Omega Protein Corporation U.S. Atlantic menhaden purse seine

Expedited Audit Report

Conformity Assessment Body (CAB)	SAI Global
Assessment team	Lead Assessor, Sam Dignan Assessor, Bob Allain
Fishery client	Omega Protein Corporation
Assessment Type	Expedited audit
Report Code	MSC030-0.5
Report Date	21 March 2020

1 Contents

2 Glossary

ACFCMA	Atlantic Coastal Fisheries Cooperative Management Act (Atlantic Coastal Fisheries Act)
ASMFC	Atlantic States Marine Fisheries Commission
CAP	Client Action Plan
CMR	Commission on Marine Resources (Mississippi)
CoC	Chain of Custody
CT	Connecticut
DE	Delaware
DEC	Department of Environmental Conservation (New York)
DENR	Department of Environment and Natural Resources (North Carolina)
DFW	Division of Fish and Wildlife (New Jersey)
DMF	Division of Marine Fisheries (North Carolina)
DMR	Department of Marine Resources (Mississippi)
DMS	Data Management Subcommittee
EEZ	Exclusive Economic Zone
eNGO	environmental Non-Governmental Organization
ERPs	Ecosystem/ecological reference points
F	Fishing mortality
FCP	MSC Fisheries Certification Process
FL	Florida
FMP	Fisheries Management Plan
FWC	Fish and Wildlife Conservation Commission (Florida)
GCR	MSC General Certification Requirements
HCR	Harvest Control Rule
ISFMP	Interstate Fisheries Management Plan
kg	kilogram
lb(s)	pound(s)
LMR	Living Marine Resources
MA	Massachusetts
MCS	Monitoring, Control and Surveillance
MD	Maryland
ME	Maine
MLE	Maritime Law Enforcement Program
MSC	Marine Stewardship Council
mt	metric tons (1 mt = 2,204.6 lbs)
NC	North Carolina
NEPA	National Environmental Policy Act
NH	New Hampshire
NJ	New Jersey
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NY	New York
OLE	Office of Law Enforcement (part of NOAA)
P1	Principle 1: Sustainable target fish stocks (MSC terminology)
P2	Principle 2: Environmental impact of fishing (MSC terminology)
P3	Principle 3: Effective management (MSC terminology)
PCR	Public Certification Report (MSC terminology)
PI	Performance Indicator (MSC terminology)
PISG(s)	Performance Indicator Scoring Guidepost(s) (MSC terminology)
PRFC	Potomac River Fisheries Commission

PRI	Point of Recruitment Impairment
RI	Rhode Island
SC	South Carolina
SED	Southeast Division (Part of OLE)
SEDAR	Southeast Data, Assessment and Review
SG(s)	Scoring Guidepost(s) (MSC terminology)
SI(s)	Scoring Issue(s) (MSC terminology)
SSB	Spawning Stock Biomass
SSB_0	Spawning stock biomass that would be expected in the absence of fishing
SSB_{limit}	Limit reference point for SSB
SSB_{target}	Target reference point for SSB
TAC	Total Allowable Catch
UoA	Unit of Assessment (MSC terminology)
UoC	Unit of Certification (MSC terminology)
U.S.	United States
VA	Virginia
VIMS	Virginia Institute of Marine Science
VMP	Virginia Marine Police
VMRC	Virginia Marine Resources Commission
VMS	Vessel Monitoring System

3 Executive summary

3.1 Description of the expedited audit process.

This report contains the findings of an expedited audit of the MSC-certified fishery:

- **Omega Protein Corporation U.S. Atlantic menhaden purse seine**

This audit was carried out by an audit team commissioned by SAI Global (the CAB) and consisting of Sam Dignan and Bob Allain; further details are provided in Summary of Audit Team's CVs.

The audit process began in December 2019 and was conducted according to relevant requirements as outlined in MSC Fisheries Certification Requirements (FCP) v.2.1. The MSC Scheme Documents and Templates outlined in Table 1 below were used during this surveillance audit.

Table 1. MSC Scheme Documents and Report Templates used during this assessment.

MSC Scheme Document	Version	Issue Date	Implementation
MSC Fisheries Certification Process (FCP)	2.1	31st August 2018	Process
MSC Guidance to the Fisheries Certification Process	2.1	31st August 2018	Guidance to Process
MSC Fisheries Standard	2.01	31st August 2018	Standard
MSC Guidance to the Fisheries Standard	2.01	31st August 2018	Guidance to Standard
MSC General Certification Requirements (GCR)	2.4.1	07th May 2019	Process
MSC Surveillance Reporting Template	v2.01	28th March 2019	Reporting Template

The audit was conducted as an off-site audit which included a remote desktop review by the audit team of documentation relating to relevant changes in the management of the fishery and a remote 'site visit' which involved engagement with the client and interested stakeholders through remote interviews; the remote 'site visit' was carried out on March 05 and 06, 2020.

Being an expedited audit, this audit focussed on the specific issue which triggered the audit (i.e. the Atlantic States Marine Fisheries Commission's (ASMFC) finding the Commonwealth of Virginia out of compliance and the Secretary of Commerce's subsequently concurring with that determination). The audit did not assess the fishery's continuing compliance with MSC Principles and Criteria for sustainable fisheries more generally nor did it evaluate progress against the agreed Year 1 milestones for the three (3) outstanding conditions raised during the initial assessment.

SAI Global would like to thank everyone who participated in this audit for their collaboration and for providing the information and data necessary to carry out this assessment.

3.2 Brief history of assessments.

The fishery under assessment here originally entered assessment in June 2017 and was eventually certified in September 2019. As part of the initial assessment three conditions were raised against the fishery under Performance Indicators (PIs) 1.2.1, 1.2.2 and 2.3.2. This expedited audit represents an 'out of cycle' audit—therefore, with the agreed Year 1 milestones for the currently open conditions not due to be met until the 1st surveillance audit, it would not be appropriate to examine progress against those conditions at this time.

3.3 Summary of expedited audit findings

Table 2 below present a summary of the audit findings as they relate to the various conditions and Performance Indicator (PI) score changes.

Table 2. Summary of audit findings.

Condition number	Condition	PI	Status	PI original score	PI revised score
1*	The Client Group must provide evidence of the implementation of a harvest strategy that is designed to take into consideration the ecological role of Atlantic menhaden and is responsive to the state of the stock with respect to its role in the U.S. Northwest Atlantic ecosystem.	1.2.1	Not assessed	70	Not revised
2*	The client must provide evidence of implementation of well-defined harvest control rules that take into consideration the ecological role of Atlantic menhaden as key low trophic level in the U.S. Northwest Atlantic and that; 1. ensure the exploitation rate is reduced as the point where serious ecosystem impacts could occur and; 2. are expected to keep the stock fluctuating around a target level consistent with ecosystem needs.	1.2.2	Not assessed	75	Not revised
3*	There shall be a regular review of the potential effectiveness and practicality of alternative measures to minimize UoA-related mortality of ETP species and they are implemented as appropriate. "Regular review" in this context meaning at least once every 5 years. The 'regular review' at SG80 may be met if at least one review of alternative measures has been undertaken, that measures are implemented as appropriate, and there is a commitment from the client or the management body to have another review within the 5-year window.	2.3.2	Not assessed	75	Not revised

* As these conditions have not yet reached their agreed Year 1 milestones it would not be appropriate to assess progress at this time.

3.4 Statement confirming the status of certification

Following this audit, SAI Global has determined that the MSC-certified fishery titled 'Omega Protein Corporation U.S. Atlantic menhaden purse seine' continues to meet the applicable MSC requirements such that continued certification is appropriate; therefore, the certification status of the fishery as certified remains unchanged.

Updated certification status = **CERTIFIED**

4 Report details

4.1 Audit information

Table 3. Expedited audit announcement.

1	Fishery name	
	Omega Protein Corporation U.S. Atlantic menhaden purse seine	
2	Audit type	
	Expedited audit of Principle 3 conducted as an off-site audit.	
3	Surveillance number	
	1st Surveillance	
	2nd Surveillance	
	3rd Surveillance	
	4th Surveillance	
	Other (expedited etc)	**X**
4	Proposed team leader	
	Sam Dignan (Lead assessor) Sam meets the fishery team leader qualification and competency criteria outlined in MSC FCP v2.1 §Table PC1; he has: ▪ A degree in a relevant subject. ▪ +3 years' fisheries experience. ▪ Reviewed any updates to the MSC Fisheries Program Documents at least annually. ▪ Passed MSC's fishery team leader training within the last 5 years as well as new versions of online training modules where relevant. ▪ Passed an appropriate ISO Lead Auditor training course as required by MSC requirements. In addition to the above, Sam also has 2 assignments in the country or region in which the fishery under assessment is based in the last 10 years. Sam does not have any conflicts of interest in relation to the fishery under assessment; a summary of his CV is provided in Appendix 1. Sam will be off-site during this assessment.	
5	Proposed team members	
	R.J. (Bob) Allain (Assessor) – Responsibility for Principle 3 Bob meets the Fishery Team Member Qualification and Competency Criteria outlined in MSC FCP v2.1 §Table PC1 and the Fishery Management component of §Table PC3; he has: ▪ A degree in a relevant subject ▪ +3 years' fisheries experience ▪ Passed MSC's fishery team member training within the last 3 years ▪ +5 years' experience as a practicing fishery manager and/or fishery/policy analyst. ▪ +2 assignments in the country or region in which the fishery is based in the last 10 years. Bob does not have any conflicts of interest in relation to the fishery under assessment; a summary of his CV is provided in Appendix 1. Bob will be off-site during this assessment.	
6	Audit/review time and location	
	Audit activities were conducted on **March 05 and 06, 2020** via remote conferencing platforms (WebEx/Skype) as appropriate.	
7	Assessment and review activities	
	The scope of this expedited audit was limited to the specific issue that has caused it to be triggered (i.e. the Atlantic States Marine Fisheries Commission's non-compliance finding against the Commonwealth of Virginia)—it was not the intention, nor was it within scope, of this expedited audit to review all issues that arose during the initial assessment of this fishery.	

4.2 Background

4.2.1 Introduction to the Chesapeake Bay Reduction Fishery Cap

The Chesapeake Bay Reduction Fishery Cap (hereafter 'Bay Cap' or 'Cap'), which limits the annual total allowable harvest for the purposes of reduction from areas of the Chesapeake Bay shoreward of the Chesapeake Bay Bridge Tunnel, came into being as of Addendum II[1] (2005) to Amendment 1 of the Interstate Fishery Management Plan for Atlantic Menhaden (Note while this is the official name for this document it is by convention referred to as the 'FMP' or 'menhaden FMP'—this being the case it will be referred to as such hereafter).

The Cap was originally implemented on a precautionary basis in response to concerns regarding the possibility of localized depletion of menhaden in the Bay. Neither the actual number of the original Cap, nor any of the subsequent stepwise reductions have been explicitly science-based. Addendum III itself specifically states that the Cap "is precautionary and not based on a scientifically quantified harvest threshold, fishery health index, or fishery population level study". The intent of the Cap at that time was to limit the expansion of menhaden reduction landings from within the Chesapeake while the studies were conducted to explore the potential for localized depletion in the Chesapeake Bay.

Subsequent to Addendum II, in 2005, ASMFC established the Atlantic Menhaden Research Program (AMRP) to further examine the possibility of localized depletion. The AMRP eventually reported in 2009 but were unable to conclude that localized depletion of menhaden was occurring in the Chesapeake Bay. The report further remarked that, given the high mobility of menhaden, the potential for localized depletion could only occur on a 'relatively small scale for a relatively short time.'

Addendum II (2005) both instituted the Bay Cap and established it for five fishing seasons (2006 – 2010). Addendum III[2] (2006) revised the harvest cap amount before the 2006 season commenced and set the Cap at 109,020 mt based on average annual landings in the period 1999 – 2004.

Addendum III also including a roll-over provision which allowed limited amount (up to 13,720 mt) of unharvested fish in one year to be added to the next year's Cap. The 13,720 mt figure was based on the maximum underage that would have occurred over the 2001 – 2005 reference period had a Cap of 109,020 mt been in place. The effect of this roll-over provision was that the maximum allowable catch of menhaden from the Bay for reduction purposes in a given year was 122,740 mt.

Addendum IV (2009) extended the Cap (which was due to expire) by three additional years (2011 – 2013) at the same levels as established in Addendum III (109,020 mt).

In 2012, Amendment 2 reduced the Cap to 87,216 mt—this represented a 20% reduction and was not based on average landings over a reference period. Amendment 2 retained the roll-over provision introduced in Addendum III.

Finally, Amendment 3 (November 2017) reduced the Cap to 51,000 mt based on an approx. 5-year average of landings from the area of the Bay covered by the Cap. Amendment 3 also removed the roll-over provision. On the issue of localized depletion, Amendment 3 noted the results of the AMRP review as being unable to provide conclusive evidence that localized depletion is occurring in the Chesapeake Bay before continuing to remark that the Cap provides a greater level of protection in the region than the overall coastwide TAC alone.

[1] Addendum II to Amendment 1 to the Interstate Fishery Management Plan For Atlantic Menhaden (October 2005): http://www.asmfc.org/uploads/file//546b96ecAtlMenhadenAddendumII_05.pdf

[2] Addendum III to Amendment 1 to the Interstate Fishery Management Plan for Atlantic menhaden (November 2006): http://www.asmfc.org/uploads/file//546b96d4AtlMenhadenAddendumIII_06.pdf

Up until Amendment 3, the Cap had always been codified in Virginia State legislation making it binding in Virginia State waters—however, the Virginia State legislature, the body responsible for managing the fishery in Virginia waters, refused to reduce the Cap to 51,000 mt as specified in Amendment 3—therefore, as it currently stands at the time of writing this report:

- The revised Bay Cap of 51,000 mt, stipulated by the ASMFC in the Amendment 3 to the menhaden FMP, has not been implemented by Virginia and as such is not effective in Virginia State Waters.
- The previous Cap of 87,216 mt, stipulated in Amendment 2 to the menhaden FMP, remains codified in Virginia State Legislation and as such effective in Virginia State Waters.

4.2.2 Timeline of events leading to expedited audit

In November 2017, the ASMFC approved Amendment 3 to Atlantic menhaden FMP, thereby reducing the Bay Cap from 87,216 mt to 51,000 mt. States were required to submit implementation plans for Amendment 3 (including the revised Cap) to ASMFC by January 1, 2018 for final implementation by April 15, 2018.

In May 2018, ASMFC notified the Commonwealth of Virginia of potential non-compliance action in relation to their failure to implement the revised Bay Cap as required[3]. At that time, the Board postponed action until August 2018 as; 1) Virginia's General Assembly, the body responsible for managing menhaden in Virginia, was still in session and had an opportunity to implement the 51,000 mt Bay cap, and; 2) the fishery was just starting and was deemed highly unlikely to exceed the revised Bay cap prior to August.

At the August 2018 meeting the motion was again postponed to February 2019 to allow the Virginia State Legislature another opportunity to consider the issue[4]. At that time, available data (through July 27, 2018) showed that 43.8% (approx. 22,000 mt) of the revised Amendment 3 Cap had been harvested— ultimately, reported reduction landings from the Chesapeake Bay for 2018 were approx. 32,000 mt.

In February 2019, the Menhaden Management Board indefinitely postponed non-compliance action against the Commonwealth of Virginia relating to the Commonwealth's failure to implement the revised 51,000 mt Bay Cap[5]. The Board specified that this action was contingent upon the fishery not exceeding the revised Cap and that, if the cap were exceeded, the Board could reconsider the issue. In making its decision, the Board considered the fact that harvest had been below the level of the revised Cap since 2012. This was the situation as it stood at the time the fishery was MSC-certified in September 2019—therefore, when the fishery was certified on September 03, 2019:

- The Commonwealth of Virginia had not been found to be Out of Compliance.
- ASMFC had indefinitely postponed non-compliance action having passed a motion requiring Virginia to maintain harvest below the revised Cap.
- The Amendment 3 Bay Cap (51,000 mt) had not been exceeded.

Approx. two weeks after the fishery was certified, SAI Global first became aware that Omega Protein had indicated their intention to exceed the Amendment 3 Bay Cap (of 51,000 mt). The reasons quoted in Omega Protein's press release were the abundance of menhaden in the Chesapeake combined with adverse fishing conditions outside the Bay. At that time, Omega indicated their intention to adhere to the Cap codified in Virginia law (i.e. 87,216 mt).

Having learned of this information, SAI Global contacted the ASMFC via email to ascertain whether it was the ASFMC's intention to re-visit the non-compliance issue at the next meeting of the Board in late-October 2019. In response the ASMFC confirmed that the Board would take up the issue of Virginia's exceeding the Bay Cap at their October meeting—they further clarified that they would not take up the issue before then.

[3] http://www.asmfc.org/uploads/file/5aea1338pr14Menhaden_VACompliance.pdf
[4] http://www.asmfc.org/uploads/file/5c6345d3AtlMenhadenBoardProceedings_Aug2018.pdf
[5] http://www.asmfc.org/uploads/file/5c5c6f03pr06VA_MenhadenCompliance.pdf

MSC FCP v2.1 §7.29.1 requires CABs to complete an expedited audit if they become aware of changes to the circumstances of a certified fishery, and/or of new information, that may cause a 'material difference' in the fisheries conformity to MSC requirements where a 'material difference' is further defined as:

i. A Performance Indicator (PI) score falling below 60.
ii. A PI score falling between 60 and 80.
iii. A Principle score falling below an aggregate 80 score due to the changes to 1 or more PIs.
iv. A change in scope.

Having received ASMFC's reply, SAI Global reviewed the available information with specific respect to whether it met the above criteria for triggering an expedited audit. Having done so, and in absence of a formal non-compliance finding by ASMFC, SAI Global determined that Omega's exceeding the Amendment 3 Cap did not in-and-of-itself lead to any changes in the fishery's conformity to relevant MSC requirements (i.e. it did not represent a 'material change'). Therefore, based on the information available in September 2019, SAI Global did not consider it appropriate to trigger an expedited audit.

The ASMFC's Atlantic menhaden management board subsequently met on October 27, 2019[6]. During that meeting the Board formally found the Commonwealth of Virginia out of compliance with a mandatory management measure contained in Amendment 3 to the Interstate Fishery Management Plan for Atlantic Menhaden[7]. Specifically, Board found that Virginia had failed to effectively implement and enforce Section 4.3.7 Chesapeake Bay Reduction Fishery Cap of Amendment 3 of the menhaden FMP. The Board further stipulated that, in order to come back into compliance, Virginia must implement an annual total allowable harvest from the Chesapeake Bay by the reduction fishery of no more than 51,000 mt.

Pursuant to the provisions of the Atlantic Coastal Fisheries Cooperative Management Act (1993), the ASMFC also notified the U.S. Secretary of Commerce of its non-compliance finding following which the Secretary of Commerce had 30 days to review the recommendation and determine appropriate action.

Having become aware of the outcome of the October 2019 ASMFC meeting, SAI Global again initiated a review of the available information with specific respect to the appropriateness of triggering an expedited audit. SAI Global also posted a stakeholder notification on the MSC webpage for this fishery on November 01, 2019 informing stakeholders of our intention to review changes to the circumstances of the menhaden fishery. Stakeholders were also notified at that time that a final determination might not be arrived at until the Secretary of Commerce rendered a final decision on the matter.

On December 19, 2019, the ASMFC received notification, via a decision letter issued by NOAA Fisheries on behalf of the Department of Commerce, that the Secretary of Commerce concurred with the ASMFC's finding that the Commonwealth of Virginia was out of compliance with Amendment 3 to the menhaden FMP[8]. The Secretary additionally declared a moratorium on Atlantic menhaden fisheries in Virginia waters, effective June 17, 2020 and specified that, in order to avert the moratorium, Virginia must effectively implement and enforce the Amendment 3 Cap prior to June 17, 2020[9].

Immediately following the Secretary's concurring with the non-compliance finding, on December 20, 2019, SAI Global having considered the developments of September to December 2019, determined that they could constitute a 'material difference' to the fishery's conformity to MSC requirements such that the appropriate course of action was to trigger an expedited audit to consider the matter in more detail.

[6] http://www.asmfc.org/uploads/file/5e41d245AtlMenhadenBoardProceedings_Oct2019.pdf
[7] http://www.asmfc.org/uploads/file/5dbb11d3pr34Menhaden_VACompliance.pdf
[8] http://www.asmfc.org/uploads/file/5dfbd30bpr40SecretarialSupport_Menhaden_VANoncompliance.pdf
[9] https://www.federalregister.gov/documents/2019/12/27/2019-27834/atlantic-coastal-fisheries-cooperative-management-act-provisions-atlantic-menhaden-fishery

On December 20, 2019, SAI Global again posted a stakeholder notification on the MSC webpage for this fishery informing stakeholders of our intention to conduct an expedited audit. In that statement stakeholders were additionally informed that it was not feasible to complete the procedures necessary to officially announce the audit prior to the impending Christmas break and that the audit would be officially announced in early-January.

Finally, on January 21, 2020, once everything was in place to do so this expedited audit was officially announced as an off-site audit with a 'site visit' period of March 05 and 06, 2020.

4.2.3 Determining the scope of this expedited audit

There are number of important considerations which mean that compliance/non-compliance with the Bay Cap is a compliance and enforcement issue, most appropriately addressed under Principle 3 of the MSC requirements, rather than a target stock management issued to be addressed under Principle 1.

Primarily, this is based on the fact that the Bay Cap is not a quota *per se* but is instead a sub-division of the overall coastwide TAC. Additional considerations are that, while the Cap is ostensibly precautionary in nature, it effectively represents a political compromise and that the Bay Cap as originally set, and all subsequent reductions, are not explicitly science-based. Overall, the Cap is not part of the overall coastwide harvest strategy for the menhaden fishery and as such was not considered under P1 during the initial assessment of this fishery.

Additionally, with the Cap not being (explicitly at least) science-based, there is no firm evidence that Omega's overshooting the revised Cap unduly impacts the sustainability of the menhaden population itself or any other species. Furthermore, while catches in the recent past have generally not exceeded 51,000 mt, annual catches from the Bay prior to 2000 were often well above 51,000 mt.

This expedited audit therefore primarily examines the fishery's continuing compliance with Principle 3 of the MSC Standard in light of recent developments within the fishery.

4.3 Version details

The versions of the MSC fisheries program documents used for this assessment are outlined in Table 4 below.

Table 4. Fisheries program documents versions.

Document	Version number
MSC Fisheries Certification Process	Version 2.1
MSC Fisheries Standard	Version 2.01
MSC General Certification Requirements	Version 2.4
MSC Reporting Template	Version 2.01

4.4 Unit of Assessment (UoA)

The Unit of Assessment for this fishery remains unchanged from at the time of initial assessment as described in Table 5 below.

Table 5. Unit of Assessment for the Atlantic menhaden purse seine fishery.

Species	Atlantic menhaden (*Brevoortia tyrannus*)
Geographical Area	US EEZ Atlantic Coast (Virginia, North Carolina, New Jersey, Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, Delaware Maryland, Potomac River Fisheries Commission, South Carolina, Georgia, Florida)
Stock	Atlantic menhaden in western coastal Atlantic waters (Nova Scotia to Florida)
Method of capture	Purse seine
Management system	When operating in State waters, the fishery is managed by the respective state authorities with inter-state coordination via the Atlantic States Marine Fisheries Commission (ASMFC). ▪ **Virginia (VA) –** Virginia General Assembly. ▪ **North Carolina (NC) –** Department of Environmental Quality (DEQ), Division of Marine Fisheries. ▪ **New Jersey (NJ) –** Department of Environmental Protection (DEP), Division of Fish and Wildlife. ▪ **Maine (ME) –** Department of Marine Resources (DMR). ▪ **New Hampshire (NH) –** Fish and Game Department, Division of Marine Fisheries. ▪ **Massachusetts (MA) –** Department of Fish and Game, Division of Marine Fisheries. ▪ **Rhode Island (RI) –** Department of Environmental Management (DEM), Division of Fish and Wildlife. ▪ **Connecticut (CT) –** Department of Energy and Environmental Protection (DEEP), Bureau of Natural Resources, Division of Fisheries. ▪ **New York (NY) –** Department of Environmental Conservation, Division of Marine Resources. ▪ **Delaware (DE) –** Department of Natural Resources and Environmental Control (DNREC), Division of Fish and Wildlife. ▪ **Maryland (MD) –** Department of Natural Resources, Division of Fisheries and Boating Services. ▪ **Potomac River Fisheries Commission (PRFC)** ▪ **South Carolina (SC) –** Department of Natural Resources (DNR), Division of Marine Resources ▪ **Georgia (GA) –** Department of Natural Resources (DNR), Division of Coastal Resources ▪ **Florida (FL) –** Fish and Wildlife Conservation Commission (FWC), Division of Marine Fisheries Management.
Client Group and other eligible fishers	All professional fishermen in the US Atlantic entitled to fish Atlantic menhaden with purse seines. There are other eligible fishers.

5 Results

5.1 Surveillance results overview

5.1.1 Confirmation of fishery's remaining within scope

SAI Global confirms that the fishery remains within scope of the MSC Fisheries Standard as follows:

- The target species is not an amphibian, reptile, bird or mammal;
- The fishery does not use poisons or explosives;
- The fishery is not conducted under a controversial unilateral exemption to an international agreement;
- The client or client group does not include an entity that has been successfully prosecuted for a forced or child labour violation in the last 2 years;
  - SAI Global further confirms a completed 'Certificate Holder Forced and Child Labour Policies, Practices and Measures Template' for this fishery has been uploaded to the relevant MSC webpage.
- The fishery has in place a mechanism for resolving disputes, and disputes do not overwhelm the fishery.

5.1.2 Summary of conditions

Table 6 below summarises conditions relevant to this fishery including those in place prior to this this expedited audit and any raised as a result of this audit. Further details of the conditions are provided in the appendices.

Table 6. Summary of conditions.

Condition number	Condition	PI	Status	PI original score	PI revised score
1*	The Client Group must provide evidence of the implementation of a harvest strategy that is designed to take into consideration the ecological role of Atlantic menhaden and is responsive to the state of the stock with respect to its role in the U.S. Northwest Atlantic ecosystem.	1.2.1	Not assessed	70	Not revised
2*	The client must provide evidence of implementation of well-defined harvest control rules that take into consideration the ecological role of Atlantic menhaden as key low trophic level in the U.S. Northwest Atlantic and that; 1. ensure the exploitation rate is reduced as the point where serious ecosystem impacts could occur and; 2. are expected to keep the stock fluctuating around a target level consistent with ecosystem needs.	1.2.2	Not assessed	75	Not revised
3*	There shall be a regular review of the potential effectiveness and practicality of alternative measures to minimize UoA-related mortality of ETP species and they are implemented as appropriate. "Regular review" in this context meaning at least once every 5 years. The 'regular review' at SG80 may be met if at least one review of alternative measures has been undertaken, that measures are implemented as appropriate, and there is a commitment from the client or the management body to have another review within the 5-year window.	2.3.2	Not assessed	75	Not revised

* As these conditions have not yet reached their agreed Year 1 milestones it would not be appropriate to assess progress at this time.

5.1.3 Total Allowable Catch (TAC) and catch data

Table 7 below represents an updated Total Allowable Catch (TAC) and catch data table for the fishery under assessment. In August 2019 the ASMFC determined to maintain the TAC at 216,000mt for the 2020 fishing season with the option of revisiting the 2020 TAC following review of the 2019 single-species and ecological reference point benchmark stock assessments and peer-review reports.

Table 7. Total Allowable Catch (TAC) and catch data.

TAC	Year	2019	Amount	216,000 mt*
UoA share of TAC	Year	2019	Amount	100%
UoA share of total TAC	Year	2019	Amount	151,382 mt**
Total green weight catch by UoC	Year (most recent)	2019	Amount	124,356 mt***
Total green weight catch by UoC	Year (second most recent)	2018	Amount	141,300 mt

* Overall TAC, reduction and bait fisheries combined.
** Reduction fisheries TAC.
*** Provisional through September 20, 2019.

5.1.4 Recommendations

Recommendations are not obligatory and while they do not require actions on the part of the fishery the client is encouraged to act upon them within the spirit of MSC certification. No new recommendations have been made and the pre-existing recommendations (of which there were four) have not been assessed herein.

5.2 Conditions

Table 8 to Table 10 below presents an update on each condition relevant to this fishery—this includes both pre-existing conditions and any new conditions raised during this audit. All reporting on conditions uses the same narrative or metric form as the original condition. As this is an expedited audit, with Year 1 deadlines not yet having become due, progress against milestones etc. has not been assessed. For the same reason, progress on any outstanding recommendations has not been reviewed.

Where new issues have been identified as part of this expedited audit process (i.e. where the information base has changed such that a material change has occurred), the assessment team has re-scored relevant Performance Indicators with re-scoring tables included in Re-scoring Performance Indicators below.

Had re-scoring resulted in new conditions, these would have been described here along with agreed timescales for implementation and timeframes for achievement—but no new conditions have been raised.

Table 8. Condition 1 (of 3).

Performance Indicator	PI 1.2.1. Harvest Strategy.
Score	70
Justification	SG80 for SIa requires that the harvest strategy be responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1a SG80 (i.e. It is highly likely that the stock is above the point where serious ecosystem impacts could occur and the stock is at or fluctuating around a level consistent with ecosystem needs). Evidence is lacking that the current harvest strategy design takes into consideration the ecological role of Atlantic Menhaden as key low trophic level in the US Northwest Atlantic and is responsive to the state of the stock with respect to its role in the ecosystem. Evidence is also lacking that the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1a SG80 which is to maintain the Atlantic Menhaden stock above the point where serious ecosystem impacts could occur and the stock; 1) above the point where serious ecosystem impacts could occur, and; 2) fluctuating around a level consistent with ecosystem needs; as a consequence, SG80 is not met.

Table 8. Condition 1 (of 3).	
Condition	The Client Group must provide evidence of the implementation of a harvest strategy that is designed to take into consideration the ecological role of Atlantic menhaden and is responsive to the state of the stock with respect to its role in the U.S. Northwest Atlantic ecosystem.
Milestones	**Year 1 (progress to be examined at Surveillance 1)** The Assessment Team shall be provided with documentary evidence that the Client group has worked actively, through ASMFC and NMFS, to promote the development of an appropriate harvest strategy, where the ecological role of Atlantic menhaden as key low trophic species is considered. **Score: 70.** **Year 2 (progress to be examined at Surveillance 2):** The Assessment Team shall be provided with documentary evidence that the Client group has actively contributed, through ASMFC and NMFS, to the development of an appropriate harvest strategy, where the ecological role of Atlantic menhaden as a key low trophic species is considered. **Score: 70.** **Year 3 (progress to be examined at Surveillance 3):** The Assessment Team shall be provided with documentary evidence that the Client group has continued to actively contribute to the development of and worked, through ASMFC and NMFS, to promote the adoption of an appropriate harvest strategy, where the ecological role of Atlantic menhaden as a key low trophic species is considered. **Score: 70.** **Year 4 (progress to be examined at Surveillance 4):** The Assessment Team shall be provided with documentary evidence that an appropriate harvest strategy, where the ecological role of Atlantic menhaden as key low trophic species is considered, is in place and has been adopted by both the ASFMC and States relevant to the management of the Atlantic menhaden reduction fishery. **Score: 80 (Condition closed).**
Consultation on condition	As this is a pre-existing condition, any verification required to meet the requirements of MSC FCP v2.1 §7.19.8 was conducted during the initial assessment.
Progress on Condition (Year 0)	As this expedited audit is taking place 'out of cycle' and prior to the first of the agreed milestones for this condition, there is no agreed milestone against which to measure progress to date—therefore, progress against this condition has not been measured as part of this audit.
Status	Progress against this pre-existing condition has not been measured as part of this audit—therefore, the status of this condition remains unchanged as at the time of initial certification. Status = Open (progress to be examined at surveillance 1).
Additional information	None.

Table 9. Condition 2 (of 3).	
Performance Indicator	PI 1.2.2. Harvest control rules & tools.
Score	75
Justification	For key LTL species, SG80 for SIa requires that well-defined HCRs are in place that are expected to keep the stock fluctuating around a target level consistent with ecosystem needs. There are no well-defined HCRs in place that are expected to keep the Atlantic Menhaden stock fluctuating around a target level consistent with ecosystem needs; as a consequence SG80 is not met.
Condition	The client must provide evidence of implementation of well-defined harvest control rules that take into consideration the ecological role of Atlantic menhaden as key low trophic level in the U.S. Northwest Atlantic and that; 1. ensure the exploitation rate is reduced as the point where serious ecosystem impacts could occur is approached and; 2. are expected to keep the stock fluctuating around a target level consistent with ecosystem needs.

Table 9. Condition 2 (of 3).	
Milestones	**Year 1 (progress to be examined at Surveillance 1):** The Assessment team shall be provided with documentary evidence that the Client group has actively worked, through ASMFC and NMFS, to promote the development of well-defined harvest control rules that take into consideration the ecological role of Atlantic menhaden and that; 1) ensure the exploitation rate is reduced as the point where serious ecosystem impacts could occur and; 2) are expected to keep the stock fluctuating around a target level consistent with ecosystem needs. **Score: 75.** **Year 2 (progress to be examined at Surveillance 2):** The Assessment team shall be provided with documentary evidence that the Client group has actively contributed, through ASMFC and NMFS, to the development of well-defined harvest control rules that take into consideration the ecological role of Atlantic menhaden and that; 1) ensure the exploitation rate is reduced as the point where serious ecosystem impacts could occur and; 2) are expected to keep the stock fluctuating around a target level consistent with ecosystem needs. **Score: 75.** **Year 3 (progress to be examined at Surveillance 3):** The Assessment team shall be provided with documentary evidence that the Client group has continued to actively contribute to the development of and worked, through ASMFC and NMFS, to promote the adoption of well-defined harvest control rules that take into consideration the ecological role of Atlantic menhaden and that; 1) ensure the exploitation rate is reduced as the point where serious ecosystem impacts could occur and; 2) are expected to keep the stock fluctuating around a target level consistent with ecosystem needs. **Score: 75.** **Year 4 (progress to be examined at Surveillance 4):** The Assessment team shall be provided with documentary evidence that well-defined harvest control rules that take into consideration the ecological role of Atlantic menhaden and that; 1) ensure the exploitation rate is reduced as the point where serious ecosystem impacts could occur is approached and; 2) are expected to keep the stock fluctuating around a target level consistent with ecosystem needs, are in place and have been adopted by both the ASFMC and States relevant to the management of the Atlantic menhaden reduction fishery. **Re-score: 80 (Condition closed).**
Consultation on condition	As this is a pre-existing condition, any verification required to meet the requirements of MSC FCP v2.1 §7.19.8 was conducted during the initial assessment.
Progress on Condition (Year 0)	As this expedited audit is taking place 'out of cycle' and prior to the first of the agreed milestones for this condition, there is no agreed milestone against which to measure progress to date—therefore, progress against this condition has not been measured as part of this audit.
Status	Progress against this pre-existing condition has not been measured as part of this audit—therefore, the status of this condition remains unchanged as at the time of initial certification. Status = Open (progress to be examined at surveillance 1).
Additional information	

Table 10. Condition 3 (of 3).	
Performance Indicator	**PI 2.3.2. ETP species management strategy.**
Score	75
Justification	SG80 for SIe requires that there be a regular review of the potential effectiveness and practicality of alternative measures to minimize UoA-related mortality of ETP species and that any potentially effective and practicable alternative measures are implemented as appropriate.

