Atlantic States Marine Fisheries Commission

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MEMORANDUM

July 24, 2017

To: **Summer Flounder, Scup, and Black Sea Bass Management Board**

From: **Kirby Rootes-Murdy, Senior FMP Coordinator**

RE: **Draft Addendum XXX Management Alternatives**

Introduction

The Board initiated a draft addendum at the ASMFC Spring Meeting in May 2017 to address concerns of equitable access to the black sea bass recreational fishery through the following motion:

> *Move to initiate an addendum for 2018 recreational black sea bass management with options as recommended by the Working Group and Plan Development Team. Options for regional allocations shall include approaches with uniform regulations (e.g., number of days) and other alternatives to the current North/South regional delineation (MA-NJ/DE-NC) such as those applied for summer flounder, i.e., one-state regions.*

This memo includes background information on the black sea bass recreational fishery and possible management alternatives for the Board's consideration at the ASMFC Summer Meeting. Initial draft management alternatives were developed by staff based on the motion. The Board's Recreational Black Sea Bass Working Group provided additional information for the Board to consider for further developing the document (see 'proposed management program' section on page 8). The document has been structured to be used in crafting the draft addendum for Board Review.

Overview/Statement of the Problem

The Commission's ISFMP Charter establishes fairness and equity as guiding principles for the conservation and management programs set forth in the Commission's FMPs. In recent years, challenges in the black sea bass recreational fishery have centered on providing equitable access to the resource in the face of uncertain population size, structure, and distribution. In the absence of an accepted peer reviewed stock assessment, biomass estimate, and reference points, the Board and Council had set coastwide catch limits at conservative levels to ensure sustainability of the resource. Coastwide catch limits set from 2010-2016 were largely based on a constant catch approach used to maintain or increase the size of the population based on historical catch data; for 2016, a Management Strategy Evaluation was considered and approved by the Board and Council to increase both the recreational and commercial catch limits. In recent years, fishery independent and dependent information and the 2016 benchmark stock assessment have indicated a much higher abundance of the resource than previously assumed. This presented challenges in both maintaining recreational harvest to the coastwide catch limits as well as crafting recreational measures that ensured equitable access to the resource along the coast.

Starting in 2011, the Board approved addenda that allowed states to craft measures in an aim to reduce harvest to the annual coastwide catch limit while maintaining state flexibility. After a single year of management by state shares, the Board adopted what became officially known as the ad-hoc regional management approach, where the states of Massachusetts through New Jersey would individually craft state measures aimed at reducing harvest by the same percent, while Delaware through North Carolina set their regulations consistent with the federal waters measures. This approach, while allowing the states flexibility in setting their measures, did create discrepancies in conservation measures that were not tied to any original management plan baseline or goal (e.g., state allocations). Inequities resulted in how much of a harvest reduction states were addressing through their measures, with no accountability for the effectiveness of regulations. Most visibly, the ad-hoc approach did not provide uniformity in measures nor in evaluating harvest reductions.

Background

The black sea bass recreational fishery is managed on a "target quota" basis. Fifty-one percent of the total allowable landings are allocated to the recreational sector as the coastwide recreational harvest limit (RHL) and forty-nine percent is allocated to the commercial sector through a coastwide quota with each state allocated a percentage based on historical landings data.

From 1996 to 2010, uniform coastwide size, season, and bag limits had been used by the Commission and Council to constrain the recreational fishery to the annual RHL. Over time, the states grew concerned the coastwide regulations disproportionately impacted states within the management unit; therefore, the Board approved a series of addenda which allowed for state-by-state flexibility, first through state shares in 2011 and then through the ad hoc regional management approach for 2012–2017. The Northern Region states have been subject to harvest reductions in all years except 2012 (liberalization), while the Southern Region states have been largely status quo. Under ad hoc regional management in 2017, the Board initially allowed for status quo measures for all states, but subsequently required the states of Rhode Island through New Jersey to set their possession limit for black sea bass at 5 fish for wave 6 (November 1 through December 31)(Table 1).

Table 1. State by State Black Sea Bass Recreational Measures for 2017.

State	Minimum Size (inches)	Possession Limit	Open Season
Maine	13	10 fish	May 19-September 21; October 18-December 31
New Hampshire	13	10 fish	January 1-December 31
Massachusetts	15	5 fish	May 20-August 29
Rhode Island	15	3 fish	May 25- August 31
		7 fish	September 1- 21; October 22- 31
		5 fish	**November 1-December 31**
Connecticut (Private & Shore)	15	5 fish	May 1-December 31
CT Authorized Party/Charter Monitoring Program Vessels		8 fish	May 1-October 31
		5 fish	**November 1-December 31**
New York	15	3 fish	June 27- August 31
		8 fish	September 1-October 31
		5 fish	**November 1-December 31**
New Jersey	12.5	10 fish	May 26-June 18
		2 fish	July 1-August 31
	13*	15 fish*	October 22-October 31*
	*	**5 fish**	**November 1-December 31**
Delaware	12.5	15 fish	May 15-September 21; October 22-December 31
Maryland	12.5	15 fish	May 15-September 21; October 22-December 31
Virginia	12.5	15 fish	May 15-September 21; October 22-December 31
North Carolina, North of Cape Hatteras (N of 35° 15'N)	12.5	15 fish	May 15-September 21; October 22-December 31

***NJ DFW indicates fall regulations are TBD**

Description of the Fishery

Black sea bass are a popular recreational fishing target in the mid-Atlantic and southern New England regions. Most recreational harvest of black sea bass occurs in the state waters of Massachusetts through New Jersey when the fish migrate inshore during the spring through summer months.

