Illex Hold Framework
MACKEREL, SQUID, AND BUTTERFISH (MSB) FISHERY MANAGEMENT PLAN (FMP)
Framework 16 to the MSB FMP

Measures to implement a volumetric vessel hold baseline and hold upgrade restriction; Measures to record expected processing types

Prepared by the

Mid-Atlantic Fishery Management Council (Council) in collaboration with the National Marine Fisheries Service (NMFS)

Council Address

Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901

NMFS Address

NMFS Greater Atlantic Regional Fisheries Office
55 Great Republic Drive
Gloucester, MA 01930

Framework Meeting 1: August 2023
Framework Meeting 2/final action: October 2023
Initial submission to NMFS: May 30, 2024 (After May 3, 2024 notification that this document was needed even though NMFS was using a Categorical Exemption for NEPA)
Final submission to NMFS: June 24, 2024

1.0 EXECUTIVE SUMMARY AND TABLE OF CONTENTS

In October 2023, the Mid-Atlantic Fishery Management Council (MAFMC) took final action on a framework action intended to restrict future increases in capacity in the *Illex* squid fishery. After reviewing public comments and considering recommendations from the Mackerel, Squid, Butterfish Committee and Advisory Panel, the Council voted to implement a volumetric vessel hold baseline requirement and 10% upgrade restriction for all 76 *Illex* limited access permits (30 already have the requirement due to their Atlantic mackerel permits). As with the existing length and horsepower baseline restrictions, the rationale/goal for a hold baseline and upgrade restriction is to cap fishing power. This document supports consideration of approval, and potential implementation, of this framework action.

NMFS has preliminarily determined that a Categorical Exclusion will address the requirements of the National Environmental Policy Act (NEPA) so this is not a NEPA document, but it addresses other legal requirements. These requirements include considerations under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Regulatory Flexibility Act, the Paperwork Reduction Act, and various Executive Orders.

If approved by NOAA Fisheries, vessels will be notified of deadlines to obtain a certification for their vessel hold volume by qualified individuals. The Council also approved requiring *Illex* and Tier 1 longfin squid vessels to provide a non-binding annual declaration of their intended processing method (at-sea freezing, refrigerated seawater, iced, etc.). This information could inform future evaluations of catch per unit of effort (CPUE) analyses, which can be components of stock assessments.

The rationale/goal for baselines as described in the 1998 Consistency Amendment developed by NMFS is "capping fishing power." This aligns with issues mentioned in several national standards guidelines, especially #5 Efficiency: "Efficiency. In theory, an efficient fishery would harvest the OY with the minimum use of economic inputs such as labor, capital, interest, and fuel. Efficiency in terms of aggregate costs then becomes a conservation objective, where "conservation" constitutes wise use of all resources involved in the fishery, not just fish stocks." So capping additional vessel fishing power ("capital") to catch Optimum Yield (OY) becomes a conservation objective because the "wise use of all resources" is being addressed. (50 CFR 648.4(a)(5)(iii))

The objective of this action is therefore to consider requiring a volumetric vessel hold baseline requirement and upgrade restriction for all *Illex* limited access permits, with a similar purpose as other baseline requirements, i.e. to cap fishing power. There will be a tradeoff involved as the flexibility of the fleet is somewhat reduced, but the risks from uncontrolled fishing power in fishing fleets are well documented throughout fisheries literature and negative consequences of "increased fishing pressure" is a principal "finding" of Congress as enshrined in the Magnuson-Stevens Fishery Conservation and Management Act.

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2.0 LIST OF COMMON ACRONYMS AND ABBREVIATIONS

ABC	**Acceptable Biological Catch**
ACL	**Annual Catch Limit**
ACT	**Annual Catch Target**
ASMFC	**Atlantic States Marine Fisheries Commission or Commission**
B	**Biomass**
CFR	**Code of Federal Regulations**
CPH	**Confirmation of Permit History**
CV	**coefficient of variation**
DAH	**Domestic Annual Harvest**
DAP	**Domestic Annual Processing**
EEZ	**Exclusive Economic Zone**
EFH	**Essential Fish Habitat**
EIS	**Environmental Impact Statement**
ESA	**Endangered Species Act of 1973**
F	**Fishing Mortality Rate**
FMP	**Fishery Management Plan**
FR	**Federal Register**
GB	**Georges Bank**
GOM	**Gulf of Maine**
IOY	**Initial Optimum Yield**
M	**Natural Mortality Rate**
MAFMC	**Mid-Atlantic Fishery Management Council**
MMPA	**Marine Mammal Protection Act**
MSA	**Magnuson-Stevens Fishery Conservation and Management Act (as amended)**
MSB	**Atlantic Mackerel, Squid, Butterfish**
MSY	**Maximum Sustainable Yield**
MT (or mt)	**Metric Tons (1 mt equals about 2,204.62 pounds)**
NE	**Northeast**
NEFSC	**Northeast Fisheries Science Center**
NEPA	**National Environmental Policy Act**
NMFS	**National Marine Fisheries Service (NOAA Fisheries)**
NOAA	**National Oceanic and Atmospheric Administration**
OFL	**Overfishing Level**
PBR	**Potential Biological Removal**
SARC	**Stock Assessment Review Committee**
SAW	**Stock Assessment Workshop**
SNE	**Southern New England**
SSC	**Scientific and Statistical Committee**
US	**United States**
VTR	**Vessel Trip Report**

3.0 LISTS OF TABLES AND FIGURES

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4.0 INTRODUCTION, BACKGROUND, AND PROCESS

The Council established management of *Illex* in 1978 and the management unit includes all federal East Coast waters.

Access is limited with about 76 moratorium permits that don't have trip limits when the fishery is open (i.e. anytime before the quota is approached); Between 5-40 permits may be active in a given year. In 2023 about six permits were "on the shelf" in Confirmation of Permit History (CPH) status. Incidental permits are limited to 10,000 pounds per trip. Additional summary regulatory information is available at https://www.fisheries.noaa.gov/new-england-mid-atlantic/resources-fishing/resources-fishing-greater-atlantic-region.

The 2023 quota was 38,631 MT, based on a 40,000 MT Acceptable Biological Catch (ABC) and a set-aside for possible discards. The fishery closes when 96% of the quota is projected to be landed. In 2021 the fishery closed effective August 30, 2021 – there were no closures in 2022 and 2023 as a relatively small fraction of the quota was landed in 2022 and 2023.

Recreational catch of *Illex* is believed to be negligible. There are no recreational regulations except for party/charter vessel permits and associated reporting.

A 2020 action to reduce *Illex* permits given overcapitalization in the fishery was disapproved: https://www.fisheries.noaa.gov/bulletin/amendment-22-mackerel-squid-and-butterfish-fishery-management-plan-decision. Good *Illex* availability and increased vessel participation in 2017-2021 triggered early closures, highlighting the issue of overcapacity in this fishery, which was also described in the disapproved *Illex* Permit Amendment via technical capacity analyses.

As a high volume fishery, vessel fishing power or "capacity" may be substantially increased within the existing length and horsepower restrictions by modifying the vessel's hold capacity, leading the Council to further consider and ultimately adopt vessel hold restrictions for this fishery.

