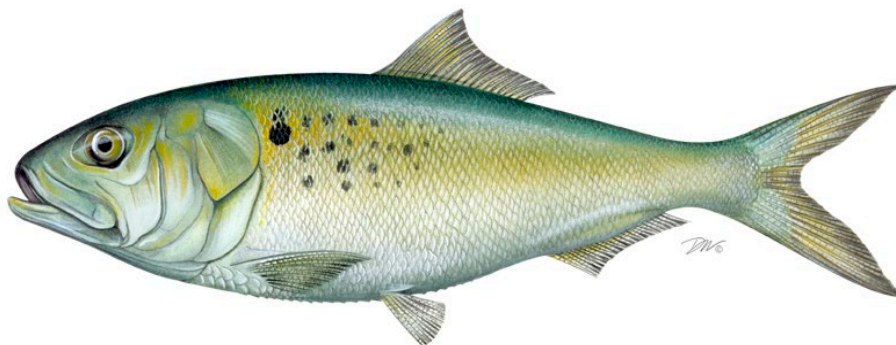


Atlantic States Marine Fisheries Commission

DRAFT ADDENDUM II TO AMENDMENT 3 OF THE ATLANTIC MENHADEN INTERSTATE FISHERY MANAGEMENT PLAN FOR PUBLIC COMMENT

Chesapeake Bay Reduction Fishery



This draft document was developed for Board review and discussion at the August 2026 meeting week. This document is not intended to solicit public comment as part of the Commission/State formal public input process. However, comments on this draft document may be given at the appropriate time on the agenda during the scheduled meeting. Also, if approved, a public comment period will be established to solicit input on the issues contained in the document.



Sustainable and Cooperative Management of Atlantic Coastal Fisheries

August 2026

**Document revised on July 23, 2026
with addition of socioeconomic section**

Draft Document for Board Review. Not for Public Comment

**Atlantic States Marine Fisheries Commission Seeks Your Input on
Atlantic Menhaden Management**

The public is encouraged to submit comments regarding this document during the public comment period. Comments will be accepted until 5:00 p.m. EST on **DAY, MONTH 2026**. Regardless of when they were sent, comments received after that time will not be included in the official record.

You may submit public comment in one or more of the following ways:

1. Attend public hearings pertinent to your state or jurisdiction.
2. Refer comments to your state's members on the [Atlantic Menhaden Board](#) or [Atlantic Menhaden Advisory Panel](#), if applicable.
3. Mail, fax, or email written comments to the following address:

James Boyle
Fishery Management Plan Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland St., Suite 200 A-N
Arlington, Virginia 22201
Fax: (703) 842-0741
comments@asmfc.org (subject line: Atlantic Menhaden Draft Addendum II to Amendment 3)

If you have any questions please contact James Boyle at jboyle@asmfc.org or 703.842.0740.

Commission's Process and Timeline

Date	Action
October 2025	Atlantic Menhaden Board Initiates Draft Addendum II
November 2025 – July 2026	Plan Development Team Develops Draft Addendum II for Board Review
August 2026	Atlantic Menhaden Board Reviews Draft Addendum II and Considers Its Approval for Public Comment
August– October 2026	Public Comment Period, including Public Hearings
November 2026	Board Reviews Public Comment, Selects Management Options and Considers Final Approval of Addendum II
TBD	Provisions of Addendum II are Implemented

1. INTRODUCTION

The Atlantic States Marine Fisheries Commission (ASMFC) coordinates Atlantic menhaden (*Brevoortia tyrannus*) management in state waters (0–3 miles from shore) under the authority of the Atlantic Coastal Fisheries Cooperative Management Act and has done so through an Interstate Fishery Management Plan (FMP) since 1981. The states of Maine through Florida have a declared interest in the fishery and are responsible for implementing management measures consistent with the FMP. For the purposes of this draft addendum, the term “state” or “states” also includes the Potomac River Fisheries Commission (PRFC). Management authority in the Exclusive Economic Zone (3-200 miles from shore) lies with NOAA Fisheries.

At its October 2025 meeting, the ASMFC’s Atlantic Menhaden Management Board (Board) approved the following motion:

Move to initiate Addendum II to the Atlantic Menhaden FMP to address Chesapeake Bay management concerns. The addendum shall develop periods for the Chesapeake Bay Cap that distributes fishing effort more evenly throughout the season and a range of options to reduce the Bay Cap from status quo up to 50%.

Since then, the Board has provided additional guidance on the purpose and range of options for inclusion in this draft addendum.

2. OVERVIEW

2.1 Statement of the Problem

The availability of menhaden in Chesapeake Bay may be affected by changes in total abundance, size distribution of the population, and timing of spatial distribution in the Bay, which can be caused by fishing pressure, environmental conditions, habitat suitability, and/or changing predation pressures on a limited spatial and temporal scale. Such changes in menhaden availability may affect the species’ ability to fulfill its ecological and/or economic functions. Recent observations of below average commercial fisheries landings and concerning population trends in several species that use menhaden as prey within Chesapeake Bay suggest that availability of menhaden in Chesapeake Bay may be changing due to one or more of the above drivers. Of the predator species included in the ecological reference point (ERP) assessment, which accounts for menhaden’s role as a forage fish, the latest coastwide assessments indicate striped bass is overfished, bluefish are presently rebuilding, weakfish are depleted due to high levels of natural mortality, and spiny dogfish reproductive output is declining but stabilizing (ASMFC, 2024).

Although there are currently not sufficient scientific data available to comprehensively characterize the abundance and distribution of menhaden throughout Chesapeake Bay and the influence of fishing pressure on menhaden, the Commission has been using proactive measures to manage this species in the face of uncertainty and to support both ecological and fishery objectives. Specifically, since 2006, the Chesapeake Bay Reduction Fishery Cap (Bay Cap) has limited harvest of menhaden by the reduction fishery (henceforth, “reduction harvest”) within

Chesapeake Bay. This draft addendum responds to concerns that the Bay Cap does not control how harvest is distributed throughout the fishing season and that the amount of the Bay Cap does not reflect changes to the coastwide total allowable catch (TAC).

Chesapeake Bay Reduction Fishery Cap

The first issue addressed in the draft addendum is that the Bay Cap is not linked to the overall TAC. Large changes to the TAC without a corresponding change to the Bay Cap significantly alter the percent of the reduction landings (and total landings) that can be taken from Chesapeake Bay, a critical nursery area for menhaden. For example, because Virginia is currently allocated 75.21% of the coastwide TAC, and Virginia allocates 90.04% of their quota to the reduction sector, the current Bay Cap (51,000 mt) paired with a 100,000 mt TAC would allow 75% of the reduction fishery quota to be taken in Chesapeake Bay, but with a 300,000 mt TAC would allow 25% of the reduction fishery quota to be taken in Chesapeake Bay. Such variable outcomes may be inconsistent with the intent of the Bay Cap. The 20% reduction applied to the TAC in 2026, without a corresponding change to the Bay Cap, increased the percentage of possible reduction fishery quota taken in the Chesapeake Bay from 32% to 40%, a larger percentage than has been possible since 2017. The Board is concerned that without a change to the Bay Cap, future changes to the TAC could further shift that percentage. Additionally, changes to the Bay Cap can only be made through an amendment or addendum, meaning the Management Board is often unable to align the timeline for changes to the Bay Cap, if desired, with changes to the TAC. Therefore, this draft addendum considers a one-time reduction in the Bay Cap in consideration of recent or upcoming changes to the TAC and setting the Bay Cap as a proportion of the TAC so that it changes automatically with future changes to the TAC.

Timing of Menhaden Harvest

The second issue this draft addendum aims to address is that the Bay Cap is an annual measure without any associated controls on how reduction harvest is distributed throughout the fishing season. This leaves the potential for a concentration of reduction fishery landings in a short time period, as seen in 2023 and 2024, when over 50% of the Bay reduction fishery landings were taken in a 6-week period in mid-summer. When this occurs, it is possible that these higher-than-normal catch rates could affect availability of menhaden to other fisheries or predators, which is what the Bay Cap was intended to prevent. Consequently, this draft addendum considers establishing quota periods for the Bay Cap to redistribute reduction fishery landings across the reduction fishery season, rather than concentrating them in the beginning and middle of the season.

Revisiting the Bay Cap

Lastly, given the breadth of changes proposed to the Bay Cap in this draft addendum, the uncertainties about whether recent trends in Chesapeake Bay menhaden landings and availability will continue, plus planned research intended to help design a scientifically-based Bay Cap setting process, this draft addendum includes an option that would require a revisit of the Bay Cap provisions every three years at a minimum. Currently, there is no set timeframe for revisiting the Bay Cap.

2.2 Background

2.2.1 The Reduction Fishery

The commercial menhaden fishery is divided into the reduction fishery, in which menhaden are reduced into fish meal and fish oil, and the bait fishery, in which menhaden are harvested as a bait source for other commercial and recreational fisheries. Harvesting of menhaden for reduction purposes dates back to the early 1800s (fish oil) and the early 1900s (fish meal). The reduction fishery uses purse seine gear exclusively (also the dominant gear in the bait fishery). Reduction landings peaked in the mid-20th century (712,100 mt in 1956) and averaged approximately 129,000 mt from 2020-2024 (Figure 1). Participation in the Atlantic coast reduction fishery has declined to include roughly 10 vessels and one processing plant located in Virginia; as many as 147 vessels and 25 processing plants operated along the Atlantic coast from Maine to Florida historically.

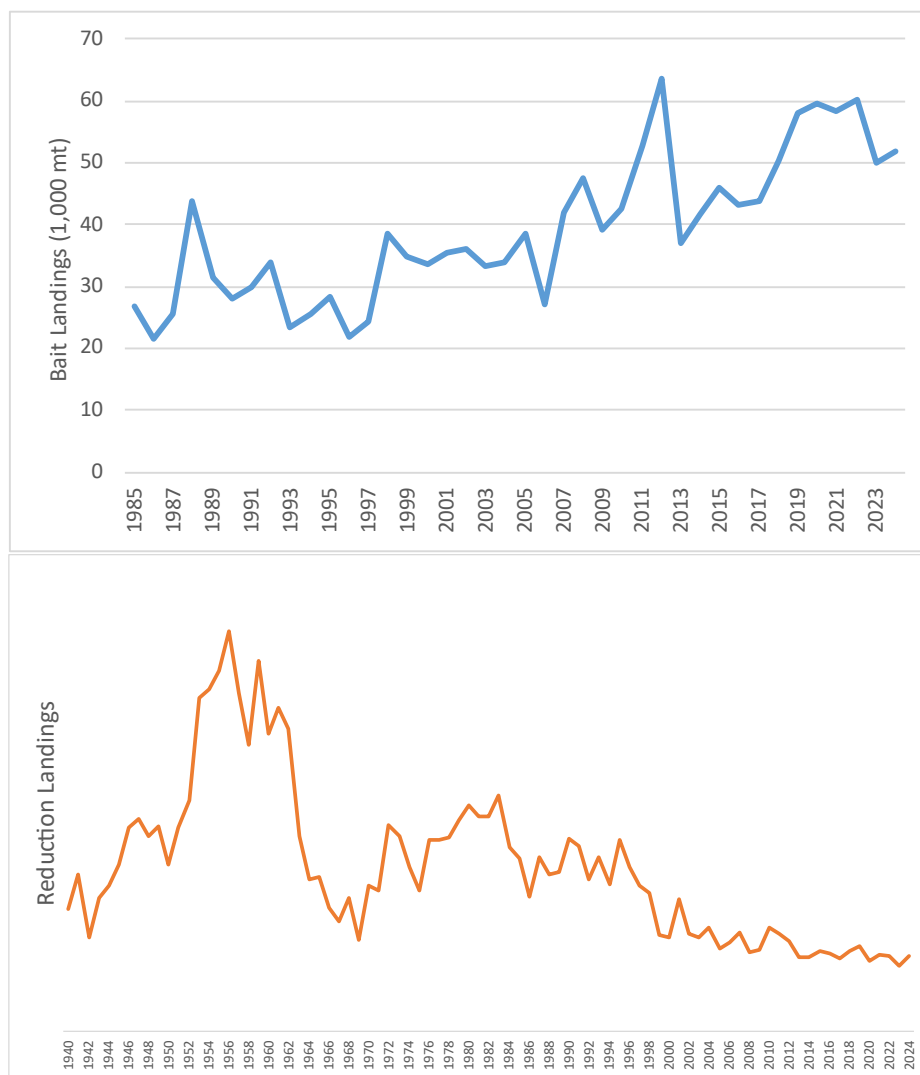


Figure 1. Coastwide reduction fishery landings (1940-2024) and coastwide bait fishery landings (1985-2024) for Atlantic menhaden (Note reduction landings values removed for confidentiality but are approximately an order of magnitude greater than bait landings).

Since 2013, total reduction fishery landings have been determined by the annual coastwide Total Allowable Catch (TAC) specified by the Management Board, the percent of the TAC allocated to Virginia by the Interstate FMP, Virginia's internal allocation of its quota among its fishery sectors, and the Virginia reduction fishery's performance with regards to its quota. Currently, Virginia's allocation of the TAC is 75.21%¹ based on landings from 2018, 2019, and 2021, and the purse seine reduction fishery's allocation of the Virginia quota is 90.04% based on 2002-2011 average landings. Accordingly, the Virginia reduction fishery has the potential to harvest 67.04% of the TAC.

Reduction fishery vessel effort occurs both inside Chesapeake Bay and outside in the Atlantic Ocean. In the last five years (2021-2025), about 50% of all reduction fishery effort (i.e., purse seine net sets) has occurred within Chesapeake Bay, down from about 75% in 2005, the year preceding the setting of the first Chesapeake Bay Reduction Fishery Cap (Figure 2). The Bay Cap prohibits additional reduction harvest within the Chesapeake Bay when 100% of the Bay Cap is harvested from Chesapeake Bay, which is defined as areas shoreward of the Chesapeake Bay Bridge Tunnel.

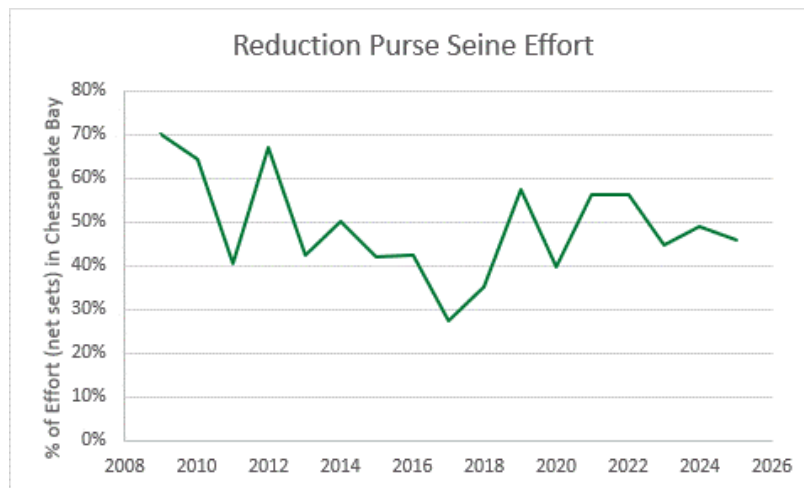


Figure 2. Proportion of Virginia purse seine reduction effort in Chesapeake Bay.

2.2.2 Bay Cap History

The Chesapeake Bay Reduction Fishery Cap was first established in 2006 as a precautionary measure in response to an increasing proportion of the total reduction fishery landings being harvested from Chesapeake Bay and concerns about the possibility of localized depletion. Through Addendum III to Amendment 1, the Bay Cap was set at the average landings from 2001-2005 (109,020 mt) to prevent the expansion of the reduction fishery in Chesapeake Bay while the necessary scientific studies were conducted to explore the potential for localized depletion and set a more scientifically quantified harvest threshold if needed. Additional Bay Cap management measures included mandatory payback of any overage in the subsequent

¹ The state-by-state allocations exclude 1% of the TAC that is reserved for the Episodic Event Set-aside.

year and an allowance to rollover unused quota to the following year up to a specified maximum. Notably, the adoption of the Bay Cap preceded the adoption of a coastwide TAC for menhaden, which did not occur until 2013 through Amendment 2.

Amendment 2 reduced the Bay Cap by 20% to 87,216 mt beginning in 2013. This 20% reduction mirrored the 20% reduction applied to the average coastwide catch from 2009-2011 that was used to set the first-ever TAC. (This was an ad hoc approach to set the TAC based on recent landings due to uncertainty in the 2012 stock assessment's projections; all subsequent TACs have been set using a stock assessment-based projection methodology). Amendment 2 also reduced the Bay Cap underage rollover maximum by 20%.

The next change to the Bay Cap occurred in 2018, when it was reduced to 51,000 mt in Amendment 3. Similar to how the Bay Cap was initially set, this amount represented an approximation of the average Bay reduction fishery landings from 2012-2016. This action again capped landings at recent levels as a precautionary management approach. Unlike the change to the Bay Cap in Amendment 2, this ~41.5% reduction in the Bay Cap did not correspond to the change made to the TAC in the same year (8% increase). Amendment 3 also removed the allowance for any rollover of unused Bay Cap (as well as any unused TAC) and established that unused quota from a region or state cannot be transferred to the Bay Cap to reduce an overage.

The Bay Cap has remained at 51,000 mt since 2018 (except in 2020 when it was reduced to account for an overage in 2019; reduction fishery landings from the Chesapeake Bay have always otherwise been below the Bay Cap). Since that time, the TAC has been adjusted three times, including a 10% reduction in 2021, a 20.1% increase in 2023, and a 20% reduction in 2026, all without any change to the Bay Cap (Table 1).

The history, intent, and setting process for the Bay Cap and TAC differ in notable ways. First, the Management Board sets the TAC through Board action based on coastwide stock assessment projections in comparison to target and threshold reference points. Since 2021, ecosystem-based stock assessments and reference points have been used, meaning the TAC is set to account for menhaden's role as a critical forage species on a coastwide basis. No similar approach exists to set the Bay Cap at a level scientifically determined to support forage needs in Chesapeake Bay; rather, recent landing levels have typically been used to set the Bay Cap, thereby preventing further expansion. Second, the TAC limits the total removals of menhaden coastwide by all fishery participants, in contrast to the Bay Cap, which limits only reduction fishery landings in Chesapeake Bay. Additional reduction harvest can take place outside of Chesapeake Bay, and additional bait harvest can take place inside of Chesapeake Bay. Third, the Bay Cap management measures can only be revised through an addendum or amendment to the FMP, whereas the TAC can be set by the Board through specifications (i.e., a Board vote) on an annual or multi-year basis. The result is that the TAC has changed with greater frequency, and changes to TAC and Bay Cap that do co-occur have not always been in the same direction.

Consequently, the amount of the Bay Cap as a proportion of the total TAC is variable over time (Table 1).

Table 1. History of coastwide TACs and Bay Caps.

Year	TAC (mt)	Bay Cap (mt)	Bay Cap as Percent of TAC
2006	-	109,020	-
2007	-	109,020	-
2008	-	109,020	-
2009	-	109,020	-
2010	-	109,020	-
2011	-	109,020	-
2012	-	109,020	-
2013	170,800	87,216	51.06%
2014	170,800	87,216	51.06%
2015	187,880	87,216	46.42%
2016	187,880	87,216	46.42%
2017	200,000	87,216	43.61%
2018	216,000	51,000	23.61%
2019	216,000	51,000	23.61%
2020	216,000	51,000*	23.61%
2021	194,400	51,000	26.23%
2022	194,400	51,000	26.23%
2023	233,550	51,000	21.84%
2024	233,550	51,000	21.84%
2025	233,550	51,000	21.84%
2026	186,840	51,000	27.30%

*2020 Bay Cap was reduced from 51,000 mt due to 2019 overage.

2.2.3 Seasonality of Chesapeake Bay Reduction Fishery

By Virginia law, the Chesapeake Bay purse seine reduction fishery is permitted to begin on the first Monday in May and ends on the third Friday in November. However, realized effort is based on resource availability as informed by the use of spotter aircraft to locate schools of menhaden. Consequently, the onset and magnitude of effort by week of the year is variable across years (Figure 3) as is the trend in cumulative percent of annual landings (Figure 4). For example, 2018 saw heavier effort and a steeper rate of landings earlier in the season than the years following; whereas 2023 and 2024 experienced delayed season starts but higher mid-season rates of landing compared to the years prior.

Chesapeake Bay Menhaden Reduction Fishery

Weekly Effort (percent of annual net sets)

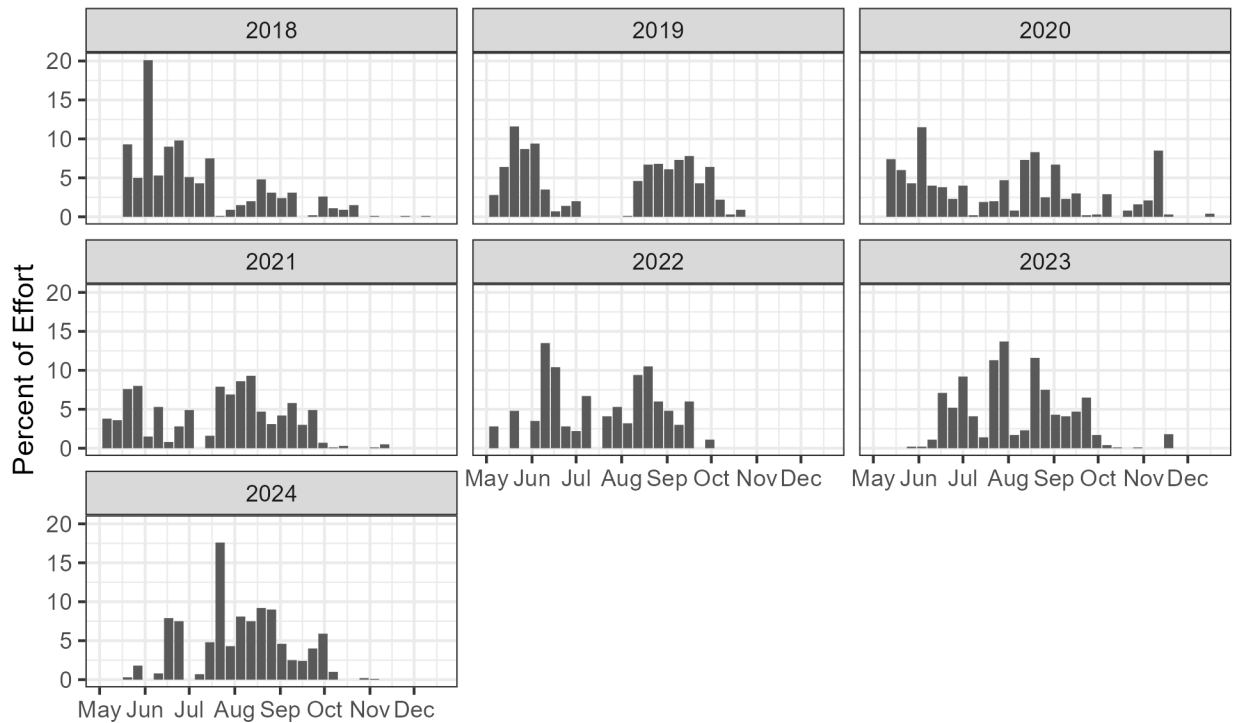


Figure 3. Percent of annual effort (number of net sets) by week for the menhaden purse seine reduction fishery in the Chesapeake Bay 2018-2024.

Chesapeake Bay Menhaden Reduction Fishery

Daily Cumulative Landings

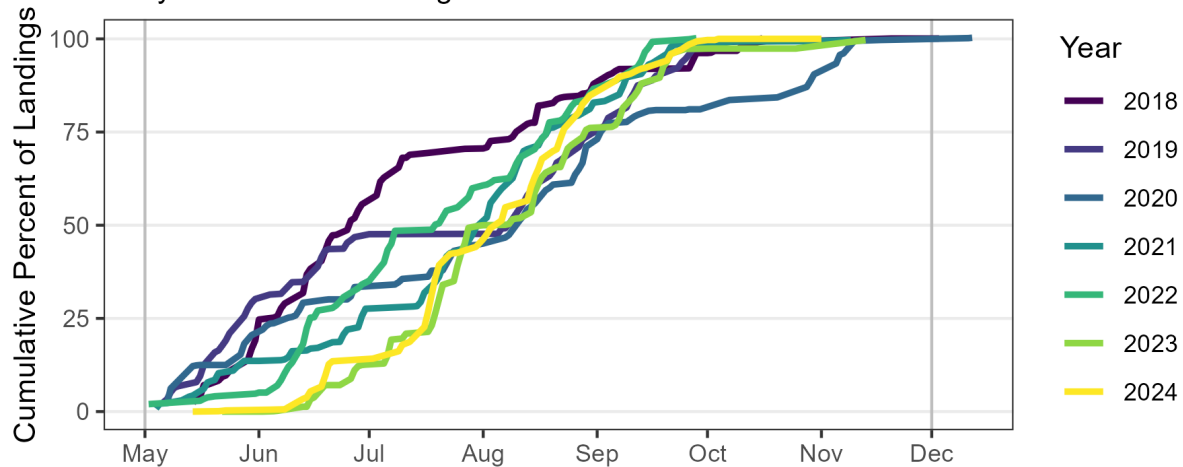


Figure 4. Cumulative percent of annual landings in the Chesapeake Bay menhaden reduction fishery 2018-2024.

