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MEMORANDUM

Date: September 18, 2020

To: Council and Board

From: Matthew Seeley, Council staff

Subject: Bluefish Allocation and Rebuilding Amendment

The Council and Board are developing an amendment to address several issues in the bluefish fishery. The Council and Board reviewed scoping comments at the joint May meeting and advised the Fishery Management Action Team (FMAT) to begin drafting alternatives. The FMAT then continued to develop and refine (with Council and Board input) an initial range of alternatives in September. At the joint October meeting, the Council/Board will review the final FMAT recommendations on a draft range of alternatives and will approve a reasonable range of alternatives for inclusion into a public hearing document (Council) and draft amendment (Commission). The public hearing document and draft amendment will be reviewed by the Council and Board at the February meeting to be approved for public hearings.

Please see the table below for a summary of the FMAT recommendations. Alternatives recommended for removal from an alternative set are denoted in red text. *Italics used in the same alternative set indicate one of two alternatives is recommended for removal, but not both.*

The following briefing materials are enclosed on this topic:

1) FMAT Meeting Summary

2) Action Plan

Issue	Alternative	Detail	Basis/Description
1: FMP Goals and Objectives	1.1	Status quo	
	1.1.1	Proposed	
2: Commercial/ Recreational Sector Allocations	2.1	83% Rec, 17% Comm (Status quo)	1981-1989: Catch-Based
	2.1.1	89% Rec, 11% Comm	2014-2018, 2009-2018: Catch-Based
	2.1.2	87% Rec, 13% Comm	1999-2018: Catch-Based
	2.1.3	86% Rec, 14% Comm	1981-2018: Catch-Based
	2.2.1	86% Rec, 14% Comm	2014-2018, 2009-2018: Landings-Based
	2.2.2	84% Rec, 16% Comm	1999-2018, 1981-2018: Landings-Based
	2.3	No Phase-in	
	2.3.1	Phase-in	
3: Commercial Allocations to the States	3.1	Status quo	Old MRIP 1981-1989 (Amend 1)
	3.1.1	5 year	2014-2018: Landings-Based
	3.1.2	10 year	2009-2018: Landings-Based
	3.1.3	20 year	1999-2018: Landings-Based
	3.1.4	*1981-present*	*1981-2018: Landings-Based*
	3.1.5	*1981-1989 and 2019-2018*	*81-89 (50%) and last ten years (50%): Landings-Based*
	3.2	No Phase-in	
	3.2.1	Phase-in	Phase in over preferred rebuilding plan duration
	3.3	No Trigger	
	3.3.1	Pre-Transfer Trigger	Trigger time series should match the preferred alternative under section 3.1-3.1.5
	3.3.2	Post Transfer Trigger	
	3.4	No Minimum Default Allocation	
	3.4.1	0.10% - Minimum Default Allocation	
	3.4.2	0.25% - Minimum Default Allocation	
	3.5.3	0.50% - Minimum Default Allocation	
4: Regional Commercial Allocations	4.1	Status quo/No action	
	4.1.1	5 year	2014-2018: Landings-Based
	4.1.2	10 year	2009-2018: Landings-Based
	4.1.3	20 year	1999-2018: Landings-Based
	4.1.4	1981-present	1981-2018: Landings-Based
	4.1.5	1981-1989 and 2019-2018	81-89 (50%) and last ten years (50%): Landings-Based
5: Rebuilding Plan	5.1	Status quo/No action	
	5.1.1	Constant harvest	4 years
	5.1.2	Constant F - 10 years	10 years
	5.1.3	Constant F - 7 years	7 years
	5.1.4	Constant harvest (highest catch)	10 years
	5.1.5	P* approach	5 years

6: Transfers - Sector	6.1	No Action/Status quo	Sector transfer cap
	6.1.1	Sector transfer cap: 5%	Sector transfer cap: 5%
	6.1.2	Sector transfer cap: 10%	Sector transfer cap: 10%
	6.1.3	Sector transfer cap: 15%	Sector transfer cap: 15%
	6.2	No Action/Status quo	Bidirectional transfer
	6.2.1	Allow transfer both ways	Bidirectional transfer
7: Management Uncertainty	7.1	No Action/Status quo	
	7.1.1	Post Sector-Split	
8: *De minimis*	8.1	No Action/Status quo	
	8.1.1	Proposed	

Bluefish Allocations and Rebuilding Amendment

FMAT Meeting: September 8, 2020 from 9:00 a.m. - 12:00 p.m.

Meeting Summary (Dated: September 16, 2020)

The objective of this meeting is for the Fishery Management Action Team (FMAT) to provide recommendations for a final range of draft alternatives to be presented to the Council/Board at the joint October meeting. The Council/Board are scheduled to approve a public hearing document and draft amendment for public comment in December or February.

In this document, alternatives recommended for removal from an alternative set are denoted in red text. They were not simply removed from the document to allow for comparison and justification to be presented as to why they were recommended for removal. All changes for each alternative set are summarized under each respective section.

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1. Fishery Management Plan Goals and Objectives

The no action/status quo option keeps the existing Fishery Management Plan (FMP) goals and objectives that were developed in 1991. The proposed FMP goals and objectives include revisions based on input provided by the public, bluefish advisory panel members, and Council/Board members.

1.1 No Action/Status Quo

Goal: Conserve the bluefish resource along the Atlantic coast.

1. Objective: Increase understanding of the stock and of the fishery.
2. Objective: Provide the highest availability of bluefish to U.S. fishermen while maintaining, within limits, traditional uses of bluefish.
3. Objective: Provide for cooperation among the coastal states, the various regional marine fishery management councils, and federal agencies involved along the coast to enhance the management of bluefish throughout its range.
4. Objective: Prevent recruitment overfishing.
5. Objective: Reduce the waste in both the commercial and recreational fisheries.

1.1.1 Proposed

Goal 1. Conserve the bluefish resource through stakeholder engagement to maintain sustainable recreational fishing and commercial harvest.

> **Objective 1.1.** Achieve and maintain a sustainable spawning stock biomass and rate of fishing mortality.
>
> **Objective 1.2.** Promote practices that reduce discard mortality within the recreational and commercial fishery.
>
> **Objective 1.3.** Maintain effective coordination between the National Marine Fisheries Service, Council, Commission, and member states by promoting compliance and to support the development and implementation of management measures.
>
> **Objective 1.4.** Promote compliance and effective enforcement of regulations.
>
> **Objective 1.5.** Promote science, monitoring, and data collection that support and enhance effective ecosystem-based management of the bluefish resource.

Goal 2. Provide fair and equitable access to the fishery across all user groups throughout the management unit.

> **Objective 2.1.** Ensure the implementation of management measures provides fair and equitable access to the resource across to all groups along the coast.
>
> **Objective 2.2.** Consider the economic and social needs and priorities of all groups that access the bluefish resource in the development of new management measures.
>
> **Objective 2.3.** Maintain effective coordination with stakeholder groups to ensure optimization of economic and social benefits.

FMAT Comments/Recommendations on Issue 1

The FMAT discussed the FMP goals and objectives and noted that the "Strategies", which were presented under Objective 1.3, should be listed as objectives. This change (adding Objectives 1.4 and 1.5) was made because the two statements supplement the first goal in the same way as the other objectives. The revised proposed FMP Goals and objectives are reflected above.

2. Commercial and Recreational Sector Allocations

Under the current FMP for bluefish, the Acceptable Biological Catch (ABC) equals the fishery level Annual Catch Limit (ACL), which is then divided into a commercial and recreational Annual Catch Target (ACT) based on the allocation percentages defined in the FMP. Sector-specific expected discards are subtracted from the sector-specific ACTs to derive a commercial quota and a Recreational Harvest Limit (RHL). Aside from the status quo option, the following approaches revise the allocation percentages based on modified base years or different data sets.

2.1 No Action/Status Quo

The no action/status quo alternative keeps the existing sector allocation percentages, which were based on old General Canvass and MRFSS landings data from 1981-1989 (**Table 1**). The recreational and commercial allocations are 83% and 17%, respectively.

Table 1. Bluefish landings (000's lbs) along the U.S. Atlantic coast from 1981-1989 (see Table 23 in Amendment 1). Source: Unpublished NMFS General Canvass and MRFSS data.

Year	Rec	Comm	Total	%Rec	%Comm
1981	95,288	16,454	111,742	85%	15%
1982	83,006	15,430	98,436	84%	16%
1983	89,122	15,799	104,921	85%	15%
1984	67,453	11,863	79,316	85%	15%
1985	52,515	13,501	66,016	80%	20%
1986	92,887	14,677	107,564	86%	14%
1987	76,653	14,504	91,157	84%	16%
1988	48,222	15,790	64,012	75%	25%
1989	39,260	10,341	49,601	79%	21%
1990	30,557	13,771	44,328	69%	31%
1991	32,997	13,581	46,578	71%	29%
1992	24,275	11,478	35,753	68%	32%
1993	20,292	10,122	30,414	67%	33%
1994	15,541	9,453	24,994	62%	38%
1995	14,174	7,847	22,021	64%	36%
1996	14,735	9,288	24,023	61%	39%
Avg. 81-89	71,601	14,262	85,863	83%	17%
Avg. 81-96	49,811	12,744	62,555	75%	25%

2.1.1-2.1.4 Sector Allocations Alternatives Based on Catch Data

These alternatives use catch data and a specified time series (see **Table 2**) to develop allocations between the commercial and recreational sectors. The recreational landings and catch data were pulled from the Marine Recreational Information Program (MRIP) query website. Landings (A+B1) includes the estimate of all harvested fish in pounds. MRIP provides estimates of live releases in numbers of fish and not in pounds. The approach used by the Greater Atlantic Regional Fisheries Office (GARFO) to monitor the recreational fishery was used to generate estimates of dead discards.

Discards in pounds were calculated by multiplying the live releases (B2s) estimate by the mean weight of landed fish specified at the wave and state level. For specific state and wave entries lacking data on harvested fish, an average weight of harvested fish from a similar wave/state were calculated. In this way, live releases in numbers of fish were converted to an estimate in weight. This value was then multiplied by the 15% discard mortality rate that is assumed in Bluefish stock assessments to produce the dead discard estimates in pounds.

The commercial data was pulled from the ACCSP data warehouse in the form of a data request on May 12, 2020 from the ACCSP bluefish data lead Joseph Myers. Landings data were validated by staff from each state. One potential shortcoming of developing sector allocations based on catch data is that no estimates of commercial discards are available. According to the 2019 Operational Stock Assessment and the 2015 Benchmark Stock Assessment for Bluefish, commercial discards are considered negligible and thus were assumed to be zero for the purposes of developing the sector allocations. **Table 2** includes the allocation percentages associated with each time series (basis). If more than one time series generated the same allocations, the resulting alternatives were combined (see Alternative 2.1.1).

Table 2. Recreational and commercial sector allocation alternatives based on catch data.

Alternative	Basis	Recreational Allocation	Commercial Allocation
2.1 (Status quo)	1981-1989 (Landings-based)	83%	17%
2.1.1	5 year (2014-2018) and 10 year (2009-2018)	89%	11%
2.1.2	20 year (1999-2018)	87%	13%
2.1.3	Full Time Series (1981-2018)	86%	14%

2.2.1-2.2.4 Sector Allocations Based on Landings Data

These alternatives use landings data and a specified time series (see **Table 3**) to develop the allocations between sectors. The recreational data was pulled from MRIP with landings in weight equal to A+B1. The commercial data is from the ACCSP data warehouse (data request).

Table 3 includes the allocation percentages associated with each time series (basis). If more than one time series generated the same allocations, the resulting alternatives were combined (see Alternatives 2.2.1 and 2.2.2).

Table 3. Recreational and commercial sector allocation alternatives based on landings data.

Alternative	Basis	Recreational Allocation	Commercial Allocation
2.1 (Status quo)	1981-1989 (Landings-based)	83%	17%
2.2.1	5 year (2014-2018) and 10 year (2009-2018)	86%	14%
2.2.2	20 year (1999-2018) and Full Time Series (1981-2018)	84%	16%

2.3-2.3.1 Phase-In Approaches

Phasing in allocation changes would allow for the commercial/recreational allocation percentages to adjust slowly over time. Considering the current recreational allocation is at 83% and an increase to 89% (the largest proposed increase) represents less than a 10% increase in allocation, a phase-in approach may not be necessary from at least the recreational fishery perspective. The FMAT previously indicated that phasing in allocation changes could be challenging to coordinate during a rebuilding period that has the potential to already be complex and destabilizing.

