

6.0 GLOSSARY

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8.0 ACKNOWLEDGMENTS

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9.0 COMMENTS

9.1 Written comments on the Notice of Intent to Prepare a Supplemental Environmental Impact Statement

The Council received the following comments during the comment period on the Notice of Intent to prepare and SEIS for Framework Adjustment 14. Copies of these letters are provided in this document.

1. November 13, 2000 letter from Mr. Christopher J. Zeman, Fisheries Program Counsel for the American Oceans Campaign.
2. November 13, 2000 letter from Mr. David Frulla, Brand & Frulla representing the Fisheries Survival Fund.
3. November 13, 2000 letter from Mr. Daniel Cohen, Atlantic Capes Fisheries, Inc.

9.2 Written comments on the Draft Supplemental Environmental Impact Statement During the NEPA Comment Period Ending on January 24, 2001

The Council received the following comments during the 45-day NEPA comment period on the Draft SEIS for Framework Adjustment 14. Copies of these letters are provided in this document.

1. December 8, 2000 letter from Mr. Mark H. Landry, Captain for the U.S. Coast Guard.
2. January 8, 2001 letter from Dr. Daniel Georgianna, Professor of Economics for the University of Massachusetts Dartmouth.
3. January 18, 2001 letter from Mr. David Frulla, Brand & Frulla representing the Fisheries Survival Fund.
4. January 22, 2001 letter from Ms. Patricia Kurkul, Regional Administrator for NMFS.
5. January 24, 2001 letter from Mr. Anthony Chatwin, Conservation Law Foundation and Mr. Christopher J. Zeman, Fisheries Program Counsel for the American Oceans Campaign.
6. January 24, 2001 letter from Ms. Elizabeth A. Higgins, Director for the Office of Environmental Review.
7. January 24, 2001 letter received supporting Mr. Christopher J. Zeman, Fisheries Program Counsel for the American Oceans Campaign. Number of these letters received is 260.
8. January 25, 2001 letter from Mr. Keith N. Laudeman, Cold Spring Fish & Supply Company, Inc.
9. January 25, 2001 letter from Ms. Patricia Kurkul, Regional Administrator for NMFS.
10. January 25, 2001 letter from Mr. William Reed, owner and operator for Fishing Vessel.
11. January 24, 2001 letter from Mr. David Frulla, Brand & Frulla representing the Fisheries Survival Fund.
12. January 26, 2001 letter from Mr. David Frulla, on behalf of nine industry advisors.

9.3 Response to Written Comments

The Council received the following general comments during the comment period on the Notice of Intent and during the comment period for the DSEIS. Many issues have been addressed in the draft SEIS or in the final SEIS, but are listed here for completeness.

1. Framework Adjustment 14 requires that the Council prepare an SEIS; An SEIS is not required for Framework Adjustment 14

While NEPA allows the NMFS to prepare a less rigorous Environmental Assessment to evaluate the impacts of proposed actions, significant controversy has arisen with regard to the cumulative impact on the environment of several ad hoc actions implementing measures with greater reliance on area closures to achieve the objectives of the FMP. Although the Framework Adjustment modifies measures that exist in the FMP, people expressed concern that the effects could differ significantly from those already analyzed in Amendment 7. The Council and NMFS therefore agree that a more complete analysis in a Supplementary Environmental Impact Statement (SEIS) with a full and frank discussion of the impacts is necessary for this action. This decision has also allowed a greater opportunity for public comment on the proposed measures and the analysis of impacts.

2. Framework Adjustment 14 must be implemented as quick as possible

The preparation of a SEIS with an opportunity for public comment was combined with the Council's framework action process. It required that a final framework meeting be conducted at the Council's January 2001 meeting and delaying implementation of Framework Adjustment 14 until a few months into the 2001 fishing season. This was the quickest course of action to prepare a SEIS for a framework adjustment.

3. Authorizing 120 days-at-sea has significant environmental effects that have not been previously analyzed

Amendment 7 establishes annual fishing mortality goals and a 10-year rebuilding schedule for the management of Atlantic sea scallops. These goals were to be achieved by a combination of annual day-at-sea allocations, limited access, crew limits, gear restrictions, and other measures. At the time, the conservative effect of area closures was under-estimated and Amendment 7 estimated that only 49 day-at-sea could be allocated in the 2001 fishing year and 46 day-at-sea in the 2002 fishing year, to meet fishing mortality goals of 0.28 and 0.24, respectively. The purpose of the annual day-at-sea allocations was to achieve the fishing mortality targets; the day-at-sea allocation schedules were never intended to remain unchanged if the projected mortality reductions were achieved through other means.

The proposed action does not change the goals, even though the sea scallop resource has recovered much more quickly than anticipated. Like Framework Adjustment 12, the proposed action changes the day-at-sea allocation to be consistent with these goals, taking into account a better understanding of the effect of crew limits, gear restrictions, and area closures. In the Council's view, the effects of achieving these goals with the management measures identified in the plan have been analyzed and continue to be analyzed in Framework Adjustment 12 and in this document.

The comment also expressed concern that the area that would be allowed to be fished under Framework 14 would be extremely large and that there would be adverse impacts on that area that were not analyzed. The amount of area swept by scallop fishing gear has been further

analyzed in this Final SEIS (Section 5.2.4.2.2). While the 12,000 square nautical mile figure cited in the comment may seem alarming, it is incorrect (see comment and response 22) and the actual area swept represents a significant reduction in area swept compared to 1) the height of the fishery in terms of vessels and days-at-sea, 2) the beginning of Amendment 4 when the Council implemented limited access and began reducing days, and 3) Amendment 7 when the last SEIS was prepared. An area “greater than the area of Connecticut, Rhode Island, and Massachusetts, combined or half the size of the State of Maine” may not be so alarming when compared to the area under management which includes the entire EEZ from Maine to North Carolina.

A comprehensive analysis of the environmental impacts, including impacts on habitat, of 120 days-at-sea versus Amendment 7 projected day-at-sea allocations is included in the SEIS (Section 5.2.4.2.2). While the Amendment 7 day-at-sea allocations are described as the status quo, in actuality the scallop industry has never realized a day-at-sea decrease to the level projected for 2001 in Amendment 7. Framework Adjustment 14 would continue the current level of fishing for two more years. The impacts of the day-at-sea allocations under Framework Adjustment 14 would therefore be similar to those impacts that occurred in 1999 and 2000.