2.2.4 Chesapeake Bay Pound Net Catch

The shift in Chesapeake Bay reduction fishery harvest later in the season in 2023 and 2024 corresponded with declines in Chesapeake Bay pound net fishery harvest (Figure 5), which typically peak during the summer months. For example, the Maryland Chesapeake Bay pound net harvest declined by 60% in 2024 from the 2018-2022 average. This co-occurrence raised concerns among Chesapeake Bay pound net harvesters, about a potential user group conflict with the reduction fishery and about an overall trend towards reduced menhaden presence, spatial distribution, and abundance within the Bay.

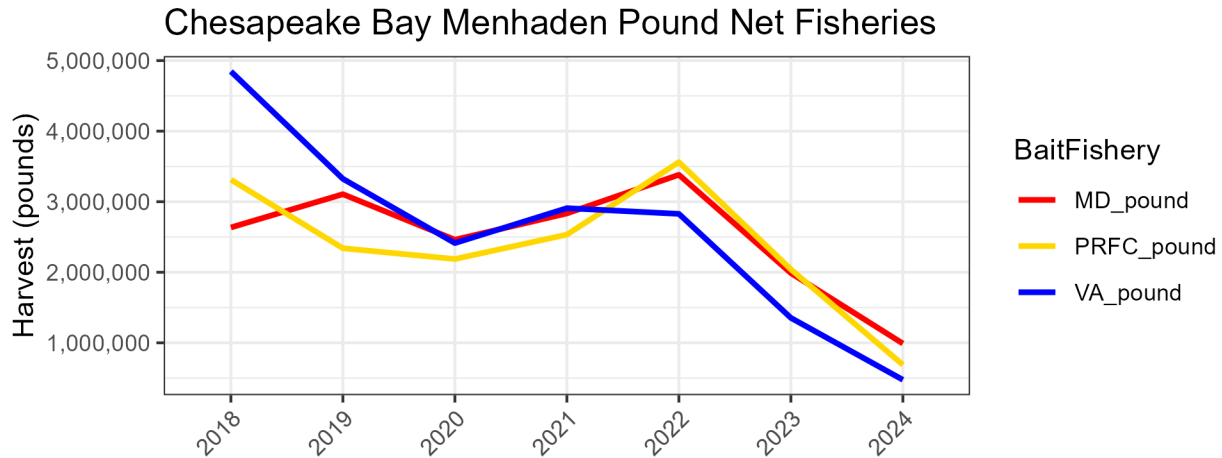


Figure 5. Total menhaden harvest in Maryland, PRFC, and Virginia pound net fisheries, 2018-2024.

The Plan Development Team (PDT) and Technical Committee (TC) investigated variability in fishery effort and/or menhaden availability as potential causes for the decline in pound net harvest. While true abundance (or availability) is not known, catch per unit effort (CPUE) can be used as a proxy if it is assumed there are no major changes to how the fishery operated between years.

Overall, the TC found notable declines in CPUE in the pound net fisheries of Maryland, Virginia, and PRFC in 2024 (Figure 6). As harvest declined, PRFC found a slight increasing trend in the time it takes to reach 50% of the annual cumulative harvest where 2024 was approximately 7 weeks later than the 2018-2023 average. PRFC and Maryland also discovered that the number of trips that caught 5,000 pounds or more of menhaden have declined to their lowest levels since 2018.

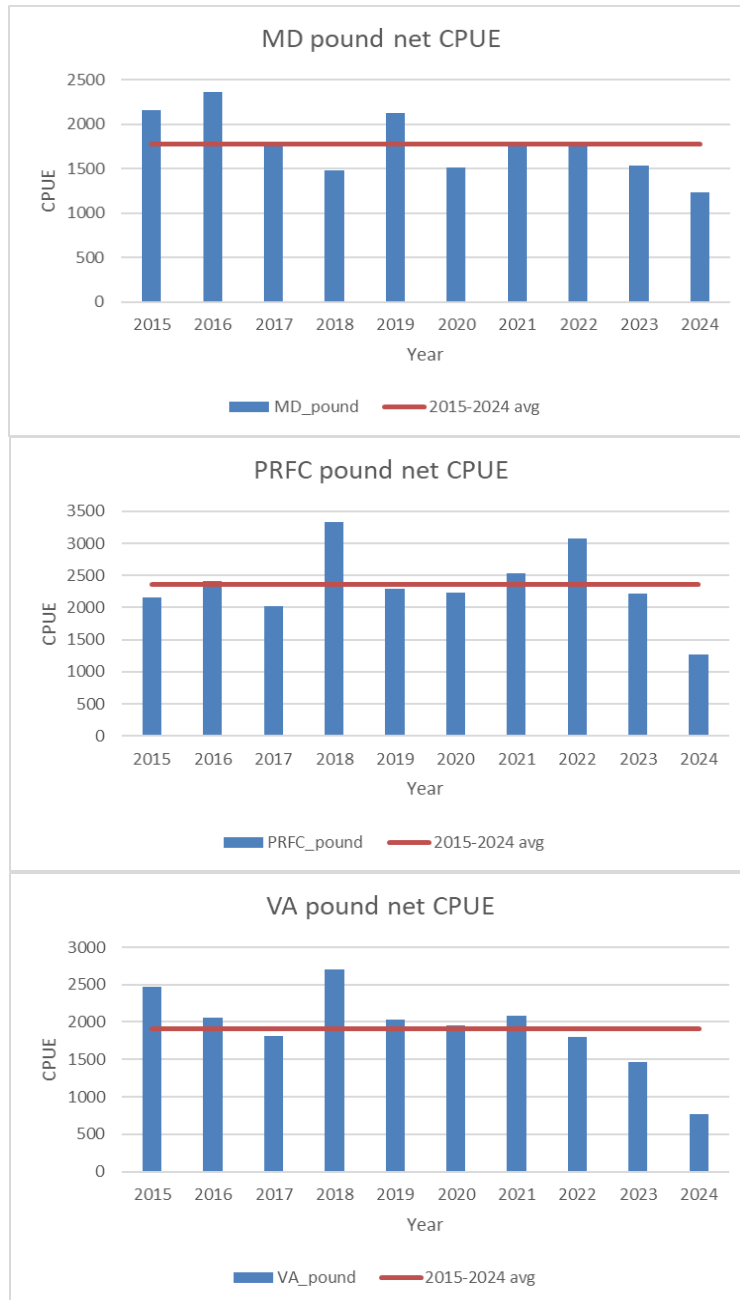


Figure 6. Annual menhaden Pound Net CPUE from Maryland, Potomac River, and Virginia. CPUE is in pounds per net day. Sources: Maryland DNR, PRFC, and VMRC.

Looking more closely at Maryland, during the second half of the year (weeks 27+), weekly CPUE in 2023 is generally equal to or greater than the 2018-2022 average (Figure 7), suggesting little influence of the reduction fishery on pound net catches. However, weekly pound net CPUE in 2024 shows a different pattern. Beginning in week 31 and continuing through the end of the year, CPUE in 2024 is generally below the 2018-2022 average (Figure 7). Just prior to this time period, the reduction fishery was experiencing higher than normal catch rates (Figure 8). The reduction fishery began in week 23, approximately five weeks later than 2018-2022, but by

week 33 had caught approximately 60% of the annual catch, which is in line with earlier years. It is possible that these higher than normal catch rates may have affected availability of fish in the upper bay, thereby affecting pound net catches. Although catch rates were higher than normal, total catch was equivalent among years. Any link between reduction harvest and availability in the upper bay would be a joint function of fishery dynamics and migratory patterns (*e.g.* timing and location) at a finer scale than could be considered in the PDT analysis.

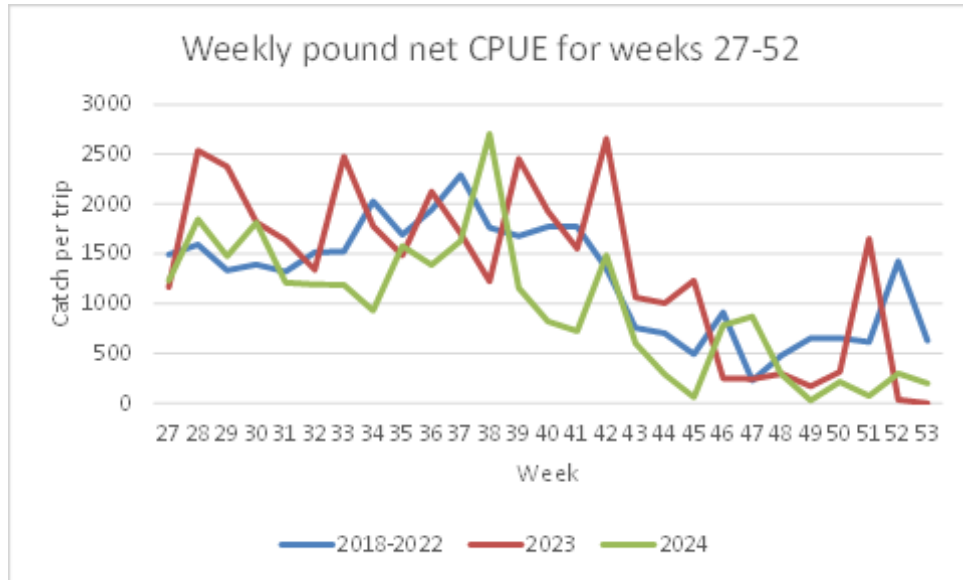


Figure 7. Weekly CPUE in MD pound net fishery for weeks 27-52.

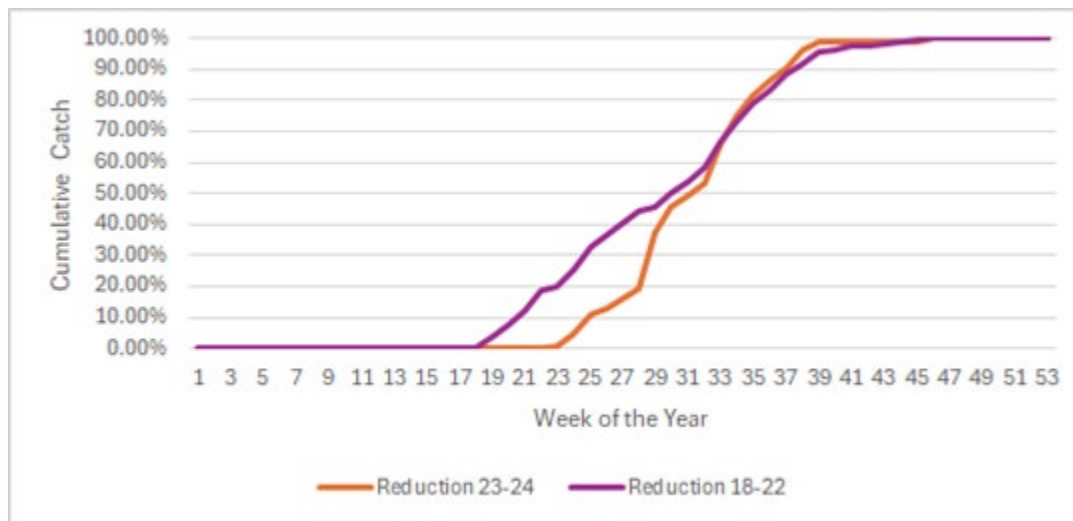


Figure 8. Timing of the Chesapeake Bay reduction fishery showing a delayed start with higher than average catch rates in weeks 23-33 in 2023-2024.

The PDT notes that the effort values used to calculate CPUE for all three pound net jurisdictions only includes nets catching menhaden. Menhaden account for a high proportion of some pound net harvesters' catch, which could lead to reduced effort if menhaden availability dropped to a

point where fishing was no longer profitable. Nets that remain profitable catching other species, but that no longer are catching menhaden would also not be included in the effort used in these calculations. These two factors could lead to more stability in the pound net CPUE as menhaden abundance declines, since only nets set in the best location to catch menhaden would be included in the effort used to calculate CPUE during a reduction in menhaden availability.

2.2.5 Chesapeake Bay Adult Fishery Independent Indices

The TC also looked at recent fishery independent indices included in the 2025 stock assessment for a trend in relative abundance, although noted that 2023 was the most recent year available in the assessment and that temporal and spatial differences between the surveys and fisheries make it difficult to compare the different trends.

For more recent data, the PDT reviewed the adult index from the fishery independent survey conducted in the Choptank River in Maryland (Figure 9). The survey has been conducted by Maryland DNR using gillnet gear during June-August since 2013. Between 2018 and 2023, the abundance appears to have been relatively stable with moderate interannual variability. In 2024, abundance dropped dramatically and remained low in 2025. While limited to a single tidal river system, the index does indicate lower relative abundance of adult Atlantic menhaden in 2024, as also indicated by the fishery dependent Pound Net CPUEs.

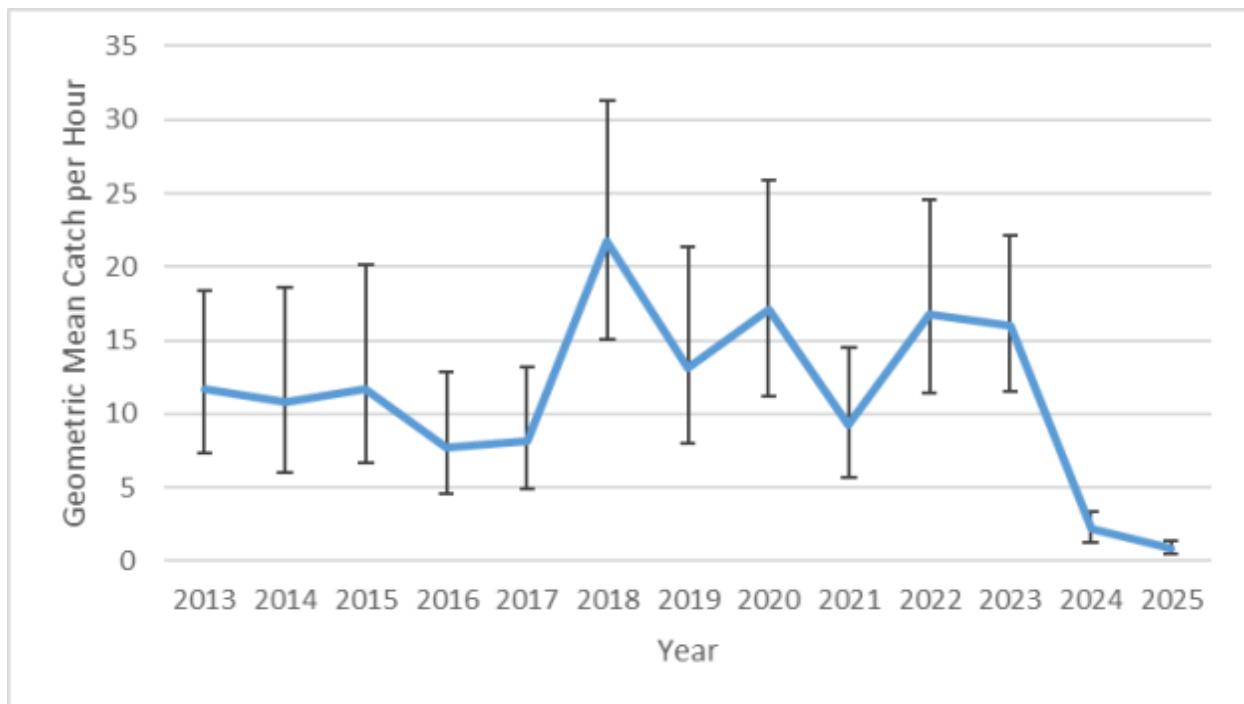


Figure 9. Maryland DNR Choptank River Gillnet Survey geometric mean catch per gill net hour and 95% confidence limits, 2013-2025.

2.3 Social and Economic Impacts

This Addendum includes measures that could influence the size of the Chesapeake Bay Reduction Fishery Cap and introduce quota periods to distribute removals more evenly over the course of the year. These measures may produce socioeconomic impacts to the commercial reduction fishery and dependent communities as they could limit harvest within the Chesapeake Bay and affect seasonal operations. Additionally, the measures are intended to provide increased ecosystem benefits through enhanced forage opportunities, which could impact individuals who derive value from species that prey upon menhaden.

Two prior socioeconomic studies on the commercial menhaden fisheries provide important context: Kirkely et al. (2011), who assess the economic importance of the reduction sector under alternative harvest scenarios in the Chesapeake Bay, and Whitehead and Harrison (2017), who conducted a socioeconomic study of the commercial bait and reduction fisheries to inform development of Amendment 3. Kirkley et al. (2011) estimated that the reduction sector supported approximately 519 full- and part-time jobs in Maryland and Virginia, including 347 in Northumberland County, Virginia, associated with total landings of about 141,000 metric tons, of which roughly 85,000 metric tons were harvested from the Chesapeake Bay. Under an extreme scenario in which no harvest was allowed in the Bay and effort could not be shifted to coastal waters, employment losses in Northumberland County were estimated at up to 176 jobs, including 98 direct losses in the reduction sector. The analysis also indicated that a reduction of 1,000 metric tons in Chesapeake Bay quota corresponded to an estimated loss of approximately \$630,000 in regional economic output (~\$940,000 in 2025) and 3.7 total jobs, including 2.1 direct jobs in the reduction sector. Whitehead and Harrison (2017) applied a similar modeling framework to evaluate economic impacts associated with coastwide quota changes and found a 6.45% increase in total quota (~12,100 metric tons) would result in combined impacts from the bait and reduction sectors of approximately \$6.3 million in economic output and 99 jobs, corresponding to about \$520,000 in regional economic output (~\$680,000 in 2025) and 8.2 jobs per 1,000 metric tons. Both studies use Leontief input-output models, which do not account for market adjustments or adaptive industry behavior and may overstate long-term employment effects of quota changes.

While neither Kirkley et al. (2011) nor Whitehead and Harrison (2017) explicitly evaluate seasonal harvest restrictions within Chesapeake Bay, both studies suggest that economic impacts are driven primarily by total landings rather than the timing of harvest. Evidence that effort and harvest respond flexibly to economic and regulatory conditions implies that seasonal limits may reallocate fishing activity across the season with limited overall economic impact, provided that total allowable harvest is not substantially reduced. However, impacts may arise if seasonal restrictions constrain periods of high catch efficiency or limit the ability of the reduction sector to maintain consistent processing throughput.

3. PROPOSED MANAGEMENT PROGRAM

This draft addendum considers modifying the Chesapeake Bay Reduction Fishery Cap component of the management program. The intent of the Bay Cap is to limit the amount of reduction fishery harvest that occurs in Chesapeake Bay, a critical nursery area for Atlantic menhaden. Harvest for reduction purposes shall be prohibited within Chesapeake Bay when 100% of the Bay Cap is harvested from Chesapeake Bay, which is defined as areas shoreward of the Chesapeake Bay Bridge Tunnel. Harvest above the Bay Cap in any given year will be deducted from the next year's Bay Cap. Furthermore, unused quota from a region or state cannot be transferred to the Bay Cap to reduce an overage. If the Bay Cap is underharvested, the un-landed fish under the Bay Cap cannot be rolled over into the subsequent year.

An objective is listed for each component to guide evaluation of proposed options in addressing the issues identified for each component in the statement of the problem. **When the Board takes final action on the addendum, there will be the opportunity to select any measure within the range of options that went out for public comment, including combining options across issues, unless otherwise specified.**

3.1 Chesapeake Bay Reduction Fishery Cap Amount

These options consider reducing the amount of the Chesapeake Bay Reduction Fishery Cap as a precautionary measure in response to concerns about reduced menhaden availability in Chesapeake Bay and consider changes to the manner in which the Bay Cap is set to be more responsive to changes in the TAC. Only one option among Option A, B, and C can be selected. In Options B and C, the Board may select any measure within the range of options. In Option C, a sub-option must be selected from both C1 and C2. Additionally, changes to the Bay Cap do not affect state allocations. Landings that apply to the Bay Cap also apply to Virginia's state allocation.

Option A. Status Quo. The Chesapeake Bay Reduction Fishery Cap is maintained at 51,000 mt. This value represents an approximation of the five-year average of reduction harvest from Chesapeake Bay between 2012 and 2016. An approximate value is used because reduction landings in Chesapeake Bay are confidential. Future changes to the Bay Cap may only be made through adaptive management (i.e., an amendment or addendum).

Option B. One-time Reduction in the Bay Cap. The Chesapeake Bay Reduction Fishery Cap is reduced by a percentage. The Board may select to phase-in the reduction over multiple years. Future changes to the Bay Cap may only be made through adaptive management (i.e., an amendment or addendum).

Sub Option B1: 10% reduction, resulting in a Bay Cap of 45,900 mt

Sub Option B2: 20% reduction, resulting in a Bay Cap of 40,800 mt

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Sub Option B3: 30% reduction, resulting in a Bay Cap of 35,700 mt

Sub Option B4: 50% reduction, resulting in a Bay Cap of 25,500 mt

Option B2 applies the same percent reduction to the Bay Cap as was adopted by the Atlantic Menhaden Board for the 2026 TAC. Option B1 applies a smaller percent reduction to the Bay Cap than adopted for the 2026 TAC while Options B3 and B4 apply greater percent reductions; this range accounts for uncertainty in how the abundance in the Chesapeake Bay correlates to abundance of the coastwide stock. The range of options also provides flexibility for the Board to adjust the Bay Cap in response to how it sets the TAC for the next two to three years, as is scheduled to occur at the November 2026 ASMFC Meeting before taking final action on this addendum.

Option C. Linking the Bay Cap to Coastwide TAC

The Chesapeake Bay Reduction Fishery Cap would be set as a proportion of the TAC. In addition, an upper and lower limit would control how low and high the Bay Cap could shift with changing TACs. Setting the Bay Cap as a proportion of the TAC means that any future change to the TAC is also applied to the Bay Cap as the same percent reduction or increase (unless restricted by an upper or lower limit), thus establishing a direct link between the Bay Cap and the TAC. Adaptive management would be required to modify or depart from the automatic Bay Cap setting process selected under this option.

The option considers a range of Bay Cap:TAC proportions, from the current (2026) proportion to the proportions that would result if the Bay Cap were reduced by 10 to 50% relative to the 2026 TAC (Table 2). This range effectively allows the Board to apply a reduction to the Bay Cap similar to that in Option B before locking in the proportion that would maintain the relationship between the Bay Cap and TAC moving forward. Table 2 provides the Bay Cap that would result in 2027 under a status quo TAC scenario; if the TAC were adjusted for 2027, the Bay Cap would change by the same percent (as the TAC from 2026) from the amount shown. For example, the proportion in Option C1c is the same as if the Bay Cap had been reduced by 20% with the 2026 TAC. For a full history of Bay Caps and TACs see Table 1 in Section 2.2.2. Option C also considers upper and lower limits for the Bay Cap (Table 3). The upper limit options range from the highest to the lowest Bay Cap implemented by management. The lower limits range from none to the lower 95% confidence interval of the mean harvest from 2012-2016. This time period is the one used to calculate the current Bay Cap and incorporates the variability around the harvest when the Bay Cap was set at a higher level than the current Bay Cap.

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Table 2. Sub-Options C1a-e for setting the Bay Cap as a Proportion of the TAC. Note: Proportions shown here are rounded for clarity; the Bay Cap would be based on unrounded values.

Option	Proportion	Basis	Cap in 2027 under status quo TAC (186,840 mt)
C1a	27.3%	2026 Bay Cap : 2026 TAC	51,000 mt
C1b	24.6%	10% reduction to 2026 Bay Cap : 2026 TAC	45,900 mt
C1c	21.8%	20% reduction to 2026 Bay Cap : 2026 TAC	40,800 mt
C1d	19.1%	30% reduction to 2026 Bay Cap : 2026 TAC	35,700 mt
C1e	13.6%	50% reduction to 2026 Bay Cap : 2026 TAC	25,500 mt

Table 3. Sub-Options C2a-e for setting an Upper and Lower limit for the Bay Cap.

Option	Upper Limit	Lower Limit	Basis
C2a.	51,000 mt	None	Upper: Current Bay Cap Lower: n/a
C2b	51,000 mt	25,500 mt	Upper: Current Bay Cap Lower: Maximum Reduction Under Consideration
C2c.	87,216 mt	None	Upper: Highest Cap since management with TAC Lower: n/a
C2d.	87,216 mt	25,500 mt	Upper: Highest Cap since management with TAC Lower: Maximum Reduction Under Consideration
C2e.	75,000 mt	29,000 mt	Upper/Lower: Approximate 95% confidence intervals around the approximate 2012-2016 mean Chesapeake Bay reduction harvest. Note: if Sub-Option C1e is selected, the lower limit for this option will be 25,500 mt.

3.2 Chesapeake Bay Cap Distribution

3.2.1. Quota Periods

These options consider dividing the Bay Cap into quota periods to moderate reduction fishery landings in the beginning and middle of the reduction fishery season as a precautionary measure to support the availability of menhaden to other fisheries and predators.