4.1 OBJECTIVES, PURPOSE, AND NEED

The objective of this action is to implement a volumetric vessel hold baseline requirement and upgrade restriction for all *Illex* limited access permits, with a similar purpose as other baseline requirements, i.e. to cap fishing power. There will be a tradeoff involved as the flexibility of the fleet is somewhat reduced, but the risks from uncontrolled fishing power in fishing fleets are well documented throughout fisheries literature and negative consequences of "increased fishing pressure" is a principal "finding" of Congress as enshrined in the Magnuson-Stevens Fishery Conservation and Management Act. This action is needed because effective caps on vessel fishing power in the *Illex* fishery do not currently exist.

Overcapacity is a common characteristic of most fisheries except those managed with tradable quota systems (variously known as ITQ[1]s (e.g. surfclam/ocean quahog), IFQ[2]s (e.g. golden tilefish),

[1] ITQ = Individual Transferable Quota
[2] IFQ = Individual Fishing Quota

and/or catch shares). Public perspectives on capacity in the *Illex* fishery have been diverse starting from the early 2019 scoping of the largely disapproved *Illex* Permit Amendment[3] through to final action on this framework. Comments have ranged from taking no action at all, to measures that would reduce the existing overcapacity by eliminating some existing limited access permits (overcapacity was indicated by NMFS' Northeast Fisheries Science Center staff technical analyses conducted as part of the *Illex* Permit Amendment).

4.2 REGULATORY AUTHORITY / PROCESS

The discretionary provisions of the MSA allow measures that restrict the types of fishing vessels, and those provisions have led to the current baseline specifications.

The Council uses "framework adjustments" to amend measures previously used or considered, and permitting and vessel size restrictions are noted frameworkable options, as well as "Any other management measures currently included in the FMP." Vessel hold capacity restrictions are specifically used in the FMP already for the mackerel fishery. Vessel hold capacity restrictions were also considered specifically for the *Illex* fishery in the disapproved *Illex* Permit Amendment, so hold capacity restrictions are not a new concept for this FMP or fishery.

For frameworks, "The MAFMC shall develop and analyze appropriate management actions over the span of at least two MAFMC meetings. The MAFMC 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 MAFMC meeting."
[50 CFR 648.25(a)(1)] The two official framework meetings were August and October 2023, and a joint MSB Committee and AP meeting was also held in September 2023 (a summary of that meeting is available at https://www.mafmc.org/s/Tab03_Illex_Oct-2023.pdf.

Section 301 of the Magnuson-Stevens Fishery Conservation and Management Act requires that FMPs contain conservation and management measures that are consistent with the ten National Standards: *In General. – Any fishery management plan prepared, and any regulation promulgated to implement any such plan, pursuant to this title shall be consistent with the…national standards for fishery conservation and management.*

(1) Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.

The measures in this action should not affect the probability of overfishing, and the current fleet has more than enough capacity to catch the current quotas, as demonstrated by previous early closures and technical capacity analyses conducted by the NEFSC and described in the disapproved *Illex* Permit Amendment (available at https://www.mafmc.org/action-archive#mafmc-fmp-history/).

[3] This action would have reduced permits in the fishery based on updated catch-based qualification criteria

(2) Conservation and management measures shall be based upon the best scientific information available.

The data sources considered and evaluated during the development of this action include, but are not limited to: permit data, landings data from vessel trip reports, information from resource trawl surveys, sea sampling (observer) data, data from the dealer weighout purchase reports, peer-reviewed assessments including the recent *Illex* Research Track Assessment, original literature, and descriptive information provided by fishery participants and the public. To the best of the our knowledge these data sources constitute the best scientific information available.

(3) To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

The FMP addresses management of *Illex* and longfin squid throughout the ranges of the species in U.S. waters.

(4) Conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

None of the proposed measures would discriminate between residents of different States or assign/allocate fishing privileges among U.S. fishermen.

(5) Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.

There is no allocation proposed. The proposed actions are efficient in that they should facilitate full utilization of the relevant quotas. National Standard 5 Guidelines also note: "Efficiency. In theory, an efficient fishery would harvest the OY with the **minimum use** of economic inputs such as labor, **capital**, interest, and fuel. Efficiency in terms of aggregate costs then becomes a conservation objective, where "conservation" constitutes wise use of all resources involved in the fishery, not just fish stocks." So capping additional vessel fishing power ("capital") to catch Optimum Yield (OY) becomes a conservation objective because the "wise use of all resources" is being addressed. (50 CFR 648.4(a)(5)(iii)). The proposed baselines should discourage excessive additional capital being added to catch OY.

(6) Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

Changes in fisheries occur continuously, both as the result of human activity (for example, new technologies or shifting market demand) and natural variation (for example, oceanographic perturbations). In order to provide the greatest flexibility possible for future management decisions, the FMP includes a framework adjustment mechanism with an extensive list of possible framework adjustment measures that can be used to adjust the plan as conditions in the fishery change. Specifications are also reviewed annually and measures can and have been amended as appropriate.

(7) Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

The MAFMC considered the costs and benefits associated with the management measures proposed in the action when developing this action. This action should not create any duplications related to managing the MSB resources. A hold baseline is not duplicative of other baselines due to the high volume nature of the *Illex* fishery and the ability of permits to considerably expand fishing power despite the length and horsepower baselines (i.e. via hold modifications).

(8) Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

No changes to quotas are proposed, which should enable ongoing participation by relevant communities. The baselines are designed to freeze the capacity footprint of the *Illex* fishery, and avoid additional overcapitalization, which should help sustain participation in the fishery.

(9) Conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

There is minimal bycatch in the *Illex* fishery and this action should not change that. The reporting changes should not affect bycatch.

(10) Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

Fishing is a dangerous occupation; participants must constantly balance the risks imposed by weather against the economic benefits. According to the National Standard guidelines, the safety of the fishing vessel and the protection from injury of persons aboard the vessel are considered the same as “safety of human life at sea.” The safety of a vessel and the people aboard is ultimately the

responsibility of the master of that vessel. Each master makes many decisions about vessel maintenance and loading and about the capabilities of the vessel and crew to operate safely in a variety of weather and sea conditions. This national standard does not replace the judgment or relieve the responsibility of the vessel master related to vessel safety. Any existing or new baseline potentially reduces flexibility to modernize vessels which could affect safety, but it is not practicable to avoid this effect while also using baselines to cap fishing power.

5.0 WHAT ACTION IS BEING CONSIDERED?

5.1 Status Quo = Current Baselines and Reporting Only

Vessel replacements/upgrades for *Illex* squid moratorium permits are limited relative to a vessel's baselines:

(1) The upgraded vessel's horsepower may not exceed the horsepower of the vessel's baseline specifications by more than 20 percent.

(2) The upgraded vessel's length overall may not exceed the vessel's baseline specifications by more than 10 percent.

The vessel baseline specifications are the respective specifications (length, horsepower) of the vessel that was initially issued a limited access permit as of the date the initial vessel applied for such permit (i.e. **not** the specifications of the current vessel), and the baseline specifications are recorded in NMFS databases.

Also, no changes would be made to the information collected during the annual permit re-application process for squid permits.