The Council and this document recognizes that some sensitive habitats may be disturbed by scallop fishing, but there are areas with sensitive habitat that currently are closed to scallop fishing or that scallop fishing does not affect. Significant reductions in fishing effort and the intensity of fishing effort have occurred since Amendment 4 and through more recent framework adjustments. These have had a favorable and long-lasting positive effect on habitat.

4. The extent and intensity of scallop dredging on marine environments is significant and has not been previously analyzed in the Atlantic Sea Scallop FMP

The Council has determined that the extent and intensity of scallop dredging on marine environments is not significant in all cases and on all habitat types. Some habitat types (boulders, cobbles) are more vulnerable to the effects of scallop fishing on the sea floor, but other habitat types (gravelly sand, sand) are much less vulnerable to these effects. Most of the scallop fishing activity that will result from the actions proposed in Framework Adjustment 14 will occur in predominately sandy areas with moderately high-energy environments. The extent and intensity of disturbance to habitat from scallop fishing varies with many factors, as described in Section 5.2.3.2.

The possible effects of scallop dredging on the environment have been identified and described in the Omnibus EFH Amendment (Amendment #9 to the Sea Scallop FMP), and have been expanded upon in Framework Adjustments 11, 12, and 13 to the Sea Scallop FMP, and in Section 5.2.4.2.5 of this Final SEIS. Much of the area where scallop dredging may have the most significant effects remain closed to scallop fishing in the current groundfish closed areas (Closed Areas I and II, Nantucket Lightship Closed Area, and the Western Gulf of Maine Closed Area). Other areas that contain relatively more vulnerable habitat (deep-water canyons containing corals, much of the deep-water portions of the Gulf of Maine, and the inshore embayments and estuaries) are outside the range of the scallop fishery and are therefore not subject to any effects associated with scallop fishing.

5. Framework 14 is precedent setting and highly controversial

The Council agrees that Framework Adjustment 14 continues the FMP’s de facto rotational area management plan for two more years. This type of action was in fact anticipated by Amendment 7 which specifically introduced area closures and openings as a frameworkable measure. On the other hand, the Scallop PDT has advised that a full area rotation system would require access to the Georges Bank

groundfish closed areas and possibly other areas. This is not being proposed in Framework Adjustment 14, but it builds upon the successful management and resource rebuilding that has occurred since 1994.

Nevertheless, the Council believes that a more comprehensive approach to area rotation may have benefits and is developing these procedures in Amendment 10. A more comprehensive approach may be more costly than the ad hoc approach considered so far and could have farther reaching implications and benefits. The Council does not view Framework Adjustment 14 as a substitute or a binding precedent to a formalized area rotation system, but as an interim process that achieves the fishing mortality and biomass goals of the existing FMP while offering an opportunity for transition into a more formalized area rotation system.

6. Framework 14 involves unknown risks and may result in actions that are highly uncertain

This concern is the reason, in part, that an SEIS has been prepared for Framework Adjustment 14. Fishery management involves balancing uncertain risks, costs, and benefits. These risks are managed by their consideration in developing fishing mortality policy to benefit the fishery (including the resource, commercial and recreational fishermen, and the people that depend on them). The Council agrees fully that there is a dearth of information about the long term and broad impacts of fishing on the ecosystem and the environment. The Council encourages more research into the effects of fishing activity on the environment, but at the same time is using the best scientific information available to analyze the impacts. What we know is that there has been a significant reduction in fishing effort which has allowed the recovery of the scallop resource and reduced bycatch. Although impacts in some area may have increased, the Council believes that the effects on habitat have also been beneficial. Framework Adjustment 14 proposes to continue directing effort toward large scallops and away from small ones. This has a tendency to reduce fishing effort per day-at-sea, having a further positive effect.

7. The SEIS must provide a full and frank discussion of the significant environmental impacts and shall inform decision makers and the public of the reasonable alternatives

The Final SEIS fulfills this charge. It describes and estimates the impacts on scallop biology (Section 5.2.4.1), on incidental catch (Section 5.2.4.1.5), on habitat (Section 5.2.4.2), on endangered species and marine mammals (Section 5.2.4.3), on the economy (Section 5.2.4.4), and on social effects (Section 5.2.4.5). It furthermore includes preferred (Section 4.1) and non-preferred alternatives (Section 4.2) that were considered in the annual framework adjustment as well as described other rejected alternatives (Section 4.3).

8. The SEIS must contain a full discussion of reasonable alternatives to measures proposed under Framework 14 that can minimize the environmental effects. Several alternatives were suggested for consideration in the Council's decisions on this action

The Council considered a range of alternatives including alternatives suggested in this comment. The Council chose not to accept the alternatives for the reasons identified in Section 4.3.

9. The scallop possession limit should be no less than 15,000 pounds and the Regional Office must have the ability to adjust the possession limit if the program is not attracting fishing effort to the Hudson Canyon and VA/NC Areas

The Council agrees and increased the scallop possession limit within the range of the analysis, without requiring a reduction in the number of authorized trips. This action to increase the scallop possession limit to 17,000-18,000 pounds reduces the effect and benefit of the day-at-sea tradeoff, but the Council felt that this was necessary given the high landings per day expected in other fishing areas.

10. Returning to 49 days-at-sea would have a disastrous effect on the revenues for the fleet and the livelihood of people connected to the industry

The analysis shows that the day-at-sea allocation estimated to achieve the fishing mortality and biomass goals of the FMP will be unnecessary and overly burdensome on people who rely on the resource. Accordingly the proposed action would keep the day-at-sea allocation at the 1999-2000 level.

11. The General Category access program is inherently complex, presents policy concerns, and may set precedents with implications that the Council, the public, and NMFS may not have had sufficient time to consider

The Council agrees and has deferred development of this program to actions where it would be more appropriate, when a historic fishery existed before an area closure.