	Rester and Condrey (1999) evaluated bycatch reduction devices in the Gulf menhaden fishery and recommended some changes to the structure of these devices to optimize pumping efficiency while also reducing the potential for large bycatch and/or ETP species to become entrained in the pumping apparatus. While this study took place in the Gulf of Mexico the menhaden fishery there is analogous to the Atlantic fishery and as such the findings of study may also be applied to the Atlantic fishery. The Endangered Species Act lists the species that are threatened or endangered. Once listed, a species may not be taken, possessed, harassed, or otherwise molested. It also provides for a review process to ensure that projects authorized, funded, or carried out by federal agencies do not jeopardize the existence of these species. However, there is no regular review of the potential effectiveness and practicality of alternative measures to minimize the mortality of ETP species related to the menhaden fishery; as a consequence, SG80 is not met.
Condition	There shall be a regular review of the potential effectiveness and practicality of alternative measures to minimize UoA-related mortality of ETP species and they are implemented as appropriate. "Regular review" in this context meaning at least once every 5 years. The 'regular review' at SG80 may be met if at least one review of alternative measures has been undertaken, that measures are implemented as appropriate, and there is a commitment from the client or the management body to have another review within the 5-year window.
Milestones	**<u>Year 1 (progress to be examined at Surveillance 1)</u>** The Client shall initiate a review of potential alternative measures (i.e. alternative fishing gear and/or practices that have been shown to minimize the rate of incidental mortality of the impacted species or species type to the lowest achievable levels) that might possibly serve to reduce the mortality of ETP species related to the menhaden fishery. **Score 75.** **<u>Year 2 (progress to be examined at Surveillance 2)</u>** The Client shall conduct a review of potential alternative measures (i.e. alternative fishing gear and/or practices that have been shown to minimize the rate of incidental mortality of the impacted species or species type to the lowest achievable levels) that might possibly serve to reduce the mortality of ETP species related to the menhaden fishery. **Score 75.** **<u>Year 3 (progress to be examined at Surveillance 3)</u>** ***Year 3 – Alternative milestone A:*** If the review does not identify any effective and practical alternative measures, above and beyond those already in place, that might possibly serve to reduce the mortality of ETP species related to the menhaden fishery, the Client shall commit to conducting another review within 5 years, thereby fulfilling the "regular" part of SG80 for SIe. **Score 80 (Condition closed).** ***OR*** ***Year 3 – Alternative milestone B:*** If the review identifies alternative measures that are likely to be both effective and practical to implement which might possibly serve to reduce the mortality of ETP species related to the menhaden fishery, the Client shall commit to implementing those alternative measures as appropriate. **Score 75.** **<u>Year 4 (progress to be examined at Surveillance 4)</u>** If the Year 3 – Alternative milestone A has not been met and the Condition is still open, the Client shall demonstrate that they are actively implementing the alternative measures identified during the review process as appropriate. In addition, the Client shall commit to conducting another review (to include a review of the operational effectiveness of the new alternative measures) within 5 years, thereby fulfilling the "regular" part of SG80 for SIe. **Score 80 (Condition closed).**

Consultation on condition	As this is a pre-existing condition, any verification required to meet the requirements of MSC FCP v2.1 §7.19.8 was conducted during the initial assessment.
Progress on Condition (Year 0)	As this expedited audit is taking place 'out of cycle' and prior to the first of the agreed milestones for this condition, there is no agreed milestone against which to measure progress to date—therefore, progress against this condition has not been measured as part of this audit.
Status	Progress against this pre-existing condition has not been measured as part of this audit—therefore, the status of this condition remains unchanged as at the time of initial certification. Status = Open (progress to be examined at surveillance 1).
Additional information	

5.3 Client Action Plan

No updates to the Client Action Plans from the fishery client to address the existing conditions have been required as a result of this expedited audit. Furthermore, as no new conditions have been raised, no new Client Action Plans are required.

5.4 Re-scoring Performance Indicators

Reports are required to include scoring tables for any Performance Indicators that require re-scoring. Included in this section are those scoring tables for any Performance Indicators (PIs) that the team deemed required re-scoring during this expedited audit. Note the scoring tables used are those from the version of the MSC Full Assessment Reporting Template used during the initial assessment. Within the scoring tables rationales are identified as follows:

1. Original rationales that remain relevant are in **black**.
2. Original rationales that are no longer relevant are ~~struck through and greyed out~~.
3. Revised rationales are in **blue**.

5.4.1 Re-scoring table for PI 3.1.1 (Legal and/or customary framework)

PI 3.1.1		The management system exists within an appropriate legal and/or customary framework which ensures that it: - Is capable of delivering sustainability in the UoA(s); - Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and - Incorporates an appropriate dispute resolution framework		
Scoring Issue		SG 60	SG 80	SG 100
a	**Compatibility of laws or standards with effective management**			
	Guide post	There is an effective national legal system **and a framework for cooperation** with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2	There is an effective national legal system and **organised and effective cooperation** with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2.	There is an effective national legal system and **binding procedures governing cooperation with other parties** which delivers management outcomes consistent with MSC Principles 1 and 2.
	Met?	**Yes**	**Yes**	**Yes**

Rationale

There is an effective national legal system and binding procedures governing cooperation with other parties which delivers management outcomes consistent with MSC Principles 1 and 2.

The Atlantic commercial menhaden fishery is managed by a suite of federal (i.e. NOAA-NMFS; NWS; EPA; USCG) and state laws, and supporting measures and policies which collectively establish an effective federal-state legal framework capable of delivery management outcomes consistent with MSC Principles 1 and 2 **(SG 60 is met).**

Management responsibilities are shared across federal-state and inter-state jurisdictions, and are discharged within a legal and policy framework that emphasizes the importance of cooperation and collaboration between and amongst government departments/agencies and commissions, local civil society, stakeholders and community group. The Interjurisdictional Fisheries Act (IFA, 1986) and the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA, 1993) are examples of longstanding national statutes whose provisions include promoting cooperation across jurisdictions in an organized and effective manner to deliver management outcomes consistent with MSC Principles 1 and 2 **(SG 80 is met).**

Cooperation between jurisdictions is formalized through various mechanisms, including binding procedures administered by the Atlantic States Marine Fisheries Commission and ratified by States (i.e. inter-agency protocols for fisheries data collection and analysis; stock assessment; enforcement and compliance; program reviews, and ecosystem approach under the Endangered Species Act), administrative codes (i.e. inter-agency committee deliberations; stakeholder and public engagement), and compacts (i.e. Public Law creating the Atlantic States Fisheries Management Commission) (**SG 100 is met**).

Submissions forwarded to SAI Global by representatives of three stakeholder organizations (see Sections 6.2.1 and 6.2.2) allege that the SG100 score assigned for Scoring Issue (SI) (a) was inappropriate as a result of the Commonwealth of Virginia's decision not to implement and enforce the ASMFC's Chesapeake Bay cap of 51,000 mt for the 2019 fishing season, and Omega's decision to harvest above the cap. The representatives maintain that these actions had the effect of rendering the national legal system ineffective and the procedures governing cooperation with other parties non-binding.

SAI Global carefully considered MSC guidance on the evidence required to score Scoring Issue (SI a) at the SG 100 level in light of the aforementioned actions which, all would agree, are not in dispute. The guidance appears in version 2.01 of the MSC Fisheries Standard (August 2018), Annex SA 4.3.4: Specifically,

SA 4.3.4. At the SG 100 level for scoring issue (a), teams shall interpret consistent with laws and standards as follow:

SA 4.3.4.1. For a UoA not subject to international cooperation for management of the stock, this means:

a. The existence of national laws, agreements and policies governing the actions of all the authorities and actors involved in managing the UoA; and
b. That these laws, agreements and/policies also provide for a formal system for the cooperation between national entities (e.g., between regional and national management, state and federal management, indigenous and other groups) on national management issues.

PI 3.1.1	The management system exists within an appropriate legal and/or customary framework which ensures that it: - Is capable of delivering sustainability in the UoA(s); - Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and - Incorporates an appropriate dispute resolution framework

Having, considered recent development, SAI Global concludes as follows:

- National laws, agreement and policies do exist and they govern the actions of all authorities and actors involved in managing the UoA. These instruments were described in the Certification Report. The guidance does not stipulate that the system be effective even though SAI Global is satisfied that it continues to be so, notwithstanding the decisions taken by Virginia and Omega.
- Binding cooperation is required by the *Atlantic Coastal Fisheries Cooperative Management Act (1993)* which obligates member-states to implement and enforce plan measures within the timeframes established in the plan (i.e., enact and implement laws and regulations). A similar obligation appears in the *Atlantic States Marine Fisheries Compact (1942).* However, for the purpose of scoring this Scoring Issue, the MSC Standard does not require that the procedures be binding on the parties.

Accordingly, there is no new evidence of a "material difference" that would warrant a re-scoring of this SI; the assigned score of 100 for SIa is unchanged.

Supplementary Information

SAI Global's scoring of PI 3.1.1 (including Scoring Issue a) at the time of assessment was the subject of two MSC-based Objections filed by the same three stakeholder organizations. The arguments at that time in regard to SIa of PI 3.1.1. mirror those that were presented in Section 6.2.1 and 6.2.2 of this report. The matter was considered by the Independent Adjudicator (IA) on 8th July and a final ruling was issued on 28th August in which the arguments were not upheld. Specifically, the IA's report said:

- Item 38: All the P3 claims, no matter the particular PI whose score is challenged, basically come down to a single argument: because the State of Virginia is assertedly not in compliance with the 51,000 mt Chesapeake Bay cap adopted by the Commission, the CAB could not find that the management regime for menhaden passes muster under the MSC standards;
- Item 43: Omega's lobbying activities are of questionable relevance; and
- Item 45: Objections to the scoring of the P3 indicators are not upheld.

SAI Global maintains that the current legal framework for the fishery remains on balance effective and predictable; the assigned score of 100 for SIa is justified. Furthermore, there is no "material difference" implication for this SI.

b	**Resolution of disputes**			
	Guide post	The management system incorporates or is subject by law to a **mechanism** for the resolution of legal disputes arising within the system.	The management system incorporates or is subject by law to a **transparent mechanism** for the resolution of legal disputes which is **considered to be effective** in dealing with most issues and that is appropriate to the context of the UoA.	The management system incorporates or is subject by law to a **transparent mechanism** for the resolution of legal disputes that is appropriate to the context of the fishery and has been **tested and proven to be effective**.
	Met?	**Yes**	**Yes**	**Yes**

Rationale

The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes that is appropriate to the context of the fishery and has been tested and proven to be effective.

Legal disputes arising within the management system for the Atlantic commercial fishery are subject by U.S. Federal and State laws to a mechanism for the resolution of legal disputes. Aggrieved parties can petition the Courts to have their concerns adjudicated (SG 60 is met). During the site visit, representatives engaged by the Assessment Team confirmed that the Atlantic menhaden commercial fishery is not subjected to ongoing legal disputes through the judicial system. (Understandably, disagreements between various participating groups do arise; however, they do not regularly translate into disputes requiring formal judicial attention). The U.S. legal system at all levels is acknowledged to be transparent and considered to be effective in

PI 3.1.1	The management system exists within an appropriate legal and/or customary framework which ensures that it: - Is capable of delivering sustainability in the UoA(s); - Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and - Incorporates an appropriate dispute resolution framework

dealing with most issues as appropriate for the context of the UoA (SG 80 is met). Where the judicial system has been triggered in the matter of a dispute, there is no evidence to suggest that it has not been proven to be effective **(SG 100 is met).**

Note: There is evidence to indicate that the management system provides for an administrative mechanism for the resolution of disputes (see ASFMC's Rules and Regulations).

SAI Global has opted to review the score previously assigned to SIb in light of the decision by Virginia not to implement and enforce the revised Bay cap for the 2019 fishing season, the Commission's subsequent recommendation, and the U.S. Department of Commerce's decision in the matter.

The ASMFC's dispute resolution framework (available at http://www.asmfc.org/uploads/file/ASMFCAppealsProcess.pdf) consists of an "appeals process" in which a state/jurisdiction can petition for a management board's decision to be reconsidered, repealed or altered. The ISFMP Policy Board serves as the deliberative body that considers valid appeals. The framework's appeal criteria excludes out-of-compliance petitions which are dealt with under a separate process. If a petition is deemed to meet the process's criteria, it is heard by the Board who, by simple majority, can either reject the petition, or, if found to be valid, direct that corrective action be taken.

The public record indicates that Virginia's previous gubernatorial administration and leadership of the General Assembly objected to some of the provisions of Amendment 3, and filed an appeal with the Commission in December 2017. The appeal was subsequently withdrawn in January 2018 when a new gubernatorial administration took office. Hence, while we cannot evaluate whether the Commission's internal process was transparent, and tested and proven to be effective, it is nonetheless clear that the management system was subject by law to the U.S. legal system.

Later, the public record shows that the matter was taken up by the Commission and considered by its Menhaden and Policy Boards. The Commission issued a press release on 31st October in which it found that Virginia was out-of-compliance for not fully and effectively implementing the Amendment 3 measures. The determination was formally referred to the U.S. Secretary of Commerce by letter received on 15th November; the letter initiated a process pursuant to the statutory provisions of *The Atlantic Coastal Act* (16 U.S.C. 5101), a two-stage process with defined decision-making timelines. The public record (available at: https://www.federalregister.gov/documents/2019/12/27/2019-27834/atlantic-coastal-fisheries-cooperative-management-act-provisions-atlantic-menhaden-fishery) describes in detail how the referral was considered and the decision taken by the Secretary. The nature and scope of the dispute, the actions taken by the parties, the process that was followed, and the resulting outcome are fully described in the source file, and accompanying letters at Section 6.2.2 of this report.

SAI Global concludes that the *Atlantic Coastal Act's* decision-making process and the outcome pursuant to the *Atlantic Fisheries Cooperative Management Act* were transparent and tested and proven effective. Accordingly, the requirements of SIb have been satisfied, and the assigned score maintained. There is no "material difference" implication for this SI.

c	**Respect for rights**			
	Guide post	The management system has a mechanism to **generally respect** the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.	The management system has a mechanism to **observe** the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.	The management system has a mechanism to **formally commit** to the legal rights created explicitly or established by custom of people dependent on fishing for food and livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.
	Met?	**Yes**	**Yes**	**No**

Rationale

The management system has a mechanism to observe the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.

PI 3.1.1	The management system exists within an appropriate legal and/or customary framework which ensures that it: - Is capable of delivering sustainability in the UoA(s); - Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and - Incorporates an appropriate dispute resolution framework

An examination of the extensive body of decisions by the US Supreme Court has consistently determined that Native Americans hold legal rights to hunt and fish wildlife for food and livelihood purposes both within and, in some cases, beyond their reservations. Many tribes have developed their own harvest plans and accompanying regulations based on resource sustainability principles.

The Assessment Team did not specifically focus its attention on whether the management system for the Atlantic menhaden fishery generally respected or observed the legal rights in question. However, given the repeated findings by the US Supreme Court of the existence of the legal rights, it is logical to conclude that the management system's customary framework would both respect and observe the rights as established (**SG 60 and SG 80 are met**).

No evidence was found as to whether the management system formally commits to the legal rights in a manner consistent with the objectives of MSC Principles 1 and 2 **(SG 100 is not met).**

Note: It might be possible to award a higher score for this Scoring Issue is there was evidence of Native American participation in the Atlantic menhaden fishery either through officially-reported catch statistics, or through a provision of a State's Fishing Plan.

References

Charlton, G., The Law of Native American Hunting, Fishing and Gathering Outside of Reservation Boundaries in the United States and Canada, 39 Can.-U.S. L.J. 69 (2015); available at: *http://scholarlycommons.law.case.edu/cuslj/vol39/iss/5*
Atlantic States Marine Fisheries Commission – Appeal process; available at: *http://www.asmfc.org/uploads/file/ASMFCAppealsProcess.pdf*
U.S. National Archives and Records Administration – Federal Register: Atlantic Coastal Fisheries Cooperative Management Act Provisions; Atlantic Menhaden Fishery; available at: *https://www.federalregister.gov/documents/2019/12/27/2019-27834/atlantic-coastal-fisheries-cooperative-management-act-provisions-atlantic-menhaden-fishery*

Overall Performance Indicator score following Expedited audit

Overall Performance Indicator score	Applicable SGs met			Overall score
	SG60	SG80	SG100	
	3 of 3	3 of 3	2 of 3	**95**
Condition number (if relevant)				**n/a**

5.4.2 Re-scoring table for PI 3.2.2 (Decision-making processes)

PI 3.2.2		The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives, and has an appropriate approach to actual disputes in the fishery		
Scoring Issue		SG 60	SG 80	SG 100
a	**Decision-making processes**			
	Guide post	There are **some** decision-making processes in place that result in measures and strategies to achieve the fishery-specific objectives.	There are **established** decision-making processes that result in measures and strategies to achieve the fishery-specific objectives.	
	Met?	**Yes**	**Yes**	

Rationale

There are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives.

"Established" decision-making processes are understood to mean that there is a process that can be immediately triggered for fisheries-related issues, the process has been triggered in the past and has led to decisions about sustainability in the fishery. Documentation examined by the Assessment Team shows that the activities of the ASMFC, member States and their supporting sub-structures have been actively engaged in a variety of fisheries-related issues over an extended period of time, including stock parameters, ecosystem interactions, catch reporting and data interpretations, enforcement, and the identification of strategic goals and objectives for the management system. The processes themselves are recognized by stakeholders and the general public

Moreover, the ASMFC has adopted a number of administrative rules and regulations (February 4, 2016) that inform its established decision-making process in support of its measures and strategies. They have been amended some 15 times since originally adopted in 1942, and were, in fact, completely revised in 1996. The particulars provisions of Article V that guide the Commission's decision-making process include:

- Article I, Section 1 (b) – Code of Conduct; Section 2 – Powers and Duties
- Article II, Section 1 – Meetings
- Article III, Section 1 – Quorum; Section 2 – Voting; Section 3 – Proxies

The Commission has augmented its rules and regulations by incorporating an "appeals process" whereby States can contest certain plan provisions and policies **(SG 60 and SG 80 are met).**

SAI Global has chosen to re-visit the requirements of Scoring Issues a, b and c of this PI in light of (i) Virginia's decision not to implement and enforce the Commission's ISFMP provisions requiring a reduced Chesapeake Bay cap of 51,000 mt for the 2019 fishing decision, and (ii) Omega's decision to harvest Bay menhaden above the Commission prescribed cap. This outcome was officially concluded when Virginia was found to be out-of-compliance by the U.S. Department of Commerce in a decision issued on 17th December 2019.

SAI Global's response to these PI 3.1.1's scoring issues as they relate to the decision-making processes, both within the ASMFC and the U.S. Department of Commerce, indicates that both decision-making processes. are established. We further conclude that the arguments in support of the decisions arising from both processes are directly linked to the fishery-specific objectives through clear and repetitive references to conservation and sustainability imperatives (refer to correspondence appended at Sections 6.2.2.4.1, 6.2.2.4.2, and 6.2.2.4.3).

Accordingly, SAI Global concludes that there is no "material difference" implication for this scoring issue; the SG80 score is maintained.

PI 3.2.2		The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives, and has an appropriate approach to actual disputes in the fishery		
b	**Responsiveness of decision-making processes**			
	Guide post	Decision-making processes respond to **serious issues** identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take some account of the wider implications of decisions.	Decision-making processes respond to **serious and other important issues** identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.	Decision-making processes respond to **all issues** identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.
	Met?	**Yes**	**Yes**	**No**

Rationale

Decision-making processes respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.

The decision-making processes attributed to the ASMFC's committees and those at the state level are sufficiently well-developed as to include the study and evaluation of a wide range of serious and other important issues identified in relevant research (i.e. government and academic sources), monitoring, evaluation and consultation (i.e. public meetings, webinars, outreach activities). These processes have already been determined to be transparent and adaptive (see PI 3.1.2).

Furthermore, the frequency of the deliberations of the ASMFC's committees and those at the state level is indicative of processes that are designed to respond in a timely and adaptive fashion **(SG 60 and SG 80 are met).**

There is insufficient evidence to conclude that the decision-making processes respond to all identified issues **(SG 100 is not met).**

SAI Global is satisfied that both decision-making processes responded to what was a serious issue i.e., Virginia's decision not to implement and enforce the 2019 Bay cap. We are equally satisfied that the ASMFC process was transparent, adaptive and took into account the wider implications of its decision. However, we are uncertain as to whether the processes could have been undertaken and concluded in a more timely manner, thereby compelling Virginia to implement and enforce the provisions of Amendment 3 (or face a moratorium) before the Bay cap was exceeded.

SAI Global concludes that, on balance, the requirements of SIb are met and the score is maintained. There is no "material difference" implication arising from the SI.

c	**Use of precautionary approach**			
	Guide post		Decision-making processes use the precautionary approach and are based on best available information.	
	Met?		**Yes**	

Rationale

Decision-making processes use the precautionary approach and are based on best available information.

Various federal statutes require that the precautionary approach be relied upon when decisions are made regarding the management system for a fishery. Examples of decisions taken that reflect the use of the precautionary approach for the Atlantic commercial menhaden fishery include: (i) the definition and scope of conservation and sustainability principles, (ii) the setting of a conservative Total Allowable Catch and associated Harvest Strategy (measures) that do not contribute to overfishing; (iii) the incorporation of science-based Reference Points and associate targets for single species, and (iv) the consideration of ecosystem interactions **(SG 80 is met).**

PI 3.2.2	The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives, and has an appropriate approach to actual disputes in the fishery

Having considered ASFMC's arguments and subsequent referral to the U.S. Department of Commerce and its finding that Virginia was out of compliance with the ISFMP's Amendment 3 provisions, SAI Global is satisfied that the decision-making processes were in keeping with the precautionary approach and were based on best available information.

Accordingly, SAI Global is satisfied that there is no "material difference" implication in regard to this SI; the SG80 score is maintained.

	Accountability and transparency of management system and decision-making process			
d	Guide post	Some information on the fishery's performance and management action is generally available on request to stakeholders.	**Information on the fishery's performance and management action is available on request**, and explanations are provided for any actions or lack of action associated with findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.	Formal reporting to all interested stakeholders **provides comprehensive information on the fishery's performance and management actions** and describes how the management system responded to findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.
	Met?	**Yes**	**Yes**	**Yes**

Rationale

Formal reporting to all interested stakeholders provides comprehensive information on the fishery's performance and management actions and describes how the management system responded to findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.

All ASFMC and State agencies reviewed for this report (departments, commissions, councils, committees) regularly provide and post information on the fishery's performance through a variety of public venues, reports, publications, and internet sites; stakeholder-requested information is generally provided except if the information is of a confidential nature (SG 60 is met).

As reported previously, there is an extensive network of consultation and engagement processes in play across all key states and at the federal level where contributing and affected stakeholders and the public have the opportunity to interact with officials and receive explanations for actions taken and not taken (**SG 80 is met).**

The accountability and transparency of the management system are well established, resulting in a system of formal reporting capable of providing comprehensive information on the fishery's performance, management actions, and how the management system responds to findings and recommendations **(SG 100 is met).**

	Approach to disputes			
e	Guide post	Although the management authority or fishery may be subject to continuing court challenges, it is not indicating a disrespect or defiance of the law by repeatedly violating the same law or regulation necessary for the sustainability for the fishery.	The management system or fishery is attempting to comply in a timely fashion with judicial decisions arising from any legal challenges.	The management system or fishery acts proactively to avoid legal disputes or rapidly implements judicial decisions arising from legal challenges.
	Met?	**Yes**	**Yes**	**Yes**

Rationale

The management system or fishery acts proactively to avoid legal disputes or rapidly implements judicial decisions arising from legal challenges.

PI 3.2.2	The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives, and has an appropriate approach to actual disputes in the fishery

There is no evidence to indicate that the management authority or fishery are subject to continuing court challenges **(SG 60 is met).**

During the Assessment Team's site visit meetings in July 2017, Management authorities reported that there have been very few legal challenges to the management system and fishery. It is reasonable to assume that the management system and fishery would comply with decisions in a timely manner after all legal avenues of appeal have been exhausted **(SG 80 is met).**

The potential for legal disputes to arise is quite low; authorities and the client have both reported that efforts are made to avoid legal actions through administrative dispute resolution mechanisms, mutual agreements, and compromise **(SG 100 is met)**.

References

Examples:
Officials minutes from a variety of Commission and State committee meetings; NOAA Beaufort stock assessments; annual reports of agencies; federal and state multi-year strategic and operational plans.
Site visit contributions by client and management representatives.
ASMFC's Appeal Process; available at: ***http://www.asmfc.org/uploads/file/ASMFCAppealsProcess.pdf***
ASMFC's Rules and Regulations; available at: https://www.asmfc.org/files/pub/CompactRulesRegs_Feb2016.pdf

Overall Performance Indicator score

Overall Performance Indicator score	Applicable SGs met			Overall score
	SG60	SG80	SG100	
	4 of 4	5 of 5	2 of 3	**95**
Condition number (if relevant)				

5.4.3 Re-scoring table for PI 3.2.3 (Compliance and enforcement)

PI 3.2.3		Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with		
Scoring Issue		SG 60	SG 80	SG 100
a	**MCS implementation**			
	Guide post	Monitoring, control and surveillance **mechanisms** exist, and are implemented in the fishery and there is a reasonable expectation that they are effective.	A monitoring, control and surveillance **system** has been implemented in the fishery and has demonstrated an ability to enforce relevant management measures, strategies and/or rules.	A **comprehensive** monitoring, control and surveillance system has been implemented in the fishery and has demonstrated a consistent ability to enforce relevant management measures, strategies and/or rules.
	Met?	**Yes**	**Yes**	**No**

Rationale

A monitoring, control and surveillance system has been implemented in the fishery and has demonstrated an ability to enforce relevant management measures, strategies and/or rules.

NOAA's Law Enforcement Division and those of the key States reported in this assessment have comprehensive monitoring, control and surveillance systems in place for the commercial and recreational fisheries within their respective jurisdictions. Federal-State agencies (except North Carolina) are active law enforcement partners through formal Joint Force Agreements (JFAs). In most cases, the systems are informed by strategic goals and action plans. The current system is capable of controlling and implementing relevant management measures, strategies and/or rules as adopted for the commercial reduction fishery, such as they are, namely closed areas and times, catch reporting, and gear configuration **(SG 60 and SG 80 are met).**

Information and comments provided to the Assessment Team by federal and state officials do not indicate that the current MCS system in place is somehow deficient and that non-compliance issues are going undetected. That said, the team is unable to determine whether the current MCS while comprehensive has been implemented specifically for the menhaden fishery. The collection and availability of fishery-specific MCS data might result in a higher score for this SI **(SG 100 is not met)**.

Information conveyed to SAI Global suggests that the profile and activities of Virginia's existing monitoring, control and surveillance system remained unchanged throughout the 2019 menhaden fishing season.

Accordingly, SAI Global concludes that there is no "material difference" implication for this SI; the score is maintained.

b	**Sanctions**			
	Guide post	Sanctions to deal with non-compliance exist and there is some evidence that they are applied.	Sanctions to deal with non-compliance exist, **are consistently applied** and thought to provide effective deterrence.	Sanctions to deal with non-compliance exist, are consistently applied and **demonstrably** provide effective deterrence.
	Met?	**Yes**	**Yes**	**No**

Rationale

Sanctions to deal with non-compliance exist, are consistently applied and thought to provide effective deterrence.

Punitive measures, including sanctions, are defined in relevant federal and state statutes and administrative codes that serve to guide law enforcement officers and prosecutors in their duties when non-compliance situations and subsequent legal proceedings arise. Several states publish the names of individuals whose recreational or commercial fishing privileges have been suspended for a specific period of time. This approach is generally recognized to have a deterrent effect **(SG 60 and SG 80 are met)**

Given that no instances of non-compliance with fisheries regulations by the reduction purse seine fleet were registered and resulted in legal proceedings over the past few years, applicable sanctions would not have been levied nor evaluated for

PI 3.2.3	Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with

effectiveness. The Assessment Team is therefore unable to determine whether sanctions demonstrably provided effective deterrence **(SG 100 is not met).**

Sanctions are generally applied when violations are proven. There is no evidence that the purse seine fleet was cited and charged for violating state or federal laws during the 2019 fishing season.

Accordingly, there is no "material difference" associated with this SI; and the assigned score is maintained.

c	**Compliance**			
	Guide post	Fishers are **generally thought** to comply with the management system for the fishery under assessment, including, when required, providing information of importance to the effective management of the fishery.	**Some evidence exists** to demonstrate fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery.	There is a **high degree of confidence** that fishers comply with the management system under assessment, including, providing information of importance to the effective management of the fishery.
	Met?	**Yes**	**Yes**	**No**

Rationale

Some evidence exists to demonstrate fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery.

Information presented during the July site visit and information subsequently acquired or provided to the Assessment Team indicates that some evidence exists to demonstrate that the Omega purse seine fleet complies with the requirements of the fishery, including providing catch and effort data to authorities and facilitating access to its vessels for inspection purposes; therefore **(SG 60 and SG 80 are met).**

The Assessment Team cannot conclude with a high degree of confidence that compliance with the requirements of the fishery's management measures has been established, given the limited amount of available enforcement and compliance data **(SG 100 is not met).**

Throughout the 2019 fishing season in Virginia waters and elsewhere, purse seine vessel captains continued to provide Captains Daily Fishing Reports (CDFRs) to the Beaufort Laboratory where NMFS personnel enter data into a database for storage and analysis. Such information is important for the effective management of the fishery.

Information conveyed to SAI Global suggests that no citations or charges were filed against the purse seine fleet since at least 2015, including in 2019. SAI Global does not make independent determinations as to whether citations and/or charges are warranted or not – that is the responsibility of law enforcement agencies.

Accordingly, SAI Global concludes that there is no "material difference" associated with the requirement of this SI; and the scoring is maintained.

d	**Systematic non-compliance**			
	Guide post		There is no evidence of systematic non-compliance.	
	Met?		**Yes**	

Rationale

There is no evidence of systematic non-compliance.

The Assessment Team is satisfied that systematic non-compliance by the Omega purse seine fleet with federal and state regulations for the Atlantic menhaden reduction fishery does not exist. Stakeholder submissions received by the team during and following the July site visit do not allege systematic non-compliance by the fleet. No evidence was found to indicate that federal

PI 3.2.3	Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with

and state law enforcement authorities had flagged persistent or repetitive enforcement issues with the fleet's fishing practices **(SG 80 is met).**

Following the announcement of this expedited audit, three stakeholder organizations challenged the assigned score in light of Omega's decision to continue to harvest Chesapeake Bay menhaden after the 51,000 mt cap was taken. The scoring of SId is informed by current MSC guidance as to what constitutes "systematic non-compliance." The word "systematic" is not defined by the MSC and could be interpreted in different ways e.g. ongoing, consistently, systemic etc.

The guidance appears at FCR v2.0 – Annex SA PI 3.2.3, SA 4.9 as follows:
"The intent behind the phrase no evidence of systematic non-compliance is that there is simultaneously adequate evidence to assess the compliance of the fishery and no evidence of infringements that occur regularly."

SAI Global had previously determined that there was evidence to assess the compliance aspects of the fishery over a period of several fishing seasons (as prescribed by the guidance). **That said, SAI Global concludes that there continues to be no supportive evidence to indicate that infringements occurred on a regular basis, including during the 2019 fishing season. Consequently, there is no "material difference" implication in regard to this SI, and the assigned score is maintained.**

References

Examples:
2017 State Compliance Reports (2016 fishery) for Atlantic menhaden – NJ, VA and MD
Enforcement and compliance data and emails provided by law enforcement authorities.
Comments from NOAA regarding federal enforcement activities in Atlantic federal waters.

Overall Performance Indicator score

Overall Performance Indicator score	Applicable SGs met			Overall score
	SG60	SG80	SG100	
	3 of 3	4 of 4	0 of 3	80
Condition number (if relevant)				**n/a**

6 Appendices

6.1 Evaluation processes and techniques

6.1.1 MSC Expedited audit process

The MSC process for expedited audits is outlined in full in MSC FCP v2.1 §7.29—this section presents a paraphrased synopsis of those requirements and any relevant MSC Guidance. As previously discussed, CABs are required to complete an expedited audit upon becoming aware of changes to the circumstances of a fishery, and/or of new information, that may cause a 'material difference'. Precisely what constitutes a 'material difference' in the context of MSC is further defined in MSC FCP v2.1 §7.20.6.c as:

i. A PI score falling below 60.
ii. A PI score falling between 60 and 80.
iii. A Principle score falling below an aggregate 80 score due to the changes to 1 or more PIs.
iv. A change in scope.

If none of the above has occurred a 'material difference' has not in fact occurred in the context of MSC certification. Furthermore, for an expedited audit to be appropriate, the FCP states there must be good reason to think that any change constitutes an actual 'material difference' rather than a temporary change.

Upon receipt of new information, CABs are required to send said information to the assessment team leader to review. Thereafter a determination is made as to whether an expedited audit should be completed. In this case the information was initially sent to the Lead Assessor for this assessment (and indeed the initial assessment of this fishery). The information was thereafter circulated and discussed amongst the original assessment team and SAI Global's Fishery Team Leader (Dr. Géraldine Criquet)—the determinations resulting from this process are discussed in detail in 4.2.2 Timeline of events leading to expedited audit.