For much of the last decade, coastwide harvest has exceeded the coastwide RHL (Table 2). In 2016, MRIP data indicate that an estimated 5.19 million pounds of black sea bass were harvested recreationally from Maine through Cape Hatteras, North Carolina, exceeding the 2016 RHL by 2.37 million pounds. In 2016, about 65% of black sea bass harvested were caught in state waters and about 35% in federal waters, although state by state percentage caught varies (Table 3). In recent years, the majority of black sea bass were harvest in New Jersey, New York, Connecticut, Rhode Island and Massachusetts. These five states account for 94% of all black sea bass harvest north of Cape Hatteras in 2016 (Table 4; Figure 1). Additionally, MRIP data indicate that 84% of harvest in 2016 came from anglers on private or rental boats, and 16% came from party/charter boats (Figure 2).

Table 2. Black Sea Bass Recreational Harvest relative to coastwide RHL 2007-2016

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Coastwide Harvest (mil. lb)	2.18	2.03	2.56	3.19	1.17	3.19	2.46	3.6	3.79	5.19
Coastwide RHL (mil. lb)	2.47	2.11	1.14	1.83	1.78	1.32	2.26	2.26	2.33	2.82
Percent of RHL harvested	88%	96%	**225%**	**174%**	66%	**242%**	**109%**	**159%**	**163%**	**184%**

Table 3. Percentage of State by state harvest (in pounds) taken from state vs. federal waters in 2016. Please note: North Carolina is omitted due to post-stratification of harvest north of Cape Hatteras

Year: 2016	MASSACHUSETTS	RHODE ISLAND	CONNECTICUT	NEW YORK	NEW JERSEY	DELAWARE	MARYLAND	VIRGINIA
State Waters (<=3 Miles)	94%	83%	95%	49%	36%	8%	51%	9%
Federal Waters (> 3 Miles)	6%	17%	5%	51%	64%	92%	49%	91%

Table 4. State-by-state recreational harvest of black sea bass (in numbers of fish), Maine through Cape Hatteras, North Carolina, 2007 through 2016.

Year	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Maine					0	0				
New Hampshire				0		3,195	12,283	0	0	0
Massachusetts	149,434	246,136	430,748	702,138	194,752	519,910	291,678	457,099	342,554	392,239
Rhode Island	44,024	52,303	35,972	160,427	50,203	102,548	74,727	214,463	233,631	254,704
Connecticut	23,574	59,751	465	15,682	8,378	110,858	109,807	397,033	330,628	435,624
New York	409,697	259,511	566,483	543,243	274,473	321,516	353,036	469,150	876,630	1,032,604
New Jersey	724,591	579,617	583,373	687,451	148,487	734,928	345,337	468,402	310,298	294,312
Delaware	93,147	22,621	37,345	21,028	42,961	40,141	36,557	23,879	22,899	24,168
Maryland	38,669	26,429	33,082	36,018	47,445	33,080	29,677	68,469	57,631	79,951
Virginia	36,152	38,045	114,805	29,718	18,964	4,076	21,295	18,802	38,763	28,913
North Carolina Post-stratified	8,517	9,353	3,307	10,850	30,975	3,664	8,002	696	1,920	864

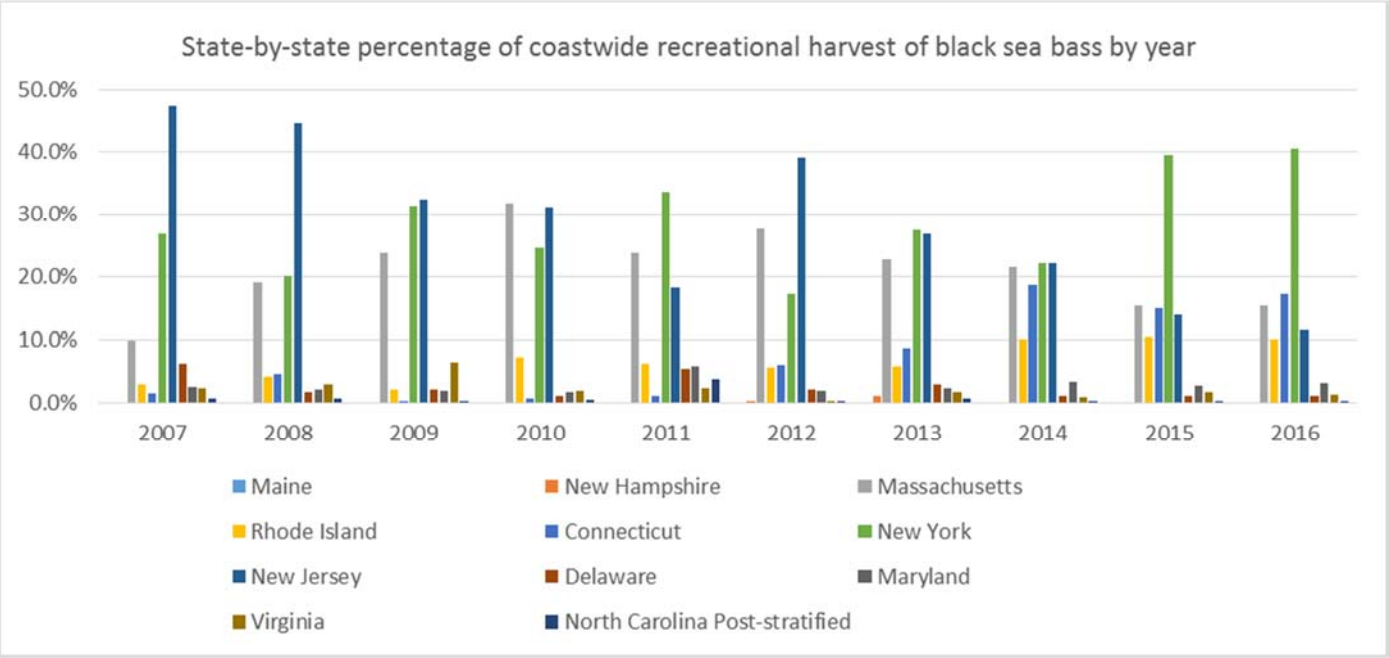

Figure 1. State-by-state contribution (as a percentage) to total recreational harvest of black sea bass (in numbers of fish, Maine through Cape Hatteras, North Carolina, 2007 through 2016.

