

**ADDENDUM**  
**to the**  
**Environmental Assessment Prepared for the**  
**Emergency Action to Implement Measures to Reduce Overfishing in the**  
**Northeast (NE) Multispecies Fishery Complex**

**1.0 Introduction**

The background and purpose and need for this emergency action are specified in Sections 3.0 and 4.0 of the environmental assessment (EA) prepared for this emergency action. In summary, recent stock assessment data indicate that several groundfish stocks require mortality reductions for the 2006 fishing year to maintain the Amendment 13 rebuilding program. The basic intent of this emergency action is to implement management measures that would immediately reduce fishing mortality (F) for several groundfish stocks until such time as long-term management measures could be implemented by Framework Adjustment (FW) 42 to the NE Multispecies FMP in order to comply with the Amendment 13 rebuilding program. Because the development of FW 42 was delayed, this emergency action is necessary to implement measures that would reduce mortality on groundfish stocks by the start of the 2006 fishing year on May 1, 2006. Because of the short duration of this emergency action, the original preferred alternative attempted to include simple measures that would mirror those proposed by the New England Fishery Management Council (Council) in FW 42 as much as practicable without compromising the necessary timing of this action.

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires that all management measures be consistent with the National Standards of the Magnuson-Stevens Act. Public comment received on the proposed emergency action indicated that the differential days-at-sea (DAS) counting measure included in the original preferred alternative proposed for this action was inconsistent with National Standard 1 because it would unnecessarily prevent the achievement of optimum yield (OY) from healthy groundfish stocks by excessively reducing mortality on healthy groundfish stocks on Georges Bank (GB). Based on a recent stock assessment, only two stocks on GB require mortality reductions for the 2006 fishing year: GB winter flounder and white hake. In FW 42, the Council elected to adopt trip limits for these species rather than apply differential DAS counting on GB to achieve the necessary mortality reductions for these stocks.

Based on public comment, the National Marine Fisheries Service (NOAA Fisheries Service) explored the feasibility of removing differential DAS counting on GB and implementing the proposed FW 42 trip limits for GB winter flounder and white hake instead. Without differential DAS counting in all areas, NOAA Fisheries Service was concerned that redirected effort may substantially increase mortality on other overfished groundfish stocks, particularly on GB. Therefore, any option to remove differential DAS counting on GB would need to achieve the necessary mortality reductions for groundfish stocks on GB without leading to increased mortality on other overfished stocks. For example, because the GB Regulated Mesh Area (RMA) includes portions of the Cape Cod (CC)/Gulf of Maine (GOM) yellowtail flounder and the Southern New England (SNE)/Mid-Atlantic (MA) yellowtail flounder stock areas (two stocks that are severely overfished and require substantial mortality reduction for the 2006 fishing year), NOAA Fisheries Service did not consider any options that could potentially increase effort and, therefore, mortality on these stocks.

However because the U.S./Canada Management Area encompasses a vast majority of the waters within the GB RMA, but do not include any portion of the CC/GOM and SNE/MA yellowtail flounder stock areas, NOAA Fisheries Service focused on analyzing options that would remove the differential DAS counting requirement for vessels fishing in the U.S./Canada Management Area. In addition, the current regulations governing the U.S./Canada Management Area provide greater assurance that any redirected effort would not increase the mortality on other overfished groundfish stocks. This is because a portion of the GB cod stock and the entire GB yellowtail flounder stock is managed by a hard TAC within the U.S./Canada Management Area. Further, any vessel fishing in the U.S./Canada Management Area is required to use a vessel monitoring system (VMS) and submit daily catch reports. NOAA Fisheries Service can more easily monitor groundfish catch from the U.S./Canada Management Area in an effort to more accurately project catch rates and more effectively assess the scale of potential redirected effort onto GB. In addition, pursuant to the regulations at 50 CFR 648.85(a)(3)(iv)(D), the Regional Administrator has the authority to modify trip limits and access to the U.S./Canada Management Area to ensure that total allowable catch (TAC) amounts specified for these areas is not exceeded. This provides sufficient authority for the Regional Administrator to ensure that redirected effort does not compromise the rebuilding objectives of the FMP. As a result, NOAA Fisheries Service analyzed two options to eliminate differential DAS counting on GB: (1) Eliminate differential DAS counting for the entire U.S./Canada Management Area; and (2) Eliminate differential DAS counting from just the Eastern U.S./Canada Area (see Figure A1).

Based on preliminary analysis, it was clear that Option 1 achieved the necessary mortality reductions for more stocks requiring mortality reductions for the 2006 fishing year than either the original preferred alternative described in the EA or Option 2 described above, while resulting in fewer adverse economic impacts than either of these other options. As a result, NOAA Fisheries Service has adopted the measures included in Option 1 as the revised preferred alternative for this emergency action. The full analysis of this revised preferred alternative is included in this addendum to the original EA prepared for this emergency action. In addition this addendum includes analyses of the impacts of measures to address the implications of differential DAS counting on the monkfish fishery, as they were inadvertently not included in the original EA. In addition, the cumulative effects analysis and the applicable law section, including the description of the National Standards and the Finding of No Significant Impact (FONSI), of the EA have been revised to reflect the revised preferred alternative. This addendum contains the necessary analysis to comply with the National Environmental Policy Act (NEPA) and the Magnuson-Stevens Act.

## **2.0 Description of the Revised Preferred Alternative**

The revised preferred alternative implements a suite of measures intended to reduce F for several groundfish stocks until subsequent management measures can be implemented by FW 42 to the FMP. The revised preferred alternative includes the following management measures:

- Differential DAS counting for Category A DAS used outside of the U.S./Canada Management Area (1.4 DAS charged for each Category A DAS fished);
- A reduction of the GOM cod trip limit to 600 lb/DAS, up to 4,000 lb/trip;
- A reduction of the Cape Cod (CC)/GOM and Southern New England (SNE)/Mid-Atlantic (MA) yellowtail flounder trip limit, as follows: 500 lb per DAS, up to 2,000

- lb per trip during July, August, September, December, January, February, March, and April; and 250 lb per trip during May, June, October, and November;
- A GB yellowtail flounder trip limit of 10,000 lb/trip;
  - A GB winter flounder trip limit of 5,000 lb/trip;
  - A white hake trip limit of 1,000 lb/DAS, up to 10,000 lb/trip;
  - A delayed start date of August 1 for the Eastern U.S./Canada Haddock Special Access Program;
  - A provision to allow vessels to fish inside and outside of the Eastern U.S./Canada Area on the same trip;
  - A modified Regular B DAS Program, restricted to the U.S./Canada Management Area;
  - The continuation of the DAS Leasing Program;
  - GOM cod prohibition for party/charter and private recreational vessels from November 1 – March 31; and
  - An increase in the size limit for GOM cod to 24 inches for party/charter and private recreational vessels.

The measures included in the revised preferred alternative are identical to those contained in the original preferred alternative, with the exception that differential DAS counting would only apply to vessels fishing outside of the U.S./Canada Management Area (see Figure A1 below) and that trip limits for GB winter flounder and white hake would be implemented. A description of the revised measures is included below. A detailed description of the measures that are the same as those included in the original preferred alternative is found in Sections 5.2 through 5.7 of the EA.