Expedited audits can be conducted as Review of Information audits, off-site audits or on-site audits, based on a determination to what is necessary by the CAB. In this instance it was determined that an on-site audit was not required but that some remote consultation with stakeholders would be useful such that an off-site audit was the most appropriate option.

CABs are required to announce an expedited audit within 30 days of becoming aware of the changes causing a 'material difference'. In this case, SAI Global ultimately became aware of this information on December 19, 2019, when the Secretary of Commerce concurred with the ASMFC's non-compliance finding. On December 20, 2019, SAI Global posted a stakeholder notification informing stakeholders of the intention to conduct an expedited audit but the audit was not announced until January 21, 2020 (i.e. 32 days from becoming aware of the relevant information). The slight delay was due to the Christmas break's slightly slowing the completion of the procedures required to officially announce the audit. The potential that this might be the case was however flagged in the December stakeholder notification along with an explanation that the risk posed by this slight delay was low as the fishery was in fact closed.

CABs are effectively required to follow the procedures for surveillance assessments when announcing and drafting audit reports. Therefore, the announcement of the expedited audit (via the MSC Surveillance Announcement Template) was followed by a direct notification to relevant stakeholders and a 30-day stakeholder comment period.

As part of this expedited audit the assessment team were required *inter alia* to:

a. Actively seek the views of the client.
b. Hold interviews and actively seek the views of stakeholders and surveillance audit participants to ensure that the team is aware of any concerns of stakeholders.
c. Review changes relevant to the scope of the expedited audit (e.g. changes to management systems, regulations, personnel, scientific information, traceability and/or harmonisation of overlapping fisheries).

d. Where the information for PI scores has changed, report and record what information has changed, rescore the PI as per the normal scoring process and, where a score falls below 80, define a new condition and require the client to develop a Client Action Plan to address that condition.
e. Prepare an expedited audit report following the relevant MSC Surveillance Report template—this report therefore represents a version of the MSC Surveillance Reporting Template' ordinarily used for on-site and off-site surveillance audits which has been modified to fit the unique requirements of an expedited audit.

Following the completion of the 'site visit' and scoring portions of this audit, SAI Global sent this report to the client along with any identified conditions so that they could prepare Client Action Plans for any new conditions.

As per MSC FCP v2.1 §7.29.8, the CAB must upload the expedited audit report to the MSC database for publication on the MSC website, within 60 days of announcing the expedited audit (i.e. by March 21, 2020).

6.1.2 Site visits

According to the MSC template reports must include an itinerary of site visit activities with dates and a description of site visit activities, including any locations that were inspected. There were no site visits conducted as part of this assessment such that this section is not particularly relevant. A number of off-site calls with interested stakeholders (including the client) did however take place.

The template also stipulates that the names of individuals contacted be included—however, as this would conflict with GDPR requirements this has not been done here. All stakeholders identified as being relevant to this fishery were contacted and multiple stakeholder notifications were posted on the MSC webpage for this fishery.

6.1.3 Stakeholder participation

During, and indeed prior to triggering this expedited audit, fishery stakeholders were made aware of the developing situation thorough various stakeholder notifications on the MSC webpage and via direct emails. Once the expedited audit was formally triggered, stakeholders were further informed of the audit process itself and of opportunities for them to contribute via a formal announcement on the MSC webpage for this fishery and again via direct emails to which the MSC stakeholder input template was attached. Instances where stakeholders were kept informed of developments in this fishery are outlined in Table 11 below.

Table 11. Stakeholder consultation process.

Date	Purpose	Media
11/01/2019	Stakeholder Announcement: CAB response to changes to the circumstances of the fishery.	Notification on MSC website. Direct email.
12/20/2019	Stakeholder Announcement: CAB response to ASMFC non-compliance finding	Notification on MSC website. Direct email.
01/21/2020	Announcement of expedited audit including: ▪ Confirmation of assessment team ▪ Opportunities for stakeholder input	Notification on MSC website. Direct email.
03/21/2020	Publication of expedited audit report	Report published on MSC website. Direct email.

In order to become aware of the concerns of interested stakeholders, the assessment team conducted a number of remote interviews following consultation requirements as laid out in the MSC FCP v2.1 and as described in Table 12 below. In other areas the positions of the various parties were deemed sufficiently clear from the publicly available record such that conference calls were likely to be of only very limited use and as such not necessary for the proper conduct of this audit.

Table 12. Summary of remote consultation meetings during this expedited audit. Please note that the below is intended to represent a summary of discussions ONLY and does not necessarily reflect the views/findings of the assessment team.

Date	Organization and attendees	Topics discussed
03/05/2020	<u>Omega Protein Corporation:</u> – Ben Landry – Peter Himchak <u>SAI Global assessment team:</u> – Sam Dignan – Bob Allain	▪ Omega's harvesting of menhaden above the Amendment 3 Cap and impacts on the menhaden FMP's goals and objectives and on wider menhaden population. ▪ Specifics of looming moratorium and prohibition on landing menhaden. Effective date June 17, 2020. ▪ Final tally of catch landed against the Bay Cap in 2019 = approx. 65,800 mt in total. Likelihood that Omega will be required to pay back the overage over 1/2 years. ▪ Reasons for Omega's overshooting the 51,00 mt Bay Cap. ▪ Virginia season for menhaden. Bay waters close 3rd Friday in November and re-open on 1st Monday in May. ▪ Percentage of the coastwide TAC harvested within the Bay in 2019. 45% inside:50 – 55% outside. Ordinarily split is more akin to 65% outside:35% inside. As reduction fleet is excluded from Maryland State waters, 100% of catches against the Bay cap comes from Virginia waters—therefore, 100% of 2019 overage was taken in Virginia waters. ▪ Increased (weekly) reporting when catches approached and exceeded 51,000 mt. ▪ Omega's understanding of why the Virginia legislature refused to adopt the Amendment 3 Bay Cap. ▪ Omega's generally compliance with fisheries regulations and previous instances of non-compliance (if any). ▪ Omega's feeling on consultation during recent non-compliance process. Don't agree with outcome but no issue with consultation. Were afforded the opportunity to participate in relevant discussions. ▪ Omega's belief that ACFACMA was 'stretched' to include multi-species element whereas the Law is specific to the single species. Omega's intention not to oppose any regulations to bring Virginia back into compliance. Want the issue resolved well in advance of the effective date of the moratorium. ▪ Thoughts on next steps and how Omega envisage they will be played out. Role of various parties, likely associated timeframes etc.
03/06/2020	<u>The Nature Conservancy:</u> – Kate Wilke <u>Chesapeake Bay Foundation:</u> – Chris Moore <u>SAI Global assessment team:</u> – Sam Dignan – Bob Allain	▪ Reason for audit, scope of audit, SAI Global's role, use of confidential data in assessments etc. ▪ New information in relation to the importance of the Bay Cap including the basis of the Cap. ▪ Progress of new Bill to transfer management authority for menhaden in Virginia to the VMRC. Mechanisms for passing legislation in Virginia including the respective roles of Virginia's House, Senate and Governor. ▪ Composition and structure of the VMRC, mechanisms for appointing persons to the VMRC, term limits etc. ▪ Next steps.

6.2 Stakeholder input

This section includes all written stakeholder input received during stakeholder input opportunities and also provides a summary of verbal stakeholder input received via remote conference calls. Written stakeholder input and explicit responses for the assessment team with respect to changes to scoring, rationales and conditions are presented using the MSC's stakeholder input template.

6.2.1 Theodore Roosevelt Conservation Partnership (TRCP)

6.2.1.1. Stakeholder contact and assessment details

Category	Contact details
Title	
First name	Whit
Last name	Fosburgh
Organisation	Theodore Roosevelt Conservation Partnership
Email	wfosburgh@trcp.org
Department	
Job title	President and CEO
Description	
Phone number	
Postal address	
Fishery name	Omega Protein Corporation U.S. Atlantic menhaden purse seine
Certification body (CAB)	SAI Global
Assessment Stage	Providing input at annual surveillance audits
Register	I wish to register as a stakeholder - please keep me informed about each stage of the assessment process

6.2.1.2. Performance Indicator (PI) input (blank rows removed for clarity)

Note. Due to the small text size being difficult to read, the stakeholder input template has been modified so that the 'Input summary', 'Input detail' and 'Evidence or references', occur in consecutive rows rather than side-by-side. The actual content of the template is included verbatim.

Performance Indicator (PI)	Stakeholder input (including 'Input summary', 'Input detail' and 'Evidence or references)	Suggested score change	CAB response to stakeholder input	CAB response code
3.1.1 - Legal and/or customary framework	Input summary	<60		Not accepted (no score change)
	Omega Protein's ("Omega") ability and willingness to ignore federal management measures demonstrates that the legal framework that governs the Atlantic menhaden is flawed, and does not meet MSC standards, thus warranting a lower score.			
	Input detail			
	Scoring Issue A for PI 3.1.1 assesses the compatibility of law or standards with effective management. In the Atlantic menhaden public certification report, the CAB assigned Scoring Issue A the score of 100. The Theodore Roosevelt Conservation Partnership ("TRCP") and others objected to the basis of this scoring, citing the non-binding nature of the legal framework. The current legal framework remains highly uncertain and does not demonstrate that effective management measures are in place. Omega's total disregard for catch limits, the ASMFC's reaction to the company's violation of the Bay Cap, coupled with Secretary of Commerce's non-compliance finding demonstrates that the score of 100 was unwarranted and should be lowered to zero.		The rationale supporting SAI Global's scoring of PI 3.1.1 (including Scoring Issue a) at the time of the fishery assessment was the subject of an MSC-based Objection filed in 2019 by the 3 stakeholder organizations (including the TRCP). The TRCP's arguments in respect of this scoring issue mirror those that it has made here. The matter was considered by the Independent Adjudicator (IA) on 8th July and a final ruling was issued on 28th August in which the TRCP's arguments were not upheld. Specifically, the IA's report concluded: • Item 38: All the P3 claims, no matter the particular PI whose score is challenged, basically come down to a single argument: because the State of Virginia is assertedly not in compliance with the 51,000 mt Chesapeake Bay cap adopted by the Commission, the CAB could not find that the management regime for menhaden passes muster under the MSC standards; • Item 43: Omega's lobbying activities are of questionable relevance; and • Item 45: Objections to the scoring of the P3 indicators are not upheld. With specific respect to the assertion that *"Omega's total disregard for catch limits (…) demonstrates that the score of 100 was unwarranted and should be lowered to zero"*, this is the first time to assessment teams' knowledge that Omega has exceeded a catch limit contained in the menhaden FMP. In addition, despite exceeding the 51,000 mt Bay Cap in 2019, Omega did adhere to the overall TAC in place for the reduction fishery. The MSC Fisheries Standard (v2.01, 31st August 2018) includes interpretive guidance in respect of this scoring issue under SA4.3.4.3. as follows: *The team shall interpret across SGs 60, 80 and 100 that "effective national legal system" means that the client can provide objective evidence that most of the essential features and elements needed to deliver sustainable fisheries are present in:*	

Performance Indicator (PI)	Stakeholder input (including 'Input summary', 'Input detail' and 'Evidence or references)	Suggested score change	CAB response to stakeholder input	CAB response code
			a. a coherent, logical set of practices or procedures, or *b. within a coherent, logical supporting 'rule-making' structure.* SAI Global maintains that the current legal framework for the fishery remains on balance effective and predictable; the assigned score of 100 for SIa is justified.	
	In order to receive a score of 100, there must be "binding procedures governing cooperation with other parties[.]" Even a score of 60 requires an "effective national legal system and a framework for cooperation with other parties[.]" MSC FCP v2.0 at PDF p 169. The ASMFC approved Amendment 3 to the Interstate Fishery Management Plan for Atlantic menhaden. Amendment 3 reduced the Chesapeake Bay cap to 51,000 metric tons in recognition of "the importance of the Chesapeake Bay as nursery grounds for many species by capping reduction landings from the Bay to current harvest levels." Virginia chose to ignore the federal management measures, in effect demonstrating the in-effectiveness of the national legal system and framework for cooperation. On October 31, 2019, the ASMFC overwhelmingly voted the Commonwealth of Virginia out of compliance with a mandatory measure of the Atlantic menhaden management plan. It should be noted that the ASMFC chose not to make such a finding previously, again highlighting the absence of binding procedures governing cooperation. On December 19, 2019, the Secretary of Commerce agreed with the ASMFC's non-compliance finding and declared a moratorium on the Atlantic menhaden fisheries in Virginia waters. While this finding will likely prove helpful in motivating Virginia to take actions needed to implement federal catch limits, it again demonstrates the high degree of uncertainty governing this fishery.		It is widely recognized and accepted, including by SAI Global, that the ASMFC's governance system includes ''binding procedures governing cooperation with other parties.'' This provision is mandated by the *Atlantic Coastal Fisheries Cooperative Management Act* (1993). In other words, the parties have a legal obligation to implement and enforce recommendations duly made (e.g., the ISFMP) by the Commission. The Commonwealth of Virginia has, in the past, fully complied with previous measures of the Plan and associated Amendments by passing legislation governing the fishery in its waters. However, in 2019, Virginia took a different path and opted not to implement and enforce the Commission's Bay cap of 51,000 mt. That said, the MSC Standard does not actually require that the legal system contain binding procedures. The Commission long ago foresaw the eventuality that a member-state would elect to not meet its legal obligation by first offering an internal appeal process (e.g. dispute resolution mechanism) under Section 7 of the ISFMP Charter. Should the decision on appeal continue to be resisted by a member-state, the Commission can refer the matter to the U.S. Secretary of Commerce who oversees a well-defined and law-based intervention process that can compel state compliance. This particular process serves to ensure that the cooperation framework remains effective and legally binding on all parties.	
	Because Virginia refused to adopt the ASMFC's menhaden catch cap, a legal gap existed that allowed Omega to conclude that it had license to ignore the ASMFC's catch cap. Specifically, there appeared to be two catch caps in place, creating a question of which cap was legally binding. Virginia's catch cap was 87,216 metric tons, whereas ASMFC imposed a more stringent catch cap of 51,000 metric tons. This created legal uncertainty on the core sustainability control measure that the CAB assessed in certifying Omega's Atlantic menhaden fishery.		SAI Global agrees that a legal void was created during the 2019 fishery as a result of Virginia's decision not to codify and enforce the 51,000 mt Bay cap. Arguably, it is left to other parties to ascertain whether Omega's decision to continue to harvest Bay menhaden above the cap constituted a contravention of State law. It must also be said that SAI Global never assessed Bay Cap as the core sustainability control measure. Had the evidence available to the assessment team during the initial assessment of this fishery supported the assertion that the Bay Cap is the core sustainability control measure, it would have been specifically assessed under Principle 1—this was not the case. At this juncture, the Commission, its constituent bodies, and NOAA Fisheries have not quantitatively assessed what impacts, if any, the over harvest of Bay	

Performance Indicator (PI)	Stakeholder input (including 'Input summary', 'Input detail' and 'Evidence or references)	Suggested score change	CAB response to stakeholder input	CAB response code
			menhaden in 2019 likely had on the conservation and sustainability of the area's fish populations. The Commission has opined that ''Exceeding the Bay cap has implications for the stock assessment and its quota projections (refer to Section 6.2.2.4.3 – Supplementary document, p.4).	
	Omega exploited this gap in the legal framework when it intentionally exceeded the ASMFC's menhaden catch cap. Despite many assurances to the CAB and stakeholders that the company intended to adhere to the federal catch limit, Omega took the position that the ASMFC catch cap was not binding in Virginia's waters because Virginia had not adopted the ASMFC's catch cap. As a result, Omega chose to follow the catch cap that failed to adhere to the federal limit arguing that it "remained in compliance with [Virginia's] existing cap[.]" A legal framework that allows fishers to choose the management measure that most aligns with its business model cannot be scored at anything above a 60.		Omega's position is part of the public record. Like other CABs, SAI Global does not undertake legal analyses of a party's legal arguments in conducting MSC assessments. That said, SAI Global maintains that the legal and cooperation frameworks for the fishery remain effective and predictable; there is no ''material difference'' implication; and the assigned score of 100 for SIa is maintained. It must also be said that the legal framework demonstrably did not allow fishers to choose the management measure that most aligned with their business model as it has demonstrated an ability to either force Virginia back into compliance or, if they fail to do so, shut down the fishery entirely.	
	Recently, the Virginia legislature passed Senate Bill 791. The bill amends, re-enacts, and repeals various provisions relating to the management of the menhaden fishery. Specifically, the bill vests the Virginia Marine Resources Commission ("VMRC") with "the exclusive authority to manage Atlantic menhaden and shall adopt regulations necessary for its management, including those necessary to comply with the Atlantic States Marine Fishery Management Plan for the Atlantic menhaden[.]" The bill also requires the Commissioner of the VMRC to establish a "Menhaden Management Advisory Committee to provide guidance to the Marine Resources Commission on the sustainable management of the menhaden resource and harvest of the bait and reduction fisheries in the waters of the Commonwealth[.]" At present, this bill has not been signed by the Governor		SAI Global has kept abreast of developments following the decision by the U.S. Secretary of Commerce to find Virginia out-of-compliance, and to impose a state-wide fishery moratorium effective 17th June 2020. In light of the latest developments, it is clear that Virginia has acted expeditiously to comply with the Secretary's requirements on the actions to be taken to return to compliance. As of 10th March 2020, Virginia's Governor had signed Senate Bill 791 which, *inter alia,* transfers the management authority for menhaden to the Virginia Resources Management Commission from the General Assembly. Additional actions by Virginia are anticipated over the coming weeks.	
	However, even after the bill becomes law, the current legal framework will remain unchanged until the VMRC adopts regulations that comply with the ASMFC Interstate Fishery Management Plan for Atlantic menhaden. This is likely a lengthy process, meaning implementation can be delayed for an unknown period of time. Therefore, the legal framework still lacks binding regulations and the score for Scoring Issue A for PI 3.1.1 should not be higher than 60.		Virginia has not challenged the non-compliance decision and the associated corrective actions. SAI Global understands that Virginia has committed to moving quickly to adopt the necessary regulations such that it is back in compliance well in advance in advance of the June 17, 2020 moratorium. Other supportive measures are also planned, including an adjustment to Omega Protein's Bay allocation for the 2020 fishing season. Ultimately, if VMRC's adoption of regulations sufficient to bring Virginia back into compliance is delayed for an unknown period of time as is suggested here, the moratorium will come into effect and the fishery will be shut down entirely—this is a powerful motivator to ensure actions occur expeditiously.	

Performance Indicator (PI)	Stakeholder input (including 'Input summary', 'Input detail' and 'Evidence or references)	Suggested score change	CAB response to stakeholder input	CAB response code
	Evidence or references			
	Action against Virginia pending for violation of menhaden catch limit in the Chesapeake Bay, Bay Journal, Timothy B. Wheeler (November 4, 2019) https://www.southernmarylandchronicle.com/2019/11/04/action-against-virginia-pending-for-violating-menhaden-catch-limit-in-the-chesapeake-bay. Atlantic Menhaden, Atlantic States Marine Fisheries Commission (Last visited 2/24/2020) http://www.asmfc.org/species/atlantic-menhaden Omega Protein Statement on the Chesapeake Bay Cap, Access Wire (September 12, 2019) https://www.accesswire.com/559458/Omega-Protein-Statement-on-the-Chesapeake-Bay-Cap.			
3.2.3 - Compliance and enforcement	Input summary	<60		Not accepted (no score change)
	Omega's deliberate exceedance of the ASMFC's menhaden catch cap is evidence that Omega's fleet does not generally comply with the menhaden management system, and therefore warrants a score of zero for PI 3.2.3 Scoring Issue C.		A score of zero is not possible. Additionally, the evidence suggests that Omega's fleet does generally comply as is evidenced by the fact of enforcement actions against the fleet.	
	Input detail			
	Omega's calculated decision to ignore the ASMFC's menhaden management catch cap is evidence that Omega's fishers do not comply with the menhaden management system and have little interest in the sustainable management of the fishery.		It was the Commonwealth of Virginia's failure to implement the Amendment 3 Bay Cap that was the subject of the recent non-compliance action and ultimately finding. In addition, Omega's exceeding the Bay Cap is the first instance of their failing to comply with an ASMFC-specified management measure such that it cannot be concluded that Omega has little interest in the sustainable management of the menhaden fishery.	
	Scoring Issue C for PI 3.2.3 assesses the fishery's compliance with the management system for the assessed fishery. Id. at 180. To receive a score of SG80, "some evidence exists to demonstrate fishers comply with the management system under assessment[.]" Id. A score of SG60 means that "fishers are generally thought to comply with the management system under assessment." SAI Global assigned PI 3.2.3(c) a score of SG80. Given Omega's recent actions, a score of SG 80 is no longer appropriate and the score should be lowered to zero. In September 2019, only two-weeks after receiving MSC certification, Omega signalled its intent to exceed the ASMFC cap. Then, in October 2019, Omega deliberately exceeded the catch cap for the Atlantic menhaden. In an attempt to support its blatant disregard for the ASMFC's cap of 51,000mt, Omega alleged that the ASMFC's limit was "arbitrary" and "unscientific." Omega inappropriately relied on its recent MSC certification to argue against the ASMFC cap, mistakenly arguing that the MSC certification is proof that the fishery is sustainable and		All three SG scoring levels require that ''... fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery.'' The scoring of SIc is aided by guidance at Annex SA4.9.1. of the MSC Fisheries Standard v2.01 (31st August 2018) which states: *"In scoring issue (c), the team should consider whether ''fishers cooperate, where necessary, with management authorities in the collection of catch, discard and other information that is of importance to the effective management of the resources and the fishery'' as one of the elements that should influence scoring."* SAI Global was informed by Omega that all vessels submitted DCRs (fishing log) catch and bycatch statistics to state authorities throughout the 2019 fishing season.	

Performance Indicator (PI)	Stakeholder input (including 'Input summary', 'Input detail' and 'Evidence or references)	Suggested score change	CAB response to stakeholder input	CAB response code
	therefore its exceedance of the cap is reasonable. Omega's fishers subsequently exceeded the ASMFC's cap by 16,000 metric tons, or about 33 million pounds.			
	In response to Omega's violative action both the Menhaden Management Board and the ASMFC voted overwhelmingly to find Virginia out of compliance for its failure to adopt the ASMFC's catch cap. Even the commissioner of Virginia Marine Resources Commission voted to find Virginia non-compliant. The ASMFC notified the Secretary of Commerce of its finding. Additionally, nine coastal state governors, including the governor of Virginia, sent a letter to the Secretary of Commerce requesting a moratorium on menhaden fishing. Notably, Omega submitted a comment to the Secretary of Commerce opposing a non-compliance finding, despite knowing that under the regulatory framework Virginia's refusal to adopt the ASMFC catch cap meant Virginia was non-compliant.		The evidence of compliance is necessarily a matter of whether there is evidence of proven non-compliance. While it is clear that the purse seine fleet continued to operate in the Bay after the 51,000 mt cap was reached, SAI Global notes that no citations or charges were laid against the fishing fleet by Virginia or other jurisdictions between 2015 and 2019 when the fleet was operating in the Atlantic menhaden fishery (i.e., non-compliance was not established against the fleet).	
	Ultimately, the Secretary of Commerce agreed with the ASMFC and determined that "the Commonwealth of Virginia has failed to carry out its responsibilities under the ASMFC's Interstate Fishery Management Plan for Atlantic Menhaden[.]" Moreover, the Secretary found that the best available science suggests that "the measures that Virginia failed to implement are necessary to the conservation of Atlantic menhaden." The Secretary of Commerce imposed a moratorium on fishing for Atlantic menhaden in Virginia state waters and possession and landing of Atlantic menhaden harvested in Virginia State waters.		No response required.	
	The ASMFC's unanimous vote of noncompliance, the support of nine governors for a finding of noncompliance, and the U.S. Department of Commerce's finding of noncompliance in response to Omega's deliberate exceedance of the ASMFC menhaden catch cap requires a reduction of score for PI 3.2.3(c). Specifically, there is no longer any evidence that "fishers are generally thought to comply with the management system." In fact, Omega publicly announced that it intended to ignore the ASMFC catch cap because it did not agree with it. Compliance with a management system is not up to the individual fisher, it is mandated both by law and the MSC. If the SG60 threshold is not met, then MSC guidelines requires a "fail." MSC FCP v2.1 at 28. Omega's actions necessitate a failing score for this Scoring Issue because its fishers do not comply with the management system in place.		SAI Global disagrees with the TRCP's opinion that the original score given to SIc should be reduced. Virginia's decision to not enact legislation was challenged by the ASMFC and acted upon by the Secretary of Commerce who imposed a corrective action. Virginia is moving quickly to comply with the required action. Supplementary Comment SAI Global's decision to certify the Atlantic menhaden fishery was confirmed by two independent peer reviewers as well as by the MSC's Technical Oversight process. Formal objections were filed by stakeholder organizations including the TRCP and were argued before an Independent Adjudicator (IA) in July 2019. The IA's findings were conclusive and supportive of SAI Global's certification decision. These oversight processes were completed before a final determination was made as to the fishery's certification outcome. Refer to SAI Global's comments below in response to SI D (systematic non-compliance).	
	Evidence or references			

Performance Indicator (PI)	Stakeholder input (including 'Input summary', 'Input detail' and 'Evidence or references)	Suggested score change	CAB response to stakeholder input	CAB response code
	John P. Williams, Menhaden industry leader says it will exceed bay catch limit (September 17, 2019) https://chesapeakebaymagazine.com/menhaden-industry-leader-says-it-will-exceed-bay-catch-limit/ Meg W. Viviano, VA. out of compliance with menhaden cap, Chesapeake Bay Magazine, (October 29, 2019) https://chesapeakebaymagazine.com/va-out-of-compliance-with-menhaden-cap/ Nine coastal state governors request menhaden moratorium, DSF News (December 2019) https://www.delaware-surf-fishing.com/nine-coastal-state-governors-request-menhaden-moratorium/ Omega Protein Statement on ASMFC Non-Compliance Referral, Omega Protein (October 31, 2019) https://omegaprotein.com/omega-protein-statement-on-asmfc-non-compliance-referral/ Atlantic Coastal Fisheries Cooperative Management Act Provisions; Atlantic Menhaden Fishery, 84 Fed. Reg. 248 (December 27, 2019) (to be codified at 50 C.F.R. pt. 697). Pamela A. D'Angelo, For Omega Protein Corporation, the tide may be changing, The Free Lance-Star (November 2, 2019): https://www.fredericksburg.com/news/local/for-omega-protein-corporation-the-tide-may-be-changing/article_68b1d932-51b6-576c-8123-0927252066a2.html. ASMFC Finds the Commonwealth of Virginia Out of Compliance with Amendment 3 to the Interstate Fisher Management Plan for Atlantic Menhaden, Atlantic States Marine Fisheries Commission (October 31, 2019) http://www.asmfc.org/uploads/file/5dbb11d3pr34Menhaden_VACompliance.pdf. Pamela D'Angelo, Omega Protein Exceeds Menhaden Cap for Chesapeake Bay, Radio IQ Virginia's Public Radio, (September 17, 2019) https://www.wvtf.org/post/omega-protein-exceeds-menhaden-cap-chesapeake-bay#stream/0 Omega Protein Statement on the Chesapeake Bay Cap, Omega Protein (September 12, 2019) https://www.accesswire.com/559458/Omega-Protein-Statement-on-the-Chesapeake-Bay-Cap.			

Performance Indicator (PI)	Stakeholder input (including 'Input summary', 'Input detail' and 'Evidence or references)	Suggested score change	CAB response to stakeholder input	CAB response code
	Chris Chase, Omega Protein signals intention to exceed Chesapeake Bay menhaden cap, Seafood Source (September 13, 2019) https://www.seafoodsource.com/news/supply-trade/omega-protein-signals-intention-to-exceed-chesapeake-bay-menhaden-cap			
3.2.3 - Compliance and enforcement	Input summary There is abundant evidence of systematic non-compliance. Input detail In light of Omega's actions, the score for Scoring Issue D for Performance Indicator 3.2.3 should be lowered to zero, which is a material difference under MSC FCP 7.20.6(c)(i).	<60	The MSC Standard does not recognize a score of 0.	Not accepted (no score change)
	Scoring Issue D for PI 3.2.3 requires "no evidence of systematic non-compliance" in order for a fishery to receive a score of 80. There is no indication that a score of 60 is available. Notably, a score of 80 requires no evidence, suggesting that any evidence of systematic non-compliance necessitates a score of zero. Omega's overt disregard for the ASMFC's menhaden catch cap is evidence of systematic non-compliance by both the company and its fleet. Omega's choice to exceed the catch cap was intentional. Omega announced that it would exceed the catch cap prior to exceeding it. Omega's fleet then continued to harvest menhaden knowing that exceeding the ASMFC's cap is contrary to the ASMFC's menhaden management plan. Additionally, the overwhelming response from the regulatory community arose from the desire to stop Omega's present and future systematic non-compliance. For example, nine governors requested the Secretary of Commerce to impose a moratorium in order to "bring Omega back in line with American fishery management standards." Ultimately, the Secretary of Commerce agreed, and imposed a moratorium on the menhaden fishery in Virginia's waters. Omega's flagrant disregard for the management system in place is sufficient evidence to find systematic non-compliance. As a result, the fishery should score a zero for PI 3.2.3(d).In order for a fishery to be eligible for certification, it must score at least a 60 for each Performance Indicator. MSC FCR v2.0, at PDF p 35. Lowering the score to zero is a "material difference" under MSC FCP 7.20.6(c)(i). A zero for Scoring Issue D, coupled with a 60 or below for Scoring Issue C, results in an average score of 55 for PI 3.2.3. Therefore, under MSC guidelines, the fishery fails and its certification should be withdrawn.		The scoring of SI (d) is informed by current MSC guidance as to what constitutes ''systematic non-compliance.'' The word ''systematic'' is not defined by the MSC and could be interpreted in different ways e.g. ongoing, consistently, systemic etc. The guidance appears at FCR v2.0 – Annex SA PI 3.2.3, SA 4.9 as follows: ''The intent behind the phrase no evidence of systematic non-compliance is that there is simultaneously adequate evidence to assess the compliance of the fishery and no evidence of infringements that occur regularly.'' SAI Global had previously determined that there was adequate evidence during the assessment process to assess the compliance aspects of the fishery over a period of several fishing seasons (as implied by the aforementioned guidance). That said, there continues to be no supportive evidence to indicate that proven infringements occurred on a regular basis. Consequently, there is no finding of a ''material difference'' in regard to PI 3.2.3., and no justification for a re-scoring of its SIs. Supplementary Comment An evident lack of knowledge of the MSC scoring process is exhibited throughout this submission which is somewhat surprising given the stakeholders' extensive prior involvement in this fishery, including that: 1. There is no such thing as a score of zero in MSC—the lowest possible score for a scoring issue is <60. 2. As no numeric score <60 is possible it is also not possible to have a Performance Indicator or Principle-level score <60.	

Performance Indicator (PI)	Stakeholder input (including 'Input summary', 'Input detail' and 'Evidence or references)	Suggested score change	CAB response to stakeholder input	CAB response code
			3. Performance Indicator scores are not based the average scores for applicable scoring issues within that PI but on the number of each SG met as a qualitative proportion (i.e. 'a few', 'some', 'most' etc.) of the total number of applicable SGs. a. Perhaps there is confusion here with Principle-level scores which are based on the weighted-average of the PI scores within each Principle. In order to contribute more accurately in future, the stakeholders should familiarise themselves with the MSC scoring process by referencing MSC FCP v2.1 §7.17 Scoring the fishery.	
	Evidence or references			
	Virginia out of compliance. The Secretary of Commerce also found the Commonwealth of Virginia out of compliance. Menhaden industry leader says it will exceed bay catch limit, John P. Williams (September 17, 2019) https://chesapeakebaymagazine.com/menhaden-industry-leader-says-it-will-exceed-bay-catch-limit/ VA. out of compliance with menhaden cap, Chesapeake Bay Magazine, Meg W. Viviano (October 29, 2019) https://chesapeakebaymagazine.com/va-out-of-compliance-with-menhaden-cap/ Nine coastal state governors request menhaden moratorium, DSF News (December 2019) https://www.delaware-surf-fishing.com/nine-coastal-state-governors-request-menhaden-moratorium/ Atlantic Coastal Fisheries Cooperative Management Act Provisions; Atlantic Menhaden Fishery, 84 Fed. Reg. 248 (December 27, 2019) (to be codified at 50 C.F.R. pt. 697). For Omega Protein Corporation, the tide may be changing, The Free Lance-Star, Pamela A. D'Angelo (November 2, 2019) https://www.fredericksburg.com/news/local/for-omega-protein-corporation-the-tide-may-be-changing/article_68b1d932-51b6-576c-8123-0927252066a2.html ASMFC Finds the Commonwealth of Virginia Out of Compliance with Amendment 3 to the Interstate Fisher Management Plan for Atlantic Menhaden, Atlantic States Marine Fisheries Commission (October 31, 2019) http://www.asmfc.org/uploads/file/5dbb11d3pr34Menhaden_VACompliance.pdf			

Performance Indicator (PI)	Stakeholder input (including 'Input summary', 'Input detail' and 'Evidence or references)	Suggested score change	CAB response to stakeholder input	CAB response code
	Omega Protein Exceeds Menhaden Cap for Chesapeake Bay, Radio IQ Virginia's Public Radio, Pamela D'Angelo (September 17, 2019) https://www.wvtf.org/post/omega-protein-exceeds-menhaden-cap-chesapeake-bay#stream/0 Omega Protein Statement on the Chesapeake Ba Cap, Omega Protein (September 12, 2019) https://www.accesswire.com/559458/Omega-Protein-Statement-on-the-Chesapeake-Bay-Cap.			