12. The proposed shell stock restrictions may be both overly restrictive and complex. Consideration in an FMP amendment would provide the Council with time to completely analyze the impacts of shell stocking practices.

The Council had to take action in this framework adjustment to close a loophole, which could greatly reduce the effectiveness of day-at-sea allocations and crew limits to achieve the fishing mortality objectives. No significant sources of data were forthcoming that would repudiate the qualitative information that shell stocking was rarely practiced. No statistics are collected on landings of shell stock. If and when the cost of PSP testing declines or a market for in-shell scallops becomes more valuable, the Council can reconsider or replace the proposed action. This measure also addresses concern raised by the EPA concerning discarding of shells and scallop viscera in more sensitive inshore habitats.

13. The season for the area access program is inconsistent with the proposed action and the season should end before bycatch could be problematic

The proposed season maximizes the flexibility for vessels to choose when to fish, possibly improving the economic return from the sea scallop landings. Delaying mortality would also improve yield by allowing scallops to grow during the fishing season. Other measures, like a 10-inch minimum twine top mesh, address bycatch concerns.

14. The in-season adjustment language is unclear regarding eligibility to fish in both areas

This language has been clarified in Section 4.1.3, indicating that vessels who are eligible for re-authorized trips may fish in area even though they may have fished in only one area during the eligibility period.

15. The emergency trip termination is complex and would be difficult to enforce. NMFS believes that the current system of consideration on a case-by-case basis is sufficient.

The Council disagrees that the current system is satisfactory because some vessels choose not to fish in re-opened closed areas because of the business risk associated with being charged 10 days-at-sea while being unable to land the scallop possession limit. Sufficient controversy was raised on this issue, however, that the Council did not choose this as a preferred alternative, with the assurance that the Regional Office would take steps to improve the current adjustment system.

16. The trip declaration and notification system allows for potential abuse of the program

This measure only applied to the determination of eligibility for re-authorized trips during an in-season adjustment. It would have reduced the opportunity for abuse by requiring that vessels eligible for re-authorized trips to have actually had to participate (i.e. fished) within one of the Hudson Canyon and VA/NC Areas. Nevertheless, the Council did not choose this option as a preferred alternative because of the confusion that arose regarding a monitoring line that differed from the one used to monitor days-at-sea.

17. NMFS may not be able to provide the desired amount of observer coverage that is recommended and the Council should be aware that the closed area access program would end when the observer total allowable catch is harvested

The estimates indicate that two percent of the TAC would provide sufficient funds to cover the costs of observers on the expected number of trips in the Hudson Canyon and VA/NC Areas. The Council is aware, however, that the access program would be discontinued for the fishing year if the observer costs exceed the TAC set-aside and supplement. The Regional Administrator will monitor the observer program to avoid significant imbalances in observer coverage that might lead to cost overruns.

18. The DSEIS format is extremely confusing and difficult to follow

The DSEIS format follows the NMFS guidelines for preparing an EIS and is very similar to ones used by the Council for at least ten years. The document is laid out in an orderly fashion to describe the Purpose and Need (Section 0), the proposed action, non-preferred alternatives, and alternatives considered and rejected (Section 4.0), a description of compliance with National Standards (Section 5.1), a description of the affected environment (Section 5.2.3), and a description and estimate of the expected biological, habitat, economic and social impacts (Section 5.2.4).

It was not possible to analyze the impacts of each measure in isolation, as is suggested. Many of the impacts are interrelated and if analyzed in isolation, they could be misleading and more confusing. To analyze the impacts, the PDT provided analysis of four broad management scenarios, described in Section 5.2.4. In essence, the Council chose the “Low F – no closure” option as its preferred alternative. To help the reader with understanding the impacts of individual measures and how they might relate to other choices, each sub-section in the preferred and non-preferred alternatives gives a rationale for the Council’s choice, often with a summary of the relevant estimates from Section 5.2.4.

19. The DSEIS lacks an interdisciplinary approach required by NEPA

The preparers of the document and the PDT have considerable experience in biology, ecology, economics, sociology, and habitat management. They include employees of the Council, the NMFS, the University of Massachusetts, and the Virginia Institute of Marine Science. Other employees of agencies with jurisdiction and expertise have been contacted to join the PDT and contribute analyses.

20. The DSEIS fails to consider a reasonable range of alternatives to minimize environmental effects of the proposed action and delays conservation

The purpose of a framework adjustment is to change existing measures to meet the objectives of the FMP, not to create new measures or to revise the objectives of the plan. Previous amendments and framework adjustments have implemented numerous management measures that reduced the environmental effects of scallop fishing. Framework Adjustment 14 proposes to make three adjustments

to achieve these objectives and meet the mortality and rebuilding goals established by Amendment 7. The framework proposes adjustments to the annual day-at-sea allocation, a program to allow scallop vessels to fish in the Hudson Canyon and VA/NC Areas under a conservative program, and an adjustment to the scallop possession limit to ensure that limited access vessels cannot skirt the day-at-sea allocations and crew limits by shucking scallops inshore of the day-at-sea monitoring line.

A fourth initiative to close new scallop areas failed because of the significant impacts of existing closures are having on the scallop fishery and because of the difficult process to re-open areas that were once closed for scallop conservation. Nevertheless, the Council considered alternatives of two and four new closed areas in the range of measures. In addition, although the Framework adjustment could have considered allowing continued access to the Georges Bank closed areas, it did not, in favor of protecting both scallops and habitat in those areas.

Framework Adjustment 14 furthermore does not delay conservation. Scallop rebuilding is well ahead of schedule, yet the annual fishing mortality targets remain as specified in Amendment 7. Framework Adjustment 14 is expected to reduce fishing time by focusing effort in areas where fishing is most efficient in catching large scallops. Ironically, this effect would be enhanced by continuing access to the Closed Area I and the Nantucket Lightship Area, where the largest sea scallops are found. The area access program for the Hudson Canyon and VA/NC Areas therefore has a positive, conservative effect while the day-at-sea allocations are expected to achieve the fishing mortality targets, considering the effects of closed area management, crew limits, gear restrictions, and other factors. This effect is furthermore supported by closing a loophole in current regulations that allow scallop vessels to shuck their catch off of the day-at-sea clock. First established by Amendment 4 and further restricted by Framework Adjustment 1, the crew limit controls fishing mortality by restricting the fishing power of a limited access vessel. As catches rise, it also induces fishermen to target larger scallops to maximize their catch and the crew's productivity, postponing mortality on small scallops and increasing yield. Framework Adjustment 1 provides a thorough analysis of this effect.