5.2 Add Additional Volumetric Vessel Hold Baseline, vessels can use pre-existing survey

If a vessel possesses a volumetric hold baseline related to its Tier 1 or Tier 2 mackerel permit, that hold baseline would automatically be incorporated for its *Illex* moratorium permit also.

For other *Illex* moratorium permit vessels, NMFS would publish notice that:

In addition to other baseline specifications (which remain in force unchanged regardless of this action), the volumetric fish hold capacity of a vessel at the time it submits a hold baseline certification (a date would be published by NMFS, likely 12 months would be allowed for completion) will be considered a baseline specification. The fish hold capacity measurement must be certified by one of the following qualified individuals or entities: An individual credentialed as a Certified Marine Surveyor with a fishing specialty by the National Association of Marine Surveyors (NAMS); an individual credentialed as an Accredited Marine Surveyor with a fishing specialty by the Society of Accredited Marine Surveyors (SAMS); employees or agents of a classification society approved by the Coast Guard pursuant to 46 U.S.C. 3316(c); the Maine State Sealer of Weights and Measures; a professionally-licensed and/or registered Marine Engineer; or a Naval Architect with a professional engineer license. The fish hold capacity measurement submitted to

NMFS must include a signed certification by the individual or entity that completed the measurement, specifying how they meet the definition of a qualified individual or entity.

If an *Illex* moratorium permit is "on the shelf" in Confirmation of Permit History (CPH) when hold certifications are due, the default hold capacity baseline for such CPH permits will be the hold capacity of the first replacement vessel after the permit is removed from CPH (the vessel would have to be measured as described above before fishing under the permit). If a permit in CPH happened to have an existing volumetric hold measurement for the vessel immediately preceding the permit's placement into CPH, which met the measurement certification requirements, that hold measurement **could** be used to establish a vessel hold baseline for the *Illex* permit within the 12-month implementation period (alternatively, the first replacement vessel could be certified for hold capacity – either option would be acceptable).

Replacement/upgraded vessels' re-certified volumetric fish hold capacity may not exceed 110% of the permit's baseline hold specification (i.e. there can only be an increase of + 10% beyond the baseline). The modified fish hold, or the fish hold of the replacement vessel, must be resurveyed by a surveyor as described above unless the replacement vessel already had an appropriate certification on file with NMFS. All other baseline restrictions for the permit would apply in standard fashion.

5.3 Add Annual Processing Type Reporting Requirements

Information on processing has the potential to be used for catch per unit of effort (CPUE) analyses in squid fisheries (some processing types are not directly comparable for CPUE analyses). Each year when an *Illex* moratorium permit or a Tier 1 longfin permit applies or re-applies for a permit, it would have to state its intended primary processing type for *Illex* and longfin for that year. NMFS will specify relevant processing types, including freezing at-sea, refrigerated sea water, fresh/iced, etc. The statement of intent would not be limiting upon a vessel if it decides to change processing methods mid-year, and there would not be a requirement to notify NMFS of changes mid-year.

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6.0 *Illex* Fishery Background[4]

Basic Biology

Illex is a semi-pelagic/semi-demersal schooling cephalopod species that lives less than one year and is distributed between Newfoundland and the Florida Straits. *Illex* is a semelparous, terminal spawner whereby spawning and death occur within several days of mating. The northern stock component (also highly variable) in NAFO Subareas 3 and 4, is assessed and managed separately by the Northwest Atlantic Fisheries Organization (NAFO). The southern/U.S. stock component is located in NAFO Subareas 5 and 6 between the Gulf of Maine and Cape Hatteras, NC and is managed by the Mid-Atlantic Fishery Management Council (the Council or MAFMC) and NMFS. Additional life history information is detailed in the EFH document for the species, located at: http://www.nefsc.noaa.gov/nefsc/habitat/efh/.

Status of the Stock

The 2021 research track assessment (RTA) was unable to develop a method to resolve stock status, so the stock will officially remain "unknown" with respect to being overfished or overfishing. The RTA Review Panel agreed with the RTA Working Group Report that indications from the various assessment approaches were that the stock was lightly fished in 2019. However, the review report stated that the term "lightly fished" should be interpreted with caution because it has no specific definition relating to sustainable exploitation.
In light of the failure of the assessment to produce accepted reference points to guide ABC setting, the SSC had to rely on an ad-hoc approach to setting a 2023 ABC that would meet the Council's risk policy to avoid overfishing and achieve optimum yield. Alternative quotas were examined with respect to their consequences for risk of exceeding escapement targets ranging from 40% to 50%, as has been used for other squid fisheries. In addition, harvest rates of F=2/3 M (natural mortality) have been used for forage species in various assessments around the world. The methodology allowed the SSC to examine the probability of violating the reference point for various levels of catch limits ranging from 24,000 to 60,000 mt. A 40,000 MT ABC was associated with an approximately 5% chance of exceeding a ⅔ F:M generic guidance for data poor species. Model results suggested a 40,000 MT ABC provided greater than 50% escapement for *Illex* squid, and a catch of 60,000 MT increases the chance of less escapement in some years. Previous SSC review (March 2022) of the analyses allowed them to conclude that:

- Escapement had been relatively high over the previous 10 years, suggesting a relatively small impact of the fishery on the component of the stock that is exploited.
- Assumptions regarding parameters that were inputs to the analyses were thought to lead to minimum likely estimates.
- Distributions of the joint estimate of F:M suggests that exploitation rate in the fishery is likely low.
- By comparison to empirical escapement reference points used to manage squid fisheries elsewhere globally, the current ABC levels are associated with low risks of exceeding those escapement standards.

[4] *Illex* is the focus on this action, although the permit reporting requirements would affect longfin squid Tier 1 vessels – see the 2024 Fishery Information Document for Longfin Squid (MAFMC 2024a) at https://www.mafmc.org/msb for longfin squid background.

• A 40,000 MT ABC will lead to a low risk of overfishing.

(See reports at https://www.mafmc.org/ssc-meetings/2022/march-15-16 and https://www.mafmc.org/ssc-meetings/2022/july-25-26)

The methodology to estimate the risk of overfishing at various quotas was updated in 2023 to include sampling uncertainty in the survey-based estimates of abundance in the NEFSC fall bottom trawl survey. This additional uncertainty is considered in conjunction with uncertainty in natural mortality, availability of *Illex* to the fishing areas, and catchability of research trawl gear. Addition of this uncertainty did not significantly alter the risk evaluation process previously used. The SSC retained their recommendation of a 40,000 MT ABC for 2023 and recommended the same *Illex* ABC for 2024 and 2025. The SSC noted the high level of uncertainty in our overall understanding of *Illex* population dynamics, and recommended continued collection of high resolution samples from the fishery and further investigations into their reproductive biology.

Management System and Fishery Performance

Management

The Council established management of *Illex* in 1978 and the management unit includes all federal East Coast waters. Access is limited with moratorium permits. Trip limits are triggered when the quota is approached. Incidental permits are limited to 10,000 pounds per trip. Additional summary regulatory information is available at https://www.fisheries.noaa.gov/new-england-mid-atlantic/resources-fishing/resources-fishing-greater-atlantic-region. A 2020 action to reduce *Illex* permits given overcapitalization in the fishery was disapproved: https://www.fisheries.noaa.gov/bulletin/amendment-22-mackerel-squid-and-butterfish-fishery-management-plan-decision.