6.2.1.3. General comments

General comments	CAB response to stakeholder input	CAB Response Code
Fisheries must meet MSC Principles in order to be certified. It is the MSC's intent that MSC certified fisheries provide a trusted, sustainable brand for consumers to purchase. Affixing the MSC label to any of Omega Protein's Atlantic menhaden products is contrary to MSC Principles 1 and 3.	It is in fact scoring issues and scoring guideposts that must first be met with the Principle-level score being derived from the PI scores. Assessment teams do not therefore assess a fishery's performance against the MSC Principles directly.	Not accepted (no score change)
Principle 1. MSC Principle 1 requires that a fishery be conducted in a way that does not lead to over-fishing or depletion of the exploited populations. Specifically, "the fishery must be conducted in a manner that demonstrably leads to their recovery." While individual pieces of this Principle address stock status and harvest strategy, the core of the Principle focuses on creating and maintaining a sustainable fishery. Omega's deliberate choice to exceed the Atlantic menhaden catch cap is contrary to MSC Principle 1. When a fisher ignores a fishery's management scheme and continues to harvest fish, exceeding the catch limit, the health of the stock is in jeopardy and harvest strategies no longer serve their intended purpose.	As above fisheries are not assessed at the Principle level and this specific issue has in fact previously be explained to this stakeholder group. In addition, no evidence has yet been presented to the assessment team that Omega's exceeding the Bay Cap put the health of the menhaden stock in jeopardy.	
Principle 3. Principle 3 requires MSC certified fisheries to comply with relevant laws. As previously discussed, Omega Protein does not comply with the relevant management scheme and legal framework governing the Atlantic menhaden. During the certification process, TRCP noted that Omega's history of opposition to the current catch cap made it unlikely that Omega would implement necessary management strategies. In fact, Omega routinely claimed that it complied with the menhaden catch cap, going so far as to say that TRCP's doubts are "speculative and unfounded" because Omega "has fished in compliance with [the] cap as long as it has been operative." Recent events indicate that TRCP and other stakeholders' concerns were valid. Omega's actions demonstrate that the only management measures it will comply with are those it deems acceptable. Omega's actions do not respect local laws and standards, and are therefore in direct conflict with the general goal of Principle 3. Failure to meet and maintain the goals articulated in Principle 3 is a "material difference" such that it results in a PI falling below 60.	Historically, Omega has complied with the relevant provisions of the management scheme and legal framework in place for the Atlantic menhaden fishery. Contrary to the TRCP's assertion, there is no evidence to indicate that Omega did not comply with the established Bay cap levels pre-2019. The ASMFC is on record as reporting that the Bay cap was under-fished between 2015 and 2018. In addition, if actions play out as expected in the coming months and Virginia ultimately comes back into compliance, the fact that the management and legal framework would appear to effectively be able to force Virginia (and by extension the fishery) back into compliance is clear evidence of the effectiveness of that framework. There is no evidence to support the claim that Omega's actions constitute a ''material difference'' such that a P3 PI should fail.	
Omega's actions do not support or further the goals articulated in MSC Principles 1 and 3. Specifically, Omega's disregard for current menhaden management schemes jeopardizes the health of the Atlantic menhaden fishery, and demonstrates an unwillingness to respect local and federal management plans. Failure to adhere to MSC Principles is unacceptable and warrants the withdrawal of Omega's MSC certification.	The TRCP alleges that ''Omega's disregard for current menhaden management schemes jeopardizes the health of the Atlantic menhaden fishery...'' It continues to offer no science-based proof to support the allegation. In fact, the ASMFC has consistently concluded that the Atlantic menhaden stock is not overfished nor is overfishing occurring.	
Evidence or references		
What is the MSC?, Marine Stewardship Council https://www.msc.org/en-us/about-the-msc/what-is-the-msc		

6.2.2 The Nature Conservancy and the Chesapeake Bay Foundation

6.2.2.1. Stakeholder contact and assessment details

Category	Contact details
Title	
First name*	Chris - Kate
Last name*	Moore - Wilke
Organisation*	Chesapeake Bay Foundation - The Nature Conservancy
Email*	cmoore@cbf.org - kate.wilke@tnc.org
Department	
Job title	Sr. Regional Ecosystem Scientist/Fisheries Scientist
Description	
Phone number	757/644-4109 (CBF) 434/942-7652 (TNC)
Postal address	
Fishery name*	Atlantic Menhaden Purse Seine Fishery
Certification body (CAB)*	SAI Global
Assessment Stage*	Providing input at annual surveillance audits
Register*	I wish to register as a stakeholder - please keep me informed about each stage of the assessment process

6.2.2.2. Performance Indicator (PI) input (blank rows removed for clarity)

Note. Due to the small text size being difficult to read, the stakeholder input template has been modified so that the 'Input summary', 'Input detail' and 'Evidence or references', occur in consecutive rows rather than side-by-side. The actual content of the template is included verbatim.

Performance Indicator (PI)	Input summary	Suggested score change	CAB response to stakeholder input	CAB response code
Principle 3 - Effective management	Input summary			Not accepted (no score change)
	Omega Protein made the decision to violate the harvest cap in Chesapeake Bay and, subsequently, the ASMFC and U.S. Secretary of Commerce found Virginia (the state in which Omega operates) out of compliance with the management plan.		The public record shows that the out-of-compliance finding by the ASMFC and the U.S. Department of Commerce was specific to the decision taken by Virginia not to implement and enforce the provisions of Amendment 3 of the ISFMP. Omega's decision to harvest above the Bay cap was not adjudicated by either agency.	
	Input detail			
	The Omega Protein Atlantic Menhaden Reduction Fishery does not meet the MSC standard for Principle 3 – Effective Management because, (1) the commonwealth of Virginia, the largest quota holder in the fishery and the state in which the Client operates, is not in compliance with the management plan and (2) the Client had made the decision to fish beyond the Chesapeake Bay harvest cap. The exceedance was nearly 30% (not a trivial overage that may have been a mistake). Omega Protein's actions during the 2019 fishing season indicate a strong unwillingness to comply with MSC Principle 3 : Effective Management.		Omega has acknowledged that the purse seine fleet harvested menhaden in excess of the ASMFC's 51,000 mt cap in Chesapeake Bay in 2019. It maintains that the overage does not constitute an infringement of Virginia's laws. The ASFMC has determined and the U.S. Secretary of Commerce has ruled that Virginia failed to meet its obligations to adopt (and enforce) legislation to give legal effect to the 51,000 mt Bay cap. Virginia's failure to pass enabling legislation does not render the national legal and management system for the fishery in its waters ineffective any more than a claim that binding procedures governing cooperation with other parties was violated by Virginia. In the case of the former, there is clear evidence that the system has been successful in achieving the long and short-term goals and objectives of the fishery; thus, the system has been durable and effective. With few exceptions over an extended period of time, Virginia has shown a strong tendency to cooperate in delivering the ASMFC mandate, including the requirements of the Inter-State Fisheries Management Program. MSC guidance (cited previously) neither requires evidence that the legal system is ''effective'' nor that the procedures governing cooperation with other parties be ''binding.'' Virginia's decision not to facilitate the passage of a law to create the 51,000 mt Bay cap in 2019 was dealt with effectively by the ASMF and the U.S. Department of Commerce in accordance with their procedures; thus, ensuring that the effectiveness of the management system prevailed.	
	Evidence or references			
	See attached letters from ASMFC (November 2019), Office of the Governor of Virginia (Nov 2019), and U.S. Department of Commerce (Dec 2019).		Note these documents are included below as supplementary documents.	

	Omega Protein. "Omega Protein Statement on the Chesapeake Bay Cap." September 12, 2019. https://www.accesswire.com/559458/Omega-Protein-Statement-on-the-Chesapeake-Bay-Cap			
3.2.3 - Compliance and enforcement	Input summary			Not accepted (no score change)
	Omega Protein made the decision to violate the harvest cap in Chesapeake Bay and, subsequently, the ASMFC and U.S. Secretary of Commerce found Virginia (the state in which Omega operates) out of compliance with the management plan.		The question remains as to whether there was in fact a violation of the Bay cap considering that Virginia has neither cited nor charged the fishing vessels with unauthorized fishing. It is not SAI Global's purview to ascertain whether a legally-constituted law was still in effect.	
	Input detail			
	Omega Protein's actions during the 2019 fishing season indicate a strong unwillingness to comply with a management framework that seeks to ensure the responsible and sustainable harvest of Atlantic Menhaden across the Atlantic Coast. In its press release announcing the excess harvest, Omega Protein refers to ASMFC robust management framework simply as "recommendations" while later calling management actions "unscientific and arbitrary". These comments can in no way be construed to be from a fishery that, "respects local, national and international laws and standards".		Omega's position, like those of other parties who participated in the compliance/non-compliance review, is a matter of the public record.	
	Evidence or references			
	Omega Protein. "Omega Protein Statement on the Chesapeake Bay Cap." September 12, 2019.			

6.2.2.3. General comments

General comments	CAB response to stakeholder input	CAB Response Code
Since certification, Omega Protein Corporation's Atlantic Purse Seine Fishery, has harvested Atlantic menhaden in excess of the amount allowed by the interstate fishery management plan for Atlantic Menhaden. After this purposeful action, the Atlantic States Marine Fisheries Commission (ASMFC) found the Commonwealth of Virginia out of compliance with the fishery management plan for Atlantic menhaden due solely to Omega Protein's actions. The CAB and MSC should take a hard look at the timing of this sequence of events. Despite repeated warnings about the lack of conformance between the Virginia Atlantic menhaden regulations and those adopted by the ASMFC, MSC granted certification to the fishery on September 3, 2019. In its certification announcement, Brian Perkins, Americas Director for the MSC was quoted as follows, "The certification signifies a dedication not only to sustainable menhaden fishing and to safeguarding marine ecosystems, but supporting the hardworking fishermen, processors, and everyone else who depend on the fishery for their livelihoods." Just over one week later, on September 12, 2019, Omega Protein indicated it would be violating the Chesapeake Bay harvest cap that was fundamental to ours and other's objections to certifying this	The record is clear that Virginia failed to meet its legal obligations to implement and enforce the provisions of Amendment 3, including a Bay cap of 51,000 mt. Section 4.2.2 of this report sequences the timeline of the key events leading to SAI Global's decision to trigger an expedited audit. Of note: • SAI Global certified the Atlantic menhaden fishery on 3rd September 2019 following a rigorous two-year assessment process which included at least two independent oversight reviews and challenges under the MSC's Objections process by both the CBF and TNC; • Omega's decision to harvest menhaden above the 2019 cap in Chesapeake Bay occurred a short time after. The fishery continued to late October. SAI Global has closely followed developments through various press releases and media reports; • The decision to trigger an expedited audit necessitated that there be clear information of a ''material difference'' to the fishery, including to Principle 3 – Effective Management; and	Not accepted (no score change)

fishery. Excess harvest triggered a noncompliance finding and ultimately a moratorium on all menhaden fisheries in the Commonwealth of Virginia (should the state not come into compliance by the deadline) which would negatively impact all other hardworking menhaden fishermen and processors in Virginia who depend on the fishery.	• The decision by NOAA Fisheries (on behalf of the U.S. Department of Commerce) on 17th December 2019 to find Virginia out-of-compliance was the determining factor that warranted the launch of the expedited audit on 20th January 2020. Omega's decision to harvest above the ASMFC's 51,000 mt cap is not what triggered the non-compliance review. Rather, it was Virginia's decision to not implement and enforce the provisions of Amendment 3. There is no evidence at this time that Omega's fishery in Chesapeake Bay had a negative impact on other fishermen and processors.	
Evidence or references		
See attached letters from ASMFC (November 2019), Office of the Governor of Virginia (Nov 2019), and U.S. Department of Commerce (Dec 2019). Omega Protein. "Omega Protein Statement on the Chesapeake Bay Cap." September 12, 2019. https://www.accesswire.com/559458/Omega-Protein-Statement-on-the-Chesapeake-Bay-Cap		

6.2.2.4. Supplementary documents

6.2.2.4.1. Supplementary document 1

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, MD 20910
THE DIRECTOR

DEC 17 2019

Mr. Robert Beal
Atlantic States Marine Fisheries Commission
1050 N. Highland St.
Suite 200-A
Arlington, VA 22201

Dear Mr. Beal:

I wanted to keep you informed on the status of the Commonwealth of Virginia's non-compliance with the Atlantic menhaden Interstate Fishery Management Plan (ISFMP). In accordance with the delegation of authority under the provisions of the Atlantic Coastal Fisheries Cooperative Management Act (Atlantic Coastal Act), 16 U.S.C. § 5101 et seq., from the Secretary, NOAA's Fisheries Service completed its independent review of the Commissions determination and concurs with the Commission that the Commonwealth of Virginia is not in compliance with the ISFMP.

Specifically, Virginia has not implemented a Chesapeake Bay Reduction Fishery cap of 51,000 mt. as per the ISFMP. NOAA Fisheries also finds that this management measure is necessary for the conservation of the menhaden resource. The best available information shows that menhaden in the Chesapeake Bay are an important component of the overall health of the stock, and further that their role as forage for predator species in the Chesapeake Bay is critical to the marine environment.

I have notified the Commonwealth of Virginia of the finding by letter (enclosed). A moratorium on fishing for Atlantic menhaden in Virginia state waters and possession of and landing of Atlantic menhaden if harvested in Virginia state waters will be imposed effective June 17, 2020.

We chose the June implementation date after consulting with relevant staff from Virginia, and reviewing the facts of this situation. Based upon our analysis, we found that a June 2020 implementation date is appropriate for two principal reasons. First, a June closure date will give Virginia the time necessary for its legislature to bring these regulations back into compliance. Second, although the involved measure is necessary for conservation, the immediacy of that need is less critical given the 2020 fishing season will not begin until spring 2020 and the 51,000 mt Bay cap has never been reached, or even come close to being reached by mid-June.

Virginia has not protested this finding of non-compliance. In our communication with the Commonwealth, they have indicated that they intend to work with the legislature to implement the required management measure as soon as practicable. Virginia has been very cooperative and forthcoming with their intent during the determination period. I encourage the Commission to continue to monitor Virginia's process to implement the Chesapeake Bay Reduction Fishery

THE ASSISTANT ADMINISTRATOR
FOR FISHERIES

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cap. If the Commonwealth of Virginia does enact such a measure, and the Commission determines that the measure is compliant with the ISFMP, under the Atlantic Coastal Act, the Commission would immediately notify the Secretary that the Commonwealth of Virginia is in compliance with the ISFMP. If NOAA Fisheries Service concurs, the moratorium in the state waters of Virginia will be rescinded.

Please contact Alan Risenhoover, Director of the Office of Sustainable Fisheries, if you need additional information. He can be reached at 301-427-8500, 1315 East-West Highway, Silver Spring, Maryland 20910, or alan.risenhoover@noaa.gov.

Sincerely,

Chris Oliver
Assistant Administrator for Fisheries

Enclosure

6.2.2.4.2. Supplementary document 2

COMMONWEALTH of VIRGINIA

Office of the Governor

Ralph S. Northam
Governor

November 20, 2019

The Honorable Wilbur L. Ross
Secretary of Commerce
1401 Constitution Avenue, NW
Washington, DC 20230

Dear Secretary Ross:

The Atlantic States Marine Fisheries Commission (ASMFC) recently voted unanimously to find Virginia out of compliance with the interstate fishery management plan for Atlantic menhaden. The Commonwealth of Virginia voted in favor of this finding because the data show clearly that the harvest cap of 51,000 metric tons (more than 112 million pounds) for the industrial purse seine fishery in Virginia's portion of the Chesapeake Bay has been exceeded. Compliance with this cap is necessary to conserve menhaden and other fisheries that depend on this important forage fish for their survival. These fisheries are an important part of our nation's economy.

Only one company participates in the industrial purse seine fishery – Omega Protein Corporation, a subsidiary of the Canadian firm Cooke, Inc. Despite direct appeals by Virginia's Marine Resources Commissioner and myself that Omega and Cooke abide by the 51,000 metric ton limit, the company has continued over-harvesting menhaden from the Chesapeake Bay even after exceeding the cap. This has resulted in tens of millions of American fish being exported to feed farmed salmon in Canada, in violation of the ASMFC quota.

Given these actions by an international company, imposing a moratorium on the menhaden harvest is the most appropriate way to bring about a shift to responsible management of menhaden, consistent with Section 5106(a) of the Atlantic Coastal Fisheries Cooperative Management Act. Imposing a moratorium immediately will prevent Omega and Cooke from pushing farther past the quota for 2019. A moratorium will also provide the motivation necessary to ensure that Virginia's General Assembly puts in place new measures to ensure future compliance with ASMFC fishery management plans, which are a shining example of the kind of

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cooperative federalism your Administration supports. A moratorium is the appropriate next step after a formal finding of non-compliance, according to the Act.

Section 5106(a) of ACFCMA requires the Secretary of Commerce to make a finding on the non-compliance recommendation within 30 days of being notified by ASMFC. Therefore, pursuant to Sec. 5106(b) of ACFCMA, I am requesting a meeting between your office and Virginia's Secretary of Natural Resources Matthew Strickler to discuss the Commonwealth's support for the ASMFC non-compliance finding, as well as our interest in the conservation of Atlantic menhaden, in advance of you making such a finding.

I have designated Katie Sallee in the Office of the Secretary of Natural Resources to coordinate this meeting. She may be reached at (804) 692-2547 or Katie.Sallee@governor.virginia.gov.

Sincerely,

Ralph S. Northam

6.2.2.4.3. Supplementary document 3

Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmfc.org

Patrick C. Keliher (ME), Chair *A.G. "Spud" Woodward (GA), Vice-Chair* *Robert E. Beal, Executive Director*

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

November 15, 2019

The Honorable Wilbur Ross
Secretary of Commerce
United States Department of Commerce
Herbert C. Hoover Building
1401 Constitution Avenue, Northwest
Washington, DC 20230

Dear Mr. Secretary:

This letter is to notify you that the Atlantic States Marine Fisheries Commission (Commission) has determined the Commonwealth of Virginia is out of compliance with the Commission's Interstate Fishery Management Plan (FMP) for Atlantic Menhaden pursuant to the provisions of the Atlantic Coastal Fisheries Cooperative Management Act (Atlantic Coastal Act). The Commission unanimously adopted the following motion on October 31, 2019, based upon the recommendation of its Atlantic Menhaden Management Board (Board) and Interstate Fisheries Management Program Policy Board:

On behalf of the Interstate Fisheries Management Program Policy Board, move that the Atlantic States Marine Fisheries Commission find the Commonwealth of Virginia out of compliance for not fully and effectively implementing and enforcing Section 4.3.7 Chesapeake Bay Reduction Fishery Cap of Amendment 3 to the Interstate Fishery Management Plan for Atlantic Menhaden. The Commonwealth of Virginia must implement an annual total allowable harvest from the Chesapeake Bay by the reduction fishery of no more than 51,000 metric tons. The implementation of this measure is necessary to achieve the goals and objectives of the Fishery Management Plan and maintain the Chesapeake Bay marine environment to assure the availability of the ecosystem's resources on a long-term basis.

By this action, the Commission has found the Commonwealth of Virginia out of compliance with the FMP and has outlined what the Commonwealth must do to come back into compliance.

The Board approved Amendment 3 in November 2017 with the goal of managing the menhaden resource in a way that balances menhaden's important ecological role, primarily as a prey species, with the needs of all user groups. As part of the Amendment, the Board set the Chesapeake Bay (Bay) reduction fishery cap (cap) at 51,000 metric tons (mt). The cap recognized the Bay's importance as nursery ground for many species by limiting future reduction landings in the Bay to levels equivalent to the recent harvesting practices by the reduction fishery[1].

[1] The reduction fishery "reduces" whole fish into fish meal, fish oil and fish soluble

The Commission's noncompliance decision results from two findings: (1) the Commonwealth of Virginia has failed to implement the cap and (2) as of September, the 2019 reduction fishery harvest from the Bay exceeded the cap of 51,000 mt. The exceedance is significant; to date, the cap has been exceeded by approximately 15,000 mt (33 million pounds) or about 30 percent. This overage represents approximately seven percent of the total allowable quota (coastwide quota).

It is important to note the Board has exhibited great forbearance and has taken numerous actions over the past 18 months in an effort to avoid this noncompliance determination, including multiple postponements designed to provide Virginia more time to adopt and enforce the cap. In February 2019, the Board effectively granted Virginia an accommodation on adopting Amendment 3's cap provided harvest did not exceed it. Unfortunately, the cap was, in fact, exceeded by a substantial amount. Based on its responsibilities under the Atlantic Coastal Act, the Board was obligated to respond to Virginia's unwillingness to effectively implement and enforce the Bay cap in 2019 by determining the Commonwealth Virginia out of compliance[2].

While long-term overages of the cap may impact the stock status of menhaden, the noncompliance decision was not made in response to menhaden's current stock status, which is generally accepted as robust. Instead, the decision was made to uphold a mandatory conservation tool of Amendment 3, namely to conserve menhaden within the Bay to serve as forage for the many other key species that depend on it. The cap addresses the potential for localized depletion of this important forage species caused by concentrated reduction fishing in the Bay, and the implications of such depletion for numerous other Commission-managed species that utilize the Bay and rely on menhaden as forage. Some of these species are in poor condition, including the Commission's flagship species, Atlantic striped bass, as well as Atlantic bluefish and weakfish. These species are highly sought after by recreational and commercial fishermen. For example, in 2017, 32% of recreational removals and 69% of commercial removals of striped bass came from the Bay.

The impacts of focusing high levels of removals from the Bay extend beyond ecosystem considerations to the other competing users of the menhaden resource, including economically important commercial and recreational fishing activities which target predators of menhaden. These species have supported valuable commercial and recreational fisheries on the Atlantic coast for centuries. For example, in 2016, Atlantic striped bass commercial and recreational fisheries supported 2,664 and 104,867 jobs, respectively. The economic impact of these fisheries was $103.2 million and $7.7 billion, respectively.[3]

History and Implementation of the Chesapeake Bay Cap

In the years leading up to Amendment 1 to the Atlantic Menhaden FMP (2001), the number of plants and vessels in the reduction fleet declined along the coast, with effort concentrating in Virginia and North Carolina. As a result, total landings along the coast and within the Bay also declined, but the proportion of removals from the Bay increased. The higher proportion of effort in the Bay amidst lower levels of menhaden recruitment to the Bay raised concerns about the possibility of localized depletion, defined as a reduction in menhaden population size/density below the level of abundance that is sufficient to maintain its basic ecological (e.g., forage base, grazer of plankton), economic, and social/cultural functions, as a result of fishing pressure, environmental conditions, and predation pressures that occur on a small spatial or temporal scale.

[2] All other states and jurisdictions have complied with the FMP.
[3] Southwick Associates. 2019. The Economic Contributions of Recreational and Commercial Striped Bass Fishing. Fernandina Beach, Florida.

In the late 2000s, the NOAA Chesapeake Bay Office coordinated funding for a series of research projects to address whether localized depletion of menhaden was occurring in the Bay. These projects were reviewed by a panel appointed by the Center for Independent Experts. The panel determined the individual research projects were relevant and well-designed. However, the panel noted that without quantitative definition of depletion, it could not be determined whether localized depletion was occurring or how well the ongoing research could address that question.[4] In his 2009 review, Dr. Jean-Jacques Maguire said, "Whether there is enough [menhaden] for the increasing demands of striped bass and other predators, including the commercial and the recreational fisheries, will be a difficult and possibly very expensive question to resolve. Time and area restrictions as well as zoning of the fisheries that are competing for menhaden might provide a more rapid mechanism to mitigate the possible negative consequences of competing fisheries and predators."

Such concerns were at the forefront of the Board's reasoning when it established the first cap in 2005 and remains the primary reason the Board has continued to include the cap as an important component of menhaden management. Specifically, Board members expressed concerns that concentrated, intense commercial fishing of menhaden in specific areas and at certain times could cause detrimental socioeconomic impacts for other user groups (commercial, recreational, ecotourism) who depend upon adequate local availability of menhaden to support business and recreational interests both at sea and on shore. [5] Accordingly, the Board established the cap to address the potential for localized depletion of menhaden and to minimize possible detrimental biological impacts on predators of menhaden and associated socioeconomic impacts on other user groups.

The Commission first implemented a harvest cap on the reduction fishery in the Bay through Addendum II to Amendment 1. The Addendum limited removals of Atlantic menhaden from the Bay for reduction purposes to the average of 2000 to 2004 landings to be implemented in the 2006 fishing year. Before its first year of implementation, the cap was revised through Addendum III to Amendment 1 to be the average landings from 2001 to 2005, or 109,020 mt. The cap was reduced by 20% in 2013 to 87,216 mt with the concurrent implementation of a coastwide quota, which also represented a 20% reduction from recent average landings in response to stock status concerns at the time. Amendment 3 further reduced the cap to 51,000 mt, approximately equal to the five-year average of reduction harvest from the Bay between 2012 and 2016, to complement the Amendment that sought to bolster the conservation of the resource along the coast, including the Bay. From 2013 to 2018, reduction landings had not exceeded 51,000 mt even under the higher historical caps. While the Commission recognized the cap could impose some costs on the reduction fleet, those costs were balanced and minimized because fishermen excluded from the Bay once the cap was reached had the option to fish outside of the Bay. This is not the only Commission managed species for which recent years harvest is used to set a quota when faced with uncertainty. For example, Maine's glass eel quota, implemented in 2015, was set based on the 2014 harvest level.

The Commission's action in setting the cap at 51,000 mt was carefully considered and deliberate. It reflects the reality that even with the stock of Atlantic menhaden not undergoing overfishing on a coastwide basis, localized depletion within the unique Bay ecosystem could have serious adverse effects on key

[4] Maguire, J.J. 2009. Report on the evaluation of the Chesapeake Bay Fisheries Science Program: Atlantic Menhaden Research Program. Laurel, Maryland.
[5] Atlantic States Marine Fisheries Commission (ASMFC). Proceedings of the Atlantic Menhaden Management Board Meetings. Arlington, VA: February 2005 available at http://www.asmfc.org/uploads/file/52865780Feb05AtlMenhadenBoardProceedings.pdf; August 2005 available at http://www.asmfc.org/uploads/file/52865780Feb05AtlMenhadenBoardProceedings.pdf; December 2012 available at http://www.asmfc.org/uploads/file/atlMenhadenBoardProceedings_Dec2012.pdf

Commission-managed fisheries in poor condition, as well as a variety of other avian and aquatic species. These issues could be exacerbated if localized depletion of menhaden in the Bay was occurring due to increased fishing pressure. Menhaden are important prey for many species, including Atlantic striped bass, bluefish, and weakfish. Striped bass and bluefish stocks have decreased by 36% and 25%, respectively, in the last decade.[6] Concentrated menhaden fishing could decrease menhaden availability, exacerbating issues with these stocks. During the public comment period for Amendment 3, a wide range of stakeholders with knowledge of the Bay environment expressed serious concern about the need to protect menhaden and the Bay. Over 85,000 comments were received in support of setting the cap at 51,000 mt to prevent expansion of the reduction harvest within the Bay.

The decision to establish a cap and to subsequently modify the cap has and continues to be supported by science-based information on the ecological role of Atlantic menhaden, particularly as an important food source for species managed by the Commission. Additionally, it supports sound management practices which favor protective measures in the face of recognized but uncertain threats to the resources. It is reflective of recent fishery performance to prevent an increase amidst scientific uncertainty as to the impact of intensive reduction fishery harvest on the Bay ecosystem while ecological reference points are developed to establish scientifically-sound harvest limits that consider menhaden's important role as forage. Acting with such precaution is an accepted and responsible management practice in resource conservation, referred to as the Precautionary Principle.[7] This principle counsels that, in the face of uncertainty affecting resources that are known to be under poor stock condition, in this case predator species including striped bass, the Commission is to take preventative action before serious harm occurs.

Impacts of the Overage on Atlantic Menhaden and the Ecosystem

Exceeding the Bay cap has implications for the stock assessment and its quota projections. The menhaden stock assessment model uses important assumptions about the size and age classes caught by the fisheries to produce projections, which the Commission uses to set management measures moving forward. The projections used to set the coastwide quota are based on the assumption that future fishery selectivity pattern (i.e., the age classes vulnerable to the fishery) would be the same as the selectivity pattern in the most recent year of the data used in the model, which reflects 2016 harvest in the Bay (less than 51,000 mt). The Bay reduction fishery harvests a higher proportion of age 1 and 2 fish than the ocean fisheries north of the Bay. Therefore, if removals from the Bay increased beyond the 51,000 mt cap, the impact of those removals on the total population would change even if the coastwide quota was not exceeded, because the overall selectivity pattern would be different.[8] Any change to the selectivity pattern will affect the validity of assessment projections, potentially leading to underperformance of the stock and failure to meet prescribed conservation objectives. This undermines the Board's ability to meet the goals and objectives of the FMP. Setting a cap provides stability within the Bay, allowing for greater certainty in stock projections and

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[6] Northeast Fisheries Science Center (NEFSC). 2019. 66th Northeast Regional Stock Assessment Workshop (66th SAW) Assessment Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 19-08; 1170 p. and NEFSC. 2019. Prepublication Copy (9-4-2019): Operational Assessment of the Black Sea Bass, Scup, Bluefish, and Monkfish Stocks, Updated Through 2018

[7] See, e.g., Kriebel, D., J. Tickner, P. Epstein, J. Lemons, R. Levins, E.L. Loechler, M. Quinn, R. Rudel, T. Schettler, and M. Stoto. 2001. The Precautionary Principle in Environmental Science. Environmental Health Perspectives 109(9): 871-876, available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1240435/; V.R. Restrepo. 1998. Technical Guidance On the Use of Precautionary Approaches to Implementing National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act. NOAA Technical Memorandum NMFS–F/SPO–31, available at https://www.st.nmfs.noaa.gov/Assets/stock/documents/Tech-Guidelines.pdf, NOAA Office of General Counsel, Precautionary Approach (collecting authorities), available at https://www.gc.noaa.gov/gcil_precautionary_approach.html.

[8] Gabriel, W.L., M.P. Sissenwine, and W.J. Overholtz. 1989. Analysis of Spawning Stock Biomass per Recruit: An Example for Georges Bank Haddock. North American Journal of Fisheries Management 9: 383-391.

increased certainty that management actions taken by the Board will meet the goals and objectives of the FMP. This includes maintaining the Atlantic menhaden stock at levels that sustain viable fisheries and support predators which depend on a healthy forage base.

Atlantic menhaden are a critically important – perhaps the most important – forage species for some of the Atlantic coast's most iconic species, including those that support valuable recreational and commercial fisheries. Science-based information reveals critical ecological linkages between menhaden and other species in the Bay, including striped bass, bluefish, and weakfish. The Bay is an important nursery ground for many of these predator species, and several studies confirm menhaden are a significant component of the diet of numerous predator species in the Bay during certain times and in certain areas.[9] This includes both fish and avian predators. Numerous studies have been conducted on the food habits of fish species within the Bay and concluded Atlantic menhaden are a commonly consumed prey item. Some recent studies show menhaden make up 90% of the diet of age-8+ striped bass during the winter and up to 50% of the diet of larger bluefish during the summer in the Bay.[8]

Atlantic menhaden are also consumed by other predators such as piscivorous birds. Mersmann found bald eagles consume fish almost exclusively during the summer, with most of their summer diet being comprised of Atlantic menhaden and gizzard shad.[10] In addition, McLean and Byrd found menhaden made up 75% of the diet of nesting ospreys in the Bay.[11] Many other avian species are thought to rely on menhaden; however, the diets of these non-fish predators within the Bay are not well studied. For example, cormorant and heron abundance within the Bay has increased over time and both species are known, from studies in other regions, to consume tidal freshwater fish like menhaden. However, there are no studies of their diet in the Bay.[12]

Numerous studies document Atlantic menhaden can comprise a significant proportion of many predators' diets for specific seasons, age classes and locations within the Bay, particularly when menhaden are abundant. However, understanding the impact of reduced menhaden abundance on predator population health is much more difficult. Some work has been done to estimate the predatory demand of individual species within the Bay but whether there is sufficient menhaden biomass in the Bay to support this demand cannot be determined from the current coastwide stock assessment.[13] As a first step, the Commission is developing scientifically-sound, peer-reviewed ecological reference points for Atlantic menhaden at the coastwide level, but spatially explicit models will require more work before they are ready for management use. This effort to integrate ecosystem considerations is consistent with the priorities identified in NOAA Fisheries Strategic Plan for 2019-2022.

Lower levels of menhaden recruitment in the Bay have been linked with negative population impacts for

[9] Southeast Data, Assessment, and Review (SEDAR). 2015. SEDAR 40 - Atlantic menhaden stock assessment report. SEDAR, North Charleston, South Carolina. SEDAR. 2015.
[10] Mersmann, T.J. 1989. Foraging Ecology of Bald Eagles on the Northern Chesapeake Bay with an Examination of Techniques Used in the Study of Bald Eagle Food Habits. Doctoral dissertation. Virginia Polytechnic Institute and State University, Blacksburg, Virginia
[11] McLean, P.K., and M.A. Byrd. 1991. The diet of Chesapeake Bay ospreys and their impact on the local fishery. Journal of Raptor Research 25: 109-112.
[12] Viverette, C.B., G.C. Garman, S.P. McIninch, A.C. Markham, B.D. Watts, and S.A. Macko. 2007. Finfish-Waterbird Trophic Interactions in Tidal Freshwater Tributaries of the Chesapeake Bay. Waterbirds 30: 50-62.
[13] Hartman, K.J., and S.B. Brandt. 1995. Predatory demand and impact of striped bass, bluefish, and weakfish in the Chesapeake Bay: applications of bioenergetics models. Canadian Journal of Fisheries and Aquatic Sciences 52: 1667-1687; Uphoff, J.H. 2003. Predator–prey analysis of striped bass and Atlantic menhaden in upper Chesapeake Bay. Fisheries Management and Ecology 10: 313-322.

some important predator species. Within the Bay, the prevalence of mycobacteriosis in striped bass increased and striped bass condition decreased when menhaden recruitment indices were low[14] (striped bass outside the Bay had lower levels of infection.)[15] Jacobs et al. found the progression and severity of mycobacteriosis in striped bass increased when the fish were not well fed.[16] In addition to striped bass, the weakfish population has continued to decline, even with greatly reduced fishing pressure.[17] As the population declined and natural mortality increased, recruitment indices remained relatively stable for weakfish, suggesting there is a mortality bottleneck around ages 1-2, when weakfish switch over to consuming fish. One hypothesis is that the increase in natural mortality is linked to reduced prey availability, including menhaden.[18] Osprey population growth rates in the Bay were higher during the late 1970s and early 1980s, a period when menhaden recruitment indices in the Bay were high, than they were during the late 1980s and in 2006 when the recruitment indices were low.[19]

While the Commission recognizes these correlations come with caveats, the body of work on this issue indicates a precautionary approach is warranted. The Board appropriately took a precautionary approach in managing the menhaden fishery as the Commission pursues development of ecological reference points to manage menhaden as a forage species. In doing so, the Board not only considered the stock status of menhaden but also the species' pivotal role in the marine environment.[20] In the case of the Bay, the cap was specifically developed to mitigate risk of negative consequences to the unique and sensitive Bay environment in order to assure the availability of menhaden as a critical forage resource on a long-term basis.