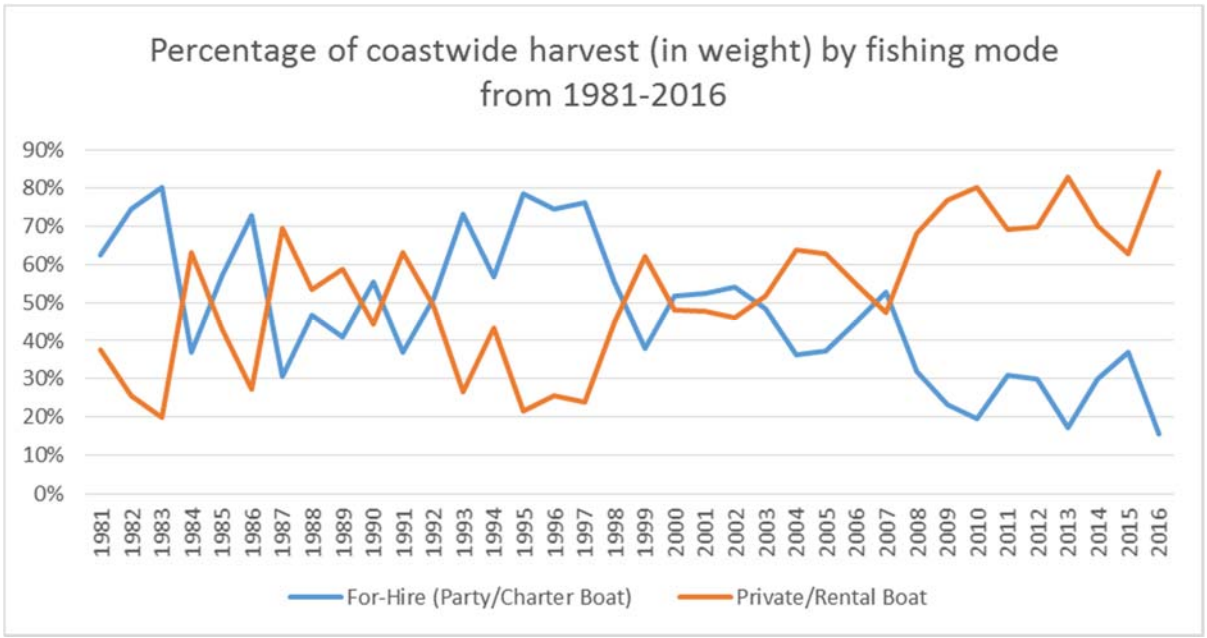

Figure 2. Percentage of coastwide harvest (in weight) by fishing mode from 1981-2016.

Status of the Stock

The last peer reviewed and accepted benchmark stock assessment was approved in December 2016 (SARC 62). The assessment indicated that the black sea bass sea bass stock north of Cape Hatteras, North Carolina was not overfished and overfishing was not occurring in 2015.

For modeling the black sea bass north of Cape Hatteras, the stock was partitioned into two sub-units at approximately Hudson Canyon to account for spatial differences in abundance and size at age. The sub-units are not considered to be separate stocks. Based on the assessment modelling, biomass is considered underestimated and the large 2011 year class is dominant in the northern area (north of Hudson Canyon) and less so in the south (south of Hudson Canyon). Although the stock was assessed by sub-unit, the combined results were put forth to develop reference points and harvest specifications.

Spawning stock biomass (SSB) averaged around 6 million pounds from the late 1980's and early 1990's and then steadily increased from 1997 to 2002 when it reached 18.7 million pounds. From 2007 on, the SSB has increased, reaching its highest level in 2015 (48.89 million pounds) (Figure 1). The fishing mortality rate (F) in 2015 was 0.27, below the fishing mortality threshold reference point (FMSY PROXY= F40%) of 0.36. Fishing mortality has been below the FMSY PROXY for the last five years. Model estimated recruitment was relatively constant throughout the time series except for large peaks from 1999 and 2011 year classes. Average recruitment of age 1 black sea bass from 1989–2015 equaled 24.3 million fish with the 1999 year class estimated at 37.3 fish and the 2011 year class estimated at 68.9 million fish.

Based on the stock assessment, the Board and Council set the 2017 RHL at 4.29 million pounds. In light of the projected decline in biomass in 2018, the 2018 RHL is set at 3.66 million pounds, an approximate 15% reduction from the 2017 RHL.

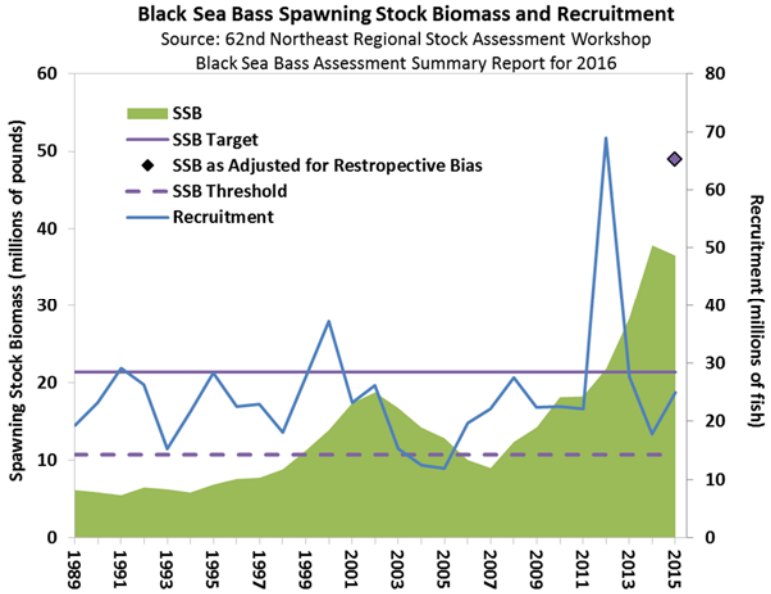

Figure 3. Black Sea Bass spawning stock biomass (SSB) and recruitment at age 0 by calendar year.

