931
2006	56,993	121,686	0
2007	47,030	83,935	18,840

Table 10 - Number of Harvested Cod by Stock and Mode ('000s)

	Gulf of Maine		Georges Bank	
Year	Party/Charter	Private Boat	Party/Charter	Private Boat
2001	252.6	741.7	78.9	17.9
2002	92.7	437.2	56.1	34.5
2003	139.4	449.5	92.1	0.9
2004	129.5	404.0	93.7	8.2
2005	162.3	420.8	127.3	14.2
2006	121.3	100.2	38.8	0.0
2007	77.2	173.6	2.1	0.9

Table 11 - Summary of Party/Charter Operations

Fishing Year	Number of Reporting Vessels	Number of Groundfish Trips	Number of Anglers	Anglers per Trip	Trips per Vessel
2001	299	5,898	136,748	23.2	19.7
2002	251	5,106	108,034	21.2	20.3
2003	283	5,475	119,520	21.8	19.3
2004	277	5,710	119,612	20.9	20.6
2005	265	5,768	115,737	20.1	21.8
2006	259	5,133	102,759	20.0	19.8
2007	269	5,622	109,734	19.5	20.9

Summary of Estimated Impacts

Amendment 16 provides a detailed analysis of the biological (§6.2), economic (§6.5), and social impacts (§6.6) of the measures. It also analyzes the impacts on Essential Fish Habitat (§6.4) and Protected Species (§6.3), and summarizes the Cumulative Impacts (§6.8) of the amendment. The following sections provide a small snapshot of the biological and economic impacts of the measures on the commercial and recreational fisheries.

Impacts of Commercial Fishery Measures

Estimating the impacts that will result from the proposed measures is difficult. The number of vessels that will join sectors will not be known until after passage of the amendment, so there is uncertainty over what the actual impacts will be. If preliminary estimates of the number of sector participants prove correct, nearly two-thirds of the fishery may choose to join sectors and be subject to hard TACs. Even so, a substantial portion of the fishery will remain subject to effort controls, either by choice or because they are unable to join a voluntary sector. The effectiveness of effort controls could be compromised if they are designed for one group of vessels and a very different set of vessels are subject to their application. Similarly, it is difficult to anticipate the impacts of sectors without definitive information on which vessels will participate. Sectors will be subject to stringent monitoring requirements and the attendant costs. If there are a large number of participants, economies of scale may be realized that reduce the cost for individual vessels, whereas a small number of participants may have difficulty absorbing these costs.

Biological Impacts

The options are expected to meet the mortality objectives of the amendment (note that Options 2A and 4 will need to be adjusted to meet the pollock mortality objectives). The tables following summarize the estimated biological economic impacts of Amendment 16's four main effort control options.

Implementing sectors may also have biological impacts. As long as sector catches can be effectively monitored, managing part of the fishery with a hard TAC through sectors may result in better control over groundfish catches. Since sectors are exempt from trip limits, it is possible that discard rates will decrease.

Table 12 - Summary of changes in exploitation expected from effort control options

Species	AREA	Needed Difference	No Action % Difference	Option 2A Action % Difference	Option 3A Action % Difference	Option 4 Action % Difference
COD	GBANK	-50%	-17%	-51%	-54%	-41%
COD	GM	-19%	-16%	-22%	-52%	-34%
HADDOCK	GBANK	290%	-19%	-45%	-53%	-42%
HADDOCK	GM	59%	-18%	-22%	-54%	-39%
WINTER	GBANK	51%	-19%	-34%	-52%	-36%
WINTER	GM		-15%	-14%	-45%	-35%
WINTER	SNEMA	-100%	-20%	-73%	-67%	-60%
PLAICE	ALL	83%	-16%	-38%	-56%	-36%
WITCH	ALL	-42%	-16%	-36%	-56%	-37%
WHK	ALL	28%	-17%	-40%	-63%	-39%
WIND	NORTH		-19%	-30%	-59%	-43%
WIND	SOUTH		-21%	-44%	-61%	-56%
YTF	CCGOM	-16%	-18%	-39%	-57%	-47%
YTF	GBANK	-15%	-20%	-32%	-59%	-41%
YTF	SNEMA	-39%	-18%	-55%	-39%	-45%
POLLOCK	ALL	-53% / -55%	-17%	-40%	-61%	-38%
REDFISH	ALL	368%	-18%	-41%	-62%	-39%

Economic Impacts

Under the effort control alternatives, total revenues are expected to decline between 9.8 and 18.5 percent, while groundfish revenues are expected to decline between 15.2 and 28.9 percent. Other analyses suggest that there will not be enough DAS available for all vessels to break-even. If many vessels join sectors, the actual revenue reductions for the fishery may be less, but sector reporting and monitoring costs may partially offset the increased revenues.