Prudent fishery managers often use precautionary techniques such as control rules or risk policies that are not based on direct or explicit quantifications supporting the need for a determinate reduction in fishing effort, but instead indicate a need to mitigate known but as yet unquantifiable risks. The need for such approaches occurs frequently in fisheries management, which often operates in a realm of high uncertainty due to the complexity of marine ecosystems and the difficulty of assembling complete and current data. The approach the Commission has taken for menhaden is not different from protective approaches employed in similar circumstances for other fisheries. For example, in the Atlantic herring fishery, also an important forage fish, the New England Fishery Management Council established a seasonal gear restriction in an area addressing potential impacts of midwater trawling on schools of herring in the Gulf of Maine (GOM). There was a concern the concentrated fishing effort of trawlers could cause localized depletion in the GOM. In the face of scientific uncertainty and in the absence of definitive data, as is the case with menhaden, the Council chose to be precautionary and implement measures intended to address or prevent a resource problem. Given the importance of herring as a forage species and its role in the GOM ecosystem, NOAA Fisheries agreed it was appropriate to enact the measure to maintain the health of the resource in the GOM, the

[14] Overton, A.S., F.J. Margraf, C.A. Weedon, L.H. Pieper, and E.B. May. 2003. The prevalence of mycobacterial infections in striped bass in Chesapeake Bay. Fisheries Management and Ecology 10: 301 – 308; see also Mersmann (1989).
[15] Matsche, M.A., Overton, A., Jacobs, J., Rhodes, M.R. and Rosemary, K.M., 2010. Low prevalence of splenic mycobacteriosis in migratory striped bass *Morone saxatilis* from North Carolina and Chesapeake Bay, USA. Diseases of aquatic organisms, 90: 181-189.
[16] Jacobs, J.M., C.B. Stine, A.M. Baya, and M.L. Kent. 2009. A review of mycobacteriosis in marine fish. Journal of Fish Diseases 32: 119-130
[17] ASMFC. 2016. Weakfish Benchmark Stock Assessment and Peer Review Report. Arlington, VA
[18] Northeast Fisheries Science Center (NEFSC). 2009. 48th Northeast Regional Stock Assessment Workshop (48th SAW) Assessment Report. US Department of Commerce, NEFSC Reference Document 09-15.
[19] Watts, B.D., and B.J. Paxton. 2007. Ospreys of the Chesapeake Bay: Population Recovery, Ecological Requirements, and Current Threats. Waterbirds 30: 39-49.
[20] ASMFC. 2017. Atlantic Menhaden Management Board Proceedings. Arlington, VA. http://www.asmfc.org/uploads/file/5d2f56c4AtlMenhadenBoardProceedingsNov2017.pdf

resources that depend on herring as prey, and the businesses that are sustained by a healthy GOM ecosystem.[21] Similar to one of the cap's goals to prevent concentrated harvest, the Atlantic Herring FMP establishes area specific quotas to distribute harvest throughout the range of the species.

Under Amendment 3, the Commission committed to managing menhaden in consideration of its role as a forage fish, and in the absence of a quantitatively derived cap in the Bay. Historical fishery performance was used not as an arbitrary measure, but as a precautionary approach to mitigate risk to the Bay's ecosystem and to achieve the management objectives of the plan. Conserving menhaden takes on an even greater role as other important forage species on the Atlantic coast, such as Atlantic herring and Atlantic mackerel, have suffered significant declines.

Notably, the cap allows viable prosecution of the reduction fishery yet limits removals. By using the average annual harvest in setting the cap, the approach mitigated economic harm as it provided the fishery with adequate access to menhaden to maintain current fishing levels while new approaches to managing this pivotal forage species are developed. In addition, the reduction fleet has the opportunity to fish in other areas. The Commonwealth of Virginia is privileged to have over 78.66% of the coastwide quota. This certainly allows the reduction fleet the opportunity to focus its efforts outside the Bay when cap has been reached. Because menhaden are a key forage species for some of the most important recreational and commercial fisheries on the East Coast, an approach that seeks to avoid further harm while transitioning to a more advanced ecosystem-based management regime, is particularly appropriate in this context.

When considering whether a state is in noncompliance with an FMP, the Commission must decide whether the state in question has "not implemented and enforced" the mandatory provisions of the FMP within the prescribed time period, 16 U.S.C. § 5105(a). Before transmitting a noncompliance determination for the Secretary's independent determination under *id.* § 5106, the Commission also considers it appropriate to express its own judgment concerning whether the relevant plan provisions are necessary for conservation of the menhaden fishery. *See* 16 US.C. §5104(a)(2)(A) (requiring that Commission FMPs "promote the conservation of fish stocks throughout their ranges and [be] based on the best scientific information available; 16 U.S.C. §5102(4) (defining "conservation" for purposes of the Atlantic Coastal Act to mean "the restoring, rebuilding, and maintaining of any coastal fishery resource and the marine environment, in order to assure the availability of coastal fishery resources on a long-term basis."). For reasons set forth above, the Commission does, indeed, consider the Bay cap necessary for conservation.

The Commonwealth of Virginia's failure to implement the bay reduction fishery cap will negatively impact the Commission's ability to achieve the goals and objectives of the FMP. Its persistent noncompliance threatens the Commission's ability to maintain the Bay's marine environment to assure adequate availability of menhaden within the ecosystem on a long-term basis. Indeed, failure of any state to fully comply with the mandatory provisions of a Commission interstate FMP has the ability to undermine the cooperative nature of the Commission's entire fisheries management process.

[21] National Marine Fisheries Service (NMFS). 2007. Fisheries of the Northeastern United States Atlantic Herring Fishery Amendment 1. 72 Federal Registry 11251. https://www.federalregister.gov/documents/2007/03/12/E7-4163/fisheries-of-the-northeastern-united-states-atlantic-herring-fishery-amendment-1

The Atlantic Coastal Act requires all Atlantic coastal states to implement and enforce fishery management plans adopted by the Commission. 16 U.S.C. § 5104(b). If the Commission determines a state is out of compliance with one of its FMPs, the Act requires the Commission to report this determination to you, as the Commission hereby does in this instance. I have also transmitted this letter to the Secretary of the Interior.

Sincerely,

Robert E. Beal

cc: Patrick Keliher, ASMFC Chair
A.G. "Spud" Woodward, ASMFC Vice-Chair
ASMFC Commissioners
Atlantic Menhaden Management Board

6.2.3 Omega Protein Corporation

6.2.3.1. Supplementary Document 1

COMMONWEALTH of VIRGINIA

Marine Resources Commission
Building 96
380 Fenwick Road
Fort Monroe, VA 23651

Matthew J. Strickler
Secretary of Natural Resources

Steven G. Bowman
Commissioner

November 4, 2019

Mr. Monty Diehl
Omega Protein
243 Menhaden Rd,
Reedville, VA 22539

Mr. Diehl,

Weekly data provided to the Marine Resources Commission by the National Marine Fisheries Service (NMFS) indicates Omega Protein has landed 65,804 MT of Atlantic menhaden in the Virginia portion of the Chesapeake Bay through October 25th of this year. This value represents 129% of the reduction fleet 2019 Bay quota for Virginia as established in Amendment 3 of the Atlantic States Marine Fisheries Commission's (ASMFC) Atlantic Menhaden Interstate Fishery Management Plan.

Last week the ASMFC found Virginia out of compliance on Amendment 3 for not establishing the 51 MT Bay cap quota as regulation, and for exceeding the cap for the first time since 2012. Additionally, there is a payback allowance in Amendment 3 which will reduce Virginia's 2020 Bay harvest by at least 14,804 MT. ASMFC leadership will be submitting a finding of non-compliance to the U.S. Secretary of Commerce within 10 business days, after which, the Secretary has 30 days to provide a ruling. A moratorium on all Virginia Atlantic menhaden harvest may occur if the Secretary concurs with ASMFC's non-compliance finding.

Your actions by exceeding this cap not only impact your business, but all the other menhaden harvesters in the Bay and the fishing industries (such as crabbing) which are reliant on menhaden as bait. You have also put my agency in a difficult position with ASMFC and NOAA Fisheries, as we have done everything within our ability to avoid this non-compliance finding and maintain a positive relationship with other states in managing the many fisheries of economic importance to the Commonwealth. As such, I urge Omega Protein to cease all fishing activity in the Chesapeake Bay immediately for the remainder of 2019. Please respond to this request with your intentions no later than Friday, November 8 to inform upcoming consultations between the Commonwealth and the U.S. Secretary of Commerce.

Sincerely,

Steven G. Bowman

An Agency of the Natural Resources Secretariat
www.mrc.virginia.gov
Telephone (757) 247-2200 (757) 247-2292 V/TDD Information and Emergency Hotline 1-800-541-4646 V/TDD

cc: Honorable Matthew J. Strickler
Ellen Bolen
Robert Beal

6.2.3.2. Supplementary Document 2

OCEAN FLEET
SERVICES

November 7, 2019

Steven Bowman
Commissioner, Marine Resources Commission
Building 96
380 Fenwick Road
Fort Monroe, Virginia 23651

Commissioner Bowman,

We are in receipt of your November 4, 2019 letter regarding our 2019 Chesapeake Bay Reduction Cap landings. As of this letter, I can confirm that the reduction fishery has harvested 65,804 MT in 2019. As stated publicly during the October 28 Atlantic States Marine Fisheries Commission (ASMFC) meeting, fishing has halted in the Chesapeake Bay for the year.

As laid out in Omega Protein/Ocean Fleet Services' letter dated October 2, 2019 (attached) to the Commissioners of the ASMFC, the company pledged to stop fishing when we approached 67,000 MT in the Chesapeake Bay. As such, we have remained true to our pledge. In fact, we have left a buffer of roughly 1,200 MT in case there are some landings figures that have yet to be processed by NOAA-Fisheries. We do not expect there to be any additional "Bay-landings" that are offloaded at our facility the remainder of the season.

Should you or any other stakeholder see our vessels in the Bay; do not be alarmed, those vessels will not be fishing. Rather these hard-working fishermen will be working to complete our coastwide quota outside of the Chesapeake Bay in the waters of the Atlantic Ocean.

Sincerely,

Monty Deihl
Vice-President,
Ocean Fleet Services

CC: Honorable Matthew J Strickler
Ellen Bolen
Robert Beal

OMEGA PROTEIN®
Healthy Products for a Healthy World®

October 2, 2019

Dear Commissioners:

Omega Protein appreciates this opportunity to speak directly to members of the Atlantic States Marine Fisheries Commission (ASMFC) to expand on its public statement regarding the Chesapeake Bay reduction fishery cap, specified in Amendment 3 to the Atlantic Menhaden Interstate Fishery Management Plan.

The Company understands the importance of the cap to many of you, and the legitimate concerns about the importance of Commission processes. Knowing that, we were faced with a hard decision whether stop fishing in the Bay just after Labor Day (and as Atlantic hurricane season was in full force with Hurricane Dorian). That decision would have reduced employee and crewmember income to stay within the Amendment 3 cap. Our other option was to continue fishing as allowed by Virginia law. It was not an easy choice. But we decided to stand by our fishermen who have depended on this fishery for over 100 years, as well as protect our company's own long-term viability.

Omega Protein regrets that this matter has come to its current state. However, adherence to the lowered cap would have caused significant economic harm, just as we all agree that forcing vessels to fish in unsafe oceanic conditions is clearly unacceptable. **Recognizing the Commission's concerns, Omega Protein commits to not exceeding 67,000 metric tons in Chesapeake Bay reduction harvest in 2019.** To be clear, this means we will stop fishing in the Bay, even if that jeopardizes our ability to catch our full 2019 coast-wide allocation. This 67,000 mt figure is slightly below the mid-point between the Amendment 2 and Amendment 3 cap levels. Perhaps more importantly, by ending fishing in the Bay at or before harvesting 67,000 mt, it ensures that the 2-year, 3-year and 5-year average recent landings from the Bay will be well below the Amendment 3 level. (See Attached)

Some may perceive this gesture as insufficient. Another view, however, is that this approach provides the Commission, Commonwealth of Virginia, and the menhaden reduction fishery a path forward as we move towards the development of the Ecological Reference Points (ERP) in 2020. Hopefully, this ERP process will provide everyone the kind of scientific perspective on the Bay cap that all have recognized has been lacking since it was first put in place in 2006.

The Bay cap has always been a unique measure. It only impacts fishing in one state (and effectively impacts only one company). It was never justified as a scientifically derived catch limit. As ASMFC Leadership noted in its response to Virginia's now-withdrawn appeal in January of 2018, the Bay cap was a negotiated, precautionary measure. It should remain such. The adoption of the Bay Cap in 2006 has had a major impact on how we fish, and the proof is in the harvest figures. Our recent Chesapeake Bay catches are much reduced from prior levels.

Between 1985 and 2006, Bay reduction landings averaged over 137,000 mt. It is important to note that this was a period when striped bass were staging their spectacular recovery.

Omega Protein supported the initial cap as a precautionary measure, and abided by the 20 percent reduction imposed in 2012, when all menhaden fishing was reduced by that amount. The Amendment 3 cut of yet an additional 40 percent, however, was based on the prior five years' average landings. It was no accident that average Bay landings were way down when Amendment 3 was being developed. Nor was it any indication of any lack of menhaden in the Chesapeake Bay.

While you may not agree with the Company's position, we hope you will recognize that we have made significant strides in conducting our fishing operations in a way that other user groups have insisted we operate in the Bay. As explained above, we have fished there less since the cap was put in place, and, without any regulatory action, we also arrived at several gentlemen's agreements geographically in the Bay to avoid user conflicts. We are paying the price now economically and in the management process, with Amendment 3 having reduced the cap by 40% based on the Company's decision to heed Bay Stakeholders' advice to fish more outside of the Bay.

However, 2019 was a year when menhaden were schooling in the far eastern edge of the Bay, just inside the line dividing Bay and oceanic waters. Fishing operations were further complicated by weather. In its own way, the 2019 situation in the Bay is just as episodic as situations other states have confronted with menhaden. Furthermore, many states have exceeded their allocations and have done so without consequence since Amendment 2 was implemented.

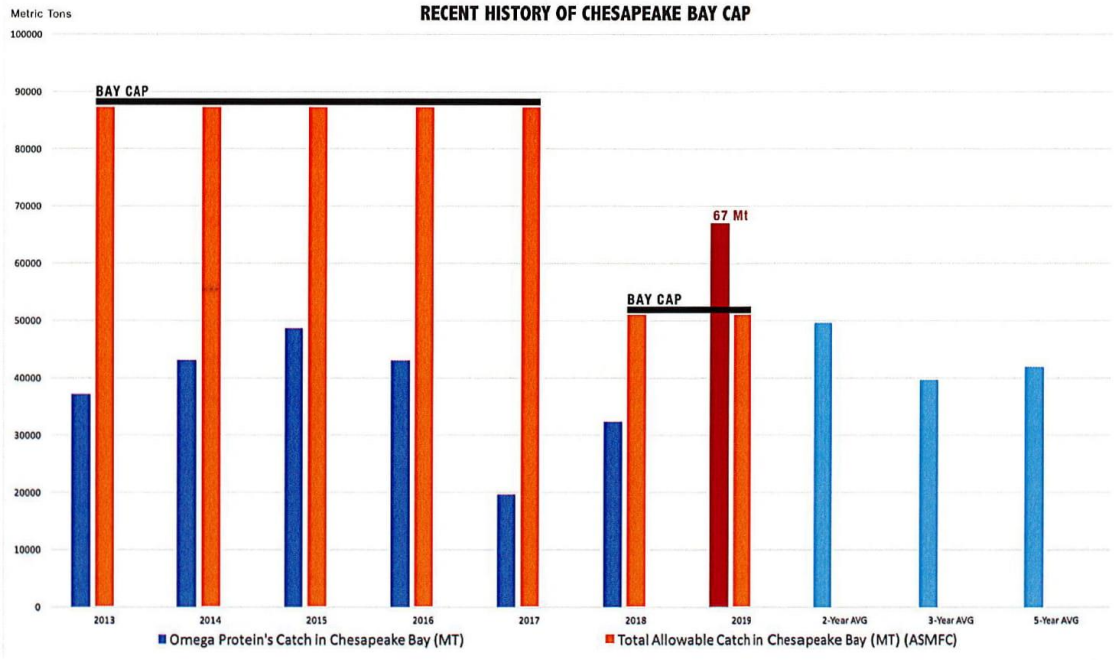
Omega Protein re-emphasizes a point stressed in its September 12th public statement; the company has enormous respect for the Commission and its members. Our use of the term "recommendation" to describe the cap reduction in that statement was only for consistency with the terminology in the ASMFC Compact and the ISFMP Charter. It was not meant to denigrate the measure's importance to the Commission or distinguish it from other elements of this or any other amendment.

We look forward to continuing this dialogue and if you have questions or would like to better understand our position regarding the Bay cap, please do not hesitate to contact Ben Landry at (713) 940-6183 or blandry@oceanfleetservices.com.

Sincerely,

Bret Scholtes
President and CEO
Omega Protein Corporation

Ben Landry
Director of Public Affairs
Oceanfleet Services



6.2.3.3. Supplementary Document 3

December 2, 2019

Via Hand Delivery
The Honorable Wilbur Ross
Secretary of Commerce
United States Department of Commerce
Herbert C. Hoover Building
1401 Constitution Avenue, Northwest
Washington, DC 20230

RE: Omega Protein Inc.'s Response to Atlantic States Marine Fisheries Commission's Request for a Moratorium on the Atlantic Menhaden Fishery In the Commonwealth of Virginia's State Waters

Dear Secretary Ross:

Omega Protein Inc. operates the only remaining facility on the Atlantic Coast which produces fish meal and oils from Atlantic menhaden and is the sole entity impacted by the Chesapeake Bay reduction fishery cap. This cap is the subject of the Atlantic States Marine Fisheries Commission's ("Commission") letter of November 15, 2019, requesting that a moratorium on menhaden fishing be imposed in waters of the Commonwealth of Virginia.

As the letter states, the Virginia General Assembly, which is the relevant governmental body with jurisdiction over this fishery, has not implemented a Commission-recommended forty-one percent cut in the amount of menhaden that can be removed annually from the Chesapeake Bay for reduction purposes (that is, from 87,216 metric tons ("mt") to 51,000 mt). However, the Commission does not claim, and cannot claim, that this reduction is "necessary for the conservation of the fishery in question,"[1] which is the standard established by the Atlantic Coastal Fisheries Cooperative Management Act ("ACFCMA" or "Act") that governs the decision before you. For this and other reasons explained in detail below, Omega Protein believes no lawful moratorium on this fishery can be issued.

Before providing our detailed arguments as to why the Commission cannot make the showing required under the Act, we first provide a summary of the main points raised. We then provide some background on the reduction fishery and the operations of Omega Protein.

[1] 16 U.S.C. § 5106(a)(2).

Summary of Omega Protein's Main Points Against a Moratorium

- As noted, under ACFCMA, a federal moratorium can only be imposed here if the Chesapeake cap is necessary for the conservation of the Atlantic menhaden fishery. However, the Commission does not and cannot make this argument. This stock has not been subject to overfishing since the 1950s, nor has it been below target levels of abundance since late 1990s.

- Since 2013, when the Atlantic menhaden fishery was first subject to a coastwide quota system, the Commission has set a very conservative annual cap on total landings. This quota has always been set at a level which has no chance of resulting in overfishing. As such, Atlantic menhaden have been managed far more conservatively than even federally-managed fisheries that are undergoing rebuilding.

- As your designees with the National Oceanic and Atmospheric Administration's Office of General Council have informed the Commission, there has been no indication of the necessary menhaden conservation purpose. Further, they have noted that a moratorium has never been requested or imposed for a fishery, like that for Atlantic menhaden, which is neither overfished nor subject to overfishing.

- A moratorium cannot be justified even in terms put forward by the Commission; specifically, on the grounds that the reduction is necessary "to conserve menhaden within the Bay to serve as forage for the many other key species that depend on it." Nov. 15 Letter, at 2. In response to Virginia's appeal of the decision in Amendment 3 to the Interstate Fishery Management Plan for Atlantic Menhaden to reduce the Bay cap, the Commission's leadership admitted that the Amendment contained "no evidence to suggest the Bay Cap is necessary to protect the Bay as a nursery for other species."

- While catches of menhaden in the Chesapeake Bay have been on a steady decline since the Bay cap was first introduced in 2006, from an average of 109,020 mt from 2001-2005 to about 51,000 mt from 2012-2016, and the population status of menhaden has been "robust," the status of predator species, particularly striped bass, have been on a decline. The reason for these declines are much more likely attributable to chronic overfishing and the failure of the Commission to take necessary action to impose meaningful conservation for stocks such as striped bass and bluefish.

Background on Omega Protein and the Menhaden Reduction Industry

Omega Protein is the largest private employer in Northumberland County and is located in the small Chesapeake Bay town of Reedville, Virginia. This company has been in continuous operation since 1878.In fact, in the 1950s, over twenty reduction plants were in operation from Florida to Canada, and as many as 150 vessels participating in this fishery. The oils produced by the industry have traditionally been used in industrial applications; in fact, these oils were essential to the war fighting efforts during World Wars I and II. Fish meals and oils have also been long used for fertilizers, to provide nutritional supplements for livestock, and, increasingly, to support a growing aquaculture sector to help feed a growing world.

In more recent times, Omega Protein has focused on manufacturing highly-refined fish oil for direct human uses. For instance, we incorporate these oils into capsules, distributed under our own proprietary brands, as well as other nutritional companies' brands. Omega-3 from fish oil supplies valuable long-chain Omega-3 lipids and proteins, containing Omega-3 fatty acids DHA, EPA and the lesser known fatty acid, DPA. In 2004, the U.S. Food and Drug Administration announced that companies such as Omega Protein may make qualified health claims that the consumption of long-chain omega-3 fatty acids, EPA and DHA, may reduce the risk of coronary heart disease.

Nutritional product development extends well beyond refining fish oil for capsules. The Company's Omega-3 formulations fortify a wide range of human foods, including butters and spreads, sauces and dressings and breads. We are also developing nutraceutical products for enteral and parenteral nutrition, providing life-saving nutrition as part of medical treatment.

Omega Protein's research and development is conducted at Omega's Health and Science Center, located at its Reedville facility. Research undertaken here has been instrumental in expanding the human nutritional applications to which our products are put, as well as developing ways to increase the value of the limited catch the Company is allowed to harvest. In this fishery, no part of the fish is wasted.

Omega Protein's Case Against a Declaration of a Moratorium

I. The Legal Framework Governing the Commission and the Decision Before the Secretary

A. The Atlantic States Marine Fisheries Compact

Atlantic coast states established the Atlantic States Marine Fisheries Compact, which Congress approved in 1942,[2] and which was subsequently amended in 1950.[3] The Compact was created to assist compacting Atlantic Coast states to coordinate the conservation and management of fish stocks they share. Through such coordination, Compact participants seek to "promote the better utilization of the[se] fisheries . . . by the development of a joint program for the promotion and protection of such fisheries, and by the prevention of the physical waste of the fisheries from any cause." Compact, Article I. In the case of this Compact, the benefit of the bargain that each participating state derives is uniformity and consistency among the participating states' fishery laws.

The Compact authorized the Commission's creation. The Atlantic States Marine Fisheries Commission "is a fact finding and deliberative body with the power to make recommendations to the member states and to the Congress of the United States." Rules and Regulations of the Commission, Art. I, § 2. It is the role of the Commission to "recommend" to the governors and legislatures of the signatory states "legislation dealing with the conservation of

[2] *See* PUB. L. NO. 77-539, 77th Cong., 2d Sess. (1942).

[3] *See* PUB. L. NO. 87-721, 81st Cong., 2d Sess. (1950).

the marine, shell and anadromous fisheries of the Atlantic seaboard." Compact, Art. IV. In addition, the Commission is empowered to "recommend" to the pertinent administrative agencies in the signatory states "the adoption of such regulations as it deems advisable." *Id.*

Thus, as originally created by the member states and as approved by the U.S. Congress, the Commission had no direct regulatory authority. Any state was free to adopt or ignore the Commission's recommendations, just as the member states of the subsequently created Gulf States and Pacific States Marine Fisheries Commissions are free to do today.

B. The Atlantic Coastal Fisheries Cooperative Management Act (1993)

In 1993, to further ensure consistency in management of Atlantic fisheries under state jurisdiction, Congress enacted the Atlantic Coastal Fisheries Cooperative Management Act. *See* 16 U.S.C. §§ 5101-5108. The Act, modeled on the Striped Bass Act, effected significant changes from the Compact and the understanding it codified among the compacting states. The most consequential change made by the Act was to make certain conservation measures "recommended" by the Commission enforceable mandates upon states through federal action.

Specifically, through the Act, Congress clarified and strengthened the member states' obligations to implement coastal fishery management plans developed by the Commission. Indeed, the Act states that Member states "shall implement and enforce the measures of such plans within the time frame established in the plans." *Id.* § 5104(b)(1) (emphasis added). Moreover, the Act defines the terms "implement and enforce" employed in Section 5104(b)(1) as "mean[ing] to enact and implement laws or regulations as required to conform with the provisions of a coastal fishery management plan…." *Id.* § 5102(10).

The Act details its rationale for enhanced enforcement of Commission recommendations. It explains that, "[b]ecause no single governmental entity has exclusive management authority for Atlantic coastal fishery resources, harvesting of such resources is frequently subject to disparate, inconsistent, and intermittent State and Federal regulation that has been detrimental to the conservation and sustainable use of such resources and to the interests of fishermen and the Nation as a whole." *Id.* § 5101(a)(3). In part, the law is designed to facilitate cooperation and management of resources which jointly exist in state and federal marine jurisdiction. *Id.* § 5103.

Pertinent to the issue at hand, the Act required the Commission to develop what has become to be known as the Interstate Fisheries Management Program ("ISFMP") Charter, which contains "standards and procedures to ensure that such plans promote the conservation of fish stocks throughout their ranges and are based on the best scientific information available." *Id.* § 5104(a)(2)(A).

The Act's enforcement mechanism is the means by which the law's state/federal conservation purposes are ensured. Under this provision, the Commission may notify you, as the Secretary of Commerce, that a state has failed to implement a mandatory compliance measure developed under an interstate fishery management plan. *Id.* § 5105(b). The law requires you, as the Secretary, to determine whether: (1) "the State in question has failed to carry out its responsibility

under section 5104" of the Act; and (2) to make an independent determination as to whether such measure or measures are "necessary for the conservation of the fishery in question." *Id.* § 5106(a). If the answer to both questions is affirmative, you have the authority to impose a moratorium on fishing for that species in the recalcitrant state's waters. *Id.* § 5106(c). Both the Constitution and federal legal decision-making standards require you to exercise independent judgment in addressing a Commission moratorium request.

In fact, at least two state Attorneys General have questioned the Act's constitutionality on several grounds. Coincidentally, the Virginia state Attorney General opined on whether the original Chesapeake Bay reduction fishery cap, which was adopted through an "addendum," an abbreviated rulemaking process less rigorous than a full amendment.[4] For several substantive and procedural reasons, the Attorney General found that, as adopted, the Commission exceeded its authority by using the addendum procedure to enact the cap.[5] Relevant here, the Opinion states:

> [I]t is reasonable to expect that the Board's compliance with its own rules would be subject to heightened scrutiny due to the existence of unsettled Constitutional questions underlying the coercive aspects of the Act. Questions under the Constitution of the United States to challenge Addendum II may include federalism issues, the Tenth Amendment; the Joinder Clause, Article IV, § 3, cl. 1; the Compact Clause, Article I, § 10, cl. 3; the Appointments Clause, Article II, § 2, cl. 2; and the doctrine limiting Congressional delegation of authority to nonfederal entities.

Id. at 4. To date, none of these issues have been raised in a challenge to an action by the Commission. We note these concerns to highlight the substantial questions that have been raised by the extraordinary authority you have been granted to exercise federal authority over issues constitutionally reserved to sovereign states, especially in light of years' worth of claims by the Commission that its actions are immune to judicial review or executive branch review. Federalism questions are especially pertinent in this instance where the cap applies solely within the internal waters of Virginia.

II. The Question At Issue

As noted above, under the Act, the questions presented by the Commission are twofold. The first is whether Virginia has failed to adopt the forty-one percent reduction in the Chesapeake Bay reduction cap adopted as part of Amendment 3 to the Atlantic Menhaden Fishery Management Plan ("FMP"). The answer to this question is clearly yes. Amendment 3 reduced the cap to 51,000 mt. By contrast, Virginia law currently sets the annual limit at 87,216

[4] VA. Att'y Gen. Opinion No. 06-002 (2006). A copy of this opinion, along with one issued by the North Carolina Attorney General that raises similar constitutional questions are appended hereto as Exh. A.

[5] After a period of negotiations among political representatives of Maryland and Virginia, Omega Protein, environmental groups, and angler representatives with a stake in Chesapeake Bay fisheries, a revised addendum was adopted later in 2006. *See infra*. The propriety of the administrative process used was therefore not judicially challenged.

mt.[6] Furthermore, Amendment 3 eliminated the possibility of carrying over up to 10,976 mt of unused quota that Virginia law currently provides for. *See id.* § (C), (D).

The key question, then, is whether the Chesapeake Bay reduction fishery cap of 51,000 mt per year with no "carryover" that Virginia failed to "implement and enforce" is "necessary for the conservation of the fishery in question." 16 U.S.C. § 5106(a)(2). That is to say, is the measure "necessary" to conserve the Atlantic menhaden fishery? For reasons detailed below, the answer to this question is undoubtedly "no."

III. There Is No Scientific or Record Basis for Finding the Reduction in the Chesapeake Bay Reduction Fishery Cap is Necessary for the Conservation of the Fishery In Question

Before providing Omega Protein's detailed rationale, we would note that the Commission does not attempt to justify the cap reduction in statutorily relevant terms. That is to say, it does not argue that the measure is necessary for "restoring, rebuilding, and maintaining" the Atlantic menhaden resource to insure its "availability … on a long-term basis."[7]

Rather, the motion to find Virginia out of compliance approved by the Commission states only that the "measure is necessary to achieve the goals and objectives of the Fishery Management Plan and maintain the Chesapeake Bay marine environment to assure the availability of the ecosystem's resources on a long-term basis." Letter of Nov. 15, 2019, at 1. In fact, the Commission admits that "the noncompliance decision was not made in response to menhaden's current stock status, which is generally accepted as robust. Instead, the decision was made to uphold a mandatory conservation tool of Amendment 3, namely to conserve menhaden within the Bay to serve as forage for the many other key species that depend on it." *Id.* at 2 (emphasis added).

The Commission's new-found rationale begs two questions:

First, the Act defines "fishery" as "one or more stocks of fish that can be managed as a unit for purposes of conservation and management and that are identified on the basis of geographical, scientific, technical, commercial, recreational, or economic characteristics." *Id.* § 5102(8)(A) (emphasis added). The Commission does not identify or manage menhaden and its predators as any sort of unit. The Commission, for the first time ever, is pretending to do so in its November 15, 2019 submission. Do not be fooled by the Commission's assertion.

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[6] *See* VA. CODE § 28.2-1000.2(C).

[7] *See id.* § 5102(4) (the Act's definition of "conservation"). To preempt any argument that the definition of conservation, which also considers not only the fishery, but "any coastal fishery resource and the marine environment," is broad enough to the Commission's justifications, we note that the question is not whether the measure promotes conservation generally. Rather, the inquiry is confined to whether the measure is necessary "for the conservation of the *fishery in question*," *i.e.*, the menhaden fishery. *Id.* § 5106(a)(2). The Act defines a "coastal fishery resource" as "any fishery, any species of fish, or any stock of fish that moves among, or is broadly distributed across, waters under the jurisdiction of two or more States or waters under the jurisdiction of one or more States and the exclusive economic zone." *Id.* § 5102(2).

Second, the Commission never demonstrates – nor can it – that there is even any management unit of any sort for Atlantic menhaden within the Chesapeake Bay. The Atlantic menhaden stock is indisputably unitary and coast-wide, as the National Marine Fisheries Service ("NMFS") has long maintained.

Therefore, because the Commission does not argue the Bay cap reduction is necessary to conserve the Atlantic menhaden stock, and, as discussed below, could not argue that it is necessary to conserve this fishery, the Commission's request for a moratorium under the Act should be denied.

Omega Protein's detailed argument shall begin with a history of the Bay cap and its purpose, as well as the fishery and its management. Then we set forth the primary arguments as to why the cap is not a necessary conservation tool for the fishery, while addressing the Commission's main points advanced in its letter.

A. History of the Bay Reduction Fishery Cap

Until 2006, there were no management measures specified governing harvest of Atlantic menhaden. In that year, in response to concerns raised by environmental and sportfishing organizations that concentrated harvests of the stock in the Chesapeake Bay could lead to "localized depletion" that may adversely impact predator stocks, the Commission adopted Addendum II to the Menhaden FMP. Addendum II would have set a cap on Bay harvests by Omega Protein based on the five-year average landings from 2000-2004.[8]

The Addendum's Statement of the Problem noted that the proportion of coastwide landings taken from the Bay had increased eleven percent in the 1996-2004 period compared to the prior 11 year period. Add. II at 6. It also noted that, in relevant context, "the absolute or actual removals from the Bay have declined over similar time frames" by twenty-eight percent. *Id.* Addendum II did not explain what biological problems might be caused by a relative increase in the proportion of fish taken from the Chesapeake Bay when the absolute amount of Bay removals had significantly decreased.

