

SPINY DOGFISH EXCERPTS FROM THE OMNIBUS AMENDMENT

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Tab_05a_ACL_AM_Omnibus_Amendment.pdf](http://www.mafmc.org/meeting_materials/2010/August/Tab_05a_ACL_AM_Omnibus_Amendment.pdf)

**AMENDMENT 13 TO THE
ATLANTIC MACKEREL, SQUIDS, AND BUTTERFISH FISHERY
MANAGEMENT PLAN**

**AMENDMENT 3 TO THE
BLUEFISH FISHERY MANAGEMENT PLAN**

**AMENDMENT 2 TO THE
SPINY DOGFISH FISHERY MANAGEMENT PLAN**

**AMENDMENT 15 TO THE
SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS
FISHERY MANAGEMENT PLAN**

**AMENDMENT 16 TO THE
SURFCLAM AND OCEAN QUAHOG FISHERY MANAGEMENT PLAN**

**AMENDMENT 3 TO THE
TILEFISH FISHERY MANAGEMENT PLAN**

**(Includes Environmental Assessment, Preliminary Regulatory Economic
Evaluation, and Essential Fish Habitat Assessment)**

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**Mid-Atlantic Fishery Management Council
in cooperation with
the National Marine Fisheries Service**

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1.0 EXECUTIVE SUMMARY

The Omnibus Amendment and draft environmental assessment (EA) will present and evaluate management alternatives that specify mechanisms to set acceptable biological catch (ABC), annual catch limits (ACLs), and accountability measures (AMs) for Atlantic mackerel, butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, Atlantic surfclam, ocean quahog, and tilefish (hereafter referred to collectively as “the managed resources”), contained within six Mid-Atlantic Fishery Management Council (Council) Fishery Management Plans (FMP) (section 4.0). Specifically, this Omnibus document would amend the Atlantic Mackerel, Squid, and Butterfish FMP, Bluefish FMP, Spiny Dogfish FMP, Summer Flounder, Scup, and Black Sea Bass FMP, Surfclam and Ocean Quahog FMP and Tilefish FMP.

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA) was signed into law by President George W. Bush on January 12, 2007, following its 2006 passage by the U.S. Congress. This reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) includes new requirements for ACLs and AMs and other provisions designed to prevent and end overfishing (16 U.S.C. §1853(a)(15)). As a result, NOAA’s National Marine Fisheries Service (NMFS) revised guidance for implementing National Standard 1 (74 FR 3178; January 16, 2009; NS1 guidelines) which became effective February 17, 2009. To address the MSA¹ requirements and the revised National Standard 1 guidance, the Council has prepared this document in consultation with NMFS. This Omnibus Amendment is being developed in accordance with the MSA, and the National Environmental Policy Act (NEPA), the former being the primary domestic legislation governing fisheries management in the U.S. Exclusive Economic Zone (EEZ).

Although this Omnibus Amendment is being prepared primarily in response to the new requirements under MSA and requirements of NEPA, it will also address the requirements of the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA). When preparing an FMP or FMP amendment, the Council also must comply with the applicable requirements of the Regulatory Flexibility Act (RFA), the Administrative Procedure Act (APA), the Paperwork Reduction Act (PRA), the Coastal Zone Management Act (CZMA), the Information Quality Act (IQA), Regulatory Impact Review (RIR), and Executive Orders. These other applicable laws and executive orders help ensure that in developing an amendment, the Council considers the full range of alternatives and their expected impacts on the marine environment, living marine resources, and the affected human communities. This integrated document will contain all required elements of the FMP amendment as required by NEPA and information to ensure consistency with other applicable laws and executive orders.

The proposed action in this Omnibus Amendment would formalize the process of addressing scientific and management uncertainty when setting catch limits for the

¹ Magnuson-Stevens Fishery Conservation and Management Act (MSA), portions retained plus revisions made by the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA).

upcoming fishing year(s) and to establish a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, for each of the managed resources subject to this requirement. Specifically, the action in this Omnibus Amendment will: (1) Establish ABC control rules, (2) Establish a Council risk policy, which is one variable needed for the ABC control rules, (3) Establish ACL(s), (4) Establish a system of comprehensive accountability, which addresses all components of the catch, (5) Describe the process by which the performance of the annual catch limit and comprehensive accountability system will be reviewed, (6) Describe the process to modify the measures above in 1-5 in the future.

The preferred alternatives within this Omnibus Amendment for the managed resources are the combined total of elements to establish ABC and address risk of overfishing along with varying combinations of both status quo/no action and new alternatives to address establishment of catch limits and to provide accountability. The totality of the combined preferred alternatives, in conjunction with those existing measures in the FMPs, provides a comprehensive framework for the catch limit and accountability system recommended in the revised NS1 guidelines provided by NMFS. An overview of the alternatives contained within this document along with a qualitative summary of the expected biological, habitat, protected resources, and socioeconomic impacts associated with the alternatives is given below.

Specification of ABC

The Council worked with their Scientific and Statistical Committee (SSC) to develop an approach to derive ABC through a set of four levels, which would be applied to each of the managed resources. The levels are based on the information available to assess the stock as well as other relevant information. In general, higher levels will contain assessments with greater detail and lower scientific uncertainty while lower levels have less robust assessments with higher associated scientific uncertainties. When a new stock assessment completes peer-review for any of the managed resources, the SSC would be responsible for determining to which level the assessment belongs. Then the processes described within each level are used to calculate ABC. For the upper three levels, this applies a distribution of the overfishing limit (OFL) and a probability of overfishing based on a Council risk policy. For the lowest level, alternative types of approaches must be applied to derive ABC. In the NS1 Guidelines response to comment 42, it is stated, “The SSC must recommend an ABC to the Council after the Council advises the SSC what would be the acceptable probability that a catch equal to the ABC would result in overfishing. This risk policy is part of the required ABC control rule.” As such, the Council is considering formal risk policy options which define the Council’s tolerance for overfishing for the managed resources. Box ES-1 provides a brief summary of all of the alternatives discussed in this document that address the issue of specifying ABC, and any associated indirect impacts. There are no direct impacts resulting from the proposed alternatives.

ACLs and AMs

The Council is considering alternatives to establish ACL(s) and a system of comprehensive accountability, which addresses all components of the catch, for each of the managed resources. There are three sets of alternatives for each managed resource, which address specifying annual catch limits, proactive accountability, and reactive accountability. These sets of alternatives were an outgrowth of the early discussion of the Council which considered first how to address specification of ACL, and second how to address the two types of accountability measures (i.e., proactive and reactive). For proactive accountability, the Council may identify more than one action alternative where multiple alternatives are presented. For reactive accountability, one action alternative is presented for each of the managed resources and comprised of one or more mechanisms designed to address all of the catch components of the ACL(s). The Boxes ES-2 through ES-11 provides a brief summary of all of the alternatives discussed in this document that address the issue of ACLs and AMs, for each of the managed resources, and any associated indirect impacts. There are no direct impacts resulting from the proposed alternatives.

Future Review and Modification of Actions

The Council is considering alternatives that would establish a performance review process for ABCs, ACLs, and AMs. In addition, alternatives are being considered which would describe the process by which actions taken could be modified in the future. Box ES-12 provides a brief summary of all of the alternatives discussed in this document that address the issue of future review and modification of ACLs and AMs, and any associated indirect impacts. There are no direct impacts resulting from the proposed alternatives.

Cumulative Impacts

The biological, habitat (EFH), protected resources, social, and economic impacts of the alternatives contained within this document were analyzed. When the Council proposed action is considered in conjunction with all the other pressures placed on fisheries by past, present, and reasonably foreseeable future actions, it is not expected to result in any significant impacts, positive or negative; therefore, there are no significant cumulative effects associated with the action proposed in this document (see section 7.4).

Conclusions

A detailed description and discussion of the expected environmental impacts resulting from each of the alternatives, as well as any cumulative impacts, considered in this document are provided in section 7.0. None of the action alternatives are associated with significant impacts to the biological, social or economic, or physical environment individually or in conjunction with other actions under NEPA.

