



# Technical Committee Report on Updated Projections & 2025 Management Options



December 16, 2024

# Overview



- Background
- Projections and Reductions
- 2025 Management Options
- Questions

# Background



- 2024 Stock Assessment Update completed in October
- Stock remains overfished but not experiencing overfishing
- Stock rebuilding deadline is 2029
- Most likely projection scenario in the assessment report indicates fishing mortality will increase in 2025 → probability of rebuilding the stock by 2029 is less than 50%

# Background



- Since the assessment indicates a less than 50% chance of rebuilding by 2029, Atlantic Striped Bass Management Board can change management measures through Board action (without an addendum)
- Technical Committee was tasked with updating projections and developing 2025 management options



# **Technical Committee Report: Projections and Reductions**

# Projections and Reductions



- TC Task 1A: Update assessment projection with additional data to determine the 2025 reduction needed to achieve a 50% probability of rebuilding the stock by 2029
- Board also tasked the TC with extra projections for comparison only

# Projections and Reductions



- Projection scenario of interest indicates low fishery removals in 2024, followed by an increase in fishing mortality ( $F$ ) in 2025, and then a decrease/stabilization of  $F$  from 2026-2029
- Three components to consider:
  - What data are used to estimate 2024 removals?
  - How high will  $F$  increase in 2025?
  - How low will  $F$  decrease in 2026-2029?

# 2024 Removals



- Need to estimate this year's 2024 fishery removals under Addendum II measures
- Assessment report extrapolated preliminary MRIP data for Waves 2-3 (Mar/Apr and May/June) to estimate 2024 removals
  - 2024 removals = 3.89 million fish;  $F_{2024}=0.13$
- New: Wave 4 data (July/Aug) became available and was added
  - 2024 removals = 3.67 million fish;  $F_{2024}=0.12$



# 2025 Increase



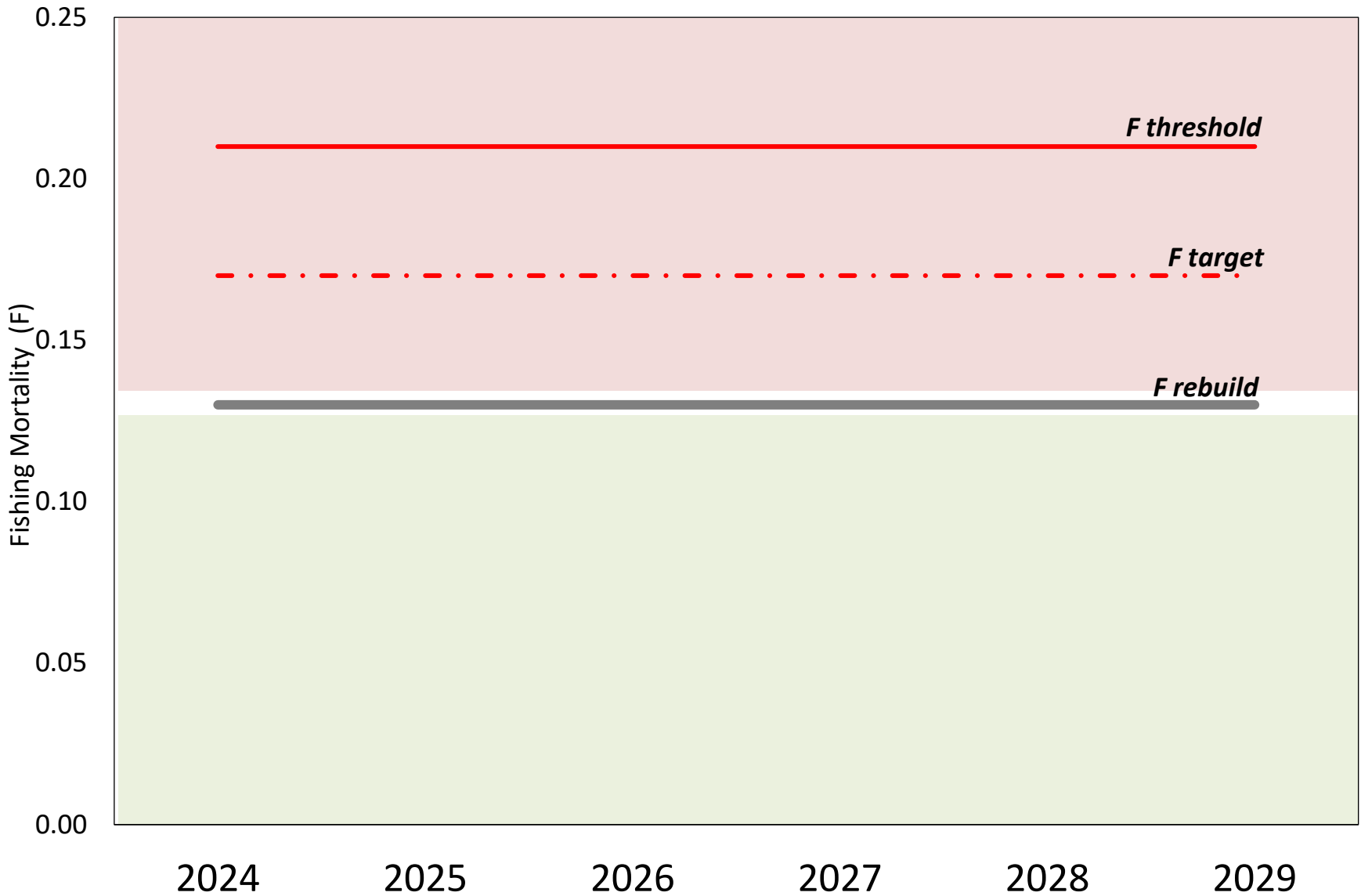
- Assuming no management intervention,  $F$  estimated to increase in 2025 due to the 2018 year-class entering the ocean slot limit
- Assume  $F$  increases by +17% in 2025
  - Same magnitude as increase from 2021 to 2023 with 2015 year-class in the narrow 28-31" slot
  - This may be an overestimate since 2018s are not as strong as 2015s
- 2025 increase could take rebuilding trajectory off-track unless  $F$  in 2026-2029 is low enough to offset the increase