Also noted was the "potential" for localized depletion, which was theorized to possibly compromise predator-prey relationships and negatively impact recruitment of menhaden. *Id.* It was noted, however, that there was a "lack of reliable data to determine if depletion within season for all ages and annually for ages 1 and 2 Atlantic menhaden is occurring." *Id.* The Addendum did state that no data suggested that reduction harvests adversely impacted menhaden recruitment, which at that time had been poor. *Id.* 6-7. It was concluded that "[s]ufficient scientific data was not available to satisfactorily address the potential for localized depletion in the Bay." Thus, a cap was established as a matter of precaution to prevent expansion of the Bay fishery based on average landings from 2000-2004 and a research program was to be established to investigate the question. *Id.* at 7.

[8] Addendum II is available at http://www.asmfc.org/uploads/file//546b96ecAtlMenhadenAddendumII_05.pdf.

Addendum II never came into effect. After the Virginia Attorney General raised the concerns noted above, negotiations occurred among the two Chesapeake Bay states and stakeholders, including Omega Protein. Those discussions resulted in an agreement to set the annual Bay cap at 109,020 mt (the five year average from 2001-2005), with a limited roll-over of quota.[9] This agreement was implemented in Addendum III. Amendment 3, at p. 27.

Subsequently, the research program called for by the Addendum was conducted. This research program consisted of four areas of investigation designed to help answer the question of localized depletion in the Chesapeake Bay; specifically to –

(1) determine menhaden abundance in Chesapeake Bay;

(2) determine estimates of menhaden removals by predators;

(3) evaluate the rate of exchange of menhaden between Bay and coastal systems; and

(4) conduct larval studies to determine recruitment to the Bay.[10]

For purposes of the investigation, localized depletion was hypothesized to be defined as "a reduction in menhaden population size or density below the level of abundance that is sufficient to maintain its basic ecological (e.g. forage base, grazer of plankton), economic and social/cultural functions."[11] The Commission further elaborated that localized depletion "can occur as a result of fishing pressure, environmental conditions, and predation pressures on a limited spatial and temporal scale." *Id.*

The NOAA Chesapeake Bay Office funded certain research projects designed to meet the four identified investigatory areas. After these yielded some preliminary findings, NOAA and ASMFC held a peer review conducted by the Center for Independent Experts ("CIE") to evaluate progress and assess how well the projects were meeting the goal of identifying the potential for localized depletion.

None of the individual studies purported to answer the question of whether localized depletion was occurring, but did further the objective of providing an empirical basis for answering the question. For instance, as one reviewer noted, the question of site fidelity is particularly important. "For local depletion to occur the stock would need to be relatively site

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[9] Notably, however, the cap is not applied throughout the Chesapeake Bay nor to total menhaden removals. Rather, it applies solely to harvests made for reduction purposes only. Menhaden harvested for bait purposes by Virginia and Maryland fishermen are exempt.

[10] Addendum III at 2-3, *available at* http://www.asmfc.org/uploads/file//546b96d4AtlMenhadenAddendumIII_06.pdf.

[11] Maguire, J.J. "Report on the evaluation of the Chesapeake Bay Fisheries Science Program: Atlantic Menhaden Research Program Laurel, MD, April 22-24, 2009," at 4 (May 2009), *available at* https://www.st.nmfs.noaa.gov/Assets/Quality-Assurance/documents/peer-review-reports/2009/2009_05_08%20Maguire%20Chesapeake%20Bay%20menhaden%20program%20review%20report.pdf.

attached."[12] This reviewer went on to note that menhaden are highly migratory and (wide-spread) larval dispersal is effected by large oceanic processes. *Id.*

Likewise, the reviewers agreed that removals by predators is a key piece of evidence. One, however, noted that it "is necessary to understand the dynamics of the prey as well as those of the predators." Maguire, *supra* n.11, at 8. He went to observe "this is not a simple question to resolve: predator – prey relationships are likely to change as the abundance and distribution of predators, prey and competitors are changing," and they are effected by environmental factors like climate change. *Id.*

Beyond the specifics of the research priorities and interim results, the reviewers noted the overarching importance of identifying and defining the problem. With regard to the latter, one reviewer observed:

> This definition would not consistently lead to the same conclusion following an evaluation of the available information: based on the same information, one observer could conclude that localized depletion is occurring while a different one might conclude the opposite. This is possible because the quantity of menhaden needed for each of the basic ecological, economic and social/cultural function is not quantified. Therefore, depending on their own, generally unstated objectives, different observers could legitimately reach different conclusions from the same information.

Id. at 4. Another stated: "Unfortunately, while it is possible to use such a definition it does not offer any suggestions about how to measure the basic ecological, economic, and social/cultural functions mentioned in the definition. What is left, in the absence of performance measures that relate to local depletion, is conflict." Haddon, *supra* n.12, at 8. The reviewers were able to conclude that "given the high mobility of menhaden, the potential for localized depletion could only occur on a 'relatively small scale for a relatively short time.'" Amendment 3, at 24.

While no empirical evidence supported the notion of the localized depletion and there were strong indications that impacts of the reduction fishery were negligible, the Bay cap was extended. In 2012, Amendment 2 to the Menhaden FMP established the first quota on total coastwide menhaden harvest. Based on statistically suspect findings in the 2012 stock assessment, total landings were reduced by twenty percent from the 2009 to 2011 average catch. The Bay cap was likewise reduced by twenty percent, from 109,020 mt to 87,216 mt. That cap level persisted until Amendment 3 was adopted in 2017, even though the menhaden quota was increased several times from the 170,800 mt level established in 2012 up to the 216,000 mt level of today.

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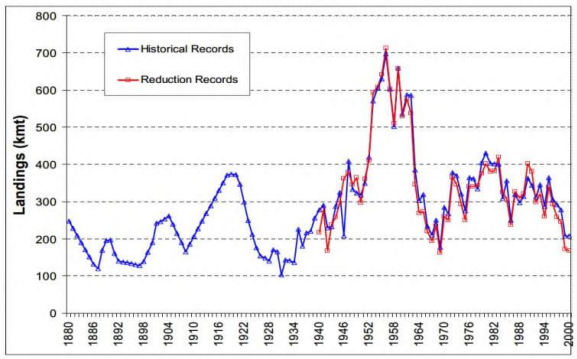
[12] Haddon, M. "Review Research on Atlantic Menhaden (*Brevoortia tyrannus*)," at 8 (April 2009), *available at* https://www.st.nmfs.noaa.gov/Assets/Quality-Assurance/documents/peer-review-reports/2009/2009_05_08%20Haddon%20Chesapeake%20Bay%20menhaden%20program%20review%20report.pdf.

In Amendment 3, the Commission recommended a 51,000 mt Bay cap, based solely on Omega's average Chesapeake Bay removals from 2012 to 2016. There was no new science to support the reduction as a biological matter. At that same meeting, the Commission set the annual total allowable catch ("TAC") at 216,000 mt, an increase of eight percent.

B. History of Menhaden Management and Events Leading to This Proceeding

As mentioned, until 2013, the Atlantic menhaden fishery was not constrained by a TAC. Peak reduction landings in the modern era (since 1940) were 715,200 mt ton in 1956, a decade when landings averaged over 550,000 mt[13] and there were four reduction plants operating in the Chesapeake Bay region.[14] Menhaden removals for reduction purposes from the Bay and Atlantic coastal waters have routinely been above current levels since mid-19th century.[15] Recent harvests are at historic lows (in the Bay and elsewhere). By way of contrast, Amendment 2 established an overall catch limit of 170,800 mt, of which the reduction fishery was allocated just over 130,000 mt for 2013 and 2014.[16] Reduction fishery catches have not been so low since the Great Depression era.

Figure 4.2. A comparison of commercial catch statistics taken from *Historical Reports* (linearly interpolated by region) with reduction landings statistics maintained at NOAA Fisheries at Beaufort, NC.



The TAC established by Amendment 2 represents a twenty percent reduction from the annual level of harvest for the three years 2009-2011. The primary drivers for the reduction and

[13] *See* ASMFC, Atl. Menhaden Update Stock Assessment 2017, at 37 (Table 3.1.3.1) (Aug. 2017).

[14] *See* ASMFC, Amendment 1 to the Interstate Fishery Management Plan for Atl. Menhaden, at 103-104 (Table 8). Throughout the 1970s there were seven reduction plants in operation and as many as forty-three vessels engaged in the reduction fishery coastwide. *Id.* at 99 (Table 5). This compares to one plant and seven vessels operating today.

[15] *See* ASMFC, Stock Assessment Report No. 10-02 of the Atl. States Marine Fisheries Comm'n, *Atlantic Menhaden Stock Assessment and Review Panel Rep'ts*, at 191 (Table 4.2, reproduced below) (Rev'd March 2011). Please note that this figure does not include menhaden harvested as bait.

[16] In 2018, Omega Protein landed 141,317 mt, an increase over the 2013-14 period, but still substantially below historic levels. *See* ASMFC Atl. Menhaden Plan Review Team, 2019 Review of the Atlantic States Marine Fisheries Commission Fishery Management Plan and State Compliance for Atlantic Menhaden (*Brevoortia tyrannus*) - 2018 Fishery, at 5 (Approved Aug. 6. 2019).

management program were the results of the 2010 and 2012 Atlantic menhaden stock assessments, which found that the stock was not overfished, but (mistakenly) that overfishing was occurring.[17] In 2012, the Stock Assessment Subcommittee noted several caveats about the assessments' statistical reliability. 2012 Assessment at iii. Specifically, the 2012 update noted that the "retrospective pattern" that had first become apparent in the 2010 assessment "had become more worrisome" and "switch[ed] in direction … such that [fishing mortality] was overestimated and [spawning stock biomass] was underestimated in recent years." *Id.* To address these scientific concerns, an expedited benchmark stock assessment was requested.

That stock assessment workshop and peer review were conducted in 2014. As expected, the Southeast Data, Assessment, and Review ("SEDAR") report, which issued in 2015, found that overfishing had not been occurring, nor was the stock overfished.[18] The most recent available menhaden stock assessment is the 2017 update, which noted that overfishing has likely not occurred in the fishery since the 1950s, while the stock may have been overfished in the late 1990s or early 2000s, but has not been since.[19]

These results should not be surprising because management of the Atlantic menhaden stock since the inception of Amendment 2 has been extremely precautionary. For example, in addition to its Amendment 3 deliberations in November 2017, the Commission's Menhaden Board set the TAC for the 2018 and 2019 fishing seasons at 216,000 mt. As a prelude to this decision, the Board's Menhaden Technical Committee provided TAC projections, showing the associated risks of exceeding either the target F or the threshold F, each based on the existing single species reference points.[20]

Though not directly applicable to Commission rulemaking, under federal fisheries management caselaw, a federal management council may not set an annual catch limit at level with a greater than fifty percent probably of resulting in overfishing (*i.e.*, exceeding the threshold fishing mortality rate).[21] However, the Menhaden Board took a much more precautionary approach. The highest TAC considered, 314,500 mt, was based on the level of catch associated with a fifty percent chance of exceeding the target fishing mortality rate. In the end, however,

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[17] ASMFC, Stock Assessment Rep't 10-02 of the ASMFC, Atlantic Menhaden Stock Assessment and Review Panel Reports, (May 2010); ASMFC, Atlantic Menhaden Stock Assessment Subcommittee, 2012 Atlantic Menhaden Stock Assessment Update (July 2012). As discussed below, each of these assessments displayed retrospective patterns which disappeared when the Beaufort Assessment Model was reconfigured in the 2014 Benchmark Assessment.

[18] SEDAR, SEDAR 40 - Atlantic menhaden stock assessment report, Figs. 7.2.2.5, 7.2.3.2 (Jan. 2015).

[19] ASMFC, Atlantic Menhaden Stock Assessment Subcommittee, 2017 Atlantic Menhaden Stock Assessment Update, at 23 (Aug. 2017).

[20] ASMFC, Atl. Menhaden Tech. Comm., Memo to Board, Projection Runs for 2018 Fishery Specifications (June 30, 2017).

[21] *Natural Resources Def. Coun. v. Daley*, 209 F.3d 747, 754 (D.C. Cir. 2000) (holding that to be consistent with the National Standard 1 command to prevent overfishing, a quota must not have more than a 50% chance of resulting in overfishing). Cases such as these are not applicable or controlling on the Commission, but are informative of the legal meaning of common fishery management issues.

the Board established a highly conservative TAC for 2018 and 2019 of only 216,000 mt, a modest eight percent increase from the prior year.[22]

In so doing, the Board was mindful both of menhaden's importance in the ecosystem, and in anticipation of the development of ecological reference points for the fishery that more explicitly consider menhaden's ecological role, which are expected to be available in 2020. This highly precautionary TAC has a zero percent chance of resulting in overfishing or an overfished condition, and less than 15 percent chance of exceeding the target fishing mortality rate in 2018 and less than 3.5 percent chance in 2019. *Id.* This decision is in line with Commission's menhaden quota-setting process since Amendment 2 was adopted; specifically, no quota set by the Commission has had any chance of resulting in overfishing and only the slimmest of possibilities of resulting in the target fishing mortality rate being met.

We will not go into great detail of Amendment 3. It should be noted, however, that in addition to cutting the Bay cap, this amendment also reduced the amount of Virginia's allocated TAC, both as a share of the overall quota and in absolute terms. This decrease came despite the fact that the TAC was increased by eight percent for 2018. It was the result of a reallocation of millions of pounds of menhaden quota from Virginia to other states, including to states like Pennsylvania, South Carolina, and Georgia, which do not have menhaden fisheries.

Because Virginia's prior gubernatorial administration and leadership of the Commonwealth's General Assembly disagreed with both the reallocation and the Bay cap reduction decisions, Virginia exercised its rights under the Compact and the ISFMP Charter to appeal.[23] In relevant part, Virginia's appeal challenged Amendment 3's forty-one percent reduction in the Bay reduction fishery cap on the grounds that "[t]he decision to lower the Bay Cap is unnecessary and unsupported by scientific evidence." *Id.* at 5. As noted in the appeal and above, the cap was originally "justified as a precautionary measure to ensure that localized depletion of menhaden would not occur while the issue was studied." *Id.* In Amendment 3, the cap itself is said to "support menhaden recruitment in the Bay and protect[] a forage base for predators such as striped bass." Amendment 3 at 24. Virginia argued that the "technical information presented to the Board does not support any of these rationales." Appeal Letter at 5.

The appeal noted that the reduction fishery does not target juvenile menhaden and that the purse seine gear used in the fishery (which is the same as used to harvest a significant amount of Virginia's bait quota, which is unaffected by the cap) does not "harm[] the habitat of menhaden or any other species." *Id.* at 6. "In fact, the scientific information that is available tends to show that the reduction fishery does not harm the Bay's nursery function at all." *Id.*

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[22] Fishing at a mortality rate above the threshold fishing mortality rate would, in general, constitute "overfishing." The target fishing mortality rate is below the threshold F and is based on a fishery's control rule. Application of the target rate to estimated biomass yields the total catch limit or quota. Generally speaking, there is a significant buffer between the threshold and target to promote conservation. The additional buffer established by the ASMFC for the Atlantic menhaden fishery is unusually precautionary.

[23] Letter to Mr. James J. Gilmore, Chair from Va. ASMFC Delegation ("Appeal Letter") (Dec. 20, 2017), appended hereto as Exh. B.

The appeal also points out that the Bay provides "roughly the same proportion of recruits to the population as estuaries in New England and the southeast" and these juveniles survive to adulthood in roughly the same numbers. *Id.* (citing Amendment 3 at 21).

Virginia also argued that Amendment 3 likewise provided no evidence that "the cap was necessary to protect the Bay as nursery for other species." *Id.* at 6. The letter pointed to the lack of empirical support for the idea that the reduction fishery was depriving other species of menhaden as forage, harming their habitat, or taking large numbers of other species as bycatch. *Id.* In addition to the lack of any information in Amendment 3 or before the Board of a lack of menhaden in the Bay to support the forage claim, the letter cited a study which showed that "of the top five predators in the Chesapeake Bay[,] menhaden comprised at least 5% of the diet of only one of those predators."[24] The letter also noted that purse seine gear has minimal if any impact on habitat of any species and that many studies have found bycatch by the reduction fishery to be extremely low. *Id.*

In its response to the Commonwealth's appeal, the Commission Chair, Vice Chair, immediate past Chair, and staff issued a formal response containing recommendations to the whole Commission. The Commission's senior executive group agreed with Virginia that the appeal with respect to the Bay cap had merit.[25] They noted that the cap "was not based on a scientifically quantified harvest threshold, fishery health index, or fishery population level study." Rather, the leadership team's response recognized—as did Amendment 3 itself—that "[t]he Bay Cap limit was a compromise reached by managers, fishery stakeholders, and environmental NGOs." *Id.* The respondents also recognized that "Amendment [3 to the Atlantic Menhaden FMP, which recommended the lower cap] does not provide sufficient evidence to support" the contention that the reduced cap was "necessary to protect the Bay as a nursery for other species." *Id.* at 5.

As a result, the Commission's Leadership recommended the formation of a Fact Finding Committee to review scientific literature relevant to the Bay cap. *Id.* They proposed a program to investigate whether there was a basis for the claims made in support of the Chesapeake Bay reduction fishery cap made in Amendment 3. The response also suggested tasking the relevant Boards to review the recommended cap for 2018 and for future years while the Fact Finding Committee undertook its work. Thus, the Commission signaled a willingness to provide a path that would have resolved the present dispute.

A new gubernatorial administration took office in Richmond in January 2018. Among its very first acts was to withdraw the seemingly successful appeal. As a result, there was no procedural mechanism to resolve the disagreement over the cap reduction short of the

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[24] *Id.* (citing F. Ihde, *et al.*, Assessing the Chesapeake Bay Forage Base: Existing Data and Research Priorities, at pp. 20, 26 (STAC Publication 15-005, 2014), *available at* http://www.chesapeake.org/pubs/346 Ihde2015.pdf).

[25] Letter from Mr. James J. Gilmore, Jr. to John M.R. Bull (Jan. 1, 2018), appended hereto as Exh. C. The Commission leadership denied Virginia's claims with respect to reallocation. There is no question that the Commonwealth has abided by the overall limit on its allowable menhaden catch since the inception of the quota under Amendment 2.

noncompliance process set forth in the Act, which is now engaged. As far as we are aware, the General Assembly (which is the branch of government in the Commonwealth that actually has the statutory authority to manage menhaden) was not consulted in this decision and the General Assembly's members overseeing the relevant committee did not agree either with the decision to pull the appeal or as to the cap reduction. Thus, it has not, to date, modified the Commonwealth's resource laws to reflect the Amendment 3 recommendations with respect to the Bay Cap.

Omega Protein's bay harvests for 2018 remained below the 51,000 mt level. In 2019, however, a high abundance of menhaden in the Chesapeake Bay, particularly at the mouth of the Bay, and a long stretch of bad weather combined with episodically reduced presence of menhaden in the nearshore oceanic waters left the Company with hard choices. We would either have had to idle our workers and plant or continue fishing in the Bay as allowed by Virginia law, knowing that the Amendment 3 limit would be breached. The company choose the latter course, while agreeing not to harvest the full 87,216 mt allowed by Virginia law. Rather, it voluntarily capped its Chesapeake Bay harvests at 67,000 mt and preliminary data indicates less than 66,000 mt was harvested, a fact the Commission never mentions. This breaching of the cap precipitated the action now before you.

C. Omega Protein's Detailed Argument as to Why the Moratorium Should Not Issue

There are two salient and ultimately dispositive reasons that the Commission's request for a moratorium should be denied.

i. The Commission Has Not Argued the Cap Reduction is "Necessary for the Conservation" of Atlantic Menhaden, and it is Not Necessary to Conserve the Menhaden Population

The first reason has been suggested already. The Act requires that before a the federal government can take the extraordinary step of prohibiting a sovereign state from allowing its citizens the right to fish in waters under its jurisdiction, there must be a reasoned, scientific finding that the measure in a coastal fishery management plan not adopted is "necessary for the conservation of the fishery in question." 16 U.S.C. § 5106(a)(2). There can be no doubt that "fishery in question" here is that for Atlantic menhaden.

Given that, the main reason the request should be denied is that the Chesapeake Bay cap has never been presented as a menhaden conservation measure. As noted above, it was originally enacted as a precautionary measure to prevent expansion of the fishery while the question of whether or not "localized depletion" was occurring was studied. Amendment 3 expands the justification for the cap, but only one of the reasons provided actually relates to menhaden conservation. Specifically, that it helps "support menhaden recruitment." Amendment 3 at 24. That issue is discussed immediately below, but the other reasons have no bearing on conservation of menhaden.

The problem with the justification based on the notion that the Chesapeake Bay reduction fishery cap promotes recruitment of menhaden in the Bay is that the best scientific information available contradicts the claim. The Commission asked its chief assessment scientist, Dr. Katie Drew, to prepare a "synthesis of existing scientific evidence on the importance of Atlantic menhaden in the Chesapeake ecosystem to help inform management decisions about harvest levels in the Chesapeake Bay."[26]

In that review presented to the Menhaden Management Board at the Commission's February 2019 meeting, Dr. Drew stated:

> The abundance of age-0 menhaden within Chesapeake Bay in any given year is influenced by a combination of offshore and inshore factors. This includes things such as large scale climatic regimes like the Atlantic Multidecadal Oscillation (Bucheister et al. 2016) and annual variability in the abundance of phytoplankton and zooplankton within the Bay (Houde et al. 2016). Total spawning stock biomass (SSB) along the coast may also play a role, although the relationship between coastwide SSB and recruitment stock-wide is weak (SEDAR 2015). The TC was unable to detect a relationship between abundance of age-2 and age-3 menhaden in the Bay and recruitment to the Bay the following year (ASMFC 2005b).[27]

In other words, the only factors that have been positively identified with recruitment of young-of-the-year menhaden in the Chesapeake Bay are climatic and environmental. Several attempts to correlate menhaden abundance in the Bay (as in the 2005 Technical Committee report cited by Dr. Drew) to recruitment in the Bay have shown no link. Similarly, there is no link between the level of Bay harvests and Bay recruitment.

In terms of menhaden conservation overall, that goal is achieved through a quota on total coast-wide landings allocated among the states. In fact, as noted above, the menhaden stock is one of the most conservatively managed fishery resources on the Atlantic coast, if not the nation. *See supra* at Part III.B. Although the Commission expects to have models that will help establish ecological reference points for management use next year, it has employed the single-species reference points and stock assessment results in a very precautionary manner. For instance, the Commission manages the fishery using TACs that have no chance of resulting in overfishing and with virtually no chance of even hitting the putative single-species "target" fishing mortality rate.

Moreover, as NMFS has long recognized, Atlantic menhaden comprise a unitary, migratory stock.[28] As such, there is no conservation benefit to the fishery gained by harvesting

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[26] Dr. K. Drew, A Synthesis of Scientific Findings on Menhaden's Role in the Chesapeake Bay Ecosystem and Their Relevance to the Chesapeake Bay Reduction Fishery Cap (undated), a copy of which is appended hereto as Exh. D.

[27] *Id.* at 2 (emphasis added).

[28] 2017 Atl. Menhaden Stock Assessment Update, *supra* n.19, at 3 (Sect. 2.1).

more fish in the ocean as compared to the Bay. In fact, despite the Commission's overwrought claim that the projections used to recommend future TACs and assess the likelihood of overfishing rely on selectivities that assume Bay harvests are 51,000 mt or less, (Nov. 15, 2019 Letter at 4), the best science shows that if a greater proportion of catch comes from the Bay (*i.e.*, are younger fish), that actually increases the stock's fecundity.[29] In other words, the higher the percentage of the annual catch that is comprised of age-1 and age-2 fish, the greater the number of older, more fecund spawners remain in the population, thereby increasing the opportunities for better recruitment. Thus it is simply wrong to argue, as the Commission does, that Omega Protein exceeding the Bay cap could "potentially lead to underperformance of the stock and failure to meet prescribed conservation objectives." Nov. 15, 2019 Letter at 4.

Further, as repeatedly noted, the Atlantic menhaden TACs are so conservatively set that any small difference in the actual selectivity of the reduction fishery would have virtually no impact. Based on the Menhaden Technical Committee's analysis, the reallocation of TAC from Virginia to other states, particularly those north of the Commonwealth, had a much more significant negative impact on the stock's recruitment potential than the additional 15,000 mt or so of menhaden harvested by Omega Protein this year in excess of the Amendment 3 recommended cap of 51,000 mt.

Also important is the fact that the cap does not apply to all fishing in the Bay, nor is it based on any estimate of the annual population of menhaden resident in the Bay. The cap only applies to catches based on the use to which harvested menhaden are put; that is, it limits the amount of removals that can be used for reduction purposes but not for bait purposes. Clearly, there is no basis for finding a biological difference from removals based on the use to which harvested fish are put.

Finally, it is worth noting that the current overall menhaden TAC of 216,000 mt was set at the same meeting as final action was taken on Amendment 3. The projections used to inform the decision on appropriate menhaden harvest levels for the fishing years 2018 and 2019 were thus made prior to the decision to lower the Bay cap. To the extent the projections were based on the management regime in effect, the assumption would have to have been that Bay reduction catches could range as high as 87,216 mt because the Technical Committee had no way of knowing what action the Menhaden Board would ultimately take with respect to that cap.

Paradoxically, for all the concerns expressed by the Commission about the "precautionary" need to leave more forage in the Bay for predators, Amendment 3 increased the amount of menhaden that can be removed from the Chesapeake by Maryland and Potomac River fisheries by 5.3 million pounds.

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[29] Mem. from Atl. Menhaden Tech. Comm. to Atl. Menhaden Mgmt. Board (Dec. 5, 2012), at 2-3, *available at* http://www.asmfc.org/uploads/file/atltlanticMenhadenAPreport_Dec2012.pdf. The Technical Committee's analysis demonstrated that a metric ton harvested by the bait fishery decreased menhaden spawning potential by between ten and 100 percent compared to a ton of removals by the reduction fishery. *Id.* However, the basis of this finding was that, on average, the reduction fishery takes a higher percentage of smaller, less fecund fish. *See id.* at 2 ("This result is logical seeing as the bait fishery tends to harvest older, more mature fish.").

In summation, the Bay cap is now and has always been unrelated to the conservation of Atlantic menhaden. The stock is, as the Commission concedes, "robust." The menhaden stock is at high abundance and is not subject to overfishing. Its continued health is ensured through a very conservative TAC which, if by default, if not design, helps to account for menhaden's role in the ecosystem. Moreover, if anything, the forty-one percent reduction in the amount of menhaden that can be removed from the Chesapeake Bay may actually reduce menhaden conservation because it can increase the proportion of older, more fecund fish taken as a percentage of the total catch, thus reducing the stock's spawning potential.

More importantly, the Commission itself admits that the Amendment 3 measure now before the Secretary is not justifiable as a menhaden conservation measure. Thus, under the plain terms of ACFCMA, its request for a moratorium must be denied.

ii. The Reduction in the Bay Cap Cannot Be Justified as a Means of Meeting the Chesapeake Bay's Ecosystem Needs, Which is Not the Appropriate Standard Under ACFCMA

The second primary reason the Commission's request should be denied is that even if one accepts the tortured interpretation that the Act's reference to "the fishery in question" means stocks of fish other than Atlantic menhaden, the Commission's leadership has admitted that there is no scientific support for justifying the cut on this basis. As then Commission Chair James Gilmore stated in response to Virginia's appeal, "the Amendment does not provide sufficient evidence to support" the claim that "the Bay Cap is necessary to protect the Bay as a nursery for other species." Gilmore Letter, *supra* n.25, at 5.

This admission alone should be fatal to the Commission's claims in its November 15, 2019 letter. General administrative law principles hold that a regulatory body must rely on the record in existence when the decision was made, "not some new record made initially in the reviewing court." *Camp v. Pitts*, 411 U.S. 138, 142 (1973).While this is not a judicial proceeding, the same principle should apply here. It is arbitrary and capricious to make a decision which has no record support.

But even the Commission's *post hoc* attempts to backfill the record with justifications are unavailing. For one, neither Amendment 3 nor the Commission's letter to you makes any attempt to justify the need for the forty-one percent cap reduction. That is to say, no rationale is given as to why the Bay cap should be 51,000 mt as opposed to 87,216. All the November 15, 2019 letter says in this regard is that "[t]he cap recognized the Bay's importance as nursery ground for many species by limiting future reduction landings in the Bay to levels equivalent to the recent harvesting practices by the reduction fishery." *Id.* at 1 (footnote omitted). There is no explanation why recent harvest levels are more appropriate than those in the years immediately following imposition of the Bay cap. If this utterly unsupported decision is upheld, there would be no barrier to eliminating the 160-year-old reduction fishery in the Bay entirely for no valid scientific reason.

There is also a logical flaw with the Commission's justifications for the cap reduction. Its letter implies that a lack of menhaden has caused declines in species as striped bass and

bluefish. *See* Nov. 15 Letter at 4 ("Concentrated menhaden fishing could decrease menhaden availability, exacerbating issues with these stocks."). However, these population declines have been occurring over the same period as the amount of menhaden taken from the Chesapeake Bay for reduction purposes has also been significantly reduced (although, generally speaking, catches for bait purposes have been on the increase). Even as a matter of precaution, it is impossible to link the reduction fishery's Bay harvests with the declines in these populations.

As a matter of fact, dramatic declines in striped bass and bluefish occurred because both Commission-managed species have been chronically overfished for decades. As the latest assessment shows, for example, although "bluefish are not experiencing overfishing in 2018, the stock has experienced overfishing, relative to the updated reference points, in all prior years dating back to 1985."[30] As for striped bass, the stock has been subject to overfishing in nearly every year since 2002, as the graphic from the 2019 benchmark stock assessment shows.[31] Such declines in bluefish and striped bass abundance are not unexpected in the face of such long-term overfishing.

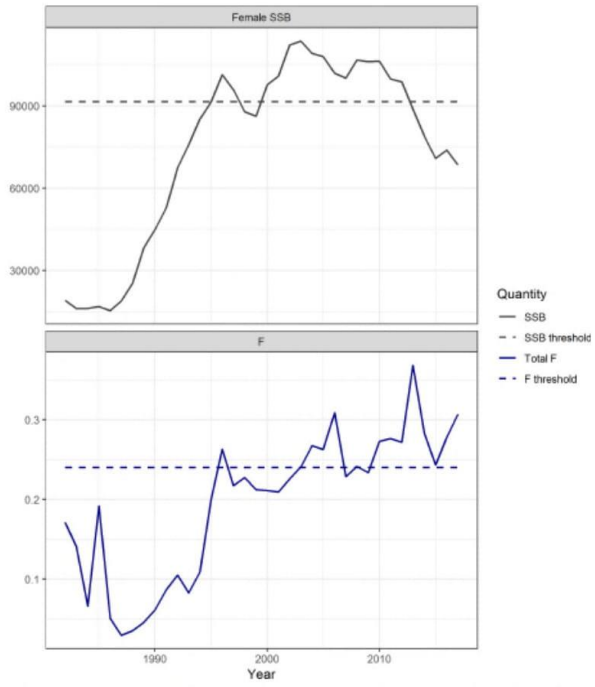

Figure 9. Estimates of striped bass female SSB plotted with the SSB threshold (top) and full F plotted with the F threshold (bottom).

[30] ASMFC, Bluefish, *available at* http://www.asmfc.org/species/bluefish.

[31] ASMFC, Summary of the 2019 Benchmark Stock Assessment for Atlantic Striped Bass, at 23 (April 2019), *available at* http://www.asmfc.org/uploads/file/5d28f18dAtlanticStripedBassAssessmentSummaryReport_April2019.pdf.

There also is not much empirical evidence to support the notion that lack of menhaden is implicated in the decline of predator species. The overall menhaden population been strong since the inception of the Bay cap while Bay reduction harvests have generally been declining and historically low. Tellingly, NOAA's own research indicates that no species is especially dependent on menhaden in the Chesapeake Bay.

In 2014, the NOAA Chesapeake Bay Program's Scientific and Technical Advisory Committee ("STAC") held a two-day workshop to "a system-wide scientific synthesis of forage and develop actionable recommendations for its management in support of the managed fished species in the Chesapeake."[32] Atlantic menhaden was not among the ten most important forage species in the Bay. Rather, they were categorized as part of a secondary group of tens species, about which the STAC said: "While these ten [second-tier] groups are acknowledged as important, they were not categorized as being of key importance to Chesapeake predators during sensitive life stages based on analysis of the 11-year ChesMMAP data set." *Id.* at 21. While the STAC did recognize that the "the smallest, youngest, and the largest, oldest fish" were under-represented in their dietary study, they also noted that "the key forage taxa identified in this analysis are also supported by another recent analysis (Buchheister and Latour 2015) that accounts for size-based dietary differences." *Id.*

This is not to downplay the importance of menhaden as forage, particularly for striped bass.[33] What is suggested, however, is that the Commission in its November 15 moratorium request overstates both the importance of menhaden[34] and the level of uncertainty regarding the state of scientific knowledge about its role as forage in the Chesapeake Bay, while underplaying the status of the stock's abundance and the measures taken to foster menhaden's role as forage.[35]

This is why the resort to the precautionary approach does not assist the Commission's case. The Rio Declaration (which is cited by the NOAA Office of General Counsel) describes the precautionary approach as: "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to

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[32] Ihde, T. F., E.D. Houde, and E. Franke, Assessing the Chesapeake Bay Forage Base: Existing Data and Research Priorities, at 5. STAC Publication Number 15-005, Edgewater, MD (Aug. 2015).

[33] This was the one studied stock for which menhaden was important, though less so than bay anchovy, mysids, and polychaetes. *Id.* at E-9 (Table E4).

[34] For example, the Commission's claim that "Atlantic menhaden are a critically important – perhaps the most important – forage species for some of the Atlantic coast's most iconic species, including those that support valuable recreational and commercial fisheries," Nov. 15, 2019 Letter at 5, is contradicted by the STAC study. This claim is representative of the Commission's obfuscation tactics in that it discusses menhaden's importance generally, as opposed to issues specific to the Bay and the Bay cap. Issues raised regarding impacts of low menhaden recruitment fall into the same category, as it is recognized that there is no link between Bay harvests and recruitment. *See supra.*

[35] These measures include Omega Protein's own voluntary efforts to reduce its Bay footprint. That Omega has taken steps to reduce its Bay harvests – efforts which have used against the Company, given the reduction of the Bay cap based on recent catch levels – does not mean that the Bay fishery is not important to the Company's well-being and that of the Reedville community that relies on the fishery. This year was a prime example of the times when access to the menhaden resource in the Bay was particularly important.

prevent environmental degradation."[36] The Commission may well have been justified in in utilizing this approach when initially instituting the Bay cap, because in 2006 Bay removals were much higher and there was less research on the question. However, subsequent years of study have identified no "threats of serious or irreversible damage" from the historically low levels of menhaden harvest recently prevailing in the Bay. Indeed, the Commission has admitted as much in response to Virginia's appeal of the Bay cap reduction.