Box ES-1. Brief description of the alternatives included in this Omnibus Amendment that address specification of an ABC, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.2 for more detail)					Impact of the Alternatives ^a (see section 7.1 for more detail)			
Issue	Sub-Issue	Alternative	Status	Description of Action	Biological	EFH	Protected Resources	Social and Economic
Acceptable Biological Catch (ABC)	ABC Alternatives	ABC-A	Status quo/no action	No action to establish ABC control rule methods in FMP	0	0	0	0
		ABC-B (Council Pref.)	Proposed	Council establishes ABC control rule methods in FMP	0	0	0	0
	Council Risk Policy	RISK-A	Status quo/no action	No action to establish formal risk policy in FMP	0	0	0	0
		RISK-B	Proposed	Constant probability of overfishing = 25 Percent	0/sl+	0/sl+	0/sl+	0/(-S /+L)
		RISK-C	Proposed	Stock Status, Replenishment Threshold, with Inflection at $B/B_{MSY} = 1.0$	0/sl+	0/sl+	0/sl+	0/(-S /+L)
		RISK-D	Proposed	Stock Status/Assessment Level Offset, Replenishment Threshold, with Inflection at $B/B_{MSY} = 1.5$	0/sl+	0/sl+	0/sl+	0/(-S /+L)
		RISK-E	Proposed	Stock Status/Assessment Level Offset, Replenishment Threshold, with 2 Inflection Points at $B/B_{MSY} = 1.0$ and $B/B_{MSY} = 2.0$	0/sl+	0/sl+	0/sl+	0/(-S /+L)
		RISK-F	Proposed	Categorical (4 x 4) with stock history, life history, and assessment level	0/sl+	0/sl+	0/sl+	0/(-S /+L)
		RISK-G (Council Pref.)	Proposed	Stock Status/Life History, Inflection at $B/B_{MSY} = 1.0$	0/sl+	0/sl+	0/sl+	0/(-S /+L)

^aA minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A “sl” in front of a sign conveys a minor effect, such as slight positive (sl+). An ‘S’ indicates short-term, an ‘L’ indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-5. Brief description of the alternatives included in this Omnibus Amendment that address spiny dogfish ACLs and AMs, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.3.4 for more detail)					Impact of the Alternatives ^a (see section 7.2.4 for more detail)			
Managed Resource	Issue	Alternative	Status	Description of Action	Biological	EFH	Protected Resources	Social and Economic
Spiny Dogfish	<i>Annual Catch Limit</i>	DOG-A	Status quo/no action	No established ACL in FMP	0	0	0	0
		DOG-B (Council Pref.)	Proposed	Establish ACL = domestic ABC	0	0	0	0
	<i>Proactive Accountability</i>	DOG-C	Status quo/no action	No additional proactive measures established	0	0	0	0
		DOG-D (Council Pref.)	Proposed	Use of ACT	0/+	0/+	0/+	0/(-S/+L)
	<i>Reactive Accountability</i>	DOG-E	Status quo/no action	No reactive AMs established	0	0	0	0
		DOG-F (Council Pref.)	Proposed	1 mechanism accountability for catch	0/+	0/+	0/+	0/(-S/+L)

^aA minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A “sl” in front of a sign conveys a minor effect, such as slight positive (sl+). An ‘S’ indicates short-term, an ‘L’ is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-12. Brief description of the alternatives included in this Omnibus Amendment that address review and modification of actions, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see sections 5.4.1 and 5.4.2 for more detail)					Impact of the Alternatives ^a (see sections 7.3.1 and 7.3.2 for more detail)			
Issue	Sub-issue	Alternative	Status	Description of Action	Biological	EFH	Protected Resources	Social and Economic
Future Review and Modification of Actions	<i>Performance Review of Alternatives</i>	REVIEW-A	Status quo/no action	No formalized review process	0	0	0	0
		REVIEW-B (Council Pref.)	Proposed	Review of ABC control rules	0	0	0	0
		REVIEW-C (Council Pref.)	Proposed	Review of ACLs and AMs	0	0	0	0
	<i>Description of Process of Modify Actions</i>	MODIFY-A	Status quo/no action	No description of process to modify actions	0	0	0	0
		MODIFY-B (Council Pref.)	Proposed	Description of process to modify actions in future	0	0	0	0

^aA minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A “sl” in front of a sign conveys a minor effect, such as slight positive (sl+). An ‘S’ indicates short-term, an ‘L’ is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

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ENVIRONMENTAL ASSESSMENT

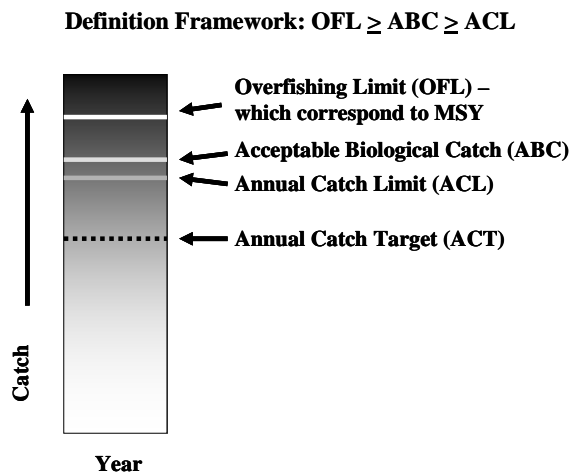
4.0 INTRODUCTION AND PURPOSE AND NEED

4.1 Introduction

The MSRA was signed into law by President George W. Bush on January 12, 2007, following its 2006 passage by the U.S. Congress. This reauthorization of the MSA includes new requirements for ACLs and AMs and other provisions regarding preventing and ending overfishing (16 U.S.C. §1853(a)(15)). As a result, NOAA's NMFS revised guidance for implementing National Standard 1 (74 FR 3178; January 16, 2009; NS1) which became effective February 17, 2009.

The NS1 guidelines propose a process for setting catch limits for the upcoming fishing year(s) which address both scientific and management uncertainty. The action contained within this document has been developed by the Council to be consistent, to the extent practicable, with these guidelines. Scientific uncertainty is less than perfect knowledge about the likely outcome of an event, based on estimates derived from scientific information (models and data). Scientific uncertainty enters into the process to set catch limits in several ways; data input into the assessment, the assessment modeling, and the projections to determine what upcoming fishing year catches should be. Management uncertainty relates to the ability (or inability) of managers to constrain catch to a target and the uncertainty in quantifying the true catch. Management uncertainty can occur because of a lack of sufficient information about the catch (e.g., due to late reporting, underreporting, and misreporting of landings or bycatch), or because of a lack of management precision in many fisheries (e.g., due to limited or unavailable data, untimely data, or lack of inseason closure authority).

The NS1 guidelines suggest certain provisions are required to be components of a FMP to address scientific and management uncertainty when setting upcoming year(s) catch limits, while other components are discretionary. As a whole, the system outlined by NS1 guidelines is designed to prevent overfishing on the managed resources, rebuild overfished stocks, and achieve optimum yield (OY). Of the catch terms introduced and defined for consideration, OFL, ABC, and ACL are considered required components.



The annual catch target (ACT) is described in the NS1 guidelines as a type of proactive accountability measure and something that may be applied at Council discretion. Because the action considered by the Council would set $ACL=ABC$, the ACT becomes a necessary component of a catch limit system to address management uncertainty. The implications of exceeding an ACT are less significant, and enable the ACT to function as a soft target for the fisheries without all the accountability measures connected with exceeding an ACL. It should be noted that all these new terms are expressed as catch, which includes both landings and discards.

4.1.1 ABC, ACL, and AMs

Acceptable Biological Catch and Risk

To meet the requirement for ABC control rules, the Council has worked with its Scientific and Statistical Committee (SSC) to develop an alternative to address an ABC control rule rules for all the managed resources subject to this requirement. The action considered in section 5.2.1, which resulted from extensive deliberation by the SSC, presents a pre-agreed process the SSC would use to derive ABC recommendations for the Council. One required variable in this ABC alternative is the Council tolerance for overfishing of stocks (i.e., probability of overfishing) as expressed through a Council risk policy. Therefore, the Council has developed alternatives (section 5.2.2) which can be used to establish a formal Council risk policy.

Annual Catch Limit

Under the NS1 guidelines, it is recommended that the ACL should be reduced from the ABC, based on the amount of management uncertainty (i.e., implementation uncertainty) associated with managing the fishery. Alternatively, the ACL may also be set equal to ABC, which was the Council preferred approach, and management uncertainty can be addressed using another measure, called an ACT (described as a proactive accountability measure later in this section). Management uncertainty can occur because of a lack of sufficient information about the catch (e.g., due to late reporting, underreporting, and misreporting of landings or bycatch), or because of a lack of management precision in many fisheries (e.g., due to limited or unavailable data, untimely data, or lack of inseason closure authority).

Through this action, the Council is considering a process by which management uncertainty could be identified, and if appropriate, accommodated by reducing catch levels to prevent any ACLs from being exceeded and accountability measures enacted. Reducing catch limits to account for management uncertainty has both associated costs and benefits. Reduction in catch levels to address management uncertainty should be only the amount necessary to achieve the results mandated by the MSA, which are intended to prevent overfishing and, when applicable, rebuild overfished stocks. These adjustments should be considered in the general context of the entire catch framework and its performance relative to MSA.

For each of the managed resources, ACL(s) are to be established at the fishery level or sector level (i.e., recreational and commercial), depending on the structure of the current fishery allocations and the preferences of the Council for structuring the system of catch and accountability. The ACLs may be specified annually or annually for multiple years.