# 2026-2029 Decrease

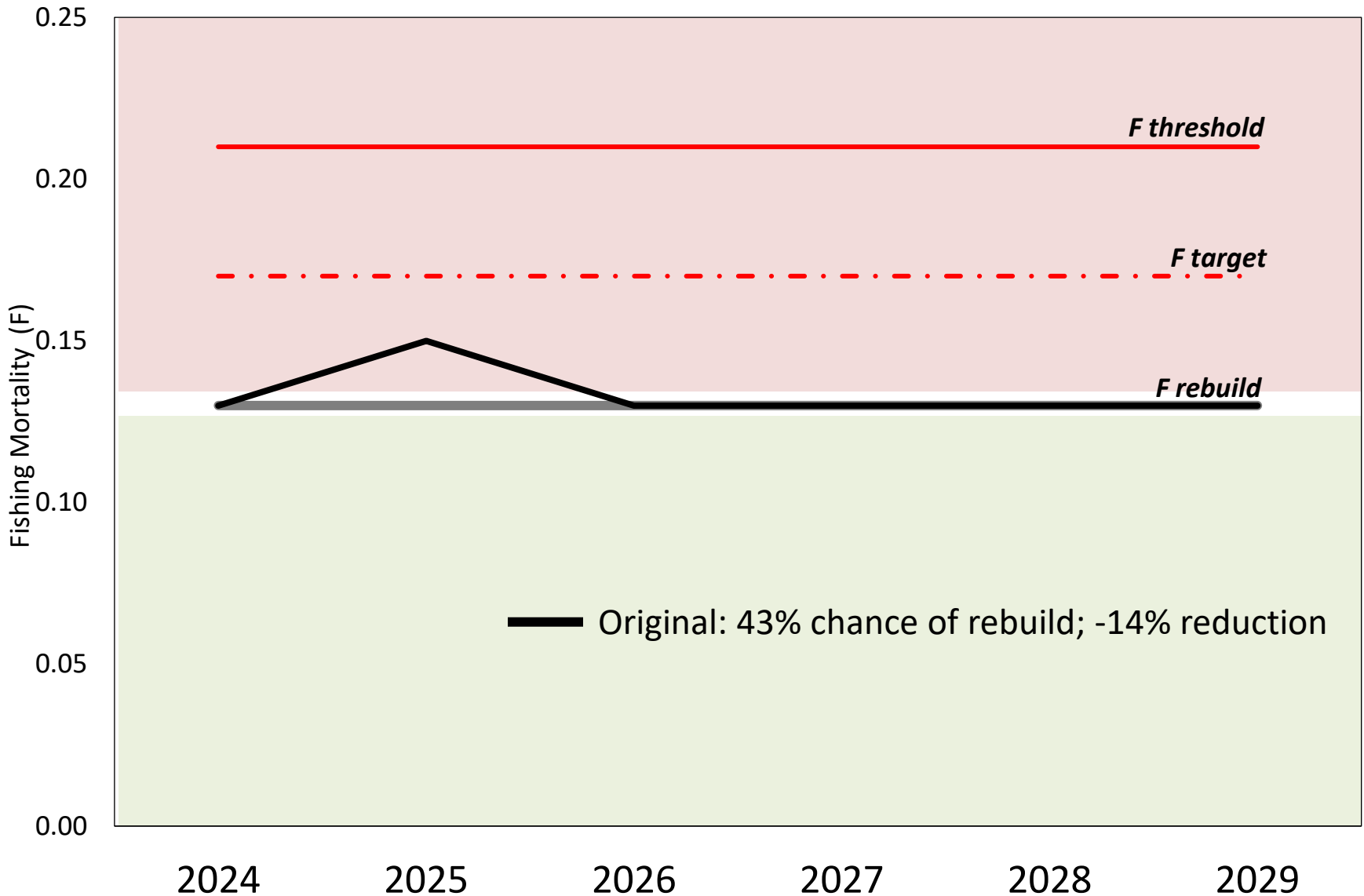


- Assume  $F$  decreases/stabilizes from 2026-2029 due to 2018 year-class growing out of the slot limit and no strong year classes behind it
- How low will  $F$  decrease for 2026-2029? Low enough to offset the 2025 increase?