Option A. Status Quo

The Bay Cap remains an annual measure only with no division into quota periods.

Option B. Three Quota Periods

The Bay Cap would be divided into three quota periods defined by one of the sub-options in Table 4.

Table 4. Options to divide the Bay Cap into three quota periods. Note: Because the reduction fishery begins the first Monday in May and ends on the third Friday in November, depending on the year, the length of the fishing season is either 28 weeks and 5 days or 27 weeks and 5 days. The table outlines the length of each quota period for a season of 28 weeks and 5 days. For years with 27 weeks and 5 days, one week is removed from the final quota period. Example dates are given for 2027.

Option	Description	Length of Quota Periods	2027 Time of Year Example*	Percent of total Bay Cap
B1	Even Length & Even Harvest	9 weeks	May 3–Jul 4	33%
		10 weeks	Jul 5–Sep 12	33%
		9 weeks and 5 days	Sep 13–Nov 19	34%
B2	Even Length & Uneven Harvest	9 weeks	May 3–Jul 4	25%
		10 weeks	Jul 5–Sep 12	25%
		9 weeks and 5 days	Sep 13–Nov 19	50%
B3	Uneven Length & Even Harvest	11 weeks	May 3–Jul 18	33%
		6 weeks	Jul 19–Aug 29	33%
		11 weeks and 5 days	Aug 30–Nov 19	34%

Options B1 and B2 contain three quota periods of roughly equal length, with Option B1 intended to provide an equal distribution of harvest whereas Option B2 gives greater emphasis on delaying harvest until later in the season. Option B3 presents three periods of unequal length, with the extended first period intended to delay some reduction harvest until later in the year compared to recent performance and the short middle period intended to allow the fishery to continue to operate as it has been during what has been the peak period in recent years.

To help understand how Options B1-B3 may alter the reduction fishery's operation, Table 5 provides the 2018–2024 average percent of reduction fishery effort and landings that occurred

in the proposed quota periods. Furthermore, Figure 10 contrasts the options' projected reduction fishery cumulative harvest by week with the 2018–2024 average cumulative harvest by week for the reduction fishery and the Maryland, Virginia, and PRFC pound net fisheries.

Table 5. Approximate average percent purse seine reduction landings and effort in the Chesapeake Bay 2018-2024 corresponding to the quota periods as presented in Options B1-B3.

Option	Length of Quota Period	2027 Dates	Average % Landings (2018-2024)	Average % Effort (2018-2024)
B1/B2	9 weeks	May 3 - July 4	30%	39%
	10 weeks	July 5 - Sept 12	54%	48%
	9 weeks + 5 days	Sept 13 - Nov 19	16%	13%
B3	11 weeks	May 3 - July 18	38%	44%
	6 weeks	July 19 - Aug 29	36%	34%
	11 weeks + 5 days	Aug 30 - Nov 19	26%	22%

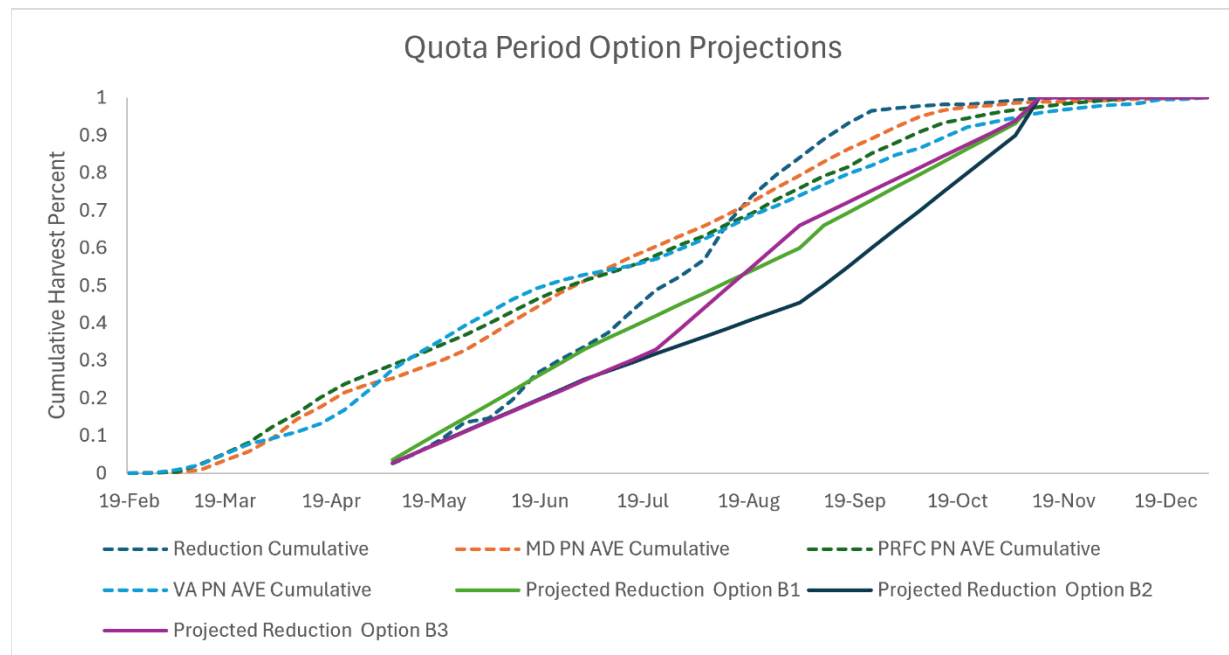


Figure 10. Historical average cumulative harvest by week (2018 - 2024) for the reduction fishery and the Maryland, Virginia, and PRFC pounds net, and a projection of the reduction fishery cumulative harvest under Options B1-B3.

3.2.2 Quota Period Overages and Underages

Note: This section is only required if Option B is selected above in section 3.2.1 to implement quota periods.

The following options outline how overages and underages within quota periods would be addressed. Without any overage payback provision, there would be little incentive for industry to abide by the in-year quota periods. Without any underage rollover provision, the quota periods may inhibit industry's ability to harvest the Bay Cap.

Option A. No payback for quota period overages with rollover of unused quota within a fishing year.

There would be no payback for exceeding the allocation of a quota period unless it causes the Bay Cap to be exceeded. An overage of the total Bay Cap would be deducted from the following year's total Bay Cap before it is allocated into the quota periods. Any underage of Quota Period 1 or 2 can be used in any subsequent quota period within the year.

Example: A three-quota period split was selected with allocations of 25%/25%/50%. The total Bay Cap is set at a fixed 20,000 pounds, resulting in period allocations of 5,000/5,000/10,000 pounds.

- If the fishery catches 7,000/3,000/10,000 pounds (i.e., a Period 1 overage with no Bay Cap overage), then the following year allocations will remain 5,000/5,000/10,000 pounds.
- If the fishery catches 7,000/5,000/10,000 pounds (i.e., a Period 1 overage and Bay Cap overage of 2,000 pounds), then the following year the Bay Cap would be reduced by 2,000 pounds and then allocated to the periods as 4,500/4,500/9,000 pounds.
- If the fishery catches 5,000/3,000/12,000 pounds (i.e., a Period 2 underage rolled into and harvested in Period 3 without exceeding the total Bay Cap), then the following year allocations will remain the same. A Period 2 underage could only be harvested in Period 3 whereas a Period 1 underage could be harvested in Period 2 and/or 3.

Option B. Quota period overage payback with rollover of unused quota within a fishing year.

Any underage of Quota Periods 1 or 2 would be rolled into Period 3 of the same fishing year. Any underage in Quota Period 3 would not be reallocated.

Quota Period 1 or 2 overages would be deducted from the same quota period in the following year and that poundage would be redistributed to Quota Period 3. If a Quota Period 1 or 2 overage also results in a Bay Cap overage, the Bay Cap overage would be accounted for prior to the Quota Period overage. A Quota Period 3 overage would always also result in a Bay Cap overage (due to the underage rollover provision); when this occurs, the Bay Cap overage would be deducted from the Bay Cap in the following year.

If an overage in Quota Period 1 or 2 cannot be paid back in full by the subsequent year's Quota Period allocation, the remainder of the overage will be subtracted from the next earliest quota period (if available). If that quota period allocation is insufficient, the remaining balance would be deducted from the subsequent quota period. Quota period overages that cannot be paid back in full by one quota period will be accounted for last should there be overages of multiple quota periods.

Underage Sub Option 1. Rather than an underage in Quota Period 1 being rolled over entirely to Quota Period 3, an underage in Quota Period 1 would be rolled over in equal halves to Quota Periods 2 and 3. (An underage in Quota Period 2 would still be rolled over entirely to Quota Period 3.)

Example: A three-quota period split was selected with allocations of 25%/25%/50%. The total Bay Cap is set at a fixed 20,000 pounds, resulting in period allocations of 5,000/5,000/10,000 pounds.

- If the fishery catches 7,000/3,000/10,000 pounds (i.e., a Period 1 overage with no Bay Cap overage), then the following year, Period 1 would be reduced by 2,000 pounds and Period 3 would be increased by 2,000 pounds, resulting in allocations of 3,000/5,000/12,000 pounds.
- If the fishery catches 5,000/3,000/12,000 pounds (i.e., a Period 3 overage with no Bay Cap overage), then the allocations remain unchanged the following year at 5,000/5,000/10,000 pounds.
- If the fishery catches 7,000/5,000/10,000 pounds (i.e., a Period 1 overage and Bay Cap overage of 2,000 pounds), then the following year the Bay Cap would be reduced by 2,000 pounds resulting in baseline period allocations of 4,500/4,500/9,000 pounds. Then, the Period 1 overage would be deducted from Period 1 and redistributed to Period 3, resulting in final period allocations of 2,500/4,500/11,000 pounds.
- If the fishery catches 5,000/5,000/12,000 pounds (i.e., a Period 3 overage and Bay Cap overage), then the following year the Bay Cap would be reduced by 2,000 pounds resulting in baseline and final period allocations of 4,500/4,500/9,000 pounds.
- If the fishery catches 1,000/12,000/7,000 pounds (i.e., a Period 2 overage of 7,000 pounds that cannot be paid back in full by Period 2 the following year and no Bay Cap overage), then the following year Period 2 would be set at zero, 2,000 pounds would be deducted from Period 1, and 7,000 pounds would be redistributed to Period 3, resulting in period allocations of 3,000/0/17,000 pounds.
- If the fishery catches 3,000 pounds in Period 1, the 2,000-pound underage is applied entirely to Period 3 that year resulting in Period 2 and 3 allocations of 5,000 and 12,000 pounds, unless Underage Sub-option 1 is selected in which case the 2,000-pound Period 1 underage is applied in equal amounts to Periods 2 and 3 that year resulting in Period 2 and 3 allocations of 6,000 and 11,000 pounds.
- If the fishery catches 6,000/12,000/2,000 pounds (i.e. a Period 1 overage of 1,000 pounds and a Period 2 overage of 7,000 pounds that cannot be paid back in full by

Period 2 the following year and no Bay Cap overage), then the following year Period 1 would first be reduced to 4,000 pounds, then the Period 2 overage would be applied to set Period 2 to zero, the remaining 2,000 pounds would be deducted from Period 1, and 8,000 pounds would be redistributed to Period 3, resulting in allocations of 2,000/0/18,000 pounds.

3.3 Chesapeake Bay Reduction Fishery Cap Revisit Provision

These options consider setting a timeframe for the Board to revisit the Chesapeake Bay Reduction Fishery Cap periodically due to the uncertainty of menhaden's status in the Bay and ongoing work to develop a scientifically-based Bay Cap. Revisiting the Bay Cap does not require the Board to initiate an action to consider changes to the Bay Cap. In either option, the Bay Cap can be reconsidered at any time through the adaptive management process (i.e., an addendum or amendment). A similar revisit provision exists for the quota allocations (every three years).

Option A. Status Quo. There is no set timeframe for the Board to revisit the Bay Cap.

Option B. Revisit Provision. The Chesapeake Bay Cap will be revisited every three years following implementation of this draft addendum.

4. COMPLIANCE SCHEDULE

The Atlantic Menhaden Management Board would need to determine a compliance schedule when considering approval of the draft Addendum.

5. LITERATURE CITED

ASMFC. 2006. Addendum II to Amendment 1 to the Atlantic Menhaden Fishery Management Plan. ASMFC, Arlington, Virginia 31 p.

ASMFC. 2006. Addendum III to Amendment 1 to the Atlantic Menhaden Fishery Management Plan. ASMFC, Arlington, Virginia 6p.

ASMFC. 2009. Addendum IV to Amendment 1 to the Atlantic Menhaden Fishery Management Plan. ASMFC, Arlington, Virginia 5 p.

ASMFC. 2012. Amendment 2 to the Atlantic Menhaden Fishery Management Plan. ASMFC, Arlington, Virginia 114 p.

ASMFC. 2017. Amendment 3 to the Atlantic Menhaden Fishery Management Plan. ASMFC, Arlington, Virginia 111 p.

ASMFC. 2025. Work Group Report on Precautionary Management in Chesapeake Bay. ASMFC, Arlington, Virginia. 59 p.

James Boyle

From: Mary Bates <doctor.maryb@gmail.com>
Sent: Monday, July 27, 2026 9:15 PM
To: James Boyle
Subject: [New] [External] Public Input: Atlantic Menhaden Draft Addendum II

Dear Mr. Boyle,

Thank you for reading my email and for your work to manage our fisheries.

I am writing in support of a 50% reduction of the cap on the industrial harvest of Menhaden in the Chesapeake Bay. I have read about the decline of ospreys and am concerned. The improvement in the amount and variety of wildlife during my lifetime has been incredibly heartening. I hope we do not lose the progress we have made in the past decades by grasping for quick profits.

Thank you for your consideration and thank you for remembering the osprey and other animals that do not know how to use a keyboard.

Mary Braun, MD

Nottingham, NH

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James Boyle

To: Info (ASMFC)
Subject: RE: [New] [External] New website contact submission from Contact Us

From: info@asmfc.org <info@asmfc.org>
Sent: Wednesday, July 22, 2026 9:14 AM
To: Info (ASMFC) <info@ASMFC.ORG>
Subject: [New] [External] New website contact submission from Contact Us

Name

Monica Clark-McGrew

Email

mcgrewclark@gmail.com

Get in Touch

What is being done to ensure the menhaden supply is sufficient to support the Osprey? There is a sharp decline in the Osprey population here on Eastern Shore, even in Stevensville. Apparently not enough menhaden are available to feed the chick's. Please voluntarily reduce industrial fishing to allow the ecosystem to survive.

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James Boyle

From: James Freitas <james.amfreitas@gmail.com>
Sent: Monday, July 27, 2026 8:38 PM
To: James Boyle
Subject: [New] [External] Public Input: Atlantic Menhaden Draft Addendum II

Dear Mr. Boyle and Members of the Atlantic Menhaden Management Board:

As someone who values the health of the Chesapeake Bay, I am writing to speak on behalf of the wildlife that relies on a thriving marine ecosystem—most notably, the Osprey.

This signature raptor of the region, the Fish Hawk, needs menhaden to feed its chicks. Colonial Beach in Virginia, North Beach in Maryland, Sandy Point too—none would be the same without the Fish Hawk, and the Fish Hawk requires fish.

These birds are emblems of the Bay. We need to think of what they need, not just what we do. This juncture calls for, as the prophetic poet Robinson Jeffers put it: “a shifting of emphasis from man to not man; the rejection of human solipsism” and acknowledgement that sometimes we must put a bird's needs before our own. We already almost lost the Osprey to DDT. Putting our needs second got it back, and now we have to do the same thing. We can't take the cosmopolitan raptor for granted.

Supreme Court Justice William O. Douglas wrote, decades ago, that people who have spent enough time learning a place “to know its values and wonders will be able to speak for the entire ecological community.” I, and others, speak for the Osprey.

To prevent localized depletion and protect the foundation of the Bay's ecosystem, I strongly urge the Board to support a 50% reduction cap on industrial menhaden harvest in the Chesapeake Bay under Draft Addendum II.

Our wildlife cannot advocate for itself. I ask that you advocate for it. Please prioritize ecological balance and pass this 50% cap.

Thank you for your time, leadership, and consideration.

Sincerely,

James Freitas

--

James Freitas

james-freitas.com

[Linkedin](#) | [Rock & Hawk](#)

(617) 791-7927

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

From: [Logan](#)
To: [Info \(ASMFC\)](#)
Subject: [New] [External] Concern Over Industrial Reduction Fishing in the Chesapeake Bay
Date: Saturday, July 25, 2026 1:46:28 AM

Dear Members of the Atlantic States Marine Fisheries Commission,

I am writing as a concerned citizen and supporter of the Chesapeake Bay and its vital ecosystem. I am deeply troubled by the continued practice of industrial reduction fishing for Atlantic menhaden within the Bay. This large-scale harvest removes a crucial food source for many species, including ospreys, striped bass, and other marine life that depend on menhaden for survival.

The Chesapeake Bay is already under significant environmental stress from pollution, habitat loss, and climate change. Allowing concentrated industrial fishing in these sensitive waters places additional pressure on the entire ecosystem.

I respectfully urge you to support stronger protections for menhaden and to limit or relocate industrial reduction fishing operations outside of the Chesapeake Bay. Doing so would help restore ecological balance, support the recovery of native species, and sustain the economic and recreational benefits that a healthy Bay provides.

Until a study of menhaden stock can be completed in the Bay, a pause in industrial fishing would seem a viable short-term solution.

Thank you for your attention to this important issue and for working to protect the natural heritage of the Chesapeake Bay for future generations.

Sincerely,
Logan William Garner
4919 Cherokee Hills Drive
Salem, Virginia, 24153
Logan.Garner.Civic@gmail.com

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James Boyle

From: kim@thelibertyfootnote.com
Sent: Monday, July 27, 2026 10:54 PM
To: James Boyle
Subject: [New] [External] Public Input: Atlantic Menhaden Draft Addendum II

Dear James Boyle and Atlantic Menhaden Management Board,

I am a concerned citizen writing in response to online petitions and requests for comment regarding the dwindling Osprey population in the Chesapeake Bay. I support a 50% reduction in the Bay's industrial menhaden harvest to preserve the Osprey and restore balance to the local ecosystem.

I also support and encourage your organization initiating or partnering with a neighboring organization to research the effect of this practice not only on the Bay's Osprey, but also on the nearby Potomac River Osprey. If you are aware of how to do this, or if you know it is currently being investigated, I would appreciate being pointed in the right direction so I can offer my comment and support there as well.

Please feel free to reach out if I can assist as a citizen in any further way.

Sincerely,
Kim

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From: [ASMFC](#)
To: [Comments](#)
Subject: [New] [External] New public comment for 2026 Summer Meeting
Date: Wednesday, July 29, 2026 6:39:09 AM

2026 Summer Meeting

Action Title

2026 Summer Meeting

Action URL

<https://asmfc.org/events/2026-summer-meeting/>

Name

Bruce Kindseth

Email

bkindseth@cox.net

State

Rhode Island

Comment

Good morning,

Summary:

The Atlantic ecosystem is very complicated, so it is best to start with a summary of the high points of this email.

Under 50 years of NOAA management, the production from the Atlantic fishery, once one of the most productive fisheries in the world, has shrunk by about 90%, and continues to shrink, (LINK) and now the US imports over 70% of its seafood. But this is not about finding someone to blame. We want to look at the bright side. There is a potential for a 10-fold increase in production if we just fix the problem, and we need strong support from everyone to get it done.

The solution is biology, and the importance of lipids and nutrition. Lipids are fats, oils and waxes found in certain fish, including menhaden, mackerel, Atlantic and river herring and capelin. These high lipid fish contain twice as many calories of other forage such as invertebrates, crustaceans and juveniles of other fish. With a diet of high lipid forage, a fish will show better growth, produce more eggs per individual and per pound of weight. (LINK) The eggs will be larger and contain more lipids, which will lead to healthier larvae and juveniles, and the juveniles will have a better chance of surviving to adulthood. (LINK) (LINK) (LINK) In addition, a healthy population is better able to tolerate warming waters. (LINK) This is basic biology taught in colleges and utilized by the aquaculture industry to develop feeds for their fish farms, but not by NOAA. Key sources of lipids, Atlantic menhaden and mackerel, continued to be harvested as their populations declined right up until the mid 2020's when the mackerel population had dropped to 9% of its historical population and Atlantic herring to 5%. (LINK) (LINK)

The main purpose of this email is to make people aware of this science, so please help us get it out before it's too late.

Lipids, in the form of fish oil, have been produced from menhaden in reduction factories since the mid-1800's as a replacement for whale oil. Now, about 186,840 metric tons of menhaden are harvested each year and the majority of that goes to the reduction factory to produce fish oil and fish meal, which in turn is used to produce feed for the aquaculture industry for fish farms all over the world.

But, there is a light at the end of tunnel, we just provide the fish in fish farms a vegetarian diet. The

aquaculture industry has found ways to obtain lipids from algae grown in ponds and to produce lipids from genetically modified canola and soybeans. (Lipids are a broad term, a sub-group is called polyunsaturated fatty acids (PUFA) and within them is a group called Omega 3 fatty acids.) There will be an opportunity to make a big step towards fixing this problem this November at the ASMFC Menhaden board meeting. A proposal was submitted in the public comments at last October's meeting by Paul Eidman to set the menhaden TAC (Total Annual Catch) at 75,616 metric tons with 100% allocated to the bait industry, 0% for the reduction industry and ban harvesting of menhaden for reduction purposes. This will be a giant step towards rebuilding the Atlantic fishery as it will allow over 110,000 metric tons of menhaden to remain in the water to lead the rebuilding. This number will grow every year. This will also provide the aquaculture industry with an incentive to ramp up their efforts to develop vegetarian fish feed.

Finally, I have a website, <https://nraf2076.org/>, that discusses these matters. I have been using Grok AI to do my research, and I am buried in information. I am in the process of storing all the questions and answers in a Grok Library which is a part of my website. I am encouraging others to try AI, it's amazing how much information that you can find.

Discussion:

A very long time ago, like over 500 million years ago, most of the carbon that is now in coal, oil and other fossil fuels was in the earth's atmosphere in the form of carbon dioxide. Around 530 million years ago, in a miracle of evolution, leafy plants with chlorophyll appeared. Chlorophyll has the ability, using energy from the sun, to convert CO₂ and water into carbohydrates, proteins and fats. Since there was an abundance of CO₂ and the earth's temperature was about 5 degrees warmer at that time, the growth of plants exploded, leading to the evolution of plant consuming life and then carnivorous life.

Food has been the driving force of life on earth for over 500 million years. Growing up on a farm, I was aware of the importance of food. When I first got involved with fishery issues, I couldn't believe how food issues were almost completely ignored. The first place that I saw food mentioned was in the ASMFC's document, Guide to Fisheries Science and Stock Assessments (LINK). This shows a Beverton-Holt model, which is a graph of fish recruitment vs stock size. This is a classic Law of Diminishing Returns relationship, in which the rate of increase in recruitment declines as the stock size increases. The driving factor that causes the decline is the carrying capacity of the ecosystem, and the primary factor in the ecosystem is food. The Beverton-Holt model, published in 1957, is the underlying basis in stock assessment models to determine optimum yield. (LINK)

Around 1980, the Atlantic herring population collapsed. In the 1990's the Cod population and capelin populations also collapsed, and menhaden disappeared from the Gulf of Maine. Along the way, the river herring and mackerel populations also collapsed. In a recent stock assessment, it was found that cod are low in weight and length at age, have low fecundity and low recruitment. In addition, the population has become truncated, with less older fish. On top of that, cod are affected by climate change, which raises their metabolism. This sounds like a hopeless case.

I have been using Grok AI recently and when I asked, "Atlantic cod fish, according to the NEFSC status of the ecosystem report, show low weight at age, low length at age, low fecundity and low recruitment. What could be the cause of that?" The response (LINK) was primarily from NOAA sources and this was what they were focused on: 1. Sea surface and bottom temperature anomalies, 2. Gulf Stream Index, 3. Zooplankton abundance anomalies for *Calanus finmarchicus* and *Pseudocalanus* spp, 4. Mean cumulative marine heatwave index, 5. Ecosystem and Socioeconomic Profile (PDF, 30 pages), 6. Environmental Influences on Stock Dynamics (PDF, 33 pages), 7. Development of Ecosystem Indicators (PDF, 21 pages), and 8. Summary Peer Review Report (PDF, 45 pages)"

I find this information upsetting. The whole issue of food and nutrition and fish biology is being ignored, and the focus is on climate. Warming waters increase a fish's metabolism, which means the fish is burning more energy, so its nutritional needs are increased. Both issues result in a nutrition issue, and to me it appears that the diet-related issue has been proven to be the underlying issue while the climate-related issue is a moot issue. What is going to happen is going to happen, and there's not much we can do about it. Some species. Like cod, may move further north, but will be replaced with more southern species. With the incorporation of the Paul Eidman solution, the entire fishery will improve, and there is a real possibility that a healthy cod population will be able to tolerate warmer waters. (LINK) The striped bass population is sure to rebuild, as will the recreational fishery, and the resulting economic impact will dwarf the loss from the menhaden fishery.