Accountability

Under the NS1 guidelines, it is outlined that any time an ACL is determined to have been exceeded, automatic AM measures are to be enacted. To meet these requirements, the Council considered two types of accountability measures: proactive and reactive. Proactive AMs are intended to prevent as much as is practicable the ACL from being exceeded. Reactive AMs are in response to an ACL overage and are designed to mitigate that overage and/or prevent it from occurring in the subsequent year. AMs are required for each ACL established by the Council. There are AM-like authorities utilized for many stocks contained within the FMPs and those authorities would continue and may fulfill aspects of accountability for the managed resource. For example, many of the managed resource fisheries already implement landings overage deduction mechanisms (paybacks), trip limits, and other management measures. More detailed descriptions of measures already applied to these fisheries are given in section 5.0, under the status quo/no action alternatives. Accountability measures that are fully consistent with the new requirements must be automatic and cannot require Council deliberation, modification through an existing process (e.g., modification through specifications setting), or be left to the NMFS Northeast Regional Administrator (Regional Administrator) discretion. For example, the current process of adjusting recreational management measures (i.e., fish size, season, and possession limit) each year would not, in and of itself, be a fully consistent accountability measure.

ACTs are a type of proactive accountability. The action contemplated in this document, proposes ACTs for all of the managed resources fisheries (except Atlantic surfclam which proposes a TAL) to be applied in a manner which formalizes the process of accounting for management uncertainty when setting catch limits for the upcoming fishing year(s). The Council recognizes that where $ACL=ABC$ (or $ACL=domestic\ ABC$), which would preclude the use of the ACL for management uncertainty. Utilizing an ACT is analytically desirable in cases where the control rule for ACL specifies $ACL=ABC$, to ensure a mechanism is available to address management uncertainty. The implications of exceeding an ACT are less significant, and enable the ACT to function as a soft target for the fisheries without all the automatic reactive accountability measures associated with exceeding an ACL. Therefore, the use of ACT(s) to address management uncertainty provided the Council with greater flexibility. Sector-specific ACTs allow management uncertainty to be considered and addressed by sector. The Council also recognized the interannual and intrannual variability in the sources of management uncertainty, and therefore will rely on the groups most knowledgeable about each fishery and changing circumstances that could give rise to different levels of management uncertainty from year to year to provide them with recommendations for ACT(s). The dynamic and complex nature of these fisheries means that while some sources of management uncertainty may be easily quantified, other may not be fully-quantifiable. Therefore, the ACT could be derived from purely quantitative approaches such as relying on history of fishery performance as a means to quantify the uncertainty or imprecision around estimates of catch; however, to adequately address uncertainty it may also need to incorporate semi-quantitative or qualitative information.

4.1.2 Optimum Yield

Optimum yield (OY) was not redefined by the MSRA. However, OY is an important consideration when specifying catch limits for the upcoming fishing year and it is therefore important to highlight where OY may fall within the proposed catch frameworks. Optimum yield is defined as the long-term average desired yield from a fishery which provides the

greatest overall benefit to the nation particularly with respect to food production and recreational opportunity, and takes into account the protection of the marine ecosystems. OY yield is based on the maximum sustainable yield from the fishery as reduced by any relevant economic, social, or ecological factors, as those terms are described in the NS1 guidelines at §600.310. In the NS1 Guidelines, under the response to comments, NMFS states,

"NMFS believes that fisheries managers cannot consistently meet the requirements of the MSA to prevent overfishing and achieve, on a continuing basis, OY [optimum yield] unless they address scientific and management uncertainty. The reduction in fishing levels that may be necessary in order to prevent overfishing should be only the amount necessary to achieve the results mandated by the MSA".

The system for specifying annual catch limits (i.e., OFL-ABC-ACL-ACT) allows for the consideration of all relevant factors including scientific and management uncertainty. For all of the ACL and AM frameworks described in the following alternatives for each of the stocks, the Council has specified ACL=ABC. Therefore, OY will be the long term average catch, which is designed not to exceed the ACL, and will fall between ACL and ACT. Because both scientific and management uncertainty levels are expected to vary over time, as will the Council's approach to addressing each, the OY level in any given year will also vary. Thus, it is not practicable to definitively assign an OY level within the OFL-ABC-ACL-ACT framework. The Council could reduce catch limits at the ACL or ACT to address scientific and management uncertainty as well as other factors relating to optimum yield for the managed resources. This system of catch limits is designed to prevent overfishing, rebuild stocks that are overfished, and to maintain stocks that are not overfished at a level that produces the maximum sustainable yield over time. Achieving these objectives will provide the greatest social and economic benefits to fishery participants and allow managers to set catch levels that provide the greatest overall benefit to the nation.

4.1.3 Stocks in the Fishery

The Council acknowledges that all target stocks currently contained within FMPs under its jurisdiction, are "stocks in their respective fisheries", which include Atlantic mackerel, *Loligo* and *Illex* squids², butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, Atlantic surfclam, ocean quahog, tilefish, and monkfish². Therefore, the action taken within this document addresses the MSA requirements for these managed resources. Catch of the managed resources, from both directed and non-directed fisheries, are accounted as total catch to be compared to the respective ACL(s). In the NS1 Guidelines, under the section major components of the proposed action, NMFS states,

"NMFS wants to encourage ecosystem approaches to management, thus it propose the EC [ecosystem component] species as a possible classification a Council or the Secretary could, but is not required to, consider. The final NS1 guidelines do not require a Council or the Secretary to include all target and non-target species as "stocks in the fishery," do not mandate use of the EC species category, and do not require inclusion of particular species in an FMP. The decision of whether conservation and management is needed for a fishery and how that fishery should be defined remains within the authority and discretion of the relevant Council or the

² *Loligo* and *Illex* squids are exempt from ACL and AM requirements and the New England Fishery Management Council will develop measures for monkfish (see section 4.2).

Secretary, as appropriate. NMFS presumes that stocks or stock complexes currently listed in an FMP are “stocks in the fishery,” unless the FMP is amended to explicitly indicate that the EC species category is being used. “Stocks in the fishery” need status determination criteria, other reference points, ACL mechanisms and AMs; EC species would not need them.”

The Council could consider inclusion of other target and non-target species in need of conservation and management, or ecosystem component species, in the FMPs in the future.

4.2 Purpose and Need for Action

The purpose of this Omnibus Amendment is to formalize the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and to establish a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, for Atlantic mackerel, butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, Atlantic surfclam, ocean quahog, and tilefish (hereafter referred to collectively as “the managed resources”), which are all subject to this requirement. For bluefish, the action would also extend the ability to propose specifications up to 3 years, to allow for additional management flexibility and consistency with other Council FMPs. As such, the Council is proposing action for each of the managed resources subject to these requirements which will:

- 1) Establish ABC control rules.
- 2) Establish a Council risk policy, which is one variable needed for the ABC control rules utilized to inform the SSC of the Council’s preferred tolerance for the risk of overfishing a stock
- 3) Establish ACL(s).
- 4) Establish a system of comprehensive accountability, which addresses all components of the catch.
- 5) Describe the process by which the performance of the annual catch limit and comprehensive accountability system will be reviewed.
- 6) Describe the process to modify the measures above in 1-5 in the future.

In order to prevent and end overfishing, rebuild overfished stocks, and achieve optimum yield, as prescribed by the MSA, this Omnibus Amendment is needed to ensure that all FMPs of the MAFMC are consistent with the MSA. To address the MSA³ requirements and develop measures consistent with the National Standard 1 guidance for the Council has prepared this document in consultation with NMFS, which will amend the Atlantic Mackerel, Squid, and Butterfish FMP, Bluefish FMP, Spiny Dogfish FMP, Summer Flounder, Scup, and Black Sea Bass FMP, Surfclam and Ocean Quahog FMP and Tilefish FMP. The MSA requirements exempt annual life cycle species not subject to overfishing (i.e., *Loligo* and *Illex* squids), and the New England Fishery Management Council will develop measures for monkfish, as it has the lead for the FMP.

³ Magnuson-Stevens Fishery Conservation and Management Act (MSA), portions retained plus revisions made by the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA).

4.3 Management Unit, Management Objectives, and History of FMP Development

4.3.3 Spiny Dogfish FMP

The management unit is the entire spiny dogfish (*Squalus acanthias*) population along the Atlantic coast of the United States. The management regime is detailed in the FMP. A summary of the management actions taken since the establishment of the FMP, through FMP amendments and FMP framework adjustments is given in Table 3. The management objectives of the Spiny Dogfish FMP are as follows:

- 1) Reduce fishing mortality to ensure that overfishing does not occur.
- 2) Promote compatible management regulations between state and Council jurisdictions and the U.S. and Canada.
- 3) Promote uniform and effective enforcement of regulations.
- 4) Minimize regulations while achieving the management objectives stated above.
- 5) Manage the spiny dogfish fishery so as to minimize the impact of the regulations on the prosecution of other fisheries, to the extent practicable.
- 6) Contribute to the protection of biodiversity and ecosystem structure and function.