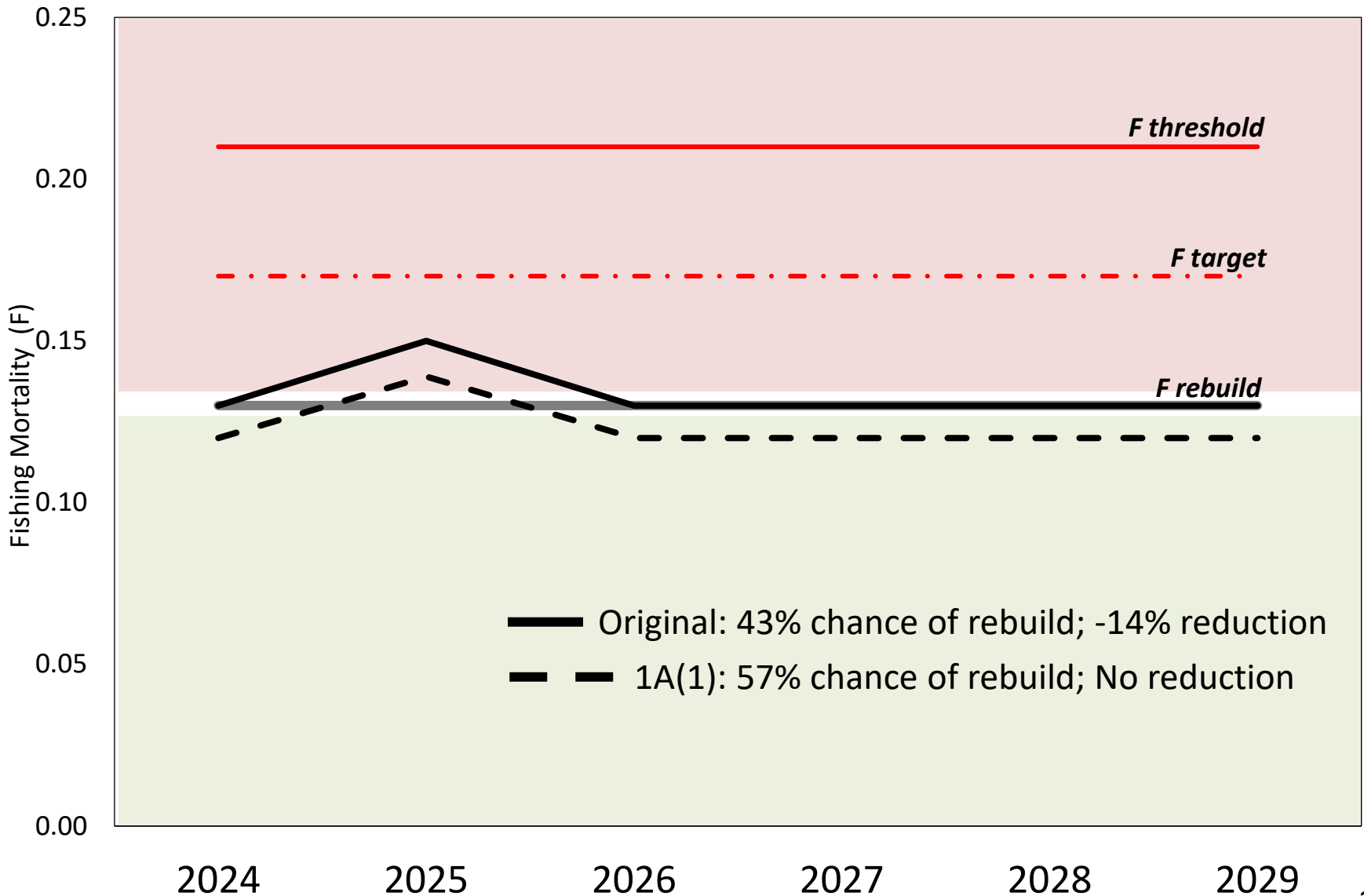
# Fishing Mortality ( $F$ ) Scenarios



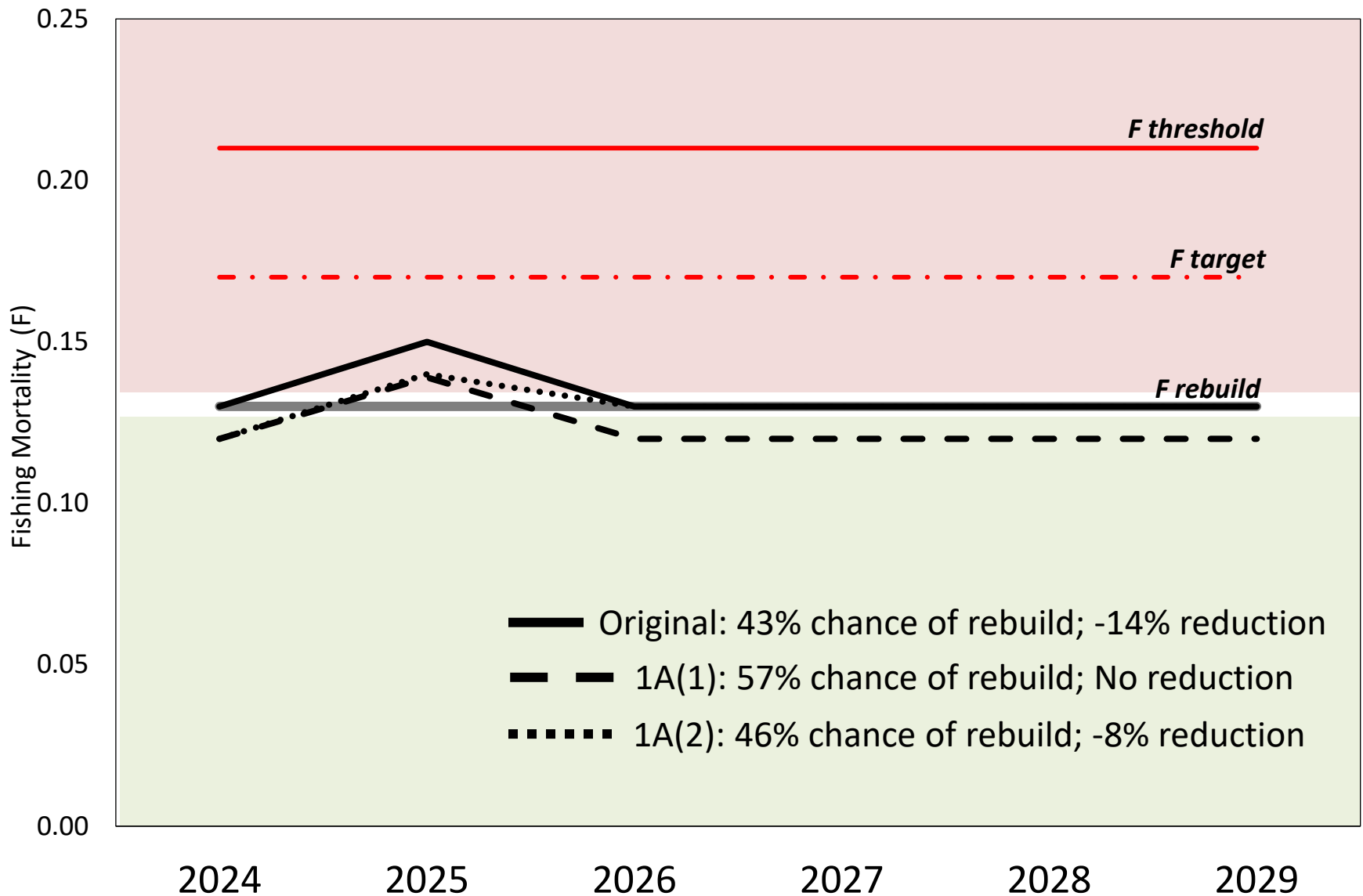