MSA requires that the best available science be used. Biology is a science and is being totally ignored. There is one biological factor that ties all the things that I mentioned above together. Low weight at age

and length at age is obviously poor nutrition, so let's look at the food supply. Atlantic herring, river herring, capelin, mackerel and menhaden are much more than just baitfish. These fish have one thing in common, they are high in lipids, which are fats, oils and waxes, which makes them very nutritious. They have about twice as many calories per pound as the other available forage, and without them, the forage is basically junk food, unable to sustain the fishery. One study (LINK), found that in 1965, a large cod's diet could contain as much as 70% Atlantic herring. Historically, The striped bass diet was about 60% menhaden. To be healthy, a fishery must have an abundance of high energy forage fish, which includes all of the 5 mentioned above. Currently, the combined populations of the 5 high-lipid forage fish are around 16% of historical highs.

In addition to improving the growth rate of fish, an abundance of high calorie food will increase the number of eggs laid per fish and per pound of the fish's weight, the eggs will be larger and contain more lipids leading to healthier larvae and juveniles with a greater chance of surviving to adulthood. The increased metabolism from warmer waters increases the fish's need for more food, so an abundance of nutrients will also make the fish more able to satisfy that need and tolerate the warmer water. In addition, a large healthy population will have a greater probability of genetic adaptation over time to warmer waters. Finally, spawning takes a lot of energy, and they need high calorie fish. The current lack of high calorie forage makes it difficult to survive and leads to the decrease of older fish. This is important because the older fish can lay more eggs, and some, like cod can lay 6 million to 9 million eggs each year.

Most of the biological science that I found in the above 2 paragraphs did not come from NOAA Fisheries, but from the private sector - the aquaculture industry. This led me to believe that Grok had uncovered some science that was not known to the scientists in NOAA fisheries. However, a fisheries biologist confirmed that this information is taught to fishery biologists and is pretty basic science.

The NEFSC annually puts out a State of the Ecosystem Report for New England and Mid-Atlantic regions. In it are graphs of forage index of available biomass and a chart of energy density of a few forage species. The forage index shows that the forage biomass has been relatively constant since the 1980's, but that is meaningless as the collapse of the Atlantic herring bottomed in 1980. I searched using AI and could not find any case where the energy density was combined with the forage biomass to get the energy density of the forage biomass. In fact, AI could not find any place where this information was used for anything else than data for their population assessment models.

A study (LINK) done in 2007 is very interesting. The Gulf of Maine is deeper and cooler, and the forage is low to medium quality. George's Bank is shallower, warmer (near the upper limit of cod than GB. For GB, the study found that the fish consumed more food, their efficiency was lower, but their productivity was higher than the GOM. This suggests that with a better food supply the GB cod population can tolerate the warming waters or may have even adapted to the warmer waters.

Cod are probably the worst-case scenario in the Atlantic fishery as the GOM and GB populations are on the southern edge of their range. Other species may not be as bad off as cod, but if we continue on the current path, more will be. We may not be able to save the cod from moving north, but it doesn't cost us anything to set high goals. With the Paul Eidman solution, there is a 100% probability that it will lead to major growth in the fishery populations. It's simple thermodynamics, the energy from 110,000 metric tons of menhaden has to go somewhere. We might not meet the 10-fold increase in fishery production, but 8-fold would be much better than where we are now.

Nearly 50% of the US produced menhaden products are exported, primarily for feed for the aquaculture industry. These products are exported to China, Norway, Canada, Saudi Arabia, Japan and Taiwan. The aquaculture industry has seen a decline in the menhaden fishery and has been working to find alternatives to fish meal and fish oil. Forage fish do not create lipids in their bodies. Algae creates the lipids and when fish consume the algae, they store lipids in their tissues. One species of algae that is a high producer of lipids is *nannochloropsis oculata*, and related *Nannochloropsis* species. These are cultivated (farm-raised) in controlled systems and used for production of PUFA (poly unsaturated fatty acids-a sub-group of lipids) that can be used in farmed fish feeds. Genetically modified soybeans and canola plants have been developed that can produce soybean oil and canola oil containing PUFA.

NOAA's aquaculture division has gotten involved with the aquaculture industry to support this effort. This is big, as aquaculture is rapidly expanding, and has seen a rapid increase in prices of menhaden oil and fish meal. Companies in Denmark, Netherlands, US, China, Scotland and Australia are now producing PUFA and feed for the Aquaculture that is competitive with menhaden-based fish feed. What we need is an incentive for the aquaculture industry to eliminate fish-based feed and convert to PUFA sourced from farm-raised algae and high-PUFA soybeans and canola. The Paul Eidman solution to set the 2027 TAC

for menhaden at 75,616 MT with 100% allocated to the bait fishery and ban the harvesting of menhaden for reduction purposes is the perfect solution for the fishery, but in addition, it would provide incentive for developing alternatives. The aquaculture industry would be highly motivated to switch to an alternate source of PUFA for their feed.

Now that we know the importance of high-lipid forage fish, Atlantic and river herring, menhaden, mackerel, and capelin, to the Atlantic fishery the solution is obvious, restore their populations to their former level of abundance. This is necessary because fish are opportunistic feeders, currently there is an abundance of junk food and fish will fill up on junk food and will not get the calories that they need. There is an interesting article in *The Fisherman* ([link](#)) where a review of feeding studies found that for striped bass "their diet is comprised of over 65 species of fish and more than 45 invertebrates". When there was an abundance of menhaden, they would comprise 60% of a striped bass diet. When there was an abundance of herring, they could comprise up to 70% of a large cod's diet. There must be an abundance of high lipid forage fish for the predatory fish, who are opportunistic feeders, to randomly fill up on the needed nutrients instead of junk food. When they are full, they stop feeding, even if the junk food that they filled up on does not have the necessary nutrition to sustain them.

Since the collapse of the herring population around 1980, 45 years ago, the Atlantic fishery has been dysfunctional because the forage base was missing the lipids that are essential to the marine ecosystem, while at the same time there was an abundance of low calorie junk food. As a result, the fish would fill up on junk food, and would not get the energy to sustain the fishery. Because of this disfunction in the fishery, the models were useless in maintaining a sustainable fishery, and no one recognized the problem. The process was even peer-reviewed and approved. Ecological reference points were used with menhaden to account for their role as a forage fish, and the catch was reduced by 10%. The catch of Atlantic herring was reduced by 20% to account for their role as a forage fish. These were doomed to failure because there was such a large abundance of junk food available that the target fish didn't get the nutrition they needed. In 45 years, no one recognized that they were trying to work with a dysfunctional fishery ecosystem. In the words of Casey Stengel, "Doesn't anybody here know how to play this game?" Well, maybe somebody does. In a paper, Willis et al, 2013, "Tracking cod diet preference over a century in the northern Gulf of Maine: historic data and modern analysis" ([link](#)), the final paragraph says it all. "Historical data provide insights into the structure and function of ecosystems that, today, are impaired in their function. The results from our analysis comparing modern survey data with data from 1896 and 1965 point to significant, long-term changes in the coastal GOM marine food web with important implications for the recovery of cod and other groundfish, and the resilience of an ecosystem now dominated by invertebrates. Restoring alewives, menhaden, and Atlantic herring may be essential in bringing back coastal cod populations and rebuilding complexity in an impoverished ecosystem. Finally, this historical perspective challenges notions of sustainability by reminding us what a truly productive, diverse, and resilient ecosystem looked like and how the public perspective has drifted to accept remnant populations as the new normal."

Our goal should be to work towards, in the words of the Willis et al paper, "a truly productive, diverse, and resilient ecosystem". It is unbelievable that the Atlantic Fishery, for 100's of years one of the most productive fisheries in the world, is now producing at historical low levels, while our country has to import over 70% of its seafood. Since this is our country's 250th anniversary, it is only fitting that we set a goal for our tricentennial year to 'Rebuild our Atlantic Fishery to its Historic Population Levels.' This can be accomplished by restoring the foundation of the food web, the forage fish. The biggest contribution to this effort will be the Paul Eidman solution mentioned above, to set the ASMFC 2027 menhaden TAC at 75,616 MT, with 100% allocated to the bait fishery, 0% for the reduction fishery, and ban harvesting of menhaden for reduction purposes. We have work in process to rebuild the river herring & shad fishery using time and area closures in the Atlantic herring fishery to reduce rh/s bycatch. A similar thing needs to be done in the mackerel fishery. Something like the Paul Eidman solution should be applied to the Atlantic herring and mackerel fishery to aid in rebuilding their populations. This is where everybody, including NOAA, USF&W (anadromous fish), the 3 Atlantic Councils, the ASMFC, and even the department of Agriculture (vegetarian feed for aquaculture), need to get involved.

Going forward, the only management metric should be continuous growth, until the maximum population level that can be sustained by the Atlantic fishery can be determined. By that time, and after studying 50 +/- years of real fish biology and population dynamics, implementing a successful method of managing the fishery should be a piece of cake.

From: [Tom Lilly](#)
To: [James Boyle](#); [Tina Berger](#)
Cc: [Allison Colden](#); [Mike Luisi](#); [Russel Dize](#)
Subject: [External] Chesapeake bay's ecological disaster you can start to correct at your meeting, or not.
Date: Monday, July 27, 2026 9:38:01 AM

James and Tina Please put this correspondence in the materials for the menhaden board's meeting and let me know that you received it. Thanks, Tom.

To the menhaden board

If you are interested, I can give you an update on our Chesapeake Bay ecological disaster that we hope you will begin to reverse by taking meaningful action at your meeting.

Yesterday my grandson , an experienced fisherman , spent the day live lining spot at the Annapolis Bay Bridge . They caught a total of three skates.. no striped bass. Almost no boats fishing where there used to be hundreds.

Also, yesterday I was fishing with friends at the south end of our bay . We left Crisfield Maryland around 7:30 am and spent eight hours fishing the areas which were once productive in the Crisfield area and then traveled through Smith Island and then to the sunken wreck about a mile south of Tangier, Island, Virginia, and from there back to Crisfield. We had a near perfect bait supply with soft crabs, peelers, and fiddler crabs. Our entire days catch consisted of three skates, the same bad experience my grandson had fishing the Chesapeake Bay Bridge with almost 90 miles of bay between us. We did not see one school of bait or observe any birds working in the entire lower Maryland and Virginia bay area. We saw only one boat fishing and no head boats or charter boats. Period. As I have told you many times over the last eight years, our charter boat fishing on the lower shore out of Wenona and Crisfield has gone about 30 to 2 boats that are active now and they are trying to keep their clients happy catching 8 inch hardheads and a few catfish. There are still a few guides, but they are returning to the dock empty on most days and even their best long-term clients have lost interest.

So this is the situation you have created over the last 20 years where you have allowed probably 98% of the menhaden forage supply Chesapeake Bay to be taken from our wildlife and given to a foreign owned fishing company whose economic activity probably equals a fraction of 1% of the economic activity that has been destroyed. The social effect of that company is probably less than 500 people while the pleasure of Chesapeake Bay has been taken away for millions and tens of thousands of businesses and American jobs impacted as "collateral damage". For at least 10 years there has been peer reviewed scientific research from William and Mary, proving beyond any scientific doubt that the lack of food is causing the starvation death of thousands of ospreys on the bay each year, ospreys that are your ERP indicator of the harvest. I could not imagine anything crueller than that but it goes on and on! The daily catch reports summarizing the activity of the reduction fishery on the little fish big deal site on Facebook are showing that they are zooming in on the very few schools left in Chesapeake Bay on a daily basis. Probably catching every one of them. Have you ever heard the term "willful blindness"? What do you think that means?

The report from your former protective options work group, and the osprey subgroup showed the best option for reversing this situation is to close the reduction fishery in May and June, so the few schools migrating in can be saved for our wildlife. When the time to act on that at the board level came almost a year ago, you once again failed to act to the dismay of those who care about this situation. It will do little or no good to reduce the bay cap to even 10 or 15,000 tons unless you prevent them from catching the fish in May and June when they are needed the most and do something to prevent them from catching the breeding stock exiting the bay in the fall.

Therefore, we are hopeful that you will seize this opportunity and close all purse seine fishing in May and June, reduce the cap substantially, perhaps to zero and prevent the industry from catching thousands of schools of pre-spawn fish when they begin the migration out of the bay in the fall.

Thank you Tom Lilly

Sent from my iPhone

Sent from my iPhone

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

From: [ASMFC](#)
To: [Comments](#)
Subject: [New] [External] New public comment for 2026 Summer Meeting
Date: Wednesday, July 29, 2026 12:55:22 PM

2026 Summer Meeting

Action Title
2026 Summer Meeting
Action URL
https://asmfc.org/events/2026-summer-meeting/
Name
Stephen Pieper
Email
Pipeoff@hotmail.com
State
Massachusetts
Comment
The fishing industry is killing off the Osprey's. I am sick of seeing them starve to death and other fledglings fly on other nests and attack the ones who can't fly yet, looking for food because of starvation. This needs to change FAST. This was a horrible season and if it doesn't change it will only get worse.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.



CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

July 23, 2026

James Boyle
Fishery Management Plan Coordinator
Atlantic States Marine Fisheries Commission
1050 N. Highland Street
Suite 200 A-N
Arlington, VA 22201

Re: CBF Comments on Menhaden Draft Addendum II

Dear Mr. Boyle and members of the Menhaden Management Board:

On behalf of our 200,000 members, the Chesapeake Bay Foundation (CBF) appreciates the opportunity to provide public comment on Draft Addendum II. Atlantic menhaden are foundational to a thriving Chesapeake Bay and broader Atlantic coast ecosystem. Unfortunately, as warning signs surrounding Chesapeake Bay and its menhaden resource continue to intensify, Chesapeake Bay menhaden science remains “woefully inadequate,”¹ according to the Virginia Institute of Marine Science, and new data and insights are years away. CBF and our members commend the Board for responding to these real concerns and urge the Board to advance Draft Addendum II to public comment.

Chesapeake Bay Menhaden Science

For years, CBF has gone to great lengths to operationalize Chesapeake Bay menhaden science, a persistent and concerning deficiency given the volume of menhaden removals concentrated in and around the nation’s largest estuary. Those efforts were repeatedly stymied in the Virginia General Assembly.

Fortunately, just a couple of weeks ago, Governor Spanberger and the Virginia Legislature approved a budget that included \$2 million for Chesapeake Bay menhaden research. The hope is that these funds will kickstart menhaden research and eventually complement the \$2.5 million in federal research funding, which has, to our knowledge, not yet been transferred to the Atlantic States Marine Fisheries Commission. CBF is encouraged that there are state and federal funds to finally undertake Bay menhaden research and address longstanding uncertainties, but this work will take years to complete, and even longer to implement into management.

¹ Mark Luckenbach, VIMS. April 2025. VIMS Menhaden Petition Comment to VMRC. https://www.cbf.org/wp-content/uploads/2025/10/vims_menhaden-correspondence.pdf

All the while, the warning signs facing the Bay and woefully inadequate science underscore the need for immediate action to implement additional conservation-minded management strategies in this struggling estuary.

Sustainably managing this critical forage fish in the nation's largest estuary that provides essential nursery habitats for key ASMFC managed species should be a universally supported objective. This Commission has prided itself in managing fisheries according to the best available science. In the absence of science, risk-averse strategies must be employed, particularly in sensitive ecosystems such as the Chesapeake Bay.

Draft Addendum II Comments

CBF supported the initiation and development of Draft Addendum II for nearly a year because of the intensifying indicators of problems with the menhaden resource in Chesapeake Bay. The Chesapeake Bay is showing clear signs of stress due to compounding impacts of climate change, development, habitat loss, and impaired water quality. One of the few ways natural resource managers can mitigate these stressors and support the productivity of the Chesapeake Bay ecosystem, coastal communities, fisheries, and struggling predators is by advancing conservation-minded menhaden management strategies within this estuary.

While CBF preferred to see Draft Addendum II approved at the Spring Meeting, members of the ASMFC Plan Development Team and Board Member workgroup Draft Addendum II have simplified and refined the document, affording this Board and public an effective range of alternatives to respond to the Bay's intensifying ecologic stressors and data limitations. This document must now be approved for public comment without further delay.

Thank you for consideration of these comments, and CBF looks forward to continuing to engage on Draft Addendum II and supporting conservation-minded strategies to mitigate ecologic and economic challenges within the struggling Chesapeake Bay estuary.

Respectfully,

A handwritten signature in black ink, appearing to read 'Will Poston', is written over a light gray rectangular background.

Will Poston
Forage Campaign Manager
Chesapeake Bay Foundation

cc: Alison Prost, Senior Vice President for Programs, CBF

Chris Moore, Virginia Executive Director, CBF

July 27, 2026

James Boyle
Fishery Management Plan Coordinator
Atlantic States Marine Fisheries Commission
1050 N. Highland St., Suite 200 A-N
Arlington, VA 22201

Dear Mr. Boyle and Members of the Menhaden Management Board,

As organizations representing hundreds of thousands of stakeholders from the recreational fishing, boating, and conservation community in Chesapeake Bay and along the Atlantic, we urge the Menhaden Management Board to approve Atlantic Menhaden Draft Addendum II for public comment. We strongly support the updated alternatives in the draft addendum that would reduce the Bay Cap to more precautionary levels and better distribute seasonal harvest. These options would better align management of the fishery with the Board's coastwide ecosystem-based management goals and help ensure sufficient forage availability for iconic species within Chesapeake Bay. We also support the changes made to the addendum's problem statement, which now more precisely addresses both the ecological and economic issues facing the region and associated stakeholders, while clearly reflecting the Board's intent.

Atlantic menhaden are a critical forage species, and nowhere is their ecological importance more evident than in Chesapeake Bay. However, the current Chesapeake Bay Reduction Fishery Cap does not adequately account for the localized impacts of the fishery on predators that rely on menhaden during key spawning, breeding, and nursery periods. In following with the Commission's commitment to coastwide ecosystem-based management, it is now time to revisit the Bay Cap to better distribute harvest throughout the season to benefit menhaden predators during times of peak biological demand.

From our perspective, there is strong justification for considering more precautionary harvest measures in the Bay from an economic standpoint, until we have better science to understand Bay menhaden population dynamics and localized impacts from industrial fishing. Recreational and commercial fisheries in the Bay depend on menhaden availability throughout the season, and the economic contributions of these fisheries are substantial and widely distributed across coastal communities, making them an important consideration for the Board, when discussing future Bay-specific menhaden management options. Notably, recreational Atlantic fishing trips involving menhaden generated approximately \$804 million in angler spending and supported more than 7,200 jobs nationwide in 2025.¹

¹ The Economic Contribution of Recreational Fishing with Atlantic Menhaden, Southwick Associates, June 2026, available at: <https://www.trcp.org/wp-content/uploads/2026/06/Atlantic-Menhaden-Fishing-Report-FINAL-6-22-26.pdf>

The two categorical management options proposed in Draft Addendum II – addressing the Bay Cap and establishing quota periods – are not mutually exclusive and may be evaluated together as part of a comprehensive strategy to better align menhaden management with the needs of the broader ecosystem. **Importantly, advancing these updated options for public comment does not predetermine their adoption, but ensures that stakeholders have the opportunity to weigh in on various approaches that reflect both the science and community interest in this public resource.**

By advancing Draft Addendum II into the public comment period, the Board will take an important step toward fulfilling its responsibility to manage Atlantic menhaden for the benefit of the entire ecosystem and all user groups. Given the ecological and economic importance of Atlantic menhaden, it is essential that this process move forward without delay.

We appreciate the Board’s continued commitment to science-based management and stakeholder engagement, and the Work Group and PDT’s efforts to update the options and problem statement within the document. We strongly encourage you to approve Draft Addendum II for public comment in August 2026. Thank you for your consideration.

Sincerely,

American Bird Conservancy

American Sportfishing Association

Angler Action Foundation

BoatU.S.

Bonefish & Tarpon Trust

Coastal Conservation Association

Guy Harvey Ocean Fund

International Game Fish Association

Marine Retailers Association of the Americas

National Audubon Society

National Wildlife Federation

Rhode Island Mobile Sportsfishermen

Rhode Island Saltwater Anglers Association

Sportsmen’s Alliance Foundation

Theodore Roosevelt Conservation Partnership

Virginia Saltwater Sportfishing Association

Wild Oceans



Chesapeake Bay Foundation Peddles a False Menhaden Crisis-Not Science

Wednesday, 13 May 2026 08:25 PM

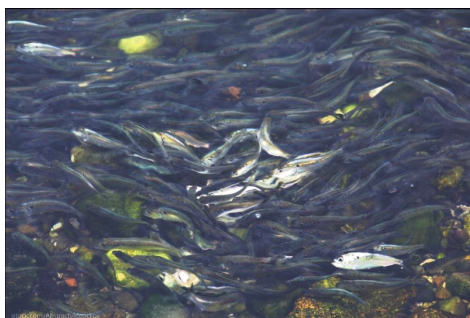
Topic:

Environmental, Social and Governance

ASMFC decision to return Draft Addendum II for further development is responsible due diligence

WASHINGTON, DC / [ACCESS Newswire](#) / May 13, 2026 / A [May 5 statement](#) by [David Sherfinski](#) of the Chesapeake Bay Foundation (CBF) misleadingly portrays the Atlantic States Marine Fisheries Commission (ASMFC) as ignoring "dire warning signs" in the Chesapeake Bay by delaying action on Draft Addendum II for menhaden. But the Commission's decision is basic due diligence: the draft addendum is technically complex, and the Board acted responsibly by choosing to refine the proposal before launching public comment.

CBF's statement, however, leans on alarmist language, including "dire warning signs," "starving osprey chicks," and "plummeting bait catches," and implies those outcomes are caused by the commercial menhaden fishery. But the available evidence does not support this, and presenting these issues as settled cause-and-effect is exactly how public confidence in fisheries governance gets undermined.



1) CBF is spinning a responsible pause as a crisis

CBF suggests the Board "delayed protections" for menhaden. But the Board's

decision to pause and form a work group reflects the reality that [Draft Addendum II involves complicated design choices and real-world implementation questions](#) that should be addressed *before* a public process begins.

CBF Forage Campaign Manager [Will Poston](#) called the Board's action a "frustrating delay," but that's exactly backwards. Sending a complicated draft back for further development is what responsible management looks like—especially when the addendum's mechanics and underlying assumptions are still being debated. Treating due diligence as a failure castigates the Board for doing the careful work the public expects.

2) "Dire warning signs" is hyperbole, especially when CBF treats uncertainty as a verdict

Osprey reproduction and local bait availability deserve careful attention. But referring to "dire warning signs" while implying the menhaden fishery is operating irresponsibly is not supported by the record.

On ospreys: The **U.S. Geological Survey** and other agencies [have emphasized](#) that multiple stressors can affect osprey productivity, and that food availability is only one factor among others such as disease, climate conditions, and water quality.

On bait: Declines in local catch cannot, by themselves, be used to diagnose a stock. Catch trends can reflect many different factors, including participation and fishing effort, costs and labor constraints, weather, shifting fish distribution, and conditions that affect where fish can live and how catchable they are.

3) Maryland Commissioner H. Russell Dize rejected scapegoating

During the May 5 Board discussion, Maryland ASMFC Commissioner **H. Russell Dize** warned the Board against exactly the kind of one-cause narrative CBF is pushing.

He said the Board had "taken the reduction fishery and set them out like a white elephant," and made clear: "You can't tell me that that's the only problem we got with menhaden not coming into Maryland, coming up the Bay."

Commissioner Dize continued: "You're still not going to find the problem until we look further into what's causing it... It's our responsibility to find that and not just... blame this one group."

Reflecting on his own personal history in the menhaden industry, he concluded: "I just don't think they're the culprit... We got other problems."

4) CBF's "mismanagement" insinuation clashes with the oversight record and the fishery's MSC sustainability recertification

CBF's statement insinuates that the fishery is being managed recklessly and must be curbed immediately. But the ASMFC's management framework for menhaden is already precautionary and incorporates the species' forage role through ecosystem-based reference points and oversight.

In March, the Atlantic menhaden fishery was [recertified as sustainable](#) under the **Marine Stewardship Council (MSC)** program. MSC is an international nonprofit that operates the widely recognized **blue MSC ecolabel** for wild-capture fisheries. MSC certification is based on an assessment against the MSC Fisheries Standard and carried out by independent third-party auditors. Certified fisheries have demonstrated that their fish stocks are sustainable, that they have minimized their environmental impact, and that they are managed effectively.

5) A serious policy debate requires a testable problem statement, not slogans

If the ASMFC is going to consider seasonal quota periods, rollovers, closures, or cap changes, the public deserves more than CBF's headlines. At minimum, the proposal should clearly state:

1. **What exact problem is being measured** (where, when, with what data)
2. **What evidence links that problem to fishery activity**, as opposed to Bay-wide environmental conditions
3. **What mechanism the rule is intended to change**, and how success will be measured
4. **How monitoring and enforcement will work** in practice

That is what the work group should do, and what CBF's statement does not do.

6) Advocacy shouldn't substitute for evidence

Like too many CBF alarmist releases on this issue, the May 5 statement uses hyperbolic language to rile up its readers.

