Mid-Atlantic Fishery Management Council
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Michael P. Luisi, Chairman | G. Warren Elliott, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: November 30, 2017

To: Council

From: Kiley Dancy, Staff

Subject: Summer Flounder Recreational Measures for 2018

The Council and the Atlantic States Marine Fisheries Commission's Summer Flounder, Scup, and Black Sea Bass Board (Board) will consider recreational measures for summer flounder in 2018. The following materials are included in the summer flounder recreational measures briefing book tab for Council and Board consideration of this subject:

1) Advisory Panel meeting summary for summer flounder from November 20 webinar
2) Monitoring Committee recommendations for summer flounder from November 13-14 meeting
3) Summer flounder staff memo dated November 3, 2017[1]

Written comments relevant to recreational specifications for all three species can be found behind Tab 12 (black sea bass recreational specifications). Comments specific to summer flounder include those from Harvey Yenkinson and Robin Scott.

The Council and Board must recommend that the 2018 recreational fishery be managed either under conservation equivalency or with coastwide measures. If recommending coastwide measures, the Council and Board will need to specify a bag limit, size limit, and season to be implemented in all states and federal waters. If recommending conservation equivalency, the Council and Board must recommend a set of non-preferred coastwide measures and a set of precautionary default measures. If conservation equivalency is adopted, the Commission's Technical Committee will develop proposals for specific state or regional measures in early 2018.

[1] Minor revisions to this memo were made 11/15/17 to correct staff-recommended season start dates for non-preferred and precautionary default measures in the recommendations summary paragraph.

Summer Flounder, Scup, and Black Sea Bass Advisory Panel Webinar

November 20, 2017

Council Advisory Panel members present: Carl Benson (NJ), Skip Feller (VA), James Fletcher (NC), Jeff Gutman (NJ), Gregory Hueth (NJ), Michael Plaia* (CT), Bob Pride (VA), Paul Risi (NY), Steve Witthuhn (NY), Harvey Yenkinson (PA), Lisa Poyer (NY), Robert Ruhle (NC)

Commission Advisory Panel members present: Bill Shillingford (NJ), Bob Meimbresse (NJ), Jack Conway (CT), Marc Hoffman (NY), Ken Neill (VA), Michael Plaia* (RI), Art Smith (NC), Robert Busby (NY), Mike Fedosh (NJ), Greg DiDomenico (NJ), Frank Blount (RI), Victor Bunting (MD), James Tietje (MA), Paul Forsberg (FL), Joe Huckmeyer (MA)

*Serves on both Council and Commission Advisory Panels.

Others present: Julia Beaty (Council staff), Kiley Dancy (Council staff), Brandon Muffley (Council staff), Kirby Rootes-Murdy (ASMFC staff), Caitlin Starks (ASMFC staff), Rob O'Reilly (Council member), Chris Batsavage (Council member), Wes Townsend (Council member), "Jim G.", Angel Willey (MD DNR), E.C. Newellmann, "FisheryNation"

The Council and Commission's Summer Flounder, Scup, and Black Sea Bass Advisory Panels met via webinar to discuss recreational management measures for the three species in 2018.

Summer Flounder Comments

One advisor asked if there was a biological reason for the current regional management or if it was based on a policy decision, stating that there is no benefit to the stock from using regional management, and that southern New Jersey is disadvantaged in the current configuration.

Another advisor from New Jersey indicated that in his experience tagging summer flounder, about 80% are re-captured well north of where they are tagged in southern New Jersey, indicating that southern areas within the state appear to be nursery grounds for small flounder. This advisor thought that New Jersey should be managed as if it were two different states given the presence of larger, older fish in the north and smaller, younger fish in the south. This advisor also indicated that the Delaware open season (open year-round) makes it easy for Anglers from Delaware harvest summer flounder from the New Jersey side of Delaware Bay after New Jersey's season closes, causing frustration among New Jersey anglers.

An advisor from New York questioned reports of New Jersey anglers observing low effort and availability this year, since their landings are higher than all other states so far in 2017. He stated that the issue of New Jersey's non-compliance with Addendum XXVIII in 2017 set up a very

confusing and complicated management issue this year. One advisor asked if there had been any analysis of the impacts of New Jersey's management measures in 2017, specifically how the 18-inch size limit may have reduced discards (vs. a 19-inch size limit). Staff responded that no analysis has been conducted at this point given preliminary and incomplete data for 2017.

Several advisors continued to express frustration that current management measures focus recreational mortality on large female fish. Several advisors support alternatives to the current minimum size limits, such as slot limits or a total length limit with mandatory retention. One advisor noted that the latter strategy would fulfill Magnuson Stevens Act (MSA) requirements to address discards, and indicated that the Council is not fulfilling this obligation.

One advisor asked about the total percent that the recreational fishery could liberalize in 2018 if using preliminary 2017 data to project 2018 harvest, and accounting for the increase in the recreational harvest limit (RHL). Staff responded that this would be a 36% liberalization, but the Monitoring Committee is concerned that 2017 appears to be so anomalous in terms of low harvest that relying on 2017 data alone to project 2018 is not advisable.

One advisor responded that he does not believe that 2017 is an outlier given that it is consistent with a declining trend in landings over the past few years; instead it appears that 2016 is an outlier. He is concerned that if harvest does go up, it will result in future cutbacks. He said it is hard to remember a time when measures were liberalized. Another advisor disagreed with 2016 being an outlier, stating that both 2015 and 2017 are anomalous low years due to bad weather in both years.

One advisor said the fishery seems to be in decline in Long Island Sound, even more so in 2017 compared to 2016. This advisor also believes there were some issues with unrealistically high estimates in the 2016 Marine Recreational Information Program (MRIP) data.

One advisor noted, and several others agreed, that this is an opportunity for a liberalization and managers need to take it, stating that management is too precautionary, and fishermen are never rewarded with a liberalization. There always seems to be an argument for why we should not fully liberalize when given the opportunity. Another advisor requested that there could be adjustment options available to states other than just changing the season, as recommended by staff.