## **2.1 Differential DAS Counting**

Under the revised preferred alternative, with the exception of Day gillnet vessels noted below, any Category A DAS used by a NE multispecies vessel fishing outside of the U.S./Canada Management Area (see Figure 1A below) would be charged at a rate of 1.4:1; any Category A DAS used by a NE multispecies vessel fishing inside the U.S./Canada Management Area would be charged at a rate of 1:1. A vessel fishing both inside and outside of the U.S./Canada Management Area on the same trip would need to abide by the most restrictive regulations in either area. With respect to DAS, this means that any vessel fishing inside and outside of this area on the same trip would be charged at the differential DAS counting rate of 1.4:1. Day gillnet vessels not participating in the U.S./Canada Management Area will be charged at a rate of 1.4:1 for the actual hours used for any trip of 0-3 hours in duration, and for any trip of greater than 11 hours. For Day gillnet trips outside of the U.S./Canada Management Area between 3 and 11 hours duration, vessels will be charged a full 15 hours. A Day gillnet vessel fishing inside of the U.S./Canada Management Area will be charged DAS at a rate of 1:1 for the actual hours used for any trip of 0-3 hours in duration, and for any trip of greater than 15 hours. For Day gillnet trips inside the U.S./Canada Management Area between 3 and 15 hours duration, vessels will be charged a full 15 hours.

Rationale: By removing the differential DAS counting measure from vessels participating in the U.S./Canada Management Area and implementing the proposed FW

42 trip limits for GB winter flounder and white hake instead (see Section 2.2 of this addendum), the revised preferred alternative would be able to more directly reduce mortality for stocks that need mortality reductions for the start of the 2006 fishing year without sacrificing yield from healthy groundfish stocks. Removing differential DAS counting only for vessels participating in the U.S./Canada Management Area simplifies this measure, maintains protection for portions of the CC/GOM and SNE/MA yellowtail flounder stock areas within the GB RMA, and minimizes the affect of potential redirected effort onto GB that may increase mortality on other groundfish stocks.

**Figure A1: Map of the U.S./Canada Management Area.**



## 2.2 Trip Limits for GB Winter Flounder and White Hake

Under the revised preferred alternative, a GB winter flounder trip limit of 5,000 lb/trip would be implemented along with a white hake possession limit of 1,000 lb/DAS, up to 10,000 lb/trip. These trip limits were adopted by the Council under FW 42. According to the EA prepared for FW 42, these are designed to reduce mortality on those two stocks (NEFMC 2006). These trip limits would serve as the primary means to achieve the necessary mortality reductions for these stocks for the 2006 fishing year, rather than the differential DAS counting measure on GB originally included in the proposed rule for this action.

## 2.3 Monkfish-only DAS

The Monkfish FMP requires limited access monkfish vessels that also possess a limited access NE multispecies DAS permit (Category C, D, F, G, or H vessels) to use a concurrent NE multispecies for every monkfish DAS used. The only exception to this requirement is when a Category C, D, F, G, or H vessel with a limited access NE multispecies DAS permit has an net annual allocation of NE multispecies Category A DAS that is less than the net annual allocation of monkfish DAS. Under this circumstance, the vessel may utilize monkfish-only DAS, which are monkfish DAS that can be used without a concurrent NE multispecies DAS as long as the

vessel complies with the restrictions applicable to limited access monkfish Category A and B vessels. Net allocated monkfish DAS is defined as the total of the annual allocation of monkfish DAS, plus monkfish carry-over DAS, minus monkfish DAS deducted due to a DAS sanction, and minus forfeited monkfish DAS due to leasing of NE multispecies. Net allocated NE multispecies Category A DAS is defined as the total of the annual allocation of NE multispecies DAS, plus NE multispecies carry-over DAS, minus NE multispecies DAS deducted due to a DAS sanction, minus DAS deducted due to a lease to another vessel, and plus NE multispecies DAS added due to a lease from another vessel.

This emergency action will require a limited access monkfish vessel with a limited access NE multispecies DAS permit to count any NE multispecies Category A DAS used in conjunction with a monkfish DAS at the differential rate of 1.4:1 specified in this emergency action. However, this requirement would not apply to any vessel fishing under a NE multispecies DAS in the U.S./Canada Management Area, where NE multispecies DAS would still be charged at the 1:1 rate. For example, if a limited access monkfish Category D vessel has net allocations of 40 monkfish DAS and 30 NE multispecies Category A DAS and fishes exclusively within the U.S./Canada Management Area for monkfish, the vessel would use 30 monkfish DAS in conjunction with 30 NE multispecies Category A DAS charged at a rate of 1:1. However, after all 30 NE multispecies Category A DAS are used, the vessel may utilize its remaining 10 monkfish DAS to fish for monkfish, without a NE multispecies DAS being used, provided that the vessel fishes under the regulations pertaining to a Category B vessel and does not retain any regulated NE multispecies. Under the emergency rule, limited access monkfish vessels with a limited access NE multispecies DAS permit that fish all or a portion of their NE multispecies DAS in the U.S./Canada Management Area will be provided with additional monkfish only DAS. To adjust for differential DAS counting of NE multispecies DAS fished outside of the U.S./Canada Management Area, limited access monkfish Category C, D, F, G, or H vessels will be given an additional 0.286 monkfish-only DAS for every NE multispecies DAS used in the differential DAS area. For example, if a vessel has an annual allocation of 40 monkfish DAS and 30 NE multispecies DAS, the vessel is provided with an annual allocation of 10 monkfish-only DAS. If this vessel uses 2 NE multispecies DAS outside of the U.S./Canada Management Area, the vessel is actually charged 2.8 NE multispecies DAS, and its monkfish-only DAS are adjusted upwards by 0.57 DAS ( $2 \times 0.286$ ). This adjustment factor is equal to the rate at which monkfish-only DAS increase for each additional groundfish DAS used in outside of the U.S./Canada Management Area at a rate of 1.4:1, using the formula:  $\text{Monkfish-only DAS} = \text{Net Monkfish DAS Allocation} - (\text{Net Groundfish DAS Allocation} \div 1.4)$ .

### **3.0 Environmental Consequences**

The following sections provide the analysis of the environmental consequences of the revised preferred alternative, including additional analysis for monkfish that was inadvertently not prepared in the original EA. Because the only difference between the original preferred alternative and the revised preferred alternative is the elimination of differential DAS counting for vessels participating in the U.S./Canada Management Area and the additional trip limits for GB winter flounder and white hake, this addendum only includes additional analyses related to these measures. The impacts for other measures contained in this revised preferred alternative are identical to those specified under the original preferred alternative and are not repeated here.

The affected environment used to prepare this analysis is summarized in Section 7.0 of the EA prepared for this action.

### **3.1 Biological Impacts**

#### **3.1.1 Groundfish Impacts**

##### Methods

The methods used to analyze the biological impacts of the revised preferred alternative are discussed in detail in Section 8.1.1.1 of the EA prepared for this emergency action. In summary, this analysis used the closed area model (CAM) to analyze both the biological and economic impacts of the proposed alternatives to achieve mortality objectives is the closed area model (CAM).

An initial model run was made based on the status quo management regime. Three subsequent runs were made given the suite of management measures proposed under the No Action alternative, the original preferred alternative, and the revised preferred alternative. The No Action alternative differs from the status-quo because of additional management measures that will occur on May 1st of fishing year 2006 under the default provisions of Amendment 13. The estimated catch stream from each option is compared to the status quo catch stream, and the percentage change in landings is calculated. These numbers should be interpreted as the percent change in exploitation brought about by the revised preferred alternative. These estimates were then adjusted by the estimated impact of the DAS Leasing Program (Table A1). This final exploitation rate (Table A2) is then converted to an equivalent F rate in Table A3.