Chesapeake Bay challenges are real. But regulation-by-campaign, especially when it treats correlation as causation and elevates rhetoric over evidence, does not protect the Bay. It distorts public understanding and pressures regulators toward decisions that may be politically satisfying, but scientifically unmoored.

About the Menhaden Fisheries Coalition

The [Menhaden Fisheries Coalition](http://www.menhaden.org) (MFC) is a collective of menhaden fishermen, related businesses, and supporting industries. Comprised of businesses along the Atlantic and Gulf coasts, the Menhaden Fisheries Coalition conducts media and public outreach on behalf of the menhaden industry to ensure that members of the public, media, and government are informed of important issues, events, and facts about the fishery.

Press Contact

Menhaden Fisheries Coalition

(202) 595-1212

www.menhaden.org

SOURCE: Menhaden Fisheries Coalition



Osprey Paper Fails to Prove Menhaden Fishery Caused Chesapeake Bay Nesting Problems

Thursday, 11 June 2026 08:40 PM

Topic:

Environmental, Social and Governance

Study catalogs legitimate osprey concerns but does not establish fishery causation

REEDVILLE, VA / [ACCESS Newswire](#) / June 11, 2026 / A [new paper by Dr. Bryan Watts](#) and coauthors reports poor osprey reproduction in high-salinity areas of the Chesapeake Bay and suggests reduced availability of Atlantic menhaden may be a primary driver. While osprey nesting success deserves serious attention, the paper does not prove that Virginia's commercial menhaden fishery caused the problem. The paper, "Widespread Reproductive Deficits in Chesapeake Bay Ospreys," was published in *Frontiers in Marine Science* this week.

"The study documents osprey concerns, but it does not prove that our fishery caused it," said Monty Deihl, CEO of Ocean Harvesters. "Many of the study areas discussed are not places where our vessels fish, and the paper appears to accuse commercial harvest without showing a clear connection between actual fishing activity and the nesting problems it describes. Before this paper is used to call for new restrictions, the public deserves a careful look at timing, geography, local environmental conditions, and what the data actually prove."

The paper's central inference rests on a chain of assumptions: poor osprey reproduction may indicate food stress; food stress may reflect reduced menhaden availability; reduced availability may indicate broader menhaden scarcity; and that scarcity may be related to commercial fishing. Each step requires evidence. The paper does not carry the argument all the way to fishery causation.

"This paper is likely to draw attention because it reads, at least up front, like an indictment of menhaden availability in the Chesapeake Bay," said Peter Himchak, Senior Fisheries Scientist at Omega Protein. "But the paper also details numerous other possible mechanisms that may affect osprey productivity, and those caveats are critical considerations in evaluating this issue."

Several issues require closer scrutiny:

Timing: Ospreys return to the Chesapeake Bay and begin nesting before the menhaden reduction fishery begins (there is some pound-net fishing at this time). Egg laying occurs in early April, and the earliest and heaviest brood-reduction period occurs in May, before the reduction fleet is on the water. Data presented to the Atlantic Menhaden Plan Development Team show only a handful of Bay sets between the weeks of May 12 and June 9, 2024, with roughly ten percent of annual Bay landings occurring by June 30. If the key osprey reproductive failures occurred before meaningful menhaden harvest, the explanation points to the ospreys returning to the region in poor condition over winter, menhaden migration timing, environmental conditions, or other local factors - not fishery removals.

"Egg laying and the earliest chick losses occur before our vessels start to fish in the Bay," Deihl said. "A fishery that has taken little or nothing from the Bay during the key early nesting window cannot be blamed for reproductive failures."

Geography and fishery operations: Several study areas discussed in the paper are not areas where the reduction fleet fishes or fishes meaningfully. Poor osprey productivity in areas with little or no nearby fishing cannot be attributed to the fishery without evidence connecting actual fishing activity to those local outcomes. The geography problem is especially clear at the Maryland sites, including the Choptank and Patuxent, where the reduction fishery does not operate. Poor performance at sites where the fleet cannot and does not fish undercuts any simple claim that reduction harvest explains the pattern.

Availability versus abundance: The paper does not provide a direct adult menhaden abundance index for the Chesapeake Bay. In fact, the paper acknowledges that there is no fisheries-independent monitoring of adult menhaden in the Chesapeake Bay that would allow a direct assessment of the relationship between osprey reproduction and local menhaden abundance. Menhaden availability to ospreys can be affected by salinity, temperature, dissolved oxygen, freshwater flow, plankton, fish movement, water clarity, and seasonal timing. A fish can be present in the larger system

but unavailable to a predator at a particular time, place, depth, or water condition.

Food stress and dietary flexibility: Food stress is not menhaden-specific. Osprey reproductive problems may reflect changes in the broader prey field, including striped bass, spotted seatrout, bay anchovy, gizzard shad, catfish, or other forage species. Ospreys are opportunistic fish-eaters, and their diet varies by location, salinity, and prey availability. The paper's emphasis on menhaden as especially energy-rich prey also requires seasonal context: menhaden caught or available in May are not the larger, higher-oil fish present later in the year. That weakens any claim that early nestling success depends uniquely on May menhaden because of oil content.

Striped bass: The paper's discussion of other prey species should not treat striped bass availability as simply a menhaden issue. Striped bass have their own well-documented stock-status and recruitment challenges and are managed separately. Overfishing occurred for more than a decade, and the stock remains overfished and depleted. If striped bass availability affects osprey productivity, it must be evaluated on its own terms.

Low-salinity comparisons: The paper compares high-salinity osprey sites with low-salinity sites in the James and Rappahannock systems, but those areas have different prey communities. Low-salinity areas with abundant catfish and gizzard shad may not be direct comparisons for high-salinity areas where prey conditions differ.

Environmental and local stressors: The Chesapeake Bay is not a controlled laboratory. Shoreline development, runoff, pollution, water quality changes, hypoxia, weather, predators, nest competition, disease, and broader changes in the fish community can all affect osprey productivity and prey availability. The paper discusses some alternative mechanisms, but discussion is not the same as ruling them out.

Mobjack Bay extrapolation: The paper builds on earlier Mobjack Bay work, but broader observations do not automatically prove that the same cause is operating across the Chesapeake Bay. Any Bay-wide conclusion requires evidence that accounts for local conditions, prey communities, and actual fishery activity.

Landings and effort: Landings are not abundance. The Potomac landing figure cited in the paper is a bait-fishery number from one tributary, not a Bay-wide adult abundance index and not the reduction fishery. Harvest data cannot be treated as a clean measure of how many fish were present unless

evaluated alongside fishing effort, weather, regulations, market conditions, gear, participation, location, and catchability.

Stock status and management: The Watts paper should not be mistaken for a menhaden stock assessment. Atlantic menhaden are managed by the Atlantic States Marine Fisheries Commission. The coastwide stock is not overfished, overfishing is not occurring, and the fishery is managed with ecological reference points that account for predator needs. The Chesapeake Bay fishery is also subject to a Bay cap. Available juvenile recruitment data also caution against portraying the paper as evidence of a Bay-wide menhaden collapse. Maryland's 2025 survey found high juvenile Atlantic menhaden abundance in the Bay for the third consecutive year, with the 2025 menhaden result the third highest since 1991, although juvenile indices do not measure adult menhaden availability in the areas used by ospreys.

The more accurate conclusion is this: Dr. Watts' paper documents poor osprey productivity in some high-salinity Chesapeake Bay areas and advances a menhaden-availability hypothesis. It does not prove that commercial menhaden fishing caused the problem.

"Ospreys matter, and so does scientific accuracy. Any fair assessment has to account for where the fleet actually fishes, and whether other prey and local environmental conditions are being considered," Deihl said. "The Bay needs good science, not an oversimplified and irresponsible blame campaign. The people who work in this fishery deserve a fair assessment of what the paper actually proves."



About Ocean Harvesters

Ocean Harvesters owns and operates a fleet of more than 30 fishing vessels in the Atlantic Ocean and Gulf of America. The company's purse-seine fishing operation is exclusively engaged in the harvest of menhaden, a small, nutrient-dense fish used to produce fish meal, fish oil, and fish solubles. Both its Atlantic and Gulf Menhaden fisheries are certified sustainable by the Marine Stewardship Council. Committed to responsible fishing operations, Ocean Harvesters is proud to be heir to a fishing legacy that extends nearly 150 years.

Press Contact

Stove Boat Communications

(202) 595-1212

contact@stoveboat.com

SOURCE: Ocean Harvesters



Response to Dr. Bryan Watts: Repeating Misinformation Should Not Happen - Including in the Menhaden Debate

Monday, 20 July 2026 07:00 PM

Topic:

Environmental, Social and Governance

REEDVILLE, VA / [ACCESS Newswire](#) / July 20, 2026 / We thank *The Virginian-Pilot* and *Daily Press* for respectfully providing the opportunity for both sides of an Atlantic menhaden debate to appear in their pages. In a June 30 [guest column, Ocean Harvesters CEO Monty Deihl](#) questioned whether [an academic paper recently published with Dr. Bryan Watts as the lead author](#) is appropriate to use in arguments against menhaden fishing in the Chesapeake Bay. On July 6, [Dr. Watts responded](#).

We wholeheartedly agree, as Dr. Watts said in his response, that repeating misinformation should not happen. But repeating misinformation is precisely what Dr. Watts and others have done. In the interest of producing the fairest and most open response, we are including a bibliography of all scientific, regulatory, and other sources referenced.

1. Dr. Watts has now publicly confirmed the central point: his paper does not link poor osprey reproduction to menhaden harvest.

Dr. Watts writes: "Deihl is incorrect in suggesting that our paper attempts to link poor osprey reproduction to menhaden harvest. We do not."

But Mr. Deihl did not say the paper itself makes that link. What he said was that the paper "will almost certainly be used to argue for harsh restrictions on this well-regulated fishery."

The Chesapeake Bay Foundation has already [issued a press release](#) explicitly using Dr. Watts' study under the headline "New Study Links Starving Chesapeake Bay Osprey to Menhaden Woes." In that release, CBF stated that

the report "adds urgency for pausing menhaden reduction fishery in the Bay" and quoted Forage Campaign Manager Will Poston as saying: "Ultimately, decision makers must pause reduction fishing inside the Bay until menhaden research is completed."

That is exactly what Mr. Deihl warned would happen. The paper is being used to argue for harsh restrictions on the well-regulated Chesapeake Bay menhaden fishery. And given Dr. Watts' own public statement that his paper does not link poor osprey reproduction to menhaden harvest, CBF and Mr. Poston are wrong to use his paper as the basis for pausing reduction fishing in the Bay.

An academic paper may raise important ecological questions. It may identify food stress in osprey nests and support further research into prey availability, environmental conditions, and other factors. But unless it demonstrates a causal connection to menhaden harvest, it cannot be presented to the public or regulators as though that causal connection has been established.

When a paper that expressly does not link osprey reproduction to harvest is nevertheless used to demand fishery-specific restrictions, the public is no longer being given science. It is being given advocacy dressed in scientific language.

2. The "intercept fishery" or "gauntlet" theory is not supported by the available evidence.

Dr. Watts repeats the claim that Ocean Harvesters is operating an "intercept fishery," catching menhaden at the mouth of the Bay and preventing fish from reaching the rest of the Chesapeake. That theory is contradicted by the analyses now before managers.

The theory ignores basic menhaden life history. Menhaden are not a static Bay-resident population. [NOAA Fisheries explains](#) that mature menhaden spawn in coastal waters, and juveniles remain in estuaries such as the Chesapeake Bay for about a year before joining adult schools. Many menhaden are migratory, and others remain resident in their area. NOAA also notes that menhaden are common in all Chesapeake Bay salinities and swim in large surface schools during spring, summer, and fall. That life history is hard to square with a simple "intercept" story that assumes one lower-Bay fishery is blocking a single, predictable flow of fish to the rest of the Bay. Equally important, Virginia law does not allow the menhaden reduction fishery to begin before the first Monday in May, and actual fishing activity often starts later.

A January 2026 [analysis conducted by Georgetown Economic Services](#) of Washington, D.C. and [submitted to the Atlantic States Marine Fisheries Commission](#) directly addressed the so-called "gauntlet" theory. It explained that if the purse seine fleet were preventing menhaden from traveling into the upper Bay, pound-net catch rates should show a corresponding steep decline during the relevant weeks. Instead, the submitted analysis found that pound-net catch rates remained on a relatively steady increase through the season. The same submission reported that, in months when Virginia reduction purse-seine net sets exceeded their 10-year average, Maryland pound-net harvest also tended to be above its 10-year average; the converse was also true. The submission concluded that the relationship did not support the "gauntlet" claim.

A second analysis by estuarine scientist Dr. Arnaldo Valle-Levinson focused on Chesapeake Bay physics and environmental conditions. Rather than assuming an "intercept" mechanism, it examined how summer Bay conditions can compress livable habitat and affect where fish concentrate and how catchable they are. The same public summary reports that Maryland catches and trips both declined together, while catch per unit effort did not show the steady collapse one would expect if the upper Bay were being systematically starved of fish.

Dr. Watts compares the issue to water withdrawals on the Rio Grande affecting downstream farmers, but fish are not water. Water flows downstream in one direction; menhaden are migratory schooling fish whose movement and availability depend on season, age, salinity, temperature, dissolved oxygen, plankton, predator pressure, and other Bay conditions. The analogy assumes a simple one-way flow that does not exist in a dynamic fishery. That is why the "intercept" or "gauntlet" theory must be tested against actual fishery data, timing, catch rates, effort, and Bay conditions.

3. Food stress in osprey nests is not proof that one fishery caused reduced prey availability.

We do not dismiss osprey observations. We do not dismiss food stress. We do not dismiss the ecological importance of menhaden. Menhaden are an important forage fish, and ospreys are important indicators of aquatic ecosystem conditions.

But an indicator is not a cause.

Earlier Chesapeake Bay osprey diet studies show why food stress cannot be evaluated through menhaden alone. Glass & Watts reported that Atlantic menhaden and seatrouts/weakfish were dominant prey in lower-estuarine nests - meaning nests in the saltier lower Bay, closer to where the

Chesapeake meets the Atlantic Ocean and freshwater mixes with seawater - while gizzard shad and catfish dominated upper-estuarine diets (Glass & Watts 2009). Their Table 1 shows that spotted seatrout were more frequent than menhaden by number in lower-estuarine nests, 28.8% versus 24.2% (Glass & Watts 2009, Table 1). Lazarus et al. later reported that Poplar Island ospreys fed predominantly on striped bass, 47.8% of diet, and Atlantic menhaden, 44.3% of diet, while ospreys on the Susquehanna, Anacostia/middle Potomac, and James Rivers fed predominantly on catfish and gizzard shad (Lazarus et al. 2016).

That broader prey-base context matters because one of those prey species, striped bass, remains overfished. ASMFC says Atlantic striped bass was declared overfished in 2019 and remains overfished under the 2024 stock assessment update (ASMFC 2024 Atlantic Striped Bass Stock Assessment Update; ASMFC Atlantic Striped Bass Species Page). ASMFC also reports that in 2024 the recreational sector accounted for about 85% of total striped bass removals by number of fish, and that from 2022-2023 recreational harvest and recreational release mortality together accounted for roughly 89% of total removals (ASMFC Atlantic Striped Bass Species Page; ASMFC 2024 Atlantic Striped Bass Stock Assessment Update). Watts' own research shows that deliveries of other prey species declined at a steeper rate than menhaden between 2006-07 and 2021 (Watts et al. 2024, Table 2). If osprey food delivery is now insufficient, the more relevant question is whether availability of the full prey base - including striped bass, seatrout/weakfish, gizzard shad, catfish, and menhaden - has changed, and why.

In his response, Watts states that "[w]hile it is true that ospreys have a varied diet, all fish are not the same," claiming that menhaden are more nutritious because they are "rich in oils." Dr. Watts is correct that menhaden are generally an oily forage fish, but "oily" is not a fixed condition throughout the year. A NOAA/NMFS study of Atlantic menhaden from the Chesapeake Bay area found strong seasonal variation in oil content, with early-season fish averaging roughly 8-10% lipid content, compared with about 20% at the October peak (Dubrow et al. 1976). Resident forage species also matter: Maryland DNR describes gizzard shad as present across Maryland's Chesapeake river systems and spawning during the same spring period when osprey nesting begins, which reinforces the need to evaluate the full prey base rather than assume menhaden alone explain spring food stress. Because osprey breeding begins in spring, before menhaden reach peak oil content, the question is not whether menhaden are nutritious in general. The question is whether spring menhaden are uniquely more valuable than other prey actually available to nesting ospreys at that time, including resident forage species such as gizzard shad.

Timing is important. The [Watts et al. paper](#) states that Chesapeake Bay osprey pairs return to breeding territories from late February through late March and lay clutches in early April. Virginia [law identifies](#) the relevant menhaden purse-net season in certain waters as running from the first Monday in May through the third Friday in November. If nest initiation, egg-laying, or non-laying behavior is already being set before the reduction fishery is active, those early reproductive outcomes cannot be attributed to harvest later in the season.

USGS [describes the Chesapeake osprey question](#) as one involving menhaden and other fish prey, while stating that ongoing work is intended to help determine whether prey delivery or other environmental factors are affecting reproductive success.

The 2026 Watts et al. paper itself [lists multiple factors](#) that may influence menhaden abundance in the Chesapeake Bay, including commercial harvest, predation, competition, recruitment, plankton availability, larval transport, temperature, salinity, water quality, and other environmental conditions.

The 1980s comparison also needs context. Dr. Watts points to a period when menhaden made up a higher percentage of osprey deliveries, but Chesapeake striped bass were then at historic lows. The University of Maryland Center for Environmental Science [reports](#) that by the mid-1980s striped bass had fallen to the lowest numbers in decades. A [peer-reviewed study](#) of Chesapeake Bay striped bass management likewise reported that commercial landings reached a record high in 1973 and then declined by almost 90 percent during the following decade, with depressed juvenile production during the 1970s. A period when a major menhaden predator was severely depleted is not a neutral baseline for judging today's osprey diet composition. Furthermore, there were only 3,500 osprey breeding pairs in the mid-1990s (fewer in the 1980s). There are 10,000 breeding pairs today (Watts et al. 2026).

The timeline also undercuts the blame-the-fishery narrative. Chesapeake ospreys rebounded during decades when Bay menhaden harvests were much higher than they are today. The Bay reduction fishery is now capped at 51,000 metric tons - roughly one-third of levels seen during portions of the osprey rebound from the 1970s through the early 2000s. Ospreys recovered while the Bay menhaden fishery was far larger.

It is also important to understand why this debate exists in the first place. While Dr. Watts now says his 2026 paper does not link poor osprey reproduction to menhaden harvest, prior work by Dr. Watts and colleagues went much further. In their 2023 Mobjack Bay osprey food-supplementation study, Academia & Watts acknowledged that "local levels of menhaden

abundance were not available," but nevertheless concluded that "the menhaden population within Mobjack Bay is not currently adequate to sustain the osprey breeding population" and recommended that "industrial purse seine fishing occur outside Chesapeake Bay" (Academia & Watts 2023). A later Watts et al. paper likewise acknowledged that "no menhaden stock index has been developed that is specific to the Mobjack Bay study area," yet argued that osprey viability required menhaden to be restored to 1980s levels (Watts et al. 2024). That is the leap at the heart of the dispute: food limitation may be real, and menhaden may be important prey, but those facts do not prove that the menhaden fishery caused the condition observed in Mobjack Bay.

A *Frontiers in Marine Science* commentary on the Mobjack Bay osprey paper [raised related scientific concerns](#). The commentary noted that Watts et al. relied on coastwide juvenile menhaden abundance indices as a proxy for menhaden availability to ospreys in Mobjack Bay. Those indices are model-based estimates drawn from surveys spanning a large portion of the Atlantic coast, from Rhode Island to South Carolina. The concern is straightforward: a coastwide juvenile index is not the same thing as measuring the local abundance, size, timing, and availability of menhaden to nesting ospreys in one Chesapeake Bay sub-estuary. As the commentary explained, the analysis assumed that those broad indices represented the menhaden actually available to ospreys in Mobjack Bay - an assumption that had not been directly tested (Latour, Gartland, and Ralph, 2024). That distinction matters because a study may show that ospreys benefit from more menhaden without proving that the menhaden fishery caused the local prey conditions observed at those nests.

That is why Latour et al. concluded that Watts et al.'s analyses "do not establish a clear relationship with menhaden abundance and availability" and encouraged concurrent osprey nest and menhaden sampling to directly assess the ecological linkage (Latour et al. 2024). That is also why Ocean Harvesters has supported new Bay-specific menhaden research rather than policy decisions based on inference, proxy indices, or advocacy claims that go beyond the available data.

The relevant question is not simply whether some osprey nests show food stress. The relevant question is what caused the food stress, whether it is connected to adult menhaden abundance, whether adult menhaden abundance is connected to harvest, and whether any proposed fishery restriction would actually address the cause.

Those links have not been demonstrated.

4. Coastwide stock science is not a distraction; it is the official management foundation.

Dr. Watts argues that Ocean Harvesters has used the Atlantic States Marine Fisheries Commission's coastwide stock assessment to suggest, "without evidence," that Chesapeake Bay menhaden conditions remain healthy. That framing is misleading.

No one should pretend that coastwide stock status answers every Bay-specific question. Bay-specific abundance, movement, predator availability, and localized ecological conditions are legitimate research questions. But it is equally wrong to dismiss the official coastwide assessment as irrelevant. Atlantic menhaden are a migratory species managed through a coastwide interstate process because the stock moves across state boundaries and in and out of estuarine systems.

The ASMFC's [2025 stock assessment update](#) states that, using the current ecological reference point benchmarks, "the Atlantic menhaden population is [not overfished and overfishing is not occurring](#)."

Coastwide science does not prove every Bay-specific claim, but it does provide the official management baseline. Meanwhile, Bay-specific claims require Bay-specific evidence.

The absence of a validated Bay-specific adult abundance index does not license advocates to substitute osprey diet observations, bait landings, or anecdotes for proof of fishery-caused depletion. It means the Bay-specific science needs to be done.

And that is exactly the work the industry has supported. Through the Science Center for Marine Fisheries, industry members have supported a [Chesapeake Bay menhaden research roadmap](#) to identify the data and methods needed to develop a scientifically defensible and ecologically meaningful Bay harvest cap. That project brings together researchers from the Chesapeake Biological Laboratory, the Virginia Institute of Marine Science, and NOAA to evaluate the research needed to answer Bay-specific management questions.

More recently, with [support from Ocean Harvesters](#) and Omega Protein, Virginia approved \$2 million for menhaden research in the Chesapeake Bay. The [funding will go](#) to William & Mary's Virginia Institute of Marine Science for research over the next two years, in collaboration with the Virginia Marine Resources Commission. That is the proper path forward: identify the data gaps, fund the science, and let the results guide management - rather than using a paper that does not link osprey reproduction to harvest as a

justification for fishery-specific restrictions.

5. Certification and independent review also matter.

The U.S. Atlantic menhaden purse-seine fishery has been certified by the Marine Stewardship Council since 2019.

MSC certification is an independent third-party assessment process that represents a global gold standard for sustainability. Reasonable people can debate management choices, but the public should know that this fishery has passed rigorous sustainability review beyond being managed by the ASMFC.

6. Bait landings are not adult menhaden abundance indices.

Dr. Watts points to bait fishermen and homeowners watching osprey nests as evidence that menhaden abundance has changed. These observations may be worth investigating, but they are not substitutes for a validated adult abundance index.

Bait landings can change because fish are less abundant. They can also change because effort changes, markets change, labor availability changes, gear use changes, weather changes, fish distribution changes, or environmental conditions affect catchability. That is why the "gauntlet" analyses matter: they look at catch rates, effort, timing, and environmental conditions rather than assuming that lower landings equal fishery-caused depletion.

The right path is Bay-specific science, not Bay-specific blame.

Ocean Harvesters and the broader menhaden industry support better Chesapeake Bay science. We support research that can answer the questions regulators actually need answered: adult menhaden abundance in the Bay, movement between coastal and Bay waters, local availability to predators, fishery interactions, environmental drivers, and the real effects of any proposed management measure.

The wrong approach is to begin with blame and then look for facts to support it.

Dr. Watts' column asks the public to view Ocean Harvesters as the source of misinformation. But the public record shows a different story.

- The "gauntlet" theory he cites is contradicted by analyses submitted to ASMFC.
- USGS frames the osprey question as a multi-factor ecological investigation.
- ASMFC says menhaden are not overfished and overfishing is not occurring.
- ASMFC manages menhaden with ecological reference points specifically designed to account for predator needs.
- Earlier Chesapeake Bay osprey diet studies, including Watts' own (Glass & Watts 2009), found that ospreys relied on a broader prey base than menhaden alone, including seatrouts/weakfish, striped bass, gizzard shad, and catfish, during periods when Bay osprey populations were growing.
- Chesapeake Bay ospreys rebounded when menhaden harvests were much higher than they are today. The Bay reduction fishery is now capped at roughly one-third of levels seen during portions of that rebound period.

That is the scientific and regulatory record.

We invite readers to review it for themselves.