An advisor fishing out of New Jersey noted that effort in this fishery, particularly in south Jersey, is declining and the availability of summer flounder is much lower than it was just several years ago. He believes that the Monitoring Committee should not worry about effort increasing in 2018 given how much it has already declined. He also thought that the large minimum size limits have also had significant negative impacts to the fishery.

In response, one participant questioned whether declines in availability in southern New Jersey noted by other advisors were possibly due to climate-driven shifts in the distribution of biomass. He noted the need for surveys that accurately capture and account for changes in the population distribution – both in terms of where the survey takes place and the relevance of survey gear types to flatfish. There is a need to put money into getting the science and the data needed to properly manage the fishery.

One advisor stated that the MSA requires that measures not discriminate between different states. He believes that the current process, with disparate state measures, is inconsistent with federal law. In addition, he does not agree with the very different reporting requirements between the commercial and recreational sectors, and believes that all recreational anglers should be required to report catch via a cell phone app.

Summer Flounder, Scup, and Black Sea Bass Monitoring Committee
2018 Recreational Measures Recommendations

Monitoring Committee Attendees: Tiffany Cunningham (MA DMF), Greg Wojcik (CT DEEP), John Maniscalco (NY DEC), Peter Clarke (NJ F&W), Rich Wong (DNREC), Steve Doctor (MD DNR), Joe Cimino (VMRC), T.D. VanMiddlesworth (NCDMF; via webinar), Kiley Dancy (MAFMC staff), Julia Beaty (MAFMC staff), Brandon Muffley (MAFMC staff), Kirby Rootes-Murdy (ASMFC staff), Caitlin Starks (ASMFC staff), Mark Terceiro (NEFSC; via webinar), Emily Gilbert (NMFS GARFO), Jason McNamee (RI DEM; Tuesday only)

Other Attendees: Tony DiLernia (MAFMC Demersal Committee vice chair); Morgan Brunbauer (NY DEC; via webinar)

The Monitoring Committee met on Monday, November 13 and Tuesday, November 14, 2017 in Linthicum, MD to recommend 2018 recreational management measures for summer flounder, scup, and black sea bass.

Summer Flounder

The Monitoring Committee agrees with the staff recommendation for regional conservation equivalency in 2018.

The Committee discussed whether measures (both the non-preferred coastwide measures and the conservation equivalency regional measures) should be liberalized in 2018 given the projected underage of the 2017 RHL and the increase between the 2017 and the 2018 RHL. The group recommends not taking the full percentage liberalization that would be calculated by comparing the 2017 projected harvest to the 2018 RHL (36%), for several reasons. The Monitoring Committee notes that 2017 appears to be a very anomalous year in terms of low harvest and effort in nearly all states. The Committee discussed that this is likely due to a combination of low availability and other factors that have impacted effort in 2017, including weather. Making adjustments under the assumption that effort and catch rates will be similar between 2017 and 2018 may result in large overages in 2018 if effort and success rates increase in 2018. The Committee considered that under consistent measures in recent years (2014-2016), harvest varied as much as 50%. 2015 harvest estimates were significantly lower than projected despite keeping measures *status quo* from 2014, while between 2015 and 2016, harvest increased substantially under the same management measures.

The Committee is also concerned with the stock status of summer flounder, including declining biomass bringing the stock close to being overfished. Although the July 2016 projections show a predicted increase in biomass between 2017 and 2018, in recent years, projected increases in biomass have not been realized. Recent catches have not substantially exceeded the annual catch limits; however, projected fishing mortality rates have been exceeded and projected biomass has not been reached, mainly due to below average year classes in 2010-2015. Stock projections for 2018 were not updated in 2017. Additionally the Committee noted that nearly all the ongoing

fishery independent survey data through 2016 continues to demonstrate a decrease in abundance from their most recent peak (generally 2009-2012), according to the data updated provided by the NEFSC in July 2017. For these reasons, the Monitoring Committee is concerned that the projected increase in biomass may not be fully realized.

In addition, the Monitoring Committee is moving toward developing a system of recreational evaluation and response that considers the variability in the Marine Recreational Information Program (MRIP) data, with the aim of moving away from making substantial changes in either direction to recreational measures on an annual basis.

For the reasons described above, Committee recommended that **any liberalizations not exceed 17% relative to 2017 projected harvest**. This is approximately the increase associated with the percent change between the 2017 RHL and the 2018 RHL. Additionally, the group recommended some parameters for any potential liberalizations to state and regional measures under the Commission's process for conservation equivalency, if conservation equivalency is approved for 2018 by the Council and Board. Specifically, if states or regions chose to liberalize their measures for 2018, increases to state or regional possession limits should be no more than an increase of 1 fish, and consistent approaches should be used for calculating changes to season length. These recommendations draw on previously noted concerns over likely changes in effort and harvest in 2018.

Conservation equivalency requires the specification of a set of non-preferred coastwide measures, as well as a set of precautionary default measures. The Monitoring Committee recommends slight modifications to the non-preferred coastwide measures in 2018, including a **minimum size of 18 inches, a 4 fish possession limit, and an open season July 1- September 3**. Preliminary analysis to project the potential impact of these measures used 2016-2017 average harvest rates, due to the Committee's concerns that using 2017 data alone would produce unrealistically low estimates given how anomalous 2017 harvest appears to be. This analysis indicated that these non-preferred coastwide measures would be expected to result in approximately a 17% increase relative to 2017 projected harvest. Compared to the non-preferred coastwide measures adopted for 2017, this recommendation represents a 1-inch decrease in the size limit, no change in the possession limit, and a 42-day decrease in the non-preferred coastwide season.