##### Results

In order to be consistent with the projections made for Amendment 13, changes in exploitation at the 50th percentile from the CAM are used to calculate the projected F's after adjusting for the DAS Leasing Program. Therefore, the projected F should be considered a median value. The results of this analysis are shown in Table A3 for the No Action alternative, the original preferred alternative, and the revised preferred alternative. In summary, under the revised preferred alternative, F for all stocks is projected to decline, in all cases by substantially more than the No Action alternative and comparable to the original preferred alternative.

Under the No Action alternative, F for all stocks is projected to decline, or stay constant, compared to the status-quo level, with the exception of pollock. Pollock F is projected to increase to 3.56, compared with the current 3.51. Under the No Action alternative, projected median F's are not adequate to meet the rebuilding schedule under Amendment 13 for GOM cod, white hake, CC/GOM yellowtail flounder, and SNE/MA yellowtail flounder, although the No Action alternative does meet the mortality target for SNE/MA winter flounder. Although there was no formal rebuilding program specified under Amendment 13 for GB winter flounder, the most recent estimated F was 1.86, was almost double the  $F_{MSY}$  level of 1.0 (see Mayo and Terceiro 2005). Therefore, the projected F of 1.73 under the No-Action alternative will not reduce mortality to the suggested level of 1.0 found in the GARM report.

The original preferred alternative (i.e., differential DAS counting everywhere) would achieve the necessary mortality reductions for three stocks: GOM cod, white hake, and SNE/MA winter flounder. However, the original preferred alternative would also substantially reduce mortality for healthy groundfish stocks such as American plaice (26.5-percent reduction),

redfish (50-percent reduction), Pollock (19.8-percent reduction) and GOM haddock (25.3-percent reduction).

Under the revised preferred alternative (i.e., differential DAS counting except in the U.S./Canada Management Area) would achieve the necessary mortality reductions for four stocks (GOM cod, white hake, SNE/MA winter flounder, and SNE/MA yellowtail flounder) and would nearly achieve the necessary mortality reductions for CC/GOM yellowtail flounder (39.6-percent reduction achieved, but a 40-percent reduction needed). Projected mortality for GB winter flounder is higher than the  $F_{MSY}$  level of 1.0, although further reductions in mortality will occur through elimination of winter flounder mortality under the Regular B DAS Program. This is because the declaration of GB winter flounder as a groundfish stock of concern and the resulting implementation of an incidental catch TAC for GB winter flounder would eliminate a directed winter flounder fishery under the Regular B DAS Program proposed by this action. The estimated reductions from the Regular B DAS Program have not been incorporated into the projected  $F$ , however. Therefore, it is also expected that the revised preferred alternative may meet the mortality reductions for GB winter flounder as well. It is estimated that the revised preferred alternative, in conjunction with the measures adopted by the Council in FW 42 would meet the mortality targets for the 2006 fishing year. Compared to the original preferred alternative, the revised preferred alternative would not result in substantial mortality reductions for healthy groundfish stocks, allowing vessels to harvest these healthy stocks without increasing mortality on groundfish stocks of concern (see Table A3).

Species	Management Area	Difference mt (live weight)	2001-2003 Average Landings (live weight)	Percent Average Landings
Winter Flounder	GB	50	2,177	2.3%
	GOM	14	633	2.2%
	SNE/MA	85	3,416	2.5%
Cod	GB	290	8,759	3.3%
	GOM	131	4,182	3.1%
Haddock	GB	332	5,508	6.0%
	GOM	71	1,209	5.9%
American Plaice	ALL	170	3,426	5.0%
Pollock	ALL	295	4,162	7.1%
Redfish	ALL	28	363	7.6%
White Hake	ALL	169	3,728	4.5%
Windowpane Flounder	Northern	-0.40	25	-1.6%
	Southern	-0.35	59	-0.6%
Witch Flounder	ALL	142	3,110	4.6%
Yellowtail Flounder	CC/GOM	52	2,110	2.5%
	GB	16	3,200	0.5%
	SNE/MA	0.53	740	0.1%

**Table A1: Estimated Change in Landings Due to the DAS Leasing Program.**

Species	Management Area	No-Action Alternative	Original Preferred Alternative	Revised Preferred Alternative
		% Change	% Change	% Change
Winter Flounder	GB	-6.89%	-30.43%	-36.87%
	GOM	-5.15%	-33.11%	-24.13%
	SNE/MA	-19.31%	-22.19%	-30.74%
Cod	GB	-3.23%	-22.58%	-7.25%
	GOM	-2.94%	-36.47%	-33.79%
Haddock	GB	-0.55%	-17.13%	-5.69%
	GOM	-1.07%	-25.29%	-29.04%
American Plaice	ALL	-4.41%	-26.47%	-23.16%
Pollock	ALL	1.32%	-19.75%	-23.43%
Redfish	ALL	0.00%	-50.00%	-16.23%
White Hake	ALL	-2.24%	-24.27%	-34.31%
Windowpane Flounder	Northern	-6.92%	-52.06%	-30.34%
	Southern	-37.81%	-27.98%	-34.26%
Witch Flounder	ALL	-2.99%	-25.37%	-19.22%
Yellowtail Flounder	CC/GOM	-4.17%	-35.42%	-34.61%
	GB	-5.47%	-55.22%	-36.42%
	SNE/MA	-46.55%	-41.38%	-52.55%

**Table A2: Median Percent Change in Exploitation for No-Action, the Original Preferred Alternative, and the Revised Preferred Alternative.**

Species	Management Area	Current F	Target F (FY 2006)	Necessary % Reduction in F (FY 2006)	No-Action Alternative		Original Preferred Alternative		Revised Preferred Alternative	
					Projected F (FY 2006)	% Change	Projected F (FY 2006)	% Change	Projected F (FY 2006)	% Change
Winter Flounder	GB	1.86 <sup>2</sup>	1.00	-46%	1.73	-7.0%	1.29	-30.7%	1.20	-35.5%
	GOM	0.13 <sup>2</sup>			0.12	-7.7%	0.09	-30.8%	0.10	-23.1%
	SNE/MA	0.347	0.32	-8%	0.28	-19.3%	0.27	-22.2%	0.23	-33.8%
Cod	GB	0.155	0.21		0.15	-3.2%	0.12	-22.6%	0.15	-3.2%
	GOM	0.34	0.23	-32%	0.33	-2.9%	0.22	-35.3%	0.22	-35.3%
Haddock	GB	0.18 <sup>2</sup>	0.26		0.18	0.0%	0.15	-17.1%	0.18	0.0%
	GOM	0.18	0.23		0.18	0.0%	0.13	-27.8%	0.14	-22.2%
American Plaice	ALL	0.136	0.17		0.13	-4.4%	0.10	-26.5%	0.11	-19.1%
Pollock	ALL	3.51 <sup>2</sup>			3.56	1.4%	2.82	-19.7%	2.88	-18.0%
Redfish	ALL	0.004 <sup>2</sup>	0.01		0.004	0.0%	0.002	0.0%	0.003	-16.0%
White Hake	ALL	1.18 <sup>2</sup>	1.03	-13%	1.15	-2.5%	0.89	-24.6%	0.81	-31.4%
Windowpane Flounder	Northern	0.02 <sup>2</sup>			0.02	0%	0.01	-50.0%	0.015	-25.0%
	Southern	0.44 <sup>2</sup>	0.98		0.27	-38.6%	0.32	-27.3%	0.29	-34.1%
Witch Flounder	ALL	0.134			0.13	-3.0%	0.10	-25.4%	0.11	-17.9%
Yellowtail Flounder	CC/GOM	0.48	0.26	-46%	0.46	-4.2%	0.31	-35.4%	0.29	-39.6%
	GB	0.201	0.25		0.19	-5.5%	0.09	-55.2%	0.13	-35.3%
	SNE/MA	0.58	0.26	-55%	0.31	-46.6%	0.34	-41.4%	0.23	-60.0%

<sup>1</sup>Necessary mortality reduction is being accomplished through a reduction in the hard TAC for this stock.