The current quota is 38,631 MT, based on a 40,000 MT Acceptable Biological Catch (ABC) and a 3.42% discard rate, which has varied slightly over time. The fishery closes when 96% of the quota is projected to be landed. In 2021 the fishery closed effective August 30, 2021 – there was not a closure in 2022 or 2023 as only about 14% of the quota was landed in those years. Recreational catch of *Illex* is believed to be negligible. There are no recreational regulations except for party/charter vessel permits and reporting.

Commercial Fishery

Almost all 2023 landings were with bottom trawl gear. Figure 1, from a Science Center data update, describes *Illex* catch 1963-2023 and highlights the early foreign fishery and then domestication of the fishery. Figures 2-3 describe domestic landings, ex-vessel revenues, and prices (inflation adjusted) since 1996. Staff is investigating data issues with 2023 revenue data, which may also affect 2023 price data. The Gross Domestic Product Implicit Price Deflator was used to report revenues/prices as “2023 dollars.” Figure 4 illustrates preliminary weekly 2022 (yellow-orange) and 2023 (blue) landings through the year. Most 2023 *Illex* landings occurred in NJ and RI but further breakdown may violate data confidentiality rules (in spirit if not to the letter). Table 1 provides preliminary information on *Illex* landings by statistical area for 2023. Table 2 describes vessel participation over time.

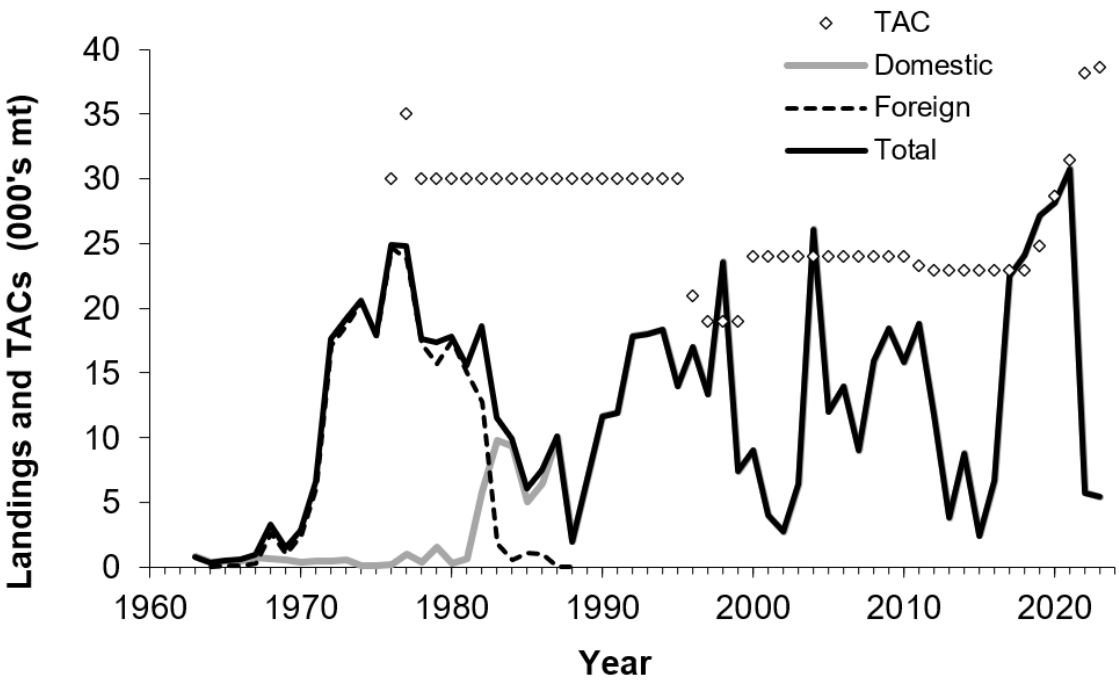

Figure 1. Landings (000's mt) of Illex illecebrosus from NAFO Subareas 5+6, by fleet during 1963-2023, and TACs (000's mt) for the same region during 1975-2023. Sources: NMFS Dealer Data and CAMS

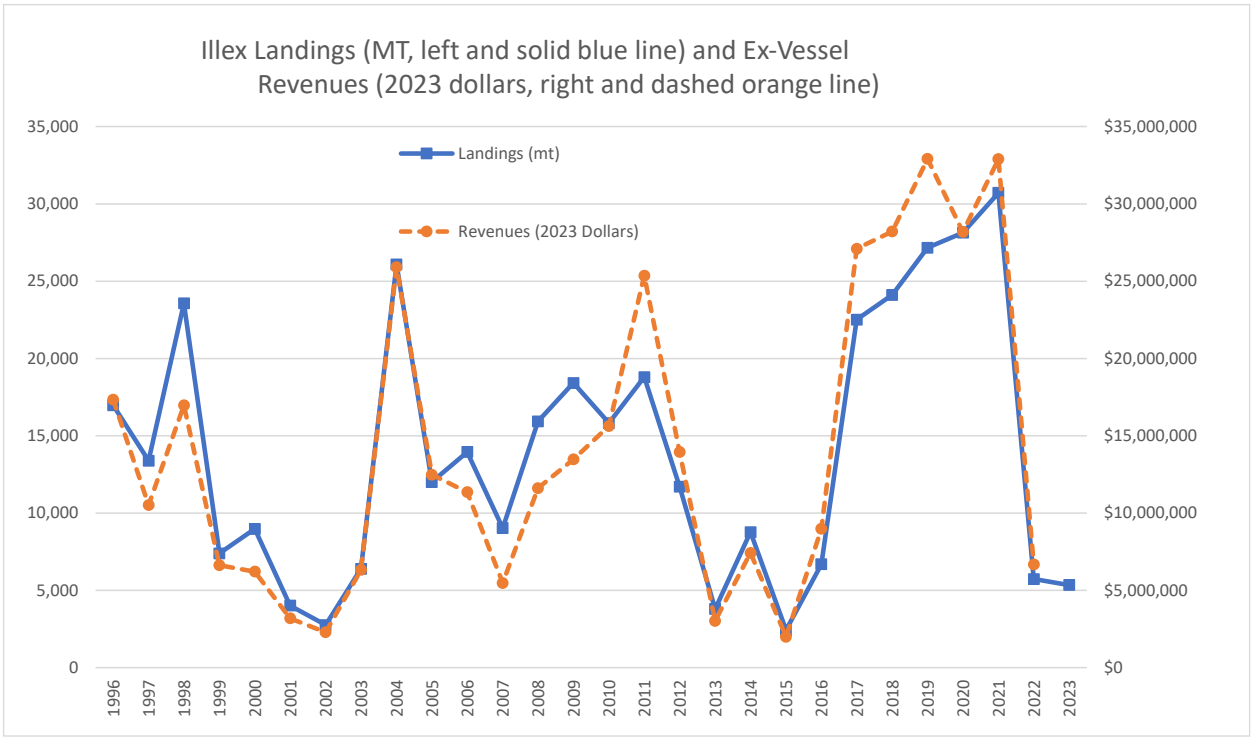

Figure 2. U.S. Illex Landings 1996-2023 and Ex-Vessel Values 1996-2022. Source: NMFS unpublished dealer data.

