

## ***Atlantic States Marine Fisheries Commission***

### **DRAFT ADDENDUM XXVIII TO THE SUMMER FLOUNDER, SCUP, BLACK SEA BASS FISHERY MANAGEMENT PLAN FOR BOARD REVIEW**

#### ***Summer Flounder Recreational Management in 2017***



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

***ASMFC Vision: Sustainably Managing Atlantic Coastal Fisheries***

**December 2016**

## **1.0 Introduction**

This Draft Addendum is proposed under the adaptive management/framework procedures of Amendment 12 and Framework 2 that are a part of the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP). Summer flounder, scup, and black sea bass fisheries are managed cooperatively by the states through the Atlantic States Marine Fisheries Commission (Commission) in state waters (0-3 miles), and through the Mid-Atlantic Fishery Management Council (Council) and the NOAA Fisheries in federal waters (3-200 miles).

The management unit for summer flounder, scup, and black sea bass in US waters is the western Atlantic Ocean from the southern border of North Carolina northward to the US-Canadian border. The Commission's Summer Flounder, Scup, and Black Sea Bass Management Board (Board) approved the following motion on October 25, 2016:

*Move to initiate an addendum to consider adaptive management, including regional approaches, for the 2017 summer flounder recreational fishery.*

This Draft Addendum proposes alternate approaches for management of the recreational summer flounder fishery for the 2017 fishing year.

## **2.0 Overview**

### **2.1 Statement of the Problem**

A fundamental goal of Commission fishery management plans is to provide recreational anglers with fair and equitable access to shared fishery resources throughout the range of each managed species. The Commission's charter establishes fairness and equity as guiding principles for the conservation and management programs set forth in the Commission's FMPs. While the current FMP for summer flounder does not include a goal pertaining to this concept, the Board and Council are considering a new goal for inclusion in the forthcoming Comprehensive Summer Flounder Amendment: "Provide reasonable access to the fishery throughout the management unit." With these principles and goals in mind, the challenges facing the Board (and Council) involve determining what is meant by fair/equitable/reasonable access, and how to achieve it.

Complicating the access issue for 2017 is the significant reduction to the coastwide recreational harvest limit (RHL) set by the Board and Council in August 2016 in response to the most recent Stock Assessment Update. The 2017 RHL is 3.77 million pounds, an all-time low. By way of comparison, the RHL for 2017 is approximately 30% less than 2016, 48% less than 2015, and 68% less than 2011, when it peaked at 11.68 million pounds. Using a projected recreational harvest in 2016 of 6.28 million pounds (subject to change), harvest in 2017 must be reduced by roughly 2.5 million pounds to not exceed the 2017 RHL.

This addendum addresses the issue that available management approaches are not viewed as providing a fair and reasonable way to constrain the 2017 recreational summer flounder fishery harvest to the RHL. The Board recognizes the management options

within this draft addendum will also have shortcomings with regards to addressing this problem, and thus intends the selected option to be an interim program while focusing on the development of a more comprehensive solution for the future.

## 2.2 Background

Amendment 2 (1993) initially required each state (Massachusetts through North Carolina) to adopt the same minimum size, possession limit, and season length as established in federal waters for the recreational fishery, allowing only for different timing of open seasons. The consistent measures were intended to uniformly impact the resource and stakeholders in all state and federal waters throughout the management unit. However, the states later determined one set of management measures applied coastwide did not provide equitable access to the resource due to the significant geographic differences in summer flounder abundance and size composition.

To address this disparity, the FMP was amended in 2001 (Framework Adjustment 2) to allow for the use of state-specific “conservation equivalent” management, through which recreational harvest would be constrained the same as under coastwide management. The Council and Commission would engage in an annual process of determining whether to manage the fishery with coastwide measures or state-specific conservation equivalency; if the latter, the Commission would have the lead in approving state-specific regulations. Concurrently, the Commission adopted a series of addenda (Addenda III and IV in 2001, and Addendum VIII in 2004) implementing state-based conservation equivalency. Estimates of state recreational landings in 1998 were established as the basis for state recreational allocations- this is outlined in Addendum VIII (see Table 1) upon which state-by-state regulations could be developed. From 2001-2013, the Board and Council opted to use state-specific conservation equivalency tied to the proportion of each state’s estimated 1998 recreational landings. This provided states with the flexibility to tailor their regulations—i.e., minimum size, possession, and season limits—to meet the needs and interests of their fishery, provided their targets were not exceeded.

**Table 1. State summer flounder harvest in 1998 and the proportion of harvest conservation equivalency state-by-state harvest targets are based on (Addendum VIII)**

State	1998 estimated harvest (thousands)	Percent of the 1998 harvest
MA	383	5.5%
RI	395	5.7%
CT	261	3.7%
NY	1,230	17.6%
NJ	2,728	39.1%
DE	219	3.1%
MD	206	3.0%
VA	1,165	16.7%
NC	391	5.6%

The Board also adopted Addendum XVII in 2005, enabling the states to voluntarily opt into multi-state regions that would set regulations based on a pooling of their 1998-based allocations. The Council followed suit with the adoption of Framework Adjustment 6 in 2006, complementing the regional approach set forth by Addendum XVII. However, no states used this optional regional conservation equivalency approach.

*Re-assessing in the Face of Changing Conditions:*

The use of state-by-state regulations based on estimated state harvests in 1998 succeeded, initially, in mitigating the disparity in conservation burden among states, but later became viewed as an inadequate long-term solution, given changes in resource status and fishery performance.

As 2013 came to an end, the Board identified the following problems with the use of state allocations based on estimates of recreational harvest in 1998:

- 1) Substantial variation in stock dynamics since 1998. These included a six-fold increase in spawning stock biomass and expansion of the age structure from including 2–3 age classes to 7 or more. These changes led to geographic shifts in the distribution of the resource; as the stock rebuilt, its range expanded. Climate change was also identified as possibly contributing to shifts in migratory patterns, spatially and temporally.
- 2) Substantial changes in socio-economic patterns since 1998, particularly with regard to the number and distribution of anglers along the coast. For example, estimated angler participation increased significantly, and a growing percentage of harvest was attributed to private/rental vessels in contrast to shore-based and party/charter vessel harvest. Industry advisors indicated the rising costs of fuel, bait, and other trip expenditures were impacting angler effort.
- 3) Possible error in the estimates of harvest for 1998. Measuring recreational catch and effort, particularly on a state-by-state basis, is challenging and not without uncertainty in the estimates. The methods used to estimate recreational catch and effort are continually evolving, resulting in more accurate and precise estimates in more recent years.
- 4) Major disparities in the regulatory programs among the states; for example, as recently as 2012 and 2013, no two states had the same regulations, and several neighboring states had regulations that differed significantly. A case in point was New York, whose regulations were more restrictive than any other state, and that contrasted markedly with those of New Jersey, Connecticut, and Rhode Island.

To address these concerns, the Board adopted Addendum XXV, which implemented conservation equivalency on a regional basis for 2014. Five<sup>1</sup> regions were established: 1) Massachusetts; 2) Rhode Island; 3) Connecticut, New York, and New Jersey; 4) Delaware,

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<sup>1</sup> Initially, in February 2014, the Board established four regions, one being Massachusetts and Rhode Island combined. Subsequently, in March 2014, the Board approved a request from Massachusetts and Rhode Island to split its region into individual state regions to account for the significantly different recreational fisheries of the two states.

Maryland, and Virginia; and 5) North Carolina. All states within each region were required to have the same possession limit, size limit, and season length.

Although the precursors to Addendum XXV (Addendum XVII and Framework Adjustment 6) envisioned a regional approach based on regional harvest limits set as the sum of the harvest limits for all the states in each region, with accountability based on the performance of each region relative to its regional limit, Addendum XXV implemented an alternative approach. Based on analysis provided by the Board's Technical Committee, the Board focused on developing regulations for each region that would lead to projected regional harvests that would collectively achieve, but not exceed, the coastwide recreational harvest limit. The projected regional harvests did not constitute the sum of the harvest limits for all the states in each region. As such, the approach constituted a de facto reallocation of recreational harvest opportunities. Nonetheless, the Board emphasized that:

*The new approach is not intended to implement new state allocations and is not intended to set a precedent for new state allocations. Under the adaptive regional approach, states would not give up their (1998-based) allocated portion of the Recreational Harvest Limit (RHL), would not be held accountable for anything other than their allocated portion of the RHL, and would retain the future opportunity (depending on what management approach is adopted for 2015) to continue managing their fisheries in accordance with their allocated portion of the RHL.*

To achieve regulatory uniformity within each region, and to meet the coastwide harvest target, regulatory revisions were enacted for CT, NY, NJ, DE, and MD in 2014 (Table 7).

For 2015, the Board continued regional management, with the same regions, via Addendum XXVI. For all states, the same regulations in effect for 2014 were maintained for 2015 (Table 7).

For 2016, the Board again continued regional management via Addendum XXVII, with one adjustment to provide more equity in recreational opportunities for anglers in the Delaware Bay. That adjustment involved establishing New Jersey as a stand-alone region, with the caveat that New Jersey would enact separate management measures for the New Jersey portion of Delaware Bay, while maintaining regulations for the rest of its waters consistent with those of New York and Connecticut. New Jersey complied by enacting regulations for Delaware Bay that were closer to those of Delaware. For all other states the same regulations in effect for 2014 and 2015 were maintained for 2016 (Table 6).