<sup>2</sup>Estimates of F are based on 2004 landings.

**Table A3: Current F, Projected F and Change in F based on Closed Area Model Results (Median Results).**

### **3.1.2 Impacts to Other Species/Bycatch**

Impacts to other species/bycatch associated with the revised preferred alternative are identical to those described for the original preferred alternative in Section 8.1.2 of the EA prepared for this action. In summary, it is expected that the revised preferred alternative would result in decreased catches of other species, particularly for monkfish in the Regular B DAS Program and monkfish and skates in the Regular B DAS Program and the Eastern U.S./Canada Haddock Special Access Program.

### **3.1.3 Monkfish Impacts**

The expected impact of the monkfish-only DAS adjustment measure included in the revised preferred alternative is difficult to determine, as it is dependent upon the number of monkfish Category C and D vessels that elect to fish within the U.S./Canada Management Area. An upper bound to these impacts assumes that all monkfish Category C or D vessels elect to fish all of their monkfish and NE multispecies DAS outside of the U.S./Canada Management Area and are, therefore, allowed to use the maximum number of additional monkfish-only DAS under the revised preferred alternative. Conversely, a lower-bound estimate of the impacts of this measure would be to assume that all of the monkfish Category C and D vessels elect to fish all of their monkfish and NE multispecies DAS within the U.S./Canada Management Area and are, therefore, allowed to use no additional monkfish-only DAS under this revised preferred alternative.

The monkfish measure contained in the revised preferred alternative would create additional monkfish-only DAS. However, this increase does not equate to an increase in effort overall, but represents a shift in monkfish effort from monkfish DAS attached to NE multispecies DAS, to monkfish-only DAS. If all monkfish Category C and D vessels fished all of their NE multispecies Category A DAS outside of the U.S. Canada Management Area at a rate of 1.4:1, the monkfish DAS adjustment method contained in this emergency action could result in a maximum increase of up to 1,872 monkfish-only DAS (Table A4). This increase in monkfish-only DAS could occur if all limited access monkfish vessels with a NE multispecies DAS permit fish all of their NE multispecies DAS outside of the U.S. Canada Management Area where NE multispecies DAS are charged the differential rate of 1.4 to 1. For example, a monkfish Category C vessel having an annual allocation of 40 monkfish DAS and 20 NE multispecies DAS would be allocated an additional 5.7 monkfish-only DAS under this emergency rule, for a total of 25.7 monkfish-only DAS. Nearly all monkfish DAS are currently utilized in the Southern Fishery Management Area (SFMA) since there is currently no trip limit for limited access monkfish vessels with a limited access NE multispecies DAS permit when fishing under a NE multispecies DAS in the Northern Fishery Management Area (NFMA). Furthermore, the ability of limited access monkfish vessels to use a monkfish-only DAS in the NFMA is constrained by regulations governing the NE multispecies fishery. In fact, there is only one area in the Gulf of Maine where a vessel can use a monkfish DAS without a concurrent NE multispecies DAS, and this area is seasonal and applies to only gillnet vessels. Therefore, the maximum additional monkfish-only DAS resulting from this emergency action would be applicable to only vessels fishing in the SFMA.

<b>Permit Type</b>	<b>Total Number of Affected Vessels</b>	<b>Total Potential Extra Monkfish Effort (DAS) in SFMA</b>
Category C	87	559.86
Category D	199	1,313.00
<b>Total</b>	<b>286</b>	<b>1,872.86</b>

**Table A4: Summary of Potential Maximum Extra Monkfish Effort in SFMA Under the Proposed Emergency Action.**

Conversely, the No Action alternative could reduce monkfish fishing effort from current levels since the number of monkfish-only DAS available to monkfish Category C or D vessels would not be adjusted to account for differential DAS counting under the revised preferred alternative. As result, limited access monkfish vessels with a limited access NE multispecies permit may not be able to utilize all of their allocated monkfish DAS if they use all or a portion of their NE multispecies DAS in the differential area. For example, a vessel allocated 40 monkfish DAS and 20 NE multispecies DAS would be allocated 20 monkfish-only DAS under existing regulations, as noted above. However, if the 20 NE multispecies DAS are used at the differential rate of 1.4 to 1, then the vessels would only be able to utilize 14.3 of its allocated 20 NE multispecies. Since these 20 NE multispecies DAS are linked to 20 of the vessel’s monkfish DAS, the vessel would have 5.7 monkfish DAS remaining that it must only fish in conjunction with a NE multispecies DAS. Therefore, unless the vessel owner leases additional NE multispecies DAS from another vessel, these 5.7 remaining monkfish DAS would be unusable.

### **3.2 Habitat Impacts of the Revised Preferred Alternative**

Section 8.1.3 of the EA prepared for this action describes the habitat impacts of the original preferred alternative. It is expected that the habitat impacts of the revised preferred alternative would still be positive compared to the No Action alternative, but to a lesser degree than that for the original preferred alternative. This is because while overall effort continues to be reduced in the GOM, SNE/MA, and portions of the GB RMA through differential DAS counting, because the revised preferred alternative eliminates differential DAS counting for vessels participating in the U.S./Canada Management Area, there would be no additional habitat protection in this area. As a result, under the revised preferred alternative, habitat impacts are not changed in the U.S./Canada Management Area, but continue to be reduced in the GOM and SNE/MA RMA, resulting in overall benefits to habitat protection.

### **3.3 Impacts on Threatened, Endangered, and Other Protected Resources**

Section 8.1.4 of the EA prepared for this action describes the impacts to threatened, endangered, or other protected resources of the original preferred alternative.

It is expected that the revised preferred alternative would continue to result in a slightly lower risk of interactions with protected species than the No Action alternative, although the revised preferred alternative would likely offer a higher potential of interactions with protected species than the original preferred alternative. This is because the revised preferred alternative would not reduce overall effort in the fishery as much as the original preferred alternative. Therefore, the revised preferred alternative would continue to provide additional protection for protected resources compared to the current measures.

### **3.4 Economic Impacts of the Revised Preferred Alternative**

This section includes the economic impacts associated with the revised trip limits and differential DAS counting measures of the revised preferred alternative. The economic impacts of the other measures within this alternative are identical to those described for the other measures of the original preferred alternative, as described in Section 8.1.5 of the EA prepared for this action.