2.3 No Phase-In

This alternative would result in no phase-in approach being implemented (i.e. no action).

2.3.1 Phase-In

This alternative would result in a phase-in approach being implemented to allow for gradual change in the allocation percentages. The FMAT has previously recommended that the phase-in timing of allocation changes be consistent with the duration associated with the preferred rebuilding alternative. For example, if alternative 2.1.3 and 5.1.1 (constant harvest) are both selected, the allocation change is 4% and the rebuilding timeline is 4 years. Thus, the phase-in approach would result in a 1% allocation change each year.

FMAT Comments/Recommendations on Issue 2

Allocations

The FMAT recommended the public have an opportunity to comment on allocation alternatives that use catch and landings data. The FMAT noted that the allocation percentages already allocate catch between the two sectors and not landings. From this perspective, it makes sense to align the data used to calculate the allocation percentages with GARFO's catch accounting and accountability methodology. However, the FMAT also noted that the commercial fishery has been assumed to have negligible discards for some time. This assumption will be reevaluated during the next research track stock assessment. If in fact there are discards in the commercial fishery that re not being included in the catch data used to develop allocations, this could skew the allocation shares.

Phase-In

The FMAT discussed the degree to which allocations vary across time series. Since a phase-in allocation approach could mitigate negative socioeconomic consequences of a sector losing a significant portion of its quota by allowing for gradual change, the FMAT recommends retaining the phase-in alternatives for consideration in a public hearing document.

3. Commercial Allocations to the States

3.1 No Action/Status Quo

The no action/status quo alternative keeps the existing landings-based commercial allocations to the states which were set through Amendment 1 using General Canvass Data and includes no phase-in, trigger, or minimum default allocation (**Table 4**).

Table 4. State-by-state commercial bluefish allocations along the U.S. Atlantic coast set using data from 1981-1989 (see Table 60 in Amendment 1). Source: NMFS General Canvass Data.

State	Pounds	%	Quota Without Increase in Landings	Quota Allowing for Increase in Landings
ME	858,177	0.67%	39,740	70,093
NH	532,032	41.38%	24,637	43,454
MA	8,621,803	6.71%	399,255	704,198
RI	8,739,090	6.80%	404,686	713,777
CT	1,625,500	1.26%	75,273	132,765
NY	13,330,736	10.37%	617,314	1,088,806
NJ	19,018,645	14.79%	880,707	1,553,374
DE	2,410,900	1.88%	111,643	196,914
MD	3,853,253	3.00%	178,435	314,720
VA	15,248,930	11.86%	706,141	1,245,477
NC	41,154,504	32.01%	1,905,766	3,361,351
SC	45,161	0.10%	5,953	10,501
GA	12,205	0.10%	5,953	10,501
FL	12,912,995	10.04%	597,970	1,054,687
Total	128,363,931	100	5,953,473	10,500,618

3.1.1-3.1.5 Commercial Allocations to the States Alternatives Based on Landings Data

The Council and Board agreed to move forward with developing six alternatives using only landings data for the commercial state-to-state allocations (**Table 5**) because commercial discards are considered negligible in both the benchmark and operational stock assessments. The commercial data is from the ACCSP data warehouse (data request).

Table 5. State-by-state commercial bluefish allocations along the U.S. Atlantic coast using different proposed time series.

	Landings-Based Allocation Alternatives					
	3.1	3.1.1	3.1.2	3.1.3	*3.1.4*	*3.1.5*
State	Status quo (1981-1989)	5 year (2014-2018)	10 year (2009-2018)	20 year (1999-2018)	*Time Series (1981-2018)*	*1/2 '81-'89 1/2 '09-'18*
ME	0.67%	0.00%	0.01%	0.01%	*0.43%*	*0.49%*
NH	0.41%	0.03%	0.12%	0.17%	*0.65%*	*0.33%*
MA	6.71%	10.64%	10.16%	7.53%	*7.18%*	*7.66%*
RI	6.80%	11.81%	9.64%	8.00%	*7.96%*	*7.59%*
CT	1.26%	1.18%	1.00%	0.73%	*1.12%*	*1.19%*
NY	10.37%	20.31%	19.94%	19.44%	*14.76%*	*13.01%*
NJ	14.79%	11.23%	13.94%	15.23%	*15.57%*	*14.57%*
DE	1.88%	0.58%	0.40%	0.39%	*1.09%*	*1.47%*
MD	3.00%	1.50%	1.84%	1.54%	*2.10%*	*2.68%*
VA	11.86%	4.62%	5.85%	6.92%	*8.79%*	*10.26%*
NC	32.01%	32.06%	32.38%	36.94%	*33.52%*	*32.13%*
SC	0.10%	0.00%	0.00%	0.00%	*0.02%*	*0.03%*
GA	0.10%	0.00%	0.00%	0.01%	*0.01%*	*0.01%*
FL	10.04%	6.07%	4.75%	3.10%	*6.91%*	*8.59%*
Total	**100.00%**	**100.01%**	**100.03%**	**100.02%**	***100.10%***	***100.00%***

3.2-3.2.1 Phase-In Approaches

The degree to which commercial state allocations differ from status quo allocations vary by proposed time series. The differences in an individual state's allocation is typically more substantial if the state has been either landing all its quota and requesting transfers, not achieving its quota for many years, or has been transferring away its quota for many years. A phase-in allocation approach could mitigate the negative socioeconomic consequences of a state losing a significant portion of its quota by allowing for gradual change.

The FMAT previously said that phasing in allocation changes could be challenging to coordinate during a rebuilding period that has the potential to already be complex and destabilizing. The FMAT noted that they want to ensure altering the commercial allocations to the states does not make management unduly complicated for the respective states. In addition, a re-allocation of state quotas that accurately represents the current needs of the fishery reduces the need for a phase-in approach because states will have a more appropriate quota given their recent landings. Lastly, a phase-in approach would not be applicable if the Council/Board replace state by state commercial allocations with regional commercial allocations.

3.2 No Phase-In

This alternative would result in no phase-in approach being implemented (i.e. status quo).

3.2.1 Phase-In

This alternative would result in a phase-in approach being implemented to allow for gradual change in the allocation percentages. The FMAT has previously recommended that the phase-in timing of allocation changes be consistent with the duration associated with the preferred rebuilding alternative (see explanation in 2.3.1).

3.3-3.3.2 Trigger Approaches

A trigger approach allows for additional quota (anything above a set trigger threshold) to be allocated in a different way than what is specified in section 3.2.1-3.2.5 of this document. The proposed quota triggers were developed by averaging the commercial quotas for each time series associated with alternatives 3.2.1-3.2.5. Following the Council/Board's direction, trigger threshold options were also developed by averaging the initial commercial quota that do not include transfers from the recreational to commercial fishery (**Table 6**). **Figure 1** displays the proposed trigger thresholds in relation to the commercial quotas from 1999-2018. **Table 7** displays the ranges of baseline quota and their associated allocation percentages once a trigger threshold is surpassed. The FMAT previously discussed the minimum baseline allocation for states with currently less than 1% of the overall quota and proposed 0.10% or 0.25%. Ultimately, the FMAT recommended moving forward with 0.10% because it is more consistent with state shares with the smallest allocations.

Table 6. Trigger threshold levels for additional quota allocations. *No formal commercial quota before Amendment 1, so the average represents the quota for available years only.

Commercial Quota Time Series	Pre-Transfer	Post Transfer
No Action/Status quo	N/A	N/A
5-year (2014-2018)	3.67 M lbs	6.67 M lbs
10-year (2009-2018)	4.31 M lbs	8.21 M lbs
20-year (1999-2018)	4.88 M lbs	8.84 M lbs
Time series (1981-2018)	4.88 M lbs*	8.84 M lbs*
½ 1981-1989 and ½ 2009-2018	4.31 M lbs*	8.21 M lbs*

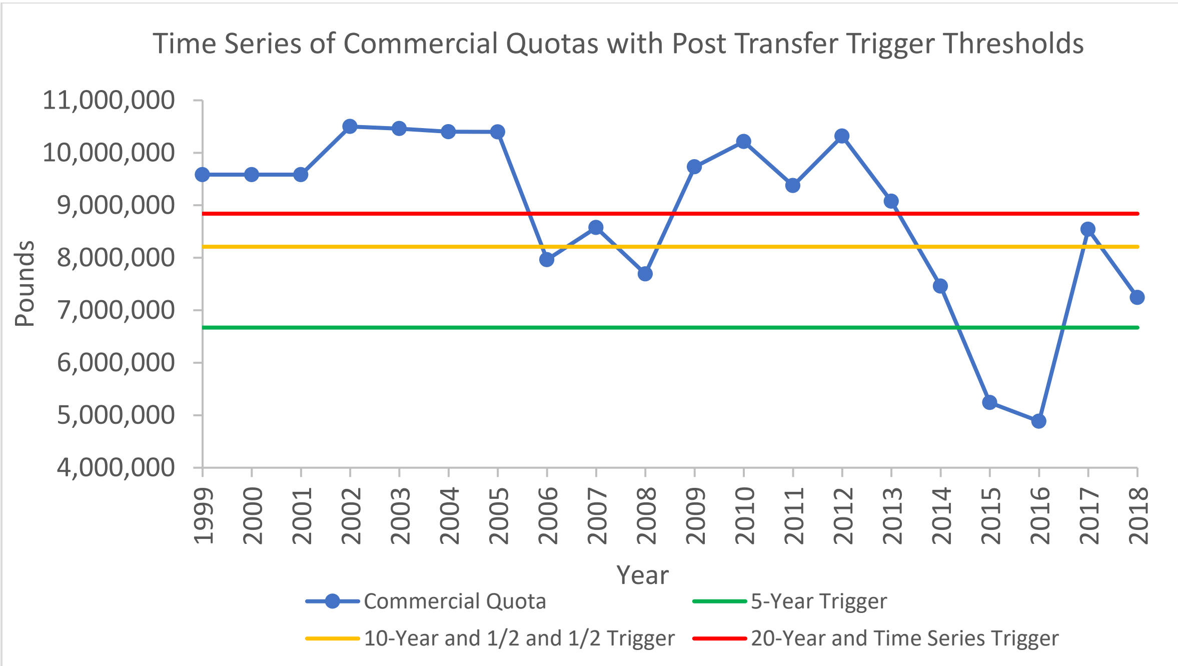

Figure 1. Trigger thresholds for additional quota compared to commercial quotas.

Table 7. Range of baseline quotas and the associated additional quota allocation set once a trigger threshold is surpassed.

Range of Baseline Quota	Associated Additional Quota Allocations
<=1%	0.10%
>1-5%	3.00%
>5-10%	7.50%
>10%	Remainder

Using the range provided in **Table 7**, **Table 8** provides alternatives (i.e. the time series detailed in section 3.2.1-3.2.5) of how additional quota beyond a set trigger would be allocated to each state.

3.3 No Trigger

This alternative would result in no trigger approach being implemented (i.e. no action/status quo).

3.3.1 Trigger Pre-Transfer Threshold

Under this alternative, the pre-transfer trigger threshold (**Table 6**) and each state's allocation (**Table 8**) above the threshold will be determined by the whichever option is selected as the preferred alternative in section 3.1-3.1.5.

3.3.2 Trigger Post Transfer Threshold

Under this alternative, the post transfer trigger threshold (**Table 6**) and each state's allocation (**Table 8**) above the threshold will be determined by whichever option is selected as the preferred alternative in section 3.1-3.1.5.

Table 8. Bluefish state allocations under a trigger threshold for all commercial allocation time series.