Clearly, the Council agrees that it has the ability under the framework adjustment process to comply with the requirements of NEPA and other applicable law, when preparing and implementing Framework Adjustment 14. In the past, it has done so with an Environmental Assessment for less controversial actions. The cumulative and controversial nature of the actions contemplated by Framework Adjustment 14 have led the NMFS and the Council to prepare a Supplementary Environmental Impact Statement instead of an Environmental Assessment.

21. The DSEIS' analysis of habitat/environmental impacts is inadequate and does not comply with NEPA. The DSEIS inappropriately relies on the Omnibus EFH Amendment.

The analysis and discussion in the FSEIS comply with NEPA requirements, given the scope and intent of this action. The Council and NMFS are planning to more completely address Essential Fish Habitat (EFH) issues, as required by a recent court order, in a future amendment to the Sea Scallop FMP. The SEIS incorporates by reference sections of the Omnibus EFH Amendment, where appropriate, that include descriptions of the types of information required in an EIS document (such as a description of the affected environment).

The recent court order, referred to by this comment, did not rule that the information contained in various subsections of the EFH Amendment was incorrect or insufficient to comply with the requirements of the Magnuson-Stevens Act. Framework Adjustment 14 does not pretend to comprehensively address all EFH concerns that were addressed in the Omnibus EFH Amendment and called into question by the court, but this Final SEIS does however cite valid research and results that were more fully described in the Environmental Assessment for that amendment.

22. The DSEIS fails to analyze the environmental consequences of the preferred alternative and alternatives to the preferred alternative, including impacts to the large area of ocean bottom expected to be affected by scallop fishing.

A new section describing and comparing the extent of area swept by scallop fishing has been added to the DSEIS. The claim that the scallop fleet will significantly disturb over 12,000 miles of seafloor is incorrect and this has been corrected in the document. The estimate by the person making the comment came from an ICES paper by Rago et al. (2000). In this paper, it is reported that 12,083 nm² blocks in 1998 and 11,220 nm² blocks in 1999 had at least one hour of fishing effort somewhere within the block. A vessel with two 15-foot dredges fishing for one hour while averaging 4.5 knots will sweep about two percent of a nm² block. Of course, vessels spend more than one hour in each nm² block, ranging from one to 855 hours, according to Rago et al. (2000). Taking into account the distribution of fishing effort, areas of significant overlapping fishing activity, and the ground covered by one hour of fishing effort, the estimated area swept declines to around 4,300 nm² with a 120 day-at-sea allocation.

If the area swept is laid end to end and side by side (i.e. no overlap), the total area swept for the preferred alternative is 11,339 nm², representing a 22 percent reduction from Amendment 7 when the last SEIS was prepared. Obviously scallop vessels do not fish like this because dredges, like nearly all machines are not 100% efficient and because scallops move small distances. Accounting for the total amount of fishing time within each block in Rago et al. (2000) produces an estimate of 8,528 and 8,819 nm² in 1998 and 1999, respectively. This is approximately half of the total scallop resource area sampled by the R/V Albatross scallop survey. When one takes into account the overlap within the nm² blocks by reducing the area swept in blocks whose totals exceed one nm², an estimate of the total area swept one or more times during scallop fishing decreases to 5,086 and 4,285 nm² for 1998 and 1999, respectively. This is less than 1/3rd of the total scallop resource area.

The section that the person commenting referred to as an analysis of habitat impacts was simply an introduction. The analysis of habitat impacts is in Sections 5.2.4.2.2 and 5.2.4.2.4 of the Final SEIS, not Section 5.2.4.2 as alleged.

23. The scope of habitat analysis is illegally narrow and the analysis is inadequate. The EFH analysis is not expanded beyond the EFH assessment and requirements under the Magnuson-Stevens Act.

There are no areas within the scope and range of scallop fishing that are not designated as EFH for at least one species managed by the New England Council. The descriptions of EFH designated by the Council include, as required under the Magnuson-Stevens Act, descriptions of the biological, physical, and chemical components of the environment that comprise EFH. Consideration of impacts to EFH, therefore, includes all relevant components of the environment.

While it is true that the requirement for an analysis of impacts to the “environment” is significantly broader than the Magnuson-Stevens Act required EFH Assessment, NEPA defines “environment” as the totality of the human environment affected by the proposed action. This “human environment” includes the social, economic, physical, biological, and ecological components. This document describes and estimates the impacts on scallop biology (Section 5.2.4.1), on incidental catch (Section 5.2.4.1.5), on habitat (Section 5.2.4.2), on endangered species and marine mammals (Section 5.2.4.3), on the economy (Section 5.2.4.4), and on social effects (Section 5.2.4.5). The habitat analysis section is but one aspect of the overall human environment identified in NEPA.

Most of the “known” hard-bottom habitats that occur within the historic range of scallop fishing are enclosed by the current groundfish closed areas where scallop fishing is prohibited. The actions proposed in this Framework Adjustment do not include any proposed access to these areas. In fact, in recent actions (Framework Adjustments 11, 12, and 13), the Council specifically excluded those portions of the current groundfish closed areas known to contain hard bottom habitats from all scallop access programs. The SEIS describes the potential adverse effects of scallop fishing on a variety of habitat types, including hard bottom habitats, and identifies the factors that affect whether the effects of a fishing activity on habitat are likely to be adverse and/or significant. Section 5.2.4.2.5 of the Final SEIS provides an analysis of the potential effects of the alternatives for changing the day-at-sea allocations for the 2001 and 2002 fishing years.