#### **3.4.1 Groundfish Economic Impacts**

The revised preferred alternative would change differential DAS counting in the U.S./Canada Management Area from 1.4:1 to 1:1. This change would provide regulatory relief to vessels that either typically fish inside the area or that may change their fishing practice to take advantage of the revised DAS counting. The revised preferred alternative would affect any vessel with a limited access permit with a DAS baseline greater than zero. Total groundfish revenues landed by these vessels were approximately \$78 million in fishing year (FY) 2004 and combined revenue from all trips where groundfish were landed was \$109 million. The revised preferred alternative would result in an estimated reduction of 21 percent in total groundfish revenue, resulting in an estimate of \$62 million in the landed value of groundfish for FY 2006. The estimated proportional impact on total revenue on trips where groundfish were landed was also 21 percent resulting in an estimate of \$86 million in fishing revenue (an aggregate loss of \$23 million) to limited access DAS vessels in FY2006. Compared to the landed value of all species landed in the NE region, the reduction in combined groundfish trip value represents 2.6 percent of the total.

#### Port-Level Impacts

With the exception of both the Boston and Chatham port groups, with an estimated reduction in revenue of 15-17 percent, the reduction in total revenue from trips landing groundfish in each port did not differ substantially across ports, ranging between 21 and 27 percent (Table A5). However, even though proportional change in groundfish trip income was nearly uniform across ports, the total impact on each port differs substantially depending on its relative dependence on groundfish. That is, the estimated adverse impact for ports such as Boston (12.6 percent), Portland (12.7 percent), Portsmouth (17.4 percent), and Gloucester (10.8 percent) were approximately twice that or greater than impacts on all other ports or port groups. Ports with an estimated total adverse impact ranging between 4 and 10 percent included Chatham (5.8 percent),

Provincetown (4.9 percent) and the port group of South Shore, Massachusetts (4 percent). Total impacts on all other ports ranged between two and less than one percent.

Port Group	Combined Value all Species	Combined Value of Regulated Mesh Groundfish Species by Multispecies DAS Vessels	Combined Value of All Species by Multispecies DAS Vessels on Trips Landing Groundfish	Change in Groundfish Revenue	Change in Groundfish Trip Revenue	Predicted Port Total Revenue	Total Change
Portland	32,922,325	13,373,375	18,951,932	-21%	-22%	28,752,900	-12.7%
Upper Mid-Coast ME	35,430,283	474,404	834,006	-27%	-27%	35,205,101	-0.6%
Other Maine	123,288,128	1,018,817	1,479,842	-26%	-26%	122,903,369	-0.3%
Portsmouth	4,015,765	1,556,509	2,915,572	-23%	-24%	3,316,028	-17.4%
Other NH Coast	30,867,883	2,271,908	2,739,270	-27%	-27%	30,128,280	-2.4%
Gloucester	39,087,050	15,968,279	20,160,713	-21%	-21%	34,853,300	-10.8%
North Shore MA	27,452,944	581,252	671,009	-24%	-24%	27,291,902	-0.6%
Boston	9,694,669	4,525,827	7,182,119	-17%	-17%	8,473,709	-12.6%
South Shore MA	9,558,477	1,463,831	1,719,296	-22%	-22%	9,180,232	-4.0%
Chatham	13,098,521	3,857,442	4,769,272	-16%	-16%	12,335,437	-5.8%
Provincetown	3,858,319	803,765	905,981	-21%	-21%	3,668,063	-4.9%
Other Cape & Islands	7955614	237698	288842	-24%	-23%	7,889,180	-0.8%
New Bedford	228,142,781	28,841,029	37,895,367	-22%	-22%	219,805,800	-3.7%
Rhode Island	65,154,921	2,268,352	4,246,935	-21%	-21%	64,263,065	-1.4%
Connecticut	18,055,971	83,712	223,480	-22%	-22%	18,006,805	-0.3%
Eastern Long Island	14,652,437	324,092	1,266,405	-25%	-26%	14,323,172	-2.2%
Other New York	8,743,703	87,849	612,519	-25%	-26%	8,584,448	-1.8%
New Jersey	113,467,589	570,445	1,631,838	-23%	-23%	113,092,266	-0.3%
Other	131,469,463	141	78,789	-23%	-23%	131,451,342	0.0%
Total	916,916,843	78,308,727	108,573,187			893,524,400	-2.6%

**Table A5: Revised Preferred Alternative Impact on Total Revenues by Port/Port Groups.**

## Home Port State

The revised preferred alternative would have greater adverse impact of vessels from the home port states of Maine, New Hampshire, and Massachusetts. Among these states, at least 90 percent of all vessels from Maine or New Hampshire would be adversely affected (Table A6). However, the estimated adverse impact on New Hampshire vessels was higher than that of either Maine or Massachusetts at every percentile, although at both the 25<sup>th</sup> and 10<sup>th</sup> percentiles the difference across these GOM states differed by no more than five percentage points. These results indicate that there were no large differences in impacts among the most adversely affected vessels across these states. Among the remaining states, Rhode Island vessels may be expected to incur larger adverse effects on revenue followed by Connecticut, New York, and New Jersey vessels.

Home Port State	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
Maine	-29%	-25%	-19%	-11%	-2%
New Hampshire	-32%	-29%	-25%	-17%	-9%
Massachusetts	-31%	-25%	-15%	-7%	-1%
Rhode Island	-22%	-15%	-8%	-4%	-1%
Connecticut	-14%	-14%	-10%	-2%	0%
New Jersey	-13%	-9%	-5%	-4%	0%
New York	-22%	-10%	-6%	-3%	0%
Other	-21%	-16%	-5%	-2%	0%

**Table A6: Revised Preferred Alternative Impacts on Net Revenue to Vessel Owner and Crew by Home Port State.**

## Home Port/Port Groups

In all but three of the 19 home ports or home port groups considered in the analysis, at least 90 percent of all vessels would be adversely affected (Table A7). Median impacts on all home ports from Gloucester northward would be at least 20 percent and would be highest (26 percent) on vessels from the Other NH Coast port group. Median impacts ranged between 15 and 20 percent in port groups of North Shore MA, Boston, and New Bedford. Adverse impacts on total net fishing revenue would be between 10 and 15 percent in the port groups of South Shore MA, Provincetown, Other Cape & Islands, and Connecticut. Adverse impact on net revenue above trip costs would be less than 10 percent everywhere else. Adverse impacts on net revenue at the 25<sup>th</sup> percentile ranged from a low of 9 percent in the Eastern Long Island port group to a high of 30 percent on vessels in the port group of Other NH Coast. From New Bedford northward adverse revenue impacts were at least 20 percent in all port groups except for Chatham and Provincetown. Impacts on vessels with Rhode Island home ports and southward ranged from 9 to 14 percent. At the 10<sup>th</sup> percentile, adverse impacts on fishing revenue differed by no more than eight percentage points across port groups including New Bedford and all port groups from South Shore MA to Upper Mid-Coast ME. Adverse impacts on all other home port groups ranged between 13 and 22 percent.