The Committee agrees with the staff recommendation for no changes to the current precautionary default measures, which are intended to be more conservative than any individual state or region might implement and do not need to be directly tied to changes in the RHL. These precautionary default measures include a **minimum size of 20 inches, a possession limit of 2 fish, and an open season of July 1-August 31.**

Recreational Management Analysis Comments

The Monitoring Committee continued ongoing discussions of general recreational issues and ways to improve the process of evaluating and adjusting recreational measures for all three species. In particular, the 2016 harvest estimates for black sea bass and reduction in the 2016 to 2017 RHLs for summer flounder had led to the Commission's Board tasking the Technical Committee with developing approaches to address variability in the annual harvest estimates earlier this year. Previous efforts to address those tasks earlier this year resulted in preliminary analysis that the group is working to complete. Based on updated preliminary analysis the group was in agreement

that a ‘smoothing’ approach could be used in future years to further evaluate estimates as part of broader changes in the annual specification process. The group discussed that any smoothing approach would need to be developed through a more structured methodology for considering uncertainty and outliers in the recreational data, as well as using different approaches tools to improve catch projections and make adjustments to management measures. The Monitoring and Technical Committees plan to continue development of this work in 2018.

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MEMORANDUM

Date: November 3, 2017

To: Chris Moore, Executive Director

From: Kiley Dancy, Staff

Subject: Summer Flounder Recreational Management Measures for 2018

In August 2017, the Council and the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass Board (Board) reviewed the previously implemented commercial quota and recreational harvest limit for summer flounder for the 2018 fishing year. The Council and Board recommended no changes to the implemented catch and landings limits, based on the advice of the Scientific and Statistical Committee (SSC) and Monitoring Committee (MC). These 2018 specifications were approved in August 2016 based on the recommendations from the SSC following the 2016 stock assessment update for summer flounder.

The final rule implementing the 2018 commercial quota and recreational harvest limit (RHL) published on December 22, 2016 (81 FR 93842), and includes a 2018 RHL for summer flounder of 4.42 million lb (an increase of approximately 17% relative to the 2017 RHL of 3.77 million lb).

The MC must recommend recreational management measures for 2018 that will constrain landings to the RHL. The following is a review of recreational catch and landings data for the summer flounder fishery, as well as a staff recommendation.

Recreational Catch and Landings

Recreational catch of summer flounder has fluctuated since 1981, from a peak of 32.06 million fish in 1983 to a time series low of 2.68 million fish in 1989. Landings have fluctuated from a peak of 27.97 million lb in 1983 to a low of 3.16 million lb in 1989. Landings were estimated to be 6.18 million lb in 2016 (Table 2), approximately 14% above the 2016 RHL of 5.42 million lb.

Marine Recreational Information Program (MRIP) data for 2017 are incomplete and preliminary. To date, only the first four waves (January through August) of catch and landings data for the current year are available. The MC reviews the MRIP data once wave 4 data are available because the Council and Commission agreed that recommendations need to be made late in the current year (i.e., 2017) to give the states enough time to enact changes in their regulations for the upcoming year (i.e., 2018).

Preliminary data indicate that 7.31 million summer flounder have been caught and 0.91 million summer flounder have been landed through wave 4 in 2017. By weight, landings through wave 4 were 2.83 million lb, with the mean weight at approximately 3.12 lb per fish (Table 3).

Preliminary wave 1-4 data for 2017 can be used to project catch and landings for the entire year by assuming the same proportion of catch and landings by wave in the previous year. These projections are typically assumed to be overestimates for states with more restrictive seasonal measures in the current year, and underestimates for those with less restrictive seasonal measures. Although size and bag limits were modified between 2016 and 2017, most open seasons remained *status quo* between 2016 and 2017, the proportions by wave in these years are not expected to differ substantially as a result of changes in regulations.

Total projected catch for 2017 is 8.60 million fish, and projected landings are 3.23 million lb or 1.05 million fish (Table 2). Landings by state in recent years, in thousands of fish, are shown in Table 6 and Table 7 (for waves 1-4 and all waves, respectively). Projected 2017 landings by state (in numbers of fish) are shown in Table 6 and Table 8.

Expanded landed length frequency for 2014-2016 is shown in Figure 1. About 80% of summer flounder landings have originated in state waters in recent years (Table 4).

Past Harvest Limits and Management Measures

RHLs for summer flounder were first implemented in 1993. Since that time they have varied from a high of 11.98 million lb in 2005 to a low of 3.77 million lb in 2017 (Table 7).

From 1993-2001, coastwide measures were in place for all states and federal waters, with possession limits ranging from 3-10 fish and size limits ranging from 14.0-15.5 inches. Starting in 2002, conservation equivalency was implemented, and has been used as the preferred management system each year since. Under conservation equivalency, individual states or multi-state regions set measures that collectively are designed to constrain landings to the coastwide harvest limit. Federal regulations are waived and all anglers are subject to the summer flounder regulations of the state in which they land. State level conservation equivalency was adopted each year from 2002 through 2013, with each state implementing different sets of management measures. Each year from 2014 through 2017, the Commission's Board has approved the use of regional conservation equivalency, where the combination of regional measures is expected to constrain the coastwide harvest to the RHL.

Last December, the Council and Board adopted regional conservation equivalency for the summer flounder recreational fishery in 2017. Region-specific possession limits ranged from 2-8 fish with size limits ranging from 15.0-18.0 inches, with various seasons (Table 8).

Under conservation equivalency, the Council and Board must adopt two associated sets of measures: the non-preferred coastwide measures, and the precautionary default measures. The non-preferred coastwide measures are a set of measures that would be expected to constrain harvest to the RHL if implemented on a coastwide basis. The combination of state or regional measures under conservation equivalency is theoretically designed to be "equivalent" to this set of non-preferred coastwide measures. These coastwide measures are included in the federal regulations, but waived in favor of state- or region-specific measures. The non-preferred coastwide measures adopted in 2017 include a 4-fish possession limit, a 19-inch total length (TL) minimum size, and an open season from June 1-September 15.

The precautionary default measures would be implemented in any state or region that failed to develop adequate measures to constrain or reduce landings as required by the conservation equivalency guidelines. The precautionary default measures in 2017 include a 2-fish possession limit with a 20-inch TL minimum fish size and an open season from July 1-August 31.