Allocation of additional quota beyond the trigger threshold.						
State	**Status quo (1981-1989)**	**5 year (2014-2018)**	**10 year (2009-2018)**	**20 year (1999-2018)**	***Time Series (1981-2018)***	***1/2 '81-'89 1/2 '09-'18***
ME	0.10%	0.10%	0.10%	0.10%	*0.10%*	*0.10%*
NH	0.10%	0.10%	0.10%	0.10%	*0.10%*	*0.10%*
MA	7.50%	16.60%	19.60%	7.50%	*7.50%*	*7.50%*
RI	7.50%	16.60%	7.50%	7.50%	*7.50%*	*7.50%*
CT	3.00%	3.00%	0.10%	0.10%	*3.00%*	*3.00%*
NY	15.12%	16.60%	19.60%	23.63%	*20.20%*	*17.03%*
NJ	15.12%	16.60%	19.60%	23.63%	*20.20%*	*17.03%*
DE	3.00%	0.10%	0.10%	0.10%	*3.00%*	*3.00%*
MD	3.00%	3.00%	3.00%	3.00%	*3.00%*	*3.00%*
VA	15.12%	3.00%	7.50%	7.50%	*7.50%*	*17.03%*
NC	15.12%	16.60%	19.60%	23.63%	*20.20%*	*17.03%*
SC	0.10%	0.10%	0.10%	0.10%	*0.10%*	*0.10%*
GA	0.10%	0.10%	0.10%	0.10%	*0.10%*	*0.10%*
FL	15.12%	7.50%	3.00%	3.00%	*7.50%*	*7.50%*
Total	100%	100%	100%	100%	*100%*	*100%*

3.4-3.4.3 Minimum Default Allocations

Table 9, **Table 10**, and **Table 11** present allocations including a minimum default allocation of 0.10-0.50%. Minimum default allocations were applied to each state by allocating a baseline quota of 0.10-0.50% to each state following the same approach detailed in Amendment 3 to Atlantic menhaden. Then, the rest of the annual commercial quota is allocated based on historic landings under different time series.

3.4 No Minimum Default Allocation

This alternative would result in no minimum default allocation being implemented (i.e. no action/status quo).

3.4.1 Minimum Default Allocation – 0.10%

Under this alternative, a 0.10% minimum allocation is applied to each state prior to allocating with a new time series (**Table 9**). Whichever option is selected as the preferred alternative in section 3.1-3.1.5 will be paired with the appropriate minimum default allocation option (3.4.1-3.4.3), should the Council/Board decide to use this management tool.

3.4.2 Minimum Default Allocation – 0.25%

Under this alternative, a 0.25% minimum allocation is applied to each state prior to allocating with a new time series (**Table 10**). Whichever option is selected as the preferred alternative in section 3.1-3.1.5 will be paired with the appropriate minimum default allocation option (3.4.1-3.4.3), should the Council/Board decide to use this management tool.

3.4.3 Minimum Default Allocation – 0.50%

Under this alternative, a 0.50% minimum allocation is applied to each state prior to allocating with a new time series (**Table 11**). Whichever option is selected as the preferred alternative in section 3.1-3.1.5 will be paired with the appropriate minimum default allocation option (3.4.1-3.4.3), should the Council/Board decide to use this management tool.

Table 9. State-by-state commercial bluefish allocations along the U.S. Atlantic coast using different proposed time series and a minimum default allocation of 0.10%.

		0.10% Minimum Default Allocation					
State	No Action 1981-1989	Status quo 1981-1989	5-year 2014-2018	10-year 2009-2018	20-year 1999-2018	*Time Series 1981-2018*	*½ '81-'89 -½ '09-'18*
ME	0.67%	0.76%	0.10%	0.11%	0.11%	*0.52%*	*0.58%*
NH	0.41%	0.51%	0.13%	0.22%	0.27%	*0.74%*	*0.42%*
MA	6.71%	6.72%	10.59%	10.12%	7.53%	*7.18%*	*7.65%*
RI	6.81%	6.81%	11.74%	9.61%	7.98%	*7.95%*	*7.58%*
CT	1.27%	1.35%	1.26%	1.09%	0.82%	*1.20%*	*1.28%*
NY	10.38%	10.33%	20.12%	19.76%	19.27%	*14.65%*	*12.93%*
NJ	14.81%	14.70%	11.17%	13.85%	15.11%	*15.45%*	*14.46%*
DE	1.88%	1.95%	0.67%	0.49%	0.48%	*1.17%*	*1.55%*
MD	3.00%	3.06%	1.57%	1.92%	1.62%	*2.17%*	*2.75%*
VA	11.94%	11.88%	4.65%	5.87%	6.93%	*8.77%*	*10.22%*
NC	32.03%	31.68%	31.71%	32.03%	36.52%	*33.15%*	*31.78%*
SC	0.04%	0.13%	0.10%	0.10%	0.10%	*0.12%*	*0.13%*
GA	0.01%	0.11%	0.10%	0.10%	0.11%	*0.11%*	*0.11%*
FL	10.06%	10.02%	6.08%	4.78%	3.16%	*6.91%*	*8.57%*

Table 10. State-by-state commercial bluefish allocations along the U.S. Atlantic coast using different proposed time series and a minimum default allocation of 0.25%.

		0.25% Minimum Default Allocation					
State	No Action/ Status quo 1981-1989	Status quo 1981-1989	5-year 2014-2018	10-year 2009-2018	20-year 1999-2018	Time Series 1981-2018	½ '81-'89 -½ '09-'18
ME	0.67%	0.89%	0.25%	0.26%	0.26%	0.66%	0.72%
NH	0.41%	0.65%	0.28%	0.36%	0.41%	0.88%	0.56%
MA	6.71%	6.73%	10.52%	10.05%	7.52%	7.18%	7.64%
RI	6.81%	6.82%	11.65%	9.56%	7.97%	7.94%	7.57%
CT	1.27%	1.47%	1.39%	1.22%	0.96%	1.33%	1.40%
NY	10.38%	10.26%	19.85%	19.49%	19.01%	14.49%	12.80%
NJ	14.81%	14.54%	11.09%	13.70%	14.94%	15.27%	14.31%
DE	1.88%	2.06%	0.81%	0.64%	0.62%	1.30%	1.67%
MD	3.00%	3.15%	1.69%	2.03%	1.74%	2.28%	2.84%
VA	11.94%	11.78%	4.71%	5.89%	6.93%	8.73%	10.16%
NC	32.03%	31.16%	31.19%	31.50%	35.89%	32.59%	31.25%
SC	0.04%	0.28%	0.25%	0.25%	0.25%	0.27%	0.28%
GA	0.01%	0.26%	0.25%	0.25%	0.26%	0.26%	0.26%
FL	10.06%	9.95%	6.10%	4.83%	3.24%	6.92%	8.54%

Table 11. State-by-state commercial bluefish allocations along the U.S. Atlantic coast using different proposed time series and a minimum default allocation of 0.50%.

		0.50% Minimum Default Allocation					
State	No Action/ Status quo 1981-1989	Status quo 1981-1989	5-year 2014-2018	10-year 2009-2018	20-year 1999-2018	Time Series 1981-2018	½ '81-'89 -½ '09-'18
ME	0.67%	1.12%	0.50%	0.51%	0.51%	0.90%	0.95%
NH	0.41%	0.89%	0.53%	0.61%	0.66%	1.11%	0.80%
MA	6.71%	6.74%	10.39%	9.95%	7.51%	7.18%	7.62%
RI	6.81%	6.83%	11.48%	9.47%	7.94%	7.91%	7.56%
CT	1.27%	1.68%	1.59%	1.43%	1.18%	1.54%	1.61%
NY	10.38%	10.15%	19.39%	19.04%	18.58%	14.22%	12.60%
NJ	14.81%	14.27%	10.94%	13.46%	14.66%	14.98%	14.05%
DE	1.88%	2.25%	1.03%	0.87%	0.86%	1.51%	1.87%
MD	3.00%	3.29%	1.89%	2.21%	1.94%	2.45%	2.99%
VA	11.94%	11.61%	4.79%	5.94%	6.94%	8.68%	10.05%
NC	32.03%	30.29%	30.32%	30.61%	34.85%	31.67%	30.38%
SC	0.04%	0.53%	0.50%	0.50%	0.50%	0.52%	0.52%
GA	0.01%	0.51%	0.50%	0.50%	0.51%	0.51%	0.51%
FL	10.06%	9.85%	6.14%	4.91%	3.38%	6.93%	8.49%

<u>FMAT Comments/Recommendations on Issue 3</u>

Allocations

The FMAT had extensive discussion on whether any alternatives should be removed from the proposed alternative set. Given the similarities in allocations between time series and overlapping years, the FMAT recommended removing alternative 3.1.3 (20-year time series). The FMAT noted that reallocation is being considered largely in part to reflect the more recent performance of the fishery. However, the FMAT also recognizes that it is important to consider the historical performance of each state's commercial fisheries and recommended removing either alternative 3.1.4 (1981-2018) or 3.1.5 (½ 1981-2018 and ½ 2009-2018), but not both. Both alternatives 3.1.4 and 3.1.5 share the upper and lower bounds of the time series and the allocation percentages are quite similar for most states. These recommendations for removal represent a reasonable range of alternatives while still accounting for historical performance.

Phase-In

The FMAT discussed the degree to which commercial allocations to the states vary across time series. This variation is more substantial for states that have been landing all their quota and requesting transfers, not achieving their quota for many years, or have been transferring away their quota for many years. Since a phase-in allocation approach could mitigate the negative socioeconomic consequences of a state losing a significant portion of its quota by allowing for gradual change, the FMAT recommends retaining the phase-in alternatives for consideration in a public hearing document.

Trigger

The FMAT discussed the proposed trigger threshold levels and recommended that the post transfer commercial quota time series average be used. The FMAT recommended the post transfer approach over the pre-transfer approach because the allocations are based on post transfer values. The FMAT recognizes that the trigger threshold levels are higher under the post transfer approach and are unlikely to be met in the near future, however, the FMAT noted that reallocation should address most state specific needs. Then, once the stock recovers through the rebuilding plan, future higher quotas may exceed the trigger threshold and redistribute "additional" quota when it is available. Finally, the FMAT also recommended that the time series associated with setting the post-transfer threshold should be the same as what is selected as the preferred allocation alternative in section 3.1.1-3.1.5.

Upon further review, commercial quotas are only available for time series utilizing data since 1999. Prior to 1999, the fishery existed as a set of "management measures include a permit to catch and sell bluefish and limits on the amount of bluefish an angler or vessel can possess; allocates no more than 20% of total catch to commercial fishery." So, there is no formal "commercial quota" before Amendment 1 in 2000. Thus, trigger thresholds were developed using only the available years in a given time series (as indicated in **Table 6**) when a time series begins prior to 1999.

Minimum Default Allocations

The FMAT noted the reason minimum default allocations were proposed was to ensure that states currently with a small allocation percentage do not lose their allocation entirely through this action. Upon reviewing the minimum default allocation alternative set, the FMAT agreed that a 0.25% and 0.50% is larger than necessary, given the Council/Board's stated goal. Additionally, ME, NH, SC, and GA typically land less than 0.1% of the coastwide quota. Thus, the FMAT recommends retaining only the 0.10% minimum default allocation alternative.

General

Given the many moving parts (phase-in, trigger, minimum default allocations) considered under the commercial allocations to the states and that bluefish is entering a rebuilding plan, the FMAT recommends that either a trigger approach or minimum default allocation be selected, but not both. Using too many management tools at once can overcomplicate the process and reduce the benefits associated with just using one approach.

4. Regional Commercial Allocations

4.1 No Action/Status Quo

Selecting this alternative would result in no regional commercial allocations, and commercial quota would remain allocated to the states. Thus, the Council/Board would need to select an alternative detailed in sections 3.1-3.1.5 of this document.

Regulation CFR § 648.162 (e) in the existing FMP provides a mechanism that would allow states to combine quotas: *Quota transfers and combinations. Any state implementing a state commercial quota for bluefish may request approval from the Regional Administrator to transfer part or all of its annual quota to one or more states. Two or more states implementing a state commercial quota for bluefish may request approval from the Regional Administrator to combine their quotas, or part of their quotas, into an overall regional quota. Requests for transfer or combination of commercial quotas for bluefish must be made by individual or joint letter(s) signed by the principal state official with marine fishery management responsibility and expertise, or his/her previously named designee, for each state involved. The letter(s) must certify that all pertinent state requirements have been met and identify the states involved and the amount of quota to be transferred or combined.*

4.1.1-4.1.5 Regional Commercial Allocation Alternatives

At the joint August meeting, the Council/Board reviewed the revisions made to the regional commercial allocations alternative set. **Table 12** presents draft allocation alternatives by region (New England, Mid-Atlantic, South Atlantic) for the same time series used to develop the sector and commercial state-to-state allocations.