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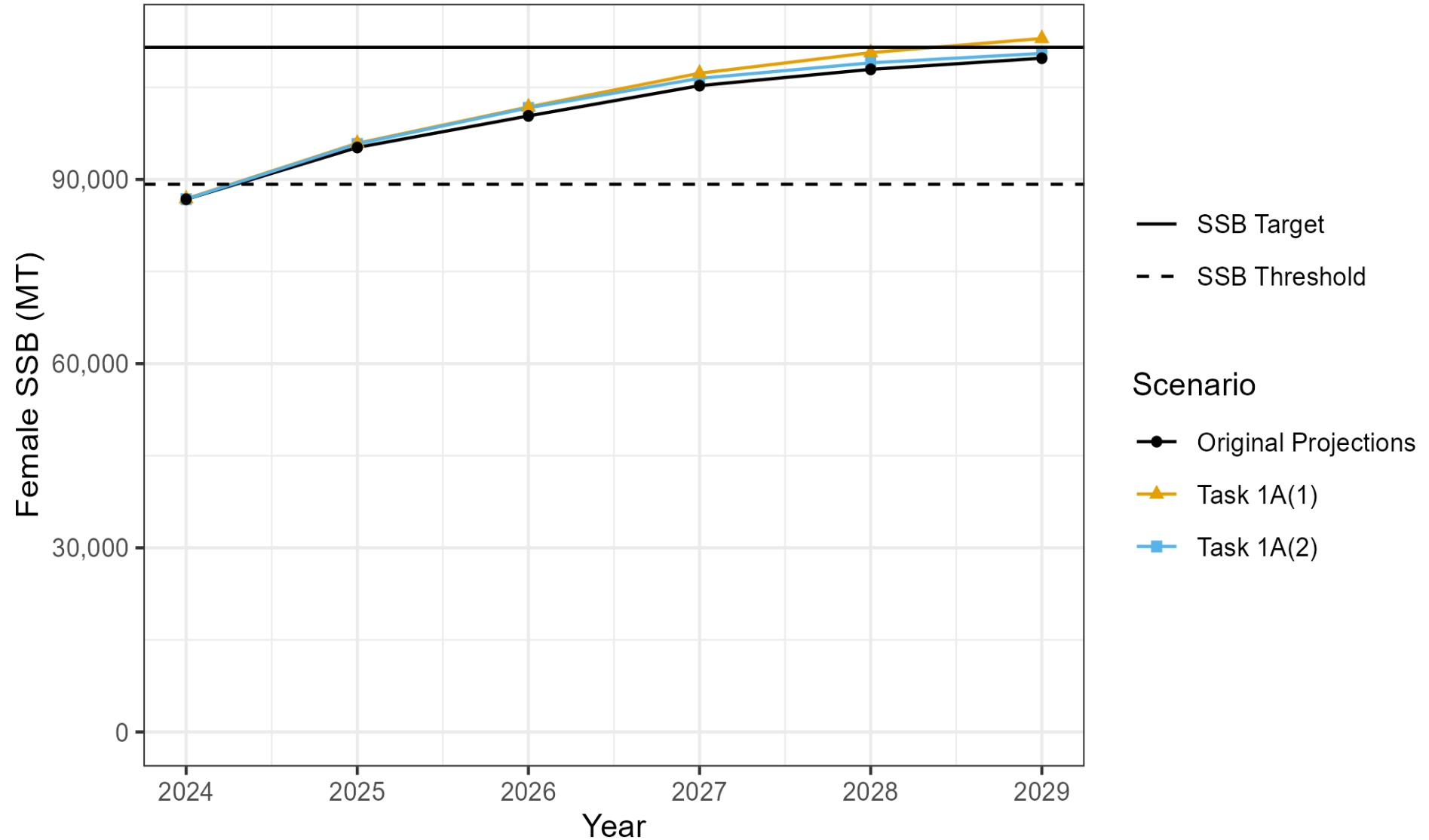