Table 1. Summary of the history of the Spiny Dogfish FMP.

Year Approved	Document	Management Action(s)
2000	Original FMP	- Established management of Atlantic spiny dogfish fisheries - Initiated stock rebuilding plan
2006	Framework 1	- Created mechanism for specification of multi-year management measures
2007	Amendment 1	- Standardized bycatch reporting methodology
2009	Framework 2	- Built flexibility into process to define and update status determination criteria

5.0 MANAGEMENT ALTERNATIVES

The selection of the preferred alternatives within section 5.0, taken in conjunction with those existing measures in the FMPs, will provide a comprehensive framework for the catch limit and accountability system recommended in the revised NS1 guidelines provided by NMFS. Each suite of potential options is composed of a status quo/no action alternative, and one or more action alternatives that are under Council consideration. In the case of proactive accountability, the Council may identify more than one action alternative as preferred.

5.1 No Action

Section 5.03(b) of NOAA Administrative Order (NAO) 216-6, “Environmental review procedures for implementing the National Environmental Policy Act,” states that “an EA must consider all reasonable alternatives, including the preferred action and the no action alternative.” Consideration of the “no action” alternative is important because it shows what would happen if the proposed action is not taken. Defining exactly what is meant by the “no action” alternative is often difficult. The President’s Council on Environmental Quality (CEQ) has explained that there are two distinct interpretations of the “no action:” One interpretation is essentially the *status quo*, i.e., no change from the current management; and the other interpretation is when a proposed project, such as building a railroad facility, does not take place. In the case of the proposed action alternatives contained within this document to specify mechanisms to set ABC, ACLs, and AMs, and future review and modification of those actions for the managed resources of this Omnibus Amendment, it is slightly more complicated than either of these interpretations suggest. There is no analogue for these fisheries to the railroad project described above, where no action means nothing happens. The management regimes and associated management measures within the FMPs (section 4.2) for the managed resources have been refined over time and codified in regulation. The *status quo* management measures for the managed resources, therefore, each involve a set of indefinite (i.e., in force until otherwise changed) measures that have been established. These measures will continue as they are even if the actions contained within this document are not taken (i.e., no action). The no action alternative for these managed resources is therefore equivalent to *status quo*. On that basis, the status quo and no action are presented in conjunction (i.e., Status quo/no action alternative) for comparative impact analysis relative to the action alternatives.

5.2 Specifying Acceptable Biological Catch

This section is comprised of two subsections which address the establishment of ABC controls rule methods in the FMP and a Council risk policy. Box 5.2 provides a brief overview of the alternatives contained within this section.

Box 5.2. Brief description of the alternatives included in section 5.2.				
Issue	Sub-Issue	Alternative	Status	Description of Action
Acceptable Biological Catch (ABC) (Section 5.2)	<i>ABC Alternatives</i> (Section 5.2.1)	ABC-A	Status quo/no action	No action to establish ABC control rule methods in FMP
		ABC-B (Council Pref.)	Proposed	Council establishes ABC control rule methods in FMP
	<i>Council Risk Policy</i> (Section 5.2.2)	RISK-A	Status quo/no action	No action to establish formal risk policy in FMP
		RISK-B	Proposed	Constant probability of overfishing = 25 Percent
		RISK-C	Proposed	Stock Status, Replenishment Threshold, with Inflection at $B/B_{MSY} = 1.0$
		RISK-D	Proposed	Stock Status/Assessment Level Offset, Replenishment Threshold, with Inflection at $B/B_{MSY} = 1.5$
		RISK-E	Proposed	Stock Status/Assessment Level Offset, Replenishment Threshold, with 2 Inflection Points at $B/B_{MSY} = 1.0$ and $B/B_{MSY} = 2.0$
		RISK-F	Proposed	Categorical (4 x 4) with stock history, life history, and assessment level
		RISK-G (Council Pref.)	Proposed	Stock Status/Life History, Inflection at $B/B_{MSY} = 1.0$

5.2.1 Acceptable Biological Catch Alternatives

Alternative ABC-A: Status quo/no action

Under this status quo alternative, the process used by the SSC for developing ABC recommendations for the Council would continue. There would be no formalization of the process to address scientific uncertainty and the SSC would continue to apply ad hoc methods to develop ABC recommendations. ABC would continue to be specified for up to three years for each of the managed resources, except spiny dogfish which may be specified up to five years and bluefish specified annually. This ad hoc process would not establish ABC control rules in the FMP for the managed resources consistent with NS1 guidelines (§ 600.310(f)(4)).

Alternative ABC-B: Council Preferred, ABC Control Rule Methods – Four Assessment Levels

A multi-level approach will be used for setting an ABC for each Mid-Atlantic stock, based on the overall level of scientific uncertainty associated with its assessment. The stock assessment will be required to provide estimates of the maximum fishing mortality threshold (MFMT) and future biomass, the probability distributions of these estimates, the probability distribution of the overfishing limit (OFL; level of catch that would achieve MFMT given the current or future biomass), and a description of factors considered and methods used to estimate their distributions. The multi-level approach defines four levels of overall assessment uncertainty defined by characteristics of the stock assessment and determination by the SSC that the uncertainty in the probability distribution of OFL adequately represents

best available science. The procedure used to determine ABCs is different in each level of the methods framework. The SSC will determine to which level the assessment for a particular stock belongs when setting single or multi-year ABC specifications and a description of the justification for assignment to a level will be provided with the ABC recommendation. Recommendations for ABC may be made for up to 3 years for all of the managed resources except spiny dogfish which may be specified for up to 5 years. The rationale for assigning an assessment to a level will be reviewed each time an ABC determination is made.

The levels of stock assessments, their characteristics, and procedures for determining ABCs are defined as follows:

Level 1: Level 1 represents the highest level to which an assessment can be assigned. Assignment of a stock to this level implies that all important sources of uncertainty are fully and formally captured in the stock assessment model and the probability distribution of the OFL calculated within the assessment provides an adequate description of uncertainty of OFL. Accordingly, the OFL distribution will be estimated directly from the stock assessment. In addition, for a stock assessment to be assigned to Level 1, the SSC must determine that the OFL probability distribution represents best available science. Examples of attributes of the stock assessment that would lead to inclusion in Level 1 are:

- Assessment model structure and any treatment of the data prior to inclusion in the model includes appropriate and necessary details of the biology of the stock, the fisheries that exploit the stock, and the data collection methods;
- Estimation of stock status and reference points integrated in the same framework such that the OFL calculations promulgate all uncertainties (stock status and reference points) throughout estimation and forecasting;
- Assessment estimates relevant quantities including F_{MSY} ⁴, OFL, biomass reference points, stock status, and their respective uncertainties; and
- No substantial retrospective patterns in the estimates of fishing mortality (F), biomass (B), and recruitment (R) are present in the stock assessment estimates.

The important part of Level 1 is that the precision estimated using a purely statistical routine will define the OFL probability distribution. Thus, all of the important sources of uncertainty are formally captured in the stock assessment model. When a Level 1 assessment is achieved, the assessment results are likely unbiased and fully consider uncertainty in the precision of estimates. Under Level 1, the ABC will be determined solely on the basis of an acceptable probability of overfishing (P*), determined by the Council's risk policy (see alternatives in section 5.2.2), and the probability distribution of the OFL.

Level 2: Level 2 indicates that an assessment has greater uncertainty than Level 1. Specifically, the estimation of the probability distribution of the OFL directly from the stock assessment model fails to include some important sources of uncertainty, necessitating expert judgment during the preparation of the stock assessment, and the OFL probability

⁴ With justification, F_{MSY} may be replaced with an alternative maximum fishing mortality threshold to define the OFL.

distribution is deemed best available science by the SSC. Examples of attributes of the stock assessment that would lead to inclusion in Level 2 are:

- Key features of the biology of the stock, the fisheries that exploit it, or the data collection methods are missing from the stock assessment;
- Assessment estimates relevant quantities, including reference points (which may be proxies) and stock status, together with their respective uncertainties, but the uncertainty is not fully promulgated through the model or some important sources may be lacking;
- Estimates of the precision of biomass, fishing mortality rates, and their respective reference points are provided in the stock assessment; and
- Accuracy of the MFMT and future biomass is estimated in the stock assessment by using *ad hoc* methods.

In this level, ABC will be determined by using the Council's risk policy (see alternatives in section 5.2.2), as with a Level 1 assessment, but with the OFL probability distribution based on the specified distribution in the stock assessment.

Level 3: Attributes of a stock assessment that would lead to inclusion in Level 3 are the same as Level 2, except that

- The assessment does not contain estimates of the probability distribution of the OFL or the probability distribution provided is not considered best available science by the SSC.

