Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmfc.org

MEMORANDUM

TO: **Striped Bass Management Board**

FROM: **Striped Bass Technical Committee and the Stock Assessment Subcommittee**

DATE: **December 3, 2024 [*Updated December 5, 2024]**

SUBJECT: **Updated Projections and 2025 Management Considerations**

***Updated on December 5, 2024 with corrections to some Chesapeake Bay recreational seasonal closure options in Table 6, Appendix 3 Table 2, and Appendix 3 Table 4. The previous version included options with closures longer than the current season.**

The Striped Bass Technical Committee (TC) and Stock Assessment Subcommittee (SAS) met via webinar on November 13, 2024 to address the tasking from the Striped Bass Management Board's October 2024 meeting. The Board requested these tasks to inform consideration of 2025 management measures to be discussed at a special Board meeting in December 2024.

Task 1A. Update the "low 2024 removals with *F* increase in 2025 only" projection from the 2024 Stock Assessment Update with realized 2024 Wave 4 MRIP data, and determine the reduction in removals needed in 2025 to achieve a 50% probability of being above the SSB target in 2029.

Task 1B. For comparison only (not option development), identify the reduction in removals needed in 2025 to achieve a 60% probability of being above the SSB target in 2029.

Task 2. Develop a range of Ocean and Chesapeake Bay recreational no-harvest seasonal closure options at the regional level to achieve the reduction. Include the equivalent no-targeting closure length for each option.

Task 3. Develop an ocean slot limit option below the current 28" minimum.

Task 4. For comparison only (not option development), conduct an alternative "low 2024 removals with *F* increase in 2025 only" projection where age-1 recruitment is sampled from 2020-2024 only, and determine the reduction in removals needed in 2025 to achieve a 50% probability of being above the SSB target in 2029.

This report and enclosed appendices summarize the findings of the TC-SAS on all four tasks.

Summary of TC-SAS Conclusions

- Estimated removals for 2024 were lower when extrapolated from Waves 2-4 MRIP data instead of from Waves 2-3 MRIP data, resulting in a lower estimate of *F* in 2024.
- Updating the "low 2024 removals with *F* increase in 2025 only" projection from the 2024 Stock Assessment Update with realized 2024 Wave 4 MRIP data, and assuming fishing mortality (*F*) decreases in 2026-2029 to the lower 2024 level after the 2025 increase, resulted in a 57% probability of rebuilding by 2029 and a 0% reduction needed.
- The TC/SAS also ran the updated scenario assuming *F* in 2026-2029 decreases to a lesser extent (only decreases to *F_rebuild* instead of the lower F_{2024} value), which resulted in a 46% probability of rebuilding by 2029 and an 8% reduction needed.
- The TC also continued to consider the original scenario from the stock assessment with F_{2024} not updated (still based on MRIP data from only Waves 2-3) which resulted in a 43% probability of rebuilding by 2029 and a 14% reduction needed.
- In all three primary scenarios, female spawning stock biomass (SSB) continues to increase toward the target.
- The TC-SAS notes that all three primary scenarios represent a credible range of what might happen. As such, the Board should consider its risk tolerance when considering possible management response for 2025 and beyond. The level of risk the Board is willing to accept (with respect to resource status, economic loss, and persistent modeling uncertainty due to annual management changes) is a management decision.
- The TC-SAS highlighted several major sources of uncertainty in the projections including the realized 2024 removals, the magnitude of the increase in *F* in 2025 that is expected to occur, and the *F* rate that the population will experience from 2026-2029.
- The TC-SAS notes that it is difficult to monitor management actions to achieve reductions of less than 10% for effectiveness, due to both the uncertainty in the MRIP estimates that makes it difficult to measure such a small change in total removals and the uncertainty in the reduction calculations themselves (e.g., unknown changes in angler behavior).
- Recreational size limit changes, including modifying the existing slot limits or changing to a higher minimum size instead of a slot, resulted in low reductions, particularly in the ocean region.
- For recreational seasonal closures, the extent of the predicted reduction depended on the type of closure (no-harvest vs. no-targeting) and assumptions about effort and angler behavior under the different closure types.

Updated Projections

Per Tasks 1A, 1B, and 4, the TC-SAS conducted additional projection runs using the model from the 2024 Stock Assessment Update. These additional projections change certain variables in the Board's original projection scenario of interest, which projected 2024 removals based on preliminary 2024 MRIP data from Waves 2-3, followed by an increase in fishing mortality (*F*) in 2025, and a subsequent decrease and stabilization of fishing mortality from 2026 through 2029. For the stock assessment, 2024 removals were projected by expanding preliminary 2024 MRIP estimates for Waves 2 and 3 (March-April and May-June) to the full year, based on the

proportion of total removals that occurred in those Waves in earlier years, and accounting for an estimated 7% decrease in commercial removals due to the Addendum II quota reduction.

For 2025, the increase in F_{2025} from the projected 2024 *F* corresponds to the above-average 2018 year-class entering the current ocean slot limit. The subsequent decrease of *F* in 2026 and stabilization through 2029 corresponds to the 2018 year-class growing out of the current ocean slot limit and the lack of strong year-classes behind it. The increase in F_{2025} used in the projections (+17%) is the same magnitude as the increase from 2021 to 2023 when part of the 2015 year-class was still in the newly reduced ocean slot limit, but this may be overestimating the magnitude of increase in 2025 since the 2018 year-class is not as strong as the 2015 year-class was.

The Task 1A scenario added preliminary 2024 MRIP data for Wave 4 (July-August) to update the estimate of 2024 removals and associated *F*. Wave 4 data became available after completion of the 2024 Stock Assessment report. When using data through Wave 4, 2024 removals are estimated at 3.67 million fish (F_{2024}=0.12). When using data only through Wave 3 as in the original scenario, 2024 removals are estimated at 3.89 million fish (F_{2024}=0.13).

In 2025, assuming no management intervention, *F* is estimated to increase by 17%. After that increase, the original scenario assumed *F* would decrease back to the low levels of F_{2024}, which happened to be equal to *F_rebuild*, the constant *F* rate necessary for SSB to be at or above the rebuilding target in 2029 with a 50% probability. So, the *F* in 2025 was higher than the constant *F* needed to rebuild the stock, and returning to *F_rebuild* in 2026-2029 would not offset that 2025 increase.

In the updated scenario incorporating 2024 Wave 4 MRIP data, *F* in 2024 is lower than *F_rebuild*, so two sub-scenarios are presented. *F* increases in 2025 in both sub-scenarios, but in scenario 1A(1), *F* decreases to the lower F_{2024} for 2026-2029, while in scenario 1A(2), *F* decreases only to *F_rebuild* for 2026-2029. If *F* in 2026-2029 decreases to the lower F_{2024}, those years of lower *F* in 2026-2029 would offset the increase in 2025 and no reduction in 2025 would be necessary. However, if *F* in 2026-2029 decreases only to *F_rebuild*, those years would not offset the 2025 increase.

The Task 1B scenario, specified by the Board as a comparison run only, changed the desired probability of rebuilding to 60% instead of 50% in addition to adding the Wave 4 MRIP data to estimate 2024 removals.

The Task 4 scenario, specified by the Board as a comparison run only, changed the recruitment assumption in addition to adding the Wave 4 MRIP data to estimate 2024 removals. The original recruitment assumption in the stock assessment assumes future recruitment is based on the 'low recruitment regime' period of 2008-forward. This new projection assumes future recruitment is based on only recent years from 2020-forward, which is a period of particularly low recruitment with no above-average year-classes.

Table 1 summarizes the parameters and probability of rebuilding for each scenario (three primary scenarios and two comparison scenarios). Although the parameters for each scenario vary, the rebuilding trajectories for all scenarios are very similar and consistently indicate female spawning stock biomass (SSB) will increase under all scenarios and reach levels just below or just above the target in 2029 (Figure 1). The probability of rebuilding ranges from 57% to 43% across scenarios.

Table 1. Summary of projection scenarios. Shaded boxes in each row represent changes from the original assumptions (first row).

Scenario	*F*2024 MRIP Data	Recruitment used for Projection	*F* 2026-2029 After 17% Increase in 2025	Desired Prob. of Rebuild	Scenario Prob. of Rebuild	Reduction in Removals from 2025 Increase to 2025 Rebuild
Original	Waves 2-3 F_{2024}=0.13	2008-forward	2026-2029 = *F 2024* = *F_rebuild* = 0.13	50%	43%	-14%
Task 1A (1)	Waves 2-4 F_{2024}=0.12	2008-forward	2026-2029 = *F 2024* = 0.12	50%	57%	0%
Task 1A (2)	Waves 2-4 F_{2024}=0.12	2008-forward	2026-2029 = *F_rebuild* = 0.13	50%	46%	-8%
Task 1B *comparison only*	Waves 2-4 F_{2024}=0.12	2008-forward	2026-2029 = *F_rebuild* = 0.12	60%	54%	-12%
Task 4 *comparison only*	Waves 2-4 F_{2024}=0.12	2020-forward	2026-2029 = *F_rebuild* = 0.13	50%	45%	-10%

2025 Reductions to Achieve F_rebuild

The reduction for 2025 is calculated as the percent difference between the expected increased 2025 removals and the level of 2025 removals needed to achieve *F_rebuild* in 2025 given the various assumptions for *F* in 2026 through 2029.

The probability of achieving rebuilding by 2029 range from 57% to 43% across the three primary scenarios which equate to reductions ranging from 0% to 14% (Tables 1-2). The TC-SAS notes that all three primary scenarios represent a credible range of what might happen. As such, the Board should consider its risk tolerance when considering possible management response for 2025 and beyond. The level of risk the Board is willing to accept (with respect to

resource status, economic loss, and persistent modeling uncertainty due to annual management changes) is a management decision.

Note on Smaller Reductions

The TC-SAS notes that the outcome of management changes designed to achieve small changes (i.e., reductions or liberalizations of less than 10%) would be difficult to measure given the uncertainty in the MRIP estimates. Total removals are not known to within 10%, so a reduction of less than 10% would not be statistically distinguishable from no reduction at all (i.e., status quo measures). In addition, the effectiveness of measures estimated to achieve a small percent reduction on paper for the recreational fishery would be overwhelmed by uncertainty in the reduction calculations themselves, including uncertainty around fish availability, effort, and angler behavior.

Table 2. Reduction calculations for primary projection scenarios.

	Original	**Task 1A(1)**	**Task 1A(2)**
2024 Removals	3.89 million fish (based on Waves 2-3)	3.67 million fish (based on Waves 2-4)	3.67 million fish (based on Waves 2-4)
2025 Removals under Increased *F* *(+17% from F2024)*	4.36 million fish	4.13 million fish	4.13 million fish
2025 Removals to Achieve *F_rebuild* in 2025	3.74 million fish	Lower *F*2026-2029 offsets 2025 increase; no reduction in 2025 removals required	3.81 million fish
Percent Reduction from 2025 Increased Removals to 2025 Rebuild Removals	-14%	0%	-8%
***F*2026-2029**	F2026-2029= *F_rebuild*=*F*2024=0.13	F2026-2029= *F*2024=0.12	F2026-2029= *F_rebuild*=0.13

The primary scenarios and resulting reductions differ in two ways. First, the projection starting value of 2024 removals is estimated based on either preliminary 2024 MRIP data from Waves 2-3 or Waves 2-4. While including additional data (i.e., adding Wave 4) is generally informative, the TC-SAS notes that using Waves 2-4 to predict removals does not always result in a more accurate estimate of final removals than using only Waves 2-3. Figure 2 shows the difference between final MRIP estimates and projected estimates based on average proportion of landings by Wave for years 2018-2022 using Waves 2-3, Waves 2-4, and Waves 2-5. Predicting removals using Waves 2-4 sometimes over-estimated and sometimes under-estimated final removals, and estimated removals using Waves 2-4 was not always closer to the final estimate than using Waves 2-3. The addition of the Wave 4 data increases the TC-SAS's confidence that the "low 2024 removals" scenario from the 2024 Stock Assessment Update is more likely to be correct

than the “high 2024 removals” scenario, but the lower Waves 2-4 estimate may not necessarily be more accurate than the Waves 2-3 estimate, especially if effort increases in Waves 5 and 6 as it has in recent years.

The second difference between the primary scenarios is the magnitude of decrease in *F* from 2025 to 2026-2029. When using data through Wave 4 to estimate 2024 removals, F_{2024} is less than *F_rebuild*. While the TC-SAS considers it likely that *F* will decrease after 2025 as the 2018 year-class grows out of the current ocean slot limit and is followed by weak year classes, the magnitude of that decrease in 2026 and beyond is highly uncertain.

The probability of rebuilding by 2029 and the reduction needed to keep that probability at 50% was driven by the final 2024 total removals, which determined the *F* in 2024 and 2025, and the level to which *F* is predicted to decrease after 2025.

The comparison scenario Task 1B indicates that to achieve a higher desired probability of rebuilding at 60% instead of 50%, a higher reduction would be needed in 2025 as compared to Task 1A.

The comparison scenario Task 4 indicates that to achieve the same 50% probability of rebuilding under slightly lower future recruitment than Task 1A, a slightly higher reduction would be needed. However, this difference between this Task 4 scenario and Task 1A scenario are very minor, which is logical since only a small portion of the 2020-2024 recruits would be mature by 2029 and would not have a major impact on SSB yet.

Underlying Sources of Uncertainty for Projections

Although these projections aim to capture some component of changing effort and fish availability (i.e., increased *F* when strong year-classes are available), angler behavior and fish availability are still sources of uncertainty. Additionally, there is high uncertainty in the exact *F* values that will occur over this period even with constant regulations. The estimated F_{2024} and *F_rebuild* values for all scenarios would be the lowest values since 1994, which is possible given both the extremely narrow slot limit and the lack of a strong year class in that slot. The low year-classes following the 2018 year-class will result in lower availability of harvestable fish after 2025, which may result in a decline in effort and a lower *F* from 2026-2029; however, if removals remain constant on these weaker year-classes, *F* may not decrease as much as expected. Finally, the ability to maintain a constant *F* for consecutive years is difficult even with regulation changes. While the projections assume a constant *F* for 2026-2029, the TC-SAS cannot predict how *F* will vary from year-to-year.

Another source of uncertainty is the selectivity curve. The projections apply the 2024 selectivity curve to all years 2024-2029. The 2024 selectivity curve was developed using an alternative method to better capture the regulation change in 2024, but how well it represents actual fishery selectivity is uncertain. Additional years of data under the same management regulations would inform a better estimate of selectivity for upcoming assessments and future projections while annual management changes would increase this uncertainty.

Potential Management Options

If the Board decides to proceed with a reduction in 2025, the Board was interested in a range of options to split the reduction between sectors (Table 3). The Board indicated commercial reductions would be considered via reductions in commercial quota. Per Board member request, see Figure 3 for a summary commercial quota utilization in recent years.

Table 3. Potential sector reductions for the reduction scenarios of 14% and 8%.

	Even Reductions		**No Commercial Reduction**		**Reductions Based on Sector Contribution to Total Removals**	
Total Reduction	**Comm.**	**Rec.**	**Comm.**	**Rec.**	**Comm.**	**Rec.**
-14%	-14%	-14%	0%	-16%	-1.5%	-16%
-8%	-8%	-8%	0%	-9%	-1%	-9%

Recreational Size Limits

The TC-SAS calculated reductions from various recreational size limit options (Table 4). Methods are described in Appendix 1. The TC-SAS discussed tradeoffs of changing the size limit to allow harvest of larger fish in the ocean vs. maintaining the current slot limit targeting smaller fish. If ocean harvest remains in the current 28-31" slot, the remaining larger 2015s will be protected but the incoming 2018 year-class will be subject to harvest. If harvest is shifted to larger fish, the incoming 2018s would be protected but the larger 2015s would then be subject to harvest, the very fish recent measures were designed to protect.

Per Task 3, the TC-SAS also discussed the idea of an ocean size limit below 28", which has been the minimum size in the ocean since the stock was rebuilt. Targeting fish smaller than 28" could shift harvest away from both the 2015 and the 2018 year-classes and may be desirable by some stakeholders from a management perspective, but harvest of immature fish would increase, resulting in a loss of spawning potential for the stock. It is unclear whether the biological benefit of reducing harvest of the remaining 2015s and 2018s would outweigh the biological risk of targeting a higher percentage of immature fish. To calculate an estimated reduction for any size limit under 28" for the ocean, the TC-SAS explored a simulation analysis developed for other species (Appendix 2). Results indicate a 2-inch slot limit including sizes below 28" would not result in a reduction and would increase removals. This is logical considering smaller fish are more abundant so more fish could potentially be harvested at a lower size limit.

Table 4. Estimated reduction in total removals for various size limits in 2025 for the ocean and Chesapeake Bay.

Ocean		Chesapeake Bay	
Size Limit	**Estimated Reduction Relative to Current 28-31" Slot**	**Size Limit**	**Estimated Reduction Relative to Current 19-24" Slot**
28-30" slot limit	-5%	19-23" slot limit	-4%
32-35" slot limit	-2%	19-22" slot limit	-15%
33-36" slot limit	-4%	19-21" slot limit	-26%
35" minimum size	0%	20-25" slot limit	-2%
38" minimum size	-5%	20-24" slot limit	-8%
40" minimum size	-6%	20-23" slot limit	-13%

Recreational Seasonal Closures

Per Board Task 2, the TC-SAS calculated reductions for various recreational closure options (no-harvest closures and no-targeting closures). Tables 5-6 present recreational seasonal closure options that meet the maximum potential coastwide reduction scenario of 14%, with a range of recreational reductions from 14% (if the commercial sector takes an equal reduction) to 16% (if the commercial sector takes zero reduction). If the Board takes a smaller coastwide reduction overall, seasonal closures would be shorter than listed in Tables 5-6. This is not an exhaustive list of options; there are numerous combinations possible for different regions and Waves (Appendix 3). Tables 5-6 show a few options with the highest reduction per day (e.g., shortest possible closures) for each regional configuration for the maximum coastwide reduction scenario. **Note these new closures would be in addition to 2024 seasonal closures.**

Appendix 3 includes a longer list of options to meet a 14% recreational reduction and 8% recreational reduction for reference. If the Board chooses to take a 16% recreational reduction and 9% recreational reduction, respectively, with a corresponding 0% reduction in commercial quota, the closures will be slightly longer than those presented in Appendix 3.

For no-targeting closures, the TC considered two different assumptions for reductions in releases based on which types of trips would encounter striped bass. One set of assumptions, referred to as 'All Striped Bass Trips Occur With New Target Species', assumes that under a no-targeting closure, all trips that previously targeted striped bass would still occur but would shift to targeting other species where they release striped bass at a lower non-targeted rate. All striped bass releases from non-targeted trips would still occur. Trips targeting only striped bass are a large portion of total trips encountering striped bass (Figures 4-7). This set of assumptions assumes all of these trips would persist during a striped bass no-targeting closure but would switch to other species and still encounter striped bass incidentally.

The second set of assumptions considered for no-targeting closures, referred to as the 'Eliminate Striped Bass-Only Trips', was the same set of assumptions used by Maryland DNR in past analyses. This set of assumptions assumes that during a no-targeting closure, trips only targeting striped bass (i.e., no other species were targeted) would no longer release any striped

bass (i.e., the trip would not occur or trip would not encounter striped bass). Trips that targeted striped bass with a second species would still release striped bass but at a lower non-targeted rate. All striped bass releases from non-targeted trips (i.e., incidental catch) would still occur. In the case of Maryland's previous Chesapeake Bay seasonal closure analysis, this 'eliminate striped bass-only trips' seemed like a reasonable assumption given the dynamics of Chesapeake Bay fishing which are heavily focused on targeting striped bass (e.g., few alternative target species); this assumption was validated by realized reductions in Maryland that exceeded expected reductions. In the ocean, there are a wider variety of target species available to many ocean fisheries. However, across both the ocean and Chesapeake Bay, angler behavior remains difficult to predict.

The no-targeting scenarios resulted in shorter closures compared to the no-harvest scenario. This is because the no-harvest scenario assumes that all trips that release striped bass still occur, so the overall estimated reduction per day from a no-harvest scenario is less than the estimated reduction per day from the no-targeting scenarios where a reduction in releases is assumed to occur. The no-harvest scenario reductions may be closer to the no-targeting reductions if the no-harvest closure affects angler behavior in a way that reduces the number of trips that release striped bass or the number of striped bass releases per trip.