Table 12. Regional commercial bluefish allocations along the U.S. Atlantic coast using different proposed time series. The values in parentheses are examples of what regional allocations would be if the 1981-1989 (status quo) time series was used.

Alternative	Time Series	New England (ME-CT)	Mid-Atlantic (NY-VA)	South Atlantic (NC-FL)
4.1	**No Action/Status quo 1981-1989**	N/A	N/A	N/A
4.1.1	**2014-2018**	23.66%	38.23%	38.13%
4.1.2	**2009-2018**	20.93%	41.97%	37.13%
4.1.3	**1999-2018**	16.44%	43.53%	40.05%
4.1.4	**1981-2018**	17.34%	42.31%	40.45%
4.1.5	**½ '81-'89 -½ '09-'18**	17.25%	41.99%	40.75%

Table 13 and **Table 14** use data received from an ACCSP data request. *Since the necessary analysis required trip-level information, it made sense to query from the fishermen reported data. However, the fisherman trips are an incomplete representation of the landings totals, which are primarily comprised of the dealer reported data. The fishermen reports underestimate the true landings totals. However, the trip-level data is useful for getting the relative sense of the overall trends in catch per trips by state.* Following the FMAT recommendation, **Table 14** was included to display each trip limit bin's percent contribution to the total landings for that year. This helps identify if most bluefish landings are coming from a small number of trips with very high landings or many trips with a low number of landings.

Table 13. Percentage of bluefish trips for 2017-2019 with landings summarized in pound bins. (Data provided by ACCSP).

	New England Trips			Mid-Atlantic Trips			South Atlantic Trips		
Pound Bin	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**
5000+	<1%	<1%	<1%	0%	0%	<1%	<1%	<1%	<1%
4000-4999	<1%	<1%	<1%	0%	0%	<1%	<1%	<1%	<1%
3000-3999	<1%	<1%	<1%	0%	0%	<1%	<1%	<1%	<1%
2000-2999	<1%	<1%	<1%	0%	<1%	0%	<1%	<1%	<1%
1000-1999	<1%	<1%	1.25%	<1%	2.45%	1.45%	1.58%	1.13%	1.26%
500-999	2.34%	1.42%	3.42%	2.29%	3.12%	3.31%	3.69%	3.08%	2.99%
<500	95.84%	96.69%	94.10%	97.20%	94.40%	95.20%	94.31%	95.33%	94.76%

Table 14. Percentage of total bluefish landings by trip for 2017-2019 with landings summarized in pound bins. (Data provided by ACCSP).

	New England Trips			Mid-Atlantic Trips			South Atlantic Trips		
Pound Bin	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**
5000+	3.95%	4.49%	4.39%	0%	0%	1.29%	5.80%	12.93%	25.82%
4000-4999	7.12%	1.86%	11.30%	0%	0%	0.64%	1.30%	1.83%	2.17%
3000-3999	5.36%	5.29%	8.45%	0%	0%	0.46%	1.72%	2.01%	2.26%
2000-2999	11.79%	19.80%	6.91%	0%	1.13%	0%	5.40%	4.23%	8.19%
1000-1999	13.21%	9.54%	11.56%	7.04%	25.26%	16.21%	18.64%	13.84%	11.86%
500-999	15.42%	8.59%	16.00%	20.48%	23.36%	25.78%	22.54%	18.99%	14.07%
<500	43.15%	50.43%	41.39%	72.49%	50.25%	55.62%	44.60%	46.18%	35.64%

For bluefish, trip limits can be set coastwide or specific to each region, however, trip limits may be difficult to develop considering state trip limits range from "no restrictions" to 500 pounds/week to 7,500 pounds/day (**Table 15**). As always, state trip limits can be more restrictive than the federal limits. However, states may not be inclined to restrict themselves since the new quotas are regionalized and neighboring states may not adhere to the same self-designated lower limits.

Table 15. Current commercial bluefish trip and size limits for all Atlantic coast states.

State	Trip and Size Limits
ME	No Restrictions
NH	No Restrictions
MA	5,000 lbs/day or trip (whichever is longer)
RI	18" min size;
	1,000 lbs/bi-wk (1.1-4.30)
	6,000 lbs/wk (5.1-11.15)
	500 lbs/wk (11.16-12.31)
CT	9" min size; 1,200 lbs/trip
NY	9" min size; 5,000 lbs (Jan-April); 750 lbs (May-Aug); 500 lbs (Sept-Oct); 1,000 lbs (Nov-Dec)
NJ	9" min size
DE	No Restrictions
MD	8" min size
PRFC	Trip limits after 80% of VA-MD quota is landed
VA	No Restrictions
NC	No Restrictions
SC	No directed fishery
GA	12" min size; 15 fish
FL	12" min size; 7,500 lbs/day

The proposed trip limits presented in **Table 16** reflect the trip and landings data presented in **Table 13** and **Table 14**.

Table 16. Proposed bluefish harvest triggers and associated trip limits for the Atlantic coast.

New England (ME-CT)		Mid-Atlantic (NY-VA)		South Atlantic (NC-FL)	
Harvest Trigger	Trip Limit (lbs)	Harvest Trigger	Trip Limit (lbs)	Harvest Trigger	Trip Limit (lbs)
0%	3,500	0%	2,000	0%	10,000
75%	1,500	75%	1,500	50%	3,500
90%	500	90%	500	75%	1,500
-	-	-	-	90%	500

Regional commercial transfer provisions can be the same as the current state-to-state transfers but set for region-to-region. Ideally, transfers will be limited with the additional flexibility provided by regional quotas and increased access to a larger quota share. Furthermore, new allocations based on updated data should reduce the need for transfers for the foreseeable future.

Grouping commercial allocations by region is both a policy and scientific decision. A Spearman correlation analysis was conducted to determine whether states have similar trends in total abundance over time. Recreational catch per unit effort (CPUE) was used as a proxy for total abundance. Commercial landings were also considered, but were thought to be influenced by market factors and restricted by state quotas. **Figure 2** displays correlations among state recreational CPUEs (total catch divided by total effort) from 2000 to 2019. Light green indicates a weak correlation (Spearman correlation between 0.5 and 0.6) and dark green indicates a strong correlation (Spearman correlation >0.6). We would expect to see green groupings closely surrounding the diagonal gray plots moving from the upper left corner to the bottom right corner if there were correlations in total abundance across neighboring states. However, the analysis indicates little correlation amongst states within the New England, Mid-Atlantic and South Atlantic groupings. Aside from the pairing of Maine and New Hampshire or Rhode Island and Connecticut, there appears to be little to no biological basis for combing state allocations into regional quotas.

Figure 3 was derived using the same methods as **Figure 2**. While **Figure 2** displays total recreational CPUE, **Figure 3** displays recreational CPUE for bluefish directed trips and replicates the findings of little to no biological basis for combing state commercial allocations into regional quotas.

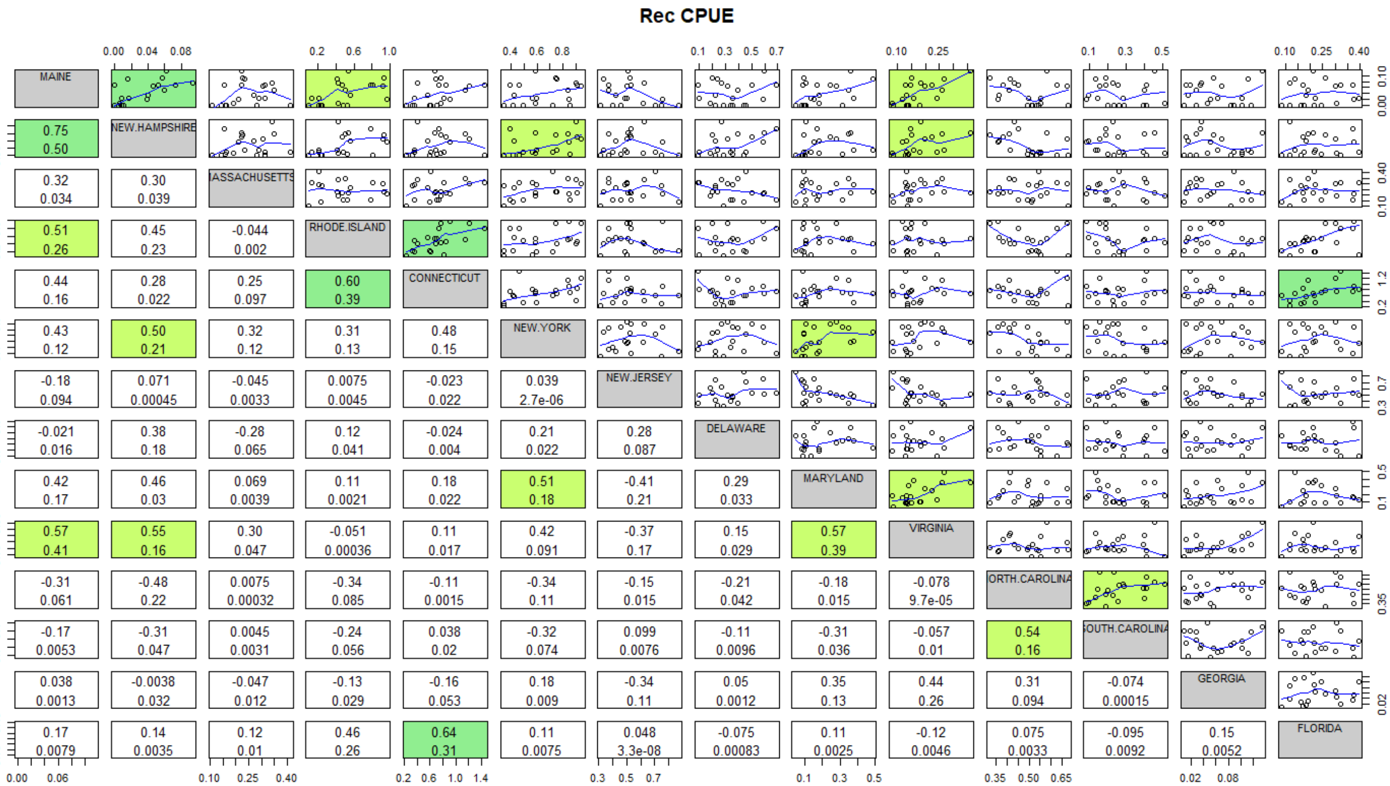

Figure 2. Correlations among recreational CPUE (total catch divided by total recreational effort; by state, all modes combined) 2000-2019. Source: MRIP query website.

*Light green or light pink = Spearman correlation between 0.5 and 0.6 (green) or between -0.50 and -0.60 (pink)
*Dark green or dark red = Spearman correlation >0.6 (green) or <-0.6 (red)
*Bottom diagonal: top number = Rank order Spearman correlation; bottom number = Linear Pearson correlation
*Top diagonal: scatterplot with lowess smoother

Figure 3. Correlations among recreational CPUE for directed trips (recreational total catch divided by total recreational directed effort; primary, secondary, and caught; by state, all modes combined) 2000-2018. Source: MRIP query website.

*Light green or light pink = Spearman correlation between 0.5 and 0.6 (green) or between -0.50 and -0.60 (pink)
*Dark green or dark red = Spearman correlation >0.6 (green) or <-0.6 (red)
*Bottom diagonal: top number = Rank order Spearman correlation; bottom number = Linear Pearson correlation
*Top diagonal: scatterplot with lowess smoother

FMAT Comments/Recommendations on Issue 4

The FMAT again recommends removal of this issue from the amendment for several reasons. First, the Bluefish FMP already contains regulations that allows for states to combine quotas on a voluntary basis. Second, combining states into regions results in a loss of state autonomy and flexibility in setting commercial measures that best suit their constituents' needs. Third, the proposal to group states among geographic regions lacks a biological basis. The FMAT acknowledged that there may be a socioeconomic basis for grouping states into commercial regions, but the FMAT did not have the time or the resources to conduct a socioeconomic analysis for this management approach. The purpose behind the Spearman correlation analysis was to determine if groups of states show similar trends in bluefish abundance over time. Lacking this evidence, there is not a clear justification for grouping states and managing commercial effort with uniform trip limits.