Headed into 2017, the Board continues to have the same concern about disproportionate impacts among states from the use of 1998-based allocations and state-by-state management measures. A return to coastwide management measures is also unlikely to provide equitable access.

### 2.3 Description of the Fishery

In practice, the recreational fishery for summer flounder is managed on a “target quota” basis. A set portion (40%) of the total allowable landings is established as a recreational harvest limit (RHL), and management measures are established by the states that can reasonably be expected to constrain recreational harvest to this limit each year. It has historically been deemed impractical, because of the limitations of producing timely landing estimates, to try to manage the recreational fishery based on a real-time quota.

Over the past nine years, the coastwide landings exceeded the annual coastwide RHL three times: 2007, 2008, and 2014 (Table 2). The most recent overage in 2014 was by approximately 5% (approximately 380,000 pounds). Based on preliminary harvest estimates through August 2016, coastwide landings have already exceeded the 2016 RHL. The 2016 harvest estimates are subject to change as many states seasons remain open and data for waves 5 and 6 (September-December) are not yet available. Projected harvest through the end of 2016—based on state harvest trends in 2015—indicated the final harvest may be approximately 6.28 million pounds (Table 3).

**Table 2. Coastwide Harvest Relative to Coastwide RHL: 2007-2016**

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Coastwide Harvest (mil. lb)	9.34	8.15	6.03	5.11	5.96	6.49	7.36	7.39	4.72	5.69
Coastwide RHL (mil. lb)	6.68	6.21	7.16	8.59	11.58	8.49	7.63	7.01	7.38	5.42
Percent of RHL harvested	<b>139.77%</b>	<b>131.25</b>	84.22%	59.47%	51.43%	76.44%	96.40%	<b>105.41%</b>	63.97%	<b>105.00%</b>

\*2016 Harvest is preliminary, through August only, and subject to change.

**Table 3. Projected Coastwide Harvest for 2016 by states**

State	Jan-Aug Estimate		Sep-Dec Projection		Projected Total Harvest	
	Weight	Numbers	Weight	Numbers	Weight	Numbers
MA	121,791	53,294	42,272	10,540	164,063	63,834
RI	278,678	89,989	4,783	2,321	283,461	92,310
CT	690,779	218,020	60,163	21,671	750,942	239,691
NY	2,238,492	712,643	251,802	99,981	2,490,294	812,624
NJ	1,904,094	609,880	152,233	46,495	2,056,327	656,375
DE	207,310	82,098	34,547	13,887	241,857	95,985
MD	42,573	18,538	1,162	726	43,735	19,264
VA	190,189	75,028	33,536	14,329	223,725	89,357
NC	16,870	9,605	7,213	3,937	24,083	13,542
<b>Total</b>	<b>5,690,776</b>	<b>1,869,095</b>	<b>587,714</b>	<b>213,889</b>	<b>6,278,490</b>	<b>2,082,984</b>

\*September-December harvest are projected using proportion of landings by two-month wave by state in 2015.

\*\*Total Projected Harvest is based on preliminary information and is subject to change as new information is made available.

In assessing the performance of the summer flounder recreational fishery over the last 6 years, fishing opportunities and success vary across the range of the management unit (Appendix A assesses the performance of summer flounder fishery state by state from 2009 through wave 4 of 2015). Using metrics including retention rate, fishing trips,

possession limits, season length, and scoring each state in relation to each of other, the fishing opportunity differs on a state by state basis with little to no regional distinction; for example, retention rates are highest in the states of Virginia, Delaware Rhode Island, and Massachusetts, and the lowest in New York, New Jersey, and Maryland (Tables 12A-12D). Fishing seasons also vary significantly along the coast, with states such as Delaware through North Carolina open all year, while Rhode Island through New Jersey have the shortest seasons within the management unit (128 days in recent years). Interest or avidity in relation to successful trips also varies widely as well; for example, trips targeting summer flounder are lowest in Massachusetts (2.1-2.78 % of all trips between 2013-2015) and highest in New Jersey and New York, yet the highest success rates for targeted trips in relation to harvest is in Massachusetts (Tables 23A-23D). Bag limits also vary across the states from the most restrictive in Delaware through Virginia (4 fish possession limit) to least in Rhode Island (8 fish possession limit). In comparing states to their nearest neighboring state regarding size limit, Massachusetts has the highest difference between its two neighbors (2 inch average difference compared to Rhode Island in recent years) and smallest average difference between neighbors was Connecticut, New York, and Maryland. In scoring the recreational performance in recent years, New Jersey has had the largest drop in score relative to other states' performance (below average in 2013 to <-2 in 2015).

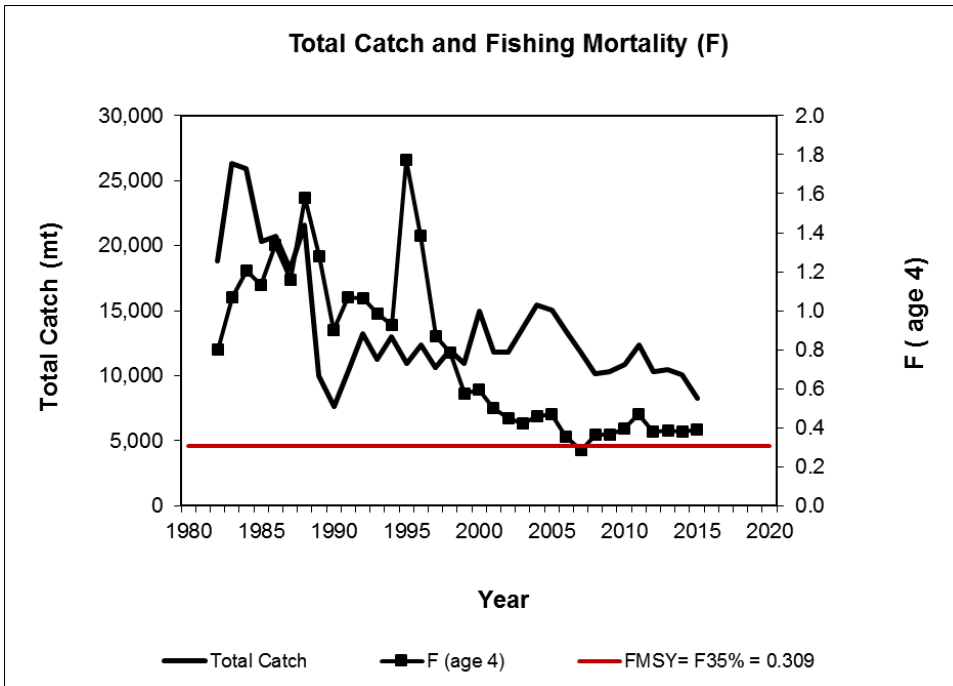
#### *Recreational Survey Estimates*

The Marine Recreational Information Program, or MRIP, is a program under NOAA Fisheries which counts and reports marine recreational catch and effort. MRIP is driven by data provided by anglers and captains. MRIP replaced the Marine Recreational Fisheries Statistics Survey, or MRFSS, in 2008, which had been in place since 1979. MRIP is designed to meet two critical needs: (1) provide the detailed, timely, scientifically sound estimates that fisheries managers, stock assessors, and marine scientists need to ensure the sustainability of ocean resources and (2) address head-on stakeholder concerns about the reliability and credibility of recreational fishing catch and effort estimates. MRIP is an evolving program with ongoing improvements. Detailed information on MRIP and the improvements can be found at <http://www.st.nmfs.noaa.gov/recreational-fisheries/index>. All recreational catch and effort data considered in this document are derived from MRIP.

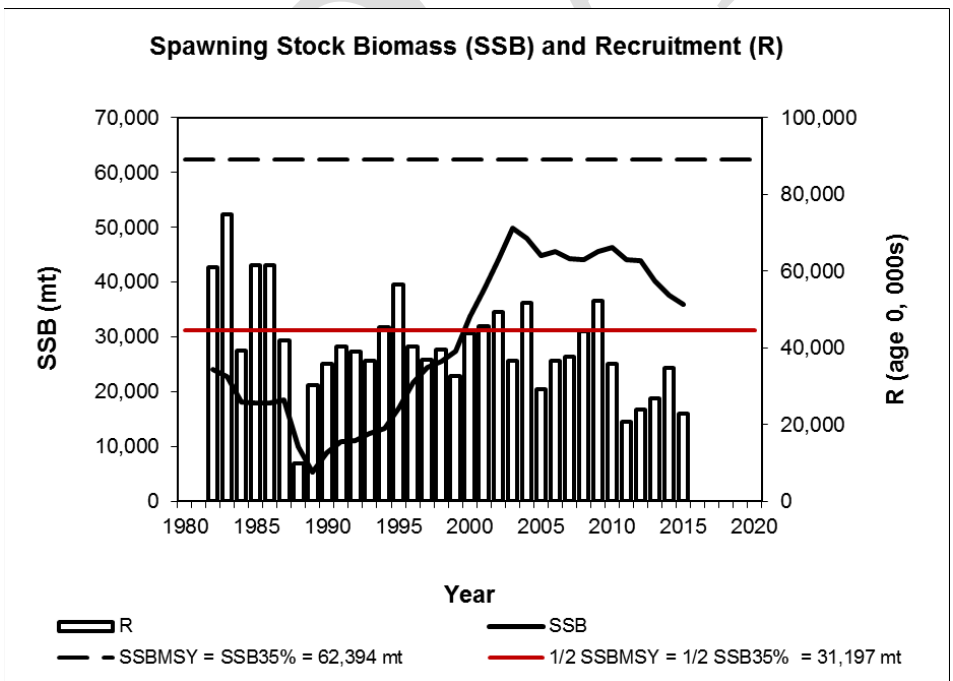
#### **2.4 Status of the Stock**

The most recent peer-reviewed benchmark assessment for summer flounder (Northeast Regional Stock Assessment Workshop 57, NEFSC 2013) was updated in July 2016. The assessment utilizes an age-structured assessment model called ASAP. Results of the assessment update indicate the summer flounder stock was not overfished but overfishing was occurring in 2015 relative to the updated biological reference points established in the 2013 SAW 57 assessment. The fishing mortality rate has been below 1.0 since 1997, but was estimated to be 0.390 in 2015, above the threshold fishing mortality reference point  $F_{MSY} = 0.309$  (Figure 1). Spawning stock biomass (SSB) was estimated to be 88.9 million pounds (36,240 mt) in 2015, about 58% of the biomass target  $SSB_{MSY} = 137.555$  million pounds (62,394 mt) and 16% above the biomass threshold

(Figure 2). The 2015 year class is estimated to be about 23 million fish at age 0, continuing the trend of below-average year classes for the past six years (2010-2015).