Home Port	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
Portland	-27%	-25%	-20%	-14%	-10%
Upper Mid-Coast ME	-29%	-27%	-25%	-14%	-10%
Other Maine	-31%	-25%	-17%	-5%	-1%
Portsmouth	-30%	-26%	-23%	-9%	-3%
Other NH Coast	-34%	-30%	-26%	-18%	-11%
Gloucester	-35%	-27%	-21%	-14%	-4%
North Shore MA	-33%	-27%	-18%	-9%	-4%
Boston	-31%	-23%	-15%	-7%	-1%
South Shore MA	-28%	-22%	-11%	-6%	-2%
Chatham	-13%	-11%	-6%	-2%	0%
Provincetown	-21%	-18%	-14%	-5%	-1%
Other Cape & Islands	-25%	-21%	-10%	-1%	0%
New Bedford	-31%	-27%	-20%	-8%	-2%
Rhode Island	-22%	-12%	-8%	-4%	-1%
Connecticut	-14%	-14%	-10%	-2%	0%
Eastern Long Island	-16%	-9%	-4%	-2%	-1%
Other New York	-22%	-12%	-9%	-3%	0%
New Jersey	-13%	-9%	-5%	-4%	0%
Other	-21%	-16%	-6%	-2%	0%

**Table A7: Revised Preferred Alternative Impacts on Net Revenue to Vessel Owner and Crew by Home Port/Port Group.**

### Vessel Length

Over 90 percent of both medium (50 to 70 feet length overall (LOA)) and large vessels (greater than 70 feet) would incur some adverse affect on total annual fishing revenue (Table A8). The distribution of impacts would be similar across all vessels sizes as the estimated change in net revenue differed by no more than three percentage points at all percentiles. For example, the median reduction in net revenue above trip costs was identical for both small and large vessels and was only one percentage larger for medium sized vessels. Similarly, the reduction in net revenue was highest for vessels less than 50 feet LOA, but was only two percentage points more than for vessels above 70 feet LOA.

Vessel Length	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
Less than 50 Feet	-31%	-25%	-13%	-5%	0%
50 to 70 Feet	-28%	-23%	-14%	-6%	-2%
Greater than 70 Feet	-29%	-22%	-13%	-7%	-3%

**Table A8: Revised Preferred Alternative Impacts on Net Revenue to Vessel Owner and Crew by Vessel Length Class.**

### Gear

The revised preferred alternative would have similar impacts on both trawl and gillnet vessels. Median trawl impacts would be larger (14 percent) than adverse gillnet

(12 percent) impacts and estimated impacts at the 25<sup>th</sup> and 10<sup>th</sup> percentiles differed by no more two percentage points (Table A9). Adverse impacts on hook gear vessels would be lower at both the median and 25<sup>th</sup> percentile. However, at the 10<sup>th</sup> percentile, hook vessels would be larger than either gillnet or trawl vessels.

Gear	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
Gillnet	-31%	-25%	-12%	-4%	-1%
Hook	-50%	-14%	-7%	0%	0%
Trawl	-29%	-24%	-14%	-7%	-2%

**Table A9: Revised Preferred Alternative Impacts on Net Revenue to Vessel Owner and Crew by Primary Groundfish Gear**

Gear/Vessel Length

Among gillnet vessels, vessels less than 50 feet were estimated to incur larger losses in annual net revenue at each percentile compared to larger gillnet vessels (Table A10). However, the difference between gillnet vessels of different sizes is not large as median impacts differ by three percentage points. Similarly, gillnet impacts at the 25<sup>th</sup> and 10<sup>th</sup> percentiles differ by no more than five percentage points between small and larger gillnet vessels. Median adverse impacts were larger for small trawl vessels (17 percent) as compared to large (13 percent) or medium sized trawl vessels (14 percent). In general, estimated adverse effects were similar for large and medium vessels with adverse impacts on large vessels being consistently lower at all percentiles.

Gear/Length Class	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
Gillnet Less than 50 Feet	-31%	-25%	-12%	-5%	-2%
Gillnet 50 to 70 Feet	-26%	-24%	-9%	-1%	0%
Hook Less than 50 Feet	-50%	-14%	-7%	0%	-0%
Trawl Less than 50 Feet	-31%	-26%	-17%	-7%	0%
Trawl 50 to 70 Feet	-28%	-23%	-14%	-7%	-3%
Trawl Greater than 70 Feet	-29%	-22%	-13%	-7%	-2%

**Table A10: Revised Preferred Alternative Impacts on Net Revenue to Vessel Owner and Crew by Primary Groundfish Gear and Vessel Length.**

Groundfish Dependence

The revised preferred alternative would have larger adverse impacts on annual fishing net revenue as dependence on groundfish for total fishing income increases. Estimated adverse impact on vessels with high dependence (more than 80 percent) on groundfish ranged between 10 percent at the 90<sup>th</sup> percentile and 35 percent at the 10<sup>th</sup> percentile (Table A11). By contrast, vessels with less than 20 percent reliance on groundfish for fishing income would be expected to incur losses in net revenue that range from less than 1 percent to 11 percent at the 10<sup>th</sup> percentile. Vessels with dependence ranging between 54 percent and 80 percent would be less affected than vessels with higher dependence on groundfish although the difference between the two groups is no more than six percentage points at any given percentile.

<b>Dependence on Groundfish (Quartiles)</b>	<b>10th Percentile</b>	<b>25th Percentile</b>	<b>Median</b>	<b>75th Percentile</b>	<b>90th Percentile</b>
Less than 20%	-11%	-6%	-3%	-1%	0%
20% to 54%	-23%	-16%	-11%	-7%	-3%
More than 54% up to 80%	-29%	-25%	-21%	-15%	-9%
More than 80%	-35%	-31%	-25%	-14%	-10%

**Table A11: Revised Preferred Alternative Impacts on Net Revenue to Vessel Owner and Crew by Quartiles of Dependence on Groundfish (FY2004).**

Gross Sales

Vessels with the highest gross sales (more than \$320) of all species were estimated to have the lowest losses in annual fishing net revenue above trip costs (Table A12). Ninety-percent of vessels in this category would incur a loss in revenue of at least 2 percent and 10 percent of these vessels would incur losses of 29 percent or more. At the bottom two quartiles, (sales of \$165 thousand or less) estimated impacts were almost identical at all percentiles.

<b>Gross Sales (Quartiles)</b>	<b>10th Percentile</b>	<b>25<sup>th</sup> Percentile</b>	<b>Median</b>	<b>75th Percentile</b>	<b>90<sup>th</sup> Percentile</b>
Less than \$67K	-33%	-25%	-13%	-5%	0%
\$67K to \$165K	-31%	-25%	-14%	-6%	-2%
\$165K to \$320K	-28%	-23%	-14%	-7%	-2%
More than \$320K	-29%	-22%	-13%	-6%	-2%

**Table A12: Revised Preferred Alternative Impacts on Net Revenue to Vessel Owner and Crew by Gross Sales Quartiles for FY2004.**

Comparison of Original Preferred and Revised Preferred Alternatives

The revised preferred alternative would change the differential DAS counting in the U.S./Canada Management Area on GB from 1.4:1 to 1:1. This change would provide regulatory relief to vessels that either already do or may be able to fish in the area. The revised preferred alternative would reduce the economic impact on NE region ports when compared to the original preferred alternative from \$31 to \$23 million; a savings of \$8 million. The revised preferred alternative would not make any vessel worse off as compared to the original preferred alternative, and would provide at least some reduction in regulatory burden for 48 percent of the NE multispecies DAS vessels that were included in the economic analysis. Note that this also means that the revised preferred alternative would not provide any regulatory relief for vessels that fish exclusively in the GOM or SNE/MA RMA, or to vessels that do not have sufficient range to fish inside the U.S./Canada Management Area.

The revised preferred alternative would result in reduced impacts on most ports in the NE region but would be at least a million dollars in Portland (\$1.1 million), Gloucester (\$1.6 million), and New Bedford (\$3.4 million) (Table A13). The reduced impact on Boston would be just under a million dollars (\$0.9 million) and would be \$0.3

million in Rhode Island. Reduced sales impacts in all other ports would be considerably less ranging from \$4 thousand to \$114 thousand.