Proposed Management Program
The following options were developed from the Board motion from May 2017. The Black Sea Bass Working Group provided additional information for the Board to consider in selecting, removing, or further developing the options below. Again, these options can be further modified by the Board.

Option 1: Default Management Program
For 2018, a coastwide set of measures (size limit, possession limit, season length) would be specified in both state and federal waters to achieve the 2018 RHL.

Option 2: State Allocation of Annual RHL
For 2018, the RHL would be allocated to states. Each state would be responsible for developing measures that would constrain the harvest to their allocation. Adjacent states could voluntarily pool their allocations and coordinate on regulations that would constrain the combined harvest to their combined allocation. States will develop proposals for the Board to consider for approval no later than the 2018 ASMFC Winter Meeting.

-Sub-Option 2A: Timeframes for specifying state allocation
Under this specification, harvest data would be used to determine each state's share of the annual RHL. One of the following timeframe options would be used to base harvest allocations:

A) Entire time series (1981-2016)
B) 1997-2016 (20 years)
C) 2007-2016 (10 years)
D) 2012-2016 (5 years)

Black Sea Bass Rec WG comments to the Board
A majority of WG members preferred to have this option removed, though not all members. If this option were to be included in the draft addendum, Rec WG members noted that that Sub-Option timeframes 'A) Entire times series (1981-2016)' and 'B) 1997-2016 (20 years)' should be removed. Reasons cited were that timeframes the go back further than 10 years are not representative of current stock condition and/or abundance. Additional concerns were raised regarding the 2016 harvest estimates being used due to what many WG members perceive to be New York's anomalous wave 6 (November 1-December 31) data. Some WG members indicated that a smoothing or normalizing of NY's wave 6 data needs to occur before 2016 data can used to determine allocations. One potential change offered was to remove 2016 data from possible time series options as whole or modify the options above to be the following:

A) 2007-2016 with NY Wave 6 data correction
B) 2007-2015
C) 2012-2016 with NY wave 6 data correction
D) 2012-2015
** Based on Rec WG comments below, time series data & percentage share for state allocation of new Options B and D are included in Appendix 1.**

Additionally, the Rec WG members wanted to provide the Board with the following advantages and challenges regarding the state-by-state allocation option:

- Advantages
  - Each state has an annual allocation to work from & to be evaluated against, thus providing individual accountability for the effectiveness of regulations that a state implements
  - Measures can be crafted to the states' unique needs
  - States which have seasons that conclude before year's end (e.g., no Wave 6 fishery) can craft subsequent year rules sooner (because don't have to wait for Wave 6 harvest estimates from other states)
  - State allocations are an easily understood foundation for regulations (as opposed to ad hoc regional management)
- Challenges
  - MRIP data/timeliness of data release/how to evaluate annual performance of measures. This challenge is unique to summer flounder, scup, and black sea bass where prior year harvest is used to compare against a current year's coastwide RHL.
  - Could result in widely disparate regulations between states, including those that share waterbodies
  - State allocations based on harvest during a static timeframe could present problems in the future as stock and fishery dynamics change (such as occurred with recreational summer flounder)
  - Choosing the most appropriate time series of harvest to base allocation on (recent enough to reflect current black sea bass distribution and fishing effort without the time series influenced too much by strong year classes and restrictive regulations)
  - MRIP harvest estimates, the would-be basis for state allocations, are not without uncertainty and are constantly evolving (with a significant recalibration of past years' estimates expected in 2018)
  - State measures would only apply in state waters while NOAA Fisheries would still implement federal waters measures, because there is no provision in the FMP for lifting the federal waters measures in exchange for conservationally equivalent state measures for fishing in both state and federal waters (like for summer flounder).
  - Year to year consistency of regulations may be difficult (given swings in MRIP estimates) unless states act very conservatively

Option 3: Regional Allocation of Annual RHL

For 2018, the RHL would be allocated to regions. Each region would be responsible for developing measures that would constrain the harvest to their allocation. States within a region will develop proposals for the Board to consider for approval no later than the 2018 ASMFC Winter Meeting.

Sub-option 3A: Regional alignment

The following groupings would specify the regional alignment for regions & regional allocation in 2018.

A) 2 Regions: Massachusetts through New Jersey (North Region); Delaware through North Carolina north of Cape Hatteras (South region). This regional alignment was in place during ad hoc

regional management (2012-2017). They were based on the both amount of landings and area of harvest (state vs federal waters).

B) 2 Regions: Massachusetts through New York (North Region); New Jersey through North Carolina north of Cape Hatteras (South region). This regional alignment is based in part on the results of the 2016 benchmark stock assessment, which indicated different levels of abundance for black sea bass in the New York bight north of Hudson Canyon.