5. Rebuilding Plan

Under a rebuilding plan, the stock will be considered rebuilt once spawning stock biomass (SSB) reaches the SSB_{MSY} proxy equal to 198,717 mt (**Figure 4**). Total fishing mortality is also available for reference (**Figure 5**). The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires the overfished stock to be rebuilt within ten years once the regional office notifies the Council of the overfished state. Under the current amendment timeline, the rebuilding plan would be implemented at the beginning of 2022.

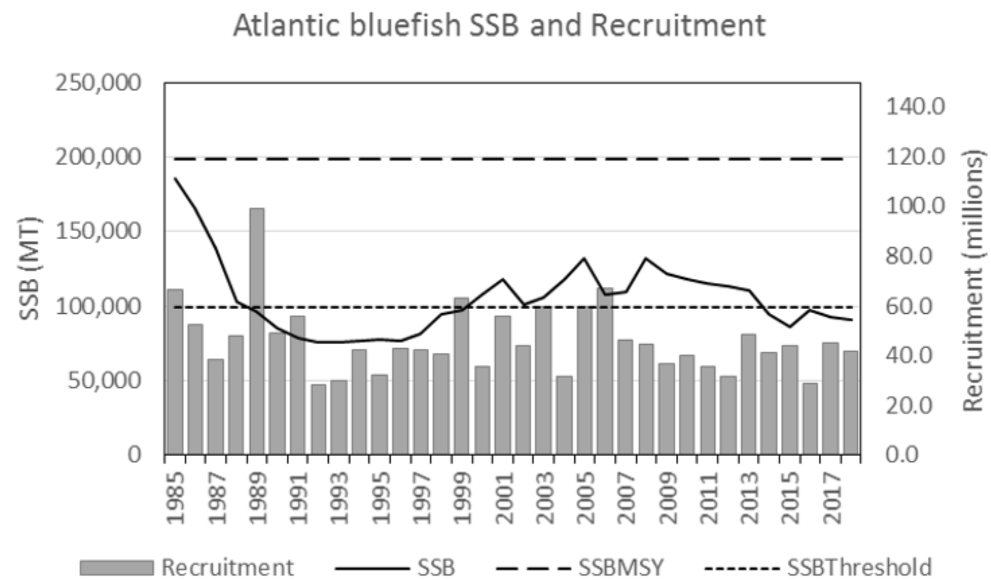

Figure 4. Atlantic bluefish spawning stock biomass (SSB; solid black line) and recruitment at age 0 (R; gray vertical bars) by calendar year. The horizontal dashed line is the updated SSBMSY proxy = SSB40% = 198,717 mt. The dotted black line is the SSBThreshold.

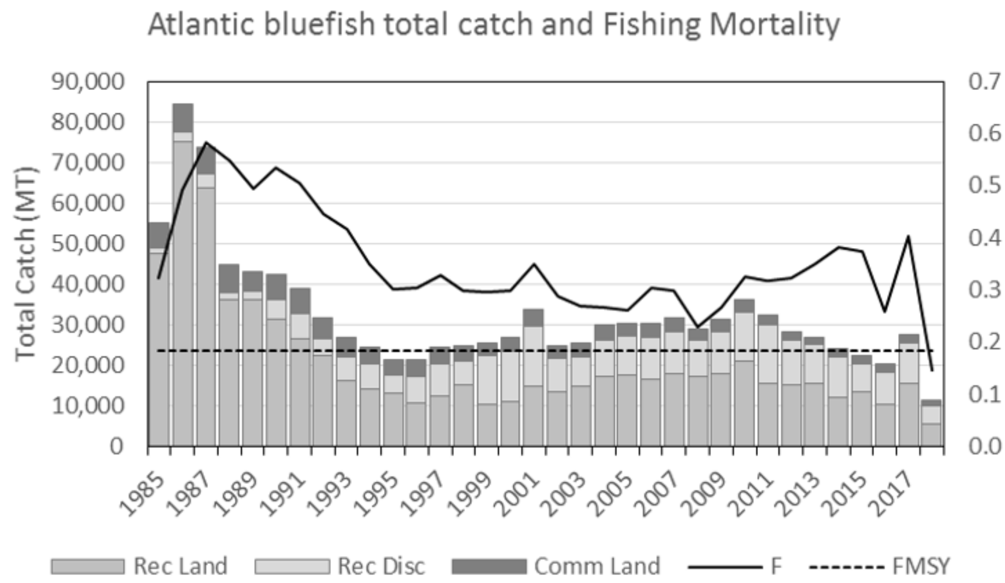

Figure 5. Total fishery catch (metric tons; mt; solid line) and fishing mortality (F, peak at age 3; squares) for Atlantic bluefish. The horizontal dashed line is the updated FMSY proxy = F35% = 0.183.

5.1 No Action/Status Quo

The no action/status quo alternative would not initiate a rebuilding plan and thus, would keep the bluefish stock in an overfished state. The Council is legally bound to develop a rebuilding pan and this alternative is included as a formality.

5.1.1-5.1.5 Rebuilding Plan Alternatives

The rebuilding plan will begin in 2021 with the 7,385 mt ABC that was already approved by the Council/Board regardless of which alternative is selected. The proposed rebuilding plans assume that the full ABC will be caught. Regardless of which alternative is selected, the assessment scientist will perform assessment updates and rerun projections every two years. The Scientific and Statistical Committee (SSC) will then use the projections to develop recommendations for the specification packages that remain in line with the goals of the rebuilding plan. Rebuilding alternatives under consideration are presented below (**Table 17**).

Table 17. Rebuilding projection alternatives and the duration until rebuilt.

Alternative	Rebuilding Plan	Duration	Adjustment to Council Risk Policy
5.1	Status Quo	N/A	N/A
5.1.1	Constant Harvest	4 years	No
5.1.2	Constant Fishing Mortality	10 years	Yes
5.1.3	Constant Fishing Mortality	7 years	Yes
5.1.4	Constant Harvest (Highest Catch)	10 years	Yes
5.1.5	P* (Council Risk Policy)	5 years	N/A

5.1.1 Constant Harvest: 4-year Rebuilding Plan

For this projection alternative, the FMAT requested a constant harvest approach (current ABC) be utilized until the stock is rebuilt (**Table 18** and **Figure 6**). This projection rebuilds the stock by end of year 2025 (4-year rebuilding plan). *This alternative does not require an adjustment to the Council risk policy because the catches are less than those described under the P* approach.*

Table 18. Constant harvest rebuilding projection.

Year	SSB (MT)	Recruits (000s)	F	Catch (MT)	SSBMSY (MT)	SSBthresh (MT)
2019	92,779	43,282	0.279	22,614	198,717	99,359
2020	102,165	43,455	0.087	7,385	198,717	99,359
2021	115,085	43,428	0.075	7,385	198,717	99,359
2022	137,450	43,460	0.064	7,385	198,717	99,359
2023	162,495	43,353	0.052	7,385	198,717	99,359
2024	197,141	43,239	0.045	7,385	198,717	99,359
2025	229,121	43,379	0.039	7,385	198,717	99,359
2026	269,777	43,362	0.034	7,385	198,717	99,359

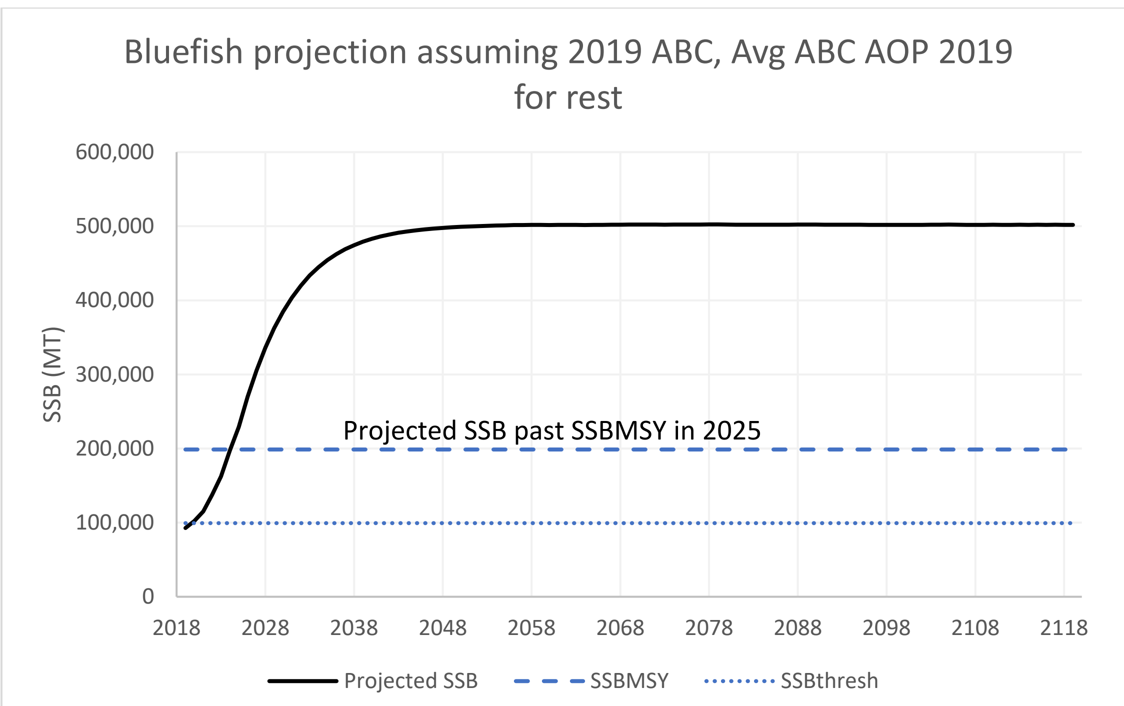

Figure 6. Constant harvest rebuilding projection.

5.1.2 Constant Fishing Mortality (10 years): 10-year Rebuilding Plan

For this projection alternative, the FMAT requested a constant fishing mortality approach (F) be utilized until the stock is rebuilt (**Table 19** and **Figure 7**). This projection rebuilds the stock by end of year 2031 (10-year rebuilding plan). *This alternative requires an adjustment to the Council risk policy for this rebuilding plan only because the catches are higher than those described under the P* approach.*

Table 19. Constant 10-year F rebuilding projection.

Year	SSB (MT)	Recruits (000s)	F	Catch (MT)	SSBMSY (MT)	SSBthresh (MT)
2019	92,732	43,262	0.281	22,614	198,717	99,359
2020	102,174	43,402	0.088	7,385	198,717	99,359
2021	115,012	43,304	0.076	7,385	198,717	99,359
2022	131,624	43,389	0.177	19,616	198,717	99,359
2023	141,297	43,274	0.177	21,894	198,717	99,359
2024	154,661	43,462	0.177	22,990	198,717	99,359
2025	162,976	43,235	0.177	24,398	198,717	99,359
2026	175,734	43,367	0.177	25,907	198,717	99,359
2027	184,062	43,488	0.177	26,904	198,717	99,359
2028	189,900	43,425	0.177	27,595	198,717	99,359
2029	193,952	43,561	0.177	28,100	198,717	99,359
2030	197,035	43,300	0.177	28,463	198,717	99,359
2031	199,167	43,326	0.177	28,723	198,717	99,359

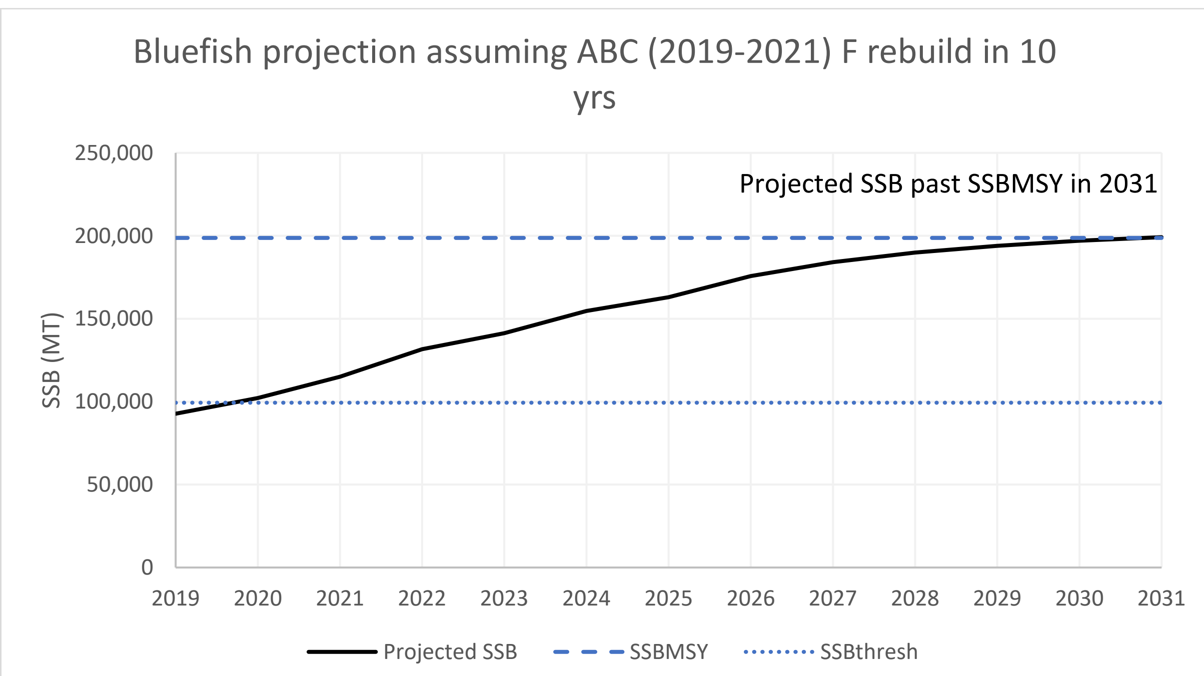

Figure 7. Constant 10-year F rebuilding projection.