Port	Combined Value All Species (\$1,000)	Original Preferred Alternative Predicted Port Total Revenue (\$1,000)	Revised Preferred Alternative Predicted Port Total Revenue (\$1,000)	Reduced Impact (\$1,000)
Portland	32,922	27,616	28,753	1,137
Upper Mid-Coast ME	35,430	35,213	35,205	0
Other Maine	123,288	122,903	122,903	0
Portsmouth	4,016	3,199	3,316	117
Other NH Coast	30,868	30,046	30,128	82
Gloucester	39,087	33,240	34,853	1,613
North Shore MA	27,453	27,265	27,292	27
Boston	9,695	7,612	8,474	862
South Shore MA	9,558	9,077	9,180	103
Chatham	13,099	12,145	12,335	191
Provincetown	3,858	3,587	3,668	82
Other Cape & Islands	7,956	7,866	7,889	23
New Bedford	228,143	216,395	219,806	3,411
Rhode Island	65,155	63,923	64,263	340
Connecticut	18,056	17,987	18,007	20
Eastern Long Island	14,652	14,273	14,323	51
Other New York	8,744	8,566	8,584	18
New Jersey	113,468	112,978	113,092	114
Other	131,469	131,447	131,451	4
Total	916,917	885,339	893,524	8,194

**Table A13: Comparison of Preferred and Revised Preferred Alternative Impact on Ports.**

Overall, the revised preferred alternative would reduce impacts on net revenue above trip costs for 48 percent of groundfish DAS vessels (Table A14). The proportion of vessels with reduced regulatory burden would exceed this fleet-wide proportion in Portland, and in the Massachusetts port groups of Gloucester, North Shore MA, Boston, South Shore MA, Chatham, Provincetown, Other Cape & Islands, and New Bedford. Rhode Island (49 percent) was slightly above the fleet-wide proportion and all other port groups were below the fleet-wide proportion by at least 23 percentage points.

Among vessels that would experience some reduction in regulatory burden there would be substantial differences in how much relief the revised preferred alternative would provide. For example, the regulatory relief provided to Portland vessels would be less than one percent for 29 percent of the vessels with reduced economic burden. Economic burden would be reduced between one and five percent for 18 percent these vessels while relief would be greater than five percent for all other vessels. Port groups where regulatory relief would be greater than zero and exceed five percent for more than half of all vessels include Portland, Boston, New Bedford, and Other Cape & Islands.

Home Port	Proportion of Vessels With Reduced Burden	Proportional Change in Economic Relief			
		Less than 1%	1% to 5%	More than 5% to 10%	More than 10%
Portland	63%	29%	18%	24%	29%
Upper Mid-Coast ME	23%	33%	67%	0%	0%
Other Maine	20%	58%	17%	8%	17%
Portsmouth	22%	25%	50%	0%	25%
Other NH Coast	14%	60%	40%	0%	0%
Gloucester	54%	38%	23%	9%	30%
North Shore MA	53%	52%	33%	10%	5%
Boston	58%	17%	27%	25%	31%
South Shore MA	61%	26%	58%	5%	11%
Chatham	67%	14%	43%	36%	7%
Provincetown	77%	50%	40%	0%	10%
Other Cape & Islands	70%	13%	25%	50%	13%
New Bedford	71%	15%	32%	33%	20%
Rhode Island	49%	6%	56%	31%	8%
Connecticut	17%	50%	50%	0%	0%
Eastern Long Island	25%	38%	38%	13%	13%
Other New York	28%	25%	50%	0%	25%
New Jersey	14%	25%	50%	0%	25%
Other	61%	27%	45%	18%	9%
Totals	48%	25%	35%	21%	18%

**Table A14: Proportional Change in Regulatory Relief by Home Port Groups.**

The revised preferred alternative would reduce economic impacts for 28 percent of gillnet vessels, 49 percent of hook vessels and 54 percent of trawl vessels. The proportion of gillnet vessels with reduced adverse economic impact was slightly lower for smaller vessels (less than 50 feet LOA) than for larger gillnet vessels (Table A15). By contrast, a substantially higher proportion (79 percent) of large trawl vessels (in excess of 70 feet LOA) would experience some level of reduced economic burden as compared to 48 percent and 37 percent of medium (50 to 70 feet LOA) and small trawl vessels respectively. In addition to having the large proportion of vessels that would experience some reduction in economic burden, the level of relief would be higher for large trawl vessels than either smaller vessels or vessels using different gear.

Gear/Length Class	Proportion of Vessels With Reduced Burden	Proportional Change in Economic Relief			
		Less than 1%	1% to 5%	More than 5% to 10%	More than 10%
Gillnet Less than 50 Feet	27%	40%	20%	28%	13%
Gillnet 50 to 70 Feet	30%	14%	57%	29%	0%
Hook Less than 50 Feet	49%	24%	38%	21%	17%
Trawl Less than 50 Feet	37%	56%	33%	6%	5%
Trawl 50 to 70 Feet	48%	19%	38%	22%	21%
Trawl Greater than 70 Feet	79%	12%	37%	25%	26%

**Table A15: Proportional Change in Economic Burden by Gear and Vessel Length.**

Economic burden would be reduced by less than one percent for 12 percent of large trawl vessels and would be reduced by more than five percent for over half of large trawl vessels. By contrast, the economic relief would be less than one percent for over half of all small trawl vessels and relief would exceed five percent for only eleven percent of small trawl vessels. The difference in economic relief between small and large vessels and between small trawl and large trawl vessels in particular is due to the fact that larger vessels have greater range from shore and are better able to take advantage of the 1:1 DAS counting in the U.S./Canada Management Area.

Larger vessels tend to have higher gross sales than small vessels and this tendency is reflected in the high proportion (75 percent) of vessels with more than \$320 thousand in sales that would experience lowered economic burden (Table A16). Economic burden would be reduced for about one-third of vessels with gross sales less than \$67 thousand while burden would be reduced for 39 percent and 45 percent respectively for vessels with sales of between \$67 and \$165 thousand and vessels with sales between \$165 and \$320 thousand.

As was the case for large trawl vessels, the level of economic relief was greater for vessels with highest sales. The reduction in burden would exceed 5 percent for one-half of vessels with highest sales and would be less than one percent for only 11 percent of these vessels. By contrast, economic relief would be less than one percent for 32 percent of vessels in the lowest sales quartile and 39 percent for vessels in the second lowest sales quartile. The level of economic relief for vessels in these two quartiles would also be lower as economic relief would be five percent or less for about 70 percent of these vessels.

Gross Sales (Quartiles)	Proportion of Vessels With Reduced Burden	Proportional Change in Economic Relief			
		Less than 1%	1% to 5%	More than 5% to 10%	More than 10%
Less than \$67K	32%	34%	36%	11%	18%
\$67K to \$165K	39%	45%	27%	18%	11%
\$165K to \$320K	45%	27%	35%	20%	19%
More than \$320K	75%	11%	39%	28%	22%

**Table A16: Proportional Change in Economic Relief Provided by the Revised Preferred Alternative by Gross Sales Quartiles.**

### **3.4.2 Monkfish Economic Impacts**

Under the No Action alternative, limited access monkfish vessels with a limited access NE multispecies DAS permit could lose their ability to utilize a portion of their monkfish DAS. For example, as noted under the biological impacts section, a vessel allocated 40 monkfish DAS and 20 NE multispecies DAS would lose the ability to use 5.7 monkfish DAS if the vessel used all of its NE multispecies DAS in the differential area, if no action were taken to modify the method used to calculate monkfish-only DAS. Under the no action, a vessel would need to lease in additional NE multispecies DAS in order to be able to utilize all of its allocated monkfish DAS, increasing the operating costs associated with these remaining monkfish DAS.