Combination Option

The Board requested calculation of an option combining a size limit change and a seasonal closure. Appendix 4 includes an example using the size limit options for the ocean and Bay that come closest to, but fall short of, achieving the 14% scenario. While a size limit change could be combined with a seasonal closure for a higher estimated cumulative reduction, the benefit of changing to a size limit with such a small estimated reduction may be limited, particularly in contrast to using a longer seasonal closure to achieve the same higher reduction. Additionally, as stated previously, there are potential biological risks and benefits to consider for size limit changes (e.g., a higher minimum size could result in some reduction and reduce pressure on the 2018 year class, but would shift harvest to the most fecund spawning fish).

Table 5. Seasonal closure options for the Ocean estimated to achieve a 14% reduction in recreational removals (corresponds to equal commercial reduction) and 16% reduction in recreational removals (corresponds to 0% commercial reduction). This is not an exhaustive list of options, only the top few options requiring the shortest closure duration for each regional configuration are shown. A more comprehensive list of different region and Wave combinations can be found in Appendix 3.

Ocean seasonal closures to achieve 14% recreational reduction (corresponding to equal commercial reduction)			
Region/Wave	**# days for 14% reduction with NO-TARGETING closure assuming Striped Bass-Only Trips Eliminated [reduction by region]**	**# days for 14% reduction with NO-TARGETING closure assuming All Striped Bass Trips Occur with New Target [reduction by region]**	**# days for 14% reduction with NO-HARVEST closure [reduction by region]**
All Ocean States Wave 6	29 days	36 days	Cannot achieve 14% reduction closing entire wave to harvest
ME-MA Wave 3; RI-NC Wave 6	25 days *[ME-MA -9%]* *[RI-NC -15%]*	34 days *[ME-MA -4%]* *[RI-NC -17%]*	55 days *[ME-MA -6%]* *[RI-NC -16%]*
ME-MA Wave 4; RI-NC Wave 6	23 days *[ME-MA -13%]* *[RI-NC -14%]*	31 days *[ME-MA -9%]* *[RI-NC -15%]*	47 days *[ME-MA -13%]* *[RI-NC -14%]*
ME-MA Wave 5; RI-NC Wave 6	25 days *[ME-MA -8%]* *[RI-NC -15%]*	32 days *[ME-MA -8%]* *[RI-NC -16%]*	54 days *[ME-MA -7%]* *[RI-NC -16%]*
ME-NH Wave 3; MA-NJ Wave 6; DE-NC Wave 6*	28 days *[ME-NH -9%]* *[MA-NJ -14%]* *[DE-NC -24%]*	36 days *[ME-NH -5%]* *[MA-NJ -14%]* *[DE-NC -25%]*	61 days *[ME-NH -3%]* *[MA-NJ -14%]* *[DE-NC -6%]*
ME-NH Wave 4; MA-NJ Wave 6; DE-NC Wave 6*	27 days *[ME-NH -18%]* *[MA-NJ -13%]* *[DE-NC -23%]*	34 days *[ME-NH -14%]* *[MA-NJ -13%]* *[DE-NC -24%]*	59 days *[ME-NH -8%]* *[MA-NJ -14%]* *[DE-NC -6%]*
ME-NH Wave 5; MA-NJ Wave 6; DE-NC Wave 6*	27 days *[ME-NH -12%]* *[MA-NJ -13%]* *[DE-NC -23%]*	35 days *[ME-NH -14%]* *[MA-NJ -14%]* *[DE-NC -25%]*	60 days *[ME-NH -6%]* *[MA-NJ -14%]* *[DE-NC -6%]*

Ocean seasonal closures to achieve 16% recreational reduction (corresponding to no commercial reduction)			
Region/Wave	**# days for 16% reduction with NO-TARGETING closure assuming Striped Bass-Only Trips Eliminated [reduction by region]**	**# days for 16% reduction with NO-TARGETING closure assuming All Striped Bass Trips Occur with New Target [reduction by region]**	**# days for 16% reduction with NO-HARVEST closure [reduction by region]**
All Ocean States Wave 6	33 days	41 days	Cannot achieve 16% reduction closing entire wave to harvest
ME-MA Wave 3; RI-NC Wave 6	28 days *[ME-MA -10%]* *[RI-NC -17%]*	39 days *[ME-MA -5%]* *[RI-NC -19%]*	Cannot achieve 16% reduction closing entire wave to harvest
ME-MA Wave 4; RI-NC Wave 6	26 days *[ME-MA -15%]* *[RI-NC -16%]*	36 days *[ME-MA -10%]* *[RI-NC -18%]*	54 days *[ME-MA -15%]* *[RI-NC -16%]*
ME-MA Wave 5; RI-NC Wave 6	29 days *[ME-MA -10%]* *[RI-NC -18%]*	36 days *[ME-MA -9%]* *[RI-NC -18%]*	Cannot achieve 16% reduction closing entire wave to harvest
ME-NH Wave 3; MA-NJ Wave 6; DE-NC Wave 6*	32 days *[ME-NH -10%]* *[MA-NJ -16%]* *[DE-NC -28%]*	41 days *[ME-NH -6%]* *[MA-NJ -16%]* *[DE-NC -29%]*	Cannot achieve 16% reduction closing entire wave to harvest
ME-NH Wave 4; MA-NJ Wave 6; DE-NC Wave 6*	31 days *[ME-NH -21%]* *[MA-NJ -15%]* *[DE-NC -27%]*	39 days *[ME-NH -16%]* *[MA-NJ -15%]* *[DE-NC -28%]*	Cannot achieve 16% reduction closing entire wave to harvest
ME-NH Wave 5; MA-NJ Wave 6; DE-NC Wave 6*	31 days *[ME-NH -14%]* *[MA-NJ -15%]* *[DE-NC -27%]*	40 days *[ME-NH -15%]* *[MA-NJ -16%]* *[DE-NC -28%]*	Cannot achieve 16% reduction closing entire wave to harvest

*Note: For the DE-NC region in the three-region configuration, DE-NC could choose Wave 2, 3, 4, or 5 instead of Wave 6 and this would result in either the same closure length or 1-2 additional days required for all regions.

Table 6. [Updated December 5, 2024] Seasonal closure options for the Chesapeake Bay estimated to achieve a 14% reduction in recreational removals (corresponds to equal commercial reduction) and 16% reduction in recreational removals (corresponds to 0% commercial reduction). This is not an exhaustive list of options, only the top few options requiring the shortest closure duration for each state configuration are shown. A more comprehensive list of different state and Wave combinations can be found in Appendix 3.

Note: PRFC and DC can each choose whether to implement their closure during the same wave as Maryland or the same Wave as Virginia.

Chesapeake Bay seasonal closures to achieve 14% recreational reduction (corresponding to equal commercial reduction)			
Chesapeake Bay State/Wave	**# days for 14% reduction with NO-TARGETING closure assuming Striped Bass-Only Trips Eliminated [reduction by state]**	**# days for 14% reduction with NO-TARGETING closure assuming All Striped Bass Trips Occur with New Target [reduction by state]**	**# days for 14% reduction with NO-HARVEST closure [reduction by state]**
MD and VA Wave 3	MD 33 days VA 31 days *[MD -12%]* *[VA -27%]*	MD 43 days VA 31 days *[MD -12%]* *[VA -26%]*	Cannot achieve 14% reduction closing entire wave to harvest
MD and VA Wave 5	MD 32 days VA 28 days *[MD -14%]* *[VA -5%]*	MD 36 days VA 28 days *[MD -15%]* *[VA -5%]*	MD 47 days VA 28 days *[MD -15%]* *[VA -4%]*
MD Wave 4; VA Wave 3	31 days *[MD -12%]* *[VA -27%]*	MD 35 days VA 31 days *[MD -12%]* *[VA -26%]*	MD 41 days VA 31 days *[MD -13%]* *[VA -23%]*
MD Wave 4; VA Wave 6	31 days *[MD -12%]* *[VA -25%]*	36 days *[MD -13%]* *[VA -25%]*	42 days *[MD -13%]* *[VA -20%]*
MD Wave 5; VA Wave 3	28 days *[MD -13%]* *[VA -24%]*	30 days *[MD -12%]* *[VA -25%]*	MD 40 days VA 31 days *[MD -13%]* *[VA -23%]*
MD Wave 5; VA Wave 6	28 days *[MD -13%]* *[VA -22%]*	31 days *[MD -13%]* *[VA -21%]*	41 days *[MD -13%]* *[VA -20%]*
MD Wave 6; VA Wave 3	MD 33 days VA 31 days *[MD -12%]* *[VA -27%]*	MD 35 days VA 31 days *[MD -12%]* *[VA -26%]*	Cannot achieve 14% reduction closing entire wave to harvest

Chesapeake Bay seasonal closures to achieve 16% recreational reduction (corresponding to no commercial reduction)			
Chesapeake Bay State/Wave	**# days for 16% reduction with NO-TARGETING closure assuming Striped Bass-Only Trips Eliminated [reduction by state]**	**# days for 16% reduction with NO-TARGETING closure assuming All Striped Bass Trips Occur with New Target [reduction by state]**	**# days for 16% reduction with NO-HARVEST closure [reduction by state]**
MD and VA Wave 3	MD 39 days VA 31 days *[MD -15%]* *[VA -27%]*	Cannot achieve 16% reduction closing entire wave to harvest	Cannot achieve 16% reduction closing entire wave to harvest
MD and VA Wave 5	MD 37 days VA 28 days *[MD -17%]* *[VA -5%]*	MD 41 days VA 28 days *[MD -17%]* *[VA -5%]*	MD 54 days VA 28 days *[MD -17%]* *[VA -4%]*
MD Wave 4; VA Wave 3	MD 36 days VA 31 days *[MD -14%]* *[VA -27%]*	MD 41days VA 31 days *[MD -14%]* *[VA -26%]*	Cannot achieve 16% reduction closing entire wave to harvest
MD Wave 4; VA Wave 6	36 days *[MD -14%]* *[VA -29%]*	41 days *[MD -14%]* *[VA -28%]*	MD 46 days VA 59 days *[MD -14%]* *[VA -28%]*
MD Wave 5; VA Wave 3	MD 32 days VA 31 days *[MD -14%]* *[VA -27%]*	MD 35 days VA 31 days *[MD -14%]* *[VA -26%]*	MD 47 days VA 31 days *[MD -15%]* *[VA -23%]*
MD Wave 5; VA Wave 6	32 days *[MD -14%]* *[VA -26%]*	36 days *[MD -15%]* *[VA -25%]*	47 days *[MD -15%]* *[VA -22%]*
MD Wave 6; VA Wave 3	MD 39 days VA 31 days *[MD -15%]* *[VA -27%]*	Cannot achieve 16% reduction closing entire wave to harvest	Cannot achieve 16% reduction closing entire wave to harvest

Note: Highlighted options indicate Maryland and/or Virginia has closed the entire Wave, which may result in different length of closures to meet the reduction.

List of Appendices

Figures

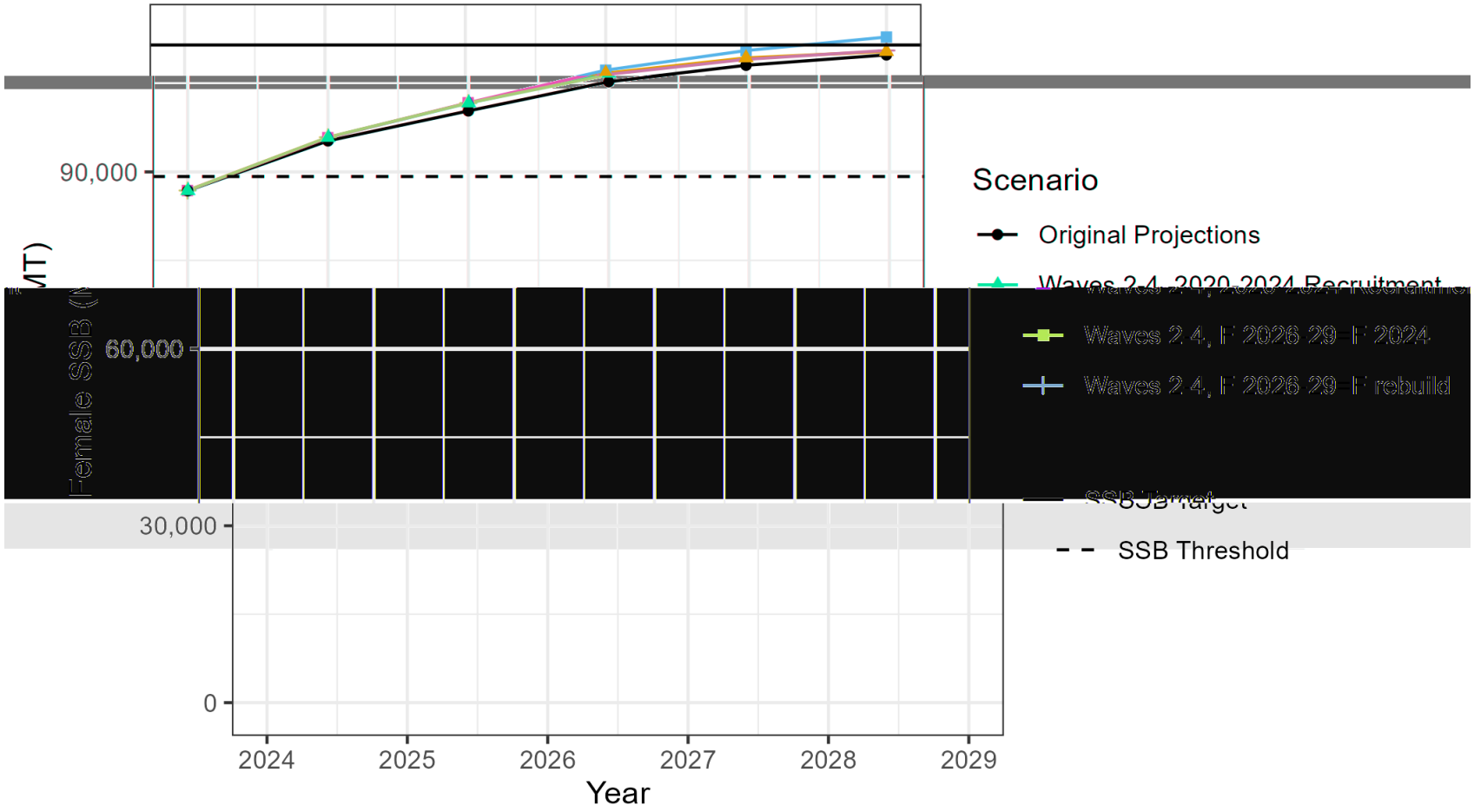

Figure 1. Rebuilding trajectories for female spawning stock biomass (SSB) under different projection scenarios.

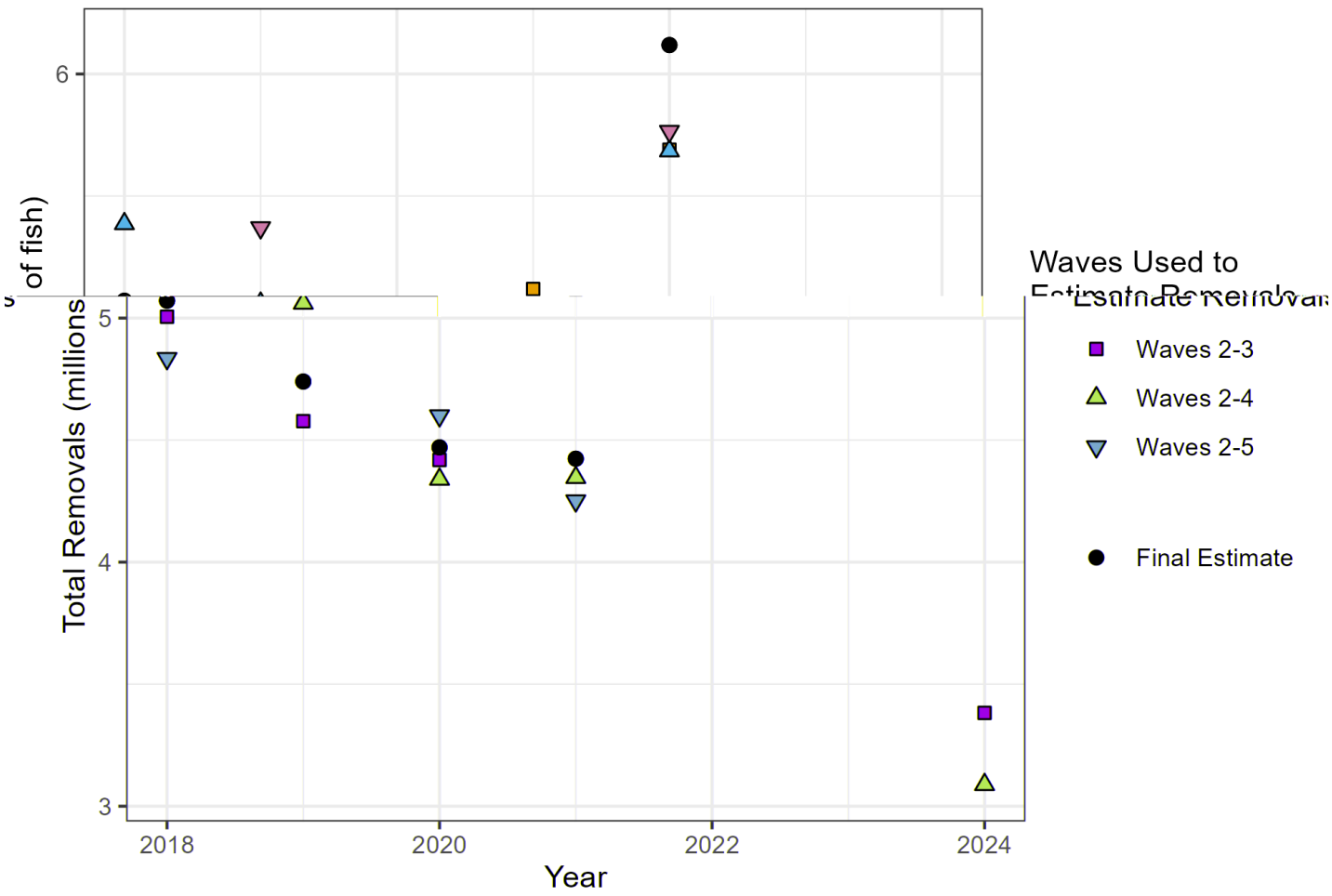

Figure 2. Estimated striped bass removals using different Waves of MRIP data compared to the final estimate of removals for 2018-2023. Note 2023 is not shown since it is not directly comparable to other years due to the mid-season management change (2023 emergency action), and was not used to calculate the predicted removals for other years.