**Figure 1. Total fishery catch and fully-recruited fishing mortality (F, peak at age 4) of summer flounder. The horizontal red line is the 2013 SAW 57 fishing mortality threshold reference point proxy. Source: NEFSC Summer Flounder Stock Assessment Update for 2016 (June 2016).**



**Figure 2. Summer flounder spawning stock biomass (SSB) and recruitment at age 0 (R) by calendar year. The horizontal dashed line is the 2013 SAW 57 biomass target reference point proxy; the horizontal red line is the biomass threshold reference point proxy. Source: NEFSC Summer Flounder Stock Assessment Update for 2016 (June 2016).**



A breakdown of the 2017 Overfishing Limit (OFL), Acceptable Biological Catch Limit (ABC), Annual Catch Limits (ACL), Annual Catch Targets (ACT), and subsequent coastwide RHL based on the 2016 stock assessment update is included in Table 4. The 2017 proposed harvest limit is a time series low as the result of the biomass projections from the 2016 stock assessment update.

**Table 4. Basis for 2017 summer flounder catch and landings limits. Numbers may not add precisely due to unit conversions and rounding.**

Management Specifications	2016		2017		Basis for 2017 Limits
	mil lb.	mt	mil lb.	mt	
OFL	18.06	8,194	16.76	7,600	Stock assessment projections
ABC	16.26	7,375	11.30	5,125	Stock assessment projections/ SSC recommendation
Commercial ACL	9.42	4,275	6.57	2,982	60% of ABC landings portion (per FMP allocation) + 49% of ABC discards portion
Commercial ACT	9.42	4,275	6.57	2,982	Monitoring Committee recommendation: no deduction from ACL for management uncertainty
Commercial Quota	8.12	3,685	5.66	2,567	Commercial ACT, less projected commercial discards
Recreational ACL	6.84	3,100	4.72	2,143	40% of ABC landings portion (per FMP allocation) + 51% of ABC discards portion
Recreational ACT	6.84	3,100	4.72	2,143	Monitoring Committee recommendation; no deduction from ACL for management uncertainty
Recreational Harvest Limit	5.42	2,457	3.77	1,711	Recreational ACT, less projected recreational discards

### 3.0 Proposed Management Program

Analysis of options is based on an estimate of the 2017 RHL in numbers of fish. Using preliminary 2016 MRIP data to generate an average harvested fish weight of 3.04 lbs, the 2017 RHL of 3.77 million pounds is equivalent to 1,238,226 fish. This value is subject to change as additional 2016 data become available.

Analysis of options is also based on 2016 projected harvest, calculated from MRIP preliminary 2016 harvest data through August, and projected harvest for September–December (Table 3). The results will change between now and when final 2016 recreational harvest information is released in spring 2017.

Based on a 2016 coastwide projected harvest of 2,071,362 fish (Table 3), and the estimated 2017 RHL of 1,238,226 fish, a coastwide harvest reduction of 41% is required. This reduction rate is preliminary and will change as 2016 data are updated.

**PLEASE NOTE: Each option in the addendum includes an example of state regulations that could be implemented. These are just examples, and are based on preliminary 2016 data. The states and/or Technical Committee would develop the actual regulations for state adoption following the finalization of the addendum, subject to Board approval.**

### **3.1 Default Management Approaches**

Unless an alternative approach is selected for implementation via this addendum, management of the 2017 recreational summer flounder fishery must default to the FMP status quo of either coastwide regulations or state-by-state allocations/regulations based on 1998 harvest in order to restrict harvest to the RHL. The Board and Council are scheduled to select which of these default approaches would apply in December 2016.

If the Council and Board chose to adopt coastwide management, they would need to specify a uniform bag limit, size limit, and season that would constrain landings to the RHL, to be applied coastwide in both state and federal waters. These regulations would be designed to restrict overall harvest to the RHL, meaning a 41% coastwide reduction (subject to change).

If the Council and Board chose to adopt conservation equivalency with the default state-by-state measures based on 1998 harvest, states would implement regulations based on their individual harvest allocations. Table 5 provides the allocations based on the 2017 RHL, and state specific reductions or liberalizations under this scenario based on projected 2016 harvest (subject to change).

Note that under any alternative to coastwide measures implemented by the ASMFC (e.g., state-by-state or regional management), NOAA Fisheries has the authority to supersede state regulations if the combined state regulations are deemed inadequate to restrict coastwide harvest to the RHL. Under this scenario the Monitoring Committee has recommended a set of “precautionary default measures” that would be imposed on any state or region that did not follow the conservation equivalency guidelines (i.e., did not develop measures that achieve the necessary reduction). The Monitoring Committee-recommended precautionary default measures include a minimum size of 20 inches total length, a possession limit of 2 fish, and a season of July 1–August 31. These measures would be in place for both state and federal waters of the state or region in question. If a state or region does not implement either conservationally equivalent measures or the precautionary default measures, states can be found out of compliance with the Commission’s FMP and their fishery could be closed until compliance measures are implemented.

**Table 5. 2017 Projected Harvest Liberalizations or Reductions, and Example Regulations under 1998-based State-specific Conservation Equivalent Management**

STATE	2016 Projected Harvest	Preliminary 2017 Allocation of the RHL based on 1998 harvest	Liberalization (+) or Reduction (-) (in Bold)	Example Size Limit	Example Possession Limit	Example Season (# of days)
MA*	63,834	68,102	+7%			
RI	92,309	70,579	<b>-24%</b>	18"	4 fish	105
CT	239,689	45,814	<b>-81%</b>	21"	2 fish	53
NY	812,624	217,928	<b>-73%</b>	21"	2 fish	66
NJ	656,373	484,146	<b>-26%</b>	18"	3 fish	81
DE	95,984	38,385	<b>-60%</b>	19"	4 fish	365
MD*	19,263	37,147	+93%			
VA*	89,359	206,784	+131%			
NC*	13,542	69,341	+412%			

\*For states that could liberalize their 2017 management measures, no example measures have been included at this time. The Board's Summer Flounder Recreational Working Group has recommended that no states liberalize their management measures in 2017 due to the needed reduction.

### 3.2. Alternative Management Approaches

The following options were developed by the Board's Summer Flounder Recreational Working Group (a sub-set of Board members, staff, and Technical Committee members). The following options were developed with the goal of providing more equitable access and less disparate regulations between states than the Default Management Approaches (Section 3.1). Other approaches were considered and rejected for insufficiently advancing this goal (see Appendix III, separate document). Because of the all-time low RHL for 2017, there is no option that could be viewed as truly equitable to all.

All options fall under the category of Adaptive Regional Management, and would establish a one-year harvest "target" for each region that deviates from the sum of the 1998-based allocations that would otherwise be attributed to the state(s) in the region but sharing potential harvest across regions. The regional harvest targets would serve as the basis for developing regional reduction rates and regulations. The options differ in how the 2017 regional harvest targets are developed. All options in this section re-establish the regions that were in place during 2014 and 2015: 1) Massachusetts; 2) Rhode Island; 3) Connecticut, New York, and New Jersey; 4) Delaware, Maryland, and Virginia; and 5) North Carolina.

**These options are not intended to implement new state allocations and are not intended to set a precedent for new state allocations. Under the alternative management approaches, states would not give up their (1998-based) allocated portion of the RHL, would not be held accountable for anything other than their allocated portion of the RHL, and would retain the future opportunity (depending on what management approach is adopted for 2018) to continue managing their fisheries in accordance with their allocated portion of the RHL.**

States within each region would be required to implement the same possession limit(s), size limit(s), and season length. The Technical Committee would develop proposed measures for each region according to its regional harvest target that, when combined with other regions, would constrain the coastwide harvest to the RHL. Regions could deviate from the TC proposed measures provided they use the TC-approved methodology to develop regional measures. The Board would review and only approve regional regulations that, when combined, would constrain the coastwide harvest to the RHL.