C) 3 Regions: Massachusetts through New York (North Region): New Jersey as a state specific region (New Jersey Region): Delaware through North Carolina north of Cape Hatteras (South region). This regional alignment is based in part on the results of the 2016 benchmark stock assessment, which indicated different levels of abundance for black sea bass in the New York bight north of Hudson Canyon. As the demarcation line of abundance is not fixed, this regional alignment seeks to allow New Jersey to set state level measures to address spatial variation in size and abundance of black sea bass along the New Jersey coast.

D) 4 Regions: Massachusetts through Rhode Island (North Region): Connecticut through New York (Long Island Region): New Jersey as a state specific region (New Jersey Region): Delaware through North Carolina north of Cape Hatteras (South region). This regional alignment seeks to create more consistency between neighboring states and shared water bodies.

Sub-option 3B: Timeframes for specifying allocation
Under this specification, harvest data would be used to determine each state's share of the annual RHL. One of the following timeframe options would be used to base harvest allocations:

A) Entire time series (1981-2016)
B) 1997-2016 (20 years)
C) 2007-2016 (10 years)
D) 2012-2016 (5 years)

Sub-option 3C: Management measures within a region

A) Uniform regulations within a region: the states within a region must implement a set of uniform management measures (size limit, possession limit, and season length).

B) Regulatory standard with CE allowed: a uniform set of regulations is developed for a region, but states within the region can submit proposals for conservational equivalency regulations, although not to differ by more than 1" in size limit, 1 fish in possession limit, and 15 days in season length from the regulatory standard.

C) Uniform percent reduction/liberalization within a region: the states within a region individually modify their regulations to increase or decrease harvest by the same percent although they must not differ by more than 1" in size limit, 1 fish in possession limit, and 15 days in season length

Black Sea Bass Rec WG comments to the Board

Rec WG members were generally more in favor of using regional management for managing black sea bass than state by state allocations for state waters. Regarding the potential timeframes to base regional allocations on, the same comments offered for state allocations apply to this option as well-specifically, that timeframes further back than 10 years from 2016 don't account for current stock abundance & distribution and concerns on the anomalous data for states such as New York in 2016 (see suggested new timeframes for regional allocation below). One Rec WG member indicated that larger regions (2+ state regions) should be considered rather than smaller ones (2 or less state regions) to aggregate MRIP harvest data better. Another Rec WG member suggested an option in which DE through NC remain a region and MA through NJ each be a region (i.e., have state allocations). There was general support for the concept of limiting the difference between states' regulations within a region if flexibility is permitted. The concept could be developed further to bound the difference in regulations between regions. *Guidance needed for regions where neighboring states are not in the same region*

Alternative timeframes to be considered for regional allocations to be based on:
A) 2007-2016 with NY Wave 6 data correction
B) 2007-2015
C) 2012-2016 with NY wave 6 data correction
D) 2012-2015

** Based on Rec WG comments below, time series data for state allocation of <u>new</u> Options B and D are included in Appendix 2.**

As with the state-by-state allocation option, the Rec WG members wanted to provide the Board with the following comments on advantages and challenges regarding the regional option:

- Advantages
  - Each region has an annual allocation to work from & be evaluated against
  - Regional allocations could address regional abundance and differences in black sea bass availability (small vs. large fish; year-round availability vs. seasonal availability)
  - Provides for more consistent regulations between states and shared water bodies (than state by state allocations)
  - Regional allocations are an easily understood foundation for regulations (as opposed to ad hoc regional management)
  - Regional management helps buffer against greater than projected harvest in any one state, possibly improving year-to-year consistency of regulations

- Challenges
  - MRIP data/timeliness of data release/how to evaluate annual performance of measures. This challenge is unique to summer flounder, scup, and black sea bass where prior year harvest is used to compare against a current year's coastwide RHL.

- Choosing the most appropriate time series of harvest to base allocations (recent enough to reflect current black sea bass distribution and fishing effort without the time series influenced too much by strong year classes and restrictive regulations)
- The potential for large difference in regulations between regions remains (unless some controls are added)
- Regional allocations based on harvest during a static timeframe could present problems in the future as stock condition or fishery dynamics change
- MRIP harvest estimates, the would-be basis for regional allocation, are not without uncertainty and are constantly evolving (with a significant recalibration of past year's estimates expected in 2018)
- Year to year consistency of regulations may be difficult (given swings in MRIP estimates) unless regions collectively act more conservatively

Other considerations:

- A sub-option dealing with accountability for both state by state and regional allocations was discussed by the Rec WG members. While some members felt having some type of accountability was needed for black sea bass recreational management, nearly all members were not in favor of having percentage or pound-for-pound paybacks due to issues with MRIP data.
- One BSB Rec WG member indicated interest in having total catch be evaluated (A+B1+B2)
- One BSB Rec WG member indicated that regional allocations should possibly be based on the size of the angling population and availability of black sea bass to those anglers, not on past harvest.
- Many BSB Rec WG members indicated a preference for going to multi-year averaging of MRIP data to evaluate harvest, rather than terminal year estimates
- One BSB Rec WG member indicated if allocations went into effect, they need to be revisited regularly, if not annually.
- A number of BSB Rec WG members were in favor using a 'common sense' set of measures that states and/or regions could develop or derive Conservation Equivalency measures from.
- BSB Rec WG members indicated that F based management could be something done in the future, but not in 2018 based on MAFMC staff feedback.
- Building on the idea of a set of 'common sense' measures, one Rec WG member offered that possible set of regional measures could start at the following: Massachusetts-New York, 5 fish at 15" minimum size; New Jersey at 10 fish at 13" minimum size; Delaware-North Carolina 15 fish at 12.5" minimum size. All regions would have a year round open season. Though it should be noted, the WG member does not think the approach will achieve the approximate 14% reduction needed to achieve the 2018 RHL relative to the 2017 RHL.