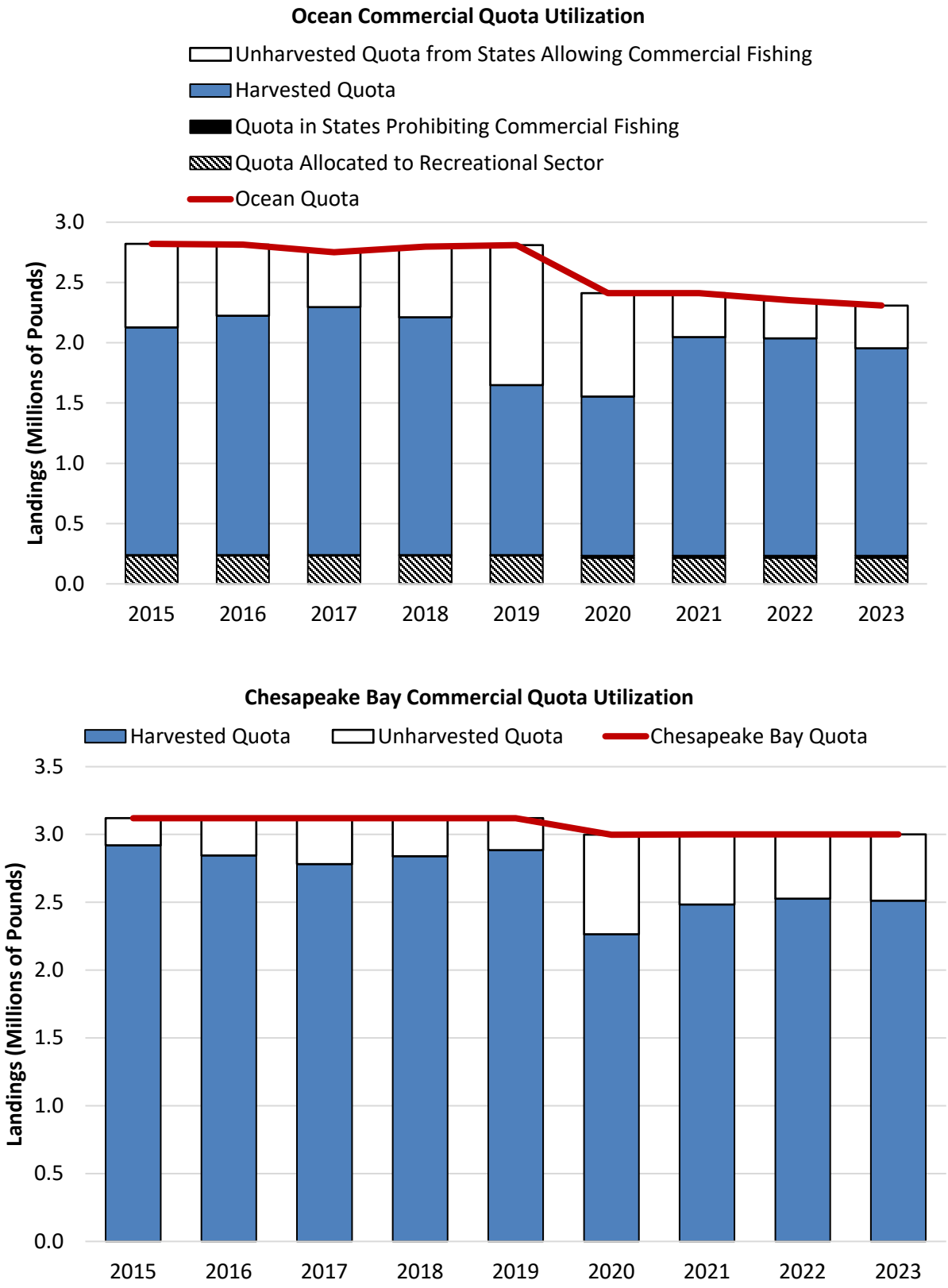

Figure 3. Commercial quota utilization for the Ocean and Chesapeake Bay from 2015-2023.

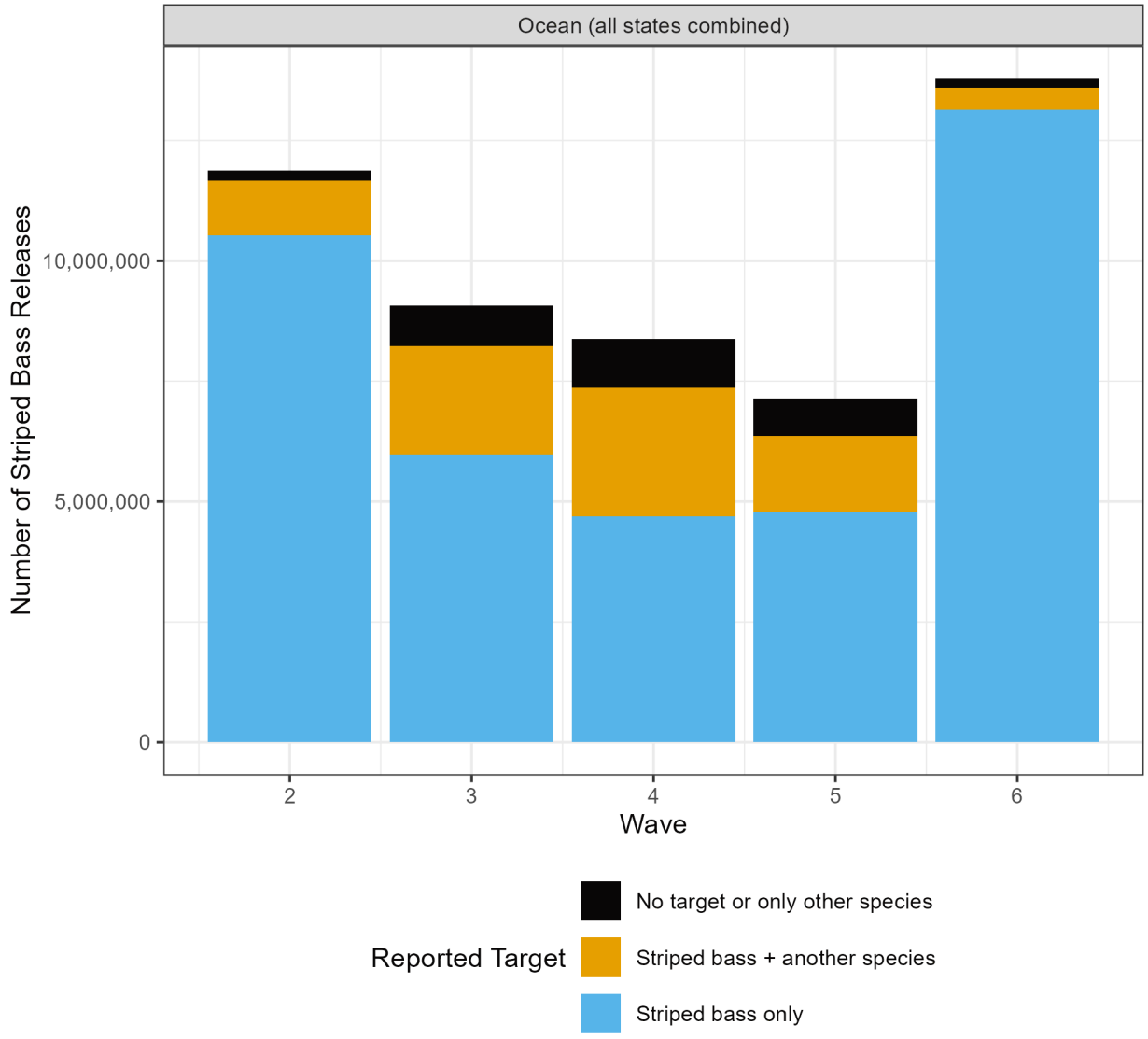

Figure 4. Ocean (all states combined) number of striped bass releases by trip type for 2021-2022. Data Source: MRIP.

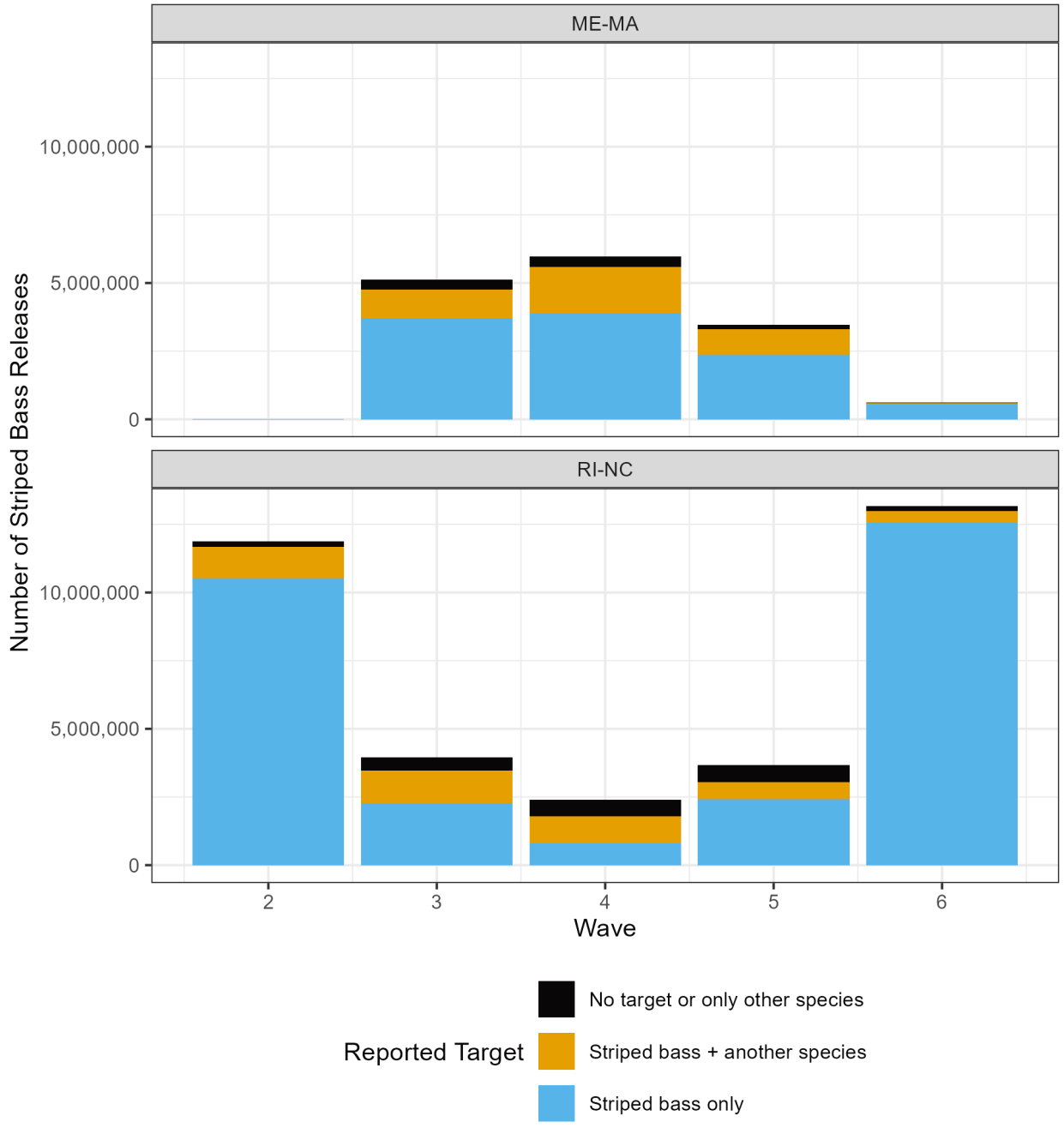

Figure 5. Ocean ME-MA and RI-NC regional number of striped bass releases by trip type for 2021-2022. Data Source: MRIP.

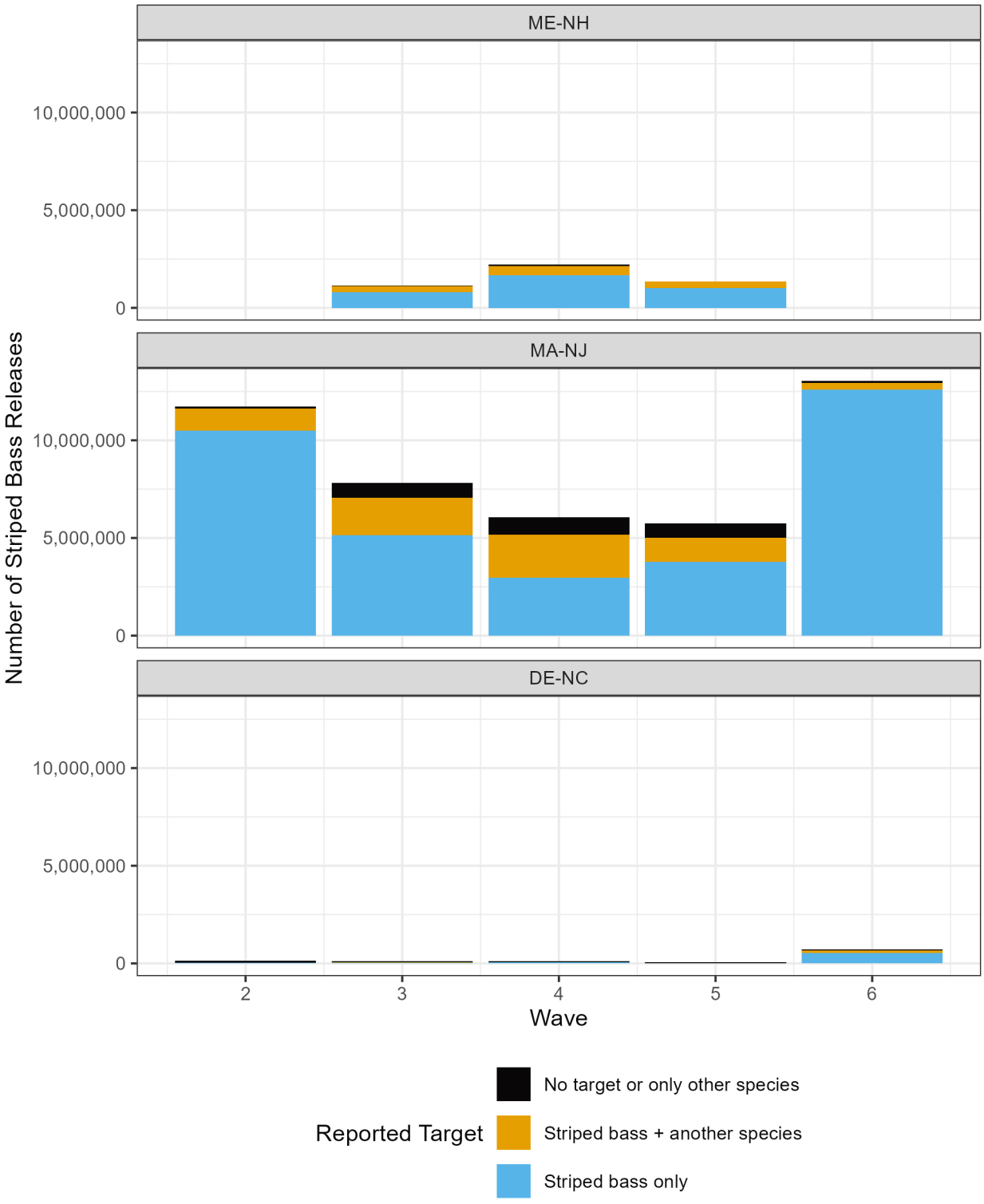

Figure 6. Ocean ME-NH, MA-NJ, and DE-NC regional number of striped bass releases by trip type for 2021-2022. Data Source: MRIP.

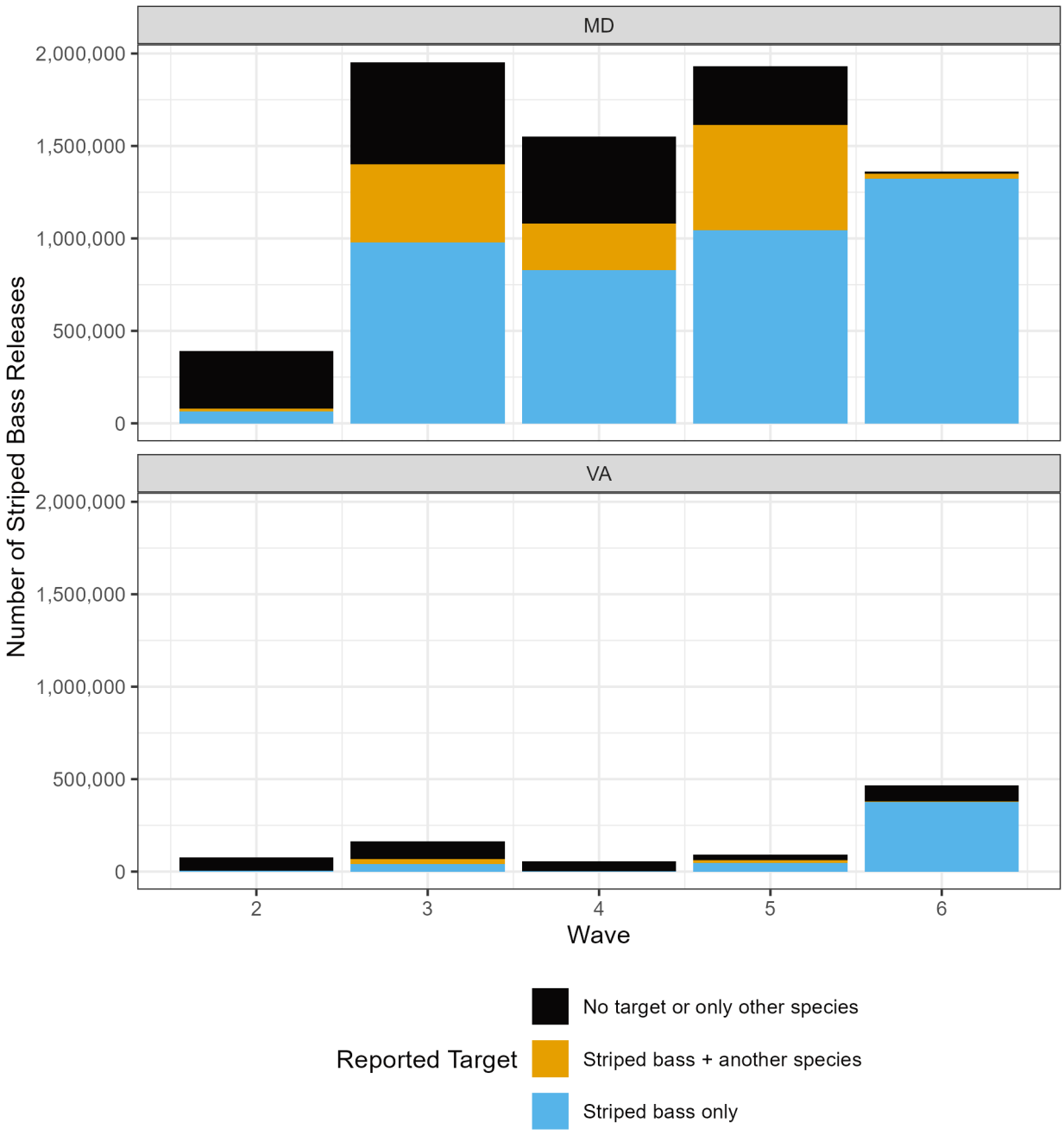

Figure 7. Chesapeake Bay (Maryland and Virginia) number of striped bass releases by trip type for 2021-2022. Data Source: MRIP.

Appendix 1. Methods for Developing Recreational Management Options

For size limit analysis, the TC-SAS used MRIP length frequency data from 2018 and 2011 for the ocean and Chesapeake Bay, respectively, to represent fish availability in 2025 when the above-average 2018 year-class will be age-7. 2018 data were used for the ocean since the 2011 year-class was age-7 that year. Additionally, there was no slot limit in place in 2018, so the length frequency data includes legal harvest of fish above 35", which allows for analysis of slot limits or minimum sizes higher than the current regulations. However, because catch of fish shorter than the minimum length in 2018 was not legal in most areas of the ocean fishery, the 2018 length frequency data does not provide the data necessary to analyze slot limits with a minimum lower than the current regulation. Therefore, no reductions for slots of smaller fish are presented for the ocean. 2011 data were used for the Chesapeake Bay since there was not a prominent, strong year class available in the Bay fishery at that time, which will be the case in 2025.

For seasonal closure analysis, 2021-2022 MRIP data were pooled to capture years under recent management measures, including the ocean slot limit and Chesapeake Bay closures implemented through Addendum VI. The 2021-2022 analysis years include a lower removals year (2021) and a higher removals year (2022).

Data were pooled by Wave for each region of interest in the ocean, and for Maryland and Virginia in the Chesapeake Bay. Waves 2-6 were analyzed since MRIP surveys are not administered during Wave 1 in any states north of North Carolina. For the ocean analysis, North Carolina MRIP data were not included. North Carolina only attributes Waves 1 and 6 ocean recreational catch to the ocean stock, and that catch has been minimal (zero recreational harvest for several years and 2021-2022 releases were 0.1% of total ocean releases).