# Scenarios



<b>Scenario</b>	<b>2024 MRIP Data</b>	<b>F2026-2029 Decrease After 2025 Increase</b>	<b>Probability of Rebuild</b>	<b>Reduction in Removals for 2025</b>
Original	Waves 2-3	F=0.13	43%	-14%
Task 1A (1)	Waves 2-4	F=0.12	57%	0%
Task 1A (2)	Waves 2-4	F=0.13	46%	-8%

# Spawning Stock Biomass Trajectory

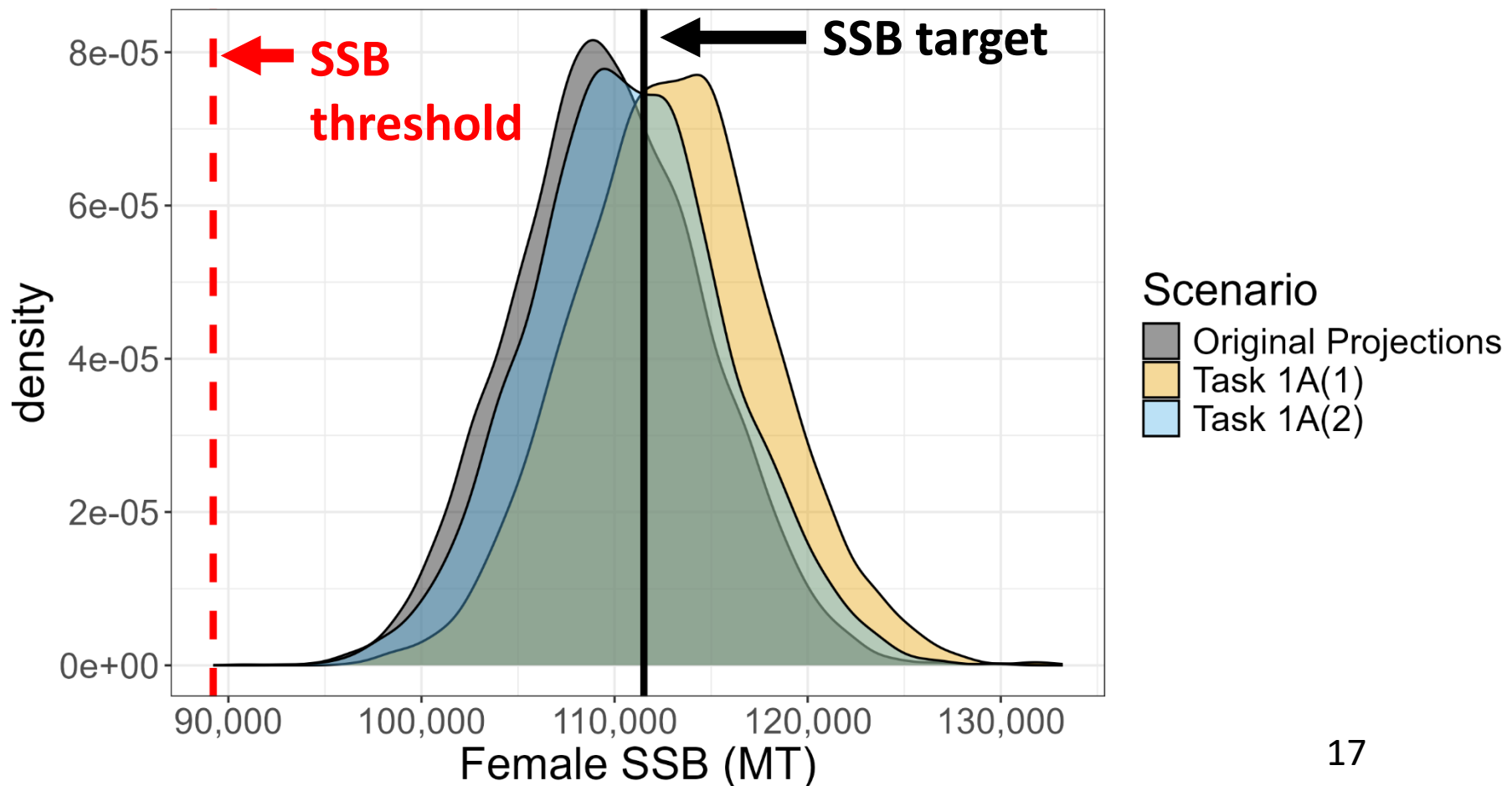




# SSB in 2029



- In all three scenarios, SSB in 2029 is close to the SSB target



# 2025 Reduction



- 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%
- TC notes all three scenarios represent a credible range of what might happen
- Board should consider its risk tolerance when considering possible management response for 2025
- **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**



# **Considering Smaller Reductions and Overall Uncertainty**

# Note on Small Reductions



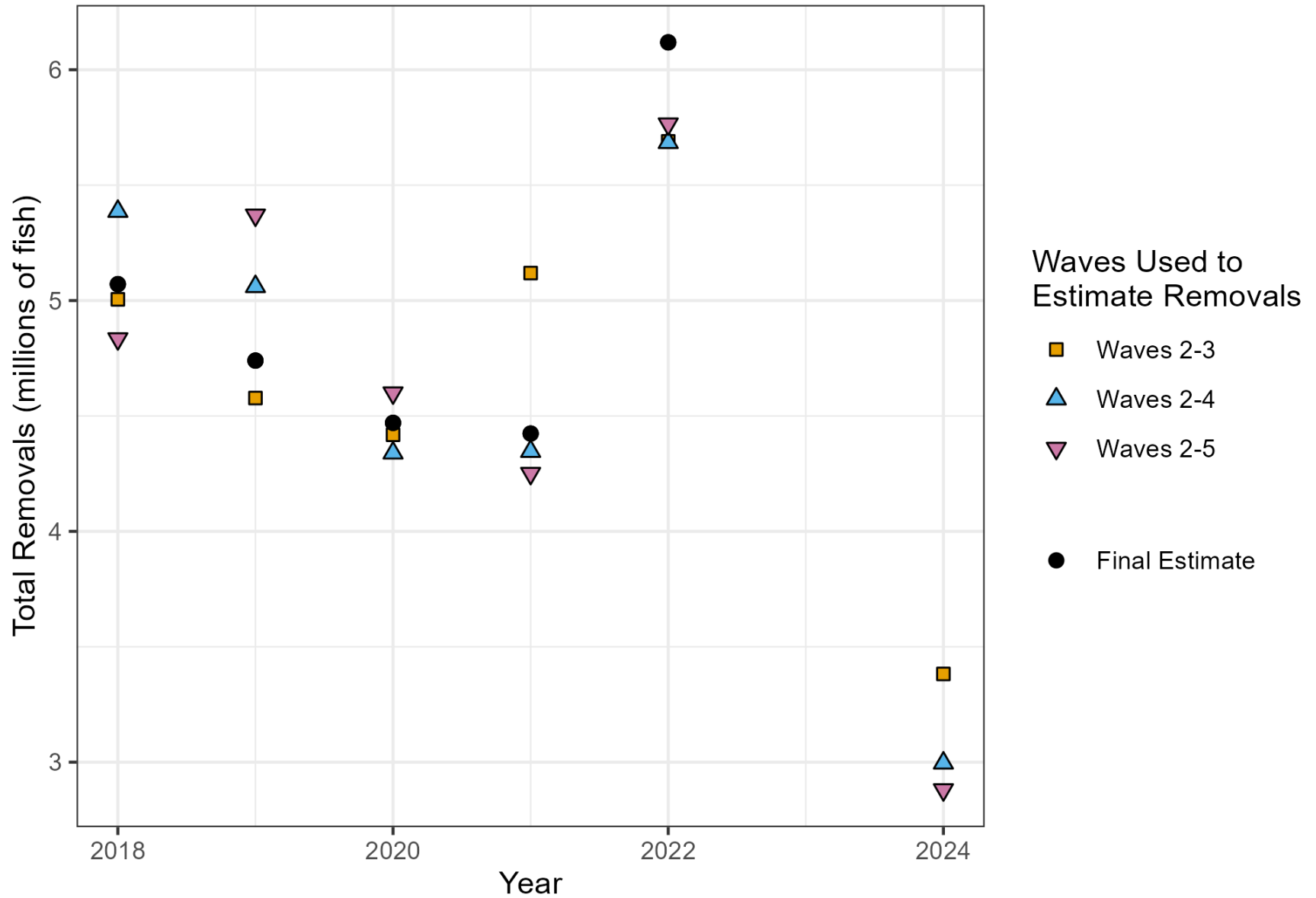
- Management changes designed to achieve small changes (e.g., reduction less than 10%) would be difficult to measure given uncertainty in MRIP estimates
- Reduction less than 10% would not be statistically distinguishable from status quo

# Uncertainty in 2024 Removals



- One difference in projection scenarios is 2024 starting point, either based on Waves 2-3 or Waves 2-4
- Using Waves 2-4 to predict total removals for the entire year does not always result in a more accurate estimate than using Waves 2-3
- In recent years, sometimes using Waves 2-4 overestimated removals and sometimes underestimated removals
- Preliminary Wave 5 data indicate lower removals

# MRIP Estimates



# Uncertainty



- Angler behavior and fish availability are still sources of uncertainty
- The magnitude of the increase in 2025 and decrease in 2026-2029 are highly uncertain
- Projections assume constant  $F$  from 2026-2029, however it is difficult to maintain a constant  $F$  from year-to-year and difficult to predict how  $F$  will vary

# Uncertainty



- Uncertainty around how well the 2024 selectivity curve represents actual selectivity
- Additional years of data under the same management regulations would inform a better estimate of selectivity for upcoming assessments





# **Technical Committee Report: Potential Management Options**



# Potential Management Options

- If Board proceeds with a reduction in 2025, Board would decide how to split the reduction between sectors