**Please note: Under the following options the 2016 project harvest target and 2017 harvest target is provided in the example tables. These numbers are expected to change as 2016 data are released.**

### Option 1: Fish Sharing

For each region, the included states' combined 2016 projected harvest is compared to the sum of their 1998-based allocations for 2017 (refer to Table 5). For regions with their combined 2016 projected harvest below their combined 1998-based allocations (MA, DE–VA, NC), the 2016 projected harvest becomes their 2017 harvest target. As such, these regions maintain status quo measures in 2017 to reduce the potential reduction burden of regions whose combined 2016 projected harvests are above their combined 1998-based allocations (RI, CT–NJ). These regions' 2017 harvest targets are the sum of their combined 1998-based allocations plus additional fish from other regions remaining status quo, which are distributed according to the 1998-based proportions.

### Option 1: Fish Sharing

STATE	2016 Projected Harvest	2017 Harvest Target	Reduction (in Bold)	Example Size Limit	Example Possession Limit	Example Season (# of days)
MA	63,834	63,834	0%	16"	5 fish	132
RI	92,309	82,460	<b>-11%</b>	18"	4 fish	117
CT	1,708,687	873,784	<b>-49%</b>	19"	2 fish	88
NY						
NJ						
DE	204,606	204,606	0%	16"	4 fish	365
MD						
VA						
NC	13,542	13,542	0%	15"	6 fish	365

**Option 2: One-Inch Size Increase as a Minimum Reduction**

This option starts by applying a one-inch minimum size increase to all regions, and projecting the regional harvests that would occur in 2017. For regions with their combined 2016 projected harvest below their combined 1998-based allocations for 2017 (MA, DE–VA, NC), the 2017 projected regional harvest (under a one-inch size increase) becomes their 2017 harvest target. Reduction rates for these regions are then calculated. The regions with their combined 2016 projected harvest above their combined 1998-based allocations for 2017 (RI, CT–NJ) are responsible for the rest of the coastwide reduction that is needed to not exceed the 2017 RHL. The remaining reduction is distributed among these regions according to the 1998-based proportions.

**Option 2: One-Inch Size Increase as a Minimum Reduction**

STATE	2016 Projected Harvest	2017 Harvest Target	Reduction (in Bold)	Example Size Limit	Example Possession Limit	Example Season (# of days)
MA	63,834	46,599	<b>-26.9%</b>	17"	5 fish	132
RI	92,309	82,460	<b>-11%</b>	19"	8 fish	245
CT						
NY	1,708,687	873,784	<b>-49%</b>	19"	2 fish	101
NJ						
DE						
MD	204,606	149,363	<b>-26.9%</b>	17"	4 fish	365
VA						
NC	13,542	10,834	<b>-20%</b>	16"	6 fish	365

### Option 3: 30% Reduction as a Minimum

This option starts by applying a 30% harvest reduction to all regions' 2016 projected harvest (based on the 30% reduction in the 2017 RHL). For the regions with their combined 2016 projected harvest below their combined 1998-based allocations for 2017 (MA, DE–VA, NC), the 30% reduction establishes their 2017 harvest target. The regions with their combined 2016 projected harvest above their combined 1998-based allocations for 2017 (RI, CT–NJ) are responsible for the rest of the coastwide reduction that is needed to not exceed the 2017 RHL. The remaining reduction is distributed among these regions according to the 1998-based proportions.

### Option 3: 30% Reduction as a Minimum

STATE	2016 Projected Harvest	2017 Harvest Target	Reduction (in Bold)	Example Size Limit	Example Possession Limit	Example Season (# of days)
MA	63,834	44,684	<b>-30.0%</b>	17"	4 fish	132
RI	92,309	53,348	<b>-42.2%</b>	18"	4 fish	88
CT NY NJ	1,708,687	987,491	<b>-42.2%</b>	19"	2 fish	107
DE MD VA	204,606	143,224	<b>-30.0%</b>	17"	4 fish	352*
NC	13,542	9,480	<b>-30.0%</b>	16	6 fish	350

\*13 day closure in waves 3 and 4 (March through July)

**Option 4: Once-inch Size Increase and 30% Reduction as Minimums**

This option starts by applying a one-inch size increase to all regions, and projecting the regional harvests that would occur in 2017. For regions with their combined 2016 projected harvest below their combined 1998-based allocations for 2017 (MA, DE–VA, NC), if a one-inch size increase achieves a 30% reduction, the 2017 projected regional harvest becomes their 2017 harvest target. If less than a 30% reduction is achieved, the region must further reduce its harvest target (i.e., tighten regulations) to achieve a 30% reduction. If more than a 30% reduction is achieved, the region may increase its harvest target (i.e., loosen other regulations) to achieve a 30% reduction. The regions with their combined 2016 projected harvest above their combined 1998-based allocations for 2017 (RI, CT–NJ) are responsible for the rest of the coastwide reduction that is needed to not exceed the 2017 RHL. The remaining reduction is distributed among these regions according to the 1998-based proportions.

**Option 4: One-Inch Size Increase and 30% Reduction as Minimums**

STATE	2016 Projected Harvest	2017 Harvest Target	Reduction (in Bold)	Example Size Limit	Example Possession Limit	Example Season (# of days )
MA	63,834	44,684	<b>-30.0%</b>	17"	4 fish	132
RI	92,309	53,348	<b>-42.2%</b>	19"	4 fish	114
CT NY NJ	1,708,687	987,491	<b>-42.2%</b>	19"	2 fish	107
DE MD VA	204,606	143,224	<b>-30.0%</b>	17"	4 fish	345*
NC	13,542	9,480	<b>-30.0%</b>	16"	6 fish	350

\* 20 day closure in wave 5 (September through October)



## Management for 2018

**If the Board chooses to continue one of the alternative management approaches into 2018, the following outlines the process for setting harvest targets:**

The Technical Committee will use harvest estimates and fishery performance from 2017 to evaluate the 2018 regional management approach. **If the coastwide RHL is exceeded, then region specific harvest will be evaluated, with the understanding that more restrictive management measures will be needed to constrain regional harvest in 2018. If the predicted 2018 combined regional harvest is higher than the 2018 RHL, regions will have to adjust their management measures in 2018.** The Technical Committee will develop proposed measures for each region that, when combined, will constrain the coastwide harvest to the 2018 RHL. Any number of size, possession, and season combinations can be evaluated when looking at regional management

### 3.3 Timeframe for Alternative Management Approaches

#### **Option 1: For 2017 only**

The addendum would expire at the end of 2017. After 2017, measures would revert back to the FMP status quo: The Board and Council specify coastwide measures to achieve a coastwide recreational harvest limit or permit conservation equivalent management measures using guidelines agreed upon by both management authorities in Framework 2 and Addenda XIV and VIII. Under conservation equivalency, states can implement state-by-state measures or adjacent/contiguous states can voluntarily enter into an agreement forming regions. Under either option, the combined measures of all the states or regions need to constrain recreational landings to the coastwide RHL.

#### **Option 2: For 2017 and ability to extend through 2018 (One year extension)**

The management program would be in place for 2017. The Board could take action, through a Board vote, to extend the addendum for one year, expiring at the end of 2018. After 2018, measures would revert back to the FMP status quo coastwide/conservation equivalency measures.

## 4.0 Compliance

Following the February 2017 Board Meeting, states will implement management measures through their state process to cumulatively achieve the needed coastwide reduction for 2017. Once management measures are finalized, the states must notify the Board of their final 2017 management measures by May 1, 2017. If a state or region does not implement management measures to cumulatively achieve across the regions the needed 2017 reduction, that state or region must implement the precautionary default management measures. If a state or region does not implement either sets of measures, that state or group of states may be found out of compliance.

## Tables and Figures

**Table 6. 2016 Summer Flounder recreational management measures. Color blocking indicates regions**

State	Minimum Size (inches)	Possession Limit	Open Season
Massachusetts	16	5 fish	May 22-September 23
Rhode Island	18	8 fish	May 1-December 31
Connecticut	18	5 fish	May 17- September 21
CT Shore Program (46 designed shore sites)	16		
New York	18	5 fish	May 17- September 21
New Jersey*	18	5 fish	May 21- September 25
NJ Shore program (1 designated site)	16	2 fish	
New Jersey/Delaware Bay COLREGS**	17	4 fish	
Delaware	16	4 fish	January 1- December 31
Maryland	16	4 fish	January 1- December 31
PRFC	16	4 fish	January 1- December 31
Virginia	16	4 fish	January 1- December 31
North Carolina	15	6 fish	January 1- December 31

\*New Jersey east of the COLREGS line at Cape May has management measures consistent with the northern region of Connecticut – New York.

\*\*New Jersey west of the COLREGS line at Cape May, NJ inside Delaware Bay has a similar size limit to the southern region (DE-VA), the same possession limit as the southern region (DE-VA), and the same season length as the northern region of Connecticut – New York.