Assessments in this level are judged to over- or underestimate the accuracy of the OFL. The SSC will adjust the distribution of the OFL and develop an ABC recommendation by applying the Council's risk policy (see alternatives in section 5.2.2) to the modified OFL probability distribution. The SSC will develop a set of default levels of uncertainty in the OFL probability distribution for this level based on literature review and a planned evaluation of ABC control rules. A control rule of 75% of F_{MSY} may be applied as a default if an OFL distribution cannot be developed.

Level 4: Stock assessments in Level 4 are deemed to have reliable estimates of trends in abundance and catch, but absolute abundance, fishing mortality rates, and reference points are suspect or absent. Additionally, there are limited circumstances that may not fit the standard approaches to specification of reference points and management measures set forth in these guidelines (i.e., ABC determination). In these circumstances, the SSC may propose alternative approaches for satisfying the NS1 requirements of the Magnuson-Stevens Act than those set forth in the NS1 guidelines. In particular, stocks in this level do not have point estimates of the OFL or probability distributions of the OFL that are considered best available science. In most cases, stock assessments that fail peer review or are deemed highly uncertain by the SSC will be assigned to this level. Examples of potential attributes for inclusion in this category are:

- Assessment approach is missing essential features of the biology of the stock, characteristics of data collection, and the fisheries that exploit it;
- Stock status and reference points are estimated, but are not considered reliable;

- Assessment may estimate some relevant quantities including biomass, fishing mortality or relative abundance, but only trends are deemed reliable;
- Large retrospective patterns usually present; and
- Uncertainty may or may not be considered, but estimates of uncertainty are probably substantially underestimated.

In this level, a simple control rule will be used based on biomass and catch history and the Council's risk policy.

The SSC will determine, based on the assessment level to which a stock is classified, the specifics of the control rule to specify ABC that would be expected to attain the probability of overfishing specified in the Council's risk policy. The SSC may deviate from the above assessment level framework or level criteria and recommend an ABC that differs from the result of the ABC control rule calculation, but must provide justification for doing so.

5.2.2 Risk Policy Alternatives

The Council risk policy alternatives given below would be applied all to the managed resources under MAFMC management jurisdiction. Under any of the action risk alternatives selected below, which excludes alternative RISK-A, the following would also apply.

For managed resources that are under rebuilding plans, the upper limit on the probability of exceeding the rebuilding F would be 50 percent unless modified to a lesser value (i.e. higher probability of not exceeding rebuilding F) through a rebuilding plan amendment. In addition, if no OFL is available (i.e. No F_{MSY} or F_{MSY} proxy provided through the stock assessment to identify it) and no OFL proxy is provided by the SSC at the time of ABC recommendations, then an upper limit (cap) on allowable increases in catch levels will be established. Catch levels may not be increased until an OFL has been identified. This policy is designed to prevent catch from being increased when there are no criteria available to determine if overfishing will be occurring for the upcoming fishing year. To reduce the risk of overfishing, the Council policy would be to not increase catch in the absence of an OFL.

It should be noted in the alternatives below that if the ratio of biomass (B) to biomass at maximum sustainable yield (B_{MSY}) is less than 1.0, then the current stock biomass is less than B_{MSY} ; if the ratio of B to B_{MSY} is greater than or equal to 1.0, then the current stock biomass is B_{MSY} or greater.

Alternative Risk-A: Status quo/no action

Under this status quo alternative, there would be no formalization of a Council risk policy which expresses the Council tolerance for overfishing. Under this alternative, no policy would not be established and provided to the SSC prior to ABC recommendations being developed for the Council. The ad hoc Council process to address risk guided by past precedent would continue. Past precedent from *NRDC et al. versus Daley* (USDC, 1999) identifies catch levels must have at least a 50 percent probability of not overfishing. A 50 percent probability of overfishing is, therefore, the upper limit on the risk of overfishing and serves as the precedent-based default in the absence of any Council action to establish a risk policy. Consistent with the status quo, the Council could recommend catch be reduced to

achieve a lower probability of overfishing on an ad hoc basis after ABC recommendation have been provided by the SSC to the Council.

Alternative Risk-B: Constant Probability of Overfishing = 25 Percent

Under this alternative, the probability of overfishing will be 25 percent under all circumstances (i.e. irrespective of stock condition, rebuilding status, life history, etc.).

Alternative Risk-C: Stock Status, Inflection at $B/B_{MSY} = 1.0$

Under this alternative, a stock replenishment threshold defined as the ratio of $B/B_{MSY} = 0.10$, will be utilized to ensure the stock does not reach low levels from which it cannot recover. The probability of overfishing will be 0 percent if the ratio of B/B_{MSY} is less than or equal to 0.10. Probability of overfishing increases linearly as the ratio of B/B_{MSY} increases, until the inflection point of $B/B_{MSY} = 1.0$ is reached and a 40 percent probability of overfishing is utilized for ratios equal to or greater than 1.0.

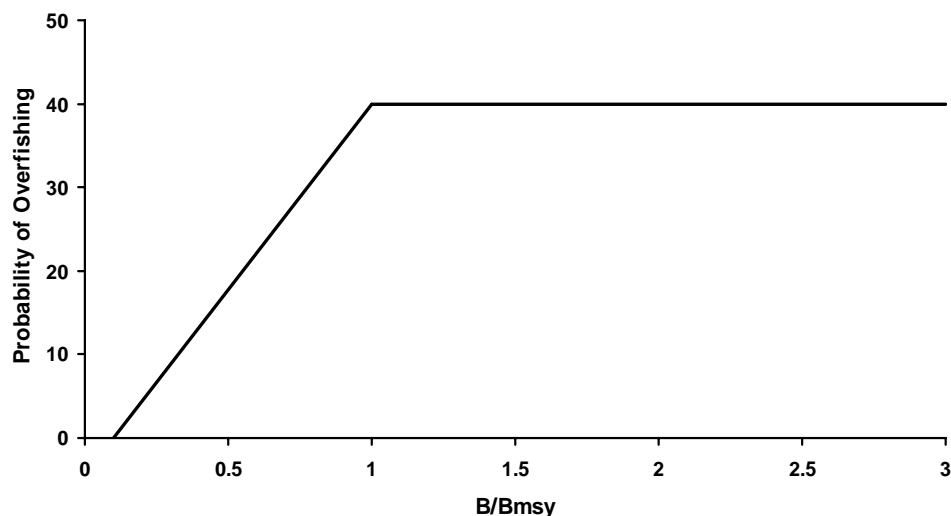


Figure 1. Risk Policy C.

Alternative Risk-D: Stock Status/Assessment Level, Inflection at $B/B_{MSY} = 1.5$

Under this alternative, a stock replenishment threshold defined as the ratio of $B/B_{MSY} = 0.10$, will be utilized to ensure the stock does not reach low levels from which it cannot recover. The probability of overfishing will be 0 percent if the ratio of B/B_{MSY} is less than or equal to 0.10. Probability of overfishing increases linearly at similar rates as the ratio of B/B_{MSY} increases; until the inflection point of $B/B_{MSY} = 1.5$ is reached and a 50 percent probability of overfishing is utilized for assessment level 1 (see section 5.2.1), 45 percent for level 2, 40 percent for level 3, and 35 percent for level 4.

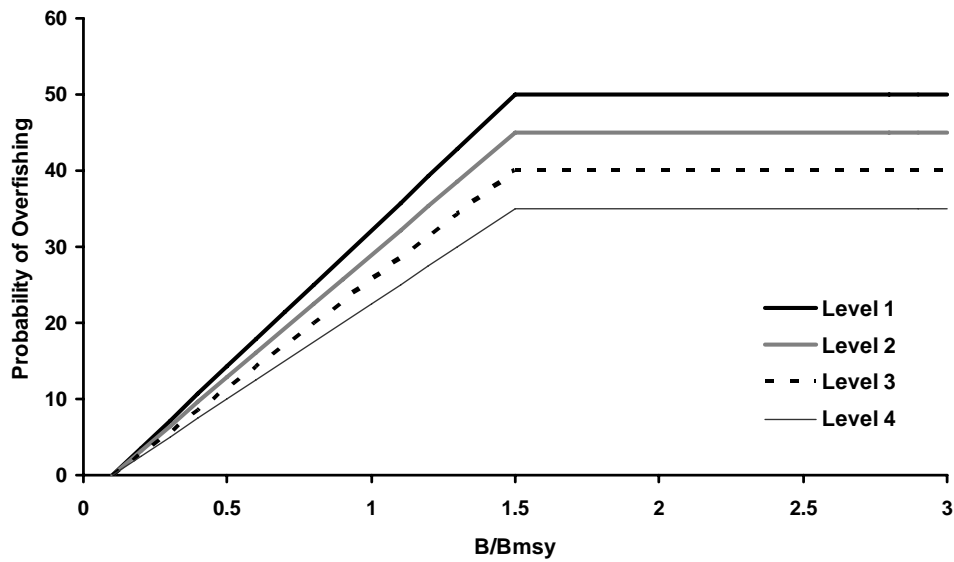


Figure 2. Risk Policy D.