Source Links

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- Atlantic States Marine Fisheries Commission - Atlantic Menhaden Frequently Asked Questions: <https://asmfc.org/wp-content/uploads/2025/11/Menhaden-FAQ-Oct2025.pdf>
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- Atlantic States Marine Fisheries Commission - Atlantic Striped Bass Species Page: <https://asmfc.org/species/atlantic-striped-bass/>
- Atlantic States Marine Fisheries Commission - 2024 Atlantic Striped Bass Stock Assessment Update: https://asmfc.org/wp-content/uploads/2025/01/2024_AtlStripedBassAssessmentUpdate.pdf
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About Ocean Harvesters

Ocean Harvesters owns and operates a fleet of more than 30 fishing vessels in the Atlantic Ocean and Gulf of America. The company's purse-seine fishing operation is exclusively engaged in the harvest of menhaden, a small, nutrient-dense fish used to produce fish meal, fish oil, and fish solubles. Both its Atlantic and Gulf Menhaden fisheries are certified sustainable by the Marine Stewardship Council. Committed to responsible fishing operations, Ocean Harvesters is proud to be heir to a fishing legacy that extends nearly 150 years.

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SOURCE: Ocean Harvesters



Two Independent Reviews Find No Evidence that Virginia's Menhaden Season Is 'Blocking' Fish from Reaching Maryland Pound Nets

Monday, 04 May 2026 11:30 PM

Topic:

Environmental, Social and Governance

WASHINGTON, DC / [ACCESS Newswire](#) / May 4, 2026 / A proposed Atlantic menhaden management addendum aimed at Virginia's Chesapeake purse seine fishery is being driven by a simple claim: that a shift in the timing of the reduction fishery has reduced menhaden availability farther north, contributing to lower Maryland pound net harvests.

[Two separate analyses](#), one statistical and one oceanographic, reach the same conclusion: the available evidence does not support the "gauntlet" theory. Instead, both studies suggest Maryland pound net results are better explained by (1) changes in fishing effort and (2) Bay conditions that affect where fish can live and how catchable they are.



The analyses were submitted to the Atlantic States Marine Fisheries Commission's Atlantic Menhaden Management Board in a [comment letter](#) from Ocean Harvesters.

The ASMFC Atlantic Menhaden Management Board's Plan Development Team (PDT), the staff group tasked with drafting the proposed addendum, has already signaled that the addendum's core premise warrants deeper

scientific review. In a memo to the Board, the PDT recommended referring the proposal to the menhaden Technical Committee (TC) as "a more appropriate avenue to conduct a detailed analysis" of the central claim driving the addendum: that a recent shift in timing of the Chesapeake Bay reduction fishery has reduced fish availability in the upper Bay and, in turn, reduced Maryland pound net harvests.

These two studies support that recommendation by challenging the "blocking" narrative and highlighting alternative explanations rooted in measurable environmental conditions.

1) What the numbers say: when Virginia sets are high, Maryland catch-per-trip tends to be high too

The first study was conducted by Georgetown Economic Services (GES) using commonly referenced data sources: Virginia purse-seine "net sets" and Maryland pound net landings and trips.

If the Virginia reduction fishery is preventing menhaden from reaching Maryland, then Maryland's catch-per-trip should fall when Virginia activity rises.

That's not what the data show.

GES calculated Maryland "harvest per trip" (a common way to express catch rate) and compared it month by month against the number of Virginia purse-seine sets, while accounting for normal seasonal patterns.

Result: the relationship was positive and statistically meaningful. The "net sets" coefficient was 2.4063 with a p-value of 0.0289, meaning the relationship is unlikely to be random noise.

Put plainly:

- When Virginia set activity is higher, Maryland's menhaden catch per trip tends to be higher.
- When Virginia set activity is lower, Maryland's menhaden catch per trip tends to be lower.

GES notes it's "highly unlikely" that one fishery is impacting the other; the more reasonable interpretation is that both fisheries are responding to the same underlying condition: how many fish are present and available in the Bay at a given time.

This is the opposite of what you'd expect if a lower-Bay "gauntlet" were systematically starving the upper Bay of fish.

2) What the Bay's physics say: water conditions can change where menhaden concentrate, without any "interception"

The second study was prepared by Dr. Arnolando Valle-Levinson, a University of Florida professor who specializes in how water moves through estuaries and how that movement shapes conditions in places like the Chesapeake.

Rather than starting with fishing narratives, this analysis starts with a basic reality of the Chesapeake Bay: summer conditions can squeeze fish into smaller "livable" layers of water, and those shifts can make fish easier or harder to catch depending on location and gear.

A simple but critical point: catches fell, but effort fell too; catch rate did not steadily collapse

Dr. Valle-Levinson first looked at Maryland pound net time-series patterns:

- Maryland menhaden catches show a decreasing trend over the last 12 years.
- Maryland trips (effort) also show a decreasing trend.
- The two "go hand in hand."
- Importantly, catch per unit of effort (catch/trip) "has not changed over time," despite a marked dip in 2024.

That matters for public understanding: lower landings do not automatically mean fewer fish are available. Sometimes, it means fewer trips are being made.

The "hypoxia" effect: when oxygen drops, fish habitat compresses, and catches can rise

The report then evaluates how hypoxia (low oxygen levels in the water) relates to catch patterns. It tracks hypoxic depth, essentially, how far down you have to go before oxygen becomes too low for many fish.

Dr. Valle-Levinson finds that Maryland catches and catch rates show a consistent linkage with hypoxia depth over annual cycles. In practical terms, the analysis indicates that catches increase when the low-oxygen zone rises (when hypoxic depth becomes shallower), a pattern consistent with fish being pushed into a smaller oxygenated layer, making them more concentrated and more catchable.

Stratification and river flow: the upstream "push" that can set the stage

The report also finds that:

- River discharge in the upper Bay relates to water-column stratification in the mid-Bay (how strongly the Bay separates into layers).
- River discharge relates to hypoxic depth.
- Stratification is linked to Maryland catches and catch rates, especially at deeper mid-Bay stations.
- There is also evidence that increased discharge is linked to increased Maryland catch with a time lag (months).

The submission summarizes this chain in a way that's easy to visualize: **more freshwater flow → stronger layering → stronger hypoxia/habitat compression → fish concentrate → catches can rise.**

The report even includes a plain-language schematic ("The estuary cascade") illustrating how high-flow seasons can contribute to stratification, expand low-oxygen conditions, compress fish habitat, and increase pound net catches, again, without invoking any "interception" mechanism.

About Dr. Arnaldo Valle-Levinson

Dr. Valle-Levinson is a Professor in the University of Florida's Department of Civil and Coastal Engineering and currently serves as a Program Officer for Physical Oceanography at the National Science Foundation.

He is the author of the textbook, *Introduction to Estuarine Hydrodynamics* (Cambridge University Press, 2022); and the Editor of *Contemporary Issues in Estuarine Physics* (Cambridge University Press, 2010).

About the Menhaden Fisheries Coalition

The [Menhaden Fisheries Coalition](http://www.menhaden.org) (MFC) is a collective of menhaden fishermen, related businesses, and supporting industries. Comprised of businesses along the Atlantic and Gulf coasts, the Menhaden Fisheries Coalition conducts media and public outreach on behalf of the menhaden industry to ensure that members of the public, media, and government are informed of important issues, events, and facts about the fishery.

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MEMORANDUM

TO: Members, Atlantic Menhaden Management Board
FROM: Drew Minkiewicz, Counsel to Ocean Fleet Services
DATE: July 28, 2026
RE: Draft Addendum II to Amendment 3: Consistency with ACFCMA and the ISFMP Charter Standards

I. Introduction and Interest

I represent Ocean Fleet Services, which provides services to the Chesapeake Bay reduction fishery. I submit this memorandum on its behalf as written comment on Agenda Item 4.

Charter Section Six(c)(9)(iv) directs the Commission to evaluate and consider public comments before deciding what modifications to make to a draft and before approving it, and Section Six(c)(10) makes Commission staff responsible for collating and maintaining the administrative record. I therefore ask that staff distribute this memorandum to the Board in advance of the meeting and enter it in the administrative record for this action.

This memorandum asks the Board to do two things: to measure Draft Addendum II against the standards the Commission adopted for itself, and to weigh it against the determinations the Commission has already made about a Chesapeake Bay cap of this kind.

The Commission's standards are not advisory. Charter Section Six(a) states that the Commission adopted them pursuant to Section 805 of the Atlantic Coastal Fisheries Cooperative Management Act and that they serve as the guiding principles for the conservation and management programs in Commission FMPs. They exist because ACFCMA, at 16 U.S.C. § 5104(a)(2), directed the Commission to establish standards ensuring that plans promote conservation throughout a stock's range and rest on the best scientific information available. The prior determination that the reduction in the Chesapeake Bay cap was unsupported by science is equally the Commission's own, and it made them when it last reduced this same cap. Measured against either yardstick, its current standards or its own past conclusions, this draft does not hold up.

Measured against the Commission's standards, the draft has four defects. The stated basis for this action has changed three times, and the version now leading the document rests on no biological finding at all. The supporting analyses fall short of the Charter's own definition of best scientific information available, and the document concedes on its face that the data needed to characterize the problem do not exist. The socioeconomic section gives the Board a one-sided account of its own economists' analysis, dropping the finding that a cut of this magnitude could close the single remaining reduction plant. And

the quota period provisions displace state administrative flexibility, make an allocation decision the Charter reserves to the states, and arrive without the enforceability analysis the Charter requires.

Measured against the Commission's own prior determinations, the problem is starker. The Commission has examined the premise of a Chesapeake Bay cap twice, once concluding in 2009 and again in 2025, and neither effort established it. When the Board last reduced this cap, the Commission's Leadership agreed on the record that the governing Amendment did not contain sufficient evidence to support the reduction, and recommended developing the science before acting further. That science still does not exist. It is, however, now funded, and it is coming.

Finally, I note where a record carrying these defects travels once the Commission's decision leaves this room, because the doctrines that shield the Commission's plan decisions from direct review do not shield the state and federal actions those decisions set in motion.

For those reasons, I respectfully ask the Board not to approve this document for public comment in its present form, and to recognize that the Commission has already concluded, on its own record, that a cap of this kind should follow the science rather than precede it.

II. The Applicable Standards

Seven provisions govern the analysis that follows.

ACFCMA § 5104(a)(2). The Commission must maintain standards ensuring that plans promote conservation of fish stocks throughout their ranges, rest on the best scientific information available, and provide adequate public participation.

Charter Section One(c). Commission policy requires that the ISFMP promote conservation, rest on the best scientific information available, and provide adequate opportunity for public participation.

Charter Section Five(c)(2). The Plan Development Team must prepare all documentation for an FMP, amendment, or addendum using the best scientific information available and the most current stock assessment information, in conformance with Section Six. This obligation reaches addenda by its terms.

Charter Section Six(a). Before reaching the numbered standards, this section states three governing principles. The Board must take social and economic impacts and benefits into account. Management measures should focus on conservation while allowing states to make allocation decisions. Management programs must remain practically enforceable, so far as possible with the support of the industry those programs regulate.

Charter Section Six(a)(1) through (7). The numbered standards. Five bear on this action: Standard 1 (preventing overfishing and rebuilding depleted stocks), Standard 2 (best scientific information available), Standard 3 (equivalent management results throughout the range of a stock or its subgroups), Standard 4 (minimizing waste of fishery resources), and Standard 7 (fairness and equity, including internal state flexibility).

Amendment 3, Sections 2.3 and 2.4. An addendum must serve the objectives of the plan it amends. Amendment 3 states its goal as managing the fishery in a manner that equitably allocates the resource's

ecological and economic benefits among all user groups. Among its objectives, Amendment 3 lists constructing regulations based on the best available science, developing a management program that ensures fair and equitable access for all regions and gear types, and maintaining the existing culture and social features of the fishery to the extent possible.

Charter Section Eight. These definitions operate as requirements rather than description. Section Eight(f) defines best scientific information available to require that the source describe its collection methods clearly and that those methods command general acceptance as scientifically valid, and it directs the drafter to incorporate information that emerges during preparation, to the extent practicable. Section Eight(c) defines adaptive management as an iterative process that evaluates how the managed fishery and stock respond to specific measures and adjusts those measures on that evaluation. Section Eight(z) defines minimizing waste to include promoting full and efficient utilization of the catch.

III. The Record: A Fixed Remedy and a Migrating Rationale

Standard 2 requires the Board to base measures on the best scientific information available. Assessing compliance therefore requires knowing what supports the measure. The record shows that the Board fixed the measure first and has since offered three different justifications for it.

The remedy preceded the rationale. The initiating motion of October 2025 directed the PDT to develop quota periods and a range of options reducing the Bay Cap by up to 50%. The motion states a mechanism and a magnitude. It identifies no problem, cites no finding, and references no analysis. The Board set the outer bound of the reduction before the PDT drafted a statement of the problem and before the Technical Committee completed the tasks the Board later assigned it.

First justification: osprey. The Board took up Chesapeake Bay precautionary management in August 2024 in response to public concern about menhaden fishing and ospreys, received a U.S. Geological Survey presentation on osprey abundance, dietary demand, and timing of fledge, and established the Chesapeake Bay Precautionary Management Work Group. The Work Group met nine times. The Commission's own summary of the May 2025 report states that the Work Group addressed its task without determining whether an adequate supply of menhaden exists to support predatory demand in the Bay. The Work Group did not establish a forage deficit.

The Technical Committee then reported in May 2026 that the literature contains no information on the environmental cues driving osprey arrival, nesting, and fledging in the Chesapeake Bay, and no information on whether the timing of those events has changed over time. Osprey does not appear in the statement of the problem in the current draft.

Second justification: pound net landings. The Commission's October 2025 press release announcing initiation identified concentration of reduction effort that may affect other fisheries in the Bay, and cited declining pound net harvest and catch per unit effort. Section V below explains why the PDT's own analysis does not carry this justification.

Third justification: proportionality. The current draft leads with a rationale absent from the initiating motion. Section 2.1 identifies as the first issue that the Bay Cap does not link to the coastwide TAC.

This justification is circular. In October 2025 the Board cut the 2026 TAC by 20% and left the Bay Cap unchanged. That decision raised the share of reduction quota available within the Bay from 32% to 40%, which Section 2.1 describes as the highest such share since 2017. The Board now identifies that elevated share as the condition requiring a Bay Cap reduction. No fact concerning the resource, the Bay, or the fishery changed between the two decisions. The Board altered one variable and now proposes to charge the resulting ratio against the reduction fishery.

The proportionality premise also lacks historical foundation. Table 1 of the draft shows the Bay Cap has never tracked the TAC. It stood at 51.06% of the TAC in 2013, 43.61% in 2017, and 21.84% in 2023. Section 2.2.2 states that the roughly 41.5% Bay Cap reduction in Amendment 3 did not correspond to the change the Board made to the TAC that year, which was an 8% increase. The Commission set the Bay Cap in 2006, 2013, and 2018 by reference to recent absolute landings, in order to prevent the fishery from expanding within the Bay. The draft asserts proportionality to the TAC as an intent for the first time in 2026, then applies that intent retroactively to declare the existing cap misaligned.

IV. The Commission Has Examined This Premise Twice and Come Up Empty

One part of the record deserves the Board's attention before the standards analysis, because the Commission produced it and because it answers the question this draft asks.

In 2005 the Board created the Atlantic Menhaden Research Program for the specific purpose of evaluating whether localized depletion occurs in Chesapeake Bay. Section 1.5.1.4 of Amendment 3 records the result: the 2009 peer review report could not conclude that localized depletion occurs in the Bay, and found that given the high mobility of menhaden, such depletion could occur only on a relatively small scale for a relatively short time. Amendment 3 nonetheless defends maintaining the cap on precautionary grounds. Maintaining a precautionary cap and cutting that cap in half are different propositions, and the second demands more support than the first.

The Commission returned to the question a second time, through the Precautionary Management Work Group described above, and reached no different result. Two research efforts, sixteen years apart, and neither established the predicate.

Between those two efforts, the Commission said so directly. When the Board last reduced this cap, in Amendment 3, Virginia appealed on the ground that the reduction rested on no supporting science. The Commission's own Leadership, comprising then-Chairman James J. Gilmore, Jr., Vice-Chairman Patrick Keliher, and past Chairman Doug Grout, reviewed that appeal and agreed with Virginia on the science. In its January 17, 2018 response, Leadership wrote that "Leadership agrees the Amendment does not provide sufficient evidence to support such claims," the claims being that lowering the Bay Cap was necessary to protect the Bay as a nursery area for menhaden and for other species. Leadership found that claim substantial enough to send to the full Policy Board, the one issue among several in Virginia's appeal that cleared that bar. The same letter recounts that the Bay Cap had never rested on "a scientifically quantified harvest threshold, fishery health index, or fishery population level study," and originated instead as "a compromise reached by managers, fishery stakeholders, and environmental NGOs."

Leadership did not stop at the concession. It recommended forming a Fact Finding Committee to investigate the science surrounding the Bay Cap, and framed that committee's charge as five questions: the impact on menhaden reproduction or other species in the Bay at a given harvest level; whether Bay menhaden harvest affects nursery grounds or other species; whether it affects menhaden reproduction in the Bay; what environmental factors affect that reproduction; and whether any current science would guide the Board in setting an appropriate Bay harvest level.

Those are, almost verbatim, the questions the Board still cannot answer. The current draft concedes as much in Section 2.1. Eight years after its own Leadership said the Commission lacked the science to support the existing cap and should go find it, the Board proposes not to await that science but to cut the same cap by as much as half again. On this question, the most authoritative statement in the Commission's record is the Commission's own, and it runs against the action now before the Board.

V. The Draft Does Not Satisfy Standard 2

Standard 2 requires that conservation programs and management measures rest on the best scientific information available. Section Five(c)(2) places that obligation on the PDT for addenda. Section Eight(f) supplies the definition. Three features of the draft fall short of it.

The document concedes the absence of a scientific basis. Section 2.1 states that sufficient scientific data do not currently exist to comprehensively characterize the abundance and distribution of menhaden throughout Chesapeake Bay and the influence of fishing pressure on menhaden. Section 2.1 then justifies the proposed three-year revisit provision in part by pointing to planned research that would help design a scientifically based Bay Cap setting process. The draft therefore acknowledges two things: that the current Bay Cap setting process does not rest on science, and that the Commission has not yet completed the research that would change this. A measure cannot rest on the best scientific information available when the document proposing it states that the necessary information does not yet exist.

The pound net analysis does not carry the inference the draft draws from it. Section 2.2.4 contains four findings that undercut any causal link between reduction fishery timing and pound net performance:

- For 2023, one of the two years of concentrated mid-summer harvest, weekly Maryland pound net CPUE equaled or exceeded the 2018 to 2022 average, which the draft says suggests little influence of the reduction fishery on pound net catches.
- For 2024, the draft states that although catch rates ran higher than normal, total catch matched other years. The reduction fishery removed no additional fish.
- The draft states that any link between reduction harvest and upper Bay availability would turn jointly on fishery dynamics and migratory patterns at a finer scale than the PDT analysis could reach.
- The PDT discloses that the effort denominator for CPUE counts only nets catching menhaden, which the PDT explains would hold pound net CPUE artificially stable as menhaden abundance declines.

The fourth point bears directly on Section Eight(f). A metric whose denominator the analyst identifies as biased toward stability during the very decline the metric exists to detect does not command general

acceptance as scientifically valid for the purpose the PDT assigns it. The PDT deserves credit for disclosing the limitation. The Board should give that disclosure effect.

The strongest abundance signal in the record points away from the reduction fishery. Section 2.2.5 presents the Maryland DNR Choptank River gillnet survey, which shows abundance dropping sharply in 2024 and remaining low in 2025. The Choptank is a single Maryland tidal river far from reduction fishery operations. In the 2024 season the reduction fishery began roughly five weeks later than in 2018 through 2022, a pattern that fits absent fish better than it fits fish the fleet removed. Standard 2 requires the Board to weigh the information cutting against the proposed action alongside the information supporting it.

VI. The Socioeconomic Section Presents a One-Sided Account of the Board's Own Economic Analysis

This defect warrants separate treatment, because it is the most troubling feature of the document. The Charter does not merely permit the Board to consider economic impacts; it requires the Board to do so. Section Six(a) directs that social and economic impacts and benefits be taken into account. Section Six(b)(1)(i) requires the statement of the problem to address social and economic impacts, and Section Six(b)(1)(vi) requires a summary evaluation of them. The socioeconomic section the Commission added to this draft does not satisfy that obligation. It presents the Board with one half of its own economists' analysis, and the half it presents is the half that makes the action appear less costly than the Board's economists said it may be.

The CESS memorandum contains two findings that pull in opposite directions. One reduces the apparent severity of a Bay Cap cut: the Leontief input-output models in the underlying studies assume employment scales linearly with landings and therefore may overstate long-term employment effects. The other sharply increases it. CESS explained that the linear assumption fails for the reduction sector precisely because of its cost structure. Because a single processing plant must cover the fixed costs of maintaining its shore-side facilities, its fleet, and its insurance regardless of volume, a reduction in landings does not produce a proportional reduction in employment. CESS put the point in concrete terms tied to the very magnitude at issue: where a linear model would predict that a 20% cut yields a 20% employment reduction, the reality is that if a cut pushes landings below the plant's break-even volume, the result is "not a 20 percent layoff but potentially a 100% shutdown of the facility." CESS added that job losses of that kind would fall on Reedville as structural rather than frictional unemployment, because the reduction sector anchors that local economy and offers workers few alternatives nearby.

Section 2.3 carries forward the first finding and omits the second. It reproduces the caveat that the models may overstate employment effects. It reproduces nothing of the threshold analysis, the break-even warning, the prospect of a complete shutdown, or the structural-unemployment finding. It then goes further than omission. Section 2.3 affirmatively tells the Board that seasonal limits may reallocate fishing activity across the season with limited overall economic impact, an assertion it makes two sentences after conceding that neither underlying study examined seasonal restrictions at all. The draft thus supplies the Board a reassuring conclusion its sources do not support, while withholding the alarming conclusion its sources do support.

Every one of these editorial choices runs in the same direction. Each inclusion softens the projected impact; each omission removes an aggravating finding; the one affirmative addition invents a favorable conclusion from silence. A summary that selected among its source's findings at random would not produce that pattern. The effect, whatever its intent, is to place before the Board a picture of the economic stakes that the Board's own economists did not paint and would not endorse.

This is not a quibble over editorial judgment, and noting that the omitted findings appear somewhere in the fuller briefing materials does not cure it. The socioeconomic section of the addendum is the document the Board and the public will read as the Commission's statement of the economic stakes. The omitted finding is not a peripheral one. It is the single most decision-relevant fact in the entire economic record, because it is the only finding that speaks directly to what this action does. The action on the table is a reduction of the Bay Cap by as much as 50%. The Board's own economists warned that a cut approaching that magnitude may not scale to a proportional loss but may instead cross the threshold at which the one remaining Atlantic reduction plant ceases to operate. A Board cannot take an impact into account, in any meaningful sense of the Charter's language, when the document before it has removed the impact from view. Before this document goes to the public as the Commission's account of the economic consequences, the CESS findings belong in it in full.

VII. The Draft Omits Required Contents

Section Six(b) specifies the contents an addendum must contain. The draft omits or leaves incomplete two of them, and both require the PDT to revise the document rather than the Board to edit at the table on August 5.

Section Six(b)(1)(v)(E), enforceability analysis. The Charter requires an analysis of the enforceability of the proposed measures. Section Five(l)(1) assigns the Law Enforcement Committee to advise PDTs on the enforceability of contemplated measures. I have found no enforceability analysis in the draft and no record of LEC input, even though the Board devoted substantial time in May to whether Virginia can administer short quota periods with its existing reporting systems and resources.

Section Six(b)(1)(i), statement of the problem. The Charter requires the document to state the problem it addresses and the objectives implementation will achieve, including social and economic impacts. Section III above describes a statement of the problem that the PDT has revised three times, that no longer contains the concern prompting the Board to act in August 2024, and that now leads with an arithmetic consequence of the Board's own October 2025 TAC decision. The public cannot comment meaningfully on options whose purpose the document does not stably identify.

VIII. The Quota Period Provisions Depart from Standard 7 and the Section Six(a) Principles

Section 3.2 raises issues distinct from the cap reduction.

Standard 7(i). The Charter provides that an FMP should allow internal flexibility within states to achieve its objectives while the states implement and administer the plan. Section 3.2.1 would fix the percentage of the Bay Cap the fishery may harvest in each of three defined periods. Section 3.2.2 would add cross-year overage accounting at the period level. Together these provisions strip Virginia of discretion over the administration of its own sector quota. As one Board member observed in May,

Commission plans typically specify an overall quota and leave management of it to the states. Standard 7(i) reflects that practice.

Allocation decisions. Section Six(a) provides that management measures should focus on conservation while allowing states to make allocation decisions. Dividing a state's sector quota into mandatory seasonal shares allocates that quota across the fishing year. The Board would make an allocation decision inside a single state's quota.