Timeframe for Addendum provisions

Option 1: 1 year (2018 only)
The management program outlined in section 3.0 will be in place for 2018 only. After 2018 measures would revert back to the FMP status quo of coastwide measures.

Option 2: 2 years (2018-2019)
The management program outlined in section 3.0 will be in place for 2018. The Board could take action, through a Board vote, to extend the addendum for one year, expiring at the end of 2019. After 2019, measures would revert back to the FMP status quo of coastwide measures.

Option 3: 3 years (2018-2020)
The management program outlined in section 3.0 will be in place for 2018. The Board could take action, through a Board vote, to extend the addendum for up to two years, expiring at the end of 2020. After 2020, measures would revert back to the FMP status quo of coastwide measures.

Appendix I. State by State Allocation Scenarios

Table 5. State by state recreational harvest of black sea bass (in numbers of fish) from 2007-2015 and percentage allocation

State	Harvest	Percentage Allocation
Maine	0	0.0%
New Hampshire	15,478	0.1%
Massachusetts	3,334,449	22.0%
Rhode Island	968,298	6.4%
Connecticut	1,056,176	7.0%
New York	4,073,739	26.9%
New Jersey	4,582,484	30.3%
Delaware	340,578	2.2%
Maryland	370,500	2.4%
Virginia	320,620	2.1%
North Carolina Post-stratified	77,284	0.5%
Total	15,139,606	100%

Table 6. State by state recreational harvest of black sea bass (in numbers of fish) from 2012-2015 and percentage allocation

State	Harvest	Percentage Allocation
Maine	0	0.0%
New Hampshire	15,478	0.2%
Massachusetts	1,611,241	21.5%
Rhode Island	625,369	8.4%
Connecticut	948,326	12.7%
New York	2,020,332	27.0%
New Jersey	1,858,965	24.8%
Delaware	123,476	1.6%
Maryland	188,857	2.5%
Virginia	82,936	1.1%
North Carolina Post-stratified	14,282	0.2%
Total	7,489,262	100%

Appendix II. Regional Allocation Scenarios

Please note: harvest from Maine and New Hampshire are used in coastwide time series numbers

1. 2 Regions: Massachusetts through New Jersey (North Region); Delaware through North Carolina north of Cape Hatteras (South region).

Table 7. Time Series Option B 2007-2015 Harvest in numbers of fish

Regions	State by State Harvest	Regional Harvest	Percentage Allocation
Massachusetts	3,334,449	14,015,146	92.6%
Rhode Island	968,298		
Connecticut	1,056,176		
New York	4,073,739		
New Jersey	4,582,484		
Delaware	340,578	1,108,982	7.3%
Maryland	370,500		
Virginia	320,620		
North Carolina Post-stratified	77,284		

Table 8. Time Series Option D 2012-2015 Harvest in numbers of fish

Regions	State by State	Regional Harvest	Percentage Allocation
Massachusetts	1,611,241	7,064,233	94.3%
Rhode Island	625,369		
Connecticut	948,326		
New York	2,020,332		
New Jersey	1,858,965		
Delaware	123,476	409,551	5.5%
Maryland	188,857		
Virginia	82,936		
North Carolina Post-stratified	14,282		

2) 2 Regions: Massachusetts through New York (North Region); New Jersey through North Carolina north of Cape Hatteras (South region).

Table 9. Time Series Option B 2007-2015 Harvest in numbers of fish

Regions	State by State Harvest	Regional Harvest	Percentage Allocation
Massachusetts	3,334,449	9,432,662	62.3%
Rhode Island	968,298		
Connecticut	1,056,176		
New York	4,073,739		
New Jersey	4,582,484	5,691,466	37.6%
Delaware	340,578		
Maryland	370,500		
Virginia	320,620		
North Carolina Post-stratified	77,284		

Table 10. Time Series Option D 2012-2015 Harvest in numbers of fish

Regions	State by State	Regional Harvest	Percentage Allocation
Massachusetts	1,611,241	5,205,268	69.5%
Rhode Island	625,369		
Connecticut	948,326		
New York	2,020,332		
New Jersey	1,858,965	2,268,516	30.3%
Delaware	123,476		
Maryland	188,857		
Virginia	82,936		
North Carolina Post-stratified	14,282		

3) 3 Regions: Massachusetts through New York (North Region): New Jersey as a state specific region (New Jersey Region): Delaware through North Carolina north of Cape Hatteras (South region).

Table 11. Time Series Option B 2007-2015 Harvest in numbers of fish

Regions	State by State Harvest	Regional Harvest	Percentage Allocation
Massachusetts	3,334,449	9,432,662	62.3%
Rhode Island	968,298		
Connecticut	1,056,176		
New York	4,073,739		
New Jersey	4,582,484	4,582,484	30.3%
Delaware	340,578		
Maryland	370,500	1,108,982	7.3%
Virginia	320,620		
North Carolina Post-stratified	77,284		

Table 12. Time Series Option D 2012-2015 Harvest in numbers of fish

Regions	State by State	Regional Harvest	Percentage Allocation
Massachusetts	1,611,241	5,205,268	69.5%
Rhode Island	625,369		
Connecticut	948,326		
New York	2,020,332		
New Jersey	1,858,965	1,858,965	24.8%
Delaware	123,476		
Maryland	188,857	409,551	5.5%
Virginia	82,936		
North Carolina Post-stratified	14,282		

4) 4 Regions: Massachusetts through Rhode Island (North Region): Connecticut through New York (Long Island Region): New Jersey as a state specific region (New Jersey Region): Delaware through North Carolina north of Cape Hatteras (South region).