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



# Potential Management Options

- Board indicated any commercial reduction would be considered via reduction in commercial quota
- Board tasked the TC with developing size limit and seasonal closure options for the recreational sector

# Recreational Size Limits



- **Tradeoffs of allowing harvest of larger fish vs. maintaining the current slot limit targeting smaller fish in the ocean**
- 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

# Recreational Size Limits



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 Size Limits



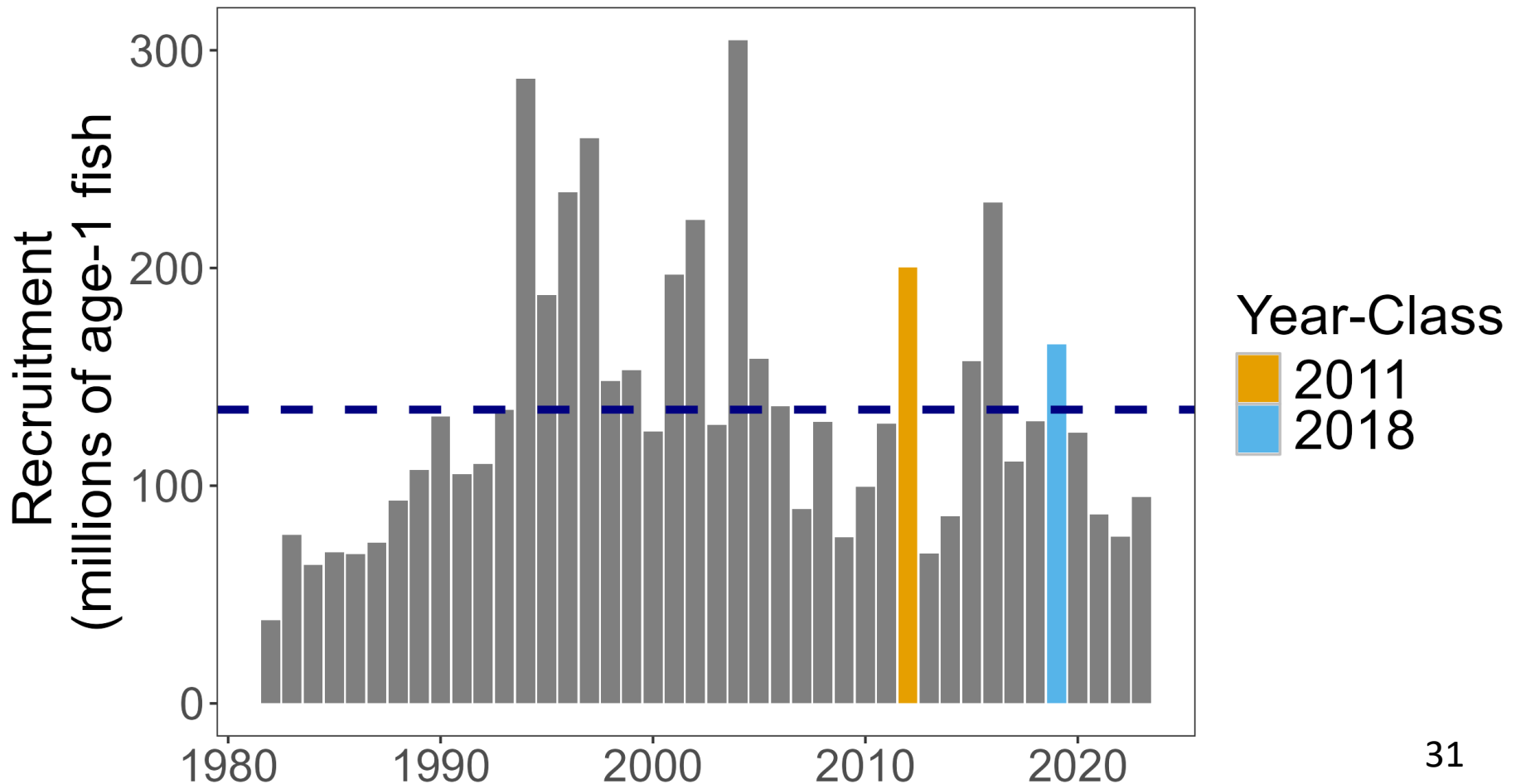
## What about an ocean size limit below 28”?

- TC analysis results indicate a 2-inch slot limit with sizes below 28” would not result in a reduction but would increase removals

# Recreational Size Limits



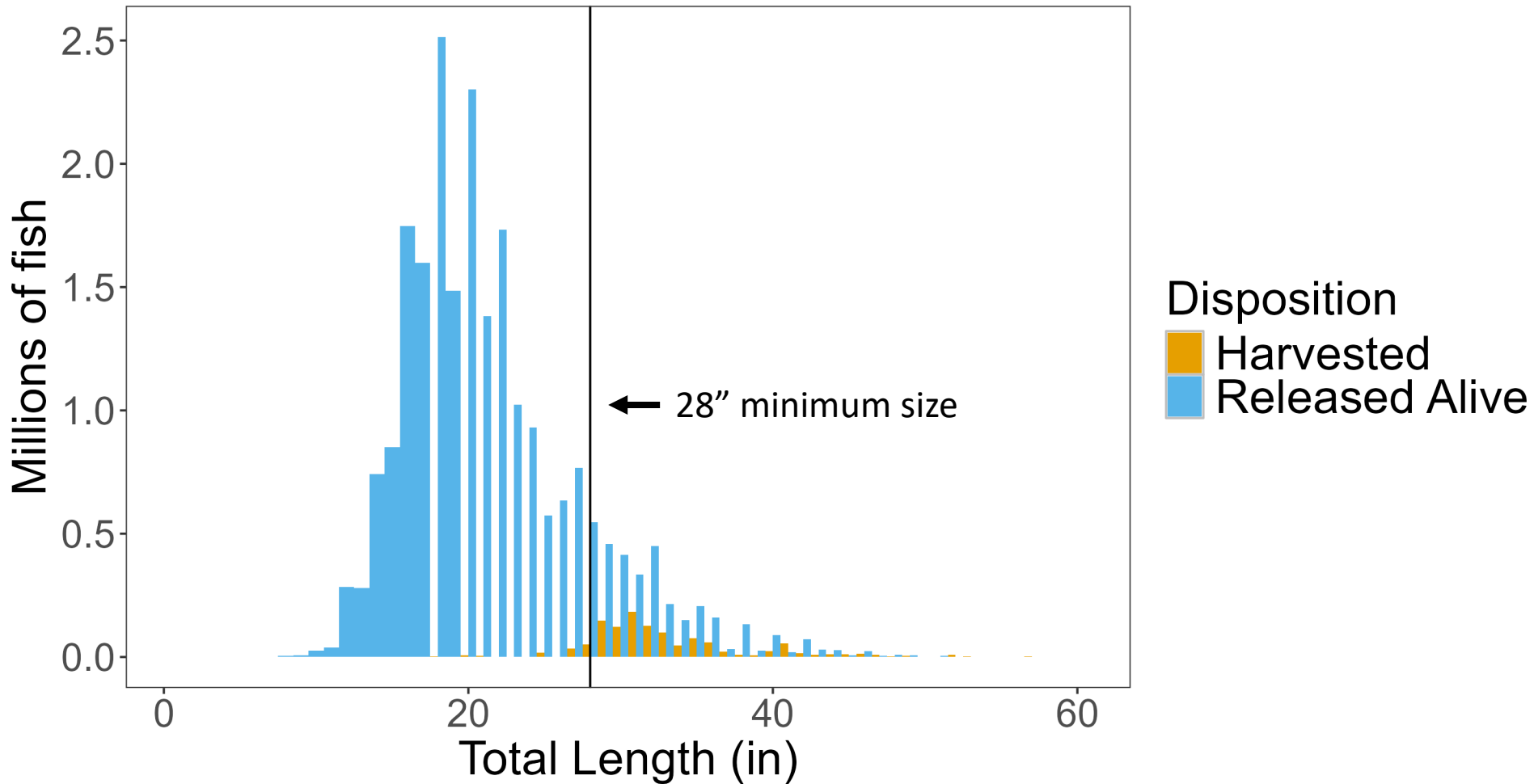
- The 2011 year-class was used as a proxy for the 2018 year-class