**Table 7. State regulations, 2013–2016. 2013 represents the last year state-by-state regulations applied; regional management applies 2014–2016. Colorblocking indicates regions. Red font indicates change from prior year.**

	2013	2014	2015	2016
<b>MA</b>	16" 5 fish May 22-Sep 30	16" 5 fish May 22-Sep 30	16" 5 fish May 22-Sep23*	16" 5 fish May 22-Sep 23 (132 day season)
<b>RI</b>	18" 8 fish May 1-Dec 31	18" 8 fish May 1-Dec 31	18" 8 fish May 1-Dec 31	18" 8 fish May 1-Dec 31 (245 day season)
<b>CT</b>	17.5"*** 5 fish May 15-Oct 31	18"*** 5 fish May 17-Sep 21	18"*** 5 fish May 17-Sep21	18"*** 5 fish May 17-Sep21 (128 day season)
<b>NY</b>	19" 4 fish May 1-Sep 29	18" 5 fish May 17-Sep 21	18" 5 fish May 17-Sep21	18" 5 fish May 17-Sep21 (128 day season)
<b>NJ Coast</b>	17.5" 5 fish May 18-Sep16	18"*** 5 fish May 23-Sep 27	18"*** 5 fish May 23-Sep 26	18"*** 5 fish May 21-Sep 25 (128 day season)
<b>NJ</b>	17.5"	18"	18"	17"
<b>Delaware</b>	5 fish	5 fish	5 fish	4 fish
<b>Bay</b>	May 18-Sep16	May 23-Sep 27	May 23-Sep 26	May 21-Sep 25 (128 day season)
<b>DE</b>	17" 4 fish Jan 1-Dec 31	16" 4 fish Jan 1-Dec 31	16" 4 fish Jan 1-Dec 31	16" 4 fish Jan 1-Dec 31 (365 day season)
<b>MD</b>	16" 4 fish Mar 28-Dec 31	16" 4 fish Jan 1-Dec 31	16" 4 fish Jan 1-Dec 31	16" 4 fish Jan 1-Dec 31 (365 day season)
<b>VA</b>	16" 4 fish Jan 1-Dec 31	16" 4 fish Jan 1-Dec 31	16" 4 fish Jan 1-Dec 31	16" 4 fish Jan 1-Dec 31 (365 day season)
<b>NC</b>	15" 6 fish Jan 1-Dec 31	15" 6 fish Jan 1-Dec 31	15" 6 fish Jan 1-Dec 31	15" 6 fish Jan 1-Dec 31 (365 day season)

\*MA change in season not due to cut, but correction of error from prior year

\*\*CT has 45 designated coastal sites where minimum size is 16" for the 5-fish limit, 2013–2016

\*\*\*NJ has 1 designated coastal site where 2 fish at 16" can be taken, 2014–2016 (another 3 at 18" can be taken outside of the designated site)

Appendix I.

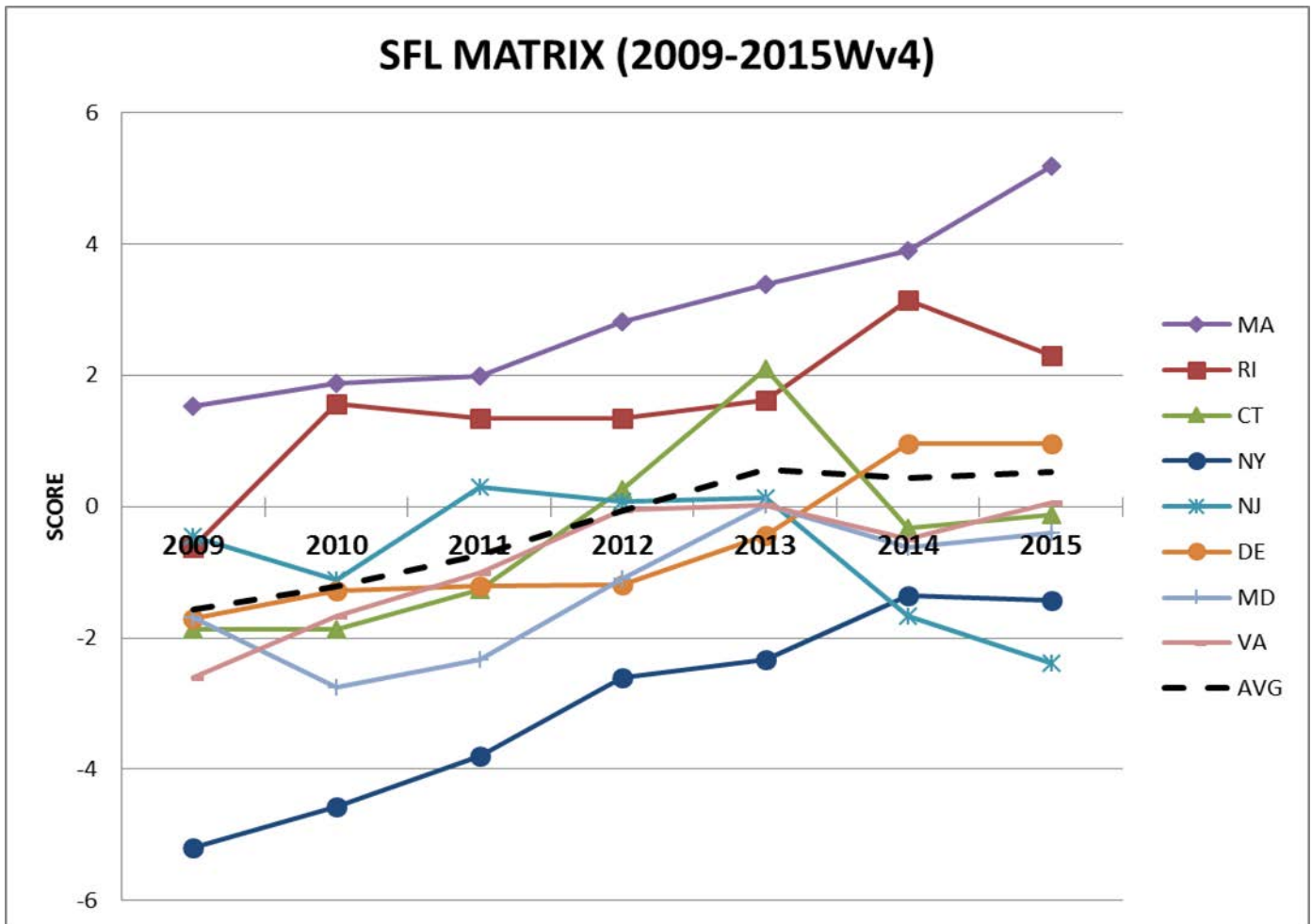


Figure 1. Summer Flounder Recreational Performance by State 2009-2015 Wave 4\*#

\*The North Carolina recreational flounder fishery regularly catches 3 species of flounder. Due to problems with angler identification, released flounder are included in MRIP categories for left eye flounder genus or family. Trip targets are also generally reported as left eye flounder although it is likely that some trips are more likely to catch a particular flounder species. Determining the number of releases and targeted trips for summer flounder based on available information would require assumptions that cannot be tested without further study. Therefore, any fishery metric that includes released or trips targeting summer flounder for North Carolina is too uncertain to be used for management decisions and is listed as NA.

#Harvest estimates through wave 4 for 2015 are preliminary and are subject to change as subsequent wave estimates become available.

**Table 23A. Recreational Summer Flounder Fishery Performance 2009-2010**

YEAR	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010
STATE	MA	RI	CT	NY	NJ	DE	MD	VA	MA	RI	CT	NY	NJ	DE	MD	VA
METRIC	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
RETENTION RATE	34.3%	15.8%	9.5%	5.1%	7.3%	8.3%	7.3%	7.4%	17.4%	34.0%	8.6%	4.8%	5.0%	8.0%	2.0%	9.7%
INTERCEPTS HARVEST : CATCH	0.47	0.32	0.27	0.15	0.29	0.21	0.27	0.16	0.55	0.31	0.24	0.18	0.19	0.22	0.07	0.28
BAG LIMIT	5	6	3	2	6	4	3	5	5	6	3	2	6	4	3	4
NO. FISH HARVEST:NO. TARGETED TRIPS	0.54	0.49	0.26	0.24	0.44	0.28	0.25	0.33	0.95	0.83	0.25	0.27	0.27	0.25	0.09	0.41
% CORE SEASON (1% of total harvest in wave 1996-1998)	31.7%	100.0%	35.9%	41.3%	57.1%	100.0%	62.0%	100.0%	77.7%	100.0%	56.0%	62.5%	54.9%	100.0%	89.4%	100.0%
% of ALL S/W TRIPS TARGETING SFL	2.7%	14.9%	12.1%	26.0%	35.2%	33.7%	8.8%	28.8%	1.4%	11.5%	9.2%	28.5%	35.0%	26.4%	9.5%	24.4%
NEAREST NEIGHBOR SIZE LIMIT	-2.5	2.0	-1.5	2.3	-1.8	0.5	-0.8	2.5	-1.0	0.5	-0.75	2.25	-1.75	0	0.5	1.5

**Table 23B. Recreational Summer Flounder Fishery Performance 2011-2012**

YEAR	2011	2011	2011	2011	2011	2011	2011	2011	2012	2012	2012	2012	2012	2012	2012	2012
STATE	MA	RI	CT	NY	NJ	DE	MD	VA	MA	RI	CT	NY	NJ	DE	MD	VA
METRIC	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
RETENTION RATE	24.2%	18.2%	12.0%	4.9%	8.3%	9.8%	3.1%	13.8%	23.2%	21.3%	16.9%	9.2%	13.9%	15.2%	9.6%	23.3%
INTERCEPTS HARVEST : CATCH	0.40	0.43	0.24	0.18	0.26	0.20	0.08	0.29	0.50	0.43	0.28	0.22	0.35	0.23	0.20	0.41
BAG LIMIT	5	7	3	3	8	4	3	4	5	8	5	4	5	4	3	4
NO. FISH HARVEST:NO. TARGETED TRIPS	0.81	0.78	0.39	0.27	0.39	0.28	0.10	0.49	0.79	0.69	0.27	0.43	0.57	0.27	0.18	0.43
% CORE SEASON (1% of total harvest in wave 1996-1998)	95.0%	100.0%	61.4%	83.2%	77.2%	100.0%	93.5%	100.0%	95.0%	100.0%	92.4%	83.2%	79.9%	100.0%	100.0%	100.0%
% of ALL S/W TRIPS TARGETING SFL	2.6%	18.6%	9.3%	33.5%	36.4%	25.8%	5.5%	22.4%	3.4%	13.9%	17.2%	31.7%	39.3%	19.2%	5.7%	23.7%
NEAREST NEIGHBOR SIZE LIMIT	-1.0	0.5	-1	2.25	-1.25	0	0.25	1	-2.0	1.25	-1	1.75	-1.25	0.75	-0.25	0.5