The Commission's letter not only makes a new case that was never part of the Amendment 3 record, but it is a notably one-sided case. While many of the claims made were included in Dr. Drew's *post hoc* synthesis, this letter omits the caveats and contrary information that the earlier report included. For example, while the letter speaks in vague terms about a link between menhaden and striped bass, the Drew report notes that the link is to "lower levels of menhaden abundance along the coast and lower levels of recruitment in the Chesapeake Bay."[37] Neither of these factors are tied to Bay reduction harvests.

Similarly, the Commission notes that the prevalence of mycobacteriosis increased when menhaden recruitment was low and is less common in striped bass found in the ocean. But it fails to mention that there is no linkage between Chesapeake reduction harvests and recruitment or the disease's link "to environmental factors such as increased eutrophication and warming water temperatures in the Bay. *Id.* (citing Gauthier and Rhodes 2009).[38] The lack of candor is neither scientific nor is it reasoned.

Conclusion

Omega Protein and the Virginia General Assembly supported the original cap and the subsequent reduction under Amendment 2. The further reduction to 51,000 mt, however, was opposed by both because, as events have shown, it can cause unnecessary economic and social harm without providing any benefits to the Atlantic menhaden stock or the Chesapeake Bay ecosystem. Of course, only the latter issue is relevant to the inquiry that ACFCMA calls upon you to make.

We would ask NMFS to encourage the parties to discuss an appropriate level of harvest and ensure that Omega's attempts to be a responsible Bay stakeholder by minimizing its footprint in the Bay are not used against it, as an ever declining resetting of the reduction fishery cap based on average harvests inevitably does. The Commission has never before found a state out of compliance for a fishery that was neither overfished nor subject to overfishing. The stock is, in fact, very conservatively managed, with harvest levels well below what would considered

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[36] UNEP, Rio Declaration on Environment and Development of 1992, Principle 15 (Rio de Janeiro June 3-14, 1992); *see also* NOAA Office of General Counsel, Precautionary Approach, *at* https://www.gc.noaa.gov/gcil_precautionary_approach.html.

[37] Synthesis, *supra* n.26, at 4.

[38] Two other examples include the fact that osprey populations are growing faster in areas of the Bay where menhaden make up a smaller proportion of their diet and that weakfish populations, like menhaden, are significant tied to the Atlantic Multidecadal Oscillation and impacted by bycatch. *Id.*

optimum under federal standards. Based on this record, we respectfully ask you deny the Commission's requested moratorium.

Omega Protein would be happy to provide you with any further information you may find necessary and looks forward to continue working with your designees to help ensure that the fishery remains managed according to the best scientific information available and for the good of all stakeholders.

Sincerely,

Bret Scholtes
President and CEO
Omega Protein Corporation

ENCLOSURES

Exhibit A

OP. NO. 06-002

FISHERIES AND HABITAT OF THE TIDAL WATERS: COMPACTS AND JOINT LAWS WITH OTHER STATES – ATLANTIC STATES MARINE FISHERIES COMPACT.

Atlantic States Marine Fisheries Commission's Menhaden Management Board exceeded adaptive management authority when adopting menhaden cap in Addendum II because (1) cap is wholly new management measure, which cannot be implemented by addendum; (2) when Atlantic menhaden stocks have been declared "healthy," cap or quota cannot be imposed unless menhaden are found to be overfished; and (3) Atlantic Menhaden Fishery Management Plan does not include prerequisite management measure that can be varied by imposition of cap through addendum. Should General Assembly decline to adopt menhaden cap, Commonwealth would not be out of compliance with Plan because Commission failed to follow required procedures.

The Honorable John H. Chichester
Member, Senate of Virginia
January 31, 2006

Issues Presented

You ask several questions relating to Addendum II[1] ("Addendum II") to Amendment 1 of the Atlantic Menhaden Fishery Management Plan[2] ("Plan") adopted by the Atlantic States Marine Fisheries Commission ("Commission"). First, you ask whether, based on a review of the adaptive management provisions of the Plan and the measures Addendum II seeks to implement, the menhaden landings cap instituted by the Commission exceeded its regulatory authority. You next ask whether the Commonwealth of Virginia would not be out of compliance with the Plan should the General Assembly decline to adopt the management provisions contained in Addendum II. Finally, you ask whether the Commission has adopted the cap without following the required procedures.

Response

It is my opinion that the Commission's Menhaden Management Board ("Board") exceeded its adaptive management authority when it adopted the menhaden cap in Addendum II. Addendum II uses abbreviated rulemaking processes to initiate a new quota on the harvest of menhaden in the Chesapeake Bay. In my opinion, such an exercise of regulatory authority by the Board exceeds the lawful reach of its authority for three reasons: (a) the cap is a wholly new management measure, which cannot be implemented by an addendum; (b) when Atlantic menhaden stocks have been declared "healthy," a cap or quota cannot be imposed unless menhaden are found to be overfished; and (c) the Plan does not include a prerequisite management measure that can be varied by imposition of a cap through an addendum. It is further my opinion that because adoption of the cap exceeded the Board's authority, the Commonwealth would not be out of compliance with the Plan should the General Assembly decline to adopt the Plan. Finally, it is my opinion that the Commission failed to follow required procedures in adopting the cap as an addendum.

Background

In October 2005, the Commission, through the Board, issued a final version of a rulemaking titled Addendum II, which imposes the following regulatory requirement:

> The annual total allowable landings by the reduction fishery in Chesapeake Bay shall be no more than the average landings from 1999-2004. Harvest for reduction purposes shall be prohibited when 100% of the cap is landed. This cap will be in place for the fishing seasons starting in 2006 and going through 2010 [hereinafter "menhaden cap"].[3]

Addendum II provides that states with reduction processing capabilities must submit implementing programs for approval by the Board by January 11, 2006, and implement the cap by July 1, 2006.[4] The primary impact of Addendum II is on the menhaden reduction fishery conducted in Virginia waters in the Chesapeake Bay.

In Virginia, the taking of menhaden by the use of purse nets or seine is regulated, as a matter of state law, primarily by statute.[5]

Applicable Law

The Commission, an interstate compact organization comprised of fifteen Atlantic Coast States formed to recommend joint management measures for shared marine fish stocks, was formed as a voluntary consortium via the Atlantic States Marine Fisheries Compact ("Compact").[6] In 1942, Congress approved the Compact for a fifteen-year period.[7] In 1950, Congress approved Amendment Number 1 to the Compact repealing the fifteen-year limitation.[8] Amendment Number 1 authorized two or more signatory states to designate the Commission as a joint regulatory agency with such powers as they may jointly confer from time to time for the regulation of the fishing operations of the respective designating states. The Commonwealth has never designated the Commission as a regulatory agency.

In 1993, Congress enacted the Atlantic Coastal Fisheries Cooperative Management Act[9] ("Act"). The stated purpose of the Act "is to support and encourage the development, implementation, and enforcement of effective interstate conservation and management of Atlantic coastal fishery resources."[10] The Act provides for state implementation of coastal fishery management plans ("FMP") of the Commission.[11] Noncompliance with an FMP may result in the imposition of a federal sanction, a complete moratorium on the fishery in question within the waters of the noncomplying state, imposed by the United States Secretary of Commerce ("Secretary").[12]

In accordance with Article V of the Compact,[13] the Commission has adopted Rules and Regulations for the conduct of its business.[14] Article VI of the Rules and Regulations pertains to the Interstate Fishery Management Program and provides for a written Interstate Fishery Management Program ("ISFMP") Charter ("Charter").[15] The Compact and the Rules and Regulations provide the Commission only the authority to make recommendations to member states.[16] The Act provides the mandatory element to require compliance with FMPs.

The Charter addresses the Interstate Fishery Management roles and responsibilities of the Commission, the ISFMP Policy Board, fishery management boards, staff officials, and committees and subcommittees for management, technical, and advisory support.[17] The Charter provides standards for interstate fishery management plans and compliance[18] as well as specific requirements applicable to the adaptive management process.[19]

The current Plan was adopted by the full Commission in July 2001 and is referred to as "Amendment 1 to the Interstate Fishery Management Plan for Atlantic Menhaden."[20] Addendum II, the subject of your inquiry, was adopted in October 2005,[21] by the Board pursuant to the "adaptive management"[22] process, as opposed to being approved by the full Commission pursuant to the more comprehensive process applicable to adoption of FMPs and their Amendments.[23]

Discussion

1. Board's Adoption of Menhaden Cap Through Adaptive Management

Process Exceeds Board's Authority.

There are two interrelated sources of authority governing the adoption of management requirements by an addendum through what is referred to as "adaptive management" processes.[24] The first is the Commission's general authority to adopt a plan-specific adaptive management process, described within the Charter. The second is the Plan itself, which details how and when the adaptive management process can be used to manage the menhaden fishery.

When the conditions for use of this adaptive management authority are met, a management board, such as the Board, may alter an existing management measure in a fishery management plan without a vote or action by the full Commission. Also, formal rulemaking processes that would otherwise be required for FMPs and amendments to FMPs are avoided. For these reasons, this regulatory tool is one of limited application.

The Charter states: "FMPs which provide for adaptive management *shall identify specifically the circumstances under which adaptive management changes may be made*, the types of measures that may *be changed*, the schedule for state implementation of *changes*, and the procedural steps necessary to effect *a change*."[25] The FMP must thus specify the "types of measures" that can be adopted or changed and the "circumstances" triggering use of the adaptive management process.[26] The Plan contains the specific circumstances, management measures, steps, and conditions required to be met or taken to use this abbreviated process.[27]

I do not interpret the Charter to provide for use of the adaptive management process to implement *new* management measures. The repeated use of the word "change" in the Charter to describe management measures that may be adopted by the adaptive management process argues against authorization to implement *new* measures. This conclusion is supported by the fact that this abbreviated rulemaking power is exercised without full adherence to procedures applicable to FMPs or amendments to FMPs and without adoption by the full Commission. It is my opinion that adaptive management is restricted to policies which vary *existing* management measures.[28] The Menhaden FMP, however, contains no such management measures subject to variation by addendum,

other than a general requirement that states institute a system for reporting landings of menhaden that are not the subject of Addendum II.

The Plan contains specific language detailing when adaptive management can be employed to institute "catch controls" such as proposed by Addendum II. Although the Plan identifies "catch controls" as potentially subject to adaptive management,[29] it also requires a finding that menhaden are subject to "overfishing or an overfished/depleted condition" before a catch quota can be implemented under adaptive management.[30] Addendum II does not state that this finding has been made. Rather, Addendum II describes the "problem" as a "relative increase (11%) in the proportion of menhaden reduction removals from Chesapeake Bay over … two time periods"[31] and a "potential for localized depletion … in Chesapeake Bay."[32] With respect to the "potential" for localized depletion, Addendum II specifically acknowledges that "[s]ufficient scientific data are not available to satisfactorily address the potential for localized depletion in the Bay."[33]

The Plan defines "overfishing" in § 2.5 as relating to fishing mortality rate and stock biomass.[34] Addendum II does not find that the menhaden stock in the Chesapeake Bay is "overfished" consistent with the Plan requirement. To the contrary, Addendum II specifically states that "the Atlantic menhaden stock is considered to be healthy coastwide, based on the recommended benchmarks developed during the latest peer-reviewed assessment."[35] Additionally, the Commission's agent charged with recommending initiation of adaptive management, the Plan Review Team[36] ("PRT"), has not recommended that adaptive management be initiated. In its latest report, the PRT made no recommendations for new or changed management measures for adoption, and confirmed the health of the resource.[37]

The Act requires that FMPs must be "based on the best scientific information available."[38] This requirement is also contained in the Commission's Charter[39] and in its Rules and Regulations.[40] Although it is a matter ultimately for factual determination,[41] it is not apparent that the menhaden cap is based on "the best scientific information available" when Addendum II does not address whether the fishery is "overfished." The phrase "best scientific information" presupposes the accumulation of "scientific" information.

The Board must follow the requirements of the Act, the Compact, the Charter, and the Plan. Failure to comply with its own rules, regulations, standards, and procedures renders its action invalid.[42]

Ordinarily, courts afford considerable deference to decisions of agencies in administrative decisions.[43] In this case, however, it is reasonable to expect that the Board's compliance with its own rules would be subject to heightened scrutiny due to the existence of unsettled Constitutional questions underlying the coercive aspects of the Act. Questions under the Constitution of the United States to challenge Addendum II may include federalism issues, the Tenth Amendment; the Joinder Clause, Article IV, § 3, cl. 1; the Compact Clause, Article I, § 10, cl. 3; the Appointments Clause, Article II, § 2, cl. 2; and the doctrine limiting Congressional delegation of authority to nonfederal entities. When a case may be decided on other grounds, a court will avoid inquiring into the constitutionality of an action.[44] Accordingly, there may be less deference to the Board's action with respect to Addendum II.

2. Commonwealth Will Not Be Out of Compliance with Plan

if General Assembly Does Not Act.

It is my opinion that the Board exceeded its adaptive management authority by adopting the menhaden cap in Addendum II. Therefore, if the General Assembly declines to enact legislation ratifying the menhaden cap, the Commonwealth would not be out of compliance with the Plan.

The Plan provides that "[a] state will … be out of compliance" when "it fails to meet … any addendum prepared under adaptive management."[45] An addendum adopted beyond existing authority and without complying with required procedures, however, should be deemed void as a regulatory requirement.[46] Because it is my opinion that the Board exceeded its rulemaking authority and failed to follow required procedures in adopting Addendum II, it would more properly be viewed as a recommendation, as provided by the Compact and the Commission's Rules and Regulations,[47] rather than a regulatory requirement.[48]

3. Menhaden Cap Adopted Without Following Required Procedures.

The discussion in response to your first question is equally applicable to this one. The menhaden cap that Addendum II seeks to implement is flawed because it was not adopted in accordance with the procedure required of an amendment to an interstate FMP, and it was not adopted by the full Commission. The touchstone of legally enforceable management measures under the Commission's governing authorities, including the Act, is that conservation recommendations to states must meet certain standards, must be subject to levels of analysis and public comment, and must be adopted and approved by the full Commission.[49] These processes were short-circuited by employment of the adaptive management process used to implement Addendum II.

Conclusion

Accordingly, it is my opinion that the Commission's Menhaden Management Board ("Board") exceeded its adaptive management authority when it adopted the menhaden cap in Addendum II. Addendum II uses abbreviated rulemaking processes to initiate a new quota on the harvest of menhaden in the Chesapeake Bay. In my opinion, such an exercise of regulatory authority by the Board exceeds the lawful reach of its authority for three reasons: (a) the cap is a wholly new management measure, which cannot be implemented by an addendum; (b) when Atlantic menhaden stocks have been declared "healthy," a cap or quota cannot be imposed unless menhaden are found to be overfished; and (c) the Plan does not include a prerequisite management measure that can be varied by imposition of a cap through an addendum. It is further my opinion that because adoption of the cap exceeded the Board's authority, the Commonwealth would not be out of compliance with the Plan should the General Assembly decline to adopt the Plan. Finally, it is my opinion that the Commission failed to follow required procedures in adopting the cap as an addendum.

[1] *See* Atlantic States Marine Fisheries Commission, "Addendum II to Amendment 1 to the Interstate Fishery Management Plan for Atlantic Menhaden," *available at* http://www.asmfc.org/ [follow "Managed Species" hyperlink; then follow "Atlantic Menhaden" hyperlink; then follow "Addendum II (October 2005)" hyperlink] [hereinafter Addendum II].

[2]*See* Atlantic States Marine Fisheries Commission, "Amendment 1 to the Interstate Fishery Management Plan for Atlantic Menhaden," [follow "Managed Species" hyperlink; then follow "Atlantic Menhaden" hyperlink; then follow "Amendment 1 to the Interstate Fishery Management Plan for Atlantic Menhaden" hyperlink] [hereinafter Plan].

[3]Addendum II, *supra* note 1, § 5.1.1.1, at *12.

[4]*Id.* § 5.1.2 at *12-13.

[5]*See* Va. Code Ann. §§ 28.2-400 to 28.2-411 (2004).

[6]The Compact is codified at § 28.2-1000.

[7]*See* Pub. L. No. 77-539, 56 Stat. 267 (1942).

[8]*See* Pub. L. No. 81-721 (1950).

[9]*See* Pub. L. No. 103-206, 107 Stat. 2447 (1993) (codified at 16 U.S.C.S. §§ 5101 to 5108).

[10]16 U.S.C.S. § 5101(b) (LexisNexis 1999).

[11]16 U.S.C.S. § 5104(b) (LexisNexis 1999).

[12]16 U.S.C.S. § 5106(a), (c)(1) (LexisNexis 1999).

[13]*See* § 28.2-1000 (art. V) (2004).

[14]*See* Atlantic States Marine Fisheries Commission, "Compact & Rules and Regulations," *available at* http://www.asmfc.org/ [follow "About Us" hyperlink; then follow "ASMFC Compact: Rules & Regulations" hyperlink] [hereinafter Rules & Regulations]

[15]*See id.*, art VI, §§ 1-2, at *11.

[16]*See* § 28.2-1000 (arts. IV, VI); Rules & Regulations, *supra* note 14, art. 1, § 2, at *7.

[17]*See* Atlantic States Marine Fisheries Commission, "Interstate Fisheries Management Program Charter," *available at* http://www.asmfc.org/ [follow "About Us" hyperlink; then follow "ISFMP Charter" hyperlink] [hereinafter Charter].

[18]*See id.*, § 6, at 14-21.

[19]*See id.*, § 6(b)(3) at *17.

[20]*See supra* note 2.

[21]*See supra* note 1.

[22]*See infra* note 28.

[23]*See* Atlantic States Marine Fisheries Commission, "Proceedings of the Atlantic States Marine Fisheries Commission, Atlantic Menhaden Management Board," *available at* http://www.asmfc.org/ [follow "Managed Species" hyperlink; then follow "Atlantic Menhaden" hyperlink; then follow "Meeting & Minutes Summaries" hyperlink; then follow "2005 Feb" hyperlink].

[24]*See infra* note 28.

[25]Charter, *supra* note 17, § 6(b)(3), at *17 (emphasis added).

[26]*Id.*

[27]*See* Plan, *supra* note 2, § 4.6, at *77-79.

[28]The Commission's charter defines adaptive management as "[a]n iterative process which includes evaluation of the response of the managed fishery and stock to *specific management measures* and adjusting *such measures* based on that evaluation." Charter, *supra* note 17, § 8(c), at *23 (emphasis added).

[29]Plan, *supra* note 2, § 4.6.2(6), at *78.

[30]*Id.*, § 4.2.7, at *74.

[31]Addendum II, *supra* note 1, § 2.1, at *6.

[32]*Id.*, § 2.2, at *6.

[33]Addendum II, *supra* note 1, § 2.2, at *7.

[34]Plan, *supra* note 2, at *60.

[35]Addendum II, *supra* note 1, § 1.2, at *5.

[36]*See* Plan, *supra* note 2, § 4.6.1, § 4.8.3, at *78, *79-80, respectively.

[37]*See* Atlantic States Marine Fisheries Commission, "2005 Review of the Fishery Management Plan for Atlantic Menhaden," *available at* http://www.asmfc.org/ [follow "Managed Species" hyperlink; then follow "Atlantic Menhaden" hyperlink; then follow "FMP Reviews 2005" hyperlink], at *3, *9 (Aug. 17, 2005).

[38]16 U.S.C.S. § 5104(a)(2)(A) (LexisNexis 1999).

[39]Charter, *supra* note 17, § 6(a)(2), at *14.

[40]Rules & Regulations, *supra* note 14, art. VI, § 3, at *11.

[41]The Office of the Attorney General historically has declined to render official opinions when the request involves a question of fact rather than one of law. *See, e.g.*, Op. Va. Att'y Gen.: 2002 at 64, 66; 1997 at 1, 3; and opinions cited therein.

[42]"[I]t is elementary that an agency must adhere to its own rules and regulations. *Ad hoc* departures from those rules, even to achieve laudable aims, cannot be sanctioned for therein lie the seeds of destruction of the orderliness and predictability which are the hallmarks of lawful administrative action. Simply stated, rules are rules, and fidelity to the rules which have been properly promulgated … is required of those to whom Congress has entrusted the regulatory missions of modern life." Reuters Ltd. v. FCC, 781 F.2d 946, 950-51 (D.C. Cir. 1986) (citation omitted).

[43]Great deference should be given to the administrative interpretation of statutes by the agency charged with the responsibility for carrying out legislation. *See, e.g.*, County of Henrico v. Mgt. Rec., Inc., 221 Va. 1004, 1010, 227 S.E.2d 163, 166-67 (1981); 2002 Op. Va. Att'y Gen. 186, 187.

[44]*See, e.g.*, Virginia v. EPA, 108 F.3d 1397, 1410 (D.C. Cir. 1997).

[45]Plan, *supra* note 1, § 5.1, at *81-82.

[46]*See supra* note 42 and accompanying text.

[47]*See supra* note 16 and accompanying text.

[48]The only other compliance measure in the Plan requires a menhaden catch reporting system. I am unaware that there is any question concerning the Commonwealth's compliance with the menhaden catch reporting system.

[49]*See generally*, Charter, *supra* note 17, § 6, at *14-21; *see also* 16 U.S.C.S. § 5102(1) (LexisNexis 1999); *id.* § 5104 (LexisNexis 1999).

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Exhibit B

December 20, 2017

Mr. James J. Gilmore, Jr., Chair
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington, Virginia 22201

Dear Mr. Gilmore:

Virginia hereby appeals the decision of the Atlantic Menhaden Management Board (the "Board") to set the coast-wide total allowable catch ("TAC") for menhaden at 216,000 metric tons for the 2018 and 2019 fishing seasons and to adopt certain portions of Amendment 3 to the Atlantic Menhaden Fishery Management Plan ("FMP"). Specifically, Virginia challenges the decision to allocate the TAC in a way that results in an unanticipated and unfair reduction in Virginia's allowable menhaden landings and the decision to lower the Chesapeake Bay Reduction Fishery Cap (the "Bay Cap") despite the lack of supporting scientific information. Taken together, these decisions, which are unnecessary for the conservation of the fishery, impose severe and unfair adverse economic impacts on Virginia and prevent it from sharing in the benefits of the increased TAC.

BACKGROUND

Atlantic menhaden have been subject to a coast-wide fishery management plan since 1981, but the first management measure, the Bay Cap, was not instituted until the passage of Addendum II in 2005. ASMFC, Amendment 3 to the Interstate Fishery Management Plan for Atlantic Menhaden, at pp. 26-27 (November 2017) [hereinafter "Amendment 3"]. At that time, the coast-wide status of the stock was healthy, but there was uncertainty about whether the reduction fishery in the Bay was causing localized depletion. Addendum II outlined research priorities to determine whether the depletion was occurring and imposed the Bay Cap as a precautionary measure to ensure that it did not occur while the research was being done. *Id.* at pp. 24, 27.

After passage of Addendum II, the company that is responsible for the reduction fishery on the East Coast, Omega Protein Corporation ("Omega"), entered into talks with recreational fishing and environmental groups to revise the cap.[1] Those discussions resulted in an agreement to set the cap at 109,020 metric tons. This agreement was implemented in Addendum III. (Amendment 3, at p. 27). The addendum permitted limited roll-over of unused quota from one year to another, meaning that the maximum that could be harvested in a given year from the Bay was 122,740 metric tons. *Id.*

The first coast-wide management measure, a TAC, was established in Amendment 2, which was approved in December of 2012. *Id.* The TAC was set at 170,800 metric tons, which represented

[1] *See* Scott Harper, "Kaine and Fishery Strike Deal to Limit Menhaden Harvesting in Bay," *Virginian Pilot, available at* https://pilotonline.com/news/local/environment/kaine-and-fishery-strike-deal-to-limit-menhaden-harvesting-in/article_4300a886-9bb8-5e2e-b620-c416c7fd4fce.html

a 20% reduction from average landings from 2009 through 2011. *Id.* This TAC was allocated among jurisdictions using average annual landings of each jurisdiction during the same 2009 through 2011 period. *Id.* The amendment also provided for a 20% reduction in the Bay Cap, resulting in a cap of 87,216 metric tons. *Id.* at p. 28.

The TAC was increased by 10% to 187,880 metric tons in May of 2015. *Id.* The Bay Cap was not increased. In 2016, the TAC was increased again by 6.45%, resulting in a TAC of 200,000 metric tons. *Id.* Once again, the Bay Cap was not increased. At the same time that it voted to increase the TAC, the Board initiated the development of Amendment 3 to the FMP to explore the feasibility of implementing menhaden-specific biological and ecological reference points ("BERPs") to replace the current single-species reference points that are used to manage the stock and to re-examine the method of allocating the TAC among the jurisdictions. *Id.* at pp. 1-3.

The Board considered whether to adopt Amendment 3 and adjust the TAC at its meeting on November 13 and 14, 2017. At the meeting, the Board was presented with evidence indicating that, under the current stock assessment, the menhaden stock is healthy and overfishing is not occurring. Furthermore, the Board was presented with information indicating that raising the TAC to 220,000 metric tons would result in absolutely no risk of the fishing mortality target being exceeded and raising the TAC even higher would result in only a small risk of exceeding the target. After substantial debate, the Board decided not to adopt the BERPs presented, perhaps because they were not menhaden-specific and may have caused the lowering of the TAC substantially to meet the target fishing mortality rate; instead, it chose to continue using single-species reference points until menhaden-specific BERPs are finalized. The Board raised the TAC by 8%, setting it at 216,000 metric tons. It also decided to reallocate the quota using an unorthodox fixed minimum allocation. Under that system, all states, regardless of their history of menhaden landings, are each provided 0.5% of the TAC. The remainder of the TAC is then divided among the states according to their proportion of the landings from 2009 through 2011. States that do not wish to retain their portion of the TAC are given the option of relinquishing all or some portion of their new quota, which will cause that portion of the TAC to be redistributed among the remaining states in proportion with their landings. The Board continued the 1% episodic events set aside for the New England states. Finally, the Board voted to lower the Bay Cap by more than 41%, setting it at 51,000 metric tons. Despite the increase in the TAC, Virginia's permissible landings were actually decreased once the allocation method and episodic events set-aside are taken into account.

Virginia exhausted every possible avenue to avoid these results and secure relief from the Board. At the meeting, Virginia argued that the TAC that was chosen was likely too low to accomplish the goals expressed in the reallocation discussion, which were to increase allocations to additional East Coast states but not at the expense of existing menhaden fisheries. When the allocation method was discussed, Virginia argued and voted against each of the fixed minimum proposals. It also forcefully advocated against lowering the Bay Cap, pointing out that such an action was unsupported by any scientific evidence. Those efforts failed. Virginia is unaware of any remaining avenue of securing relief from the Board and believes that this appeal is its only recourse.

ARGUMENT

Despite the Board's decision to raise the TAC, which shows that it believes the menhaden stock is healthy, it adopted an allocation method that cut Virginia's permissible menhaden landings and reduced the Bay Cap. The decisions on the TAC and allocation prevented Virginia from benefiting from the increase in the permissible harvest level and provided jurisdictions with little or no history of landings with a substantial share of the TAC, relative to the practical needs of those jurisdictions. The reduction in Virginia's permissible landings was an unforeseen impact of the Board's decisions. In addition, the decisions unfairly penalized Virginia in contravention of the FMP and disregarded the historical landings period that the Board chose. Compounding the problem was the decision to lower the Bay Cap despite the lack of supporting technical information. These measures, which are unnecessarily restrictive in light of the health of the menhaden stock, should be altered to protect the interests of all jurisdictions participating in the fishery.

I. The Board unintentionally and unfairly penalized Virginia to benefit other states with no history of participating in the fishery when setting the TAC and allocating the TAC among the states.

Although the Board's decisions ultimately reduced Virginia's permissible landings, this was not the Board's stated intent. Throughout the Board's deliberations on Amendment 3, a theme emerged: many Board members wanted to provide additional jurisdictions with an opportunity to participate in the fishery, but they did not wish to do so at the expense of the other jurisdictions. For example, when the Board was considering whether to set the fixed minimum allocation at 0.75% or 1%, much of the discussion focused on how the former was preferable because it would not harm any state. After that method was chosen, however, a representative from Omega pointed out that the 0.75% fixed minimum would result in an 8% reduction in Virginia's landings. At that point, some Board members and staff worked to find an alternative allocation scheme that would not harm any state. The result of those efforts was a table distributed by staff showing that allocating the TAC based on a 0.5% fixed minimum would achieve that goal. At that point, a motion was made to reconsider the allocation, and the 0.5% fixed minimum was selected. Unfortunately, the staff analysis reflected in the table did not account for the episodic events set-aside, which has been 1% of the coast-wide TAC since 2013. Before the set-aside is factored in, Virginia's allowable landings increase by 0.58%. After the set-aside is removed, however, Virginia's allowable landings decrease by 0.43%, which amounts to more than 1.6 million pounds of menhaden.[2] If this had been pointed out to the Board, it undoubtedly would have taken steps to ensure that Virginia was not harmed.

In addition to being unforeseen, the impact on Virginia is fundamentally unfair. Amendment 3 takes pains to note that its allocation method is designed to provide a fair and equitable allocation of the resource among the jurisdictions and an allocation that is biologically, economically, and socially sound. (Amendment 3, at pp. 3, 24, 29). The allocation method that was ultimately chosen

[2] Several states have indicated that they will relinquish their share of the TAC for the 2018 fishing season. Once those shares of the TAC are redistributed, Virginia's permissible landings will rise modestly. Nevertheless, the allocation is still problematic because the benefit accruing to Virginia is unfairly small when compared to the disproportionate benefit enjoyed by the other jurisdictions. In addition, there is no guarantee that the states that relinquished their allocation this year will do so again next year, meaning that Virginia may face a reduction in its allowable landings during the 2019 fishing season.

fails that standard. First, the allocation results in a reduction in harvest opportunity for only one state, Virginia, while providing other jurisdictions with very substantial and unnecessary increases. For example, three states that had no allocation before were given the opportunity to land more than 2 million pounds of menhaden, while New Hampshire's allocation was increased by more than 1,000,000%. Moreover, it is not at all clear that many of the states which benefitted from this reallocation can actually use it. Virginia is the only state with a reduction fishery; the other states that have a menhaden fishery at all have a bait fishery. The recent socio-economic study of the menhaden fishery requested by the Board found that most states with minor shares of the TAC under the old allocation system are often not affected by their minor percentage of the TAC because of the bycatch provision that allows vessels to harvest up to 6,000 pounds of menhaden per day even after a state or jurisdiction's share of the TAC has been harvested. The bycatch amounts will continue to not be counted against the TAC under Amendment 3. This means these states could proceed harvesting menhaden for bait at a rate of 6,000 pounds of menhaden per vessel per day after their relatively small portion of the TAC realized under Amendment 2 has been landed. Thus, many states that benefitted from the reallocation could have had the same or a similar harvest level under the small-scale fishery and bycatch provisions without the reallocation of the TAC.

Indeed, many of the jurisdictions admitted that they do not need the additional allocation and do not have the desire or infrastructure to make use of it. Pennsylvania, for example, repeatedly stated during the deliberations that it had no desire to create a fishery for menhaden in the state, even going so far as suggesting that, if it were forced to demonstrate the intent and ability to make use of its allocation as a condition to receiving it, its fishermen would purposefully use faulty gear that would allow the vast majority of the fish in the nets to escape. New Hampshire stated that it may have the ability to make use of some of its allocation, depending on whether a large fishing vessel decided to target menhaden and dock in the state, but it admitted that it would likely make a good part of its allocation available to other states through transfers. South Carolina acknowledged that it did not have the infrastructure necessary to participate in the fishery and expressed a willingness to relinquish its allocation. Connecticut, on the other hand, stated that it would not participate in the relinquishment program, as it viewed the allocation as a kind of currency to be traded.

The latter position highlights the unfair position in which Virginia finds itself. It can either allow its permissible landings to decrease or negotiate for a transfer from a state that has no need for its allocation of the TAC because it either has no intention to participate in the fishery or its fishery is not bound by the TAC under the small-scale fishery and bycatch provisions. In other words, Virginia must either accept the lowered allowable landings of menhaden and the clear, demonstrable adverse economic impacts on the communities that depend on the fishery or provide a windfall to a state by exchanging something of value for a transfer of a portion of the TAC that the transferring jurisdiction does not need. It is fundamentally unfair, socially unjust, and economically unsound to place a state in such a position, especially when doing so is unnecessary for the preservation of the menhaden fishery because the stock is healthy enough to provide for an increased harvest level for all jurisdictions.

This fundamental unfairness stems from a key defect in the fixed minimum allocation method: namely, the scheme ignores historical landings in setting the minimum. Even states that had no landings whatsoever during the relevant landings period are given an allowable harvest of more than 2.3 million pounds of menhaden. This is a radical redistribution of the TAC. Indeed, if the Board had

instead chosen to double the average landings of the smaller jurisdictions, it would have ended up redistributing around 16 million fewer pounds of menhaden. It is troubling to Virginia that a historical basis of landings had persisted since 2013, whereby Virginia rightly enjoyed 84.96% of the TAC, yet the *de novo* allocation system adopted by the Board resulted in Virginia being downgraded to 79.66% of the coast-wide TAC.

A remedy to this unnecessary and unfair allocation exists. The most reasonable way to remove the unfairness is to increase the TAC to a level that allows all jurisdictions to be given a fair share and adopt an allocation method that is based on landings. While jurisdictions that have not traditionally participated in the fishery can be given shares of the TAC, they should be required to demonstrate some landings under the bycatch or small-scale fishery provisions before that occurs. Doing so will ensure that the decision will not provide significant shares of the TAC to states with no intention of using them as anything other than a bargaining chip while also ensuring that states with established fisheries will be provided with sufficient allowable landings to avoid harm to those fisheries.