This action does not contain a plan for an “automatic” reopening of the southern portion of Closed Area II. This Framework Adjustment is limited in its scope to allocate days-at-sea for the 2001 and 2002 fishing years, establishing a controlled access program for the Hudson Canyon and VA/NC Areas, and an adjustment to the scallop trip limit. Any adjustments to the regulations established for Closed Area II under the Groundfish FMP can only be made through an Amendment or Framework Adjustment to the Groundfish FMP, as was done in Frameworks 31 and 34 to allow some limited access for scallop fishing in specific portions of the groundfish closed areas.

Section 5.2.4.2.2 describes the general expectations and considerations for understanding habitat impacts of scallop fishing. This section also includes a description of the distribution of sediment types that occur throughout the range of scallop fishing and the likely shifts in concentration of fishing effort under the various alternatives considered by the Council.

The SEIS summarizes and applies to its analysis at least five recent scientific papers from peer-reviewed journals, including Bradshaw et al. (2000), Currie and Parry (1999), DeAlteris et al. (1999), Hall-Spencer and Moore (2000) and Veale et al. (2000). The hypotheses and results of the studies described in the papers are discussed in relation to the New England scallop fishery and the specific actions proposed in this Framework Adjustment. Using data derived from the 1998 and 1999 fishing years’ vessel tracking system (VTS), NMFS was able to map the distribution of fishing effort and to estimate changes in these distributions from one year to the next. Several maps generated by NMFS using these data are presented in the SEIS in Section 5.2.4.2.2.

As required under the Magnuson-Stevens Act, this document includes an “EFH Assessment” that provides an assessment of the specific measures being proposed under this Framework Adjustment. Due to the nature of the EFH Assessment, this section was not included in the DSEIS, but has been completed for the SEIS.

24. The DSEIS fails to use available data to analyze bycatch, fails to adequately analyze monkfish bycatch, fails to adequately analyze the environmental effects of bycatch of at-risk species

The Council has considered actions that specifically address bycatch issues in previous actions specific to the Sea Scallop FMP, with respect to gear restrictions, area closures and other management measures. Framework Adjustment 11, for example, analyzed the effects and increased the minimum twine top mesh from six to eight inches, because the analysis showed that the 8-inch twine top would significantly reduce finfish bycatch (especially flatfish) with minimal reductions in scallop catches.

The effect of the proposed action in Framework Adjustment 14 on finfish bycatch was fully analyzed to the maximum extent possible in Section 5.2.4.1.5 of the DSEIS. The best source of data for this purpose is the R/V Albatross scallop survey because covers nearly all of the area subject to fishing

and uses gear similar to the commercial scallop dredge. Its catch is observed by qualified scientists and measured for number, weight, and size frequency.

Bycatch data from the 1999 and 2000 experimental scallop fishery was not applicable because these data were from Closed Area I, Closed Area II, and the Nantucket Lightship Area, whereas these areas would be closed under the proposed measures for Framework 14. Obviously, the mix and abundance of species in the Hudson Canyon and VA/NC Areas is considerably different from the closed areas on Georges Bank. Similar data were collected in the 2000 experimental fishery in the Hudson Canyon and VA/NC Areas, but these data have not yet been audited and analyzed to prepare detailed distribution maps of the bycatch. These distribution maps, similar to the ones in Framework Adjustments 11 and 13 would furthermore be of limited value because the VIMS data were collected during a short time frame while the proposed fishery would occur from April to February. A qualitative discussion of the uncertainty of the longer commercial season was included in Section 5.2.4.1.5. VIMS scientists reported, however, that the bycatch of other species was low, except for monkfish and skates. The DSEIS provided summaries of these data Table 61.

Using the R/V Albatross survey data, the DSEIS estimated and compared the expected bycatch of monkfish, yellowtail flounder, cod, and haddock. The relative number per tow were summarized in Table 64 and the expected relative catch in number for the four management scenarios that were analyzed were shown in Figures 22 to 26. It was not possible to provide quantitative estimates for barndoor skate and Atlantic halibut, because the catches of these species are rare except for some areas of Georges Bank and the Gulf of Maine. Since Framework Adjustment 14 is expected to cause fishing effort to shift to the Mid-Atlantic, the effect on these northern species is expected to be positive. Further discussion of the effects on barndoor skate and other at-risk species were given in Section 5.2.4.3.2 of the DSEIS.

25. The DSEIS fails to analyze the effects of reduced observer bycatch in the area proposed to be open by Framework 14 and fails to adequately analyze the lack of observer coverage to assess bycatch in the open areas

Framework Adjustment 14 does not open areas; it implements harvesting restrictions on areas that would otherwise have none. The only reason the Hudson Canyon and VA/NC Areas are currently closed is that the Council requested a postponement of the sunset of these closures (planned in Amendment 7) through Secretarial interim action pending the implementation of Framework Adjustment 14. The closures will automatically expire in August 2001 and without this action there would be no added restrictions on scallop fishing in the re-opened Hudson Canyon and VA/NC Areas or requirements for additional sea sampling.

Framework Adjustments 11 and 13 required enhanced observer sampling, with a 25 percent goal, for scallop fishing in Closed Area I, Closed Area II, and the Nantucket Lightship Area to accurately monitor the bycatch of yellowtail flounder, stocks that are in a rebuilding program and in the case of Southern New England yellowtail flounder is significantly at risk. The framework adjustments needed the enhanced sampling to accurately count the yellowtail flounder catch against its TAC, because the low possession limit required by the Multispecies FMP did not allow the scallop fishermen to land their bycatch where it could be accurately measured and reported.

The amount and quality of observer sampling in the Hudson Canyon and VA/NC Areas was estimated and discussed in Section 5.2.4.1.3. Since TACs for bycatch were not necessary in the Hudson Canyon and VA/NC Areas, this high sampling frequency is likewise unnecessary in Framework Adjustment 14. Observing bycatch (and other events) in the Hudson Canyon and VA/NC Areas scallop fishery is nonetheless important. Framework Adjustment 14 will require a 10 percent sampling goal for the Hudson Canyon Area and, due to the fewer number of expected trips, a 20 percent sampling goal for

the VA/NC Area. Although some trawling will occur in the Hudson Canyon Area, most will target scallops in the VA/NC Area because it is closer to the ports where scallop trawlers operate (Hampton Roads, VA and Wanchese, NC). Although difficult to predict how many trawl vessels with fish in each area, the sampling frequency on scallop trawlers may actually be higher than those aboard dredges.