Accountability Measures

In 2013, the Council modified the recreational accountability measures (AMs) for Mid-Atlantic species via the Omnibus Recreational Accountability Measures Amendment. This amendment removed the in-season closure authority for the summer flounder recreational fishery that was previously held by the NMFS Regional Administrator. Additionally, in the event of a recreational Annual Catch Limit (ACL) overage, recreational accountability measures no longer necessarily include a direct pound-for-pound payback of the overage amount in a subsequent fishing year. Instead, accountability measures are tied to stock status, and though poundage paybacks may be required in some circumstances, any potential payback amounts would be scaled relative to biomass, as described below.

The modified recreational AMs are as follows: the 3-year recreational sector ACL is evaluated against a 3-year moving average of total catch. Both landings and dead discards are evaluated in determining if the 3-year average recreational sector ACL has been exceeded. If the recreational ACL is exceeded, the appropriate AM will be determined based on the following criteria:

1. If the stock is overfished ($B < ½ B_{MSY}$), under a rebuilding plan, or the stock status is unknown: The exact amount, in pounds, by which the most recent year's recreational ACL has been exceeded, will be deducted in the following fishing year, or as soon as possible once catch data are available.
2. If biomass is above the threshold, but below the target ($½ B_{MSY} < B < B_{MSY}$), and the stock is not under a rebuilding plan:
    a. If only the recreational ACL has been exceeded, then adjustments to the recreational management measures (bag, size, and seasonal limits) would be made in the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and the conditions that precipitated the overage.
    b. If the Acceptable Biological Catch (ABC = recreational ACL + commercial ACL) is exceeded in addition to the recreational ACL, then a single year deduction will be made as a payback, scaled based on stock biomass. The calculation for the payback amount in this case is: (overage amount) * $(B_{msy}-B)/½\ B_{msy}$.
3. If biomass is above the target ($B > B_{MSY}$): Adjustments to the recreational management measures (bag, size, and seasonal limits) would be made in the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and the conditions that precipitated the overage.

Accountability measures have not been triggered for the recreational summer flounder fishery based on a comparison of average 2014-2016 catch to the 2014-2016 average ACL. Although there was a slight (4%) overage of the recreational ACL in 2014, and a more moderate (12%) overage in 2016, recreational catch was substantially below the recreational ACL in 2015 (35%), resulting in a 3-year average of catch that is below the 3-year average ACL (Table 1). Recreational performance relative to the 2017 ACL will be

evaluated in 2018, once final 2017 catch estimates are available, and will be taken into account in next year's recreational specifications process if necessary.

Methodology

The MC must consider and recommend whether coastwide measures or conservation equivalency (state-by-state or voluntary regional) are appropriate for 2018 (Table 9). Specifically, the Committee must recommend measures that will ensure the recreational harvest limit is not exceeded in 2018. Based on the projected landings estimate of 3.23 million lb for 2017, landings would not have to be reduced to achieve the 2018 harvest limit of 4.42 million lb.

In February 2017, the Board approved Addendum XXVIII, which allowed for continued use of regional conservation equivalency, with the regions in the same configuration as used in 2016. Addendum XXVIII allows the Board to extend regional conservation equivalency provision under this addendum into 2018. If conservation equivalency (state-by-state or regional) is adopted at the December 2017 Council and Board joint meeting, the Commission's staff will update the 2017 landings projections based on MRIP wave 5 data, which may result in a change to the needed management response. States and/or regions would then develop proposals for recreational measures that would be reviewed by the Board in February 2018.

The MC must make recommendations for non-preferred coastwide measures and precautionary default measures that would be applied under conservation equivalency in the event that this strategy is selected by the Council and Board. The methodology detailed in Framework 2 (Addendum III) to the Summer Flounder, Scup and Black Sea Bass FMP and Framework 6 to the FMP (Addendum XVII) can be used to develop state-specific or regional regulations to meet the state-specific or region-specific targets (Table 9).

Because of the long-term implementation of state-specific regulations, the use of a coastwide reduction table (for minimum size and possession limits) to analyze coastwide regulations is no longer feasible. Staff note that the level of precision of annual harvest estimates from MRIP data depend on the survey sample sizes, the frequency of sampled angler trips that caught the species, and the variability of numbers caught among those trips. Harvest estimates are always progressively less precise at lower levels of stratification; annual estimates are more precise than bimonthly estimates, coastal estimates are more precise than regional estimates, and regional estimates are more precise than state estimates. For the development of 2017 measures, states used a variety of data sources to analyze the effects of adjustments at the state and regional levels, including state-specific data sources. It is increasingly difficult to quantitatively analyze the expected effects of a coastwide set of measures.

The Council has recently received a revised report from John Ward, who was contracted by the Council to develop a recreational harvest model using MRIP data. The TC/MC had previously worked with John Ward on refining this model. The Council requested further development of this project, as described in the November 2017 report. The Monitoring Committees should consider the revised report and determine whether this model could be used for current or future recreational measures recommendations.

Fishing Trips and Year Class Effects

Table 10 provides an overview of coastwide recreational fishery performance and estimates of the number of trips where summer flounder was reported as the primary target. A comparison of summer flounder directed trips to total trips suggests that summer flounder trips continue to be a substantial component of

total angler trips, ranging from about 13-20 percent of total trips from 1997-2017 (Table 10). Predicting the number of summer flounder trips that might be taken in 2018 is complicated because many factors affect the demand for angler fishing trips. Changes in angler behavior are also complex and difficult to predict, and may violate the assumptions associated with specific sets of regulations and their anticipated results.

Year-class effects, in terms of fish availability, can influence the expected impacts of management measures and should be considered. The stock assessment update for 2016[1] indicates that several consecutive years of below average recruitment have been observed for summer flounder (2010-2015), contributing to a decline in biomass over the past several years. Although total stock biomass is projected to increase slightly in 2018, the summer flounder year classes expected to be most influential on recreational landings in 2018 (generally 2013-2016) are estimated to be below average.

2018 Staff Recommendation

For 2018 recreational management, staff recommend the continuation of regional conservation equivalency under Addendum XXVIII. Current 2017 projections for summer flounder landings, using data through wave 4 (3.23 million lb), indicate that no reductions are necessary to constrain landings to the 2018 RHL (4.42 million lb).