# Recreational Size Limits



Length frequency of the catch when the 2011 year-class was age-7

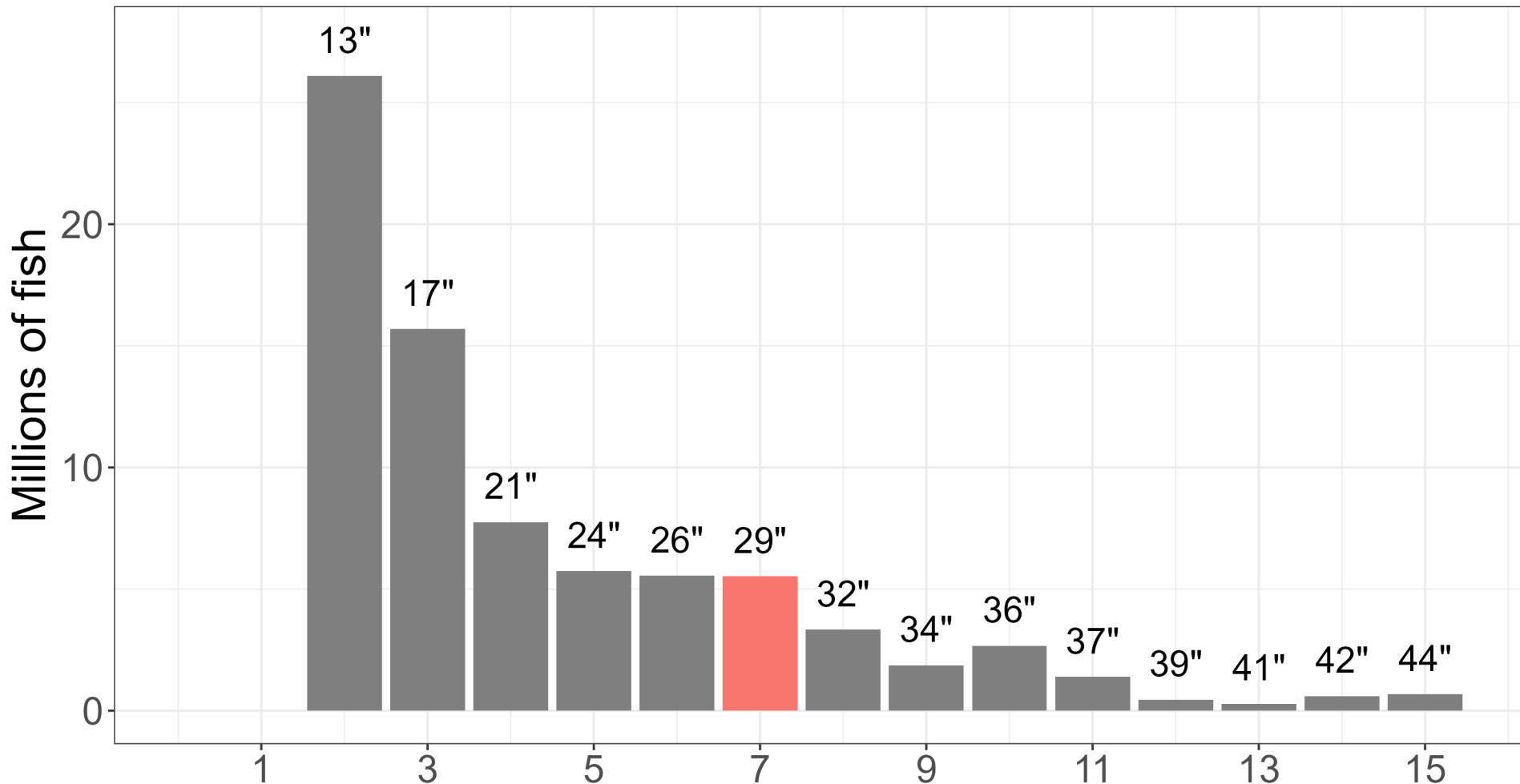




# Recreational Size Limits



- Age-5 and age-6 fish in 2025 are projected to be as abundant as age-7 fish



# Recreational Size Limits



## **What about an ocean size limit below 28”?**

- Unclear whether the biological benefit of reducing harvest of the remaining 2015s and 2018s would outweigh the biological risk of targeting immature fish under 28”

# Recreational Seasonal Closures



- Seasonal closure options (# days closed) would be in addition to existing closures
- **No-Harvest Closure:** harvest prohibited but catch-and-release fishing allowed
- **No-Targeting Closure:** all fishing for striped bass is prohibited (no catch-and-release and no harvest)