26. The DSEIS fails to analyze the risks of overfishing due to lack of information and the lack of adequate enforcement and effort control restrictions

The status of the stock is assessed by the Stock Assessment Workshop process, administered by the NMFS in Woods Hole. The 2000 SAFE Report summarizes the status of the scallop stock and even provides a preliminary update based on 1999 and 2000 data. The DSEIS used this information to analyze the effects of the proposed alternatives and, unlike previous Environmental Assessments for Framework Adjustments 11 to 13, included an estimated 10 percent non-catch mortality of sea scallops, derived from research reported in the literature. Because dredge efficiency has been estimated to be 40 percent, this means that fishing mortality would be 25 percent of the amount calculated based on landings alone. All management scenarios analyzed in the DSEIS indicated that fishing mortality would be below the annual targets.

The 32nd SAW (NMFS 2001a) updated the status of the scallop stocks at the January 2001 Council meeting. Section 5.2.3.1.2 in the Final SEIS was expanded to discuss how those results differ from what was earlier estimated in the Draft SEIS. The 32nd SAW reported that fishing mortality in the Mid-Atlantic was higher than previously estimated, that preliminary research suggests that dredge efficiency in the Hudson Canyon and VA/NC Areas may be higher than estimated for Georges Bank groundfish closed areas, and that fishing mortality in the open areas was higher than F_{max} , the peer reviewed proxy for F_{MSY} .

The effect of the higher fishing mortality estimate for the Mid-Atlantic is discussed in Section 5.2.3.1.2 of this document. Although Framework Adjustment 14 exacerbates the present imbalance between Georges Bank and Mid-Atlantic fishing mortality, the stocks are effectively managed as a single unit and the biomass-weighted average is less than the Amendment 7 annual targets. Averaged over time, the Mid-Atlantic fishing mortality would be lower than the current projections when productivity (and access to productive scallop areas) increases on Georges Bank compared to the Mid-Atlantic.

The 32nd SAW also reported that preliminary research suggests a higher scallop dredge efficiency in the Hudson Canyon and VA/NC Areas than in the Georges Bank groundfish closed areas, but the SARC did not accept the results because of the covariance between dredge efficiency and scallop density estimates. The SARC recommended an independent and simultaneous sampling to determine scallop density in areas where depletion experiments are conducted to estimate dredge efficiency (NMFS 2001b).

On the last point that fishing mortality in the open areas was higher than management targets, this is a natural outcome of a system that periodically closes areas to achieve fishing mortality objectives. In essence it means that the biological reference point for open area fishing is higher than an appropriate level for the stock as a whole when closed areas exist, assuming that the scallop resource in the closed areas will later re-open. In order to calculate an appropriate value, however, the amount of time that areas will remain closed must be known and this is presently undefined or managed adaptively based on present and projected conditions. Part of the reason that fishing mortality is high in the open areas of the Mid-Atlantic is because the Georges Bank groundfish closed areas prevent a more optimal distribution of fishing effort. Under the Sea Scallop FMP, these areas are considered to be open to fishing and the reference points are consistent with this management strategy. A formal area rotation strategy will require an overhaul of the overfishing reference points to be consistent with whatever strategy emerges from Amendment 10.

Lastly, the enforcement and effort control restrictions for the Sea Scallop FMP are more stringent than most other fishing mortality measures employed in other management plans. Nearly all limited access scallop vessels are required to maintain VMS online 24 hours, 365 days a year. Compared to the alternatives, there aren't many ways to foil this system, whose costs are largely borne by the industry through equipment purchases, monthly fees, and messaging expenses. Other controls on mortality, such as quotas, possession limits, or area closures, require considerably more resource to ensure their integrity. Another primary management measure is the crew limit. Again, this measure is easy to check for compliance and difficult for fishermen to evade. This framework adjustment shores up the enforcement of both measures. On one hand, the framework adjustment proposes to reduce shucking scallops inshore of the day-at-sea monitoring line, which would dilute the effectiveness of day-at-sea allocations and crew limits. On the other hand, the framework adjustment proposes to double the frequency of VMS polling for limited access scallop vessels, enhancing the enforcement of the day-at-sea tradeoff and compliance with the Hudson Canyon and VA/NC Areas program.

27. The Council should increase the day-at-sea allocation to 120 full-time days-at-sea; the resource-wide fishing mortality will be well below 0.1 at the 120 day-at-sea level

The analysis supports this result, although a more recent stock assessment indicates that Mid-Atlantic fishing mortality was higher than previously estimated. Even with this recent result, the resource-wide fishing mortality rate is expected to be below the annual fishing mortality targets established by Amendment 7 (see Section 5.2.3.1.3). Increasing the day-at-sea allocation to the 2000 level is therefore justified under the present status, i.e. with the scallop abundance in the Georges Bank closed areas and with restricted access to the Hudson Canyon and VA/NC Areas.

28. The “Low F, no closure” option provides the greatest overall benefit to the Nation and only compromises slightly the resource rebuilding for Georges Bank scallops

The net benefits estimated by the DSEIS were short term, because the ad hoc area management introduces considerable uncertainty as to how the Council should value higher biomass levels in future years. The “no closure” option will have a significant impact on the biomass in areas that are currently open, although there are only slight differences in the resource-wide biomass in 2003 for the various alternatives analyzed by the SEIS. Since the scallop stock is managed on a resource-wide basis and the FMP considers the Georges Bank closed areas to be potentially open for scallop fishing, the proposed alternative makes sense in this context and the short term impacts of new closures outweigh the potential benefits..