Given the current projections, there may be room for some states or regions to make minor adjustments to measures. However, the very low landings thus far in 2017 appear to be consistent with declining trends in nearly all fishery independent indices of abundance used in the assessment. Staff recommend using precaution in pursuing substantial changes to measures given summer flounder stock status, uncertainty in the recreational data, and the large variation in observed harvest resulting from very similar management measures in recent years. Summer flounder biomass is estimated at 58% of the target biomass. Declining trends in most indices did not appear to improve with the 2017 data update, and several declined further, a potential indication that projected increases in biomass in 2018 may not be realized. A benchmark stock assessment is currently in development and scheduled for a late 2018 peer review.

The MC and the Commission's Technical Committee (TC) have been developing several approaches to improve the recreational specifications stetting process, including approaches to incorporate the uncertainty surrounding the point estimates of landings generated by MRIP. The aim of this approach is to provide more stability in the recreational measures by avoiding substantial adjustments when the harvest limit for the upcoming year is within some measure of uncertainty around a point estimate of landings in the current year. The specifics of this approach (e.g., which uncertainty bounds will be used) have not yet been defined, however, the TC/MC is generally in support of approaches that strike a balance between maintaining stability where possible and modifying measures (within the constraints of the FMP) when adjustments are clearly called for. This approach includes fewer modifications in both directions, i.e., lower or no reductions in cases when the projected harvest is slightly above the RHL, and lower or no liberalizations when the projected harvest is slightly below the RHL. The MC will discuss the potential for creating a more structured control rule for this approach. Last year, consistent with the general concept of this approach, the Board approved a set of adjustments that did not take the full calculated percent reduction from the point estimate as was done in past years, in an attempt to account for uncertainty in the

[1] http://www.mafmc.org/s/Summer_flounder_2016_Assess_Update.pdf.

recreational data and the wide variation in harvest estimates under an almost identical set of management measures over 2014-2016.

For the reasons described above, staff recommend maintaining largely *status quo* measures under regional conservation equivalency in 2018. The Committees should re-evaluate once wave 5 becomes available (over the past five years, wave 5 has accounted for approximately 10% of annual summer flounder harvest on average).

If conservation equivalency is selected by the Council and Board, a set of **non-preferred coastwide measures** must be identified, along with a set of precautionary default measures. The non-preferred coastwide measures must consist of a minimum fish size, possession limit, and season for 2018 that if implemented on a coastwide basis, would be expected to constrain harvest to the harvest limit in 2018. Under conservation equivalency, these measures are written into the federal regulations, but waived in favor of the state- or region-specific measures. For 2017, the non-preferred coastwide measures that were in place for several years prior were adjusted to account for the time series low harvest limit in 2017 of 3.77 million pounds. 2017 non-preferred coastwide measures include a 19-inch minimum fish size, 4 fish bag limit, and open season from June 1-September 15.

Because the RHL increases between 2017 and 2018 by about 17%, staff recommend a slight adjustment to the size limit for the non-preferred coastwide measures for 2018. Staff recommend that the 2018 non-preferred coastwide measures consist of an 18-inch minimum fish size, a 4 fish bag limit, and an open season from May 15-September 15. According to a preliminary analysis, these measures, if implemented on a coastwide basis, would be expected to constrain landings to the 4.42 million lb RHL in 2018, assuming similar availability and angler behavior compared to 2017.

The **precautionary default measures** are a set of measures that are intended to be more restrictive than measures any state would need to implement to achieve a necessary reduction, to deter states from deviating from the conservation equivalency guidelines. The Commission would require adoption of the precautionary default measures by any state that either does not submit a summer flounder management proposal to the Commission's Summer Flounder Technical Committee, or submits measures that are inconsistent with the conservation equivalency guidelines. In 2017, the precautionary default measures consist of a 20-inch minimum size, a 2-fish possession limit, and an open season of July 1-August 31. Because these measures are intended to be a deterrent to implementing measures inconsistent with the conservation equivalency guidelines, and because this default is likely to be more restrictive than any measure an individual state would implement in 2018, staff recommend no changes to the current precautionary default measures.

In summary, staff recommend that the summer flounder recreational fishery be managed under regional conservation equivalency in 2018, and that states and the Board maintain largely *status quo* management measures given uncertainty in the recreational data. Staff recommend non-preferred coastwide measures that include an 18-inch TL size limit, a 4-fish possession limit, and an open season from May 15-September 15, 2018, as well as precautionary default measures that include a 20-inch TL minimum size, 2 fish possession limit, and open season from July 1-August 31, 2018.

Table 1: Accountability Measures evaluation for summer flounder recreational fishery, comparing 2014-2016 average recreational catch vs. 2014-2016 average recreational ACL. Source for total recreational catch: 2017 summer flounder data update.[2]

	Rec. ACL (mil lb)	**Rec. Catch (mil lb)**	**% Over/Under**
2014	9.07	9.45	+4%
2015	9.44	6.11	-35%
2016	6.83	7.66	+12%
AVG	8.45	7.74	-8%

[2] http://www.mafmc.org/s/5-Summer_flounder_2017_Data_Update-t9ap.pdf

Table 2: Summer flounder recreational catch and landings by year, Maine through North Carolina, 1981-2017, all waves. The number of fish released is presented as a proportion of the total catch (% Released).[a]