Practical enforceability. Section Six(a) requires management programs that the states can practically enforce, so far as possible with the support of the industry those programs regulate. The Virginia Marine Resources Commission advised the Board in May that it receives Captains Daily Fishing Reports on Thursday for the prior week, that some catches carry a lag of ten to twelve days, that plant confirmation follows weeks later, and that short quota periods would yield only a few data points before the agency must project whether the fleet will exceed a period. That agency, which enforces these measures for the Commonwealth, also told the Board that it lacks the personnel and funding to administer shorter periods and that it would need time to plan for implementation. The Charter directs the Board to weigh that testimony as a standards matter, not merely as a practical inconvenience.

Relative Burden. Section Six(b)(1)(iv)(A) provides that the relative burden of a plan's conservation program may vary from state to state relative to the importance of the fishery in that state compared with its importance elsewhere in the range. That provision permits burden to fall unevenly. It does not answer the objection here. The provision governs how a conservation program distributes its burden; it presupposes a conservation program that satisfies Standard 2. And it speaks to variation in relative burden, not to placing the entire burden of a Bay-wide forage concern on one sector while leaving every other removal from the same waters untouched.

IX. Standards 1, 3, and 4

Standard 1's predicate is absent. Standard 1 addresses preventing overfishing and rebuilding stocks that overfishing or other causes have depleted. The CESS memorandum states that the Atlantic menhaden stock is not overfished. The Board therefore does not act under a rebuilding obligation, which weakens any contention that Standard 1 compels this reduction.

Standard 3 conflicts with the measure's design. Standard 3 requires the Commission to design conservation programs that achieve equivalent management results throughout the range of a stock or its subgroups. Section 2.2.2 of the draft states that additional bait harvest can take place inside Chesapeake Bay. A bait vessel and a reduction vessel take the same fish from the same water, and a predator loses that fish on identical terms. A measure that rests on forage availability within the Bay, yet constrains one sector and exempts every other Bay removal, does not achieve equivalent management results within the area of concern. Should the Board answer that Chesapeake Bay menhaden constitute a subgroup warranting separate treatment, Section 2.1 forecloses that answer by conceding that the data do not permit the Commission to characterize abundance and distribution within the Bay.

Standard 4 and stranded quota. Standard 4 requires that measures minimize waste of fishery resources, and Section Eight(z) defines that to include promoting full and efficient utilization of the

catch. Under Section 3.2.2 Option B, the Board would not reallocate an underage in Quota Period 3. Quota lawfully available under the Bay Cap would go unharvested, and the document identifies no conservation benefit flowing from that result, since the Bay Cap already limits total removals. The Compact's own purpose, which Charter Section One(a) quotes, includes preventing physical waste of the fisheries.

A related design defect. Section 2.1 identifies concentrated harvest as the problem, citing 2023 and 2024, when the reduction fishery took more than half of Bay landings within a six-week mid-summer period. Table 5 shows that under Option B2, the 25/25/50 structure, the final period would carry 50% of the Bay Cap against a 2018 to 2024 average of 16% of landings in that period. A document that identifies concentration as the harm offers, as an option, a structure that manufactures concentration at the other end of the season. Commission staff acknowledged in May that the PDT was pursuing two objectives at once, distributing harvest more evenly and pushing harvest later, and that those objectives pull against each other. The Board should settle which objective governs before asking the public to comment on options serving both.

X. The Record Being Built Here Will Not Stay Within the Commission

I raise one further point not as a threat of litigation, which my client is not announcing, but because the Board should understand where a deficient record travels after it leaves this room.

The Commission has historically relied on the position that it is not a federal agency and that its plan decisions are not directly reviewable under the Administrative Procedure Act. See *New York v. Atlantic States Marine Fisheries Commission*, 609 F.3d 524 (2d Cir. 2010). That doctrine has provided real protection against direct APA challenge. The Board should not, however, mistake it for immunity. Regulated parties have found other routes, and they are using them now.

Harvesters are contesting the scope of that insulation now. In *Outer Cape Lobstermen's Association v. Atlantic States Marine Fisheries Commission*, No. 26-1238, the First Circuit is currently considering an appeal in which a harvesters' association has named the ASMFC and a state marine fisheries director as defendants and asks the court to hold that the Commission is a quasi-federal agency subject to the Administrative Procedure Act, and separately that the federal statutory scheme unconstitutionally commandeers the states. Whatever the outcome, the case illustrates that the reviewability of Commission action is a live and openly litigated question, not a settled shield. And the memory of the industry is long: the challenge now before the First Circuit traces to a complaint first filed in 1998, revived decades later. A Commission that leaves a vulnerable record does not control how long that record remains available to those it regulates, or in what forum they raise it.

Two features of this action make that landscape relevant. First, the Bay Cap reduction reaches the reduction fishery only when Virginia implements it by regulation, and a state implementing regulation faces constitutional and state-law challenge in a way the Commission's plan does not. Second, should Virginia decline to implement and the Commission refer the Commonwealth for non-compliance, the resulting determination by the Secretary of Commerce is federal action, and a challenger can contest the adequacy of the underlying plan record at that stage. The Commission invoked that non-compliance mechanism against Virginia as recently as 2019, so this is not a hypothetical sequence.

There is also a forum inside the Commission, and the Board has been through it before on this precise question. Under the appeals process, a state aggrieved by a Board action may seek review by the Policy Board, and Virginia used that route against the last Bay Cap reduction. Section IV describes what the Commission's Leadership concluded when it did. Virginia later withdrew the appeal, but the withdrawal did not retract the concession, which predated it and remains in the Commission's record. The Board should assume that a further reduction of the same cap would draw the same appeal, and that the 2018 statement would frame it.

The point for present purposes is narrow. A record that changes its stated rationale three times, that concedes the absence of the science its own measure requires, that omits its economists' most consequential finding, and that lacks a required enforceability analysis is precisely the record a reviewing court examines when a challenger contests a downstream state or federal action. The doctrines that keep the Commission's plan decisions out of direct APA review do not travel downstream with those decisions. The Board serves its own interest, and the durability of whatever it ultimately adopts, by building a record that withstands later scrutiny rather than one that invites it.

XI. Conclusion and Requested Action

The Commission adopted the Section Six standards to ensure that its plans rest on science, distribute burdens fairly, remain administrable for the states that must enforce them, and address problems the record establishes. This draft does not meet that test. Its stated basis has changed three times as each predecessor failed. Its supporting analyses carry limitations the PDT itself disclosed. Its central concession is that the data that would characterize the problem do not exist. Its quota period provisions displace state administrative discretion and make an allocation decision within a single state's quota. Its socioeconomic section omits the most consequential finding the Board's own economists supplied. And it appears to lack the enforceability analysis the Charter requires.

Amendment 3 itself directs the Commission to construct regulations based on the best available science, to ensure fair and equitable access across regions and gear types, and to maintain the existing culture and social features of the fishery to the extent possible. A reduction of up to half the Bay Cap, imposed on one sector supporting one plant in one county, on a record two research programs have failed to establish, does not advance those objectives.

None of this asks the Board to abandon its interest in Chesapeake Bay menhaden. The opposite is true. The Board is, right now, on the verge of finally answering the questions it has posed for two decades. Three separate funding streams, together exceeding \$4.5 million, are committed to Bay-specific menhaden research, all of them organized around the 2023 VIMS research roadmap that the Commission itself treats as the starting point for this work. The Board would take final action on a permanent cut just as that research begins to deliver.

The first stream is federal. Congress appropriated \$2.5 million for menhaden research in the Chesapeake Bay, and the Commission is developing the request for proposals now, using the 2023 VIMS roadmap as the framework.

The second stream is state, and more recent still. In late June 2026 the Virginia General Assembly adopted a budget amendment appropriating \$2 million over the biennium, \$1 million in each year, to

the Virginia Institute of Marine Science in collaboration with the Virginia Marine Resources Commission. The appropriation states that the funding “shall be used for Atlantic menhaden research necessary to inform a scientifically defensible and ecologically meaningful Chesapeake Bay harvest cap.” The research questions the Commonwealth directs VIMS to pursue are the same questions this draft addendum concedes it cannot answer: the seasonal abundance of menhaden in the Bay, the movement rates of menhaden between the coast and the Bay, predator demand and consumption, the spatial and temporal patterns of reduction fishing effort in the Bay, and the possibility of localized depletion. The appropriation also directs Virginia’s workforce and economic development agencies to analyze the workforce impacts of coastwide and Bay Cap changes, the very analysis the CESS finding discussed in Section VI shows this draft has not undertaken.

The third stream is industry, and it is the most telling of the three. Through the Science Center for Marine Fisheries, an NSF-supported industry-university cooperative research center, the reduction industry has funded the foundational Bay research directly, including two projects, one at \$55,000 and one at \$38,254, supporting the tag-and-recapture work of the kind that any biologically based Bay Cap would ultimately require. Those sums are modest next to the public appropriations, but the point is not their size. The point is their direction: the regulated industry is paying to develop the very science that would test the premise of the measure the Board is considering. An industry funding the research needed to test that premise is not the posture of an industry with something to hide from the answer.

Two features of this converging effort bear on the timing of the action before the Board. First, the Virginia appropriation does not merely fund research; it builds a mechanism to deliver that research into this Commission’s own process. Beginning with fiscal year 2028, the appropriation directs VMRC to provide the new VIMS scientific data and research products to inform the ASMFC’s annual deliberations on any proposed changes to the coastwide or Chesapeake Bay total allowable catch levels. The Commonwealth has funded, and scheduled, a pipeline of Bay-specific science aimed squarely at the decision this addendum would make. Second, all three streams follow the VIMS roadmap, which makes them a coordinated program rather than three scattered grants.

The Board proposes to make a permanent decision now, cutting the Bay Cap by as much as half, before the first deliverable of a \$4.5 million coordinated research program arrives. The prudent course, and the course the Commission’s own standards require, is to let the science that the Congress, the Commonwealth, and the industry are all paying for arrive before acting on the question it exists to answer.

I make two requests of the Board. The first is one only the Board can grant itself: to give effect to its own 2018 determination. Cutting this cap again, and more deeply, on a record that has not improved in the intervening eight years, is not consistent with what the Commission concluded then. The Board need not treat that conclusion as an obstacle. It can treat it as guidance the Commission itself supplied: identify the science first, then set the cap. The Commission has already told itself the right order of operations. This draft reverses it.

The second request follows from the first. I respectfully ask that the Board decline to approve Draft Addendum II for public comment on August 5, and instead direct the PDT and the Technical Committee to return with a statement of the problem the record supports, an enforceability analysis under Section Six(b)(1)(v)(E), a socioeconomic section presenting the CESS findings in full, and a defined relationship

between this action and the Bay-specific research that the Congress, the Commonwealth of Virginia, and the industry are now funding.

I appreciate the Board's consideration and the work the PDT, the Technical Committee, and Commission staff have devoted to a difficult document. I have set out my client's position in full here so that the Board has the complete argument before it, and I welcome questions from any Commissioner or from staff.

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The Commission's standards are not advisory. Charter Section Six(a) states that the Commission adopted them pursuant to Section 805 of the Atlantic Coastal Fisheries Cooperative Management Act and that they serve as the guiding principles for the conservation and management programs in Commission FMPs. They exist because ACFCMA, at 16 U.S.C. § 5104(a)(2), directed the Commission to establish standards ensuring that plans promote conservation throughout a stock's range and rest on the best scientific information available. The prior determination that the reduction in the Chesapeake Bay cap was unsupported by science is equally the Commission's own, and it made them when it last reduced this same cap. Measured against either yardstick, its current standards or its own past conclusions, this draft does not hold up.

Measured against the Commission's standards, the draft has four defects. The stated basis for this action has changed three times, and the version now leading the document rests on no biological finding at all. The supporting analyses fall short of the Charter's own definition of best scientific information available, and the document concedes on its face that the data needed to characterize the problem do not exist. The socioeconomic section gives the Board a one-sided account of its own economists' analysis, dropping the finding that a cut of this magnitude could close the single remaining reduction plant. And

the quota period provisions displace state administrative flexibility, make an allocation decision the Charter reserves to the states, and arrive without the enforceability analysis the Charter requires.

Measured against the Commission's own prior determinations, the problem is starker. The Commission has examined the premise of a Chesapeake Bay cap twice, once concluding in 2009 and again in 2025, and neither effort established it. When the Board last reduced this cap, the Commission's Leadership agreed on the record that the governing Amendment did not contain sufficient evidence to support the reduction, and recommended developing the science before acting further. That science still does not exist. It is, however, now funded, and it is coming.

Finally, I note where a record carrying these defects travels once the Commission's decision leaves this room, because the doctrines that shield the Commission's plan decisions from direct review do not shield the state and federal actions those decisions set in motion.

For those reasons, I respectfully ask the Board not to approve this document for public comment in its present form, and to recognize that the Commission has already concluded, on its own record, that a cap of this kind should follow the science rather than precede it.

II. The Applicable Standards

Seven provisions govern the analysis that follows.

ACFCMA § 5104(a)(2). The Commission must maintain standards ensuring that plans promote conservation of fish stocks throughout their ranges, rest on the best scientific information available, and provide adequate public participation.

Charter Section One(c). Commission policy requires that the ISFMP promote conservation, rest on the best scientific information available, and provide adequate opportunity for public participation.

Charter Section Five(c)(2). The Plan Development Team must prepare all documentation for an FMP, amendment, or addendum using the best scientific information available and the most current stock assessment information, in conformance with Section Six. This obligation reaches addenda by its terms.

Charter Section Six(a). Before reaching the numbered standards, this section states three governing principles. The Board must take social and economic impacts and benefits into account. Management measures should focus on conservation while allowing states to make allocation decisions. Management programs must remain practically enforceable, so far as possible with the support of the industry those programs regulate.

Charter Section Six(a)(1) through (7). The numbered standards. Five bear on this action: Standard 1 (preventing overfishing and rebuilding depleted stocks), Standard 2 (best scientific information available), Standard 3 (equivalent management results throughout the range of a stock or its subgroups), Standard 4 (minimizing waste of fishery resources), and Standard 7 (fairness and equity, including internal state flexibility).

Amendment 3, Sections 2.3 and 2.4. An addendum must serve the objectives of the plan it amends. Amendment 3 states its goal as managing the fishery in a manner that equitably allocates the resource's

ecological and economic benefits among all user groups. Among its objectives, Amendment 3 lists constructing regulations based on the best available science, developing a management program that ensures fair and equitable access for all regions and gear types, and maintaining the existing culture and social features of the fishery to the extent possible.

Charter Section Eight. These definitions operate as requirements rather than description. Section Eight(f) defines best scientific information available to require that the source describe its collection methods clearly and that those methods command general acceptance as scientifically valid, and it directs the drafter to incorporate information that emerges during preparation, to the extent practicable. Section Eight(c) defines adaptive management as an iterative process that evaluates how the managed fishery and stock respond to specific measures and adjusts those measures on that evaluation. Section Eight(z) defines minimizing waste to include promoting full and efficient utilization of the catch.

III. The Record: A Fixed Remedy and a Migrating Rationale

Standard 2 requires the Board to base measures on the best scientific information available. Assessing compliance therefore requires knowing what supports the measure. The record shows that the Board fixed the measure first and has since offered three different justifications for it.

The remedy preceded the rationale. The initiating motion of October 2025 directed the PDT to develop quota periods and a range of options reducing the Bay Cap by up to 50%. The motion states a mechanism and a magnitude. It identifies no problem, cites no finding, and references no analysis. The Board set the outer bound of the reduction before the PDT drafted a statement of the problem and before the Technical Committee completed the tasks the Board later assigned it.

First justification: osprey. The Board took up Chesapeake Bay precautionary management in August 2024 in response to public concern about menhaden fishing and ospreys, received a U.S. Geological Survey presentation on osprey abundance, dietary demand, and timing of fledge, and established the Chesapeake Bay Precautionary Management Work Group. The Work Group met nine times. The Commission's own summary of the May 2025 report states that the Work Group addressed its task without determining whether an adequate supply of menhaden exists to support predatory demand in the Bay. The Work Group did not establish a forage deficit.

The Technical Committee then reported in May 2026 that the literature contains no information on the environmental cues driving osprey arrival, nesting, and fledging in the Chesapeake Bay, and no information on whether the timing of those events has changed over time. Osprey does not appear in the statement of the problem in the current draft.

Second justification: pound net landings. The Commission's October 2025 press release announcing initiation identified concentration of reduction effort that may affect other fisheries in the Bay, and cited declining pound net harvest and catch per unit effort. Section V below explains why the PDT's own analysis does not carry this justification.

Third justification: proportionality. The current draft leads with a rationale absent from the initiating motion. Section 2.1 identifies as the first issue that the Bay Cap does not link to the coastwide TAC.

This justification is circular. In October 2025 the Board cut the 2026 TAC by 20% and left the Bay Cap unchanged. That decision raised the share of reduction quota available within the Bay from 32% to 40%, which Section 2.1 describes as the highest such share since 2017. The Board now identifies that elevated share as the condition requiring a Bay Cap reduction. No fact concerning the resource, the Bay, or the fishery changed between the two decisions. The Board altered one variable and now proposes to charge the resulting ratio against the reduction fishery.

The proportionality premise also lacks historical foundation. Table 1 of the draft shows the Bay Cap has never tracked the TAC. It stood at 51.06% of the TAC in 2013, 43.61% in 2017, and 21.84% in 2023. Section 2.2.2 states that the roughly 41.5% Bay Cap reduction in Amendment 3 did not correspond to the change the Board made to the TAC that year, which was an 8% increase. The Commission set the Bay Cap in 2006, 2013, and 2018 by reference to recent absolute landings, in order to prevent the fishery from expanding within the Bay. The draft asserts proportionality to the TAC as an intent for the first time in 2026, then applies that intent retroactively to declare the existing cap misaligned.

IV. The Commission Has Examined This Premise Twice and Come Up Empty

One part of the record deserves the Board's attention before the standards analysis, because the Commission produced it and because it answers the question this draft asks.

In 2005 the Board created the Atlantic Menhaden Research Program for the specific purpose of evaluating whether localized depletion occurs in Chesapeake Bay. Section 1.5.1.4 of Amendment 3 records the result: the 2009 peer review report could not conclude that localized depletion occurs in the Bay, and found that given the high mobility of menhaden, such depletion could occur only on a relatively small scale for a relatively short time. Amendment 3 nonetheless defends maintaining the cap on precautionary grounds. Maintaining a precautionary cap and cutting that cap in half are different propositions, and the second demands more support than the first.

The Commission returned to the question a second time, through the Precautionary Management Work Group described above, and reached no different result. Two research efforts, sixteen years apart, and neither established the predicate.

Between those two efforts, the Commission said so directly. When the Board last reduced this cap, in Amendment 3, Virginia appealed on the ground that the reduction rested on no supporting science. The Commission's own Leadership, comprising then-Chairman James J. Gilmore, Jr., Vice-Chairman Patrick Keliher, and past Chairman Doug Grout, reviewed that appeal and agreed with Virginia on the science. In its January 17, 2018 response, Leadership wrote that "Leadership agrees the Amendment does not provide sufficient evidence to support such claims," the claims being that lowering the Bay Cap was necessary to protect the Bay as a nursery area for menhaden and for other species. Leadership found that claim substantial enough to send to the full Policy Board, the one issue among several in Virginia's appeal that cleared that bar. The same letter recounts that the Bay Cap had never rested on "a scientifically quantified harvest threshold, fishery health index, or fishery population level study," and originated instead as "a compromise reached by managers, fishery stakeholders, and environmental NGOs."

Leadership did not stop at the concession. It recommended forming a Fact Finding Committee to investigate the science surrounding the Bay Cap, and framed that committee's charge as five questions: the impact on menhaden reproduction or other species in the Bay at a given harvest level; whether Bay menhaden harvest affects nursery grounds or other species; whether it affects menhaden reproduction in the Bay; what environmental factors affect that reproduction; and whether any current science would guide the Board in setting an appropriate Bay harvest level.

Those are, almost verbatim, the questions the Board still cannot answer. The current draft concedes as much in Section 2.1. Eight years after its own Leadership said the Commission lacked the science to support the existing cap and should go find it, the Board proposes not to await that science but to cut the same cap by as much as half again. On this question, the most authoritative statement in the Commission's record is the Commission's own, and it runs against the action now before the Board.

V. The Draft Does Not Satisfy Standard 2

Standard 2 requires that conservation programs and management measures rest on the best scientific information available. Section Five(c)(2) places that obligation on the PDT for addenda. Section Eight(f) supplies the definition. Three features of the draft fall short of it.

The document concedes the absence of a scientific basis. Section 2.1 states that sufficient scientific data do not currently exist to comprehensively characterize the abundance and distribution of menhaden throughout Chesapeake Bay and the influence of fishing pressure on menhaden. Section 2.1 then justifies the proposed three-year revisit provision in part by pointing to planned research that would help design a scientifically based Bay Cap setting process. The draft therefore acknowledges two things: that the current Bay Cap setting process does not rest on science, and that the Commission has not yet completed the research that would change this. A measure cannot rest on the best scientific information available when the document proposing it states that the necessary information does not yet exist.

The pound net analysis does not carry the inference the draft draws from it. Section 2.2.4 contains four findings that undercut any causal link between reduction fishery timing and pound net performance:

- For 2023, one of the two years of concentrated mid-summer harvest, weekly Maryland pound net CPUE equaled or exceeded the 2018 to 2022 average, which the draft says suggests little influence of the reduction fishery on pound net catches.
- For 2024, the draft states that although catch rates ran higher than normal, total catch matched other years. The reduction fishery removed no additional fish.
- The draft states that any link between reduction harvest and upper Bay availability would turn jointly on fishery dynamics and migratory patterns at a finer scale than the PDT analysis could reach.
- The PDT discloses that the effort denominator for CPUE counts only nets catching menhaden, which the PDT explains would hold pound net CPUE artificially stable as menhaden abundance declines.

The fourth point bears directly on Section Eight(f). A metric whose denominator the analyst identifies as biased toward stability during the very decline the metric exists to detect does not command general

acceptance as scientifically valid for the purpose the PDT assigns it. The PDT deserves credit for disclosing the limitation. The Board should give that disclosure effect.

The strongest abundance signal in the record points away from the reduction fishery. Section 2.2.5 presents the Maryland DNR Choptank River gillnet survey, which shows abundance dropping sharply in 2024 and remaining low in 2025. The Choptank is a single Maryland tidal river far from reduction fishery operations. In the 2024 season the reduction fishery began roughly five weeks later than in 2018 through 2022, a pattern that fits absent fish better than it fits fish the fleet removed. Standard 2 requires the Board to weigh the information cutting against the proposed action alongside the information supporting it.

VI. The Socioeconomic Section Presents a One-Sided Account of the Board's Own Economic Analysis

This defect warrants separate treatment, because it is the most troubling feature of the document. The Charter does not merely permit the Board to consider economic impacts; it requires the Board to do so. Section Six(a) directs that social and economic impacts and benefits be taken into account. Section Six(b)(1)(i) requires the statement of the problem to address social and economic impacts, and Section Six(b)(1)(vi) requires a summary evaluation of them. The socioeconomic section the Commission added to this draft does not satisfy that obligation. It presents the Board with one half of its own economists' analysis, and the half it presents is the half that makes the action appear less costly than the Board's economists said it may be.

The CESS memorandum contains two findings that pull in opposite directions. One reduces the apparent severity of a Bay Cap cut: the Leontief input-output models in the underlying studies assume employment scales linearly with landings and therefore may overstate long-term employment effects. The other sharply increases it. CESS explained that the linear assumption fails for the reduction sector precisely because of its cost structure. Because a single processing plant must cover the fixed costs of maintaining its shore-side facilities, its fleet, and its insurance regardless of volume, a reduction in landings does not produce a proportional reduction in employment. CESS put the point in concrete terms tied to the very magnitude at issue: where a linear model would predict that a 20% cut yields a 20% employment reduction, the reality is that if a cut pushes landings below the plant's break-even volume, the result is "not a 20 percent layoff but potentially a 100% shutdown of the facility." CESS added that job losses of that kind would fall on Reedville as structural rather than frictional unemployment, because the reduction sector anchors that local economy and offers workers few alternatives nearby.

Section 2.3 carries forward the first finding and omits the second. It reproduces the caveat that the models may overstate employment effects. It reproduces nothing of the threshold analysis, the break-even warning, the prospect of a complete shutdown, or the structural-unemployment finding. It then goes further than omission. Section 2.3 affirmatively tells the Board that seasonal limits may reallocate fishing activity across the season with limited overall economic impact, an assertion it makes two sentences after conceding that neither underlying study examined seasonal restrictions at all. The draft thus supplies the Board a reassuring conclusion its sources do not support, while withholding the alarming conclusion its sources do support.

Every one of these editorial choices runs in the same direction. Each inclusion softens the projected impact; each omission removes an aggravating finding; the one affirmative addition invents a favorable conclusion from silence. A summary that selected among its source's findings at random would not produce that pattern. The effect, whatever its intent, is to place before the Board a picture of the economic stakes that the Board's own economists did not paint and would not endorse.