**Table 23C. Recreational Summer Flounder Fishery Performance 2013-2014**

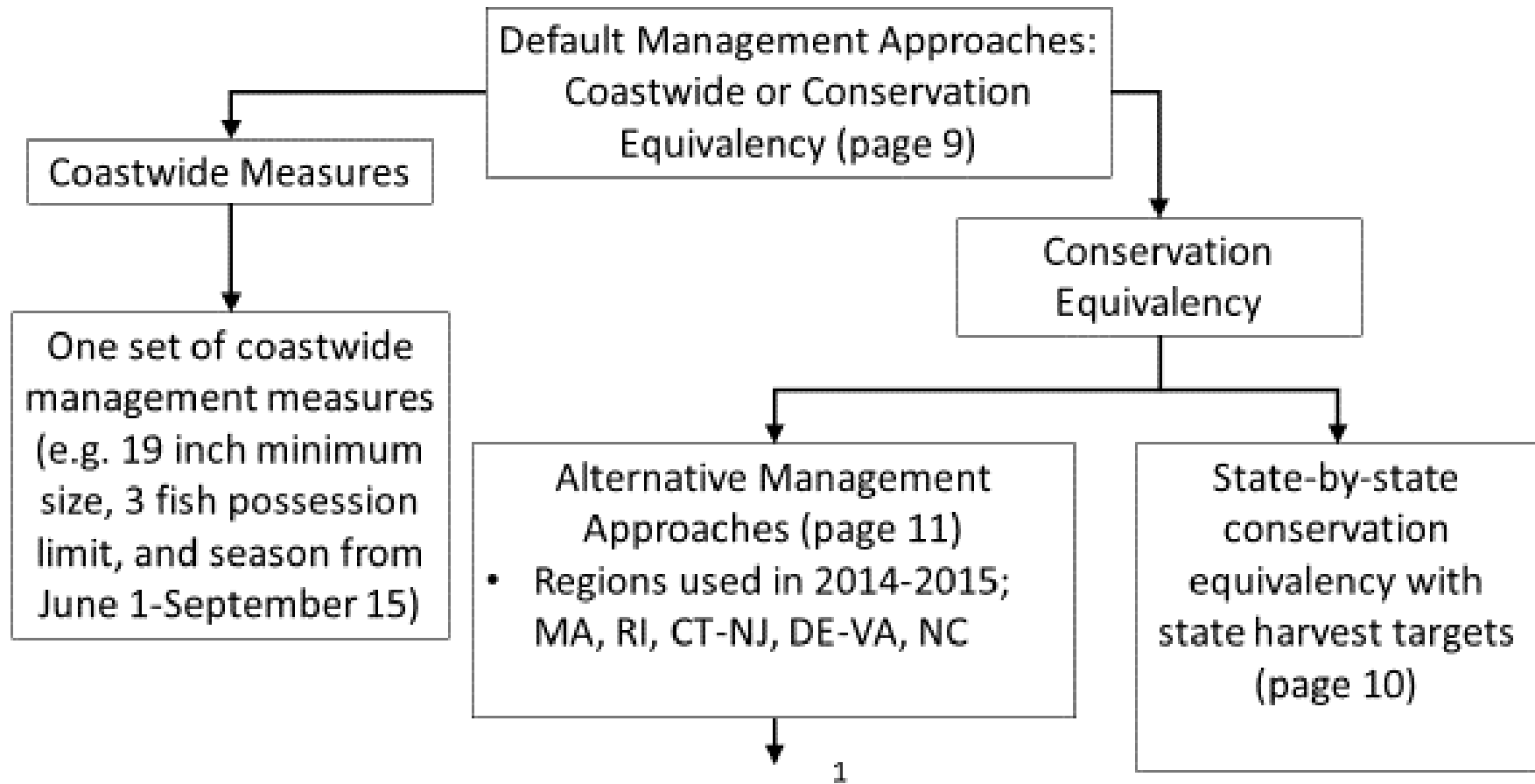
YEAR	2013	2013	2013	2013	2013	2013	2013	2013	2014	2014	2014	2014	2014	2014	2014	2014
STATE	MA	RI	CT	NY	NJ	DE	MD	VA	MA	RI	CT	NY	NJ	DE	MD	VA
METRIC	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
RETENTION RATE	34.4%	19.6%	23.8%	9.8%	16.0%	18.8%	15.0%	26.8%	25.1%	30.7%	15.8%	10.1%	11.0%	24.1%	11.2%	17.8%
INTERCEPTS HARVEST : CATCH	0.63	0.51	0.54	0.29	0.50	0.31	0.27	0.35	0.61	0.73	0.41	0.30	0.32	0.40	0.24	0.30
BAG LIMIT	5	8	5	4	5	4	4	4	5	8	5	5	5	4	4	4
NO. FISH HARVEST:NO. TARGETED TRIPS	0.52	0.77	0.98	0.41	0.79	0.35	0.32	0.44	1.30	0.99	0.51	0.39	0.63	0.48	0.32	0.40
% CORE SEASON (1% of total harvest in wave 1996-1998)	95.0%	100%	92.4%	82.6%	70.7%	100%	100%	100%	95.0%	100%	69.6%	69.6%	69.6%	100%	100%	100%
% of ALL S/W TRIPS TARGETING SFL	2.1%	14.0%	24.4%	35.1%	42.9%	20.5%	5.9%	19.6%	2.5%	16.9%	17.2%	32.8%	38.2%	22.3%	9.9%	16.2%
NEAREST NEIGHBOR SIZE LIMIT	-2	1.25	-1	1.5	-0.5	0.25	-0.5	0.5	-2.0	1.0	0.0	0.0	1.0	-1.0	0.0	0.5

**Table 23D. Recreational Summer Flounder Fishery Performance 2015Wv4**

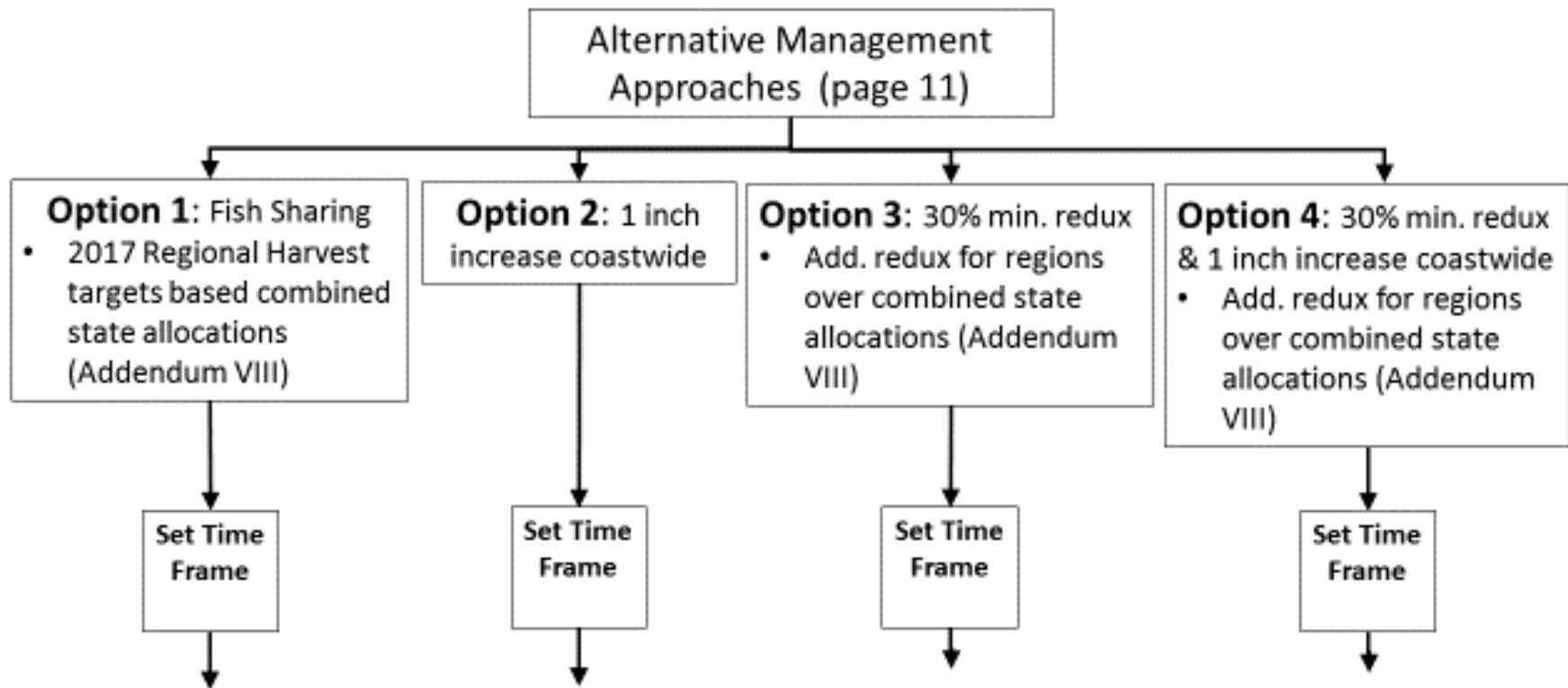
STATE	MA	RI	CT	NY	NJ	DE	MD	VA
METRIC	1	2	3	4	5	6	7	8
RETENTION RATE	45.2%	28.9%	17.9%	12.9%	9.8%	26.0%	16.3%	20.0%
INTERCEPTS HARVEST : CATCH	0.63	0.63	0.38	0.31	0.27	0.40	0.24	0.41
BAG LIMIT	5	8	5	5	5	4	4	4
NO. FISH HARVEST:NO. TARGETED TRIPS	1.56	0.85	0.63	0.48	0.34	0.46	0.30	0.54
% CORE SEASON (1% of total harvest in wave 1996-1998)	95.0%	100.0%	69.6%	69.6%	69.6%	100.0%	100.0 %	100.0%
% of ALL S/W TRIPS TARGETING SFL	2.78%	29.56%	16.27%	48.85%	45.69%	25.75%	8.03%	18.93%
NEAREST NEIGHBOR SIZE LIMIT	-2.0	1.0	0.0	0.0	1.0	-1.0	0.0	0.5