For no-harvest closures, a constant daily harvest rate was calculated for each region of interest to determine the reduction in harvest, although the TC-SAS recognizes harvest is not likely to be constant especially between weekdays and weekends/holidays (i.e., weekends/holidays tend to have higher effort and catch). Fish no longer harvested were added to the number of live releases during the no-harvest closure. When calculating the daily harvest rate for the ocean region, harvest was assumed to occur during the entire Wave (e.g., 61 days during Wave 3). Most states in the ocean region are open year-round except for some spawning closures, and ocean waters closures in New York (closed until April 15 and closed after Dec 15) and Virginia ocean (closed April 1 through May 15). Since most ocean states are open year-round and the ocean closures would be at a regional level across multiple states, the analysis does not account for these few exceptions. For the Chesapeake Bay, the daily harvest rate does account for the very different seasons in Maryland and Virginia (e.g., during Wave 4 Maryland is open for harvest for 46 days and Virginia for 0 days).

For no-targeting closures, the constant daily harvest rate was used to determine the reduction in harvest. To determine the reduction in releases, the same set of assumptions used by MDDNR for their Addendum VI analysis was applied (Eliminate Striped Bass-Only Trips). To

address Board concern about shifting effort during no-targeting closures, particularly in the ocean, the reduction in releases was also calculated using a different set of assumptions for reference (referred to as All Striped Bass Trips Occur With New Target Species).

- Eliminate Striped Bass-Only Trips: Trips only targeting striped bass (e.g. no other species were targeted) were assumed to no longer release any striped bass. If striped bass were targeted with a second species, those trips would still release striped bass but at a lower non-targeted rate. All striped bass releases from non-targeted trips (i.e., incidental catch) would still occur.
- All Striped Bass Trips Occur With New Target Species (less optimistic): All trips targeting striped bass (even those targeting only striped bass) still occur and shift to targeting other species where they release striped bass at a lower non-targeted rate. All striped bass releases from non-targeted trips (i.e., incidental catch) would still occur.

These assumptions sort catch into three categories: 1) trips only targeting striped bass; 2) trips targeting striped bass and another species; 3) trips not targeting striped bass but still encountering/releasing striped bass. Figures 4-7 show the number of striped bass releases by trip type for each region of interest.

For seasonal closures, the TC-SAS recognizes Maryland and the Potomac River Fisheries Commission (PRFC) changed their recreational season in 2024 as compared to the reference years 2021-2022. Both Maryland and the PRFC eliminated their May 1-15 trophy season in 2024. Maryland changed those May 1-15 dates to a no-targeting closure, while the PRFC changed those dates to a no-harvest closure. This closure of the trophy season is incorporated through the use of the 2024 removals data, which are projected to be lower than 2021-2023, meaning a lower reduction is needed. The reductions being considered are based on changes from 2024 measures as the status quo, and represent the number of additional days needed to achieve the target percent reduction.

To combine reductions from multiple management changes (e.g., changing the size limit and season), the TC-SAS used the following equation A + B + (A*B) where A = -% reduction from changing the size limit and B = -% reduction from implementing a closure. This equation has been used to calculate cumulative reductions for striped bass in the past, as well as for other species.

Appendix 2. Simulation Analysis for Ocean Size Limits Less Than 28"

Prepared by Nicole Lengyel Costa (RIDEM), Striped Bass Technical Committee Member

Data Used: 2018 removals

For all slot limit analyses, 2018 removals data were used (Table 1) as a proxy for 2025 to reflect the availability of the strong 2018 year class that will be age 7 in 2025 just as the strong 2011 year class was age 7 in 2018 (Table 2). The 2018 removals data and quarter-inch bin harvest data were the same as those used in the other Ocean recreational fishery size limit options.

The Ocean recreational fishery has a current minimum size of 28" therefore release data were needed to inform the analysis on the availability of fish <28". MRIP Type 9 data for 2018 were very limited for most states and therefore not viable for this analysis (Table 3). Alternative datasets include the American Littoral Society (ALS) release data and release data supplied by the states in their annual compliance workbooks. Annual compliance workbook data was chosen to be the most reflective of each state's releases. State compliance workbook length frequency (LF) data was for dead releases with a 9% mortality rate applied to total releases. This LF data had to be expanded out to get the LF of all releases (Figure 1).

Table 1. 2018 Removals data for the Coastal recreational fishery.

	Year	Harvest (# of fish)	Releases (# of fish)	Total Removals
Observed under 28" min (Addendum IV)	2018	1,194,640	22,738,662	3,241,120
Predicted under 28-31" slot (Addendum II)	2018	1,118,197	22,745,332	3,165,277

Table 2. Mean striped bass total length at age.

Age	Estimated Mean Total Length (in)	
0	3.8	
1	6.4	
2	12.7	
3	17.0	
4	20.9	
5	**24.1**	
6	**26.4**	
7	28.7	← 2011 year class in 2018; 2018 year class in 2025
8	**31.6**	
9	33.8	
10	35.5	
11	37.2	
12	39.1	
13	41.0	
14	42.2	
15+	44.0	

Table 3. 2018 MRIP Type 9 data for all states in 2018.

State	Number of Fish
CT	17
MA	1
ME	3
NJ	58
NY	278
RI	6
Grand Total	363

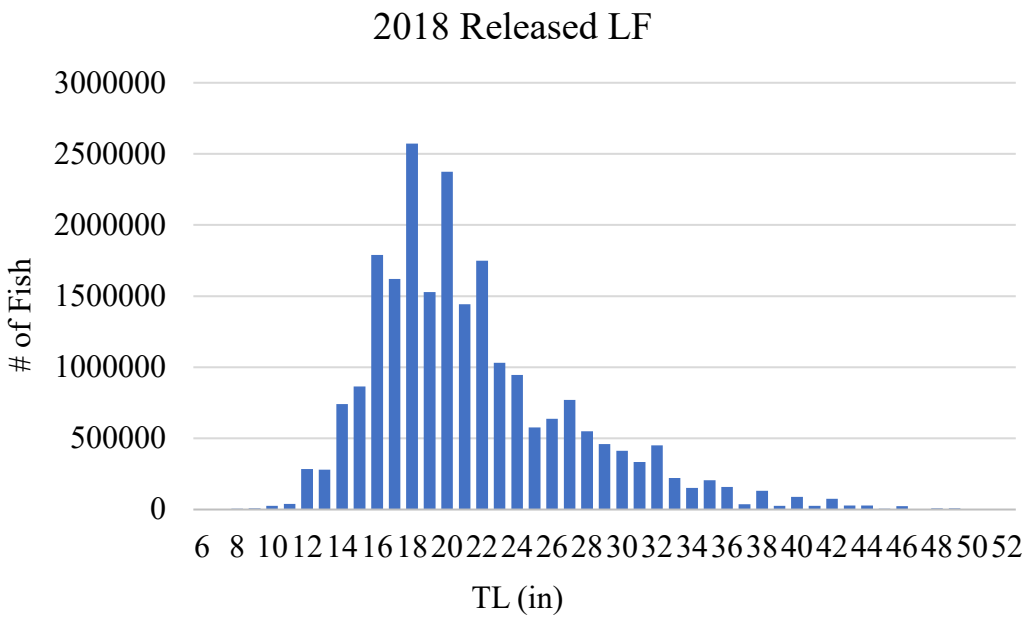

Figure 1. 2018 LF data for released fish compiled from annual state compliance workbooks.

Analysis: 27.0 – 29.0" (2" slot)

- Current Ocean slot: 28.0 – 31.0" (3" slot)
- This option shifts the slot down 1" and removes the upper 1" so a 3" slot becomes a 2" slot with a minimum of 27".
- *Simulation approach:*
    - Used G. Nelson's extintercepts.R code to get per trip per angler catch data (includes # harvested and released per angler for 2018)
        - All modes, all waves, all areas, all trips, all coastal states (ME, NH, MA, RI, CT, DE, NY, NJ), "common" = STRIPED BASS
        - Test to ensure all trips include:
            - ∑ (harvest.A.B1 * wp_int) = 1,194,640
            - Same # as cell J3 in OceanSizeLimits_ForTCSAS

- Probability that a harvested fish is a given length derived from proportion at length of all harvested fish
- Probability that a released fish is a given length derived from proportion at length of all released fish
- Run a loop that says harvest from 29-31" that will now become releases = dat$remove[i]<-sum(rbinom(n=dat$harvest.A.B1[i],size=1,prob=prob29_31))
- Remove those fish from the harvest and add to the releases
- Run a loop that says if harvest < 1, and releases > 0, new harvest = sum(rbinom(n=dat$release.B2[i],size=1,prob=prob27_28))
- Multiply new harvest by weights and sum to get expanded new harvest
- Run this 100x to get mean new harvest
- % change in removal calculations:
    a. **New harvest** = # of fish harvested up to 29" TL Bin + mean new harvest at 27" from simulation 2
    b. **New non-compliance harvest** = # of fish harvested from 29.25" up to 58.25" TL Bin * non-compliance rate (0.079)
    i. Non-compliance rate calculated from 2021-2022 data
    c. **New dead discards** = 0.09 * (# of fish harvested from 29.25" up to 58.25" TL) * (1- non-compliance rate (0.079))
    d. **Old dead releases** = (2018 B2 – mean new harvest at 27" from simulation 2) * 0.09
    e. **New removals** = Sum of above
    f. **Percent change** = (New removals – Add II predicted removals)/ Add II predicted removals
    g. **Increase of 6.43%**

24 – 26" slot:

- The methods outlined above were repeated for the 24-26" slot limit option and resulted in an increase in removals of 15.37% respectively.
- Given the mean total length at age in Table 2, this option would protect the majority of the 2018 year class but still results in an increase in removals.

Conclusions:

Methods used to analyze slot limits below the current 28" minimum size in the Ocean recreational fishery result in an increase in total removals. Had a reduction been estimated in any of these options, the next step in the analysis would have been to perform a spawning potential analysis to determine the loss of spawning potential from the proposed new slot option.

Appendix 3. Seasonal Closure Combinations

Appendix 3 Table 1. Ocean seasonal closure options to achieve a 14% recreational reduction. Slightly longer closures would be needed if the Board chose to take a 16% recreational reduction and a corresponding 0% commercial reduction. All Region/Wave combinations are shown except for combinations requiring more than a 45-day no-targeting closure under the 'striped bass-only trips eliminated' assumption.

Ocean seasonal closures to achieve 14% recreational reduction [Regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
All States	2	43	-14%	-12%	-5%
All States	2	49	-16%	-14%	-5%
All States	2	61^	-19%	-17%	-7%
All States	6	29	-14%	-11%	-6%
All States	6	36	-17%	-14%	-8%
All States	6	61^	-29%	-23%	-13%
			-14%	-11%	-7%
ME-MA	2	30	*[ME-MA: 0%]*	*[ME-MA: 0%]*	*[ME-MA: 0%]*
RI-NC	6	30	*[RI-NC: -19%]*	*[RI-NC: -15%]*	*[RI-NC: -9%]*
			-17%	-14%	-8%
ME-MA	2	37	*[ME-MA: 0%]*	*[ME-MA: 0%]*	*[ME-MA: 0%]*
RI-NC	6	37	*[RI-NC: -23%]*	*[RI-NC: -18%]*	*[RI-NC: -11%]*
			-28%	-23%	-13%
ME-MA	2	61^	*[ME-MA: 0%]*	*[ME-MA: 0%]*	*[ME-MA: 0%]*
RI-NC	6	61^	*[RI-NC: -38%]*	*[RI-NC: -30%]*	*[RI-NC: -18%]*
			-14%	-10%	-5%
ME-MA	3	33	*[ME-MA: -12%]*	*[ME-MA: -4%]*	*[ME-MA: -4%]*
RI-NC	2	33	*[RI-NC: -14%]*	*[RI-NC: -12%]*	*[RI-NC: -5%]*
			-18%	-14%	-6%
ME-MA	3	44	*[ME-MA: -16%]*	*[ME-MA: -6%]*	*[ME-MA: -5%]*
RI-NC	2	44	*[RI-NC: -19%]*	*[RI-NC: -16%]*	*[RI-NC: -6%]*
			-25%	-19%	-8%
ME-MA	3	61^	*[ME-MA: -23%]*	*[ME-MA: -8%]*	*[ME-MA: -7%]*
RI-NC	2	61^	*[RI-NC: -26%]*	*[RI-NC: -22%]*	*[RI-NC: -9%]*
			-14%	-10%	-6%
ME-MA	3	25	*[ME-MA: -9%]*	*[ME-MA: -3%]*	*[ME-MA: -3%]*
RI-NC	6	25	*[RI-NC: -15%]*	*[RI-NC: -12%]*	*[RI-NC: -7%]*
			-19%	-14%	-8%
ME-MA	3	34	*[ME-MA: -13%]*	*[ME-MA: -4%]*	*[ME-MA: -4%]*
RI-NC	6	34	*[RI-NC: -21%]*	*[RI-NC: -17%]*	*[RI-NC: -10%]*

Ocean seasonal closures to achieve 14% recreational reduction [Regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-31%	-22%	-14%
ME-MA	3	55	*[ME-MA: -20%]*	*[ME-MA: -7%]*	*[ME-MA: -6%]*
RI-NC	6	55	*[RI-NC: -34%]*	*[RI-NC: -27%]*	*[RI-NC: -16%]*
			-14%	-10%	-5%
ME-MA	4	30	*[ME-MA: -17%]*	*[ME-MA: -9%]*	*[ME-MA: -9%]*
RI-NC	2	30	*[RI-NC: -13%]*	*[RI-NC: -11%]*	*[RI-NC: -4%]*
			-18%	-14%	-7%
ME-MA	4	39	*[ME-MA: -22%]*	*[ME-MA: -11%]*	*[ME-MA: -11%]*
RI-NC	2	39	*[RI-NC: -17%]*	*[RI-NC: -14%]*	*[RI-NC: -6%]*
			-28%	-21%	-11%
ME-MA	4	61^	*[ME-MA: -34%]*	*[ME-MA: -17%]*	*[ME-MA: -17%]*
RI-NC	2	61^	*[RI-NC: -26%]*	*[RI-NC: -22%]*	*[RI-NC: -9%]*
			-14%	-10%	-7%
ME-MA	4	23	*[ME-MA: -13%]*	*[ME-MA: -7%]*	*[ME-MA: -7%]*
RI-NC	6	23	*[RI-NC: -14%]*	*[RI-NC: -11%]*	*[RI-NC: -7%]*
			-19%	-14%	-9%
ME-MA	4	31	*[ME-MA: -17%]*	*[ME-MA: -9%]*	*[ME-MA: -9%]*
RI-NC	6	31	*[RI-NC: -19%]*	*[RI-NC: -15%]*	*[RI-NC: -9%]*
			-28%	-21%	-14%
ME-MA	4	47	*[ME-MA: -26%]*	*[ME-MA: -13%]*	*[ME-MA: -13%]*
RI-NC	6	47	*[RI-NC: -29%]*	*[RI-NC: -23%]*	*[RI-NC: -14%]*
			-14%	-11%	-5%
ME-MA	5	34	*[ME-MA: -11%]*	*[ME-MA: -8%]*	*[ME-MA: -4%]*
RI-NC	2	34	*[RI-NC: -14%]*	*[RI-NC: -13%]*	*[RI-NC: -5%]*
			-16%	-14%	-6%
ME-MA	5	40	*[ME-MA: -14%]*	*[ME-MA: -10%]*	*[ME-MA: -5%]*
RI-NC	2	40	*[RI-NC: -17%]*	*[RI-NC: -15%]*	*[RI-NC: -6%]*
			-25%	-21%	-9%
ME-MA	5	61^	*[ME-MA: -21%]*	*[ME-MA: -15%]*	*[ME-MA: -8%]*
RI-NC	2	61^	*[RI-NC: -26%]*	*[RI-NC: -22%]*	*[RI-NC: -9%]*
			-14%	-11%	-6%
ME-MA	5	25	*[ME-MA: -8%]*	*[ME-MA: -6%]*	*[ME-MA: -3%]*
RI-NC	6	25	*[RI-NC: -15%]*	*[RI-NC: -12%]*	*[RI-NC: -7%]*
			-18%	-14%	-8%
ME-MA	5	32	*[ME-MA: -11%]*	*[ME-MA: -8%]*	*[ME-MA: -4%]*
RI-NC	6	32	*[RI-NC: -20%]*	*[RI-NC: -16%]*	*[RI-NC: -9%]*

Ocean seasonal closures to achieve 14% recreational reduction [Regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-30%	-23%	-14%
ME-MA	5	54	*[ME-MA: -18%]*	*[ME-MA: -13%]*	*[ME-MA: -7%]*
RI-NC	6	54	*[RI-NC: -33%]*	*[RI-NC: -27%]*	*[RI-NC: -16%]*
			-14%	-12%	-5%
ME-MA	6	42	*[ME-MA: -2%]*	*[ME-MA: -1%]*	*[ME-MA: 0%]*
RI-NC	2	42	*[RI-NC: -18%]*	*[RI-NC: -15%]*	*[RI-NC: -6%]*
			-16%	-14%	-5%
ME-MA	6	48	*[ME-MA: -2%]*	*[ME-MA: -2%]*	*[ME-MA: 0%]*
RI-NC	2	48	*[RI-NC: -20%]*	*[RI-NC: -18%]*	*[RI-NC: -7%]*
			-20%	-17%	-7%
ME-MA	6	61^	*[ME-MA: -2%]*	*[ME-MA: -2%]*	*[ME-MA: 0%]*
RI-NC	2	61^	*[RI-NC: -26%]*	*[RI-NC: -22%]*	*[RI-NC: -9%]*
			-14%	-12%	-5%
ME-NH	2	41	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	2	41	*[MA-NJ: -14%]*	*[MA-NJ: -13%]*	*[MA-NJ: -5%]*
DE-NC*	6	41	*[DE-NC: -36%]*	*[DE-NC: -29%]*	*[DE-NC: -4%]*
			-15%	-14%	-5%
ME-NH	2	45	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	2	45	*[MA-NJ: -16%]*	*[MA-NJ: -14%]*	*[MA-NJ: -5%]*
DE-NC*	6	45	*[DE-NC: -39%]*	*[DE-NC: -32%]*	*[DE-NC: -4%]*
			-20%	-18%	-7%
ME-NH	2	61^	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	2	61^	*[MA-NJ: -21%]*	*[MA-NJ: -19%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-14%	-11%	-6%
ME-NH	2	29	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	6	29	*[MA-NJ: -14%]*	*[MA-NJ: -11%]*	*[MA-NJ: -7%]*
DE-NC*	6	29	*[DE-NC: -25%]*	*[DE-NC: -20%]*	*[DE-NC: -3%]*
			-18%	-14%	-8%
ME-NH	2	37	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	6	37	*[MA-NJ: -18%]*	*[MA-NJ: -15%]*	*[MA-NJ: -9%]*
DE-NC*	6	37	*[DE-NC: -32%]*	*[DE-NC: -26%]*	*[DE-NC: -4%]*
			-29%	-23%	-13%
ME-NH	2	61^	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	6	61^	*[MA-NJ: -30%]*	*[MA-NJ: -24%]*	*[MA-NJ: -14%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*