The proposed action would mitigate any negative economic impacts to limited access monkfish vessels that hold limited access NE multispecies DAS permits by enabling these vessels to utilize all of their allocated monkfish DAS. In addition, the proposed action could increase the total number of DAS available to these vessels if these vessels were to fish all of their NE multispecies DAS outside the U.S./Canada Management Area at a 1:1 rate. As described in the biological impacts section, the proposed action could increase the available number of monkfish-only DAS by a maximum of 1,872 DAS. The potential additional DAS for individual vessels ranges from 0.29 monkfish-only DAS, for vessels with an annual allocation of 1 NE multispecies DAS, to 16 monkfish-only DAS, for vessels with an annual allocation of 56 NE multispecies DAS (see Table A4). However, under the proposed 2006 monkfish annual adjustment, limited access monkfish vessels would be restricted to fishing a maximum of 12 monkfish DAS (plus up to 10 carryover DAS) in the Southern Fishery Management Area (SFMA) during the 2006 fishing year. Therefore, the maximum additional DAS available to these vessels would be 12 versus 16 monkfish DAS.

In addition, this action could affect up to 286 limited access monkfish Category C or D vessels, out of a total of 559 vessels that hold a monkfish Category C or D permit. Out of the potentially affected vessels, approximately 30 percent would have Category C permits, with the remaining 70 percent having Category D permits. The percentage of Category C vessels with a limited access NE multispecies permit in relation to Category D vessels with a limited access NE multispecies permit that could be affected by this action is slightly less than the split between these two permit groups in the overall fishery (37 percent with Category C and 63 percent with Category D).

## **3.5 Social Impacts**

### **3.5.1 Groundfish Impacts**

The premise for the social impacts analysis developed for this emergency action is detailed in Section 8.1.6 of the EA prepared for this action. The social impact analysis focuses on evaluating the following five social impact factors: Regulatory discarding; safety; disruption in daily living; changes in occupational opportunities and community infrastructure; and formation of attitudes.

### Regulatory Discarding:

The revised preferred alternative maintains a majority of the measures included in the original preferred alternative, including incidental catch TACs and the haddock separator trawl. Therefore, the social impacts for the revised preferred alternative are likely the same as those described in Section 8.1.6 for the original preferred alternative. However, the revised preferred alternative would impose trip limits for GB winter flounder and white hake. The purpose of these reductions in trip limits is to reduce incentives to target these species without creating excessive discards. There are not expected to be very many social impacts from reduced landings or regulatory discards associated with these trip limits, as members of the public have expressed support for these trip limits through public comments submitted for this emergency action. However, social impacts from regulatory discarding could increase if these trip limits cause vessels to discard larger amounts of these species than were previously discarded.

### Safety:

The revised preferred alternative would provide similar impacts to vessel safety as the original preferred alternative. However, because the revised preferred alternative does not implement differential DAS counting within the U.S./Canada Management Area, there are incentives for vessels to fish in this area to maximize returns from allocated DAS. The additional opportunities to fish provided by eliminating differential DAS counting in this area reduce the pressure to fish for longer hours with less crew than the original preferred alternative and provide additional revenue for vessel maintenance. In this capacity, the revised preferred alternative is better than the original preferred alternative for mitigating safety concerns. At the same time, however, given the offshore location of the U.S./Canada Management Area, safety concerns may increase, as smaller vessels attempt to capitalize on the reduced DAS counting rate within this area.

### Disruption in Daily Living:

The revised preferred alternative would offer fewer disruptions in daily living than the original preferred alternative or the No Action alternative. This is because differential DAS counting is eliminated for vessels fishing in the U.S./Canada Management Areas. Because of greater opportunities to continue to fish for groundfish, there is less pressure to fish in other unfamiliar fisheries to continue to earn revenue from fishing, thereby minimizing disruptions in daily living. In addition, elimination of differential DAS counting minimizes incentives to fish longer and harder to maximize value of allocated DAS. Vessels that have historically fished on GB in this area can operate in a similar manner as before. However, because of the elimination of differential DAS counting in this area, other vessels may be inclined to fish in this area that haven't previously operated in this area. If this is realized, disruption in daily living could increase under the revised preferred alternative.

### Changes in Occupational Opportunities and Community Infrastructure:

The revised preferred alternative would result in fewer changes to occupational opportunities and community infrastructure compared to the No Action alternative or the original preferred alternative because it would eliminate differential DAS counting for vessels participating in the U.S./Canada Management Area. Public comment received for

this emergency action indicated concerns that differential DAS counting on GB would affect shoreside infrastructure and jeopardize domestic fish markets due to decreased supply of groundfish. The revised preferred alternative would allow for a continued supply of groundfish to domestic fish markets that should minimize the potential impacts on shoreside infrastructure and occupational opportunities.

#### Formation of Attitudes:

The revised preferred alternative may decrease negative attitudes towards NOAA Fisheries Service, as the agency has endeavored to respond to public comment and revise regulations to address their concerns and further minimize economic impacts of the necessary emergency management measures. The revised preferred alternative more closely mirrors measures in FW 42, thereby decreasing adjustment to these measures once implemented and appeasing members of the fishing industry concerned by different management approaches between the two actions.

### **3.5.2 Monkfish Impacts**

The revised preferred alternative could enable vessel owners to maintain their current monkfish fishing activities and potentially provide them with additional monkfish-only DAS if they utilize a portion of their NE multispecies DAS outside the U.S. Canada Management Area. Approximately half of limited access monkfish vessels with a limited access NE multispecies permit could be affected by this action, gaining up to a maximum of 16 additional monkfish-only DAS if they do not fish exclusively in the SFMA. Vessels that fish exclusively in the SFMA could gain up to a maximum of 12 monkfish DAS since they would be restricted to fishing 12 monkfish DAS in this management area during fishing year 2006. Therefore, this action would have positive social benefits compared to the No Action alternative since it would provide additional fishing opportunities, and enable vessel owners to maintain their current monkfish fishing activities. Conversely, the No Action alternative would reduce a vessel's fishing opportunities, impacting the vessels fishing activities. In some cases, vessel owners may decide not to pursue monkfish during the 2006 fishing year since the proposed restrictions on monkfish DAS usage in the SFMA combined with differential counting of NE multispecies DAS could make it not economically feasible to do so. Formation of negative attitudes may be somewhat mitigated because the revised preferred alternative attempts to ensure that monkfish vessels have the opportunity to fully utilize their allocated monkfish DAS. Social impacts under the revised preferred alternative would be identical to that of the original preferred alternative, as this provision is identical between these two alternatives.

### **3.6 Impacts to Other Fisheries**

Section 8.1.7 of the EA prepared for this action describes the impacts to other fisheries associated with the original preferred alternative. The revised preferred alternative would result in the same impacts to other fisheries that were described for the original preferred alternative. In summary, it is expected that the revised preferred alternative could result in increased effort in the open access scallop fishery.