Table 13. Time Series Option B 2007-2015 Harvest in numbers of fish

Regions	State by State Harvest	Regional Harvest	Percentage Allocation
Massachusetts	3,334,449	4,302,747	28.4%
Rhode Island	968,298		
Connecticut	1,056,176	5,129,915	33.9%
New York	4,073,739		
New Jersey	4,582,484	4,582,484	30.3%
Delaware	340,578		
Maryland	370,500	1,108,982	7.3%
Virginia	320,620		
North Carolina Post-stratified	77,284		

Table 14. Time Series Option D 2012-2015 Harvest in numbers of fish

Regions	State by State	Regional Harvest	Percentage Allocation
Massachusetts	1,611,241	2,236,610	29.9%
Rhode Island	625,369		
Connecticut	948,326	2,968,658	39.6%
New York	2,020,332		
New Jersey	1,858,965	1,858,965	24.8%
Delaware	123,476		
Maryland	188,857	409,551	5.5%
Virginia	82,936		
North Carolina Post-stratified	14,282		

Atlantic States Marine Fisheries Commission

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MEMORANDUM

July 25, 2017

To: **Summer Flounder, Scup, and Black Sea Bass Management Board**

From: **Kirby Rootes-Murdy, Senior FMP Coordinator**

RE: **Summer Flounder Working Group Draft Prospectus**

Introduction
The Board briefly discussed the idea of further evaluating recreational management options for summer flounder recreational management in the short and long term during the ASMFC Spring Meeting in May 2017.

The following prospectus was developed and discussed by the Summer Flounder Recreational Working Group (Rec WG) on conference calls on June 22nd and July 20th. The group provided feedback on short term management ideas, but little to no feedback on several broad category issues under the longer term management strategy due to the call running over time.

Short-Term Strategy

1. **Develop new draft Addendum to address management of the fishery in 2018**

   Discussion summary: Generally, the Summer Flounder Rec WG was in agreement with continuing a regional management approach similar to the regional alignment that was in place in 2017. Rec WG members discussed the challenges of moving to a different approach from the currently available recreational management approaches in the Fishery Management Plan of either (1) coastwide measures; 2) state by state allocations and measures; or 3) recent regional management addenda. One new idea that was offered up was to create a coastwide set of measures that then each state/region could alter/adjust to meet needs of stakeholders in the region. It was unclear how this new approach would work relative to the current joint management process.

   In seeking to get at more specificity for how recreational summer flounder management would be in 2018, the following items were discussed to clarify how the new addendum would differ from current 2017 management.

   a. **Based on 2018 RHL.**
      The Rec WG members are interested in moving to evaluate annual coastwide harvest relative to the coastwide RHL from a true harvest limit to one of a 'soft' target. Interest in this approach builds on previous arguments made on the timeliness of when data becomes available, the imprecision of MRIP estimates, and the recent year's management process where the Board approved Addendum XXVIII with the understanding that it may not reach

the 41% reduction needed to constrain harvest in 2017 to the coastwide RHL. It was noted that going to this approach may present challenges in joint management given the accountability measures (AMs) the Mid-Atlantic Fishery Management Council has for summer flounder, scup, and black sea bass, and that moving to a 'soft' target may in turn trigger AMs if there are consistent overages of the RHL and the resource continues to experience overfishing. One Rec WG member requested that a total fishing mortality be used for evaluating fishery performance rather than just harvest (A+B1); due to the call length, this option was not discussed in great detail.

b. Consider 2-year timeframe (2018 & 2019).

Rec WG members did not reach consensus on whether a new addendum should address management for more than one year. Many Rec WG members indicated that if an addendum were initiated, it should be crafted specifically to the 2018 RHL. Commission staff noted that the current Addendum XXVIII can be extended for an additional year (expiring on December 31, 2018) but that language in the current Addendum is vague in providing guidance on crafting specific regional management measures for 2018.

c. Pursue use of confidence intervals, in lieu of point source estimates, potentially over multiple years, for assessing 2017 harvest and projecting 2018 harvest. Consider assessing harvests over two or more years (e.g., 2017, 2016, 2015)

The Rec WG members discussed the idea of moving to using a multi-year averaging approach for evaluating harvest against the coastwide RHL instead of the current annual evaluation of preliminary data in the current terminal year. This idea builds on feedback the Technical Committee (TC) provided in evaluating harvest both for summer flounder and black sea bass in recent memos to the Board. But, the TC has not fully developed this methodology across species or specifically for summer flounder. Additionally, the recent fluctuations in the both coastwide RHLs from 2014-2017 and harvest estimates from 2014-2016 presents significant challenges as there have been few constants in the fishery with the exception of the measures. Had either harvest or the coastwide RHLs remained constant, multiple year averaging may be more a viable option for a new addendum. <u>For the immediate short term, the Summer Flounder Rec WG recommends staying with current evaluation of preliminary harvest estimate data (i.e. 2017) as it becomes available over the year (i.e. preliminary wave 4 data available in October 2017)</u>. It was noted that for summer flounder, harvest projections through the end of year based on preliminary data through wave 4 (July through August) have been fairly stable and accurate in recent years and the group anticipates that to be true in 2017 as well.

d. Use same regional framework as Addendum 28, or revised? If revised, in what way(s)?