5.1.3 Constant Fishing Mortality (7 years): 7-year Rebuilding Plan

For this projection alternative, the FMAT requested a constant fishing mortality approach (F) be utilized until the stock is rebuilt (**Table 20** and **Figure 8**). This projection rebuilds the stock by end of year 2028 (7-year rebuilding plan). *This alternative requires an adjustment to the Council risk policy for this rebuilding plan only because the catches are higher than those described under the P* approach.*

Table 20. Constant 7-year F rebuilding projection.

Year	SSB (MT)	Recruits (000s)	F	Catch (MT)	SSBMSY (MT)	SSBthresh (MT)
2019	92,755	43,320	0.279	22,614	198,717	99,359
2020	102,186	43,531	0.087	7,385	198,717	99,359
2021	115,073	43,310	0.075	7,385	198,717	99,359
2022	132,150	43,390	0.166	18,477	198,717	99,359
2023	143,271	43,292	0.166	20,813	198,717	99,359
2024	158,152	43,272	0.166	22,033	198,717	99,359
2025	168,006	43,395	0.166	23,532	198,717	99,359
2026	182,311	43,336	0.166	25,121	198,717	99,359
2027	191,855	43,578	0.166	26,191	198,717	99,359
2028	198,520	43,411	0.166	26,939	198,717	99,359

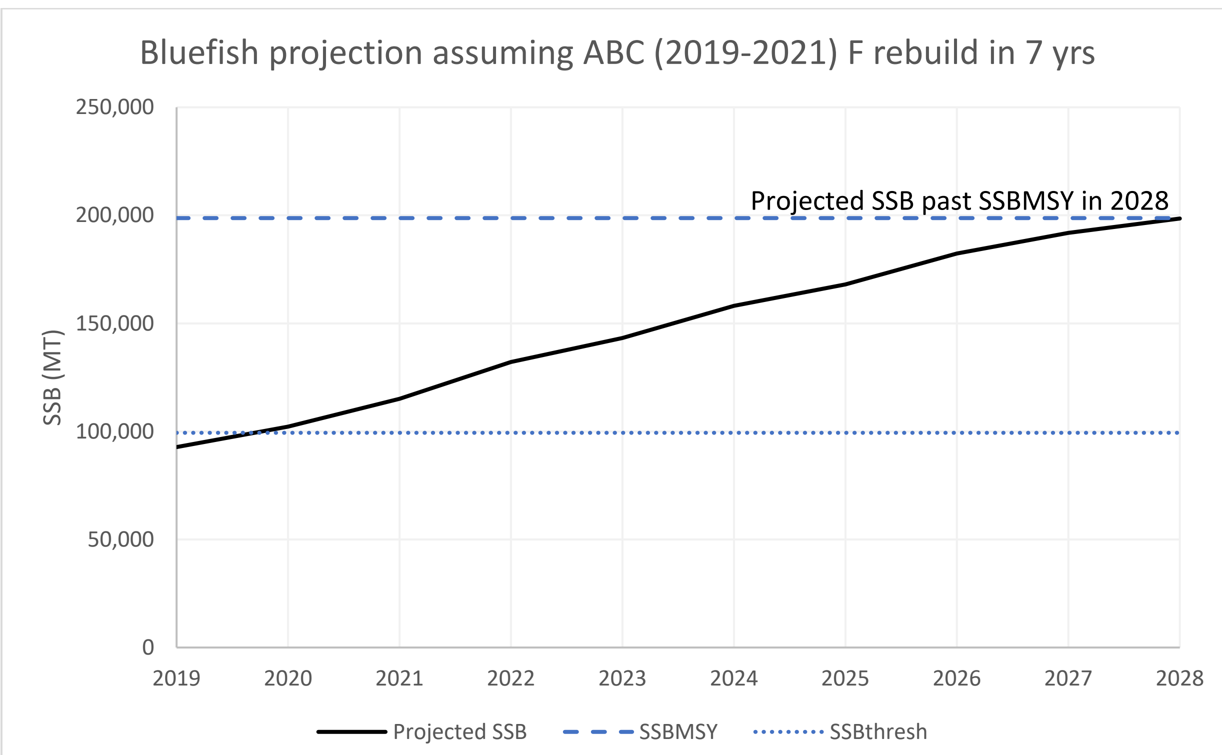

Figure 8. Constant 7-year F rebuilding projection.

5.1.4 Constant Harvest (Highest Catch): 10-year Rebuilding Plan

For this projection alternative, the FMAT requested a constant harvest approach with the highest possible catch to rebuild the stock in 10 years (**Table 21** and **Figure 9**). This projection rebuilds the stock by end of year 2031 (10-year rebuilding plan). *This alternative requires an adjustment to the Council risk policy for this rebuilding plan only because the catches are higher than those described under the P* approach.*

Table 21. Constant harvest rebuilding projection using the highest catch to rebuild over 10-years.

Year	SSB (MT)	Recruits (000s)	F	Catch (MT)	SSBMSY (MT)	SSBthresh (MT)
2019	92,732	43,262	0.280	22,614	198,717	99,359
2020	102,174	43,402	0.087	7,385	198,717	99,359
2021	115,012	43,304	0.075	7,385	198,717	99,359
2022	128,975	43,389	0.231	25,094	198,717	99,359
2023	133,420	43,274	0.215	25,094	198,717	99,359
2024	142,065	43,462	0.209	25,094	198,717	99,359
2025	147,216	43,235	0.200	25,094	198,717	99,359
2026	158,145	43,367	0.188	25,094	198,717	99,359
2027	166,971	43,488	0.180	25,094	198,717	99,359
2028	175,055	43,425	0.173	25,094	198,717	99,359
2029	183,301	43,561	0.166	25,094	198,717	99,359
2030	191,143	43,300	0.160	25,094	198,717	99,359
2031	198,717	43,326	0.154	25,094	198,717	99,359

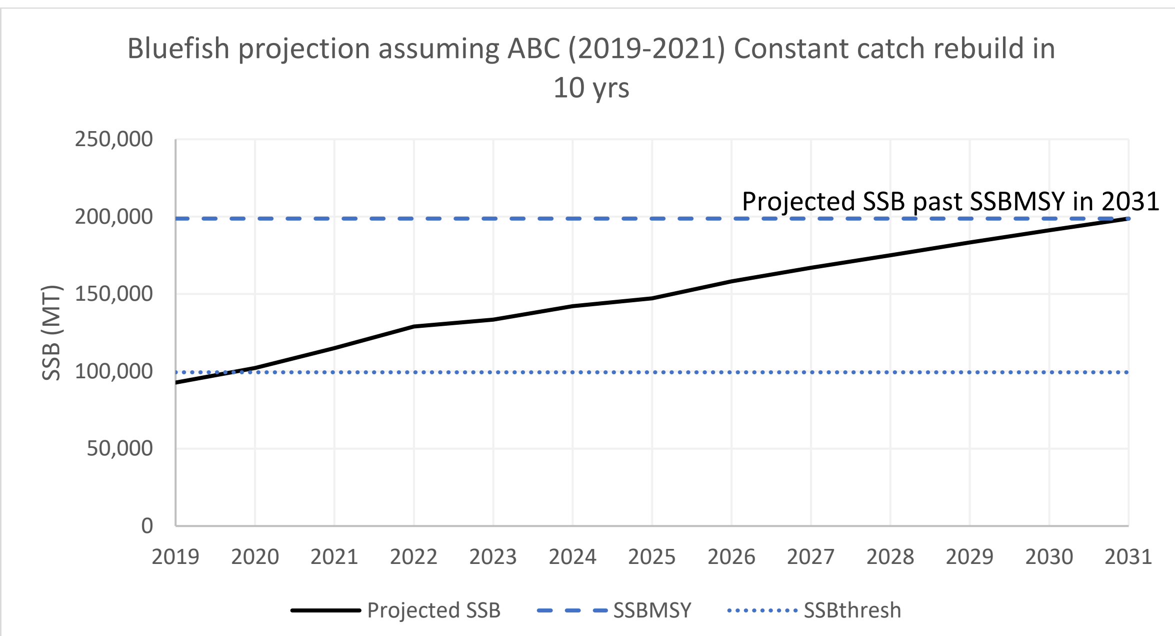

Figure 9. Constant harvest rebuilding projection using the highest catch to over 10-years.

5.1.5 P* Approach (Council Risk Policy): 5-year Rebuilding Plan

For this projection alternative, the FMAT requested using the Council's risk policy to rebuild the stock (**Table 22** and **Figure 10**). This projection rebuilds the stock by end of year 2026 (5-year rebuilding plan).

Table 22. Rebuilding projection based on P* using the Council's risk policy to rebuild over 5-years.

Year	OFL Total Catch (MT)	ABC Total Catch (MT)	ABC F	ABC Pstar	ABC SSB (MT)	SSBMSY (MT)	SSBthresh (MT)
2019	15,368	22,614	0.280	0.183	92,732	198,717	99,359
2020	16,212	7,385	0.087	0.207	102,174	198,717	99,359
2021	17,205	7,385	0.075	0.239	115,012	198,717	99,359
2022	20,237	11,222	0.098	0.291	135,586	198,717	99,359
2023	23,998	15,181	0.113	0.338	154,257	198,717	99,359
2024	26,408	18,653	0.127	0.394	176,619	198,717	99,359
2025	28,807	23,048	0.144	0.431	191,063	198,717	99,359
2026	30,848	26,677	0.157	0.450	207,619	198,717	99,359