This is not a quibble over editorial judgment, and noting that the omitted findings appear somewhere in the fuller briefing materials does not cure it. The socioeconomic section of the addendum is the document the Board and the public will read as the Commission's statement of the economic stakes. The omitted finding is not a peripheral one. It is the single most decision-relevant fact in the entire economic record, because it is the only finding that speaks directly to what this action does. The action on the table is a reduction of the Bay Cap by as much as 50%. The Board's own economists warned that a cut approaching that magnitude may not scale to a proportional loss but may instead cross the threshold at which the one remaining Atlantic reduction plant ceases to operate. A Board cannot take an impact into account, in any meaningful sense of the Charter's language, when the document before it has removed the impact from view. Before this document goes to the public as the Commission's account of the economic consequences, the CESS findings belong in it in full.

VII. The Draft Omits Required Contents

Section Six(b) specifies the contents an addendum must contain. The draft omits or leaves incomplete two of them, and both require the PDT to revise the document rather than the Board to edit at the table on August 5.

Section Six(b)(1)(v)(E), enforceability analysis. The Charter requires an analysis of the enforceability of the proposed measures. Section Five(l)(1) assigns the Law Enforcement Committee to advise PDTs on the enforceability of contemplated measures. I have found no enforceability analysis in the draft and no record of LEC input, even though the Board devoted substantial time in May to whether Virginia can administer short quota periods with its existing reporting systems and resources.

Section Six(b)(1)(i), statement of the problem. The Charter requires the document to state the problem it addresses and the objectives implementation will achieve, including social and economic impacts. Section III above describes a statement of the problem that the PDT has revised three times, that no longer contains the concern prompting the Board to act in August 2024, and that now leads with an arithmetic consequence of the Board's own October 2025 TAC decision. The public cannot comment meaningfully on options whose purpose the document does not stably identify.

VIII. The Quota Period Provisions Depart from Standard 7 and the Section Six(a) Principles

Section 3.2 raises issues distinct from the cap reduction.

Standard 7(i). The Charter provides that an FMP should allow internal flexibility within states to achieve its objectives while the states implement and administer the plan. Section 3.2.1 would fix the percentage of the Bay Cap the fishery may harvest in each of three defined periods. Section 3.2.2 would add cross-year overage accounting at the period level. Together these provisions strip Virginia of discretion over the administration of its own sector quota. As one Board member observed in May,

Commission plans typically specify an overall quota and leave management of it to the states. Standard 7(i) reflects that practice.

Allocation decisions. Section Six(a) provides that management measures should focus on conservation while allowing states to make allocation decisions. Dividing a state's sector quota into mandatory seasonal shares allocates that quota across the fishing year. The Board would make an allocation decision inside a single state's quota.

Practical enforceability. Section Six(a) requires management programs that the states can practically enforce, so far as possible with the support of the industry those programs regulate. The Virginia Marine Resources Commission advised the Board in May that it receives Captains Daily Fishing Reports on Thursday for the prior week, that some catches carry a lag of ten to twelve days, that plant confirmation follows weeks later, and that short quota periods would yield only a few data points before the agency must project whether the fleet will exceed a period. That agency, which enforces these measures for the Commonwealth, also told the Board that it lacks the personnel and funding to administer shorter periods and that it would need time to plan for implementation. The Charter directs the Board to weigh that testimony as a standards matter, not merely as a practical inconvenience.

Relative Burden. Section Six(b)(1)(iv)(A) provides that the relative burden of a plan's conservation program may vary from state to state relative to the importance of the fishery in that state compared with its importance elsewhere in the range. That provision permits burden to fall unevenly. It does not answer the objection here. The provision governs how a conservation program distributes its burden; it presupposes a conservation program that satisfies Standard 2. And it speaks to variation in relative burden, not to placing the entire burden of a Bay-wide forage concern on one sector while leaving every other removal from the same waters untouched.

IX. Standards 1, 3, and 4

Standard 1's predicate is absent. Standard 1 addresses preventing overfishing and rebuilding stocks that overfishing or other causes have depleted. The CESS memorandum states that the Atlantic menhaden stock is not overfished. The Board therefore does not act under a rebuilding obligation, which weakens any contention that Standard 1 compels this reduction.

Standard 3 conflicts with the measure's design. Standard 3 requires the Commission to design conservation programs that achieve equivalent management results throughout the range of a stock or its subgroups. Section 2.2.2 of the draft states that additional bait harvest can take place inside Chesapeake Bay. A bait vessel and a reduction vessel take the same fish from the same water, and a predator loses that fish on identical terms. A measure that rests on forage availability within the Bay, yet constrains one sector and exempts every other Bay removal, does not achieve equivalent management results within the area of concern. Should the Board answer that Chesapeake Bay menhaden constitute a subgroup warranting separate treatment, Section 2.1 forecloses that answer by conceding that the data do not permit the Commission to characterize abundance and distribution within the Bay.

Standard 4 and stranded quota. Standard 4 requires that measures minimize waste of fishery resources, and Section Eight(z) defines that to include promoting full and efficient utilization of the

catch. Under Section 3.2.2 Option B, the Board would not reallocate an underage in Quota Period 3. Quota lawfully available under the Bay Cap would go unharvested, and the document identifies no conservation benefit flowing from that result, since the Bay Cap already limits total removals. The Compact's own purpose, which Charter Section One(a) quotes, includes preventing physical waste of the fisheries.

A related design defect. Section 2.1 identifies concentrated harvest as the problem, citing 2023 and 2024, when the reduction fishery took more than half of Bay landings within a six-week mid-summer period. Table 5 shows that under Option B2, the 25/25/50 structure, the final period would carry 50% of the Bay Cap against a 2018 to 2024 average of 16% of landings in that period. A document that identifies concentration as the harm offers, as an option, a structure that manufactures concentration at the other end of the season. Commission staff acknowledged in May that the PDT was pursuing two objectives at once, distributing harvest more evenly and pushing harvest later, and that those objectives pull against each other. The Board should settle which objective governs before asking the public to comment on options serving both.

X. The Record Being Built Here Will Not Stay Within the Commission

I raise one further point not as a threat of litigation, which my client is not announcing, but because the Board should understand where a deficient record travels after it leaves this room.

The Commission has historically relied on the position that it is not a federal agency and that its plan decisions are not directly reviewable under the Administrative Procedure Act. See *New York v. Atlantic States Marine Fisheries Commission*, 609 F.3d 524 (2d Cir. 2010). That doctrine has provided real protection against direct APA challenge. The Board should not, however, mistake it for immunity. Regulated parties have found other routes, and they are using them now.

Harvesters are contesting the scope of that insulation now. In *Outer Cape Lobstermen's Association v. Atlantic States Marine Fisheries Commission*, No. 26-1238, the First Circuit is currently considering an appeal in which a harvesters' association has named the ASMFC and a state marine fisheries director as defendants and asks the court to hold that the Commission is a quasi-federal agency subject to the Administrative Procedure Act, and separately that the federal statutory scheme unconstitutionally commandeers the states. Whatever the outcome, the case illustrates that the reviewability of Commission action is a live and openly litigated question, not a settled shield. And the memory of the industry is long: the challenge now before the First Circuit traces to a complaint first filed in 1998, revived decades later. A Commission that leaves a vulnerable record does not control how long that record remains available to those it regulates, or in what forum they raise it.

Two features of this action make that landscape relevant. First, the Bay Cap reduction reaches the reduction fishery only when Virginia implements it by regulation, and a state implementing regulation faces constitutional and state-law challenge in a way the Commission's plan does not. Second, should Virginia decline to implement and the Commission refer the Commonwealth for non-compliance, the resulting determination by the Secretary of Commerce is federal action, and a challenger can contest the adequacy of the underlying plan record at that stage. The Commission invoked that non-compliance mechanism against Virginia as recently as 2019, so this is not a hypothetical sequence.

There is also a forum inside the Commission, and the Board has been through it before on this precise question. Under the appeals process, a state aggrieved by a Board action may seek review by the Policy Board, and Virginia used that route against the last Bay Cap reduction. Section IV describes what the Commission's Leadership concluded when it did. Virginia later withdrew the appeal, but the withdrawal did not retract the concession, which predated it and remains in the Commission's record. The Board should assume that a further reduction of the same cap would draw the same appeal, and that the 2018 statement would frame it.

The point for present purposes is narrow. A record that changes its stated rationale three times, that concedes the absence of the science its own measure requires, that omits its economists' most consequential finding, and that lacks a required enforceability analysis is precisely the record a reviewing court examines when a challenger contests a downstream state or federal action. The doctrines that keep the Commission's plan decisions out of direct APA review do not travel downstream with those decisions. The Board serves its own interest, and the durability of whatever it ultimately adopts, by building a record that withstands later scrutiny rather than one that invites it.

XI. Conclusion and Requested Action

The Commission adopted the Section Six standards to ensure that its plans rest on science, distribute burdens fairly, remain administrable for the states that must enforce them, and address problems the record establishes. This draft does not meet that test. Its stated basis has changed three times as each predecessor failed. Its supporting analyses carry limitations the PDT itself disclosed. Its central concession is that the data that would characterize the problem do not exist. Its quota period provisions displace state administrative discretion and make an allocation decision within a single state's quota. Its socioeconomic section omits the most consequential finding the Board's own economists supplied. And it appears to lack the enforceability analysis the Charter requires.

Amendment 3 itself directs the Commission to construct regulations based on the best available science, to ensure fair and equitable access across regions and gear types, and to maintain the existing culture and social features of the fishery to the extent possible. A reduction of up to half the Bay Cap, imposed on one sector supporting one plant in one county, on a record two research programs have failed to establish, does not advance those objectives.

None of this asks the Board to abandon its interest in Chesapeake Bay menhaden. The opposite is true. The Board is, right now, on the verge of finally answering the questions it has posed for two decades. Three separate funding streams, together exceeding \$4.5 million, are committed to Bay-specific menhaden research, all of them organized around the 2023 VIMS research roadmap that the Commission itself treats as the starting point for this work. The Board would take final action on a permanent cut just as that research begins to deliver.

The first stream is federal. Congress appropriated \$2.5 million for menhaden research in the Chesapeake Bay, and the Commission is developing the request for proposals now, using the 2023 VIMS roadmap as the framework.

The second stream is state, and more recent still. In late June 2026 the Virginia General Assembly adopted a budget amendment appropriating \$2 million over the biennium, \$1 million in each year, to

the Virginia Institute of Marine Science in collaboration with the Virginia Marine Resources Commission. The appropriation states that the funding “shall be used for Atlantic menhaden research necessary to inform a scientifically defensible and ecologically meaningful Chesapeake Bay harvest cap.” The research questions the Commonwealth directs VIMS to pursue are the same questions this draft addendum concedes it cannot answer: the seasonal abundance of menhaden in the Bay, the movement rates of menhaden between the coast and the Bay, predator demand and consumption, the spatial and temporal patterns of reduction fishing effort in the Bay, and the possibility of localized depletion. The appropriation also directs Virginia’s workforce and economic development agencies to analyze the workforce impacts of coastwide and Bay Cap changes, the very analysis the CESS finding discussed in Section VI shows this draft has not undertaken.

The third stream is industry, and it is the most telling of the three. Through the Science Center for Marine Fisheries, an NSF-supported industry-university cooperative research center, the reduction industry has funded the foundational Bay research directly, including two projects, one at \$55,000 and one at \$38,254, supporting the tag-and-recapture work of the kind that any biologically based Bay Cap would ultimately require. Those sums are modest next to the public appropriations, but the point is not their size. The point is their direction: the regulated industry is paying to develop the very science that would test the premise of the measure the Board is considering. An industry funding the research needed to test that premise is not the posture of an industry with something to hide from the answer.

Two features of this converging effort bear on the timing of the action before the Board. First, the Virginia appropriation does not merely fund research; it builds a mechanism to deliver that research into this Commission’s own process. Beginning with fiscal year 2028, the appropriation directs VMRC to provide the new VIMS scientific data and research products to inform the ASMFC’s annual deliberations on any proposed changes to the coastwide or Chesapeake Bay total allowable catch levels. The Commonwealth has funded, and scheduled, a pipeline of Bay-specific science aimed squarely at the decision this addendum would make. Second, all three streams follow the VIMS roadmap, which makes them a coordinated program rather than three scattered grants.

The Board proposes to make a permanent decision now, cutting the Bay Cap by as much as half, before the first deliverable of a \$4.5 million coordinated research program arrives. The prudent course, and the course the Commission’s own standards require, is to let the science that the Congress, the Commonwealth, and the industry are all paying for arrive before acting on the question it exists to answer.

I make two requests of the Board. The first is one only the Board can grant itself: to give effect to its own 2018 determination. Cutting this cap again, and more deeply, on a record that has not improved in the intervening eight years, is not consistent with what the Commission concluded then. The Board need not treat that conclusion as an obstacle. It can treat it as guidance the Commission itself supplied: identify the science first, then set the cap. The Commission has already told itself the right order of operations. This draft reverses it.

The second request follows from the first. I respectfully ask that the Board decline to approve Draft Addendum II for public comment on August 5, and instead direct the PDT and the Technical Committee to return with a statement of the problem the record supports, an enforceability analysis under Section Six(b)(1)(v)(E), a socioeconomic section presenting the CESS findings in full, and a defined relationship

between this action and the Bay-specific research that the Congress, the Commonwealth of Virginia, and the industry are now funding.

I appreciate the Board's consideration and the work the PDT, the Technical Committee, and Commission staff have devoted to a difficult document. I have set out my client's position in full here so that the Board has the complete argument before it, and I welcome questions from any Commissioner or from staff.



July 29, 2026

Via Electronic Mail

Mr. Joseph Cimino, Chair
Atlantic Menhaden Management Board
Atlantic States Marine Fisheries Commission
1050 N. Highland St., Suite 200 A-N
Arlington, VA 22201

RE: Addendum II to Amendment 3 of the Atlantic Menhaden Interstate Fishery Management Plan

Dear Chairman Cimino,

Ocean Harvesters submits this letter in response to the draft Addendum II to Amendment 3 of the Atlantic Menhaden Interstate Fishery Management Plan. The company previously had requested a delay in action until the Menhaden Technical Committee ("TC") had an opportunity to determine if the proposed actions have any basis in science. This review is complete, and that analysis, along with the shifting justification for the action throughout its development, confirm that there is no scientific basis for this Addendum. For the reasons explained here, as well as in the Black Point Maritime Law memo, Ocean Harvesters respectfully urges the Menhaden Board not to approve Addendum II for public comment and potential implementation.

The Addendum proposes three actions: (1) reducing the Chesapeake Bay reduction fishery cap by up to 50 percent and/or linking it to changes in the total allowable catch ("TAC"); (2) instructions to the Virginia Marine Resources Commission as to how to manage that cap; and (3) establishing a regular schedule for "revisiting" the cap.

The first lacks any scientific basis, as the ASMFC Executive Board admitted when Virginia appealed the Bay cap reduction from 87,216 metric tons ("mt") to 51,000 mt in 2017. In finding that Virginia's challenge on science grounds has merit, then Chairman Jim Gilmore stated:

"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."

No new science has been presented which changes this conclusion. There is, however, \$4.5 million in research funding in the pipeline and a roadmap being developed by the Science Center

for Marine Fisheries that Ocean Harvesters is financially supporting to guide research that will provide relevant information.

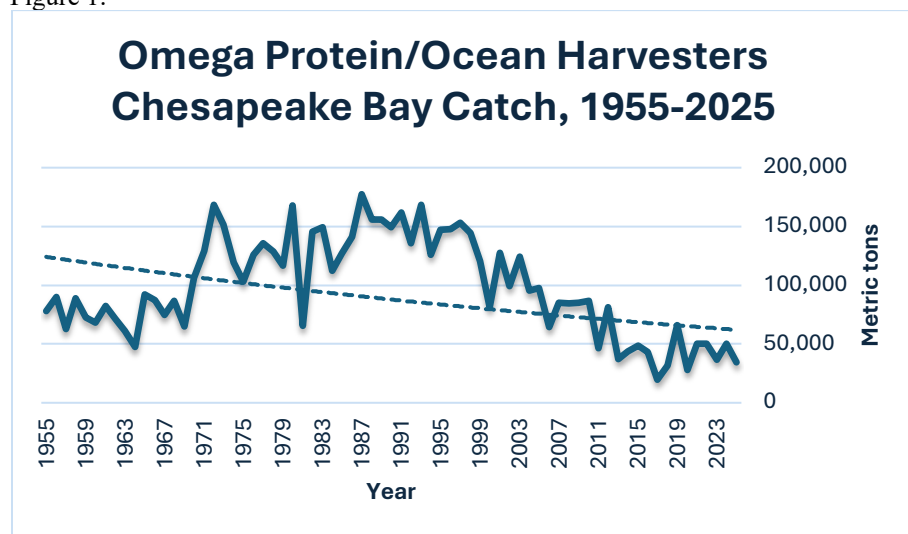
The only rationale provided to justify further cuts to the cap is that it is not linked to the coastwide TAC. This proposition is unremarkable given that the Bay reduction cap *preceded* the TAC, having been implemented as a purely precautionary measure six years before Amendment 3. Even though it was reduced by the same 20 percent as average coastwide landings in 2012, the Bay cap was never intended to be linked to the overall menhaden quota. In fact, since 2012, the TAC has **been raised four times** (lowered once), yet the only *cut* to the Bay cap – a whopping 41.5 percent – came in the same year that the TAC *increased* by 8 percent.

Just to show how conservative the current Bay reduction fishery cap is – and how thin the justification of sustaining a constant proportion – this is how the reduction fishery cap would have changed over the past thirteen seasons if the Bay Cap had been linked to the overall TAC since the original 20% cut adopted as part of Amendment 2:

- **2015 (10% increase):** 99,063 mt
- **2017 (6% increase):** 102,159 mt
- **2018 (8% increase):** 110,397 mt
- **2021 (10% decrease):** 99,063 mt
- **2023 (20% increase):** 118,875 mt
- **2025 (20% decrease):** 94,971 mt

The reason the reduction cap is not tied to the TAC is that there is no scientific linkage between the two. The reduction fishery cap is purely a precautionary measure meant to prevent expansion of the fishery in the Bay pending scientific analysis that might provide a limit that has an actual biological basis. The current level of 51,000 mt has constrained reduction harvests to their lowest level going back to at least 1955 (as the figure below demonstrates), and perhaps to 1855 given the large number of plants and vessels operating in the Chesapeake throughout that period.

Figure 1:

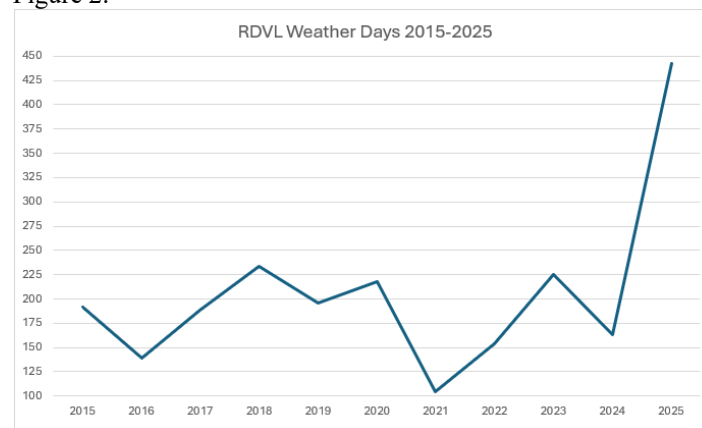


The current, extremely precautionary, Bay harvest cap is already at a level that can threaten the viability of Ocean Harvesters and Omega Protein, as explained further below.

The draft Addendum also states that a rationale for the Bay cap is to maintain some consistent ratio of Virginia’s ocean versus bay harvest (albeit while ignoring bait harvest in the Bay). This was never a topic of discussion in Addendum II to the original ISFMP which established the first cap, nor was maintaining a particular ratio a goal or objective of Amendments 2 and 3, each of which subsequently lowered it. There is a good reason for this. There is no biological or scientific significance of this ratio to the Bay or predators. Within the Bay, the important factor is absolute removals (bait plus reduction), and as shown above, those levels are historically low.

In sum, there is no justification for either lowering the Bay cap or tying it to the coastwide TAC. On the other hand, lowering it any further does threaten an objective of Menhaden ISFMP. Specifically, to “[m]aintain existing culture and social features of the fishery to the extent possible.” As the Committee on Economic and Social Sciences (“CESS”) noted in its report (though conspicuously absent from the draft Addendum), if a 20 percent cut to the Bay cap leads to a reduction in landings below Omega Protein’s break-even volume, the result is “not a 20 percent layoff but potentially a 100% shutdown of the facility.” The current TAC, coupled with increasingly unpredictable and extreme weather conditions (see Figure 2), is already putting the reduction industry perilously close to this tipping point.

Figure 2:



Total vessel fishing days lost to inclement weather for Ocean Harvesters’ Reedville, VA, fleet, by year.

Further reductions – either directly to the cap, or backdoor cuts which will occur if Ocean Harvesters is disallowed from harvesting menhaden while they are in Virginia waters due to the seasonal quotas (discussed below) – risk not only the more than 500 full- and part-time jobs directly employed by the reduction sector. As the CESS noted, “the reduction industry is a critical and central sector for the local economy around Reedville, Virginia” and that its loss “could, potentially lead to structural unemployment rather than frictional transition, as we might expect in larger or more diversified economies.” If the adverse weather conditions (which are more common in ocean waters than the Bay) that persisted in 2025 become the norm and Bay fishing opportunities are further reduced, the CESS’ extreme scenario could easily come to pass.

Thus, Ocean Harvesters urgently requests that the Board not consider any further cap reductions

The second action would tell Virginia to divide the Chesapeake Bay reduction fishery cap into sub-annual quotas. This is an extreme intrusion into the Commonwealth's sovereignty and is therefore inconsistent with the ISFMP Charter, which places such allocation decisions in the hands of ASMFC member states. *See* Sec. Six(a). It also lacks justification and amounts to a *de facto* cap cut because it prevents Ocean Harvesters' vessels from operating in the Bay when ocean conditions prevent safe harvesting and menhaden are locally available in the Bay.

The Addendum is premised on the supposed need to "reduce the concentration and volume of reduction harvest within Chesapeake Bay from recent levels to allow the ingress of menhaden to distribute throughout Chesapeake Bay." It assumes a problem rather than considering scientific evidence to determine if there is, in fact, any relationship between the reduction fishery and Maryland poundnet catches. All the evidence examined suggests that this is not the case.

The Menhaden Technical Committee found that in 2023, later reduction harvests correlated with increase catch-per-unit-of-effort ("CPUE") in the Maryland poundnet fishery, while similar late harvests in 2024 correlated with a decline in Maryland CPUE. They also found that menhaden were less abundant, at least in the Choptank River, in 2024. The only scientifically rational conclusion from the data is that **reduction fishery catches have no impact on the Maryland poundnet fishery.**

The Black Point letter provides much more detail on the lack of a justification for this measure and the administrative problems it entails. We will just note that earlier drafts of the Addendum had noted that the seasonal limitations on harvest could lead to up to a 20 percent cut in reduction harvests. That is not unrealistic, especially considering the first two options put as much as 50 percent of the quota into a period that historically accounts for only 16 percent of Ocean Harvesters' bay landings.

The Maryland poundnet and Virginia reduction fisheries have coexisted for over 150 years. One anomalous year is not a justification for intruding on a member state's sovereignty or ignoring the utter lack of either a scientific basis or rationale for such an extreme action.

The final measure is not particularly objectionable but does impose a burden on the Management Board without providing benefits. A mandatory review of the Bay cap is meaningless if there is no new information to inform a change. As things stand, the Board is free to take up the issue at any time. Ocean Harvesters believe that the Board should wait for information that will be provided through the \$4.5 million in research funding before revisiting this issue.

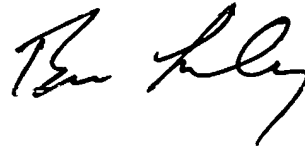
As a final point, Ocean Harvesters would like to register its objection to the biased and outcome-oriented nature of the analysis in the draft addendum. The omissions from the CESS report have already been noted. A fair management document would recognize and explain all potential impacts of the measures under consideration.

Another glaring misrepresentation is the inaccurate statement that the Bay cap is premised on maintaining some particular ratio of bay to ocean catches. This error is made all the worse by focusing on the relative **amount of harvest** in each area in the Statement of the Problem, but including the graphic that shows the **amount of effort** (net sets) in the Background section. The text in that section says: “In the last five years (2021-2025), **about 50%** of all reduction fishery effort (i.e., purse seine net sets) has occurred within Chesapeake Bay” In fact, the percentage of menhaden harvested in the Bay has **averaged 32 percent** every year since 2013, and has not exceeded 44 percent over that time.

As explained, the ratio is meaningless. That is not a justification for mixing the two measures, especially when the latter focus on effort appears intended to exaggerate the fishery’s impact. But a public information document should fairly and dispassionately explain the rationale, background, and best scientific, economic, and social impacts of a proposed action. This document fails this basic test.

For all these reasons, Ocean Harvesters urges the Menhaden Board not to take any further action on the Addendum.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Landry".

Ben Landry
Vice President of Public Affairs
Ocean Fleet Services

cc: Members of Atlantic Menhaden Board