29. The trip allocation and day-at-sea tradeoff must make it economical for scallop vessels to fish in the Hudson Canyon and VA/NC Areas

The Council considered the higher projected landings per day-at-sea in open areas and increased the scallop possession limit to 17,000 – 18,000 pounds for trips in the Hudson Canyon and VA/NC Areas, while maintaining the automatic 10 day-at-sea charge for trips shorter than 10 days. This change will make these trips more attractive compared to fishing in areas that are presently open, but will decrease the effectiveness of the tradeoff for reducing overall fishing mortality. In fact, the SEIS estimates that with an 18,000 pound possession limit the day-at-sea tradeoff will have little effect, unless the daily catches in the Hudson Canyon and VA/NC Areas are higher than projected. On the other hand, the seven-man crew limit will reduce total fishing time per day-at-sea if the catch rates are higher than projected, having a favorable effect on scallop fishing mortality, the amount of bycatch, and habitat impacts.

30. The absence of an historic fishery for vessels with General Category permits targeting sea scallops in the Hudson Canyon and VA/NC Areas does not justify the General Category access program

The Council agrees and has postponed action on this proposal until a more appropriate time and location.

31. Accommodating a in-shell scallop market without compromising the day-at-sea management of the general scallop fishery will require more substantial [management] changes than can be made in a framework adjustment

The Council agrees that ignoring this loophole could significantly compromise the day-at-sea program and crew limits that have successfully controlled the fishery since 1994. The Council developed allowances that will still allow a small market for in-shell scallops landed by limited access vessels and also accommodated the near-shore scallop fishery in the Gulf of Maine which does not affect the fishing mortality rates for the Georges Bank and Mid-Atlantic scallop stocks. Presently, shell stocking or landing in-shell scallops from the Gulf of Maine stock has not jeopardized the management of that stock. It is important to note that there is nothing in the FMP or this Framework Adjustment that prevents vessels from landing roe-on sea scallops, provided all other regulations regarding landing other sea scallop parts are met.

32. The DSEIS makes no clear statement of the status of the two Mid-Atlantic areas following the end of the 2002 fishing year

The Hudson Canyon and VA/NC Areas will revert to a fully-open status on March 1, 2003, unless the Council takes other action. Language in the proposed action has been added to clarify this point. The rate at which scallops in the Hudson Canyon and VA/NC Areas will be harvested after 2002 remains unclear, because potential changes in management could have a significant influence on the future value of the biomass in these areas. As such, the analysis in the Final SEIS only compares the relative amounts of biomass remaining in 2003 and does not attempt to estimate its net present value. Amendment 10 will determine the impacts of the postponed 're-opening of the Hudson Canyon and VA/NC Areas in 2003 and its SEIS will estimate the value of that biomass with alternative management strategies.

33. The Council should move as swiftly as possible on a further framework adjustment that would provide access to the scallops in parts of the Nantucket Lightship Area, Closed Area I, and the northern half of Closed Area II

The Council does not feel that further action via a framework adjustment is justified at this time, without fully considering the effects of a comprehensive area rotation system. Further evaluation is presently underway with the development of Amendment 10, expected to become effective before the start of the 2003 fishing year.

34. The EPA commented that TAC should be more conservative to account for undocumented catches, ecological effects on species that forage for scallops, habitat impacts from scallop dredging, reduced scallop recruitment potential, and scallop diseases and predation on smaller remaining scallop populations. The EPA also commented that the TACs should be established at a level below optimum yield to take into account environmental effects and uncertainty.

A "Low F" TAC is already conservative and takes into account these considerations and risks. In an area that is or has been temporarily closed to build high biomass, a higher TAC would produce

optimum yield. The potential effect of high fishing mortality in presently open areas however has led the Council to choose the Low F alternative for sea scallop fishing in the Hudson Canyon and VA/NC Areas. This policy is expected to allow scallop biomass to remain at the presently high levels in these restricted management areas. Scallop biomass in the Hudson Canyon and VA/NC Areas is the highest on record and biomass for the entire resource is near or exceeds the biomass targets in the FMP. Undocumented commercial and recreational catches are negligible. Although more research is needed, scallop disease appears to be more likely when scallop biomass is high, not low. Some scientists suggest that the shorter distances between adjacent scallops provide a better vector for the transmission of disease. Since scallop biomass is well above any level since 1982, there should be sufficient biomass to support species that prey on sea scallops.

Reducing the TAC below optimum yield would be inconsistent with fishery laws and regulations, because the setting of optimum yield already takes into account environmental effects and uncertainty. Although the proxy biological reference point for F_{MSY} is F_{max} , the Sea Scallop FMP specifies as the optimum yield a stock-wide target fishing mortality rate of 0.2, about 80 percent of the biological reference point. Even though the Council chose to apply this annual mortality rate to the scallop resource in the Hudson Canyon and VA/NC Areas, the optimum yield could be higher for short periods in high-biomass areas that have remained closed for relatively long periods.

According to the Magnuson-Stevens Act that governs fishery management plans, optimum yield means the amount of fish which:

- (A) "Will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, *and taking into account the protection of marine ecosystems*;
- (B) Is prescribed as such on the basis of maximum sustainable yield from the fishery, *as reduced by any relevant economic, social, or ecological factor*; and
- (C) In the case of an overfished fishery, provides for rebuilding to a level consistent with producing the maximum sustainable yield in such fishery." 16 U.S.C. 1802 §3 104-297, emphasis added.

35. The EPA commented that the TAC set-aside should not be set above the overall TAC.

Considering the conservative nature of the proposed TACs and the low probability that the entire TAC set aside would be needed to fund the proposed observer program, the Council believes that establishing a one-percent TAC supplement to augment the one-percent set-aside would not pose an unacceptable risk to the scallop population, while maximizing the economic return to the scallop fishing industry and the nation. Exceeding the TACs by one-percent would cause immeasurable changes in the fishing mortality and stock biomass level. It is less than the variance around the relationship between seasonal fishing effort and scallop meat yield, localized and interannual differences in growth or natural mortality, and the uncertainty in the stock abundance due to sampling error. This proposed action follows the successful procedure implemented under Framework Adjustments 11 and 13. The Council saw no reason to change this successful approach.

36. The EPA commented that cleaning shell-stock in shallow waters raises seasonal water quality issues such as lower DO and higher BOD due to the decay of discarded scallop viscera. Dumping of scallop shells if clean and moderate in volume could be beneficial.