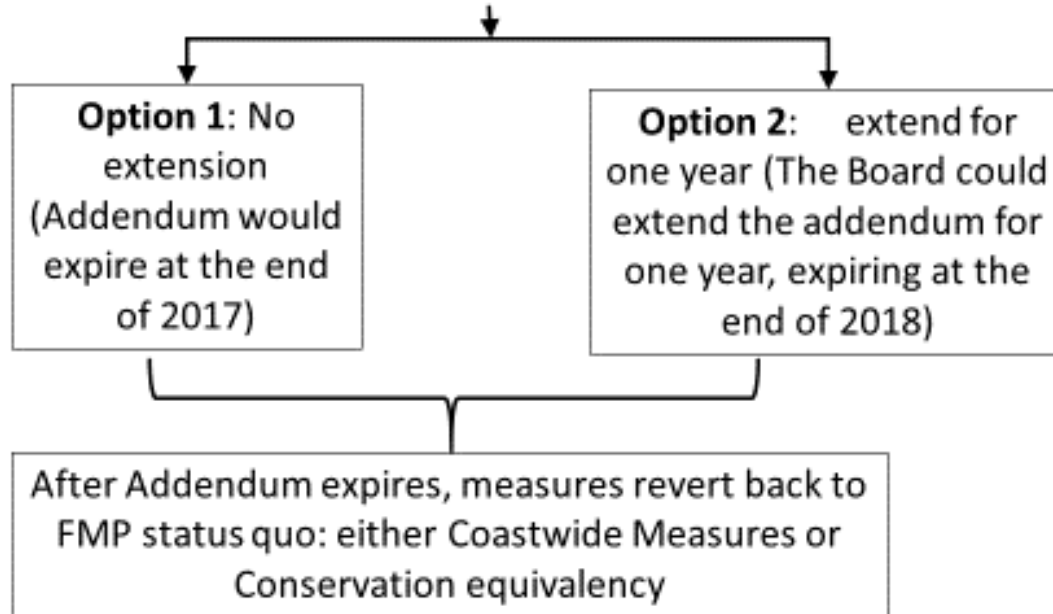
# ASMFC Decision Tree for Draft Addendum XXVIII for Summer Flounder Recreational Management



# Summer Flounder Regional Management Options



# Timeframe for Summer Flounder Regional Management



**Appendix III.**  
**Additional Management Options considered by the**  
**ASMFC Summer Flounder, Scup, and Black Sea Bass Board’s Recreational Working Group**  
**(December 2016)**

**Former Option 3: Regional Management based on State-by-State Allocations**

This approach combines state-by-state allocation with the regional alignment that was in place in 2014 and 2015. Regions comprised of multiple states would combine their state-by-state allocations to create regional allocations, for comparison to their regional 2016 projected harvest. States within a region would have the same management measures (size limit, bag limit, and season length). Collectively, the measures would achieve the reduction or liberalization needed to not exceed their regional allocation.

**Former Option 3: Regional Management based on State-by-State Allocations**

STATE	2016 PROJECTED HARVEST	2017 ALLOCATION	Liberalization or Reduction (in Bold)
MA	63,834	68,102	7%
RI	92,309	70,579	<b>-24%</b>
CT			
NY			
NJ	1,708,687	747,889	<b>-56%</b>
DE			
MD			
VA	204,606	282,316	38%
NC	13,542	69,341	412%

**Option 4B: State by State Allocations with 'Fish Sharing' (VA Version)**

The following tables (6-8) outline methods for fish sharing among states starting with their performance in 2014 relative to their 1998 allocation and factoring in regional performance in 2016.

**Table 6. Comparison of 1998 allocation and 2014 harvest levels**

<b>State</b>	1998 based allocation (% allocated to each region) * Just for information	2014 Projected Regional Harvest (# of fish)	2014 based allocation( % allocated to each region)	Allocation for 2017 Harvest based on 2014 allocation and 2017 RHL (1,238,226) (# of fish)	Projected 2016 harvest (by region, in # of fish)	Projected 2016 harvest (by state, in # of fish)	Regional 2016 Overages (over 2017 RHL) in # of fish
MA	5.5%	32,936	1.4%	17,643	63,834	63,834	46,191
RI	5.7%	126,724	5.5%	67,883	92,309	92,309	24,426
CT	60.4%	1,793,823	77.6%	960,904	1,708,686	239,689	747,782
NY						812,624	
NJ						656,373	
DE	22.8%	312,110	13.5%	167,189	204,606	95,984	37,417
MD						19,263	
VA						89,359	
NC	5.6%	45,936	2.0%	24,607	13,542	13,542	-11,065
<b>Total</b>	<b>100%</b>	<b>2,311,529</b>	<b>100%</b>	<b>1,238,226</b>	<b>2,082,977</b>	<b>2,082,977</b>	

**Table 7. If no liberalization was allowed for NC and overage regions took a 41% reduction**

STATE	2016 Proj. Harvest (# of fish)	2017 Allocations based on 2014 % harvest (# of fish)	Liberalization/Reduction Potential (%)	Applied Reduction	2016 Proj. Harvests with Applied Reduction (# of fish)
MA	63,834	17,643	-72%	41%	37,777
RI	92,309	67,883	-26%	41%	54,628
CT	1,708,687	960,904	-44%	41%	1,011,194
NY					
NJ					
DE	204,606	167,189	-18%	41%	121,085
MD					
VA					
NC	13,542	24,607	82%	0%	13,542
<b>Total</b>	<b>2,082,979</b>	<b>1,238,226</b>			<b>1,238,226</b>

If NC does not liberalize, then overage regions will have to reduce the sum of their 2016 proj. harvest to the the RHL to (1,224,684 fish) which is the 2017 RHL (1,238,226 fish) assuming NC has already included their harvest of 13,542.

**Table 8. If no liberalization was allowed for North Carolina and overage regions took a reduction based on the proportion of their 2014 harvest level**

STATE	2016 Proj. Harvest (# of fish)	Proportion of Allocation among States with Overages (# of fish) *	2017 Allocation (# of fish) **	Reduction to meet 2017 harvest target
MA	63,834	1.5%	17,804	72%
RI	92,309	5.6%	68,502	26%
CT	1,708,687	79.2%	969,665	43%
NY				
NJ				
DE	204,606	13.8%	168,713	18%
MD				
VA				
NC	13,542	0%	13,542	0%

The remaining RHL would be allocated by summing up 2017 Allocation without NC to get new proportions. Multiply Remaining RHL by proportion to get 2017 Allocation of fish.

**Option 4C: State by State Allocations with ‘Fish Sharing’ and recent performance (MA Version)**

Under this option, state-by-state allocations based on the state’s proportion of the 1998 catch would be adjusted to account for recent fishing performance. Recent fishing performance would assist in distributing or ‘fish-sharing’ among states. Below are version of this option that include harvest change from 2015-2016 (Table 9), 2014-2016 (Table 10), and averaging harvest change from 2014-2015 & 2015-2016 (Table 11).