Year	Catch (mil fish)	Landings (mil fish)	Landings (mil lb)	% Released	Mean weight of landed fish (lb)
1981	13.579	9.567	10.081	30%	1.05
1982	23.562	15.473	18.233	34%	1.18
1983	32.062	20.996	27.969	35%	1.33
1984	29.785	17.475	18.765	41%	1.07
1985	13.526	11.066	12.490	18%	1.13
1986	25.292	11.621	17.861	54%	1.54
1987	21.023	7.865	12.167	63%	1.55
1988	17.171	9.960	14.624	42%	1.47
1989	2.677	1.717	3.158	36%	1.84
1990	9.101	3.794	5.134	58%	1.35
1991	16.075	6.068	7.960	62%	1.31
1992	11.910	5.002	7.148	58%	1.43
1993	22.904	6.494	8.831	72%	1.36
1994	17.725	6.703	9.328	62%	1.39
1995	16.308	3.326	5.421	80%	1.63
1996	18.994	6.997	9.820	63%	1.40
1997	20.027	7.167	11.866	64%	1.66
1998	22.086	6.979	12.477	68%	1.79
1999	21.378	4.107	8.366	81%	2.04
2000	25.384	7.801	16.468	69%	2.11
2001	28.187	5.294	11.637	81%	2.20
2002	16.674	3.262	8.008	80%	2.45
2003	20.532	4.559	11.638	78%	2.55
2004	20.336	4.316	11.022	79%	2.55
2005	25.806	4.027	10.915	84%	2.71
2006	21.400	3.950	10.505	82%	2.66
2007	20.732	3.108	9.337	85%	3.00
2008	22.897	2.350	8.151	90%	3.47
2009	24.085	1.806	6.030	93%	3.34
2010	23.722	1.501	5.108	94%	3.40
2011	21.559	1.840	5.956	91%	3.24
2012	16.528	2.272	6.490	86%	2.86
2013	16.105	2.521	7.355	84%	2.92
2014	18.969	2.458	7.389	87%	3.01
2015	12.153	1.621	4.721	87%	2.91
2016	14.170	2.028	6.182	86%	3.05
2017 (proj.)[b]	8.593	1.045	3.227	88%	3.09

[a] Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 23, 2017. 1981-2003 data are from MRFSS, 2004-2017 data are from MRIP.
[b] Projected using proportion by wave from 2016 MRIP data and 2017 MRIP wave 1-4 data.

Table 3: Summer flounder recreational catch and landings for **waves 1-4** (January-August), Maine through North Carolina, 1981-2017.[a]

Year	Catch (mil fish)	Landings (mil fish)	Landings (mil lb)	Mean Weight of landed fish (lb)
1981	11.774	8.071	8.899	1.10
1982	20.108	12.599	15.289	1.21
1983	26.979	17.128	22.523	1.31
1984	26.355	14.614	15.245	1.04
1985	10.626	8.535	9.691	1.14
1986	21.321	8.885	13.274	1.49
1987	18.749	6.656	10.393	1.56
1988	13.906	7.918	11.728	1.48
1989	2.120	1.465	2.715	1.85
1990	7.277	3.025	4.125	1.36
1991	13.977	5.186	6.796	1.31
1992	9.830	3.992	5.688	1.42
1993	17.636	4.750	6.553	1.38
1994	15.052	5.499	7.603	1.38
1995	14.315	2.765	4.629	1.67
1996	17.206	6.175	8.685	1.41
1997	14.466	4.657	7.636	1.64
1998	19.015	5.944	10.568	1.78
1999	19.113	3.629	7.441	2.05
2000	22.131	6.867	14.148	2.06
2001	25.661	4.810	10.651	2.21
2002	14.442	2.842	7.008	2.47
2003	18.177	4.123	10.615	2.57
2004	17.998	3.931	10.088	2.57
2005	22.874	3.630	9.800	2.70
2006	20.515	3.685	9.813	2.66
2007	18.659	2.898	8.803	3.04
2008	21.792	2.277	7.951	3.49
2009	23.482	1.758	5.905	3.36
2010	22.725	1.428	4.902	3.43
2011	19.347	1.708	5.511	3.23
2012	14.390	1.968	5.680	2.89
2013	14.641	2.296	6.732	2.93
2014	16.235	2.128	6.454	3.03
2015	10.412	1.382	4.044	2.93
2016	12.213	1.830	5.599	3.06
2017	7.310	0.908	2.833	3.12

[a] Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 23, 2017. 1981-2003 data are from MRFSS, 2004-2016 data are from MRIP.

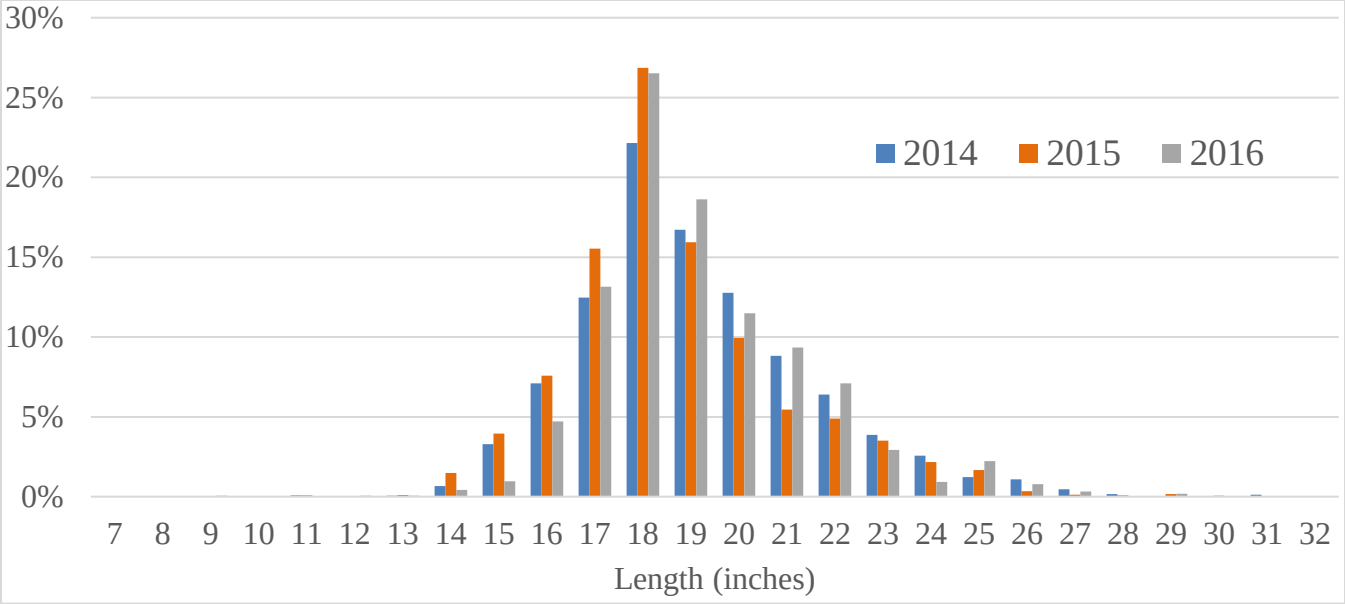

Figure 1: Expanded length frequencies of landed summer flounder from 2014 -2016 MRIP data, as a percentage of total landed fish. Each length bin contains fish from X.0 to X.99 inches. Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 11, 2017.