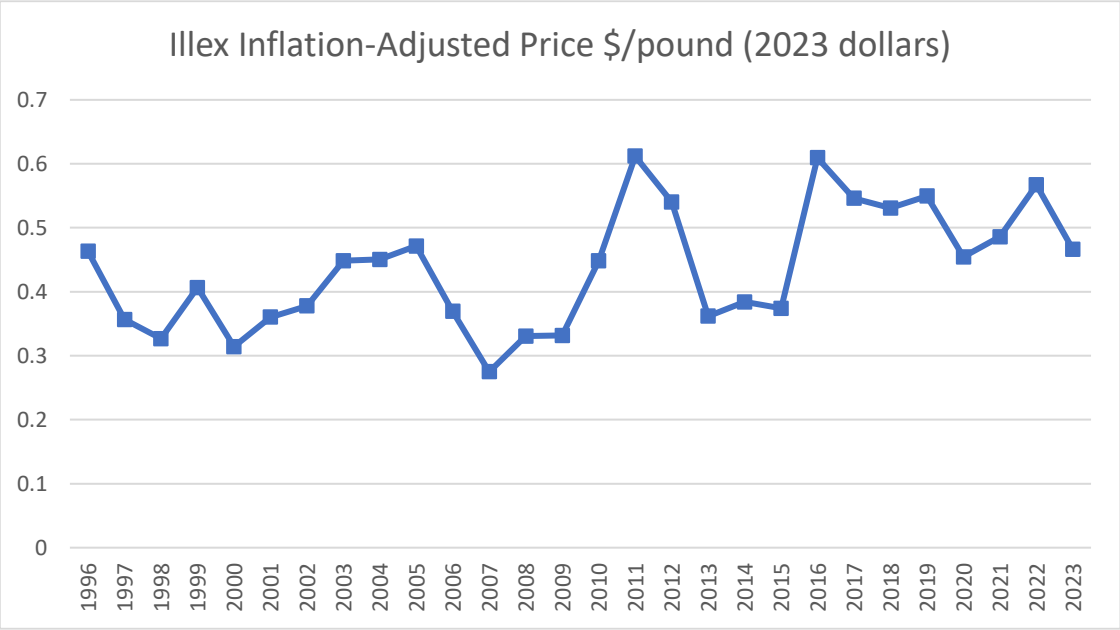

Figure 3. Ex-Vessel Illex Prices 1996-2023 Adjusted to 2023 Dollars Source: NMFS unpublished dealer data.

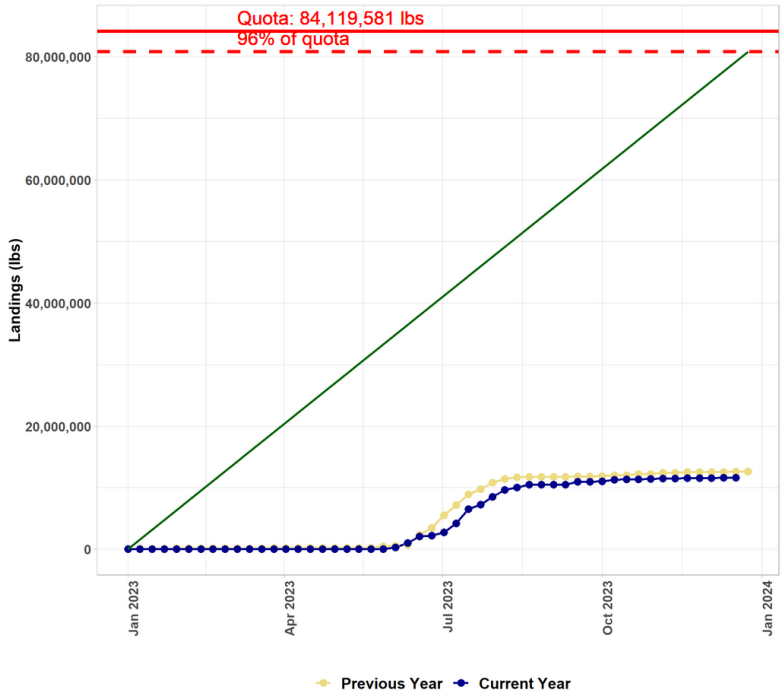

Figure 4. U.S. Preliminary weekly Illex landings; 2023 ("current') in blue, 2022 in yellow-orange ("previous"). Source: https://www.fisheries.noaa.gov/new-england-mid-atlantic/commercial-fishing/quota-monitoring-greater-atlantic-region

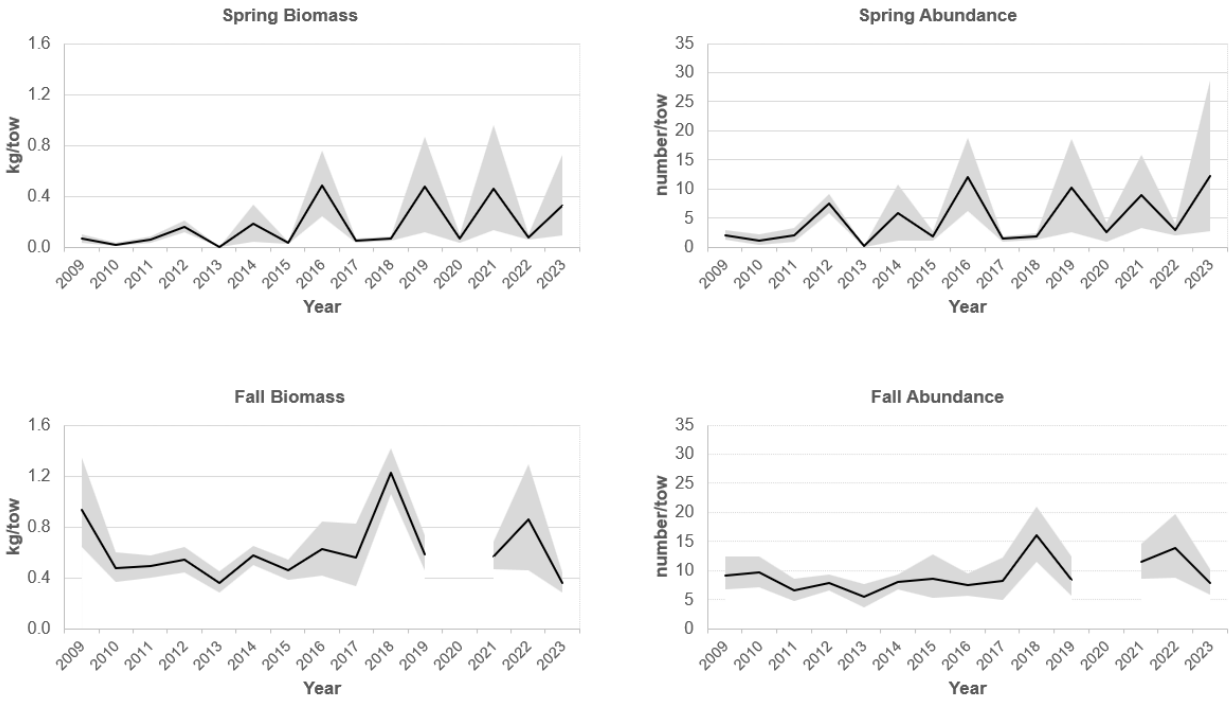

Figure 5. Illex indices of relative biomass (stratified mean kg per tow; left column) and abundance (stratified mean number per tow; right column) indices derived from NEFSC spring (top row) and fall (bottom row) bottom trawl surveys conducted during 2009-2023. Shaded areas represent the 95% confidence intervals. The fall 2020 survey did not occur due to the COVID-19 pandemic.