Ocean seasonal closures to achieve 14% recreational reduction [Regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-14%	-12%	-4%
ME-NH	3	39	*[ME-NH: -12%]*	*[ME-NH: -5%]*	*[ME-NH: -2%]*
MA-NJ	2	39	*[MA-NJ: -13%]*	*[MA-NJ: -12%]*	*[MA-NJ: -5%]*
DE-NC*	6	39	*[DE-NC: -34%]*	*[DE-NC: -28%]*	*[DE-NC: -4%]*
			-15%	-14%	-5%
ME-NH	3	44	*[ME-NH: -14%]*	*[ME-NH: -6%]*	*[ME-NH: -2%]*
MA-NJ	2	44	*[MA-NJ: -15%]*	*[MA-NJ: -14%]*	*[MA-NJ: -5%]*
DE-NC*	6	44	*[DE-NC: -38%]*	*[DE-NC: -31%]*	*[DE-NC: -4%]*
			-21%	-19%	-7%
ME-NH	3	61^	*[ME-NH: -19%]*	*[ME-NH: -8%]*	*[ME-NH: -3%]*
MA-NJ	2	61^	*[MA-NJ: -21%]*	*[MA-NJ: -19%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-14%	-11%	-6%
ME-NH	3	28	*[ME-NH: -9%]*	*[ME-NH: -4%]*	*[ME-NH: -1%]*
MA-NJ	6	28	*[MA-NJ: -14%]*	*[MA-NJ: -11%]*	*[MA-NJ: -7%]*
DE-NC*	6	28	*[DE-NC: -24%]*	*[DE-NC: -20%]*	*[DE-NC: -3%]*
			-18%	-14%	-8%
ME-NH	3	36	*[ME-NH: -11%]*	*[ME-NH: -5%]*	*[ME-NH: -2%]*
MA-NJ	6	36	*[MA-NJ: -18%]*	*[MA-NJ: -14%]*	*[MA-NJ: -9%]*
DE-NC*	6	36	*[DE-NC: -31%]*	*[DE-NC: -25%]*	*[DE-NC: -3%]*
			-30%	-23%	-14%
ME-NH	3	61	*[ME-NH: -19%]*	*[ME-NH: -8%]*	*[ME-NH: -3%]*
MA-NJ	6	61	*[MA-NJ: -30%]*	*[MA-NJ: -24%]*	*[MA-NJ: -14%]*
DE-NC*	6	61	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-14%	-12%	-4%
ME-NH	4	37	*[ME-NH: -25%]*	*[ME-NH: -15%]*	*[ME-NH: -5%]*
MA-NJ	2	37	*[MA-NJ: -13%]*	*[MA-NJ: -12%]*	*[MA-NJ: -4%]*
DE-NC*	6	37	*[DE-NC: -32%]*	*[DE-NC: -26%]*	*[DE-NC: -4%]*
			-16%	-14%	-5%
ME-NH	4	42	*[ME-NH: -28%]*	*[ME-NH: -17%]*	*[ME-NH: -6%]*
MA-NJ	2	42	*[MA-NJ: -15%]*	*[MA-NJ: -13%]*	*[MA-NJ: -5%]*
DE-NC*	6	42	*[DE-NC: -36%]*	*[DE-NC: -30%]*	*[DE-NC: -4%]*
			-23%	-20%	-7%
ME-NH	4	61^	*[ME-NH: -41%]*	*[ME-NH: -25%]*	*[ME-NH: -9%]*
MA-NJ	2	61^	*[MA-NJ: -21%]*	*[MA-NJ: -19%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*

Ocean seasonal closures to achieve 14% recreational reduction [Regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-14%	-11%	-6%
ME-NH	4	27	*[ME-NH: -18%]*	*[ME-NH: -11%]*	*[ME-NH: -4%]*
MA-NJ	6	27	*[MA-NJ: -13%]*	*[MA-NJ: -11%]*	*[MA-NJ: -6%]*
DE-NC*	6	27	*[DE-NC: -23%]*	*[DE-NC: -19%]*	*[DE-NC: -3%]*
			-17%	-14%	-8%
ME-NH	4	34	*[ME-NH: -23%]*	*[ME-NH: -14%]*	*[ME-NH: -5%]*
MA-NJ	6	34	*[MA-NJ: -17%]*	*[MA-NJ: -13%]*	*[MA-NJ: -8%]*
DE-NC*	6	34	*[DE-NC: -29%]*	*[DE-NC: -24%]*	*[DE-NC: -3%]*
			-30%	-23%	-14%
ME-NH	4	59	*[ME-NH: -39%]*	*[ME-NH: -25%]*	*[ME-NH: -8%]*
MA-NJ	6	59	*[MA-NJ: -29%]*	*[MA-NJ: -23%]*	*[MA-NJ: -14%]*
DE-NC*	6	59	*[DE-NC: -51%]*	*[DE-NC: -42%]*	*[DE-NC: -6%]*
			-14%	-12%	-4%
ME-NH	5	38	*[ME-NH: -17%]*	*[ME-NH: -15%]*	*[ME-NH: -4%]*
MA-NJ	2	38	*[MA-NJ: -13%]*	*[MA-NJ: -12%]*	*[MA-NJ: -5%]*
DE-NC*	6	38	*[DE-NC: -33%]*	*[DE-NC: -27%]*	*[DE-NC: -4%]*
			-15%	-14%	-5%
ME-NH	5	42	*[ME-NH: -19%]*	*[ME-NH: -16%]*	*[ME-NH: -4%]*
MA-NJ	2	42	*[MA-NJ: -15%]*	*[MA-NJ: -13%]*	*[MA-NJ: -5%]*
DE-NC*	6	42	*[DE-NC: -36%]*	*[DE-NC: -30%]*	*[DE-NC: -4%]*
			-22%	-20%	-7%
ME-NH	5	61^	*[ME-NH: -28%]*	*[ME-NH: -24%]*	*[ME-NH: -6%]*
MA-NJ	2	61^	*[MA-NJ: -21%]*	*[MA-NJ: -19%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-14%	-11%	-6%
ME-NH	5	27	*[ME-NH: -12%]*	*[ME-NH: -10%]*	*[ME-NH: -3%]*
MA-NJ	6	27	*[MA-NJ: -13%]*	*[MA-NJ: -11%]*	*[MA-NJ: -6%]*
DE-NC*	6	27	*[DE-NC: -23%]*	*[DE-NC: -19%]*	*[DE-NC: -3%]*
			-18%	-14%	-8%
ME-NH	5	35	*[ME-NH: -16%]*	*[ME-NH: -14%]*	*[ME-NH: -3%]*
MA-NJ	6	35	*[MA-NJ: -17%]*	*[MA-NJ: -14%]*	*[MA-NJ: -8%]*
DE-NC*	6	35	*[DE-NC: -30%]*	*[DE-NC: -25%]*	*[DE-NC: -3%]*
			-30%	-24%	-14%
ME-NH	5	60	*[ME-NH: -27%]*	*[ME-NH: -23%]*	*[ME-NH: -6%]*
MA-NJ	6	60	*[MA-NJ: -30%]*	*[MA-NJ: -24%]*	*[MA-NJ: -14%]*
DE-NC*	6	60	*[DE-NC: -52%]*	*[DE-NC: -42%]*	*[DE-NC: -6%]*

Ocean seasonal closures to achieve 14% recreational reduction [Regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-14%	-12%	-5%
ME-NH	6	41	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	2	41	*[MA-NJ: -14%]*	*[MA-NJ: -13%]*	*[MA-NJ: -5%]*
DE-NC*	6	41	*[DE-NC: -36%]*	*[DE-NC: -29%]*	*[DE-NC: -4%]*
			-15%	-14%	-5%
ME-NH	6	45	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	2	45	*[MA-NJ: -16%]*	*[MA-NJ: -14%]*	*[MA-NJ: -5%]*
DE-NC*	6	45	*[DE-NC: -39%]*	*[DE-NC: -32%]*	*[DE-NC: -4%]*
			-20%	-18%	-7%
ME-NH	6	61^	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	2	61^	*[MA-NJ: -21%]*	*[MA-NJ: -19%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-14%	-11%	-7%
ME-NH	6	30	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	6	30	*[MA-NJ: -15%]*	*[MA-NJ: -12%]*	*[MA-NJ: -7%]*
DE-NC**	4	30	*[DE-NC: -4%]*	*[DE-NC: -3%]*	*[DE-NC: -1%]*
			-18%	-14%	-8%
ME-NH	6	38	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	6	38	*[MA-NJ: -19%]*	*[MA-NJ: -15%]*	*[MA-NJ: -9%]*
DE-NC**	4	38	*[DE-NC: -5%]*	*[DE-NC: -4%]*	*[DE-NC: -2%]*
			-28%	-22%	-13%
ME-NH	6	61^	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	6	61^	*[MA-NJ: -30%]*	*[MA-NJ: -24%]*	*[MA-NJ: -14%]*
DE-NC**	4	61^	*[DE-NC: -8%]*	*[DE-NC: -6%]*	*[DE-NC: -3%]*

* For the DE-NC region in the three-region configuration, DE-NC could choose Wave 2, 3, 4, or 5 instead of Wave 6 and this would result in either the same closure length or 1-2 additional days required for all regions. **For last option in table, DE-NC can choose Wave 2, 3, 4, or 5 for the same number of days.

^Option cannot achieve 14% reduction by closing the entire Wave.

Appendix 3 Table 2. [Updated December 5, 2024] Chesapeake Bay seasonal closure options to achieve a 14% recreational reduction. Slightly longer closures would be needed if the Board chose to take a 16% recreational reduction and a corresponding 0% commercial reduction. All Region/Wave combinations are shown except for combinations requiring more than a 45-day no-targeting closure under the 'striped bass-only trips eliminated' assumption, and excluding any combinations with Wave 2 (both MD and VA are closed to harvest and have few releases in Wave 2). Note: PRFC and DC can each choose whether to implement their closure during the same wave as Maryland or the same Wave as Virginia.

Chesapeake Bay seasonal closures to achieve 14% recreational reduction [Bay state reduction also shown]					
Bay State	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-14%	-11%	-10%
MD	3	33	*[MD: -12%]*	*[MD: -9%]*	*[MD: -9%]*
VA	3	31	*[VA: -27%]*	*[VA: -26%]*	*[VA: -23%]*
			-17%	-14%	-13%
MD	3	43	*[MD: -16%]*	*[MD: -12%]*	*[MD: -12%]*
VA	3	31	*[VA: -27%]*	*[VA: -26%]*	*[VA: -23%]*
			-18%	-14%	-13%
MD	3	46	*[MD: -17%]*	*[MD: -13%]*	*[MD: -12%]*
VA	3	31	*[VA: -27%]*	*[VA: -26%]*	*[VA: -23%]*
			-14%	-12%	-11%
MD	4	38	*[MD: -15%]*	*[MD: -13%]*	*[MD: -12%]*
VA	4	38	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-16%	-14%	-12%
MD	4	43	*[MD: -17%]*	*[MD: -15%]*	*[MD: -13%]*
VA	4	43	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-17%	-15%	-13%
MD	4	46	*[MD: -18%]*	*[MD: -16%]*	*[MD: -14%]*
VA	4	46	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-14%	-12%	-9%
MD	5	32	*[MD: -14%]*	*[MD: -13%]*	*[MD: -10%]*
VA	5	28	*[VA: -5%]*	*[VA: -5%]*	*[VA: -4%]*
			-15%	-14%	-11%
MD	5	36	*[MD: -16%]*	*[MD: -15%]*	*[MD: -11%]*
VA	5	28	*[VA: -5%]*	*[VA: -5%]*	*[VA: -4%]*
			-20%	-18%	-14%
MD	5	47	*[MD: -21%]*	*[MD: -19%]*	*[MD: -15%]*
VA	5	28	*[VA: -5%]*	*[VA: -5%]*	*[VA: -4%]*
			-14%	-13%	-9%
MD	6	33	*[MD: -12%]*	*[MD: -12%]*	*[MD: -8%]*
VA	6	33	*[VA: -26%]*	*[VA: -23%]*	*[VA: -16%]*

Chesapeake Bay seasonal closures to achieve 14% recreational reduction [Bay state reduction also shown]					
Bay State	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-15%	-14%	-9%
MD	6	35	*[MD: -13%]*	*[MD: -12%]*	*[MD: -9%]*
VA	6	35	*[VA: -28%]*	*[VA: -24%]*	*[VA: -17%]*
			-18%	-17%	-12%
MD	6	40	*[MD: -15%]*	*[MD: -14%]*	*[MD: -10%]*
VA	6	61	*[VA: -49%]*	*[VA: -42%]*	*[VA: -29%]*
			-14%	-10%	-10%
MD	3	40	*[MD: -15%]*	*[MD: -11%]*	*[MD: -11%]*
VA	4	40	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-16%	-12%	-11%
MD	3	46	*[MD: -17%]*	*[MD: -13%]*	*[MD: -12%]*
VA	4	46	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-14%	-11%	-10%
MD	3	39	*[MD: -15%]*	*[MD: -11%]*	*[MD: -10%]*
VA	5	28	*[VA: -5%]*	*[VA: -5%]*	*[VA: -4%]*
			-16%	-12%	-12%
MD	3	46	*[MD: -17%]*	*[MD: -13%]*	*[MD: -12%]*
VA	5	28	*[VA: -5%]*	*[VA: -5%]*	*[VA: -4%]*
			-14%	-11%	-10%
MD	3	33	*[MD: -12%]*	*[MD: -9%]*	*[MD: -9%]*
VA	6	33	*[VA: -26%]*	*[VA: -23%]*	*[VA: -16%]*
			-17%	-14%	-12%
MD	3	42	*[MD: -16%]*	*[MD: -12%]*	*[MD: -11%]*
VA	6	42	*[VA: -34%]*	*[VA: -29%]*	*[VA: -20%]*
			-20%	-15%	-14%
MD	3	46	*[MD: -17%]*	*[MD: -13%]*	*[MD: -12%]*
VA	6	51	*[VA: -41%]*	*[VA: -35%]*	*[VA: -24%]*
			-14%	-12%	-11%
MD	4	31	*[MD: -12%]*	*[MD: -11%]*	*[MD: -10%]*
VA	3	31	*[VA: -27%]*	*[VA: -26%]*	*[VA: -23%]*
			-15%	-14%	-12%
MD	4	35	*[MD: -14%]*	*[MD: -12%]*	*[MD: -11%]*
VA	3	31	*[VA: -27%]*	*[VA: -26%]*	*[VA: -23%]*
			-17%	-16%	-14%
MD	4	41	*[MD: -16%]*	*[MD: -14%]*	*[MD: -13%]*
VA	3	31	*[VA: -27%]*	*[VA: -26%]*	*[VA: -23%]*

Chesapeake Bay seasonal closures to achieve 14% recreational reduction [Bay state reduction also shown]					
Bay State	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-14%	-12%	-10%
MD	4	36	*[MD: -14%]*	*[MD: -13%]*	*[MD: -11%]*
VA	5	28	*[VA: -5%]*	*[VA: -5%]*	*[VA: -4%]*
			-16%	-14%	-12%
MD	4	42	*[MD: -17%]*	*[MD: -15%]*	*[MD: -13%]*
VA	5	28	*[VA: -5%]*	*[VA: -5%]*	*[VA: -4%]*
			-17%	-15%	-13%
MD	4	46	*[MD: -18%]*	*[MD: -16%]*	*[MD: -14%]*
VA	5	28	*[VA: -5%]*	*[VA: -5%]*	*[VA: -4%]*
			-14%	-12%	-10%
MD	4	31	*[MD: -12%]*	*[MD: -11%]*	*[MD: -10%]*
VA	6	31	*[VA: -25%]*	*[VA: -21%]*	*[VA: -15%]*
			-16%	-14%	-12%
MD	4	36	*[MD: -14%]*	*[MD: -13%]*	*[MD: -11%]*
VA	6	36	*[VA: -29%]*	*[VA: -25%]*	*[VA: -17%]*
			-19%	-16%	-14%
MD	4	42	*[MD: -17%]*	*[MD: -15%]*	*[MD: -13%]*
VA	6	42	*[VA: -34%]*	*[VA: -29%]*	*[VA: -20%]*
			-14%	-13%	-10%
MD	5	28	*[MD: -13%]*	*[MD: -12%]*	*[MD: -9%]*
VA	3	28	*[VA: -24%]*	*[VA: -23%]*	*[VA: -21%]*
			-15%	-14%	-11%
MD	5	30	*[MD: -14%]*	*[MD: -12%]*	*[MD: -9%]*
VA	3	30	*[VA: -26%]*	*[VA: -25%]*	*[VA: -23%]*
			-19%	-17%	-14%
MD	5	40	*[MD: -18%]*	*[MD: -16%]*	*[MD: -13%]*
VA	3	31	*[VA: -27%]*	*[VA: -26%]*	*[VA: -23%]*
			-14%	-13%	-10%
MD	5	34	*[MD: -15%]*	*[MD: -14%]*	*[MD: -11%]*
VA	4	34	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-15%	-14%	-11%
MD	5	37	*[MD: -17%]*	*[MD: -15%]*	*[MD: -12%]*
VA	4	37	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-20%	-18%	-14%
MD	5	48	*[MD: -22%]*	*[MD: -20%]*	*[MD: -15%]*
VA	4	48	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*

Chesapeake Bay seasonal closures to achieve 14% recreational reduction [Bay state reduction also shown]					
Bay State	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-14%	-12%	-9%
MD	5	28	*[MD: -13%]*	*[MD: -12%]*	*[MD: -9%]*
VA	6	28	*[VA: -22%]*	*[VA: -19%]*	*[VA: -13%]*
			-15%	-14%	-10%
MD	5	31	*[MD: -14%]*	*[MD: -13%]*	*[MD: -10%]*
VA	6	31	*[VA: -25%]*	*[VA: -21%]*	*[VA: -15%]*
			-20%	-18%	-14%
MD	5	41	*[MD: -19%]*	*[MD: -17%]*	*[MD: -13%]*
VA	6	41	*[VA: -33%]*	*[VA: -28%]*	*[VA: -20%]*
			-14%	-13%	-10%
MD	6	33	*[MD: -12%]*	*[MD: -12%]*	*[MD: -8%]*
VA	3	31	*[VA: -27%]*	*[VA: -26%]*	*[VA: -23%]*
			-14%	-14%	-10%
MD	6	35	*[MD: -13%]*	*[MD: -12%]*	*[MD: -9%]*
VA	3	31	*[VA: -27%]*	*[VA: -26%]*	*[VA: -23%]*
			-16%	-15%	-11%
MD	6	40	*[MD: -15%]*	*[MD: -14%]*	*[MD: -10%]*
VA	3	31	*[VA: -27%]*	*[VA: -26%]*	*[VA: -23%]*
			-14%	-13%	-9%
MD	6	40	*[MD: -15%]*	*[MD: -14%]*	*[MD: -10%]*
VA	4	40	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-14%	-13%	-9%
MD	6	38	*[MD: -14%]*	*[MD: -14%]*	*[MD: -9%]*
VA	5	38	*[VA: -7%]*	*[VA: -6%]*	*[VA: -5%]*
			-14%	-13%	-9%
MD	6	40	*[MD: -15%]*	*[MD: -14%]*	*[MD: -10%]*
VA	5	28	*[VA: -5%]*	*[VA: -5%]*	*[VA: -4%]*

Note: Highlighted options indicate Maryland and/or Virginia has closed the entire Wave, which may result in different length of closures to meet the reduction

Appendix 3 Table 3. Ocean seasonal closure options to achieve an 8% recreational reduction. Slightly longer closures would be needed if the Board chose to take a 9% recreational reduction and a corresponding 0% commercial reduction. All Region/Wave combinations are shown except for combinations requiring more than a 45-day no-targeting closure under the 'striped bass-only trips eliminated' assumption.