Rec WG members discussed whether a new set of regions or regional alignment should be considered for 2018. After discussing the challenges and benefits of all states within a region having the same measures, and the group put forward no other regional ideas and suggested that the same region from 2016-2017 be maintained for 2018.

e. **Re-boot same/similar prescriptive regional regs as set forth under Addendum 28 -- aimed at achieving more coastwide consistency – while allowing for regions to develop Conservation Equivalency (C/E) alternatives?**
Continuing points raised for item d, the group discussed whether a different approach should be taken for crafting regional measures for 2018. Group members pointed out the inherent struggle with regional management is seeking to allow state & regional flexibility in crafting measures while having consistency in measures within a region, as well a standard to have measures be evaluated against. It was pointed out that prior to regional management in 2014, states needed to submit to the TC (and subsequently the Board) Conservation Equivalency (CE) proposals to achieve their state allocation prior to the annual ASMFC Winter Meeting. While there was interest in moving to a more 'timely' submission of CE proposals than those that were submitted in 2017 (Massachusetts and Rhode Island in February; New Jersey in May) the group did not put forward a new date by which CE proposals would need to be submitted by under regional management.

f. **Or establish regional targets, allowing regions to tailor their regs, via C/E, to meet regional needs and interests?**
In discussing regional targets, some group members offered up that for 2018 management, states/regions could use their 2017 measures and subsequent harvest level as a proxy target to develop 2018 measures. For the prior 3 years (2014-2016), state measures remained nearly constant/unchanged with the exception of New Jersey measures in DE Bay in 2016. Many in the group indicated hesitation in developing any more formal regional targets due to concerns that would be become 'de-facto' allocations. Group members did acknowledge that the regional management measures that have been in place in recent years for summer flounder have become effectively allocations. One group member did offer up that taking into account catch (A+B1+B2) rather than just harvest (B1+B2) should be explored further given interest in addressing the current fishing mortality.

g. **Allow for/encourage separate measures for shore-based, general category, and for-hire fisheries?**
The Rec WG indicated that generally they are against creating a separate measures by fishing sector or mode due to increasing complexity in measures as well in evaluating the measures effectiveness. The group did voice interest in maintaining the shore based mode that has been place for states such as New Jersey and Connecticut in recent years.

2. **Present recommendations to Board at Aug 2017 meeting. If the Board initiates a draft addendum on summer flounder recreational management in 2018, the following tentative schedule would play out:**

    a. **Draft Addendum presented for Board Review at Oct 2017 Annual meeting. Board could approve the Draft Addendum for public comment at the Annual Meeting. Depending on timing, the Draft Addendum may be combined with Addendum XXX on**

2018 recreational management (initiated in May 2017 at the Joint ASMFC/MAFMC meeting)

b. After public comment, the Board could then approve final Addendum at either Dec 2017 Joint meeting or Feb 2018 ASMFC Board meeting

After the group discussed the ideas of using the terminal year's data and not use a multiple year averaging approach to evaluate harvest, Commission staff pointed out that this timetable would no longer be feasible as preliminary data through wave 4 is not available until mid-October, during or after the ASMFC Annual Meeting.

One Rec WG member offered the following alternative approach for setting the 2018 summer flounder recreational management measures:

1) Set 2018 quota at August 2017 joint meeting (has been previously set with no changes recommended by SSC so no change likely this year but many August's would include this quota setting process)

2) In December of 2017, rather than use Preliminary estimates of 2017 harvest, assume the 2017 harvest to be equal to the RHL adjusted by average overage/underage of the measures relative to the RHL from the previous 3 years (2014-2016). Also calculate an upper and lower bound based on CI/PSE.

3) If the 2018 RHL is within the bounds of the number calculated in 2) then no change in rec measures would occur. If the 2018 RHL is higher than the upper bound of the number calculated in 2), then allow for a liberalization of the difference between the 2018 RHL and the upper bound. If the 2018 RHL is lower than the lower bound of the number calculated in 2), then require regulations to become more restrictive by the difference between the 2018 RHL and the lower bound.

Longer-Term Strategy

I. Undertake new benchmark stock assessment, integrating to the extent possible all emerging scientific/biological studies and evaluation (Fall 2018)

II. Evaluate and consider adopting an F-based management approach for the recreational summer flounder fishery (Summer 2018)

a. Via RFP administered by MAFMC
b. Aim is to help to stabilize the fishery – making adjustments as needed, but not based on annual cycles of point-based estimates and projections and hard targets.
c. Combine with management strategy evaluation?
d. Utilize new approach to establish multi-year specifications and associated regulations, e.g., 3-year or 5-year periods
e. Consider, in advance, what such an approach would/could mean in terms of configuring future management programs.

III. Improve the assessment and use of recreational catch and effort [harvest] data (ongoing)

a. Address the impacts of MRIP recalibration
b. Mitigate the variability of MRIP data for management use
c. Evaluate opportunities to integrate/more fully utilize VTRs from for-hire sector and voluntary angler logbook data
d. Evaluate opportunities to assess catch over multiple years, e.g., 3-year or 5-year periods [factoring in stock conditions]
e. Evaluate opportunities to apply confidence intervals to catch estimates

IV. Undertaking visioning exercise(s) to address and plan for program development in future years (ongoing). Example issues include:

a. Regulatory consistency vs. regulatory flexibility
b. Standards/criteria for achieving fair and equitable access to the resource
    i. Based on resource distribution and abundance (i.e., catchability)?
    ii. Based on angler distribution and abundance (i.e., effort)?
    iii. Based on achieving some baseline angling opportunity or success rate?
c. State (1998-based or something else) vs. regional
d. Shore-Based vs. General Category vs. For-Hire
e. Minimizing discard mortality
f. Use of targets/allocations that reflect differentiations in the distribution, abundance and size composition of the stock [i.e., resource availability or catchability] and the associated fisheries [i.e., effort levels and angler demographics]
g. Use of seasons, rather than bag or size, to scale the fisheries in each region/state.

h. Setting measures that are relative up and down the coast, reflect the biological availability of the species based on size and season, accommodate industry concerns, and promote "success rate."
i. Reporting: Consider making mandatory for for-hire sector [electronic w/ some proportion undergoing dockside validation]; and incentive-based for shore-based and General Category sectors (e.g., bonus fish if voluntarily report)
j. Coordinating fluke, sea bass and scup fisheries within each region to best address the needs and interests of the rec fishing community within each region.