Until 2000, this practice was rare and not a threat to inshore waters. The Council and NMFS agree that shucking in shallow water is a problem that may become bigger. Framework Adjustment 14 proposes to reduce the possession limit to 50 US bushels for limited access scallop vessels inshore of the

day-at-sea monitoring line. Specific problem areas could be addressed through existing health, water quality, and inshore shellfish regulations. The Council prefers that vessels discard scallop viscera and shells offshore where the fishing activity is more diffuse than inshore anchorages. Analyzed in the SEIS for Amendment 4, the discarded shells provide a refuge against predation for small finfish and invertebrates. They also provide a favorable location for scallop spat to settle. Another impact is that the discarded viscera are eaten by predators, cycling the nutrients through the ecosystem and benefiting other species. As long as the discarded products are spread out geographically and temporarily, negative effects on the environment are rare.

The 50 US bushel in-shell scallop possession limit, for limited access vessels inside the day-at-sea monitoring line, is expected to greatly reduce, if not eliminate, the incentive to deck-load scallops and shuck them inshore before landing. The 50 US bushel limit, rather than an outright prohibition, serves two purposes: 1) to allow limited access scallop vessels to bring a moderate amount of sea scallops inshore to safer waters if they get caught by bad weather or other events that would make it more prudent to work inshore, and 2) to supply a very limited market for whole or roe-on sea scallops.

The major reason that vessels around New Bedford deck-loaded sea scallops and shucked them inshore of the day-at-sea line was to increase the productivity of the vessel while on the day-at-sea clock. Shucking the scallops inshore enabled the vessel to land more scallops per day-at-sea. This has the two-fold effect of reducing the effectiveness of the day-at-sea allocations and crew limits as well as causing a potential water quality problem, having impact on inshore shellfish beds and the marine ecosystem. The Council believes that the 50 US bushel limit will greatly reduce the incentive for and the prevalence of this practice. If localized water quality problems remain from some vessels shucking the 50 US bushels, there are existing state and federal regulations that could be applicable and be more effective in addressing this issue.

37. The EPA commented that scallop fishing with dredges and trawls could have a cumulative effect on water quality (turbidity)

Excessive scallop fishing could have this effect, especially in areas with clay or silt substrates. It is interesting to note that excessive suspended sediments affect scallops themselves, as discussed in the SEIS for Amendment 4. The majority of scallop fishing occurs in areas with sandy or small gravel substrates (compare Map 3 through Map 11), which are less susceptible to increases in turbidity, and the amount of scallop fishing has declined throughout the 1990s (Section 5.2.4.2.2 in the Final SEIS for Framework Adjustment 14).

38. The EPA commented that the FSEIS should discuss incomplete participation in the closed area access programs

This is discussed and analyzed in Section 5.2.4.4.9.

39. The EPA commented that scallop fishing gear should have a mouth size no larger than 10.5 feet with a 10-inch diamond mesh size, and that dredges should be used only in open area preferably with sandy rather than muddy bottom areas.

Decreasing the sweep of dredges would require an increase the day-at-sea allocation by a corresponding or greater amount to achieve optimum yield, as required by the Magnuson-Stevens Act. The added fishing time would completely mitigate, and possibly overcompensate for, the reduced dredge

size. Scallops rarely occur on muddy bottom because the smaller suspended particles interfere with filter feeding and scallop fishing in these areas is unusual (see Map 3 through Map 11).

The impacts associated with dredge size and trawl sweep were analyzed and discussed in the SEIS for Amendment 4 (NEFMC 1993). This was the last time that the FMP changed the restrictions on dredge size and trawl sweep. Since the Council rejected alternatives that could have changed this regulation, a supplementary analysis of this alternative was omitted from the Framework Adjustment 14 SEIS. Methods to reduce the intensity of scallop fishing effort in sensitive habitat areas without resorting to permanent closures will probably be included as an alternative in Amendment 10, now under development. The SEIS for Amendment 10 will therefore include a more thorough discussion of this issue.

40. The EPA commented that the vessel trip report (VTR) data should include habitat-related information

The Council supports the collection of more information that fishermen can provide through VTR data. More importantly, Framework Adjustment 14 calls for the collection of a wide variety of information through the observer program that would aide management to assess impacts on bycatch and habitat.

41. The Council and NMFS should not implement Framework 14 until the Council has completed an adequate environmental analysis of the scallop fishery and implemented measures to minimize adverse effect on fish habitat and protect the marine environment.

The Council and NMFS have prepared a DSEIS and FSEIS that thoroughly analyze the impacts of a range of measures on the human environment within the context of the proposed action. The DSEIS and FSEIS include discussions and analysis of the expected impacts of the range of alternatives on the physical environment including habitat. The preferred alternatives represent a conservative approach to managing the scallop resource and fully take into account the affects on the environment. The Council and NMFS are planning address the EFH issues in a future amendment to the Sea Scallop FMP. However, given the context and scope of Framework 14, the NEPA assessment contained herein is appropriate. To delay Framework 14 would be contrary to the goals of the Scallop FMP and would not necessarily result in overall reductions of impacts to habitat and the environment.

42. The Council should recommend that no new closures be implemented and that a low fishing mortality rate be approved in the Mid-Atlantic closed area access program. The comment suggested an alternative of closing two modified areas to reduce industry impacts.

At its final meeting, the Council decided not to close two additional areas and to recommend the low F alternative for the Mid-Atlantic closed area access program. This decision was based on the expectation that new closure areas would unnecessarily harm the industry. The Council was not able to consider alternatives to closures that had not been analyzed at the time of the meeting because it would unduly delay implementation of the framework.

43. Justification for the April 1 start date of the area access program should be expanded.

The start date of the area access program is proposed to begin on April 1 to avoid potential bycatch in the areas. Information provided during the development of the framework adjustment and included in Section 5.2.4.1.5 indicate that there may be bycatch concerns that could be alleviated by delaying the start date of the program. Other factors that the Council considered in this decision were allowing flexibility for the fleet to fish when scallop prices are high, minimizing the market impacts from oversupply during a restricted season, habitat and water quality impacts associated with intensive discarding of shells and viscera after removing the scallop meat, safety and enforcement concerns arising from a shorter fishing season or crowding, and the availability of qualified observers.