Ocean seasonal closures to achieve 8% recreational reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
All States	2	24	-8%	-7%	-3%
All States	2	28	-9%	-8%	-3%
All States	2	61^	-19%	-17%	-7%
All States	3	31	-8%	-5%	-4%
All States	3	43	-11%	-8%	-6%
All States	3	58	-14%	-10%	-8%
All States	4	36	-8%	-5%	-4%
All States	4	56	-12%	-8%	-7%
All States	4	62^	-13%	-8%	-7%
All States	5	36	-8%	-5%	-4%
All States	5	51	-11%	-8%	-6%
All States	5	61^	-13%	-9%	-7%
All States	6	16	-8%	-6%	-4%
All States	6	20	-9%	-8%	-4%
All States	6	34	-16%	-13%	-8%
			-8%	-6%	-4%
ME-MA	2	17	*[ME-MA: 0%]*	*[ME-MA: 0%]*	*[ME-MA: 0%]*
RI-NC	6	17	*[RI-NC: -11%]*	*[RI-NC: -8%]*	*[RI-NC: -5%]*
			-10%	-8%	-5%
ME-MA	2	21	*[ME-MA: 0%]*	*[ME-MA: 0%]*	*[ME-MA: 0%]*
RI-NC	6	21	*[RI-NC: -13%]*	*[RI-NC: -10%]*	*[RI-NC: -6%]*
			-16%	-13%	-8%
ME-MA	2	34	*[ME-MA: 0%]*	*[ME-MA: 0%]*	*[ME-MA: 0%]*
RI-NC	6	34	*[RI-NC: -21%]*	*[RI-NC: -17%]*	*[RI-NC: -10%]*
			-8%	-6%	-3%
ME-MA	3	19	*[ME-MA: -7%]*	*[ME-MA: -2%]*	*[ME-MA: -2%]*
RI-NC	2	19	*[RI-NC: -8%]*	*[RI-NC: -7%]*	*[RI-NC: -3%]*
			-10%	-8%	-3%
ME-MA	3	25	*[ME-MA: -9%]*	*[ME-MA: -3%]*	*[ME-MA: -3%]*
RI-NC	2	25	*[RI-NC: -11%]*	*[RI-NC: -9%]*	*[RI-NC: -4%]*

Ocean seasonal closures to achieve 8% recreational reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-23%	-17%	-8%
ME-MA	3	55	*[ME-MA: -20%]*	*[ME-MA: -7%]*	*[ME-MA: -6%]*
RI-NC	2	55	*[RI-NC: -23%]*	*[RI-NC: -20%]*	*[RI-NC: -8%]*
			-8%	-4%	-4%
ME-MA	3	35	*[ME-MA: -13%]*	*[ME-MA: -4%]*	*[ME-MA: -4%]*
RI-NC	5	35	*[RI-NC: -6%]*	*[RI-NC: -4%]*	*[RI-NC: -4%]*
			-13%	-8%	-6%
ME-MA	3	60	*[ME-MA: -22%]*	*[ME-MA: -8%]*	*[ME-MA: -7%]*
RI-NC	5	60	*[RI-NC: -10%]*	*[RI-NC: -8%]*	*[RI-NC: -6%]*
			-13%	-8%	-7%
ME-MA	3	61^	*[ME-MA: -23%]*	*[ME-MA: -8%]*	*[ME-MA: -7%]*
RI-NC	5	61^	*[RI-NC: -10%]*	*[RI-NC: -8%]*	*[RI-NC: -6%]*
			-8%	-6%	-3%
ME-MA	3	14	*[ME-MA: -5%]*	*[ME-MA: -2%]*	*[ME-MA: -2%]*
RI-NC	6	14	*[RI-NC: -9%]*	*[RI-NC: -7%]*	*[RI-NC: -4%]*
			-11%	-8%	-5%
ME-MA	3	19	*[ME-MA: -7%]*	*[ME-MA: -2%]*	*[ME-MA: -2%]*
RI-NC	6	19	*[RI-NC: -12%]*	*[RI-NC: -9%]*	*[RI-NC: -6%]*
			-17%	-13%	-8%
ME-MA	3	31	*[ME-MA: -11%]*	*[ME-MA: -4%]*	*[ME-MA: -4%]*
RI-NC	6	31	*[RI-NC: -19%]*	*[RI-NC: -15%]*	*[RI-NC: -9%]*
			-8%	-6%	-3%
ME-MA	4	17	*[ME-MA: -10%]*	*[ME-MA: -5%]*	*[ME-MA: -5%]*
RI-NC	2	17	*[RI-NC: -7%]*	*[RI-NC: -6%]*	*[RI-NC: -3%]*
			-10%	-8%	-4%
ME-MA	4	22	*[ME-MA: -12%]*	*[ME-MA: -6%]*	*[ME-MA: -6%]*
RI-NC	2	22	*[RI-NC: -9%]*	*[RI-NC: -8%]*	*[RI-NC: -3%]*
			-19%	-15%	-8%
ME-MA	4	42	*[ME-MA: -24%]*	*[ME-MA: -12%]*	*[ME-MA: -12%]*
RI-NC	2	42	*[RI-NC: -18%]*	*[RI-NC: -15%]*	*[RI-NC: -6%]*
			-8%	-5%	-5%
ME-MA	4	26	*[ME-MA: -15%]*	*[ME-MA: -7%]*	*[ME-MA: -7%]*
RI-NC	3	26	*[RI-NC: -5%]*	*[RI-NC: -4%]*	*[RI-NC: -4%]*
			-11%	-8%	-7%
ME-MA	4	38	*[ME-MA: -21%]*	*[ME-MA: -11%]*	*[ME-MA: -11%]*
RI-NC	3	38	*[RI-NC: -8%]*	*[RI-NC: -6%]*	*[RI-NC: -5%]*

Ocean seasonal closures to achieve 8% recreational reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-13%	-9%	-8%
ME-MA	4	44	*[ME-MA: -25%]*	*[ME-MA: -13%]*	*[ME-MA: -13%]*
RI-NC	3	44	*[RI-NC: -9%]*	*[RI-NC: -7%]*	*[RI-NC: -6%]*
			-8%	-5%	-4%
ME-MA	4	28	*[ME-MA: -16%]*	*[ME-MA: -8%]*	*[ME-MA: -8%]*
RI-NC	5	28	*[RI-NC: -5%]*	*[RI-NC: -4%]*	*[RI-NC: -3%]*
			-12%	-8%	-7%
ME-MA	4	46	*[ME-MA: -26%]*	*[ME-MA: -13%]*	*[ME-MA: -13%]*
RI-NC	5	46	*[RI-NC: -8%]*	*[RI-NC: -6%]*	*[RI-NC: -5%]*
			-14%	-8%	-8%
ME-MA	4	51	*[ME-MA: -29%]*	*[ME-MA: -15%]*	*[ME-MA: -14%]*
RI-NC	5	51	*[RI-NC: -9%]*	*[RI-NC: -6%]*	*[RI-NC: -5%]*
			-8%	-6%	-4%
ME-MA	4	13	*[ME-MA: -7%]*	*[ME-MA: -4%]*	*[ME-MA: -4%]*
RI-NC	6	13	*[RI-NC: -8%]*	*[RI-NC: -6%]*	*[RI-NC: -4%]*
			-10%	-8%	-5%
ME-MA	4	17	*[ME-MA: -10%]*	*[ME-MA: -5%]*	*[ME-MA: -5%]*
RI-NC	6	17	*[RI-NC: -11%]*	*[RI-NC: -8%]*	*[RI-NC: -5%]*
			-16%	-12%	-8%
ME-MA	4	26	*[ME-MA: -15%]*	*[ME-MA: -7%]*	*[ME-MA: -7%]*
RI-NC	6	26	*[RI-NC: -16%]*	*[RI-NC: -13%]*	*[RI-NC: -8%]*
			-8%	-6%	-3%
ME-MA	5	19	*[ME-MA: -6%]*	*[ME-MA: -5%]*	*[ME-MA: -2%]*
RI-NC	2	19	*[RI-NC: -8%]*	*[RI-NC: -7%]*	*[RI-NC: -3%]*
			-9%	-8%	-3%
ME-MA	5	23	*[ME-MA: -8%]*	*[ME-MA: -6%]*	*[ME-MA: -3%]*
RI-NC	2	23	*[RI-NC: -10%]*	*[RI-NC: -8%]*	*[RI-NC: -3%]*
			-21%	-18%	-8%
ME-MA	5	53	*[ME-MA: -18%]*	*[ME-MA: -13%]*	*[ME-MA: -7%]*
RI-NC	2	53	*[RI-NC: -22%]*	*[RI-NC: -20%]*	*[RI-NC: -8%]*
			-8%	-6%	-4%
ME-MA	5	32	*[ME-MA: -11%]*	*[ME-MA: -8%]*	*[ME-MA: -4%]*
RI-NC	3	32	*[RI-NC: -7%]*	*[RI-NC: -5%]*	*[RI-NC: -4%]*
			-10%	-8%	-5%
ME-MA	5	40	*[ME-MA: -14%]*	*[ME-MA: -10%]*	*[ME-MA: -5%]*
RI-NC	3	40	*[RI-NC: -8%]*	*[RI-NC: -7%]*	*[RI-NC: -6%]*

Ocean seasonal closures to achieve 8% recreational reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-13%	-11%	-8%
ME-MA	5	56	*[ME-MA: -19%]*	*[ME-MA: -14%]*	*[ME-MA: -7%]*
RI-NC	3	56	*[RI-NC: -12%]*	*[RI-NC: -9%]*	*[RI-NC: -8%]*
			-8%	-6%	-4%
ME-MA	5	14	*[ME-MA: -5%]*	*[ME-MA: -3%]*	*[ME-MA: -2%]*
RI-NC	6	14	*[RI-NC: -9%]*	*[RI-NC: -7%]*	*[RI-NC: -4%]*
			-10%	-8%	-5%
ME-MA	5	18	*[ME-MA: -6%]*	*[ME-MA: -4%]*	*[ME-MA: -2%]*
RI-NC	6	18	*[RI-NC: -11%]*	*[RI-NC: -9%]*	*[RI-NC: -5%]*
			-16%	-13%	-8%
ME-MA	5	30	*[ME-MA: -10%]*	*[ME-MA: -7%]*	*[ME-MA: -4%]*
RI-NC	6	30	*[RI-NC: -19%]*	*[RI-NC: -15%]*	*[RI-NC: -9%]*
			-8%	-7%	-3%
ME-MA	6	23	*[ME-MA: -1%]*	*[ME-MA: -1%]*	*[ME-MA: 0%]*
RI-NC	2	23	*[RI-NC: -10%]*	*[RI-NC: -8%]*	*[RI-NC: -3%]*
			-9%	-8%	-3%
ME-MA	6	27	*[ME-MA: -1%]*	*[ME-MA: -1%]*	*[ME-MA: 0%]*
RI-NC	2	27	*[RI-NC: -11%]*	*[RI-NC: -10%]*	*[RI-NC: -4%]*
			-20%	-17%	-7%
ME-MA	6	61^	*[ME-MA: -2%]*	*[ME-MA: -2%]*	*[ME-MA: 0%]*
RI-NC	2	61^	*[RI-NC: -26%]*	*[RI-NC: -22%]*	*[RI-NC: -9%]*
			-8%	-7%	-3%
ME-NH	2	23	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	2	23	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*	*[MA-NJ: -3%]*
DE-NC*	6	23	*[DE-NC: -20%]*	*[DE-NC: -16%]*	*[DE-NC: -2%]*
			-8%	-8%	-3%
ME-NH	2	25	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	2	25	*[MA-NJ: -9%]*	*[MA-NJ: -8%]*	*[MA-NJ: -3%]*
DE-NC*	6	25	*[DE-NC: -22%]*	*[DE-NC: -18%]*	*[DE-NC: -2%]*
			-20%	-18%	-7%
ME-NH	2	61^	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	2	61^	*[MA-NJ: -21%]*	*[MA-NJ: -19%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*

Ocean seasonal closures to achieve 8% recreational reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-8%	-6%	-4%
ME-NH	2	31	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	3	31	*[MA-NJ: -8%]*	*[MA-NJ: -6%]*	*[MA-NJ: -4%]*
DE-NC*	6	31	*[DE-NC: -27%]*	*[DE-NC: -22%]*	*[DE-NC: -3%]*
			-10%	-8%	-5%
ME-NH	2	42	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	3	42	*[MA-NJ: -10%]*	*[MA-NJ: -8%]*	*[MA-NJ: -6%]*
DE-NC*	6	42	*[DE-NC: -36%]*	*[DE-NC: -30%]*	*[DE-NC: -4%]*
			-14%	-10%	-8%
ME-NH	2	58	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	3	58	*[MA-NJ: -14%]*	*[MA-NJ: -11%]*	*[MA-NJ: -8%]*
DE-NC*	6	58	*[DE-NC: -50%]*	*[DE-NC: -41%]*	*[DE-NC: -6%]*
			-8%	-5%	-5%
ME-NH	2	42	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	4	42	*[MA-NJ: -8%]*	*[MA-NJ: -5%]*	*[MA-NJ: -5%]*
DE-NC*	6	42	*[DE-NC: -36%]*	*[DE-NC: -30%]*	*[DE-NC: -4%]*
			-11%	-7%	-7%
ME-NH	2	61^	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	4	61^	*[MA-NJ: -11%]*	*[MA-NJ: -7%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-5%	-4%
ME-NH	2	39	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	5	39	*[MA-NJ: -8%]*	*[MA-NJ: -5%]*	*[MA-NJ: -4%]*
DE-NC*	6	39	*[DE-NC: -34%]*	*[DE-NC: -28%]*	*[DE-NC: -4%]*
			-11%	-8%	-6%
ME-NH	2	55	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	5	55	*[MA-NJ: -11%]*	*[MA-NJ: -8%]*	*[MA-NJ: -6%]*
DE-NC*	6	55	*[DE-NC: -48%]*	*[DE-NC: -39%]*	*[DE-NC: -5%]*
			-12%	-8%	-6%
ME-NH	2	61^	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	5	61^	*[MA-NJ: -12%]*	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-6%	-4%
ME-NH	2	16	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	6	16	*[MA-NJ: -8%]*	*[MA-NJ: -6%]*	*[MA-NJ: -4%]*
DE-NC*	6	16	*[DE-NC: -14%]*	*[DE-NC: -11%]*	*[DE-NC: -2%]*

Ocean seasonal closures to achieve 8% recreational reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-10%	-8%	-5%
ME-NH	2	21	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	6	21	*[MA-NJ: -10%]*	*[MA-NJ: -8%]*	*[MA-NJ: -5%]*
DE-NC*	6	21	*[DE-NC: -18%]*	*[DE-NC: -15%]*	*[DE-NC: -2%]*
			-16%	-13%	-8%
ME-NH	2	34	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	6	34	*[MA-NJ: -17%]*	*[MA-NJ: -13%]*	*[MA-NJ: -8%]*
DE-NC*	6	34	*[DE-NC: -29%]*	*[DE-NC: -24%]*	*[DE-NC: -3%]*
			-8%	-7%	-3%
ME-NH	3	22	*[ME-NH: -7%]*	*[ME-NH: -3%]*	*[ME-NH: -1%]*
MA-NJ	2	22	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*	*[MA-NJ: -3%]*
DE-NC*	6	22	*[DE-NC: -19%]*	*[DE-NC: -16%]*	*[DE-NC: -2%]*
			-9%	-8%	-3%
ME-NH	3	25	*[ME-NH: -8%]*	*[ME-NH: -3%]*	*[ME-NH: -1%]*
MA-NJ	2	25	*[MA-NJ: -9%]*	*[MA-NJ: -8%]*	*[MA-NJ: -3%]*
DE-NC*	6	25	*[DE-NC: -22%]*	*[DE-NC: -18%]*	*[DE-NC: -2%]*
			-21%	-19%	-7%
ME-NH	3	61^	*[ME-NH: -19%]*	*[ME-NH: -8%]*	*[ME-NH: -3%]*
MA-NJ	2	61^	*[MA-NJ: -21%]*	*[MA-NJ: -19%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-5%	-4%
ME-NH	3	29	*[ME-NH: -9%]*	*[ME-NH: -4%]*	*[ME-NH: -1%]*
MA-NJ	3	29	*[MA-NJ: -7%]*	*[MA-NJ: -5%]*	*[MA-NJ: -4%]*
DE-NC*	6	29	*[DE-NC: -25%]*	*[DE-NC: -20%]*	*[DE-NC: -3%]*
			-11%	-8%	-5%
ME-NH	3	41	*[ME-NH: -13%]*	*[ME-NH: -6%]*	*[ME-NH: -2%]*
MA-NJ	3	41	*[MA-NJ: -10%]*	*[MA-NJ: -7%]*	*[MA-NJ: -6%]*
DE-NC*	6	41	*[DE-NC: -36%]*	*[DE-NC: -29%]*	*[DE-NC: -4%]*
			-15%	-11%	-8%
ME-NH	3	57	*[ME-NH: -18%]*	*[ME-NH: -8%]*	*[ME-NH: -2%]*
MA-NJ	3	57	*[MA-NJ: -14%]*	*[MA-NJ: -10%]*	*[MA-NJ: -8%]*
DE-NC*	6	57	*[DE-NC: -49%]*	*[DE-NC: -40%]*	*[DE-NC: -5%]*
			-8%	-5%	-4%
ME-NH	3	38	*[ME-NH: -12%]*	*[ME-NH: -5%]*	*[ME-NH: -2%]*
MA-NJ	4	38	*[MA-NJ: -7%]*	*[MA-NJ: -5%]*	*[MA-NJ: -5%]*
DE-NC*	6	38	*[DE-NC: -33%]*	*[DE-NC: -27%]*	*[DE-NC: -4%]*

Ocean seasonal closures to achieve 8% recreational reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-12%	-8%	-7%
ME-NH	3	58	*[ME-NH: -18%]*	*[ME-NH: -8%]*	*[ME-NH: -3%]*
MA-NJ	4	58	*[MA-NJ: -11%]*	*[MA-NJ: -7%]*	*[MA-NJ: -7%]*
DE-NC*	6	58	*[DE-NC: -50%]*	*[DE-NC: -41%]*	*[DE-NC: -6%]*
			-12%	-8%	-7%
ME-NH	3	61^	*[ME-NH: -19%]*	*[ME-NH: -8%]*	*[ME-NH: -3%]*
MA-NJ	4	61^	*[MA-NJ: -11%]*	*[MA-NJ: -7%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-5%	-4%
ME-NH	3	35	*[ME-NH: -11%]*	*[ME-NH: -5%]*	*[ME-NH: -2%]*
MA-NJ	5	35	*[MA-NJ: -7%]*	*[MA-NJ: -5%]*	*[MA-NJ: -4%]*
DE-NC*	6	35	*[DE-NC: -30%]*	*[DE-NC: -25%]*	*[DE-NC: -3%]*
			-11%	-8%	-6%
ME-NH	3	52	*[ME-NH: -16%]*	*[ME-NH: -7%]*	*[ME-NH: -2%]*
MA-NJ	5	52	*[MA-NJ: -10%]*	*[MA-NJ: -7%]*	*[MA-NJ: -6%]*
DE-NC*	6	52	*[DE-NC: -45%]*	*[DE-NC: -37%]*	*[DE-NC: -5%]*
			-13%	-9%	-7%
ME-NH	3	61^	*[ME-NH: -19%]*	*[ME-NH: -8%]*	*[ME-NH: -3%]*
MA-NJ	5	61^	*[MA-NJ: -12%]*	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-6%	-4%
ME-NH	3	16	*[ME-NH: -5%]*	*[ME-NH: -2%]*	*[ME-NH: -1%]*
MA-NJ	6	16	*[MA-NJ: -8%]*	*[MA-NJ: -6%]*	*[MA-NJ: -4%]*
DE-NC*	6	16	*[DE-NC: -14%]*	*[DE-NC: -11%]*	*[DE-NC: -2%]*
			-10%	-8%	-4%
ME-NH	3	20	*[ME-NH: -6%]*	*[ME-NH: -3%]*	*[ME-NH: -1%]*
MA-NJ	6	20	*[MA-NJ: -10%]*	*[MA-NJ: -8%]*	*[MA-NJ: -5%]*
DE-NC*	6	20	*[DE-NC: -17%]*	*[DE-NC: -14%]*	*[DE-NC: -2%]*
			-17%	-13%	-8%
ME-NH	3	34	*[ME-NH: -11%]*	*[ME-NH: -5%]*	*[ME-NH: -1%]*
MA-NJ	6	34	*[MA-NJ: -17%]*	*[MA-NJ: -13%]*	*[MA-NJ: -8%]*
DE-NC*	6	34	*[DE-NC: -29%]*	*[DE-NC: -24%]*	*[DE-NC: -3%]*
			-8%	-7%	-3%
ME-NH	4	21	*[ME-NH: -14%]*	*[ME-NH: -9%]*	*[ME-NH: -3%]*
MA-NJ	2	21	*[MA-NJ: -7%]*	*[MA-NJ: -7%]*	*[MA-NJ: -2%]*
DE-NC*	6	21	*[DE-NC: -18%]*	*[DE-NC: -15%]*	*[DE-NC: -2%]*