Alternative Risk-E: Stock Status/Assessment Level, 2 Inflection Points at $B/B_{MSY} = 1.0$ and $B/B_{MSY} = 2.0$

Under this alternative, a stock replenishment threshold defined as the ratio of $B/B_{MSY} = 0.10$, will be utilized to ensure the stock does not reach low levels from which it cannot recover. The probability of overfishing will be 0 percent if the ratio of B/B_{MSY} is less than or equal to 0.10. Probability of overfishing increases linearly at similar rates as the ratio of B/B_{MSY} increases; until the inflection point of $B/B_{MSY} = 1.0$ is reached and a 45 percent probability of overfishing is utilized for assessment level 1 (see section 5.2.1), 40 percent for level 2, 35 percent for level 3, and 30 percent for level 4. Probability of overfishing then continues to increase to the inflection point of $B/B_{MSY} = 2.0$, where the probability of overfishing is for level 1 is 50 percent, 45 percent for level 2, 40 percent for level 3, and 35 percent for level 4, for all B/B_{MSY} ratios equal to or greater than 2.0.

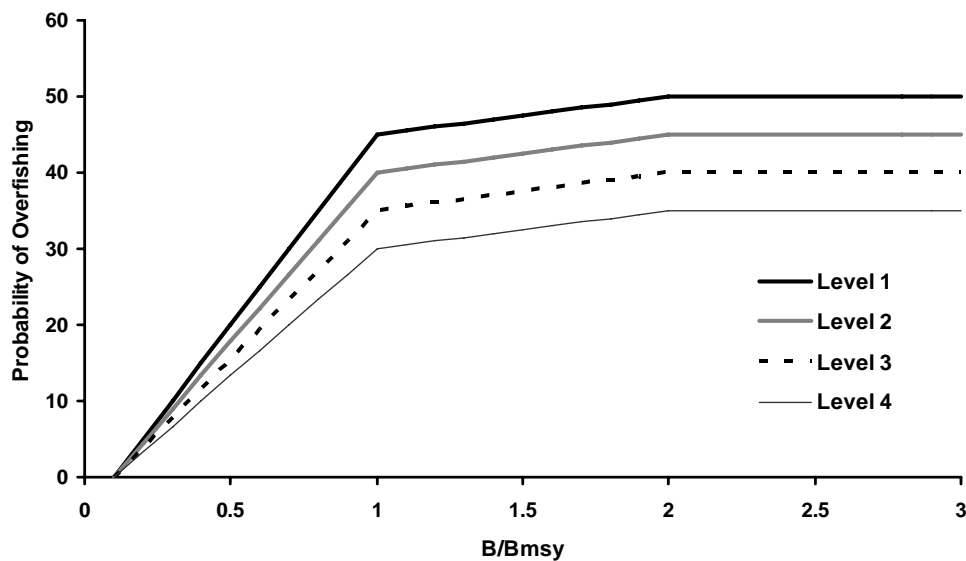


Figure 3. Risk Policy E.

Alternative Risk-F: Categorical, Range from 10 - 50 percent

Under this alternative, specification of the probability of overfishing incorporates assessment level (see section 5.2.1), stock history, and life history patterns. Probability of overfishing is higher for stocks which have not been overfished (either currently or previously based on best available scientific information). Probability of overfishing is also higher for stocks which have typical life history patterns, when compared to atypical life history patterns (e.g., spiny dogfish and black sea bass). In addition, as the assessment level decreases, the probability of overfishing decreases. An atypical stock has a life history strategy that results in greater vulnerability to exploitation, and whose life history has not been fully addressed through the stock assessment and biological reference point development process.

Table 2. Risk Policy F.

Probability of Overfishing				
Assessment Level	Stock History (Previously Overfished?)			
	<i>Has Never Been Overfished</i>		<i>Has Been Overfished</i>	
	<i>Life History Pattern</i>		<i>Life History Pattern</i>	
	Typical	Atypical	Typical	Atypical
1	50	45	45	40
2	40	35	35	30
3	30	25	25	20
4	20	15	15	10

Alternative Risk-G: Council Preferred, Stock Status/Life History, Inflection at $B/B_{MSY} = 1.0$

Under this alternative, a stock replenishment threshold defined as the ratio of $B/B_{MSY} = 0.10$, will be utilized to ensure the stock does not reach low levels from which it cannot recover. The probability of overfishing will be 0 percent if the ratio of B/B_{MSY} is less than or equal to 0.10. Probability of overfishing increases linearly for stock defined as typical as the ratio of B/B_{MSY} increases, until the inflection point of $B/B_{MSY} = 1.0$ is reached and a 40 percent probability of overfishing is utilized for ratios equal to or greater than 1.0. Probability of overfishing increases linearly for stock defined as atypical as the ratio of B/B_{MSY} increases, until the inflection point of $B/B_{MSY} = 1.0$ is reached and a 35 percent probability of overfishing is utilized for ratios equal to or greater than 1.0. An atypical stock has a life history strategy that results in greater vulnerability to exploitation, and whose life history has not been fully addressed through the stock assessment and biological reference point development process.

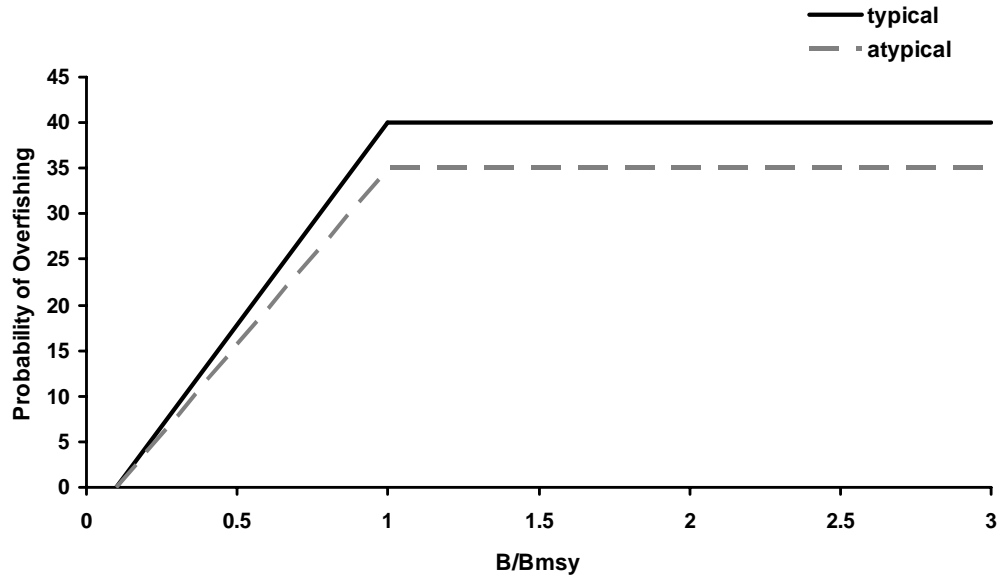


Figure 4. Risk Policy G.

5.3 Annual Catch Limits (ACLs) and Accountability Measures (AMs)

Those measures for ACLs and AMs that were considered but rejected from further analysis by the Council during the preparation of this document are provided in Appendix A, ordered by managed resource.

Spiny Dogfish FMP

5.3.4 Spiny Dogfish

A brief overview of the alternatives contained within this section is given in Box 5.3.4.

Box 5.3.4. Brief description of the alternatives included in section 5.3.4.				
Managed Resource	Issue	Alternative	Status	Description of Action
Spiny Dogfish (Section 5.3.4)	<i>Annual Catch Limit</i> (Section 5.3.4.1)	DOG-A	Status quo/no action	No established ACL in FMP
		DOG-B (Council Pref.)	Proposed	Establish ACL = domestic ABC
	<i>Proactive Accountability</i> (Section 5.3.4.2)	DOG-C	Status quo/no action	No additional proactive measures established
		DOG-D (Council Pref.)	Proposed	Use of ACT
	<i>Reactive Accountability</i> (Section 5.3.4.3)	DOG-E	Status quo/no action	No reactive AMs established
		DOG-F (Council Pref.)	Proposed	1 mechanism accountability for catch

5.3.4.1 Spiny Dogfish Annual Catch Limit

Alternative DOG-A: Status quo/no action

Under this alternative, the status quo process contained within the FMP for establishing catch limits would be maintained. This includes specification through the Council process of TAC, TAL/commercial quota, as given in Appendix B and outlined in the FMP. While this process could be used to address the overarching requirement of an annual catch limit that considers both landings and discards, the status quo would lack an associated system of accountability for all catch components for this stock. Because the current catch limits in the FMP do not perform the full function of establishing both a catch limit and comprehensive catch accountability system, it would not be fully consistent with the NS1 guidelines. Therefore, the Council has is considering

additional measures, designed to work in concert with status quo/no action measures and methods to fully address the NS1 guideline-recommended system for ACLs and AMs.