Table 13 – Change in Total Revenue by Homeport State

State	No Action	2A	3A	4
CT	-6.1%	-11.7%	-11.0%	-14.8%
MA	-9.7%	-19.6%	-11.5%	-23.1%
ME	-10.6%	-22.4%	-8.1%	-25.8%
NH	-9.6%	-10.3%	-15.4%	-22.0%
NJ	-3.3%	0.5%	-6.3%	-8.3%
NY	-3.6%	-5.5%	-8.0%	-8.8%
RI	-4.5%	-7.5%	-8.3%	-10.7%
Other	-3.2%	-7.3%	-2.7%	-7.9%
Total	-7.7%	-14.7%	-9.8%	-18.5%

Table 14 – Change in Groundfish Trip Revenue by Homeport State

State	No Action	2A	3A	4
CT	-12.3%	-23.4%	-22.1%	-29.7%
MA	-12.1%	-24.5%	-14.3%	-28.9%
ME	-11.8%	-24.8%	-9.0%	-28.6%
NH	-11.5%	-12.3%	-18.5%	-26.4%
NJ	-12.2%	1.8%	-23.1%	-30.4%
NY	-12.8%	-19.5%	-28.3%	-31.1%
RI	-12.4%	-20.8%	-22.8%	-29.5%
Other	-10.3%	-23.4%	-8.7%	-25.1%
Total	-12.1%	-22.9%	-15.2%	-28.9%

Table 15 - Comparison of vessel level impacts of gross revenues for effort control options

	No Action		Option 2A		Option 3A		Option 4	
Impact Category	Number of Vessels	Average Adverse Impact	Number of Vessels	Average Adverse Impact	Number of Vessels	Average Adverse Impact	Number of Vessels	Average Adverse Impact
No Adverse Impact	34	0%	69	-8%	58	-8%	16	-2%
Up to 20th Percentile	95	2%	88	2%	91	2%	99	3%
20th Percentile to Median	143	6%	132	8%	135	8%	148	13%
Median to 80th Percentile	142	10%	132	19%	135	15%	148	24%
Above 80th Percentile	95	13%	88	30%	90	36%	98	31%

The implementation of additional sectors may mitigate some of the economic impacts that are estimated. Since sectors can operate more efficiently since they are exempt from some elements of the effort control program, sector vessels are expected to be better able to control costs. In addition, analyses in the amendment suggest that sector trawl vessels will be able to harvest more fish with fewer operating days, reducing operating costs and improving profitability. Countering these gains, however, are the costs associated with sector administration and monitoring. Amendment 16 includes very rough estimates that suggest if all trips are monitored the costs to individual vessels could range from $13,500 to $17,800 annually. If not all trips are monitored the costs could be considerably less.

Recreational Fishery Impacts

Biological Impacts

Of the options being considered to reduce fishing mortality for GOM cod, Options 1 (26 inch minimum) and Option 2 (six fish per angler bag limit) have similar impacts ranging from a 14 to 32 percent reduction in exploitation depending on discard assumptions. Option 3 (season shortened by two weeks) cannot be explicitly analyzed due to data limitations; since shortening the season by a full month would be expected to reduce exploitation by about 40 percent, the option's impacts are likely similar to the other two options.

The options to reduce mortality for GOM haddock all have similar impacts, with specific estimates also dependent on discard mortality. Option 1 is expected to reduce exploitation by 19 to 38 percent, Option 2 by 11 to 23 percent, and option 3 from 14 to 28 percent. Option 4, which reduces the minimum size, would be expected to increase exploitation on this stock.

Economic Impacts
Impacts on anglers are measured by the loss in economic surplus associated with being unable to engage in their preferred recreational fishing activity. Since recreational fishing is not a market-based good the economic surplus is not revealed through market transactions and must be inferred using non-market valuation techniques which require specialized studies including primary data collection. Economic value in the recreational groundfish fishery may be presumed to be primarily related to the expected number of fish that may be kept, and a qualitative analysis may provide some information about the potential ordinal ranking among the recreational alternatives.

Should the 2001-2006 years for establishing a recreational/commercial allocation be selected, the recreational fishing value would be expected to increase. Since the GOM cod measures would not change the increase in economic value would be associated with the lowered size limit on GOM haddock.

If the 1996-2006 years are selected then recreational mortality for GOM cod would need to be reduced by 27% while the mortality for GOM haddock would need to be reduced by 18%. The options for achieving these reductions use tradeoffs between changes in the size limit, bag limit, or closed season.