Table 4: Estimated percentage of summer flounder recreational landings in state vs. federal waters, Maine through North Carolina, 2007-2016.[a]

Year	State <= 3 mi	EEZ > 3 mi
2007	88.91%	11.09%
2008	96.49%	3.51%
2009	90.93%	9.07%
2010	92.40%	7.60%
2011	95.31%	4.69%
2012	87.76%	12.24%
2013	76.97%	23.03%
2014	77.08%	22.92%
2015	80.95%	19.05%
2016	80.91%	19.09%
Avg. 2007 - 2016	**86.5 %**	**13.5%**
Avg. 2014 - 2016	**79.7%**	**20.3%**

[a] Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, May 12, 2017.

Table 5: Summer flounder recreational landings (in thousands of fish) by state for waves 1-4 (January-August), 2008-2017.[a]

State	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
ME	-	-	-	-	-	-	-	-	-	-
NH	<1	-	-	-	<1	-	-	-	-	-
MA	232	50	45	33	74	29	113	66	53	25
RI	203	71	118	152	103	126[b]	184	160	84	57
CT	146	45	35	47	62	268[b]	115[b]	81[b]	216	82
NY	609	298	331	349	482	501	418[b]	366[b]	695	189
NJ	752	817	551	719	905	1,095[b]	1,046	462	602	396
DE	33	78	50	56	44	49	86	44	84	27
MD	34	64	14	10	19	36	27	43	17	25
VA	243	275	235	301	249	171	113[b]	131	69	87
NC	25	59	50	40	31	30	25	29	10	19

[a] Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 23, 2017.
[b] In August 2016 MRIP revised some estimates to address small sample size issues. Revised estimates are only available at the annual level. Thus, some landings are excluded from the following wave/mode/state results due to insufficient sample sizes, including: 2013 CT, NJ, and RI charter, 2014 CT, NY, and VA charter, 2015 CT and NY charter.

Table 6: Summer flounder recreational landings (in thousands of fish) by state for all waves (January-December), 2008-2017.[a]

State	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 (proj)[b]
ME	-	-	-	-	-	-	-	-	-	-
NH	<1	-	-	-	<1	-	-	-	-	-
MA	232	50	45	58	76	31	113	79	55	26
RI	204	72	118	161	103	128	185	164	87	59
CT	146	45	35	47	63	270	120	93	218	83
NY	609	299	334	376	509	518	508	492	712	193
NJ	762	825	552	737	1,130	1,232	1,175	497	755	496
DE	35	87	54	67	45	58	93	51	90	29
MD	58	65	25	15	23	53	80	44	22	32
VA	260	289	260	318	260	186	139	159	72	92
NC	44	75	77	60	63	45	46	41	18	36
Total	2,350	1,806	1,501	1,840	2,272	2,521	2,458	1,621	2,028	908

[a] Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 23, 2017.
[b] Projected using proportion by wave from 2016 MRIP data and 2017 MRIP wave 1-4 data.

Table 7: Summary of federal management measures for the summer flounder recreational fishery, 1993-2018.

Measure	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
ABC (m lb)	-	-	-	-	-	-	-	-	-	-	-	-	-
Recreational ACL (land+disc; m lb)	-	-	-	-	-	-	-	-	-	-	-	-	-
Harvest Limit (m lb)	8.38	10.67	7.76	7.41	7.41	7.41	7.41	7.41	7.16	9.72	9.28	11.21	11.98
Landings (m lb)	8.83	9.33	5.42	9.82	11.87	12.48	8.37	16.47	11.64	8.01	11.64	11.02	10.92
Possession Limit	6	8	6/8	10	8	8	8	8	3	[a]	[a]	[a]	[a]
Size Limit (TL in)	14	14	14	14	14.5	15	15	15.5	15.5	[a]	[a]	[a]	[a]
Open Season	5/15 - 9/30	4/15 - 10/15	1/1 - 12/31	1/1 - 12/31	1/1 - 12/31	1/1 - 12/31	5/29 - 9/11	5/10 - 10/2	4/15 - 10/15	[a]	[a]	[a]	[a]

Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
ABC (m lb)	-	-	-	21.50	25.50	33.95	25.58	22.34	21.94	22.57	16.26	11.30	13.23
Recreational ACL (land+disc; m lb)	-	-	-	-	-	-	11.58	10.23	9.07	9.44	6.83	4.72	5.53
Harvest Limit (m lb) - landings only	9.29	6.68	6.22	7.16	8.59	11.58	8.49	7.63	7.01	7.38	5.42	3.77	4.42
Landings (m lb)	10.51	9.34	8.15	6.03	5.11	5.96	6.49	7.36	7.39	4.72	6.18	3.23[c]	-
Possession Limit	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[b]	[b]	[b]	[b]	-
Size Limit (TL in)	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[b]	[b]	[b]	[b]	-
Open Season	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[b]	[b]	[b]	[b]	-

[a] State-specific conservation equivalency measures.
[b] Region-specific conservation equivalency measures.
[c] Projected

Table 8: Summer flounder recreational management measures and landings (in thousands of fish; 2017 projected) by state and region, 2016 and 2017.