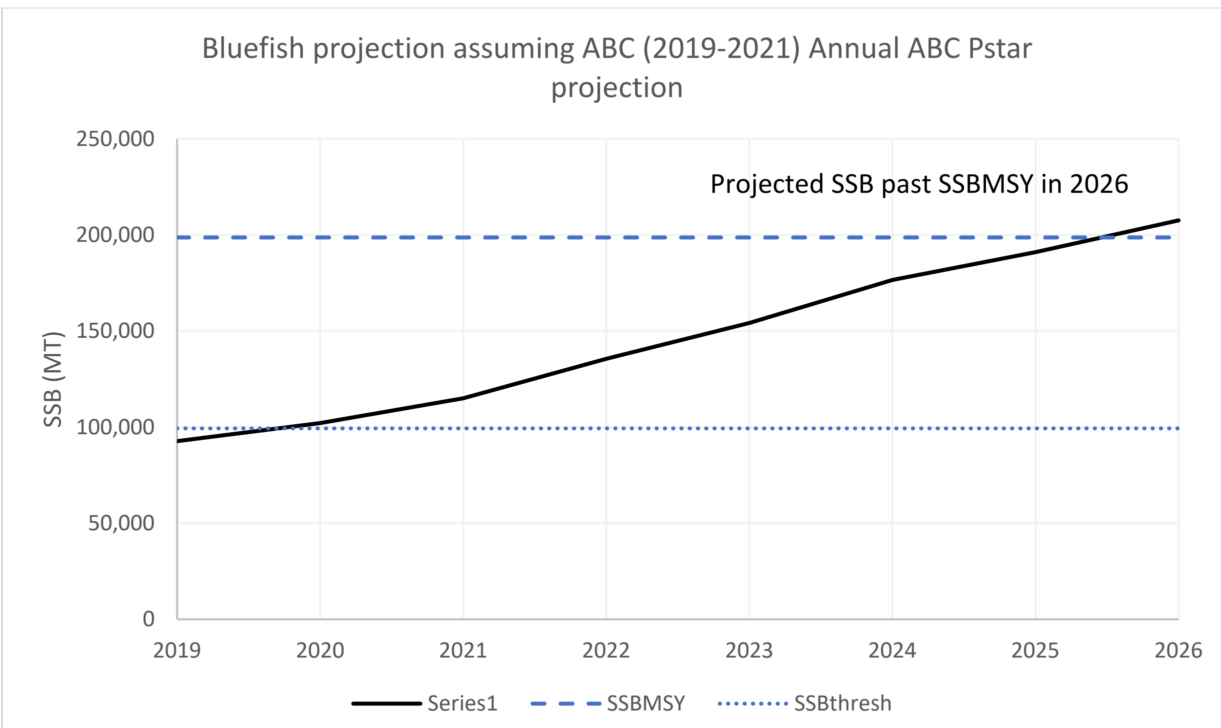

Figure 10. Rebuilding projection based on P* using the Council's risk policy to rebuild over 5-years.

FMAT Comments/Recommendations on Issue 5

The FMAT reviewed all rebuilding alternatives and recommended removing alternatives 5.1.2 and 5.1.4 (Constant F – 10-years and Constant Harvest [Highest Catch] – 10-years), respectively. The FMAT recommended removal of these alternatives for several reasons. The Magnuson-Stevens Act (16 USC 1854) specifies that a rebuilding period selected for an overfished stock should be "as short as possible, taking into account the status and biology of any overfished stocks of fish, the needs of fishing communities." Therefore, if multiple proposed rebuilding plans are relatively equivalent except for their duration, the National Marine Fisheries Service is mandated to select the shorter of the plans. Furthermore, the assessment scientist indicated that the projections are likely to change over time as data and assessment updates become available. Additionally, COVID-19 adds a lot of uncertainty to the projections (especially the longer ones) since future sampling may be rushed, performed to less than normal standards, and may lead to imputations that can harm projections 10 years out. Due to these changes, longer projections are not as reliable as shorter ones when considering more than 5 to 10 years out. Thus, the FMAT cautions the use of longer projections based on the last assessment and noted that the further you project, uncertainty propagates and can become very large. The FMAT believes that the remaining options represent a reasonable range of alternatives spanning constant harvest, fishing mortality, and p* from 4 to 7 years.

6. Sector Transfers

6.1 No Action/Status Quo Sector Transfer Cap

The no action/status quo alternative keeps the existing sector transfer provisions in place as described in Amendment 1. In summary, recreational landings are projected each year through the specifications process and compared to the proposed RHL. If, based on this comparison, the recreational fishery was not anticipated to land their limit, the commercial quota could be set above the 17% sector allocation up to 10.5 million lb (4,763 mt); with the RHL adjusted down accordingly. The 10.5 million lb cap is the average commercial landings for the period 1990-1997. However, if the recreational landings were projected to reach the harvest limit for that year, then the commercial quota would be implemented without the sector transfer. NOAA Fisheries then has the ability to adjust the transfer total in March/April once the prior year of recreational landings is finalized.

6.1.1-6.1.3 Sector Transfer Cap Alternatives

Under this alternative, a transfer cap is defined as a fixed percentage of the ABC (**Table 23**). This approach allows quota transfers to scale with biomass. Unlike the provisions described in the status quo option, transfers could still occur even when the commercial quota is above 10.5 million pounds. See **Table 24** for a list of recreational to commercial sector transfers from 2000 to 2019.

Through the supplemental scoping process, it became clear many recreational stakeholders are not supportive of transfers from the recreational to commercial sector. Many comments indicated concern about the effect of transfers on the abundance of fish available to the recreational sector. As such, it may be useful to develop criteria tied to stock status for when sector transfers are prohibited. For example, it may be beneficial to prohibit transfers until the stock has been rebuilt. A less stringent option could be the prohibition of transfers while the stock is below the threshold.

Table 23. Proposed transfer caps for sector-based transfers.

Alternatives	Transfer Cap
6.1	No Action/Status Quo
6.1.1	5% of the ABC
6.1.2	10% of the ABC
6.1.3	15% of the ABC

Table 24. Sector transfer amounts in million lbs.

Year	Sector Transfer Amount
2000	0
2001	3.150 million lbs
2002	5.933 million lbs
2003	4.161 million lbs
2004	5.085 million lbs
2005	5.254 million lbs
2006	5.367 million lbs
2007	4.780 million lbs
2008	4.088 million lbs
2009	4.838 million lbs
2010	5.387 million lbs
2011	4.772 million lbs
2012	5.052 million lbs
2013	4.686 million lbs
2014	3.340 million lbs
2015	1.579 million lbs
2016	1.577 million lbs
2017	5.033 million lbs
2018	3.535 million lbs
2019	4.000 million lbs

6.2 No Action/Status Quo Bi-Directional Sector Transfer

This alternative would maintain the unidirectional sector transfer where landings can only be transferred from the recreational sector to the commercial sector.

6.2.1 Bi-Directional Sector Transfers

Under this proposed transfer alternative, the Council/Board would have the ability to recommend that landings be transferred between the recreational and commercial sectors. The need for a sector transfer would be assessed annually through the specifications process at the annual August meeting. Prior to the meeting, the Monitoring Committee would develop a projection of next year’s landings for both the recreational and the commercial sectors using key considerations such as landings in prior years, changes in management measures (recreational sector: bag limit, season, min size; commercial sector: trip limit, season, quota), trends in fishery effort, and changes in abundance and biomass levels. These projected commercial and recreational landings would be compared to the initial proposed sector landings limits for the upcoming fishing year. If, based on this comparison, the recreational fishery is not anticipated to land its limit, the Council/Board can recommend that a portion of the RHL be transferred to the commercial fishery up to a maximum of (5, 10, or 15% – TBD)% of the ABC. Conversely, if the commercial fishery is not anticipated to land its limit, the Council/Board can recommend that a portion of the commercial quota be transferred to the recreational fishery up to a maximum of (5, 10, or 15% – TBD)% of the ABC. If both sectors are projected to achieve or underachieve their respective catch limits for that year, then no transfer is recommended.

Under the current plan, NOAA Fisheries implements specifications in January for the new fishing year following the August meeting. Once preliminary prior year MRIP estimates are available in February, NOAA Fisheries compares the estimate of recreational landings for the previous year to the RHL to make any necessary adjustments before finalizing the amount of quota transferred. The adjustment notice with final specifications is usually published in March/April. This process could be continued, except instead of only projecting recreational landings, both commercial and recreational landings from the previous year would be projected to inform any adjustments to the transfer between the commercial and recreational sectors, should the Council/Board approve bi-directional transfers. **Table 25** below outlines when a transfer could occur as well in which direction quota would be transferred.

Table 25. Proposed guidelines for bi-directional transfers across sectors.

Scenario	Commercial Sector	Recreational Sector	Outcome
1	Projected to achieve quota	Projected to achieve RHL	No transfer
2	Projected to achieve quota	Projected to not achieve RHL	Transfer to comm
3	Projected to not achieve quota	Projected to achieve RHL	Transfer to rec
4	Projected to not achieve quota	Projected to not achieve RHL	No transfer

FMAT Comments/Recommendations on Issue 6

Transfer Cap

The FMAT recommends removing alternatives 6.1.1 (5% of the ABC) and 6.1.3 (15% of the ABC) from further consideration. Under the 5-year council risk policy p* approach, the ABC is projected to equal approximately 59 million lbs (26,677 metric tons) in 2026, the terminal year when the stock is considered rebuilt. Assuming that the SSB and ABC is sustained at this level, a transfer cap of 10% of the ABC would equal approximately 5.9 million lbs. **Table 24** demonstrates that transfers from the recreational sector to the commercial sector never exceeded 5.93 million lbs from 2000 to 2019. The FMAT noted this provides justification for removing alternative 6.1.3, which would allow much larger transfers to occur in a rebuilt fishery. Similarly, the FMAT noted that a transfer cap of 5% of the ABC, resulting in approximately a 3 million lbs cap when the fishery is rebuilt, would unnecessarily restrict the transfer process when comparing historical values.

Bi-Directional Sector Transfers

The FMAT agreed that the option for bi-directional transfers should remain in the amendment for public comment. However, the FMAT cautioned that transfers from the commercial to recreational fishery could be problematic for individual states. For example, even when coastwide commercial landings are not projected to achieve the quota, it is likely that several states would still harvest their state's share. In this example, states that typically utilize their full quotas would be harmed by a sector transfer. This would be an important consideration during the specifications process.

7. Management Uncertainty

This alternative set is available to potentially alter the bluefish flowchart. Specifically, the proposed flowchart created sector specific ACLs that allow for management uncertainty to be accounted for within each sector.

7.1 No Action/Status Quo

The no action/status quo alternative keeps the existing management uncertainty provisions in place as described in Amendment 1 (**Figure 11**).

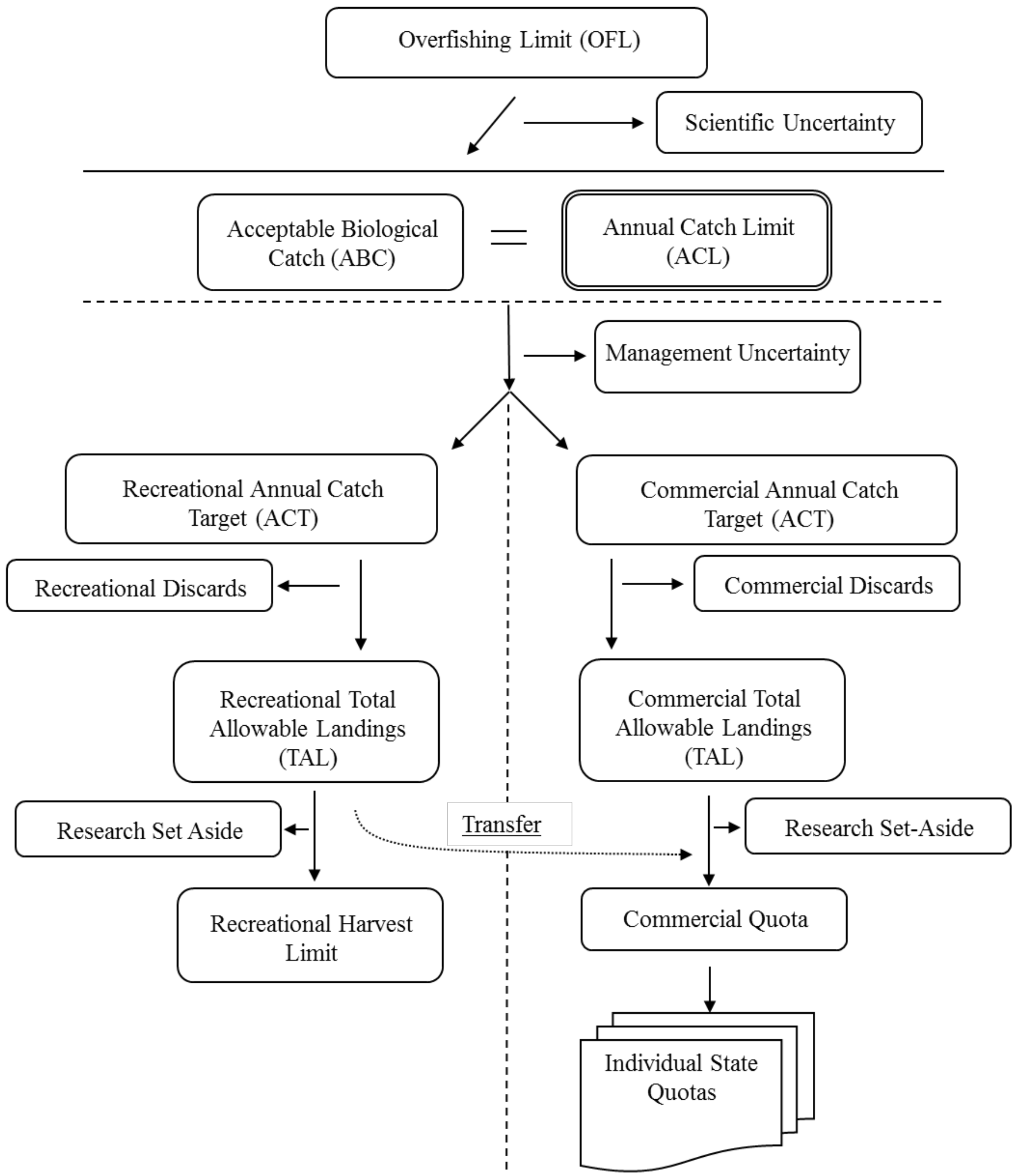

Figure 11. Current bluefish flow chart representing a reduction for management uncertainty prior to the sector split.