Alternative DOG-B: Council Preferred, Specify ACL= Domestic ABC

ACL: Fishery removals are comprised of both U.S. and Canadian catches, and U.S. accountability measures cannot be applied or enforced on the Canadian fishery. Therefore under this alternative, the ABC is reduced from the overfishing limit (OFL) based on an adjustment for scientific uncertainty and the domestic ABC is defined as the ABC for the stock minus the Canadian catch. The fishery-level ACL would be set equal to the domestic ABC for spiny dogfish.

$$\text{ABC} = \text{OFL} - \text{Scientific Uncertainty Adjustment}$$

$$\text{Domestic ABC} = \text{ABC} - \text{Canadian Catch}$$

Under this alternative, the fishery-level ACL would be set equal to the domestic ABC for this stock. Figure 9 provided later in this section highlights the ACL structure if this alternative is selected.

$$\text{ACL} = \text{Domestic ABC}$$

ACL Evaluation: The ACL is exceeded when the catch from all sources exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

5.3.4.2 Spiny Dogfish Proactive Accountability Measures

Alternative DOG-C: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to establish additional proactive accountability measures for the spiny dogfish fishery. Those AM-like authorities linked to landings which already exist within the FMP for spiny dogfish will continue to function as described in the FMP.

Trip limits may be implemented through the specifications process for spiny dogfish (§ 648.230(b)(4)) and have been utilized at varying levels in recent years.

The semi-annual quota, a sub-derivative of the TAL, may be closed in the EEZ when projected landings indicate that the semi-annual quota will be attained (§ 648.231). Closures are effective for the remainder of the semi-annual quota period in question.

Alternative DOG-D: Council Preferred, Use of ACT

Use of ACT: Under this alternative, an ACT would be specified and serve as a buffer from the ACL. The Council has developed ACTs as they provide increased flexibility for dealing with management uncertainty and do not evoke automatic AMs if exceeded. Additional information

on the use and function of ACTs as envisioned by the Council for managed resources can be found in section 4.1.1. Figure 9 provided later in this section highlights the ACT structure if this alternative is selected.

The Spiny Dogfish Monitoring Committee will be responsible for recommending an ACT to the Council which considers and addresses management uncertainty as defined under NS1 guidelines, as part of the specifications process for fishery management measures. The Monitoring Committee may provide other recommendations relevant to setting catch limits consistent with the MSA. The Monitoring Committee will consider all relevant sources of management uncertainty in this fishery and provide the technical basis, including any formulaic control rules if applied, for any reduction in catch when recommending an ACT. The ACTs, technical basis, and sources of management uncertainty would be described and provided to the Council at the time Monitoring Committee recommendations are made for fishery management measures for a single year or up to 5 years.

5.3.4.3 Spiny Dogfish Reactive Accountability Measures

To ensure maximum consistency with the NS1 guidelines, all FMPs should have, at a minimum, reactive accountability measures that seek to correct or mitigate overages of the ACL if they occur. These must be automatic functions of the FMP and cannot rely on analysis, deliberation, and recommendations for action by the Council or discretion of the Regional Administrator.

Alternative DOG-E: Status quo/no action

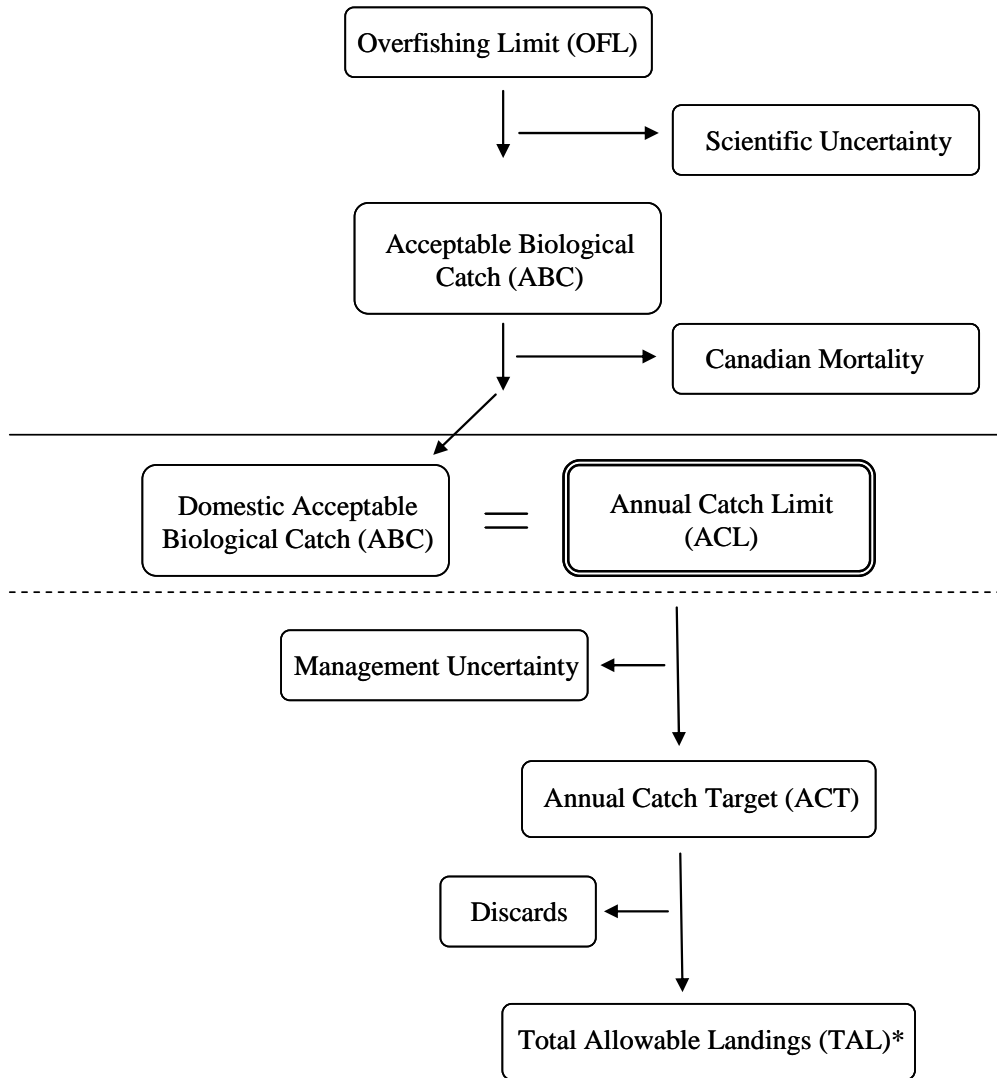
Under this alternative, the status quo would continue and there would be no mechanisms in the federal FMP for spiny dogfish that function as reactive accountability measures and address accountability for all catch components of the ACL. Although overage deduction mechanisms are in place in the Interstate Fisheries Management Program (ISFMP) for spiny dogfish, the lack of AMs in the federal FMP is inconsistent with the NS1 guidelines.

Alternative DOG-F: Council Preferred, Accountability for Catch Components

For spiny dogfish, under this alternative the Council is proposing a single reactive accountability mechanism that responds to potential overages for all catch components.

Reactive Accountability for All Catch Components of the ACL: If the ACL is exceeded, then accountability would occur at the fishery level and the ACL would be reduced. Specifically, the amount by which the ACL was exceeded would be used to adjust the ACL the following year (i.e., lb-for-lb repayment), as a single year adjustment.

Spiny Dogfish Flowchart



*RSA for spiny dogfish is contemplated in proposed Amendment 3. RSA would be deducted from the TAL.

Figure 5. Spiny Dogfish catch limit structure if an ACT is utilized.

5.4 Future Review and Modification of Actions

A brief overview of the alternatives contained within this section is given in Box 5.4.

Box 5.4. Brief description of the alternatives included in section 5.4.				
Issue	Sub-issue	Alternative	Status	Description of Action
Future Review and Modification of Actions (Section 5.4)	<i>Performance Review of Alternatives</i> (Section 5.4.1)	REVIEW-A	Status quo/no action	No formalized review process
		REVIEW-B (Council Pref.)	Proposed	Review of ABC control rules
		REVIEW-C (Council Pref.)	Proposed	Review of ACLs and AMs
	<i>Description of Process of Modify Actions</i> (Section 5.4.2)	MODIFY-A	Status quo/no action	No description of process to modify actions
		MODIFY-B (Council Pref.)	Proposed	Description of process to modify actions in future

5.4.1 Performance Review of ABC, ACL, and AM Alternatives

Alternative REVIEW-A: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to prepare and review information on the performance of the ABC control rules, ACL control rules, and comprehensive system of accountability, beyond the materials prepared and SSC and Monitoring Committee (if applicable) review of materials, for the catch limit specification processes to set measures annually or for up to three years (5 for spiny dogfish).