II. The decision to lower the Bay Cap is unnecessary and unsupported by scientific evidence.

Compounding the harm to Virginia stemming from the setting of the TAC and the allocation method is the Board's decision to reduce the Bay Cap from 87,216 metric tons to 51,000 metric tons. If lowering the cap were necessary to preserve the health of the menhaden stock, that harm could be justified. Unfortunately, the technical information available to the Board does not demonstrate any such need for lowering the Bay Cap.

Before examining the technical information presented to the Board, it is first beneficial to examine the rationale for the Bay Cap. It was initially justified as a precautionary measure to ensure that localized depletion of menhaden would not occur while the issue was studied. (Amendment 3, at p. 24). Later, the Board theorized that it protected the Bay as "an important nursery ground for menhaden." *Id.* Finally, at the meeting, the maker of the motion to lower the Bay Cap asserted that it was necessary to protect the Bay as a nursery for both menhaden and other species. This justification was reflected in the press release that announced the reduction in the Bay Cap. *See* ASMFC, News Release, *ASMFC Approves Amendment 3 to the Interstate Fishery Management Plan for Atlantic Menhaden*, ("This recognizes the importance of the Chesapeake Bay as nursery grounds for many species by capping recent reduction landings from the Bay to current levels."), *available at* http://www.asmfc.org/uploads/file//5a0c69b4pr57 MenhadenAmendment3_Approval.pdf.

The technical information presented to the Board does not support any of these rationales. First, as to localized depletion, the studies that were commissioned at the time the Bay Cap was first instituted failed to find that such depletion was occurring. (Amendment 3, at p. 24). In fact, those studies indicated that, if such depletion did occur, it would be relatively small in scale and short-lived given the migratory nature of menhaden. *Id.* An external peer review of those studies conducted by the Center for Independent Experts supported this view, concluding localized depletion was a possibility in theory but nothing demonstrated that it was occurring in the Bay.

There is similarly no evidence to support the view that lowering the Bay Cap was necessary to protect the Bay as a nursery area for menhaden. Amendment 3 does not explain how the Bay Cap

serves to protect the Bay as a nursery. Logically, it could only do so if the reduction fishery resulted in high mortality for juvenile menhaden or harmed menhaden habitat. Nothing indicates that it does either. The reduction fishery does not target juvenile menhaden,[3] and the mortality rate among juvenile menhaden attributable to fishing activity is low. In addition, no evidence exists to show that the gear used in the reduction fishery harms the habitat of menhaden or any other species.[4] In fact, the scientific information that is available tends to show that the reduction fishery does not harm the Bay's nursery function at all. If the fishery did harm the Bay, one would expect the research in the area to show the Bay to contributing fewer recruits than other estuaries or supplying less healthy recruits that fail to survive to reproduction age. That is not the case. Instead, the current research indicates that the Bay contributes roughly the same proportion of recruits to the population as estuaries in New England and the southeast. *Id.* at p. 21. These recruits tend to survive to reproduction age in roughly equal proportions. *Id.* It is thus apparent that the reduction fishery does not prevent the Bay from serving as a nursery for juvenile menhaden.

Finally, there is similarly no evidence to suggest the Bay Cap was necessary to protect the Bay as a nursery for other species. Again, Amendment 3 does not provide an explanation for how the Bay Cap serves this purported purpose. However, it could only do so if the reduction fishery deprived other species of a sufficient amount of menhaden to forage, harmed the habitat of those other species in some way, or harvested large numbers of those other species as bycatch. Of course, as discussed above, there is nothing to indicate that localized depletion of menhaden is occurring, so there is nothing to indicate that the harvest is depopulating the Bay to such an extent that other species do not have a sufficient forage base.[5] In addition, no evidence has been tendered to show that the reduction fishery harms the habitat of any animal. Finally, nothing indicates that the reduction fishery harvests such large numbers of other species that their numbers are endangered, as the bycatch in the fishery is incredibly low. *See id.* at pp. 14-15 (noting that studies have found that there is little bycatch in the purse seine fishery and summarizing a study conducted by the Virginia Institute of Marine Science that found that the bycatch in the 1992 menhaden reduction fishery comprised only 0.04% by number).

There is thus no technical information to support the view that the Bay Cap needed to be lowered. Virginia does not object to the Bay Cap being in place, but it does object to arbitrarily lowering it when no science indicates that doing so is necessary or even beneficial for conserving the

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[3] One Board member speculated that this may change. During deliberations on the Bay Cap, that member asked the Virginia delegation whether Omega, which was recently acquired by a new company, would begin targeting smaller fish to fulfill some unnamed purpose of its new owner. Virginia indicated that it had no knowledge of such plans and that the smaller fish were not generally useful for Omega's purposes. As far as Virginia is aware, Omega has no plans to begin targeting juvenile menhaden.

[4] The purse seine has no impact on habitat if used correctly. Food and Agricultural Organization, United Nations, Purse Seines, http://www.fao.org/fishery/geartype/249/en ("Because of [the purse seine's] characteristics there is no impact on the bottom habitat (except when the water depth is less than the height of the seine during the fishing operations and . . . the lower edge of the gear wipes the sea bottom).").

[5] A multi-year dietary analysis of the top five predators in the Chesapeake Bay found that menhaden comprised at least 5% of the diet of only one of those predators. T.F. Ihde, et al., *Assessing the Chesapeake Bay Forage Base: Existing Data and Research Priorities*, at pp. 20, 26 (STAC Publication 15-005, 2014), *available at* http://www.chesapeake.org/pubs/346_Ihde2015.pdf. Thus, the impact of any localized depletion that did occur on other species would be negligible.

menhaden fishery. Accordingly, Virginia believes that the Bay Cap should be restored to at least 87,216 metric tons and that a limited amount of unused quota should be rolled over to future years.

CONCLUSION

In sum, the Board's decisions on the TAC, allocation of the TAC, and the Bay Cap, all of which are excessively restrictive and unnecessary for the conservation of the menhaden fishery, should not be allowed to persist. Virginia believes that the Interstate Fisheries Management Board ("ISFMP Board") should instead order that the TAC be set at 220,000 metric tons and that an allocation method be adopted that is based on historical landings without arbitrary adjustments. In addition, Virginia believes that the Bay Cap should be returned to 87,216 metric tons with a possibility for the rollover of a portion of any unused quota from year to year. As required by the ISFMP Board's Appeals Process pursuant to which this appeal is taken, Virginia commits to comply with the ISFMP Board's decision in this matter, subject to its right to take further action beyond the ASMFC process to seek relief.

John M.R. Bull, Administrative Appointee

Catherine Davenport, Governor Appointee

Senator Richard Stuart, Legislative Appointee

Exhibit C

Atlantic States Marine Fisheries Commission

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James J. Gilmore, Jr. (NY), Chair *Patrick Keliher (ME), Vice-Chair* *Robert E. Beal, Executive Director*

Vision: Sustainably Managing Atlantic Coastal Fisheries

January 17, 2018

John M.R. Bull
Commissioner
Virginia Marine Resources Commission
2600 Washington Avenue
3rd Floor
Newport News, Virginia 23607-4317

Dear Mr. Bull,

This letter responds to the Commonwealth of Virginia's December 20, 2017 appeal of the Atlantic States Marine Fisheries Commission's (Commission) approval of Amendment 3 (Amendment) to the Atlantic Menhaden Interstate Fishery Management Plan (FMP). On January 5 and 11, 2018, in accordance with the appeals process, a conference call of the Commission Chair Jim Gilmore, Vice-Chair Pat Keliher, past Chair Doug Grout (Leadership), and staff were convened to review the Virginia appeal. The purpose of the review was to assess the issues Virginia raises in its appeal and to determine whether those issues are of the type and substantiality that warrants review by the full Interstate Fisheries Management Program Policy Board (Policy Board). Given the appeal does not directly indicate the specific appeal criteria for which Virginia is making its claims, Leadership has made assumptions for which criterion an issue falls under.

During the call, it was determined the appeal did **not** meet the qualifying guidelines under appeal criterion one (decision not consistent with FMP), four (historical landings period not adequately addressed) and five (unforeseen circumstances/impacts) for both state allocations and the setting of the 2018 total allowable catch (TAC). However, it **could be forwarded** to the Policy Board for appeal consideration under criterion three (incorrect application of technical data) for the Chesapeake Bay Reduction Fishery Cap (Bay Cap). Appeal criterion two was not considered because it was not referenced in the appeal.

A. Claims Under Criterion One: Decision Not Consistent with FMP

The appeal referenced criterion one, "Decision not consistent with the FMP." Under this criterion, the appeal argues the allocation method fails to meet the goal of the FMP specifically allocating the resource in a method that is biologically, economically, and socially sound. See letter from Virginia Commissioners to ASMFC Chair James J. Gilmore, pp. 3-5 (December 20, 2017). Leadership rejects this claim.

The goal of Amendment 3 is "to manage the Atlantic menhaden fishery in a manner which equitably allocates the resource's ecological and economic benefits between all user groups. The primary user groups include those who extract and utilize menhaden for human use, those who extract and utilize predators which rely on menhaden as a source of prey, and those whose livelihood depends on the health of the marine ecosystem. Pursuit of this goal will require a holistic management approach which allocates the resource in a method that is biologically, economically, and socially sound in order to protect the resource and those who benefit from it." While it is true the allocation method does result in a reduction of the percent share allocated to Virginia, the Commonwealth is allocated nearly 80% of the coastwide quota with the remainder to be shared by the other 14 member states. It is important to note the available quota for Virginia actually increases in 2018 relative to 2017. This increase is further described later in this letter.

Under the FMP, the primary user groups are defined as the directed fishery (bait and reduction), recreational fishermen, predators of menhaden, and those whose livelihoods depend on the health of the marine ecosystem. Given the FMP goal of equitable allocation, one could argue that allocating nearly 80% of TAC to one jurisdiction within a 15 jurisdiction management unit is not an equitable distribution to the primary user groups. Given the diverse objectives of the primary menhaden user groups, the Board must make allocation decisions that balance biological, economic, and social trade-offs. The Board had significant deliberations on the issue of what is equitable allocation. By choosing the fixed minimum allocation method, the Board was able to address the needs of the different stakeholders, taking into account the needs of the directed fishery, while having minimal negative impact relative to the 2017 quotas. Virginia's 2018 quota still allows for growth, given it has not harvested its full allocation in the last two years. Leadership concludes substantial grounds for an appeal are not present on this issue.

B. Claims Under Criterion Four: Historical Landings Period Not Adequately Addressed

The appeal cited criterion four, "Historical landings period not adequately addressed." Under this criterion, the appeal states the fixed minimum allocation method ignores historical landings in setting the minimum. See letter from Virginia Commissioners to ASMFC Chair James J. Gilmore, pp. 3-5 (December 20, 2017). Leadership rejects this claim. While Virginia is correct the fixed minimum does not use history-based landings, the vast majority (approximately 94%) of the TAC is allocated using average landings from 2009-2011. Leadership concludes historic landings are being considered for the allocation of the vast majority of the TAC. Commission guiding documents do not require Boards to allocate quota based solely on historical landings information.

Virginia states the fixed minimum allocation method was "radical" and "unorthodox." Leadership argues the method is a reasonable allocation tool to accommodate changing conditions in a fishery that cannot be addressed through the use of historic landings. In fact, two other Commission plans use fixed minimums to allocate quota, northern shrimp and American eel. In addition, there are several other fisheries in the United States and the world

that are managed using fixed minimums, including Western Atlantic recfish and the Shetland shellfish fisheries (UK). The fixed minimum approach allowed the Board to allocate the majority of the TAC using historical landings, but provided opportunities for states that either did not have accurate historical catch information (due to the lack of reporting requirements) or have seen increases in menhaden abundance in state waters in recent years (2015-2017). Leadership concludes substantial grounds for an appeal are not present on this issue.

Virginia suggests a remedy to the "unnecessary and unfair" existing allocation is to increase the TAC to 220,000 MT. The Board did consider this TAC level at the November 13 and 14, 2017 Board meeting but the motion failed with 5 in favor and 13 in opposition (See November Meeting Summary page 3). The Board reviewed a wide range of TAC levels with varying levels of risk for exceeding the fishing mortality target. In setting the TAC, the Board considered both the menhaden resource and the ecosystem services the resource provides. It also took into consideration the overwhelming public support to conservatively manage the resource. In taking this holistic approach, as set by the goal and objectives of the FMP, the Board set a lower TAC than could have been afforded under tradition single species management. This was an intentional and conscious conservative management action to minimize risk to the resource while menhaden-specific ecological reference points are developed over the next two years.

In addition, the appeal suggests a state should demonstrate landings in either the bycatch or small scale fishery provision in order to receive allocation. A similar concept was considered by the Board but was not approved.

…States have the option to opt □out of the program and decline their fixed minimum allocation, or maintain 10,000 pounds for bycatch purposes and decline the remainder of their quota. States also have the right to opt□in to the program and receive their full allocation…(See Meeting Summary page 5).

This notion, that a state must demonstrate landings history to receive allocation, was argued against by states that support the FMP's goal to include those primary user groups that extract and utilize predators which rely on menhaden as a source of prey, those whose livelihood depends on the health of the marine ecosystem and those non-consumptive users who place a high value on a healthy ecosystem. Some states see a different social and economic value for menhaden in their waters for both the recreational and ecotourism industries. These sorts of decisions highlight the nature of cooperative interstate fisheries management – to seek to balance the different needs and values of all involved states, not the one or the few. These difficult decisions are sometimes necessary in service of the management goals of the FMP.

C. Claims Under Criterion Five: Unforeseen Circumstances/Impacts.
The appeal letter cites criterion five, "Unforeseen circumstance/impacts." The appeal recounts the Board wanted to provide additional jurisdictions with an opportunity to

participate in the fishery but not at the expense of other jurisdictions. The appeal states if the Board had known under the 0.5% fixed minimum and the 1% episodic event set aside Virginia's landings would be decreased, the Board would have taken steps to ensure Virginia would not be harmed. See letter from Virginia Commissioners to ASMFC Chair James J. Gilmore, pp. 3-5 (December 20, 2017). Leadership disagrees with Virginia's position that these issues were unforeseen. While the tables that were passed at out the meeting did not include the 1% episodic event set aside, it was made clear to the Board at the start of the meeting the Amendment would be taken up in the order presented in the document. This meant that episodic events set aside would be discussed after allocation, and would alter the distribution of the TAC (See Board minutes pages 2 and 50).

When considering action on the allocation method, scenarios were presented where Virginia would have less quota in 2018 than in 2017 despite the increase in the TAC. But the Board recognized Virginia's quota would have the opportunity to increase above 2017 levels if states relinquished quota. During the Board deliberations, a few states indicated it was their intent to relinquish quota. Since the November Board meeting 6,704,365 pounds of quota has been relinquished. Virginia's 2018 quota has increased by 5,696,800 pounds because relinquished quota is redistributed to states based on their average landings from 2009-2011 (84.97% for Virginia). Based on the additional quota received, Virginia's 2018 quota is 4,099,337 pounds higher than 2017. Allocation decisions are always difficult; but they are, as here, necessary in service of management goals of the plan. Since Commissioners recognized and weighed these potential impacts to the states and industry, Leadership does not find the allocation consequences of this Amendment as unforeseen.

D. Claims Under Criterion Three: Incorrect Application of Technical Information.

Virginia's appeal is partially based on appeal criterion three, "Incorrect application of technical information." Under this criterion, the appeal states the reduction in the Chesapeake Bay Reduction Fishery Cap (Bay Cap) from 87,216 MT to 51,000 MT and the removal of the rollover provision is not supported by the technical information that has been presented to the Board or described in the Amendment. See letter from Virginia Commissioners to ASMFC Chair James J. Gilmore, pp. 5-7 (December 20, 2017).

Leadership concluded the Policy Board should consider Virginia's claim that Chesapeake Bay localized depletion studies were inconclusive. The decision to set a reduced Bay Cap in Amendment 2 was a precautionary measure set as a placeholder until the commissioned studies on localized depletion were finalized and peer-reviewed (Amendment 2 reduced the Bay Cap from average landings from 1999-2004 to 87,216 MT). It was not based on a scientifically quantified harvest threshold, fishery health index, or fishery population level study. The Bay Cap limit was a compromise reached by managers, fishery stakeholders, and environmental NGOs.

In addition, the appeal states there is no evidence in Amendment 3 to support the view that lowering the Bay Cap was necessary to protect the Bay as a nursery area for menhaden and

there is no evidence to suggest the Bay Cap is necessary to protect the Bay as a nursery for other species. Leadership agrees the Amendment does not provide sufficient evidence to support such claims. In making this statement, it does not conclude that evidence does not exist, but that it is not contained in the Amendment.

Virginia claims the Bay Cap was arbitrarily lowered. In setting the 51,000 MT Cap, the Board considered recent harvest levels to minimize impacts on Virginia. The Bay Cap was set at the average landings in the Bay from 2012-2016 (rounded up); therefore, it was not arbitrarily lowered nor was it expected to significantly impact the prosecution of the fishery.

Leadership is recommending the formation of a Fact Finding Committee (Committee), as allowed under the appeal process, to investigate the science surrounding the Bay Cap. The Committee would conduct a literature review of the science in question. The Committee would look for peer-reviewed literature that could address the following questions:

1. What is the impact on menhaden reproduction or other species in the Bay with menhaden harvest set at 87,216 MT?
2. Does menhaden harvest in the Bay impact menhaden nursery grounds? Other species?
3. Does menhaden harvest in the Bay impact menhaden reproduction in the Bay?
4. What environmental factors impact menhaden reproduction in the Bay?
5. Is there current science that would guide the Board in setting the appropriate level of harvest in the Bay?

Leadership recommends to the Policy Board:

- Consider the appropriate level of the Bay Cap for 2018 while the Fact Finding Committee addresses the above questions.
- Charge the Menhaden Board with reconsideration of the Bay Cap to 87,216 MT for 2018 while the Committee drafts a report to the Board. After reviewing the Committee's report, the Menhaden Board could consider the Bay Cap for 2019 and beyond.

In recognition that Virginia sets its annual menhaden regulations through a legislative process, not controlled by Virginia Marine Resources Commission, Leadership strongly recommends pursuing/implementing this one year change in the Bay Cap as a way to help facilitate compliance with the FMP.

In light of these findings, Leadership finds there are grounds for the appeal to be heard by the Policy Board on one of the three claims under criterion three advanced in Virginia's letter – specifically, Virginia's claim regarding the Bay Cap. Leadership concludes it is appropriate to provide Virginia an opportunity to present its appeal on this issue to the Policy Board. During the ISFMP Policy Board meeting on February 8, 2018, the ISFMP Director will present background on the Amendment and the Board's justification for changing the Bay Cap. Following this presentation, the Commissioners from Virginia will be provided 15 minutes to present their rationale for the appeal and their suggested resolution of the issue. The Policy Board will then be provided an opportunity to discuss the issue, consider the recommendation from Leadership, and then decide what issues, if any,

should be remanded back to the Menhaden Board for corrective action. No additional public comment will be taken in connection with the appeal.

Thank you for the continued partnership and commitment to the Commission process and actions.

Sincerely,

James Gilmore

cc: Catherine Davenport
Senator Richard Stuart
Interstate Fisheries Management Program Policy Board

L18-08

Exhibit D

Atlantic States Marine Fisheries Commission

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A Synthesis of Scientific Findings on Menhaden's Role in the Chesapeake Bay Ecosystem and Their Relevance to the Chesapeake Bay Reduction Fishery Cap

Prepared by Dr. Katie Drew

Introduction

The Atlantic States Marine Fisheries Commission (ASMFC) requested a synthesis of existing scientific evidence on the importance of Atlantic menhaden in the Chesapeake ecosystem to help inform management decisions about harvest levels in the Chesapeake Bay. This review was conducted by ASMFC staff and is not a product of ASMFC's Menhaden Technical Committee (TC) or Ecological Reference Point Working Group (ERP WG).

This synthesis reviews the literature that informed the 2015 Atlantic menhaden benchmark stock assessment (SEDAR 2015) and Amendment 3 (ASMFC 2017) to the Atlantic Menhaden Fishery Management Plan (FMP). It does not reflect the most recent and ongoing work of the Stock Assessment Subcommittee (SAS) or the ERP WG, which will be completed as part of the 2019 single-species and ecological-based benchmark assessments.

History of the Chesapeake Bay Cap

In the years leading up to Amendment I (2001) to the Atlantic Menhaden FMP, the number of reduction plants and vessels in the reduction fleet had declined along the coast, with effort concentrating in Virginia and North Carolina. As a result, total landings along the coast and from Chesapeake Bay (Bay) also declined, but the proportion of removals from the Bay increased (ASMFC 2005a). The higher proportion of effort in the Chesapeake Bay and the lower levels of recruitment to the Bay raised concerns about the possibility of localized depletion, defined as a reduction in menhaden population size/density below the level of abundance that is sufficient to maintain its basic ecological (e.g. forage base, grazer of plankton), economic, and social/cultural functions, as a result of fishing pressure, environmental conditions, and predation pressures that occur on a small spatial or temporal scale.

In response to these concerns, ASMFC implemented a harvest cap on the reduction fishery in Chesapeake Bay through Addendum II (ASMFC 2005), limiting removals of Atlantic menhaden from the Bay for reduction purposes to the average of 2000-2004 landings to be implemented in the 2006 fishing year. Before its first year of use, the cap was revised through Addendum III (ASMFC 2006) to be the average landings from 2001-2005, or 109,020 mt. The cap was reduced by 20% in 2013 to 87,216 mt with the concurrent implementation of a coastwide quota which also represented a 20% reduction from recent average landings (ASMFC 2012). Amendment 3 further reduced the Bay cap to 51,000 metric tons, approximately equal to the five-year average of reduction harvest from the Chesapeake Bay between 2012 and 2016 (ASMFC 2017). Reduction landings from Chesapeake Bay have not exceeded 51,000 mt since 2012, even under the higher historical caps.

In response to the concerns raised in Addendum II, the NOAA Chesapeake Bay Office coordinated funding for a series of research projects to address the question of whether localized depletion was occurring in Chesapeake Bay. These projects were reviewed in 2009 by a panel appointed by the Center for Independent Experts. The panel determined that the individual research projects were relevant and well-designed, and the results of many of them informed this synthesis. However, the panel noted that without an operational definition of depletion, it could not be determined whether localized depletion was occurring or how well the ongoing research could address that question (Maguire 2009).

Atlantic Menhaden Life History

Genetic studies indicate Atlantic menhaden are a single stock on the Atlantic coast (Anderson 2007; Lynch et al. 2010). Juvenile and adult menhaden make seasonal migrations along the Atlantic coast, moving inshore and north in the spring and offshore and south in fall (Nicholson 1978). Larger, older individuals migrate further north. This results in different size and age classes being available to the fishery in different regions; fisheries operating in the Chesapeake Bay and further south harvest a higher proportion of age-1 and age-2 fish compared to fisheries operating further north (SEDAR 2015).

Adults spawn on the continental shelf throughout the year as they migrate, with the peak of spawning generally occurring from December through March (Nicholson 1978; Lewis et al. 1987). Larvae are then carried into bays and estuaries where they settle as age-0 recruits. The Chesapeake Bay is one of the important nursery grounds for Atlantic menhaden. Otolith microchemistry analysis showed that from 2010 – 2012, individuals from Chesapeake Bay made up about 30% of the exploitable Atlantic menhaden (ages 2-4) on the coast (Anstead et al. 2017).

The abundance of age-0 menhaden within Chesapeake Bay in any given year is influenced by a combination of offshore and inshore factors. This includes things such as large scale climatic regimes like the Atlantic Multidecadal Oscillation (Bucheister et al. 2016) and annual variability in the abundance of phytoplankton and zooplankton within the Bay (Houde et al. 2016). Total spawning stock biomass (SSB) along the coast may also play a role, although the relationship between coastwide SSB and recruitment stock-wide is weak (SEDAR 2015). The TC was unable to detect a relationship between abundance of age-2 and age-3 menhaden in the Bay and recruitment to the Bay the following year (ASMFC 2005b).

Atlantic Menhaden's Role in the Ecosystem

As larvae, Atlantic menhaden feed on zooplankton, but as juveniles and adults, they consume primarily phytoplankton by filtering seawater through specialized gill rakers (June and Carlson 1971, Friedland 1985, Friedland et al. 2006). Modeling work suggests that Atlantic menhaden may have a dampening effect on large algal blooms in Chesapeake Bay through their feeding (Dalyander and Cerco 2010), but are likely not reducing the total nitrogen load in the Bay (Lynch et al. 2010, Friedland et al 2011).

Atlantic menhaden are also an important forage species. Numerous studies have been conducted on the food habits of fish species within the Chesapeake Bay; however, it is difficult to compare the results directly because studies often occurred in different seasons, sampled different size ranges of predators, and use different methods of calculating the species composition in a diet. In addition, the proportion of Atlantic menhaden in species' diets can change across years, depending on the relative abundance of Atlantic menhaden and other prey species. For example, Overton (2015) found that striped bass in the Chesapeake Bay had a higher proportion of Atlantic menhaden in their diet in the 1950s, when menhaden abundance along the coast and recruitment of menhaden to Chesapeake Bay were high, than during the mid-1990s to early 2000s when menhaden abundance along the coast and recruitment of menhaden to Chesapeake Bay were both low.

During the 2010 and 2015 benchmark stock assessment for Atlantic menhaden, the ASMFC Multispecies Technical Committee did a thorough review of published studies and food habits databases from fishery independent sources such as the NEFSC Food Habits Database, NEAMAP, ChesMMAP, and CHESFIMS in order to parameterize the MSVPA-X model (SEDAR 2015). They synthesized average diet composition information by season and size class for several important predator species (Table 1). The prevalence of menhaden in predators' diets varied across seasons and size or age classes. For example, the percent by weight of Atlantic menhaden in striped bass stomach contents ranged from over 90% for age 8+ striped bass in the winter to less than 10% of age 1-2 striped bass in the spring. Similarly, the percent by weight of Atlantic menhaden in bluefish stomachs ranged from 3.5% to 50.4%, depending on the season and size class of bluefish.

Atlantic menhaden are also consumed by other predators such as piscivorous birds. The prevalence of Atlantic menhaden in bald eagles' diets in the Bay also showed seasonal patterns. Mersmann (1989) found that bald eagles consumed fish almost exclusively during the summer, the majority of which were gizzard shad and Atlantic menhaden; during the winter, bald eagles' diets were predominantly comprised of carrion from birds and mammals. McLean and Byrd (1991a) found that Atlantic menhaden made up 75% of the diet by number of nesting ospreys in the Chesapeake Bay in 1985. Glass and Watts (2009) found that the proportion of Atlantic menhaden in osprey diets depended on the location of the osprey nests: ospreys nesting in higher salinity regions of the Bay consumed a higher proportion of Atlantic menhaden (24% by number) than ospreys nesting in lower salinity regions (1.5% by number). However, overall, the diets of non-fish predators within the Chesapeake Bay are not well studied. For example, cormorant and heron abundance within the Bay has increased over time and both species are known to consume tidal freshwater fish like menhaden from studies in other regions, but there are no studies of their diet in Chesapeake Bay (Viverette 2007).

The body of diet work shows that Atlantic menhaden can make up a significant proportion of many predators diets' for specific seasons, size/age classes, and locations within the Bay, and that the prevalence of Atlantic menhaden in predators' diets changes with changing menhaden abundance. However, understanding the impact of reduced menhaden abundance on predator population health is much more difficult, and the evidence is less clear.

Some work has been done to estimate the predatory demand of individual species within the Bay (e.g., Hartman and Brandt 1995, Uphoff 2003), but whether there is enough menhaden biomass in the Bay to support this demand cannot be determined from the current coastwide stock assessment.

Lower levels of Atlantic menhaden abundance along the coast and lower levels of menhaden recruitment in Chesapeake Bay have been correlated with negative population metrics for some species. For example, striped bass reached coastwide highs in abundance during the late 1990s to early 2000s during a period of low menhaden abundance. However, within the Chesapeake Bay, the prevalence of mycobacteriosis in striped bass increased sharply (Uphoff 2003, Overton et al. 2003) while migratory striped bass outside the Bay had lower levels of infection (Matsche et al. 2010). Jacobs et al (2009) found that poor diet worsened the progression and severity of mycobacteriosis in striped bass in the lab. The weakfish population has continued to decline, even with greatly reduced fishing pressure, and an increase in natural mortality has been implicated (ASMFC 2014). As the population declined, recruitment indices remained relatively stable for weakfish, and the mortality bottleneck appears to be at around age 1-2, when weakfish switch over to consuming fish; one hypothesis is that the increase in natural mortality is linked to reduced prey availability including menhaden (NEFSC 2009). Osprey population growth rates in Chesapeake Bay were higher during the late 1970s and early 1980s, a period of high menhaden abundance and high recruitment to the Bay, than they were during the late 1980s and in 2006 (Watts 2007); McLean and Byrd (1991b) observed behavioral signs of food limitations such as sibling aggression in osprey in Chesapeake Bay in 1985 and noted that a similar study in 1975-1976 had not observed any sibling aggression.

However, all of these correlations come with many caveats. The increased prevalence of mycobacteriosis in striped bass in Chesapeake Bay has also been linked to environmental factors such as increased eutrophication and warming water temperatures in the Bay (Gauthier and Rhodes 2009). Cycles in weakfish landings are correlated with the Atlantic Multidecadal Oscillation, and age-0 weakfish are a major component of shrimp trawl bycatch (ASMFC 2014). Osprey showed higher population growth rates in low salinity areas where menhaden made up a lower proportion of their diet (Glass and Watts 2009). All of these populations are driven by many factors, including environmental conditions, habitat availability, overall forage abundance, and anthropogenic impacts, and parsing out the importance of menhaden abundance alone is difficult.

Conclusions

- There is currently no estimate of Atlantic menhaden abundance specifically within Chesapeake Bay and there is no quantitative determination of an appropriate depletion threshold, therefore there is no quantitative determination of whether localized depletion is or is not occurring.
- Recruitment to Chesapeake Bay does not appear to be correlated with abundance of age-2 and age-3 Atlantic menhaden within the Bay; as long as environmental conditions and total coastwide fecundity are favorable, recruitment to the Bay can occur.

- From a single-species perspective, the projections used to set the coastwide quota were conducted with the assumption that selectivity in the future would be equal to the selectivity of the most recent year of the model. The Bay fishery harvests a higher proportion of age-1 and age-2 fish than the more northern fisheries. Therefore, if the proportion of removals from the Bay changes, the impact of those removals on the total population will change even if the coastwide quota is not exceeded, because the overall selectivity pattern will be different.
- Demand for forage in Chesapeake Bay from fish and bird predators has increased since the early to mid-1980s, the last period of strong recruitment to Chesapeake Bay (Uphoff 2003, Viverette 2007).
- Atlantic menhaden can make up a significant proportion of many predators diets' for specific seasons, age classes, and locations within the Bay, particularly when menhaden are abundant.
- Lower levels of Atlantic menhaden abundance and recruitment have been linked to negative population metrics for several species within the Bay, but the overall complexity of the Chesapeake Bay food web, changing environment, and population dynamics makes it difficult to prove causation.

5

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6.3 Revised surveillance program

The Public Certification Report for this fishery proposes a surveillance level of 4 with on-site surveillance audits in each year. The assessment team for this expedited audit has not seen fit to amend this determination at this time.

6.4 Harmonised fishery assessments

The scope of the Atlantic menhaden fishery does not overlap with any other MSC-certified or applicant fisheries such that harmonization activities are not required

6.5 Summary of Audit Team's CVs

The team for this assessment, which was comprised of members with specific experience and expertise in the areas included in the scope of this expedited audit, consisted of:

- Sam Dignan (Lead Assessor).
- Bob Allain (Assessor with primary responsibility for Principle 3).

A brief bio for each team member is presented below.

Assessment Team Leader: Sam Dignan, Lead Assessor

Sam Dignan is a fisheries scientist who has previously worked with the Department of Environment, Food and Agriculture (DEFA), Isle of Man and Bangor University Fisheries and Conservation Science Group (Wales). He has a BSc in Biological and Chemical Sciences with Zoology from University College Cork and an MSc in Marine Environmental Protection from Bangor University. He has experience conducting stock assessments, from the survey design and implementation phases through to final analysis and report presentation; from 2013 to 2015 he was a member of the ICES working group on scallop stock assessment. He has been involved in providing scientific data to ensure fishery compliance with the Marine Stewardship Council's (MSC) certification framework and has participated in MSC surveillance audits from a client's perspective. Sam has extensive experience of interacting directly with fishers and their representative organizations as well as members of scientific and government institutions. He was previously an advisor to the Isle of Man Queen Scallop Management Board that manages the MSC certified Isle of Man queen scallop fishery. He has also worked on the spatial analysis of fishing activity, using Vessel Monitoring System (VMS) and logbook data, to spatially quantify fishing activity and fisheries-ecosystem interactions. Sam is an ISO approved lead auditor and is SAI Global's Scheme Manager for Fisheries, Aquaculture and Seaweed.

Sam was the Lead Assessor for the initial assessment of this fishery and so was already very familiar with the specifics of this fishery.

Assessment Team Member: Bob Allain, Assessor and primary responsibility for P3 issues.

R. J. (Bob) Allain is the president and principal consultant of OceanIQ Management Services Inc. He is a former senior executive with over 30 years' experience with Canada's Federal Department of Fisheries and Oceans in fisheries management, strategic policy development and analysis, program design and delivery, human and financial resources management, media and inter-governmental relations, facilitation and conflict resolution, and mentoring. He has consulted internationally for the Canadian International Development Agency, the (former) International Centre for Ocean Development, the World Bank, and the Food and Agricultural Organization of the United Nations. Bob has participated in several Atlantic Canadian pelagic, demersal, and crustacean fishery assessments under the MSC Standard since 2010 as a P3 expert, auditor, client representative and peer reviewer.

Again, Bob was part of the assessment team for the initial assessment of this fishery and so was already very familiar with the specifics of this fishery.

7 Template information and copyright

This document was drafted using the 'MSC Surveillance Reporting Template v2.01'. Note amendments have been made to formatting in order to comply with SAI Global's corporate identity; however, content and structure follow that of the original template.

Template version control

Version	Date of publication	Description of amendment
1.0	08 October 2014	Date of issue
2.0	17 December 2018	Release alongside Fisheries Certification Process v2.1
2.01	28 March 2019	Minor document change for usability

A controlled document list of MSC program documents is available on the MSC website (msc.org)

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