Ocean seasonal closures to achieve 8% recreational reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-9%	-8%	-3%
ME-NH	4	23	*[ME-NH: -15%]*	*[ME-NH: -10%]*	*[ME-NH: -3%]*
MA-NJ	2	23	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*	*[MA-NJ: -3%]*
DE-NC*	6	23	*[DE-NC: -20%]*	*[DE-NC: -16%]*	*[DE-NC: -2%]*
			-23%	-20%	-7%
ME-NH	4	61^	*[ME-NH: -41%]*	*[ME-NH: -25%]*	*[ME-NH: -9%]*
MA-NJ	2	61^	*[MA-NJ: -21%]*	*[MA-NJ: -19%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-6%	-4%
ME-NH	4	27	*[ME-NH: -18%]*	*[ME-NH: -11%]*	*[ME-NH: -4%]*
MA-NJ	3	27	*[MA-NJ: -7%]*	*[MA-NJ: -5%]*	*[MA-NJ: -4%]*
DE-NC*	6	27	*[DE-NC: -23%]*	*[DE-NC: -19%]*	*[DE-NC: -3%]*
			-10%	-8%	-5%
ME-NH	4	37	*[ME-NH: -25%]*	*[ME-NH: -15%]*	*[ME-NH: -5%]*
MA-NJ	3	37	*[MA-NJ: -9%]*	*[MA-NJ: -7%]*	*[MA-NJ: -5%]*
DE-NC*	6	37	*[DE-NC: -32%]*	*[DE-NC: -26%]*	*[DE-NC: -4%]*
			-16%	-11%	-8%
ME-NH	4	55	*[ME-NH: -37%]*	*[ME-NH: -23%]*	*[ME-NH: -8%]*
MA-NJ	3	55	*[MA-NJ: -14%]*	*[MA-NJ: -10%]*	*[MA-NJ: -8%]*
DE-NC*	6	55	*[DE-NC: -48%]*	*[DE-NC: -39%]*	*[DE-NC: -5%]*
			-8%	-5%	-4%
ME-NH	4	34	*[ME-NH: -23%]*	*[ME-NH: -14%]*	*[ME-NH: -5%]*
MA-NJ	4	34	*[MA-NJ: -6%]*	*[MA-NJ: -4%]*	*[MA-NJ: -4%]*
DE-NC*	6	34	*[DE-NC: -29%]*	*[DE-NC: -24%]*	*[DE-NC: -3%]*
			-11%	-8%	-6%
ME-NH	4	51	*[ME-NH: -34%]*	*[ME-NH: -21%]*	*[ME-NH: -7%]*
MA-NJ	4	51	*[MA-NJ: -9%]*	*[MA-NJ: -6%]*	*[MA-NJ: -6%]*
DE-NC*	6	51	*[DE-NC: -44%]*	*[DE-NC: -36%]*	*[DE-NC: -5%]*
			-14%	-9%	-7%
ME-NH	4	61^	*[ME-NH: -41%]*	*[ME-NH: -25%]*	*[ME-NH: -9%]*
MA-NJ	4	61^	*[MA-NJ: -11%]*	*[MA-NJ: -7%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-5%	-4%
ME-NH	4	32	*[ME-NH: -21%]*	*[ME-NH: -13%]*	*[ME-NH: -4%]*
MA-NJ	5	32	*[MA-NJ: -6%]*	*[MA-NJ: -4%]*	*[MA-NJ: -4%]*
DE-NC*	6	32	*[DE-NC: -28%]*	*[DE-NC: -23%]*	*[DE-NC: -3%]*

Ocean seasonal closures to achieve 8% recreational reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-11%	-8%	-5%
ME-NH	4	46	*[ME-NH: -31%]*	*[ME-NH: -19%]*	*[ME-NH: -6%]*
MA-NJ	5	46	*[MA-NJ: -9%]*	*[MA-NJ: -6%]*	*[MA-NJ: -5%]*
DE-NC*	6	46	*[DE-NC: -40%]*	*[DE-NC: -33%]*	*[DE-NC: -4%]*
			-14%	-10%	-7%
ME-NH	4	61^	*[ME-NH: -41%]*	*[ME-NH: -25%]*	*[ME-NH: -9%]*
MA-NJ	5	61^	*[MA-NJ: -12%]*	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-6%	-3%
ME-NH	4	15	*[ME-NH: -10%]*	*[ME-NH: -6%]*	*[ME-NH: -2%]*
MA-NJ	6	15	*[MA-NJ: -7%]*	*[MA-NJ: -6%]*	*[MA-NJ: -4%]*
DE-NC*	6	15	*[DE-NC: -13%]*	*[DE-NC: -11%]*	*[DE-NC: -1%]*
			-10%	-8%	-4%
ME-NH	4	19	*[ME-NH: -13%]*	*[ME-NH: -8%]*	*[ME-NH: -3%]*
MA-NJ	6	19	*[MA-NJ: -9%]*	*[MA-NJ: -7%]*	*[MA-NJ: -5%]*
DE-NC*	6	19	*[DE-NC: -16%]*	*[DE-NC: -13%]*	*[DE-NC: -2%]*
			-17%	-13%	-8%
ME-NH	4	33	*[ME-NH: -22%]*	*[ME-NH: -14%]*	*[ME-NH: -5%]*
MA-NJ	6	33	*[MA-NJ: -16%]*	*[MA-NJ: -13%]*	*[MA-NJ: -8%]*
DE-NC*	6	33	*[DE-NC: -29%]*	*[DE-NC: -23%]*	*[DE-NC: -3%]*
			-8%	-7%	-2%
ME-NH	5	21	*[ME-NH: -10%]*	*[ME-NH: -8%]*	*[ME-NH: -2%]*
MA-NJ	2	21	*[MA-NJ: -7%]*	*[MA-NJ: -7%]*	*[MA-NJ: -2%]*
DE-NC*	6	21	*[DE-NC: -18%]*	*[DE-NC: -15%]*	*[DE-NC: -2%]*
			-8%	-8%	-3%
ME-NH	5	23	*[ME-NH: -10%]*	*[ME-NH: -9%]*	*[ME-NH: -2%]*
MA-NJ	2	23	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*	*[MA-NJ: -3%]*
DE-NC*	6	23	*[DE-NC: -20%]*	*[DE-NC: -16%]*	*[DE-NC: -2%]*
			-22%	-20%	-7%
ME-NH	5	61^	*[ME-NH: -28%]*	*[ME-NH: -24%]*	*[ME-NH: -6%]*
MA-NJ	2	61^	*[MA-NJ: -21%]*	*[MA-NJ: -19%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-6%	-4%
ME-NH	5	28	*[ME-NH: -13%]*	*[ME-NH: -11%]*	*[ME-NH: -3%]*
MA-NJ	3	28	*[MA-NJ: -7%]*	*[MA-NJ: -5%]*	*[MA-NJ: -4%]*
DE-NC*	6	28	*[DE-NC: -24%]*	*[DE-NC: -20%]*	*[DE-NC: -3%]*

Ocean seasonal closures to achieve 8% recreational reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-10%	-8%	-5%
ME-NH	5	37	*[ME-NH: -17%]*	*[ME-NH: -14%]*	*[ME-NH: -3%]*
MA-NJ	3	37	*[MA-NJ: -9%]*	*[MA-NJ: -7%]*	*[MA-NJ: -5%]*
DE-NC*	6	37	*[DE-NC: -32%]*	*[DE-NC: -26%]*	*[DE-NC: -4%]*
			-15%	-11%	-8%
ME-NH	5	56	*[ME-NH: -26%]*	*[ME-NH: -22%]*	*[ME-NH: -5%]*
MA-NJ	3	56	*[MA-NJ: -14%]*	*[MA-NJ: -10%]*	*[MA-NJ: -8%]*
DE-NC*	6	56	*[DE-NC: -49%]*	*[DE-NC: -40%]*	*[DE-NC: -5%]*
			-8%	-5%	-4%
ME-NH	5	36	*[ME-NH: -16%]*	*[ME-NH: -14%]*	*[ME-NH: -3%]*
MA-NJ	4	36	*[MA-NJ: -7%]*	*[MA-NJ: -4%]*	*[MA-NJ: -4%]*
DE-NC*	6	36	*[DE-NC: -31%]*	*[DE-NC: -25%]*	*[DE-NC: -3%]*
			-11%	-8%	-6%
ME-NH	5	52	*[ME-NH: -24%]*	*[ME-NH: -20%]*	*[ME-NH: -5%]*
MA-NJ	4	52	*[MA-NJ: -10%]*	*[MA-NJ: -6%]*	*[MA-NJ: -6%]*
DE-NC*	6	52	*[DE-NC: -45%]*	*[DE-NC: -37%]*	*[DE-NC: -5%]*
			-13%	-9%	-7%
ME-NH	5	61^	*[ME-NH: -28%]*	*[ME-NH: -24%]*	*[ME-NH: -6%]*
MA-NJ	4	61^	*[MA-NJ: -11%]*	*[MA-NJ: -7%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-5%	-4%
ME-NH	5	34	*[ME-NH: -15%]*	*[ME-NH: -13%]*	*[ME-NH: -3%]*
MA-NJ	5	34	*[MA-NJ: -7%]*	*[MA-NJ: -5%]*	*[MA-NJ: -4%]*
DE-NC*	6	34	*[DE-NC: -29%]*	*[DE-NC: -24%]*	*[DE-NC: -3%]*
			-10%	-8%	-5%
ME-NH	5	47	*[ME-NH: -21%]*	*[ME-NH: -18%]*	*[ME-NH: -4%]*
MA-NJ	5	47	*[MA-NJ: -9%]*	*[MA-NJ: -7%]*	*[MA-NJ: -5%]*
DE-NC*	6	47	*[DE-NC: -41%]*	*[DE-NC: -33%]*	*[DE-NC: -4%]*
			-14%	-10%	-7%
ME-NH	5	61^	*[ME-NH: -28%]*	*[ME-NH: -24%]*	*[ME-NH: -6%]*
MA-NJ	5	61^	*[MA-NJ: -12%]*	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-6%	-3%
ME-NH	5	15	*[ME-NH: -7%]*	*[ME-NH: -6%]*	*[ME-NH: -1%]*
MA-NJ	6	15	*[MA-NJ: -7%]*	*[MA-NJ: -6%]*	*[MA-NJ: -4%]*
DE-NC*	6	15	*[DE-NC: -13%]*	*[DE-NC: -11%]*	*[DE-NC: -1%]*

Ocean seasonal closures to achieve 8% recreational reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-10%	-8%	-4%
ME-NH	5	19	*[ME-NH: -9%]*	*[ME-NH: -7%]*	*[ME-NH: -2%]*
MA-NJ	6	19	*[MA-NJ: -9%]*	*[MA-NJ: -7%]*	*[MA-NJ: -5%]*
DE-NC*	6	19	*[DE-NC: -16%]*	*[DE-NC: -13%]*	*[DE-NC: -2%]*
			-17%	-13%	-8%
ME-NH	5	34	*[ME-NH: -15%]*	*[ME-NH: -13%]*	*[ME-NH: -3%]*
MA-NJ	6	34	*[MA-NJ: -17%]*	*[MA-NJ: -13%]*	*[MA-NJ: -8%]*
DE-NC*	6	34	*[DE-NC: -29%]*	*[DE-NC: -24%]*	*[DE-NC: -3%]*
			-8%	-7%	-3%
ME-NH	6	23	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	2	23	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*	*[MA-NJ: -3%]*
DE-NC*	6	23	*[DE-NC: -20%]*	*[DE-NC: -16%]*	*[DE-NC: -2%]*
			-8%	-8%	-3%
ME-NH	6	25	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	2	25	*[MA-NJ: -9%]*	*[MA-NJ: -8%]*	*[MA-NJ: -3%]*
DE-NC*	6	25	*[DE-NC: -22%]*	*[DE-NC: -18%]*	*[DE-NC: -2%]*
			-20%	-18%	-7%
ME-NH	6	61^	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	2	61^	*[MA-NJ: -21%]*	*[MA-NJ: -19%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-6%	-4%
ME-NH	6	31	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	3	31	*[MA-NJ: -8%]*	*[MA-NJ: -6%]*	*[MA-NJ: -4%]*
DE-NC*	6	31	*[DE-NC: -27%]*	*[DE-NC: -22%]*	*[DE-NC: -3%]*
			-10%	-8%	-5%
ME-NH	6	42	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	3	42	*[MA-NJ: -10%]*	*[MA-NJ: -8%]*	*[MA-NJ: -6%]*
DE-NC*	6	42	*[DE-NC: -36%]*	*[DE-NC: -30%]*	*[DE-NC: -4%]*
			-14%	-10%	-8%
ME-NH	6	58	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	3	58	*[MA-NJ: -14%]*	*[MA-NJ: -11%]*	*[MA-NJ: -8%]*
DE-NC*	6	58	*[DE-NC: -50%]*	*[DE-NC: -41%]*	*[DE-NC: -6%]*
			-8%	-5%	-5%
ME-NH	6	42	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	4	42	*[MA-NJ: -8%]*	*[MA-NJ: -5%]*	*[MA-NJ: -5%]*
DE-NC*	6	42	*[DE-NC: -36%]*	*[DE-NC: -30%]*	*[DE-NC: -4%]*

Ocean seasonal closures to achieve 8% recreational reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-11%	-7%	-7%
ME-NH	6	61^	[ME-NH: 0%]	[ME-NH: 0%]	[ME-NH: 0%]
MA-NJ	4	61^	[MA-NJ: -11%]	[MA-NJ: -7%]	[MA-NJ: -7%]
DE-NC*	6	61^	[DE-NC: -53%]	[DE-NC: -43%]	[DE-NC: -6%]
			-8%	-5%	-4%
ME-NH	6	39	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	5	39	*[MA-NJ: -8%]*	*[MA-NJ: -5%]*	*[MA-NJ: -4%]*
DE-NC*	6	39	*[DE-NC: -34%]*	*[DE-NC: -28%]*	*[DE-NC: -4%]*
			-11%	-8%	-6%
ME-NH	6	55	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	5	55	*[MA-NJ: -11%]*	*[MA-NJ: -8%]*	*[MA-NJ: -6%]*
DE-NC*	6	55	*[DE-NC: -48%]*	*[DE-NC: -39%]*	*[DE-NC: -5%]*
			-12%	-8%	-6%
ME-NH	6	61^	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	5	61^	*[MA-NJ: -12%]*	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*
DE-NC*	6	61^	*[DE-NC: -53%]*	*[DE-NC: -43%]*	*[DE-NC: -6%]*
			-8%	-6%	-4%
ME-NH	6	17	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	6	17	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*	*[MA-NJ: -4%]*
DE-NC**	4	17	*[DE-NC: -2%]*	*[DE-NC: -2%]*	*[DE-NC: -1%]*
			-10%	-8%	-5%
ME-NH	6	21	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	6	21	*[MA-NJ: -10%]*	*[MA-NJ: -8%]*	*[MA-NJ: -5%]*
DE-NC**	4	21	*[DE-NC: -3%]*	*[DE-NC: -2%]*	*[DE-NC: -1%]*
			-16%	-13%	-8%
ME-NH	6	35	*[ME-NH: 0%]*	*[ME-NH: 0%]*	*[ME-NH: 0%]*
MA-NJ	6	35	*[MA-NJ: -17%]*	*[MA-NJ: -14%]*	*[MA-NJ: -8%]*
DE-NC**	4	35	*[DE-NC: -5%]*	*[DE-NC: -3%]*	*[DE-NC: -1%]*

* For the DE-NC region in the three-region configuration, DE-NC could choose Wave 2, 3, 4, or 5 instead of Wave 6 and this would result in either the same closure length or 1-2 additional days required for all regions. **For last option in table, DE-NC can choose Wave 2, 3, 4, or 5 for the same number of days.

^Option cannot achieve 8% reduction by closing the entire Wave.

Appendix 3 Table 4. [Updated December 5, 2024] Chesapeake Bay seasonal closure options to achieve an 8% recreational reduction. Slightly longer closures would be needed if the Board chose to take a 9% recreational reduction and a corresponding 0% commercial reduction. All Region/Wave combinations are shown except for combinations requiring more than a 45-day no-targeting closure under the 'striped bass-only trips eliminated' assumption, and excluding any combinations with Wave 2 (both MD and VA are closed to harvest and have few releases in Wave 2). Note: PRFC and DC can each choose whether to implement their closure during the same wave as Maryland or the same Wave as Virginia.

Chesapeake Bay seasonal closures to achieve 8% recreational reduction [Bay state reduction also shown]					
Bay State	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-8%	-6%	-6%
MD	3	18	*[MD: -7%]*	*[MD: -5%]*	*[MD: -5%]*
VA	3	18	*[VA: -15%]*	*[VA: -15%]*	*[VA: -14%]*
			-10%	-8%	-7%
MD	3	23	*[MD: -9%]*	*[MD: -7%]*	*[MD: -6%]*
VA	3	23	*[VA: -20%]*	*[VA: -19%]*	*[VA: -17%]*
			-10%	-8%	-8%
MD	3	24	*[MD: -9%]*	*[MD: -7%]*	*[MD: -6%]*
VA	3	24	*[VA: -21%]*	*[VA: -20%]*	*[VA: -18%]*
			-8%	-7%	-6%
MD	4	21	*[MD: -8%]*	*[MD: -7%]*	*[MD: -6%]*
VA	4	21	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-9%	-8%	-7%
MD	4	24	*[MD: -10%]*	*[MD: -8%]*	*[MD: -7%]*
VA	4	24	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-10%	-9%	-8%
MD	4	28	*[MD: -11%]*	*[MD: -10%]*	*[MD: -9%]*
VA	4	28	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-8%	-7%	-5%
MD	5	18	*[MD: -8%]*	*[MD: -7%]*	*[MD: -6%]*
VA	5	18	*[VA: -3%]*	*[VA: -3%]*	*[VA: -2%]*
			-9%	-8%	-6%
MD	5	20	*[MD: -9%]*	*[MD: -8%]*	*[MD: -6%]*
VA	5	20	*[VA: -4%]*	*[VA: -3%]*	*[VA: -3%]*
			-11%	-10%	-8%
MD	5	26	*[MD: -12%]*	*[MD: -11%]*	*[MD: -8%]*
VA	5	26	*[VA: -5%]*	*[VA: -4%]*	*[VA: -4%]*
			-8%	-7%	-5%
MD	6	19	*[MD: -7%]*	*[MD: -7%]*	*[MD: -5%]*
VA	6	19	*[VA: -15%]*	*[VA: -13%]*	*[VA: -9%]*

Chesapeake Bay seasonal closures to achieve 8% recreational reduction [Bay state reduction also shown]					
Bay State	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-8%	-8%	-5%
MD	6	20	*[MD: -8%]*	*[MD: -7%]*	*[MD: -5%]*
VA	6	20	*[VA: -16%]*	*[VA: -14%]*	*[VA: -10%]*
			-12%	-11%	-8%
MD	6	28	*[MD: -11%]*	*[MD: -10%]*	*[MD: -7%]*
VA	6	28	*[VA: -22%]*	*[VA: -19%]*	*[VA: -13%]*
			-8%	-6%	-6%
MD	3	23	*[MD: -9%]*	*[MD: -7%]*	*[MD: -6%]*
VA	4	23	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-10%	-8%	-7%
MD	3	30	*[MD: -11%]*	*[MD: -9%]*	*[MD: -8%]*
VA	4	30	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-10%	-8%	-8%
MD	3	31	*[MD: -12%]*	*[MD: -9%]*	*[MD: -8%]*
VA	4	31	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-8%	-6%	-6%
MD	3	22	*[MD: -8%]*	*[MD: -6%]*	*[MD: -6%]*
VA	5	22	*[VA: -4%]*	*[VA: -4%]*	*[VA: -3%]*
			-10%	-8%	-7%
MD	3	28	*[MD: -10%]*	*[MD: -8%]*	*[MD: -8%]*
VA	5	28	*[VA: -5%]*	*[VA: -5%]*	*[VA: -4%]*
			-11%	-8%	-8%
MD	3	30	*[MD: -11%]*	*[MD: -9%]*	*[MD: -8%]*
VA	5	28	*[VA: -5%]*	*[VA: -5%]*	*[VA: -4%]*
			-8%	-6%	-5%
MD	3	19	*[MD: -7%]*	*[MD: -5%]*	*[MD: -5%]*
VA	6	19	*[VA: -15%]*	*[VA: -13%]*	*[VA: -9%]*
			-10%	-8%	-7%
MD	3	24	*[MD: -9%]*	*[MD: -7%]*	*[MD: -6%]*
VA	6	24	*[VA: -19%]*	*[VA: -17%]*	*[VA: -11%]*
			-11%	-8%	-8%
MD	3	26	*[MD: -10%]*	*[MD: -7%]*	*[MD: -7%]*
VA	6	26	*[VA: -21%]*	*[VA: -18%]*	*[VA: -12%]*
			-8%	-7%	-6%
MD	4	17	*[MD: -7%]*	*[MD: -6%]*	*[MD: -5%]*
VA	3	17	*[VA: -15%]*	*[VA: -14%]*	*[VA: -13%]*