Region	State	2016				2017				
		Min. Size (in)	Poss. Limit	Open Season	Landings ('000 fish)	State	Min. Size (inches)	Poss. Limit	Open Season	Proj. Landings ('000 fish)
1	**MA**	16	5 fish	May 22-Sept. 23	55	**MA**	17	4 fish	May 22-Sept. 23	26
2	**RI**	18	8 fish	May 1-Dec. 31	87	**RI**	19	4 fish	May 1-Dec. 31	59
3	**CT**	18	5 fish	May 17- Sept. 21	218	**CT**	19	3 fish	May 17- Sept. 21	83
		16 (41 designated shore sites)					17 (41 designated shore sites)			
	NY	18	5 fish	May 17- Sept. 21	712	**NY**	19	3 fish	May 17- Sept. 21	193
	NJ	18	5 fish	May 21-Sept. 25	755	**NJ**	18	3 fish	May 25-Sept. 5	496
		16 (1 shore site)	2 fish				16 (1 shore site)	2 fish		
		17 (NJ Delaware Bay)	4 fish				17 (NJ Delaware Bay)	3 fish		
4	**DE**	16	4 fish	Jan. 1- Dec. 31	90	**DE**	17	4 fish	Jan. 1- Dec. 31	29
	MD	16	4 fish	Jan. 1- Dec.31	22	**MD**	16	4 fish	Jan. 1- Mar. 31	32
							17		April 1- Dec.31	
	PRFC	16	4 fish	Jan. 1- Dec.31	--	**PRFC**	16	4 fish	Jan. 1- Dec.31	--
	VA	16	4 fish	Jan. 1- Dec. 31	72	**VA**	17	4 fish	Jan. 1- Dec. 31	92
5	**NC**	15	6 fish	Jan. 1- Dec. 31	18	**NC**	15	4 fish	Jan. 1- Dec. 31	36

Table 9: Procedures for establishing summer flounder recreational management measures.

August
Council/Commission's Board recommend recreational harvest limit.
October
MRIP data available for current year through wave 4.
November
Monitoring Committee meeting to develop recommendations to Council:
Overall % reduction required.
Use of coastwide measures or state conservation equivalency.
*Precautionary default measures.
**Coastwide measures.
December
Council/Board meeting to make recommendation to NMFS
State Conservation Equivalency OR Coastwide measures

State Conservation Equivalency Measures

Late December
Commission staff summarizes and distributes state-specific and multi-state conservation equivalency guidelines to states.

Early January
Council staff submits recreational measure package to NMFS. Package includes:
- Overall % reduction required.
- Recommendation to implement conservation equivalency and precautionary default measures (Preferred Alternative).
-Coastwide measures (Non-preferred Alternative).

States submit conservation equivalency proposals to ASMFC.

January 15
ASMFC distributes state-specific or multi-state conservation equivalency proposals to Technical Committee.

Late January
ASMFC Technical Committee meeting:
-Evaluation of proposals.
-ASMFC staff summarizes Technical Committee recommendations and distributes to Board.

February
Board meeting to approve/disapprove proposals and submits to NMFS within two weeks, but no later than end of February.

March 1 (on or around)
NMFS publishes proposed rule for recreational measures announcing the overall % reduction required, state-specific or multi-state conservation equivalency measures and precautionary default measures (as the preferred alternative), and coastwide measures as the non-preferred alternative.

March 15
During comment period, Board submits comment to inform whether conservation equivalency proposals are approved.

April
NMFS publishes final rule announcing overall % reduction required and one of the following scenarios:
-State-specific or multi-state conservation equivalency measures with precautionary default measures, or -Coastwide measures.

Coastwide Measures

Early January
Council staff submits recreational measure package to NMFS. Package includes:
-Overall % reduction required.
-Coastwide measures.

February 15
NMFS publishes proposed rule for recreational measures announcing the overall % reduction required and Coastwide measures.

April
NMFS publishes final rule announcing overall % reduction required and Coastwide measures.

*Precautionary default measures - measures to achieve at least the % required reduction in each state, e.g., one fish possession limit and 15.5 inch bag limit would have achieved at least a 41% reduction in landings for each state in 1999.
**Coastwide measures - measure to achieve % reduction coastwide.

Table 10: Number of summer flounder recreational fishing trips, harvest limit, landings, and fishery performance (i.e., percent overage or underage) from Maine through North Carolina, 1997 to 2017.

Year	Number of Summer Flounder Directed Trips (millions)[a]	Percentage of Directed Trips Relative to Total Trips[a,b]	Recreational Harvest Limit (million lb)[c]	Recreational Landings of Summer Flounder (million lb)[d]	Percentage Overage (+)/ Underage(-)
1997	5.60	18.8%	7.41	11.87	+60%
1998	5.27	20.5%	7.41	12.48	+68%
1999	4.22	16.8%	7.41	8.37	+13%
2000	5.80	16.7%	7.41	16.47	+122%
2001	6.13	16.6%	7.16	11.64	+63%
2002	4.56	14.8%	9.72	8.01	-18%
2003	5.62	16.0%	9.28	11.64	+25%
2004	4.86	14.3%	11.21	11.02	-2%
2005	5.85	16.0%	11.98	10.92	-9%
2006	4.99	13.6%	9.29	10.51	+13%
2007	5.49	14.5%	6.68	9.34	+40%
2008	4.93	13.4%	6.21	8.15	+31%
2009	4.60	15.6%	7.16	6.03	-16%
2010	4.45	15.1%	8.59	5.11	-41%
2011	4.50	16.8%	11.58	5.96	-49%
2012	4.24	16.4%	8.59	6.49	-24%
2013	3.73	14.6%	7.63	7.36	-4%
2014	4.06	15.6%	7.01	7.39	+5%
2015	3.39	15.4%	7.38	4.72	-36%
2016	3.61	14.2%	5.42	6.18	+14%
2017	1.99 (through W4 only)	14.3% (through W4 only)	3.77	3.23 (projected)	NA

[a] Estimated number of recreational fishing trips (expanded) where the primary target species was summer flounder, Maine through North Carolina. Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 23, 2017.

[b] Source of total trips for all species combined: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 23, 2017.

[c] RHLs for 2003 through 2014 are adjusted for research set-aside; this program was suspended starting in 2015.

[d] Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 23, 2017.

NA = Data not available.