For the following tables (9-11), 1998 allocations are summed to the regional level (Regions in place 2014-2015), with fish sharing based on recent harvest performance (MA Version)

**Table 9. REGIONAL 1998 ALLOCATIONS + SHARING, CONSIDERING RECENT FISHERY PERFORMANCE (HARVEST CHANGE 2015-2016)**

State	2017 Projected Harvest	2017 Allocation	Delta Fish	Allocation %	Proportion Allocation	Shared Fish	2017 Target	Req'd Change
MA	51,508	68,102	16,594				51,508	0%
RI	51,949	70,579	18,630				51,949	0%
CT								
NY								
NJ	2,824,769	747,889	-2,076,880	60.4%	1.00	144,775	892,663	-68%
DE								
MD								
VA	237,584	282,316	44,731				237,584	0%
NC	4,522	69,341	64,819				4,522	0%
			<i>Excess Fish</i>					
			144,775				1,238,226	



**Table 10. REGIONAL 1998 ALLOCATIONS +SHARING, CONSIDERING RECENT FISHERY PERFORMANCE (HARVEST CHANGE 2014-2016)**

State	2017 Projected Harvest	2017 Allocation	Delta Fish	Allocation %	Proportion Allocation	Shared Fish	2017 Target	Req'd Change
MA	36,111	68,102	31,991				36,111	0%
RI	46,142	70,579	24,436				46,142	0%
CT								
NY								
NJ	2,146,558	747,889	-1,398,670	60.4%	1.00	242,968	990,857	-54%
DE								
MD								
VA	161,104	282,316	121,212				161,104	0%
NC	4,012	69,341	65,328				4,012	0%
			<i>Excess Fish</i>					
			242,968				1,238,226	

**Table 11. REGIONAL 1998 ALLOCATIONS + SHARING, CONSIDERING RECENT FISHERY PERFORMANCE (AVG HARVEST CHANGE 2014-2015 & 2015-2016)**

State	2017 Projected Harvest	2017 Allocation	Delta Fish	Allocation %	Proportion Allocation	Shared Fish	2017 Target	Req'd Change
MA	48,130	68,102	19,972				48,130	0%
RI	66,970	70,579	3,608				66,970	0%
CT								
NY								
NJ	2,038,099	747,889	-1,290,211	60.4%	1.00	165,126	913,015	-55%
DE								
MD								
VA	201,841	282,316	80,474				201,841	0%
NC	8,269	69,341	61,071				8,269	0%
			<i>Excess Fish</i>					
						165,126		
							1,238,226	

**Option 5: Regional Management based on State-by-state Allocations with Regional Target adjusted to achieve a 41% reduction**

Under this approach, state-by state allocations would be combined with regional alignment that was in place in 2014 and 2015 would be combined with uniform application of the coastwide reduction needed to not exceed the 2017 RHL, currently estimated at 41% based on projected 2016 harvest. Using this estimate, each region would have a harvest target in 2017 that is a 41% reduction from their 2016 harvest. In other words, this approach does not consider the 1998-based allocations to determine each region’s reduction. States within a region would have the same management measures (size limit, bag limit, and season length). Collectively, the measures would achieve the reduction needed to not exceed their regional target.

**Table 12: Regional Management based on State-by-state Allocations with Regional Target adjusted to achieve a 41% reduction**

STATE	2016 PROJECTED HARVEST	2017 TARGET	Liberalization or Reduction (in Bold)
MA	63,834	37,946	<b>-41%</b>
RI	92,309	54,873	<b>-41%</b>
CT			
NY			
NJ	1,708,687	1,015,728	<b>-41%</b>
DE			
MD			
VA	204,606	121,628	<b>-41%</b>
NC	13,542	8,050	<b>-41%</b>

For the following options (6B-6D), a minimum reduction of 30% is applied to all states and regions, with remainder fish take by states/regions over 1998 allocation, considering recent harvest performance (MA Version)

**Option 6B: Table 14. REGIONAL REDUCTION OF 30% w/ REMAINDER TAKEN BY "OVER 1998" REGIONS, CONSIDERING RECENT FISHERY PERFORMANCE (HARVEST CHANGE 2015-2016) + FISH SHARING**

State	2016 Projected Harvest	Req'd Change	2017 Target	2017 Projected Harvest	Delta Fish	Allocation Percent	Proportion Allocation	Shared Fish	2017 Target + Fish Share	Final Req'd Change	
MA	63,834	-30.0%	44,684	51,508	-6,824	5.5%	6.2%	394	45,078	-12.5%	
RI	92,309	-42.2%	53,348	51,949	1,399				51,949	0.0%	
CT											
NY											
NJ	1,708,687	-42.2%	987,491	2,824,769	-1,837,278	60.4%	68.1%	4,329	991,820	-64.9%	
DE											
MD											
VA	204,606	-30.0%	143,224	237,584	-94,360	22.8%	25.7%	1,634	144,858	-39.0%	
NC	13,542	-30.0%	9,480	4,522	4,958				4,522	0.0%	
<i>Excess Fish</i>					<i>6,357</i>					<i>Total</i>	<i>1,238,226</i>

**Option 6C. Table 15. REGIONAL REDUCTION OF 30% w/ REMAINDER TAKEN BY "OVER 1998" REGIONS, CONSIDERING RECENT FISHERY PERFORMANCE (HARVEST CHANGE 2014-2016) + FISH SHARING**

State	2016 Projected Harvest	Req'd Change	2017 Target	2017 Projected Harvest	Delta Fish	Allocation Percent	Proportion Allocation	Shared Fish	2017 Target + Fish Share	Final Req'd Change
MA	63,834	-30.0%	44,684	36,111	8,573				36,111	0.0%
RI	92,309	-42.2%	53,348	46,142	7,205				46,142	0.0%
CT										
NY										
NJ	1,708,687	-42.2%	987,491	2,146,558	-1,159,068	60.4%	72.6%	15,423	1,002,914	-53.3%
DE										
MD										
VA	204,606	-30.0%	143,224	161,104	-17,879	22.8%	27.4%	5,822	149,046	-7.5%
NC	13,542	-30.0%	9,480	4,012	5,467				4,012	0.0%
<i>Excess Fish</i>					21,245	<i>Total</i>			1,238,226	

**Option 6D. Table 16. REGIONAL REDUCTION OF 30% w/ REMAINDER TAKEN BY "OVER 1998" REGIONS, CONSIDERING RECENT FISHERY PERFORMANCE (AVG HARVEST CHANGE 2014-2015 & 2015-2016) + FISH SHARING**

State	2016 Projected Harvest	Req'd Change	2017 Target	2017 Projected Harvest	Delta Fish	Allocation Percent	Proportion Allocation	Shared Fish	2017 Target + Fish Share	Final Req'd Change
MA	63,834	-30.0%	44,684	48,130	-3,446	5.5%	5.8%	71	44,754	-7.0%
RI	92,309	-42.2%	53,348	66,970	-13,623	5.7%	6.0%	73	53,421	-20.2%
CT										
NY										
NJ	1,708,687	-42.2%	987,491	2,038,099	-1,050,609	60.4%	64.0%	774	988,265	-51.5%
DE										
MD										
VA	204,606	-30.0%	143,224	201,841	-58,617	22.8%	24.2%	292	143,517	-28.9%
NC	13,542	-30.0%	9,480	8,269	1,210				8,269	0.0%

New Regions (Rhode Island-New Jersey): Option 7-8

**Option 7: Regional Management with new region (RI-NJ)**

Under this approach, Rhode Island would be combined with the states of Connecticut through New Jersey to form a new region. Similar to previously mentioned regional approaches, the states within the region would combine their state allocation to create a regional allocation. Similar to options 2 and 4, regions with 2016 projected harvests below their 1998-based allocations for 2017 would forgo any liberalization in 2017 in order to lend fish to other regions with 2016 projected harvests above their 1998-based allocations for 2017. Excess fish would be redistributed to these regions through Board action. Regions lending their excess fish are not giving up their 1998-based allocation of the RHL, such that if they harvest above their 1998-based allocation they incur no penalty. States within a region would have the same management measures (size limit, bag limit, and season length). Collectively, the measures would achieve the reduction needed to not exceed their regional target.\*\*\***Note:** Shifting Rhode Island into the Connecticut–New Jersey region with the same size limit, bag limit, and season length as these states means that Rhode Island’s reduction would be approximately 57% relative to the 46% reduction for Connecticut through New Jersey.

**Option 7: Regional Management with new region (RI-NJ)**

STATE	2016 PROJECTED HARVEST	2017 TARGET	Liberalization or Reduction (in Bold)
MA	63,834	63,834	0
RI			
CT			
NY			
NJ	1,781,926	956,244	<b>-46%</b>
DE			
MD			
VA	204,606	204,606	0
NC	13,542	13,542	0

**Option 8: Regional Management with new region (RI-NJ) with minimum of 30% reduction for all states/regions**

Similar to the approach under Option 7, Rhode Island would be combined with the states of Connecticut through New Jersey to form a new region. Under this approach each of the regions would reduce recreational harvest by at least 30% from 2016 harvest levels (based on the 30% reduction in the RHL).. For the region of Rhode Island–New Jersey, due to their 2016 projected harvest exceeding their 1998-based allocation of the RHL, they would reduce their harvest additionally to address the remaining coastwide reduction needed to not exceed the 2017 RHL. Based on preliminary data, the larger reduction for RI–NJ would total approximately 41.6%. **\*\*\*Note:** Shifting Rhode Island into the Connecticut–New Jersey region with the same size limit, bag limit, and season length as these states means that Rhode Island’s reduction would be approximately 54% relative to the 42% reduction for Connecticut through New Jersey.

**Regional Management with new region (RI-NJ) with minimum of 30% reduction for all states/regions**

STATE	2016 PROJECTED HARVEST	2017 TARGET	Liberalization or Reduction (in Bold)
MA	63,834	44,684	<b>-30.0%</b>
RI			
CT			
NY			
NJ	1,781,926	1,040,838	<b>-41.6%</b>
DE			
MD			
VA	204,606	143,224	<b>-30.0%</b>
NC	13,542	9,480	<b>-30.0%</b>