Chesapeake Bay seasonal closures to achieve 8% recreational reduction [Bay state reduction also shown]					
Bay State	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-8%	-8%	-7%
MD	4	19	*[MD: -8%]*	*[MD: -7%]*	*[MD: -6%]*
VA	3	19	*[VA: -16%]*	*[VA: -16%]*	*[VA: -14%]*
			-10%	-9%	-8%
MD	4	22	*[MD: -9%]*	*[MD: -8%]*	*[MD: -7%]*
VA	3	22	*[VA: -19%]*	*[VA: -18%]*	*[VA: -17%]*
			-8%	-7%	-6%
MD	4	20	*[MD: -8%]*	*[MD: -7%]*	*[MD: -6%]*
VA	5	20	*[VA: -4%]*	*[VA: -3%]*	*[VA: -3%]*
			-9%	-8%	-7%
MD	4	23	*[MD: -9%]*	*[MD: -8%]*	*[MD: -7%]*
VA	5	23	*[VA: -4%]*	*[VA: -4%]*	*[VA: -3%]*
			-10%	-9%	-8%
MD	4	26	*[MD: -10%]*	*[MD: -9%]*	*[MD: -8%]*
VA	5	26	*[VA: -5%]*	*[VA: -4%]*	*[VA: -4%]*
			-8%	-7%	-6%
MD	4	18	*[MD: -7%]*	*[MD: -6%]*	*[MD: -6%]*
VA	6	18	*[VA: -14%]*	*[VA: -12%]*	*[VA: -9%]*
			-9%	-8%	-6%
MD	4	20	*[MD: -8%]*	*[MD: -7%]*	*[MD: -6%]*
VA	6	20	*[VA: -16%]*	*[VA: -14%]*	*[VA: -10%]*
			-11%	-9%	-8%
MD	4	24	*[MD: -10%]*	*[MD: -8%]*	*[MD: -7%]*
VA	6	24	*[VA: -19%]*	*[VA: -17%]*	*[VA: -11%]*
			-8%	-7%	-6%
MD	5	16	*[MD: -7%]*	*[MD: -7%]*	*[MD: -5%]*
VA	3	16	*[VA: -14%]*	*[VA: -13%]*	*[VA: -12%]*
			-8%	-8%	-6%
MD	5	17	*[MD: -8%]*	*[MD: -7%]*	*[MD: -5%]*
VA	3	17	*[VA: -15%]*	*[VA: -14%]*	*[VA: -13%]*
			-11%	-10%	-8%
MD	5	22	*[MD: -10%]*	*[MD: -9%]*	*[MD: -7%]*
VA	3	22	*[VA: -19%]*	*[VA: -18%]*	*[VA: -17%]*
			-8%	-7%	-5%
MD	5	19	*[MD: -9%]*	*[MD: -8%]*	*[MD: -6%]*
VA	4	19	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*

Chesapeake Bay seasonal closures to achieve 8% recreational reduction [Bay state reduction also shown]					
Bay State	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-9%	-8%	-6%
MD	5	21	*[MD: -9%]*	*[MD: -9%]*	*[MD: -7%]*
VA	4	21	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-11%	-10%	-8%
MD	5	27	*[MD: -12%]*	*[MD: -11%]*	*[MD: -8%]*
VA	4	27	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-8%	-7%	-5%
MD	5	16	*[MD: -7%]*	*[MD: -7%]*	*[MD: -5%]*
VA	6	16	*[VA: -13%]*	*[VA: -11%]*	*[VA: -8%]*
			-9%	-8%	-6%
MD	5	18	*[MD: -8%]*	*[MD: -7%]*	*[MD: -6%]*
VA	6	18	*[VA: -14%]*	*[VA: -12%]*	*[VA: -9%]*
			-11%	-10%	-8%
MD	5	23	*[MD: -10%]*	*[MD: -9%]*	*[MD: -7%]*
VA	6	23	*[VA: -18%]*	*[VA: -16%]*	*[VA: -11%]*
			-8%	-7%	-5%
MD	6	18	*[MD: -7%]*	*[MD: -6%]*	*[MD: -4%]*
VA	3	18	*[VA: -15%]*	*[VA: -15%]*	*[VA: -14%]*
			-8%	-8%	-6%
MD	6	19	*[MD: -7%]*	*[MD: -7%]*	*[MD: -5%]*
VA	3	19	*[VA: -16%]*	*[VA: -16%]*	*[VA: -14%]*
			-11%	-10%	-8%
MD	6	26	*[MD: -10%]*	*[MD: -9%]*	*[MD: -6%]*
VA	3	26	*[VA: -22%]*	*[VA: -22%]*	*[VA: -20%]*
			-8%	-7%	-5%
MD	6	23	*[MD: -9%]*	*[MD: -8%]*	*[MD: -6%]*
VA	4	23	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-8%	-8%	-5%
MD	6	24	*[MD: -9%]*	*[MD: -9%]*	*[MD: -6%]*
VA	4	24	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-12%	-11%	-8%
MD	6	34	*[MD: -13%]*	*[MD: -12%]*	*[MD: -8%]*
VA	4	34	*[VA: 0%]*	*[VA: 0%]*	*[VA: 0%]*
			-8%	-7%	-5%
MD	6	21	*[MD: -8%]*	*[MD: -7%]*	*[MD: -5%]*
VA	5	21	*[VA: -4%]*	*[VA: -4%]*	*[VA: -3%]*

Chesapeake Bay seasonal closures to achieve 8% recreational reduction [Bay state reduction also shown]					
Bay State	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-8%	-8%	-5%
MD	6	23	*[MD: -9%]*	*[MD: -8%]*	*[MD: -6%]*
VA	5	23	*[VA: -4%]*	*[VA: -4%]*	*[VA: -3%]*
			-12%	-11%	-8%
MD	6	33	*[MD: -12%]*	*[MD: -12%]*	*[MD: -8%]*
VA	5	28	*[VA: -5%]*	*[VA: -5%]*	*[VA: -4%]*

Note: Highlighted options indicate Maryland and/or Virginia has closed the entire Wave, which may result in different length of closures to meet the reduction

Appendix 4. Combined Size Limit and Seasonal Closure Example

This is an example of a combining seasonal closures with a size limit option for the ocean and the Chesapeake Bay. For this example, the size limit options for the ocean and Bay that come closest to, but fall short of, achieving a total recreational reduction of 14%. Slightly longer closures would be needed if the Board chose to take a 16% recreational reduction and a corresponding 0% commercial reduction. This is not an exhaustive list of options; only the combinations resulting in the shortest closure durations are shown.

Appendix 4 Table 1. Ocean options combining a 40" minimum size limit (-6% reduction) with seasonal closures (-9% reduction) to achieve a cumulative -14% reduction. Slightly longer closures would be needed if the Board chose to take a 16% recreational reduction and a corresponding 0% commercial reduction. This is not an exhaustive list; only the combinations resulting in the shortest closure durations are shown.

Ocean seasonal closures (-9%) combined with 40" Minimum Size for Cumulative -14% Reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
All States	6	18	-9%	-7%	-4%
All States	6	23	-11%	-9%	-5%
All States	6	39	-18%	-15%	-9%
			-9%	-6%	-4%
ME-MA	3	16	*[ME-MA: -6%]*	*[ME-MA: -2%]*	*[ME-MA: -2%]*
RI-NC	6	16	*[RI-NC: -10%]*	*[RI-NC: -8%]*	*[RI-NC: -5%]*
			-12%	-9%	-5%
ME-MA	3	22	*[ME-MA: -8%]*	*[ME-MA: -3%]*	*[ME-MA: -2%]*
RI-NC	6	22	*[RI-NC: -14%]*	*[RI-NC: -11%]*	*[RI-NC: -6%]*
			-19%	-14%	-9%
ME-MA	3	35	*[ME-MA: -13%]*	*[ME-MA: -4%]*	*[ME-MA: -4%]*
RI-NC	6	35	*[RI-NC: -22%]*	*[RI-NC: -17%]*	*[RI-NC: -10%]*
			-9%	-7%	-4%
ME-MA	4	15	*[ME-MA: -8%]*	*[ME-MA: -4%]*	*[ME-MA: -4%]*
RI-NC	6	15	*[RI-NC: -9%]*	*[RI-NC: -7%]*	*[RI-NC: -4%]*
			-12%	-9%	-6%
ME-MA	4	20	*[ME-MA: -11%]*	*[ME-MA: -6%]*	*[ME-MA: -6%]*
RI-NC	6	20	*[RI-NC: -12%]*	*[RI-NC: -10%]*	*[RI-NC: -6%]*
			-18%	-13%	-9%
ME-MA	4	30	*[ME-MA: -17%]*	*[ME-MA: -9%]*	*[ME-MA: -9%]*
RI-NC	6	30	*[RI-NC: -19%]*	*[RI-NC: -15%]*	*[RI-NC: -9%]*
			-9%	-7%	-4%
ME-MA	5	16	*[ME-MA: -5%]*	*[ME-MA: -4%]*	*[ME-MA: -2%]*
RI-NC	6	16	*[RI-NC: -10%]*	*[RI-NC: -8%]*	*[RI-NC: -5%]*

Ocean seasonal closures (-9%) combined with 40" Minimum Size for Cumulative -14% Reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-11%	-9%	-5%
ME-MA	5	20	*[ME-MA: -7%]*	*[ME-MA: -5%]*	*[ME-MA: -3%]*
RI-NC	6	20	*[RI-NC: -12%]*	*[RI-NC: -10%]*	*[RI-NC: -6%]*
			-19%	-15%	-9%
ME-MA	5	34	*[ME-MA: -11%]*	*[ME-MA: -8%]*	*[ME-MA: -4%]*
RI-NC	6	34	*[RI-NC: -21%]*	*[RI-NC: -17%]*	*[RI-NC: -10%]*
			-9%	-7%	-4%
ME-NH	3	18	*[ME-NH: -6%]*	*[ME-NH: -2%]*	*[ME-NH: -1%]*
MA-NJ	6	18	*[MA-NJ: -9%]*	*[MA-NJ: -7%]*	*[MA-NJ: -4%]*
DE-NC*	6	18	*[DE-NC: -16%]*	*[DE-NC: -13%]*	*[DE-NC: -2%]*
			-11%	-9%	-5%
ME-NH	3	23	*[ME-NH: -7%]*	*[ME-NH: -3%]*	*[ME-NH: -1%]*
MA-NJ	6	23	*[MA-NJ: -11%]*	*[MA-NJ: -9%]*	*[MA-NJ: -5%]*
DE-NC	6	23	*[DE-NC: -20%]*	*[DE-NC: -16%]*	*[DE-NC: -2%]*
			-19%	-15%	-9%
ME-NH	3	39	*[ME-NH: -12%]*	*[ME-NH: -5%]*	*[ME-NH: -2%]*
MA-NJ	6	39	*[MA-NJ: -19%]*	*[MA-NJ: -15%]*	*[MA-NJ: -9%]*
DE-NC	6	39	*[DE-NC: -34%]*	*[DE-NC: -28%]*	*[DE-NC: -4%]*
			-9%	-7%	-4%
ME-NH	4	17	*[ME-NH: -11%]*	*[ME-NH: -7%]*	*[ME-NH: -2%]*
MA-NJ	6	17	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*	*[MA-NJ: -4%]*
DE-NC*	6	17	*[DE-NC: -15%]*	*[DE-NC: -12%]*	*[DE-NC: -2%]*
			-11%	-9%	-5%
ME-NH	4	22	*[ME-NH: -15%]*	*[ME-NH: -9%]*	*[ME-NH: -3%]*
MA-NJ	6	22	*[MA-NJ: -11%]*	*[MA-NJ: -9%]*	*[MA-NJ: -5%]*
DE-NC*	6	22	*[DE-NC: -19%]*	*[DE-NC: -16%]*	*[DE-NC: -2%]*
			-20%	-15%	-9%
ME-NH	4	38	*[ME-NH: -25%]*	*[ME-NH: -16%]*	*[ME-NH: -5%]*
MA-NJ	6	38	*[MA-NJ: -19%]*	*[MA-NJ: -15%]*	*[MA-NJ: -9%]*
DE-NC*	6	38	*[DE-NC: -33%]*	*[DE-NC: -27%]*	*[DE-NC: -4%]*
			-9%	-7%	-4%
ME-NH	5	17	*[ME-NH: -8%]*	*[ME-NH: -7%]*	*[ME-NH: -2%]*
MA-NJ	6	17	*[MA-NJ: -8%]*	*[MA-NJ: -7%]*	*[MA-NJ: -4%]*
DE-NC*	6	17	*[DE-NC: -15%]*	*[DE-NC: -12%]*	*[DE-NC: -2%]*
			-11%	-9%	-5%
ME-NH	5	22	*[ME-NH: -10%]*	*[ME-NH: -9%]*	*[ME-NH: -2%]*
MA-NJ	6	22	*[MA-NJ: -11%]*	*[MA-NJ: -9%]*	*[MA-NJ: -5%]*
DE-NC*	6	22	*[DE-NC: -19%]*	*[DE-NC: -16%]*	*[DE-NC: -2%]*

Ocean seasonal closures (-9%) combined with 40" Minimum Size for Cumulative -14% Reduction [regional reduction also shown]					
Region	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-19%	-15%	-9%
ME-NH	5	38	*[ME-NH: -17%]*	*[ME-NH: -15%]*	*[ME-NH: -4%]*
MA-NJ	6	38	*[MA-NJ: -19%]*	*[MA-NJ: -15%]*	*[MA-NJ: -9%]*
DE-NC*	6	38	*[DE-NC: -33%]*	*[DE-NC: -27%]*	*[DE-NC: -4%]*

*Note: For the DE-NC region in the three-region configuration, DE-NC could choose Wave 2, 3, 4, or 5 instead of Wave 6 and this would result in either the same closure length or 1-2 additional days required for all regions.

Appendix 4 Table 2. Chesapeake Bay options combining a 20"-24" slot limit (-8% reduction) with seasonal closures (-6% reduction) to achieve a cumulative -14% reduction. Slightly longer closures would be needed if the Board chose to take a 16% recreational reduction and a corresponding 0% commercial reduction. This is not an exhaustive list; only the combinations resulting in the shortest closure durations are shown. Note: PRFC and DC can each choose whether to implement their closure during the same wave as Maryland or the same Wave as Virginia.

Chesapeake Bay seasonal closures (-6%) combined with 20"-24" slot for Cumulative -14% Reduction [Bay state reduction also shown]					
Bay State	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-6%	-5%	-4%
MD	3	14	*[MD: -5%]*	*[MD: -4%]*	*[MD: -4%]*
VA	3	14	*[VA: -12%]*	*[VA: -12%]*	*[VA: -11%]*
			-7%	-6%	-5%
MD	3	17	*[MD: -6%]*	*[MD: -5%]*	*[MD: -5%]*
VA	3	17	*[VA: -15%]*	*[VA: -14%]*	*[VA: -13%]*
			-8%	-6%	-6%
MD	3	18	*[MD: -7%]*	*[MD: -5%]*	*[MD: -5%]*
VA	3	18	*[VA: -15%]*	*[VA: -15%]*	*[VA: -14%]*
			-6%	-5%	-4%
MD	5	13*	*[MD: -6%]*	*[MD: -5%]*	*[MD: -4%]*
VA	5	13*	*[VA: -2%]*	*[VA: -2%]*	*[VA: -2%]*
			-6%	-6%	-4%
MD	5	15	*[MD: -7%]*	*[MD: -6%]*	*[MD: -5%]*
VA	5	15	*[VA: -3%]*	*[VA: -3%]*	*[VA: -2%]*
			-8%	-7%	-6%
MD	5	19	*[MD: -9%]*	*[MD: -8%]*	*[MD: -6%]*
VA	5	19	*[VA: -4%]*	*[VA: -3%]*	*[VA: -3%]*
			-6%	-5%	-5%
MD	4	13*	*[MD: -5%]*	*[MD: -5%]*	*[MD: -4%]*
VA	3	13*	*[VA: -11%]*	*[VA: -11%]*	*[VA: -10%]*
			-6%	-6%	-5%
MD	4	14	*[MD: -6%]*	*[MD: -5%]*	*[MD: -4%]*
VA	3	14	*[VA: -12%]*	*[VA: -12%]*	*[VA: -11%]*
			-7%	-6%	-6%
MD	4	16	*[MD: -6%]*	*[MD: -6%]*	*[MD: -5%]*
VA	3	16	*[VA: -14%]*	*[VA: -13%]*	*[VA: -12%]*
			-6%	-5%	-4%
MD	4	13*	*[MD: -5%]*	*[MD: -5%]*	*[MD: -4%]*
VA	6	13*	*[VA: -10%]*	*[VA: -9%]*	*[VA: -6%]*

Chesapeake Bay seasonal closures (-6%) combined with 20”-24” slot for Cumulative -14% Reduction [Bay state reduction also shown]					
Bay State	**Wave**	**Closure Length Days**	**No-Targeting Closure - Striped Bass Only Trips Eliminated**	**No Targeting Closure - All Striped Bass Trips Occur with New Target**	**No-Harvest Closure - All Striped Bass Releases Still Occur**
			-7%	-6%	-5%
MD	4	15	*[MD: -6%]*	*[MD: -5%]*	*[MD: -5%]*
VA	6	15	*[VA: -12%]*	*[VA: -10%]*	*[VA: -7%]*
			-7%	-7%	-6%
MD	4	17	*[MD: -7%]*	*[MD: -6%]*	*[MD: -5%]*
VA	6	17	*[VA: -14%]*	*[VA: -12%]*	*[VA: -8%]*
			-6%	-5%	-4%
MD	5	12*	*[MD: -5%]*	*[MD: -5%]*	*[MD: -4%]*
VA	3	12*	*[VA: -10%]*	*[VA: -10%]*	*[VA: -9%]*
			-6%	-6%	-5%
MD	5	13*	*[MD: -6%]*	*[MD: -5%]*	*[MD: -4%]*
VA	3	13*	*[VA: -11%]*	*[VA: -11%]*	*[VA: -10%]*
			-8%	-7%	-6%
MD	5	16	*[MD: -7%]*	*[MD: -7%]*	*[MD: -5%]*
VA	3	16	*[VA: -14%]*	*[VA: -13%]*	*[VA: -12%]*
			-6%	-5%	-4%
MD	5	12*	*[MD: -5%]*	*[MD: -5%]*	*[MD: -4%]*
VA	6	12*	*[VA: -10%]*	*[VA: -8%]*	*[VA: -6%]*
			-6%	-6%	-4%
MD	5	13*	*[MD: -6%]*	*[MD: -5%]*	*[MD: -4%]*
VA	6	13*	*[VA: -10%]*	*[VA: -9%]*	*[VA: -6%]*
			-8%	-7%	-6%
MD	5	17	*[MD: -8%]*	*[MD: -7%]*	*[MD: -5%]*
VA	6	17	*[VA: -14%]*	*[VA: -12%]*	*[VA: -8%]*
			-6%	-6%	-4%
MD	6	14	*[MD: -5%]*	*[MD: -5%]*	*[MD: -3%]*
VA	3	14	*[VA: -12%]*	*[VA: -12%]*	*[VA: -11%]*
			-8%	-8%	-6%
MD	6	19	*[MD: -7%]*	*[MD: -7%]*	*[MD: -5%]*
VA	3	19	*[VA: -16%]*	*[VA: -16%]*	*[VA: -14%]*

*The TC has previously noted that season closures less than two weeks duration are unlikely to be effective.