GOM Cod - Based on the evaluation of biological impacts the economic impacts may greatest for Option 3, followed by Option 1, then by Option 2. This ordering of impacts is strictly based on the magnitude of the estimated reductions of harvested GOM cod. Recreational anglers may prefer a change in the size limit to a change in the bag limit since even though the former may reduce the probability that enough fish will be caught to meet the bag limit, there is always the possibility that they will. By contrast, lowering the bag limit reduces the number of fish that may be retained which lowers trip expectations even though on the bag limit may not be reached on a majority of trips. If this preference ordering does reflect groundfish anglers' valuation then the ordinal ranking economic impacts of recreational options for GOM cod may be reversed for Option 1 and Option 2.

GOM Haddock – Harvested GOM haddock would be reduced most under Option 3 followed by Option 2 and Option 3. Based on estimated reductions in harvest alone, the ordinal ranking in terms of economic impacts would match that of the biological impacts. Whether this would reflect recreational fishing preferences is uncertain. As suggested above, anglers may place higher value on increasing the size limit since Option 1 would not include a bag limit. However, haddock do not get as large as cod so the probability of catching and being able to keep a legal sized fish would go down so much that anglers may prefer a bag limit to a higher size limit. That is, recreational fishing preferences are not likely to be strictly hierarchical. There are more likely to be tradeoffs between bag and size limits that complicate assessment of economic impacts in the absence of specialized surveys to elicit these tradeoffs.

Helpful Focus Questions

Would it be easier to make business decisions for yourself if you were to join a sector and fish based on a quota?

What level of monitoring should be required for sectors? Are there any other special considerations for monitoring that should be taken into account?

Which PSC formula do you prefer and why?

If you plan to fish in the common pool, which of the effort control options would best suit you? Does any offer a preferable solution for achieving optimum yield?

What types of accountability measures would be most effective? Would you prefer the fishery to shut down completely once an ACL is reached, or to have a more intricate system of checks and balances?

Which proposed recreational accountability measures would be the most effective? Are there any that would pose greater risks or difficulties than others?

Is there any additional information you need about Amendment 16 measures, sector membership, the public comment process, or other topics involving the Council?

Table of Acronyms

A16	Amendment 16
ABC	Acceptable Biological Catch
ACE	Annual Catch Entitlement
ACL	Annual Catch Limit
AM	Accountability Measure
APA	Administrative Procedures Act
CC	Cape Cod
CPH	Confirmation of Permit History
DAS	Days at Sea
FMP	Fishery Management Plan
FY	Fishing Year
GB	Georges Bank
GOM	Gulf of Maine
MSA	Magnuson Stevens Fishery Management and Conservation Act
NEFMC	New England Fishery Management Council
NEFSC	Northeast Fisheries Science Center
NMFS	National Marine Fisheries Service
OFL	Overfishing Level
PDT	Plan Development Team
PSC	Potential Sector Contribution
SNE/MA	Southern New England/Mid Atlantic
TAC	Total Allowable Catch

Appendix I: Which PSC Option Is Best?

There is no clear “best” PSC option, so the Council seeks your input for choosing which to use.

To illustrate impacts of the different options, calculations were done for three imaginary permits. Permit 1 fished only in the Gulf of Maine stock areas, Permit 2 fished only in SNE/MA stock areas, and Permit 3 fished in multiple areas during FY 1996 – FY 2006. The leasing baselines and DAS allocations for the permits were chosen to be representative of permits that fished in the respective areas. Landings history was developed at two different levels: a level that was roughly average for vessels that fished in those areas, and a level that was higher than 80 percent of the vessels that fished in the areas. Shares were calculated using these inputs and the criteria for each option (but not the No Action alternative). The shares for each permit were multiplied by an estimated TAC that is similar to TACs expected in the initial years after implementation of the amendment. The results of the calculation are shown in Table 16 and are in landed weight, not live weight, so fishermen can compare them to past landings. *These results illustrate relative differences between the options but are not valid for any individual vessel.*

The results show that the different options affect different vessels in different ways. For example, a vessel that fished only in the GOM and primarily landed GOM cod might get more GOM cod with Option 1, but under Options 3 and 4 the permit also gets a share of GB haddock. Similarly, a permit that fished only in the SNE/MA stock areas gets more SNE/MA yellowtail flounder under Option 1 but gets access to other groundfish stocks under Options 3 and 4. Some permit holders may want PSC for stocks they have not caught, while others may not. In contrast, a vessel that fishes in multiple areas tends to get more groundfish under Option 1, but may desire the mix of species under the other choices.