7.1.1 Post Sector-Split Alternative

Under this alternative, the ABC is allocated between two sector-specific ACLs and management uncertainty is accounted for within each sector (**Figure 12**).

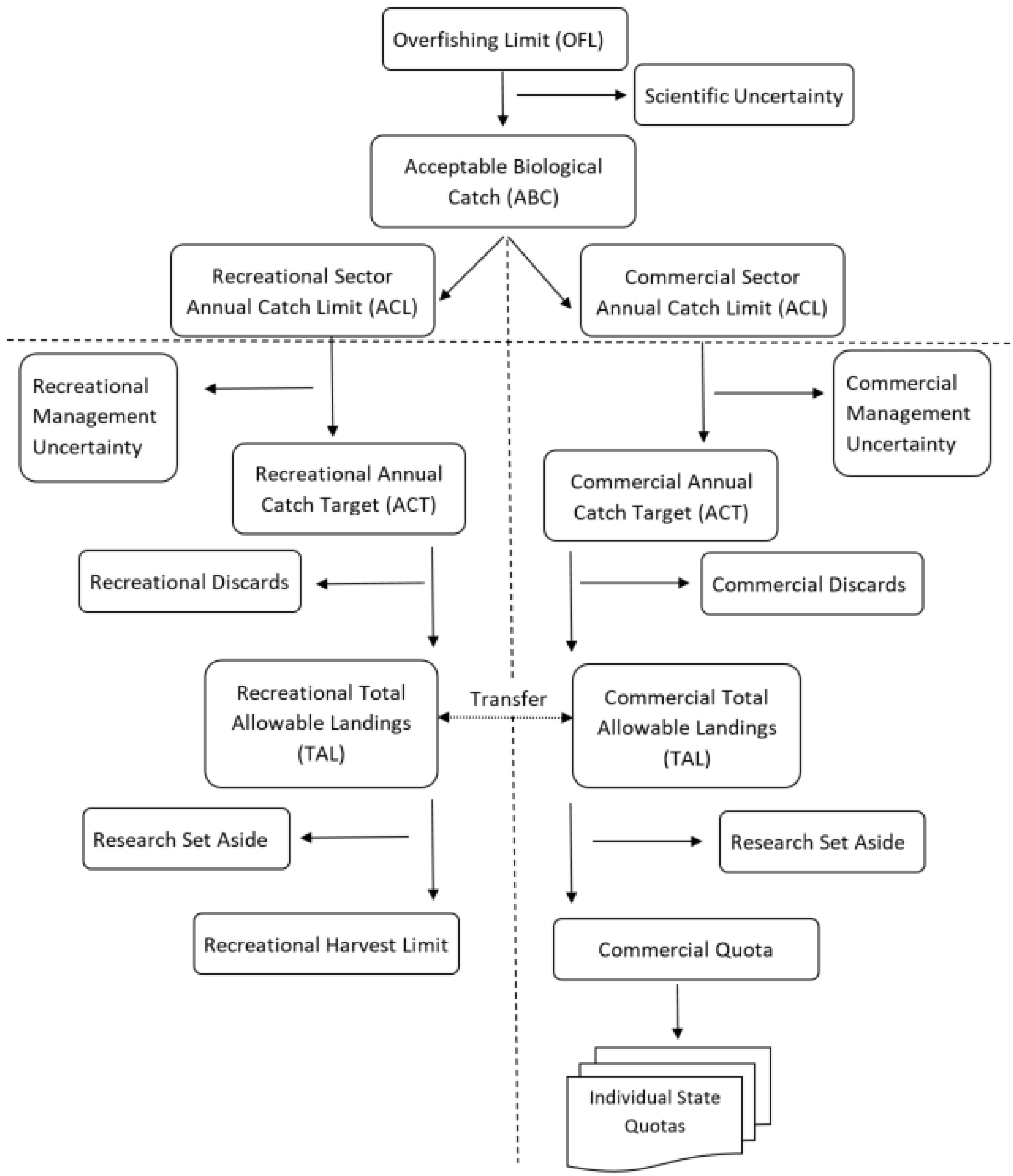

Figure 12. Proposed bluefish flow chart including sector specific management uncertainty.

FMAT Comments/Recommendations on Issue 7

The FMAT reviewed the management uncertainty alternative set that would revise the bluefish flowchart and recommended this be included in the public hearing document.

8. De minimis Status

Under the Commission's Fishery Management Plan, states which land less than 0.1% of the coastwide commercial landings in the year prior are exempt from fishery independent monitoring requirements for the following year. However, the federal plan does not require states to submit fishery independent monitoring reports, and as such has no *de minimis* provision.

8.1 No Action/Status Quo

Under this alternative, *de minimis* status would remain excluded from the Bluefish Amendment maintaining status quo for both the Commission and Federal plan.

8.1.1 De minimis (ASMFC only) Alternative

This alternative expands upon the Commission's *de minimis* provision. During scoping, Georgia DNR proposed that a state's three-year average of combined recreational and commercial landings compared against coastwide landings for the same period with a 1% threshold would be used to determine status. A *de minimis* determination would relieve a state from having to adopt commercial and recreational fishery regulations in addition to the existing exemption of the requirement to conduct fishery independent monitoring.

This alternative does complicate coastwide management of bluefish in that it poses additional challenges from an enforcement perspective and potential unforeseen challenges from a catch-accounting perspective. From an enforcement perspective, anglers will need to be cognizant of the differing regulations between state and federal waters, as well as differing regulations when crossing state lines. However, these concerns are already at play when states implement recreational measures within state lines under the Commission's conservation equivalency policy that differ from the coastwide measures. From a catch accounting perspective, the proposed *de minimis* provision would reduce a state's accountability for its recreational harvest. Currently, the plan ensures that all states are held accountable by adjusting recreational measures to ensure coastwide recreational catch does not exceed the RHL. A state that meets the *de minimis* criteria would not be held accountable in the same way, which raises questions about fairness and equity across state user groups.

FMAT Comments/Recommendations on Issue 8

The FMAT reviewed the de minimis alternative set and recommended this be included in the public hearing document.

Bluefish Allocation and Rebuilding Amendment - Action Plan

(Updated as of September 2020)

Amendment Goal

The goal of this amendment is to review and possibly revise the allocation between the commercial and recreational fisheries and the commercial allocations to the states. This action is needed to rebuild the bluefish stock, avoid overages, achieve optimum yield, prevent overfishing, and reduce the need for quota transfers off the U.S. east coast.

Fishery Management Action Team

The Council will form a team of technical experts, known as a Fishery Management Action Team (FMAT) to develop and analyze management alternatives for this amendment. The FMAT is led by Council staff and includes management partners from the National Marine Fisheries Service (NMFS) Greater Atlantic Regional Fisheries Office (GARFO), the Northeast Fisheries Science Center (NEFSC), the Southeast Fishery Management Council (SAFMC), and the Atlantic States Marine Fisheries Commission (ASMFC). The FMAT will work with other experts to address specific issues, as needed.

FMAT Membership

Name	Role/Expertise	Agency
Matthew Seeley	FMAT Chair	MAFMC
Danielle Palmer	Protected Resources	NMFS GARFO
David Stevenson	Habitat Conservation	NMFS GARFO
Cynthia Ferrio	Sustainable Fisheries	NMFS GARFO
Ashleigh McCord	NEPA	NMFS GARFO
Tony Wood	Population Dynamics	NEFSC
Matthew Cutler	Social Sciences	NEFSC
Samantha Werner	Economist	NEFSC
Dustin Colson Leaning	Plan Coordinator	ASMFC
Mike Celestino	Bluefish Technical Committee	NJDFW

Applicable Laws

Magnuson-Stevens Act	Yes
National Environmental Policy Act	Yes – will require an Environmental Assessment or Environmental Impact Statement
Administrative Procedure Act	Yes
Regulatory Flexibility Act	Yes
Paperwork Reduction Act	Possibly; depends on data collection needs
Coastal Zone Management Act	Possibly; depends on effects of the action on the resources of the coastal states in the management unit
Endangered Species Act	Possibly; level of consultation will depend on the actions taken
E.O. 12866 (Regulatory Planning and Review)	Yes
E.O. 12630 (Takings)	Possibly; legal review will confirm
E.O. 13123 (Federalism)	Possibly; legal review will confirm
E.O. 13771 (Reducing Regulation and Controlling)	Possibly; legal review will confirm
Essential Fish Habitat	Possibly
Social Impact Analysis	Possibly
Information Quality Act	Yes

Expected Document

Acronym	NEPA Analysis	Requirements
EA	**Environmental Assessment**	**NEPA applies, no scoping required, public hearings required under MSA**
EIS	Environmental Impact Statement	NEPA applies, scoping required, public hearings required

Draft Timeline for Amendment Development and Implementation

Task Description	Date (subject to change)
Initiation and request of FMAT participants	December 2017
Formation of FMAT	January 2018
Initial FMAT discussion	March 2018
ASMFC meeting - review scoping plan and document	May 2018
Scoping hearings / scoping comment period	June-July 2018
Council Meeting - review scoping comments and FMAT, Advisory Panel (AP), and Monitoring Committee recommendations; discuss next steps	August 2018
AP Meeting - review amendment goals and objectives, FMAT recommendations, develop recommendations for alternatives; any amendment issues?	July 2019
FMAT Meeting – review comments and develop draft alternatives	August 2019
Joint Council and Board Meeting – discuss incorporating rebuilding and review the issues to be covered in the Amendment	October 2019
Joint Council and Board Meeting – approve supplemental scoping document for additional scoping hearings	December 2019
Supplemental scoping hearings / scoping comment period	February-March 2020
FMAT Meeting – review comments and provide recommendations for the scope of the action	April 2020
Joint Council & Board Meeting - review scoping comments and FMAT recommendations; identify potential alternatives to consider	May 2020
FMAT Meeting – develop draft alternatives	May 2020
AP Meeting – provide recommendations on draft alternatives	June 2020
Joint Bluefish Committee and Board Meeting - review and refine draft alternatives	June 2020
FMAT Meeting – refine draft alternatives for the August Joint Council Board Meeting	July 2020
Joint Council & Board Meeting – review and refine draft alternatives	August 2020
FMAT Meeting – finalize draft alternatives for the October Joint Council Board Meeting	September 2020
Joint Council & Board Meeting – review and approve alternatives for public hearing document	October 2020

Development of public hearing document and hearing schedule	October 2020-January 2021
Joint Council & Board Meeting – approve public hearing document	February 2021
Public hearings	March/April 2021
AP Meeting - recommendations for final action	March/April 2021
Bluefish Committee Meeting - recommendations for final action	Spring 2021
Joint Council & Board Meeting - final action	May/June 2021
Submission of draft EA/EIS to GARFO	Summer 2021
Draft EA/EIS revisions and resubmission	Summer/Fall 2021
Rulemaking (proposed rule)	Fall 2021
Rulemaking (final rule)	Winter 2021