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Table 1. Commercial Illex landings by statistical area in 2023. Source: CAMS

AREA	Metric Tons
622	3,656
626	612
627	307
616	242
Other/CI	614
Total	5,431

Table 2. Vessel participation over time in the Illex Fishery based on annual landings (pounds)

YEAR	Vessels 500,000+	Vessels 100,000 - 500,000	Vessels 50,000 - 100,000	Vessels 10,000 - 50,000	Total
1982	7	7	0	10	24
1983	1	8	7	11	27
1984	4	15	4	6	29
1985	2	6	4	3	15
1986	8	6	4	3	21
1987	7	10	2	1	20
1988	3	3	1	2	9
1989	8	5	1	3	17
1990	12	3	0	1	16
1991	12	1	1	0	14
1992	16	1	0	1	18
1993	19	3	1	3	26
1994	21	7	5	8	41
1995	24	5	2	7	38
1996	24	5	6	4	39
1997	13	9	2	0	24
1998	25	4	1	3	33
1999	6	9	2	10	27
2000	7	7	0	2	16
2001	3	4	1	2	10
2002	2	3	1	1	7
2003	5	6	1	2	14
2004	23	5	2	0	30
2005	10	10	2	2	24
2006	9	8	1	2	20
2007	8	2	1	0	11
2008	12	5	0	0	17
2009	10	3	1	1	15
2010	13	5	0	4	22
2011	17	4	2	0	23
2012	8	3	2	2	15
2013	5	4	3	5	17
2014	5	3	2	2	12
2015	3	0	1	1	5
2016	4	3	3	2	12
2017	14	6	0	0	20
2018	19	7	0	5	31
2019	26	6	0	3	35
2020	25	4	2	1	32
2021	23	8	0	2	33
2022	8	3	3	7	21
2023	6	8	2	6	22

7.0 Compliance with Other Applicable Laws

Magnuson-Stevens Fishery Conservation and Management Act (MSA)

Section 301 of the MSA requires FMPs to contain conservation and management measures that are consistent with the ten National Standards. Adherence to the National Standards for this action is detailed above and summarized here: First and foremost, the Council continues to meet the obligations of National Standard 1 by adopting and implementing conservation and management measures that will continue to prevent overfishing, while achieving, on a continuing basis, the optimum yield for the managed stocks and the U.S. fishing industry, including ACLs and measures to ensure accountability. The Council uses the best scientific information available (National Standard 2) and manages the stocks throughout their range (National Standard 3). These management measures do not discriminate among residents of different states, (National Standard 4), nor do they have economic allocation as their sole purpose (National Standard 5). They account for and can address variations in these fisheries and future actions can do likewise (National Standard 6). They avoid unnecessary duplication (National Standard 7). They take into account the fishing communities (National Standard 8) and they promote safety at sea (National Standard 10). The actions taken are consistent with National Standard 9, which addresses bycatch in fisheries. The Council has implemented many previous regulations that have indirectly acted to reduce fishing gear impacts on essential fish habitat, and nothing in this action should change previous conclusions regarding the fishery's impact on habitat. By continuing to meet the National Standards requirements of the MSA through future FMP amendments, framework actions, and the annual specification setting process, the Council will ensure that cumulative impacts of these actions will remain positive overall for the ports and communities that depend on these fisheries, for the Nation as a whole, and for the resources.

National Environmental Policy Act (NEPA)

We have preliminarily determined that the proposed action qualifies for a categorical exclusion from additional NEPA analyses.

Marine Mammal Protection Act (MMPA)

None of the measures herein considered are expected to alter overall effort or fishing methods beyond what has been previously analyzed or anticipated. Therefore, this action is not expected to affect marine mammals in any manner not considered in previous consultations on the fisheries.

Endangered Species Act (ESA)

Section 7 of the ESA requires federal agencies conducting, authorizing, or funding activities that affect threatened or endangered species to ensure that those effects do not jeopardize the continued existence of listed species.

On May 27, 2021, the National Marine Fisheries Service's (NMFS) completed formal consultation pursuant to section 7 of the ESA of 1973, as amended, and issued a biological opinion (2021 Opinion) on the authorization of eight FMPs, two interstate fishery management plans (ISFMP), and the implementation of the New England Fishery Management Council's Omnibus Essential Fish Habitat (EFH) Amendment 2.[5] The 2021 Opinion considered the effects of the authorization of these FMPs,

[5] The eight Federal FMPs considered in the May 27, 2021, Biological Opinion include: (1) Atlantic Bluefish; (2) Atlantic Deep-sea Red Crab; (3) Mackerel, Squid, and Butterfish; (4) Monkfish; (5) Northeast Multispecies; (6) Northeast Skate Complex; (7) Spiny Dogfish; and (8) Summer Flounder, Scup, and Black Sea Bass. The two ISFMPs

ISFMPs, and the implementation of the Omnibus EFH Amendment on ESA-listed species and designated critical habitat, and determined that those actions were not likely to jeopardize the continued existence of any ESA-listed species or destroy or adversely modify designated critical habitats of such species under NMFS jurisdiction. An Incidental Take Statement (ITS) was issued in the Opinion. The ITS includes reasonable and prudent measures and their implementing terms and conditions, which NMFS determined are necessary or appropriate to minimize impacts of the incidental take in the fisheries assessed in this Opinion.

On January 10, 2024, NMFS issued a 7(a)(2)/7(d) memorandum that reinitiated consultation on the 2021 Biological Opinion. The federal actions to be addressed in this reinitiation of consultation include the authorization of the federal fisheries conducted under the aforementioned eight federal FMPs (see footnote 1). The reinitiated consultation will not include American lobster and Jonah crab fisheries, which are authorized under ISFMPs. On December 29, 2022, President Biden signed the Consolidated Appropriations Act (CAA), 2023, which included the following provision specific to NMFS' regulation of the lobster and Jonah crab fishery to protect right whales, "Notwithstanding any other provision of law ... for the period beginning on the date of enactment of this Act and ending on December 31, 2028, the Final Rule ... shall be deemed sufficient to ensure that the continued Federal and State authorizations of the American lobster and Jonah crab fisheries are in full compliance with the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361 et seq.) and the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.)." Given this, the American lobster and Jonah crab fisheries remain in compliance with the ESA through December 31, 2028.