Alternative REVIEW-B: Council Preferred, SSC Review of ABC Control Rules

Under this alternative, ABC control rule performance will be reviewed in detail by the SSC five years after initial implementation of the Omnibus Amendment for the managed resources, and at least every five years thereafter. Council staff will prepare data on ABC control rule performance prior to the review in conjunction with the SSC managed resource lead. If it is determined that the ABC control rules are not performing as intended regarding preventing and ending overfishing, the SSC shall recommend modifications. Any recommended modifications would be

addressed in a manner consistent with the magnitude and significance of the proposed changes (section 5.4.2). The periodicity of the reviews could be less than five years, based on more frequent reviews required by the Council under rebuilding plans, Council initiated review due to poor control rule performance relative to overfishing, or other relevant factors.

These periodic reviews do not substitute for the specification setting review which updates catch level recommendations for the upcoming fishing year(s); however, these more detailed reviews may be scheduled to coincide with specification meetings.

Alternative REVIEW-C: Council Preferred, Monitoring Committee Review of ACL Control Rules

Under this alternative, fishery performance relative to the ACL, ACT control rule performance, and the performance of AMs will be reviewed by the respective managed resource Monitoring Committee's (or staff for surfclam and ocean quahog) at least every 5 years. The periodicity of the reviews could be less than 5 years, based on more frequent reviews required by the Council under rebuilding plans, Council initiated review due to poor control rule performance relative to the ACL, or other relevant factors. Council staff will monitor the fishery performance relative to the ACL, and will notify the Council if the ACL for one of the managed resources is exceeded with a frequency greater than 25 percent (i.e., 1 in 4 years or 2 consecutive years). Council staff will prepare data on fishery performance relative to the ACL, ACT control rule performance, and performance of AMs, prior to the review. If it is determined that the measures implemented are not performing as intended to prevent the ACL from being exceeded, the managed resource Monitoring Committee's (or staff for surfclam and ocean quahog) shall recommend modifications.

These periodic reviews do not substitute for the specification setting review which updates catch level recommendations for the upcoming fishing year(s); however, these more detailed reviews may be scheduled to coincide with specification meetings.

5.4.2 Description of Process to Modify Actions

Alternative MODIFY-A: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to describe the process to review and modify measures addressed in this document. As such, a determination would need to be taken at the time of action development, which process would be most appropriate, specifications, FMP framework adjustment, or FMP Amendment.

Alternative MODIFY-B: Council Preferred, Modification of Actions, including Framework Action List

Need for Adaptive Process

The actions taken in this Omnibus Amendment to establish catch limit frameworks for the purposes of specifying ABCs, ACLs, ACTs, and their associated AMs for each of the managed resources are intended to be dynamic to ensure these catch frameworks and associated system of accountability are flexible so that they do achieve the objectives of the FMP, prevent overfishing, and when required, rebuild fisheries. Flexibility is imperative and must allow for timely modifications given the dynamic nature of fisheries and the environment. This action, therefore, contemplates a process that allows for the timely modification of the action alternatives proposed in this document through the annual specifications or FMP framework adjustment. Undoubtedly, there will be modifications to the program as yet not contemplated that will have to go through an FMP amendment.

Modification of ABC Control Rules

The action proposed in this document would establish an ABC control rule framework comprised of four levels to which a stock could be classified. Each level would apply different ABC control rules. Those specific control rules, including the levels and criteria [including aspects of the risk policy which is part of the control rule], that are applied to derive ABC for the upcoming fishing year(s) would be conceptually expressed in the regulations implementing the Omnibus Amendment and given effect through specifications. Future modifications to these control rules would be based upon the best available scientific and other relevant information and could be recommended to the Council and implemented through subsequent specifications rulemaking. The introduction of an ABC control rule approach that is a major departure from the action taken in this document would need to go through either a FMP framework adjustment or FMP amendment. An FMP Amendment would be required for future measures that have not been previously contemplated in the FMP.

Modification of Risk Policy

The action proposed in this document would establish a formal Council risk policy, which expresses the Council's tolerance for risk of overfishing. The specific values associated with the risk policy that were applied by the SSC when deriving ABC for the upcoming fishing year(s) would be given effect through specifications. Future minor modifications to the risk policy, such as aspects of the policy (i.e., inflection points, intercepts, and range of probabilities), could be recommended by the Council and implemented through subsequent annual specifications rulemaking. The introduction of risk policy that is a major departure from the action taken in this document would need to go through either an FMP framework adjustment or FMP amendment. An FMP amendment would be required for future measures that have not been previously contemplated in the FMP.

Modification of ACT Control Rules

The action proposed in this document would establish a process for the development of ACT control rules to address management uncertainty. The ACT control rules that are applied to derive ACTs, for the upcoming fishing year(s) would be developed by the various species Monitoring Committees or staff for those stocks which lack these committees, given the dynamic nature of these fisheries and resulting variability in the sources of management uncertainty, within the specifications development process. Those specific control rules, that are applied to derive ACT for the upcoming fishing year(s) would be conceptually expressed in the regulations implementing the annual specifications. This process allows the development of rules that are specific to the fishing year and allows for an adaptive response to changes in the sources of management uncertainty inherent in the fisheries for the managed resources.

Modification of Existing AMs

The current specifications process already allows for modification of existing accountability measures through specifications for the managed resources on the basis that the dynamic nature of these fisheries requires the ability to respond to changing conditions in a timely fashion. Therefore, changes to the values associated with existing AMs (e.g., trip limits, trigger points for trip limit drops, etc.) can already be modified via specifications and that process would continue unmodified by this action.

Introduction of New AMs

In order for the system of catch limits and accountability proposed in this document to be effective for each of the managed resources, the introduction of new AMs is necessary to respond to the dynamic nature of these fisheries and prevent the ACL(s) from being exceeded. As such, it is contemplated that accountability measures may need to be introduced or strengthened in a timely manner to prevent, as much as is practicable, the ACL from being exceeded or to mitigate that overage and/or prevent it from occurring in the following year. For example, the introduction of sub-ACTs, a type of proactive AM may be necessary to address sub-components of the fishery which contribute to a lack of control in the total catch relative to the ACL and require the ability to manage that catch component independently. New or improved sources of data may allow for the development of more effective accountability measures in the future, such as annual or inseason accountability approaches for either the commercial or recreational fisheries, and the ability to respond to dynamic changes in the scientific and technical data available on which to base management measure is essential for preventing the ACL(s) from being exceeded.

The current list of FMP framework adjustment categories are given below. The Council shall develop and analyze appropriate management actions over the span of at least two Council meetings. The Council must provide the public with advance notice of the availability of the recommendation(s), appropriate justification(s) and economic and biological analyses, and the opportunity to comment on the proposed adjustment(s) at the first meeting, and prior to and at the second Council meeting. The Council's recommendations on adjustments or additions to management measures must come from one or more of the following categories:

Spiny Dogfish - Minimum fish size; maximum fish size; gear requirements, restrictions or prohibitions (including, but not limited to, mesh size restrictions and net limits); regional gear restrictions; permitting restrictions and reporting requirements; recreational fishery measures (including possession and size limits and season and area restrictions); commercial season and area restrictions; commercial trip or possession limits; fin weight to spiny dogfish landing weight restrictions; onboard observer requirements; commercial quota system (including commercial quota allocation procedures and possible quota set-asides to mitigate bycatch, conduct scientific research, or for other purposes); recreational harvest limit; annual quota specification process; FMP Monitoring Committee composition and process; description and identification of essential fish habitat; description and identification of habitat areas of particular concern; overfishing definition and related thresholds and targets; regional season restrictions (including option to split seasons); restrictions on vessel size (length and GRT) or shaft horsepower; target quotas; measures to mitigate marine mammal entanglements and interactions; regional management; changes to the Northeast Region SBRM, including the CV-based performance standard, the means by which discard data are collected/obtained, fishery stratification, reports, and/or industry-funded observers or observer set-aside program; any other management measures currently included in the Spiny Dogfish FMP; and measures to regulate aquaculture projects.

New Framework Categories

The framework process can be used to introduce new accountability measures in a timely manner; therefore, the following lists the categories of AMs that will be added to each of the framework list for the managed resources:

Sub-ACT(s)

Predefined inseason adjustment to commercial measures

Predefined inseason adjustment to recreational measures (if applicable)

Existing ABC control rule methods modification

Existing Council Risk policy modification

Frequency of ABC control rule, ACL and AM performance reviews