Table 16 – Examples of PSC calculations for three different permits (units are pounds landed, FY 2010)

	Average Landings History					Above Average Landings History				
	Landings	**Opt 1**	**Opt 2**	**Opt 3**	**Opt 4**	**Landings**	**Opt 1**	**Opt 2**	**Opt 3**	**Opt 4**
Permit 1: GOM stock areas only, 45 ft., 350 HP, 43 DAS										
GOM Cod	10,342	18,018	16,609	14,384	16,128	16,558	28,847	22,023	19,799	21,542
GB Cod	0	0	0	2,055	2,722	0	0	0	2,055	2,722
GOM Winter	1,185	802	938	716	818	845	572	823	601	702
GB Winter	0	0	0	1,850	2,450	0	0	0	1,850	2,450
SNEMA Winter	80	0	0	0	0	0	0	0	0	0
CCGOM YTF	1,606	1,035	1,513	1,294	1,546	1,495	963	1,477	1,258	1,510
GB YTF	0	0	0	1,572	2,082	0	0	0	1,572	2,082
SNEMA YTF	0	0	0	314	416	0	0	0	314	416
GOM Haddock	932	991	1,555	1,193	1,419	1,197	1,273	1,696	1,334	1,560
GB Haddock	0	0	0	28,395	37,603	0	0	0	28,395	37,603
Witch	2,752	1,116	1,521	1,474	1,771	2,685	1,089	1,507	1,460	1,757
Plaice	4,579	5,622	6,503	6,233	7,343	5,748	7,059	7,221	6,951	8,061
Pollock	4,918	6,402	8,536	8,276	9,921	4,557	5,933	8,301	8,041	9,687
Redfish	178	4,374	12,644	10,603	13,333	158	3,898	12,405	10,365	13,094
White Hake	2,294	1,797	2,567	2,486	3,001	2,673	2,094	2,716	2,634	3,149
Total Pounds	28,864	40,159	52,386	80,846	100,552	35,916	51,728	58,170	86,630	106,336
Permit 2: SNE/MA stock areas only, 55 ft., 400 HP, 25 DAS										
GOM Cod	0	0	0	3,711	4,139	0	0	0	3,711	4,139
GB Cod	1,366	535	1,930	1,686	1,850	2,004	785	2,055	1,811	1,975
GOM Winter	0	0	0	217	242	0	0	0	217	242
GB Winter	0	0	0	1,277	1,424	0	0	0	1,277	1,424
SNEMA Winter	7,727	0	0	0	0	13,228	0	0	0	0
CCGOM YTF	0	0	687	536	598	0	0	0	536	598
GB YTF	0	0	0	1,085	1,211	0	0	0	1,085	1,211
SNEMA YTF	2,617	1,478	1,207	956	981	5,414	3,058	1,997	1,746	1,771
GOM Haddock	0	0	0	482	537	0	0	0	482	537
GB Haddock	0	0	0	19,604	21,862	0	0	0	19,604	21,862
Witch	276	112	721	688	761	141	57	693	661	734
Plaice	18	22	2,560	2,374	2,646	1	1	2,550	2,363	2,635
Pollock	69	90	3,728	3,549	3,952	23	30	3,698	3,518	3,922
Redfish	4	97	7,268	5,859	6,529	0	0	0	5,811	6,480
White Hake	55	43	1,174	1,117	1,244	24	19	1,162	1,105	1,232
Total Pounds	12,132	2,378	19,275	43,142	47,975	20,835	3,949	12,154	43,928	48,761
Permit 3: Multiple stock areas, 70 ft., 500HP, 50 DAS										
GOM Cod	5,161	8,992	17,751	13,871	12,773	9,666	16,840	21,675	17,796	16,697
GB Cod	27,166	10,638	9,518	8,904	8,484	44,865	17,568	12,983	12,369	11,949
GOM Winter	2,342	1,586	1,730	1,342	1,277	3,889	2,634	2,254	1,865	1,801
GB Winter	9,150	10,143	11,370	8,298	7,920	12,675	14,051	13,324	10,252	9,874
SNEMA Winter	16,149	0	0	0	0	18,234	0	0	0	0
CCGOM YTF	6,965	4,488	3,980	3,599	3,440	14,162	9,125	6,298	5,917	5,759
GB YTF	14,209	8,688	9,698	7,086	6,765	24,964	15,264	12,986	10,374	10,053
SNEMA YTF	1,986	1,122	1,744	1,109	1,045	3,213	1,814	2,091	1,456	1,391
GOM Haddock	1,127	1,198	2,447	1,816	1,673	1,248	1,327	2,512	1,881	1,738
GB Haddock	17,494	155,934	143,469	127,493	121,691	25,072	223,478	177,241	161,265	155,463
Witch	8,177	3,318	3,338	3,256	3,069	13,492	5,474	4,416	4,334	4,147
Plaice	7,713	9,472	11,176	10,704	10,005	10,997	13,504	13,192	12,721	12,021
Pollock	7,010	9,127	13,868	13,414	12,377	10,655	13,872	16,240	15,787	14,750
Redfish	925	22,748	29,612	26,053	24,334	787	19,355	27,915	24,357	22,637
White Hake	2,887	2,262	4,042	3,900	3,575	3,423	19	2,920	2,778	2,454
Total Pounds	128,464	249,715	263,743	230,845	218,430	197,342	354,324	316,047	283,150	270,734