Based on our preliminary assessment of the proposed action, we have determined that the proposed action does not entail making any changes to the operation of the *Illex* or longfin squid fisheries during the reinitiation period that would cause an increase in interactions with or effects to ESA-listed species or their critical habitat beyond those considered in NMFS' January 10, 2024, 7(a)(2) determination. Therefore, this action is consistent with NMFS' January 10, 2024, 7(a)(2) determination.

Coastal Zone Management Act

Section 307(c)(1) of the Coastal Zone Management Act of 1972, as amended, requires that all federal activities that directly affect the coastal zone be consistent with approved state coastal zone management programs to the maximum extent practicable. The Coastal Zone Management Act provides measures for ensuring stability of productive fishery habitat while striving to balance development pressures with social, economic, cultural, and other impacts on the coastal zone. Responsible management of coastal zones and fish stocks must involve mutually supportive goals. NMFS must determine whether this action is consistent to the maximum extent practicable with the CZM programs for each state (Maine through North Carolina). These states also participated in the Council processes that resulted in the proposed action.

Administrative Procedure Act

Section 553 of the Administrative Procedures Act establishes procedural requirements applicable to informal rulemaking by federal agencies. The purpose of these requirements is to ensure public access to the federal rulemaking process and to give the public adequate notice and opportunity for comment.

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are American Lobster and Jonah Crab.

If any abridgement of the standard rulemaking process is considered for this action, NMFS will address the rationale for such abridgement during relevant rulemaking.

Information Quality Act

Utility of Information Product

This document includes a description of the proposed action and rationale for selection, and any changes to the implementing regulations of the FMP (if applicable). As such, this document enables the implementing agency (NMFS) to make a decision on implementation of relevant management measures, and this document serves as a supporting document.

The action was developed to be consistent with the FMP, the MSA, and other applicable laws, through a multi-stage process that was open to review by affected members of the public. The public had the opportunity to review and comment on the considered action as discussed above.

Integrity of Information Product

The information product meets the standards for integrity under the following types of documents: Other/Discussion (e.g., Confidentiality of Statistics of the MSA; NOAA Administrative Order 216-100, Protection of Confidential Fisheries Statistics; 50 CFR 229.11, Confidentiality of information collected under the Marine Mammal Protection Act).

Objectivity of Information Product

The category of information product that applies here is "Natural Resource Plans." This document was developed to be consistent with any applicable laws, including the MSA and its applicable National Standards. The analyses used to develop the proposed action are based upon the best scientific information available and the most up to date information is used to evaluate the impacts of those measures. The specialists who worked with these core data sets and population assessment models are familiar with the most recent analytical techniques and are familiar with the available data and information regarding the relevant fisheries.

The review process for the proposed action involves the Council, NMFS regional offices, and NMFS headquarters. Relevant staff have expertise in fisheries biology/ecology, population dynamics, social sciences, fisheries management, policy analysis, habitat conservation, protected resources, and applicable law. Final approval of the proposed action and clearance of the rule is conducted by staff at NMFS' Headquarters, the Department of Commerce, and the U.S. Office of Management and Budget.

Paperwork Reduction Act

The Paperwork Reduction Act concerns the collection of information. The intent of the Act is to minimize the federal paperwork burden for individuals, small businesses, state and local governments, and other persons, as well as to maximize the usefulness of information collected by the federal government. There **are** potential changes to existing reporting requirements previously approved under this FMP in this action. NMFS will address Paperwork Reduction Act requirements through standard internal processes.

Federalism/Executive Order 13132

The proposed action does not contain policies with federalism implications sufficient to warrant preparation of a federalism assessment under Executive Order (EO) 13132.

Environmental Justice/Executive Order 12898

Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations provides guidelines to ensure that potential impacts on these populations are identified and mitigated, and that these populations can participate effectively in the NEPA process (EO 12898 1994). NOAA guidance NAO 216-6A, Companion Manual, Section 10(A) requires the consideration of EO 12898 in NEPA documents. Agencies should also encourage public participation, especially by affected communities, during scoping, as part of a broader strategy to address environmental justice issues. Minority and low-income individuals or populations must not be excluded from participation in, denied the benefits of, or subjected to discrimination because of their race, color, or national origin. Although the impacts of this action may affect communities with environmental justice concerns, the proposed actions are not expected to adversely affect sustainable participation in the relevant fisheries; therefore, no negative economic or social effects in the context of EO 12898 are anticipated.

Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA), codified at 5 U.S.C. 600-611, is designed to place the burden on the government to review all regulations to ensure that, while accomplishing their intended purposes, they do not unduly inhibit the ability of small entities to compete. The RFA recognizes that the size of a business, unit of government, or nonprofit organization frequently has a bearing on its ability to comply with a federal regulation. Major goals of the RFA are: 1) to increase agency awareness and understanding of the impact of their regulations on small business; 2) to require that agencies communicate and explain their findings to the public; and 3) to encourage agencies to use flexibility and to provide regulatory relief to small entities.

The RFA emphasizes predicting significant adverse impacts on small entities as a group distinct from other entities and on consideration of alternatives that may minimize the impacts, while still achieving the stated objective of the action. When an agency publishes a proposed rule, it must either, (1)"certify" that the action will not have a significant adverse impact on a substantial number of small entities, and support such a certification declaration with a "factual basis", demonstrating this outcome, or, (2) if such a certification cannot be supported by a factual basis, prepare and make available for public review an Initial Regulatory Flexibility Analysis (IRFA) that describes the impact of the proposed rule on small entities.

This document provides the factual basis supporting NMFS' determination regarding certification whether the proposed regulations will not have a "significant impact on a substantial number of small entities" and that an IRFA is preliminarily not needed in this case.

Basis and Purpose of the Rule and Summary of Preferred Alternatives

This action is taken under the authority of the MSA and associated regulations for fisheries management.

Description and Number of Entities to Which the Rule Applies

For RFA purposes only, NMFS has established a small business size standard for businesses, including their affiliates, whose primary industry is commercial fishing (see 50 CFR § 200.2). A business primarily engaged in commercial fishing (NAICS code 11411) is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual receipts not in excess of $11 million for all its affiliated operations worldwide. The determination as to whether the entity is large or small is based on the average annual revenue for the five years from 2018 through 2022.

The proposed measures have the potential to impact limited access *Illex* squid permits and/or Tier 1 Longfin squid permits. As provided by the NMFS NEFSC (affiliate data June 2023), there were 180 affiliates that held such permits, and 173 were small business entities (7 were classified as large businesses).

Economic Impacts on Regulated Entities

The primary impact for regulated entities involves the cost of a survey to document vessel hold size. This would affect the 46 *Illex* permits that do not also have a similar requirement related to their existing mackerel permit. Previous informal contacts by council staff with a few marine surveyors revealed that a fish hold measurement could run approximately $10-$80 per foot of vessel length, which could range from $750 - $6,000 for a 75 foot vessel to $1,500 - $12,000 for a 150 foot vessel, depending on the surveyor, the boat design, and travel expenses. Public comments indicated that such surveys can be found for the lower of the above ranges. To the extent that surveys are already required for insurance purposes these costs may be already part of a vessel's operating costs. Given the overall costs of operating a fishing vessel, these one-time costs do not appear to be a significant impact on a substantial number of small entities. The vessel hold baseline upgrade restrictions also limits how vessels may be re-configured or replaced. However, in the foreseeable future, a substantial number of small entities are unlikely to undergo such re-configurations or replacements. The annual reporting requirement for processing type should be a negligible addition to existing documentation requirements.

Analysis of Non-Preferred Alternatives

When considering the economic impacts of the alternatives under the Regulatory Flexibility Act, consideration should also be given to those non-preferred alternatives which would result in higher net benefits or lower costs to small entities while still achieving the stated objective of the action. The Council also considered taking no action for these measures, but as described above decided that it was appropriate to limit further capitalization in the *Illex* fishery, and the reporting requirements could assist future assessments at negligible impact to fishery participants.

EO 12866 Analysis – Regulatory Impact Review

INTRODUCTION
Executive Order 12866 (with a recent amendment of Section 3(f) by Executive Order 14094 on April 6, 2023) defines a "significant regulatory action" as one that is likely to result in:

i. an annual effect on the economy of $200 million or more, or one which adversely affects in a material way the economy, a sector of the economy, productivity, jobs, the environment, public health or safety, or state, local, or tribal governments or communities;

ii. a serious inconsistency or interference with an action taken or planned by another agency;

iii. a budgetary impact on entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof;

iv. novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this executive order.

PROBLEM STATEMENT
Effective caps on vessel fishing power in the *Illex* fishery do not currently exist, and vessel processing type declarations are lacking but could help with future stock assessments. There will be a tradeoff involved as the flexibility of the fleet is somewhat reduced from the hold baseline, but the risks from uncontrolled fishing power in fishing fleets are well documented throughout fisheries literature and negative consequences of "increased fishing pressure" is a principal "finding" of Congress as enshrined in the Magnuson-Stevens Fishery Conservation and Management Act.

OBJECTIVES
The objectives of this action are to:

1. Implement a volumetric vessel hold baseline requirement and upgrade restriction for all *Illex* limited access permits, with a similar purpose as other baseline requirements, i.e. to cap fishing power.
2. Implement an annual non-binding intended processing type declaration as a component of annual permitting.

These would be implemented considering the objectives of the MSB Fishery Management Plan, which are binned into three goals:
Goal 1: Maintain sustainable MSB stocks.
Objective 1.1: Prevent overfishing and maintain sustainable biomass levels that achieve optimum yield in the MSB fisheries.
Objective 1.2: Consider and, to the extent practicable, account for the roles of MSB species/fisheries in the ecosystem.
Goal 2: Acknowledging the difficulty in quantifying all costs and benefits, achieve the greatest overall net benefit to the Nation, balancing the needs and priorities of different user groups and effects of management on fishing communities.
Objective 2.1: Provide the greatest degree of freedom and flexibility to harvesters and processors (including shoreside infrastructure) of MSB resources consistent with attainment of the other

objectives of this FMP, including minimizing additional restrictions.
Objective 2.2: Allow opportunities for commercial and recreational MSB fishing, considering the opportunistic nature of the fisheries, changes in availability that may result from changes in climate and other factors, and the need for operational flexibility.
Objective 2.3: Consider and strive to balance the social and economic needs of various sectors of the MSB fisheries (commercial including shoreside infrastructure and recreational) as well as other fisheries or concerns that may be ecologically linked to MSB fisheries.
Objective 2.4: Investigate opportunities to access international/shared resources of MSB species.
Goal 3: Support science, monitoring, and data collection to enhance effective management of MSB fisheries.
Objective 3.1: Improve data collection to better understand the status of MSB stocks, the role of MSB species in the ecosystem, and the biological, ecological, and socioeconomic impacts of management measures, including impacts to other fisheries.
Objective 3.2: Promote opportunities for industry collaboration on research.
Objective 3.3: Encourage research that may lead to practicable opportunities to further reduce bycatch in the MSB fisheries.

While these measures would be slightly constraining to some participants who might otherwise want to increase their vessel size beyond their to-be-specified baseline, the Council determined that avoiding additional overcapitalization would support the sustainability of this fishery and balance the social and economic concerns of different fishery participants who are concerned about the capacity of the fleet.

ANALYSIS AND DETERMINATION OF EXECUTIVE ORDER 12866 SIGNIFICANCE

None of the measures would restrict participants compared to their recent fishery participation. In addition, the *Illex* fishery from 2019-2022 averaged about $22.1 million in ex-vessel revenues. 2023 was substantially less but revenue data are still incomplete. Any theoretical impacts would be well below the $200 million threshold for a significance determination. In addition, there should be no interactions with activities of other agencies and no impacts on entitlements, grants, user fees, or loan programs. The proposed action is also similar to actions taken previously (Atlantic mackerel has a similar baseline), and as such does not raise novel legal or policy issues. There should not be substantial distributional issues, and impacts on income and employment should mirror the impacts on fishing revenues described in this document (negligible). There are no other expected social concerns. Given the above considerations, the proposed action is not considered significant as defined by Executive Order 12866.

8.0 Preparer and Persons/Agencies Consulted

This document was prepared by Jason Didden, of MAFMC staff.

NMFS provided guidance and review of this document from procedural, regulatory, and scientific perspectives. The Council also consulted with the Mid-Atlantic and New England states through their participation on the Council and related meetings.

Copies of this document are available from: Dr. Christopher M. Moore, Executive Director, Mid-Atlantic Fishery Management Council, Suite 201, 800 North State Street, Dover, DE 19901

9.0 References and Background Documents

Hendrickson and Rago 2023. Evaluation of Alternative Catch Limits for Illex. Available at: https://www.mafmc.org/ssc-meetings/march-2023

MAFMC 2021. Environmental Assessment (EA) for 2021-2023 Longfin Squid Specifications available at: https://www.mafmc.org/msb.

MAFMC 2023a. Environmental Assessment (EA) for 2023 *Illex* Specifications available at: https://www.mafmc.org/msb.

MAFMC 2023b. March 2023 SSC Report (*Illex*). 2023 Reports of the MAFMC's SSC are available at https://www.mafmc.org/ssc.

MAFMC 2023c. July 24-26, 2023 SSC Report (Longfin squid). 2023 Reports of the MAFMC's SSC are available at https://www.mafmc.org/ssc.

MAFMC 2024a. 2024 Longfin Squid Fishery Information Document available at https://www.mafmc.org/msb.

MAFMC 2024b. 2024 *Illex* Squid Fishery Information Document available at https://www.mafmc.org/msb.

NEFSC 2023. Longfin Squid Management Track Stock Assessment. Available at https://apps-nefsc.fisheries.noaa.gov/saw/sasi.php or https://www.mafmc.org/ssc-meetings/july-24-26-2023

Rago 2023a. Effects of Survey Uncertainty on Risk of Violating Escapement and Fishing Mortality. Available at https://www.mafmc.org/ssc-meetings/march-2023

Rago 2023b. User Manual for Illex Risk Analysis, v1.0. Available at https://www.mafmc.org/ssc-meetings/march-2023

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