# No-Targeting Closures



- Different assumptions for how no-targeting closures would reduce releases
- 1) All Striped Bass Trips Occur with New Target Species
  - All trips previously targeting striped bass, including those targeting striped bass only, would still occur but would shift to target other species (releasing striped bass incidentally at a non-targeted rate)
- 2) Eliminate Striped Bass-Only Trips
  - Trips that only targeted striped bass (no other species) would no longer occur or no longer release any striped bass

# Recreational Seasonal Closures



- **Ocean**
  - All States
  - ME-MA and RI-NC
  - ME-NH and MA-NJ and DE-NC
- **Chesapeake Bay**
  - Maryland and Virginia during same Wave
  - Maryland and Virginia during different Waves
  - PRFC and DC can choose to match either Maryland or Virginia timing

# Recreational Seasonal Closures



- Report includes options for various reductions for different Waves and regional/state combinations
- Note: Report was originally posted on December 3, and a revised report was posted on December 5 with updates to some Chesapeake Bay closure options. In the original version, some options listed closures that exceeded Maryland and/or Virginia's current open season

# Recreational Seasonal Closures



- As an example, the following slides show closure options to achieve a 14% recreational reduction (assumes equal commercial reduction)
- Report also includes options to achieve a 16% reduction (assumes no commercial reduction)
- Report includes region-specific and state-specific reductions (i.e., are various closure options having similar/different impacts on each region?)

# Recreational Seasonal Closures



- **These slides are not an exhaustive list of options**
  - Showing combinations requiring the shortest closures for 14% as an example
  - Report also includes options to achieve a 16% reduction (assumes no commercial reduction) → lengthens closures by ~3-7 days and some no-harvest options not possible
  - Appendix 3 includes more comprehensive list of different region/Wave combinations for 14% reduction and 8% reduction



# Ocean Closure Example for 14%



## 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	# days for 14% reduction with NO-TARGETING closure assuming All Striped Bass Trips Occur with New Target	# days for 14% reduction with NO-HARVEST closure
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	34 days	55 days
ME-MA Wave 4; RI-NC Wave 6	23 days	31 days	47 days
ME-MA Wave 5; RI-NC Wave 6	25 days	32 days	54 days

# Ocean Closure Example for 14%



## 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	# days for 14% reduction with NO-TARGETING closure assuming All Striped Bass Trips Occur with New Target	# days for 14% reduction with NO-HARVEST closure
ME-NH Wave 3; MA-NJ Wave 6; DE-NC Wave 6*	28 days	36 days	61 days
ME-NH Wave 4; MA-NJ Wave 6; DE-NC Wave 6*	27 days	34 days	59 days
ME-NH Wave 5; MA-NJ Wave 6; DE-NC Wave 6*	27 days	35 days	60 days

# Chesapeake Bay Closure for 14%



## Chesapeake Bay seasonal closures to achieve 14% recreational reduction (corresponding to equal commercial reduction)

<b>Chesapeake Bay State/Wave</b>	<b># days for 14% reduction with NO-TARGETING closure assuming Striped Bass-Only Trips Eliminated</b>	<b># days for 14% reduction with NO-TARGETING closure assuming All Striped Bass Trips Occur with New Target</b>	<b># days for 14% reduction with NO-HARVEST closure</b>
MD and VA Wave 3	MD 33 days VA 31 days	MD 43 days VA 31 days	Cannot achieve
MD and VA Wave 5	MD 32 days VA 28 days	MD 36 days VA 28 days	MD 47 days VA 28 days
MD Wave 4; VA Wave 3	31 days	MD 35 days VA 31 days	MD 41 days VA 31 days
MD Wave 4; VA Wave 6	31 days	36 days	42 days

# Chesapeake Bay Closure for 14%



<b>Chesapeake Bay seasonal closures to achieve 14% recreational reduction (corresponding to equal commercial reduction)</b>			
<b>Chesapeake Bay State/Wave</b>	<b># days for 14% reduction with NO-TARGETING closure assuming Striped Bass-Only Trips Eliminated</b>	<b># days for 14% reduction with NO-TARGETING closure assuming All Striped Bass Trips Occur with New Target</b>	<b># days for 14% reduction with NO-HARVEST closure</b>
MD Wave 5; VA Wave 3	28 days	30 days	MD 40 days VA 31 days
MD Wave 5; VA Wave 6	28 days	31 days	41 days
MD Wave 6; VA Wave 3	MD 33 days VA 31 days	MD 35 days VA 31 days	Cannot achieve

# Recreational Combination Option



- Board requested calculation example for an option combining a size limit change and a seasonal closure
- 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
- Appendix 4 includes one example of a combination option



# Questions



# **Clarifications on Board Decisions, Public Comment Summary, Advisory Panel Report**



December 16, 2024

# Outline



- Clarifications on Board Decisions (Staff Memo)
- Public Comment Summary
- Advisory Panel Report
- Questions





# **Clarifications on Board Decisions (Staff Memo)**

# Board Action Provision



- Most likely projection scenario in the 2024 Stock Assessment Update indicates fishing mortality will increase in 2025 → probability of rebuilding the stock by 2029 less than 50%
- Since the assessment indicates a less than 50% chance of rebuilding by 2029, Atlantic Striped Bass Management Board can change management measures through Board action (without an addendum)
- Board is not required to take action at this point

# Seasonal Closure Details



- If seasonal closures are implemented, Board decision whether all states in a region need to have the same closure dates within the specified Wave
- If so, the Board should determine when the decision on specific dates needs to be made

# Rec. Area-Specific Measures



- If the Board changes measures for 2025, Board decision whether to require area-specific recreational measures for:
  - New York Hudson River
  - Pennsylvania April-May slot fishery in lower DE River/Estuary
  - Delaware July-August slot fishery in DE River/Bay
- Board would need to specify timeline for development of new measures and review by TC and Board



# **Public Comment Summary and Advisory Panel Report**

# Public Comments



- 4,360 written public comments were received as of December 10 (closing deadline)
  - 40 organizations (including one with 1,723 signatories)
  - 976 comments through 4 form letters
  - 1,621 individual comments

# Advisory Panel



- Atlantic Striped Bass Advisory Panel (AP) met via webinar on December 9 to discuss AP recommendations on the TC report
- 20 AP members in attendance



**What level of reduction should the Board implement in 2025, if any?**

**What level of risk is the Board willing to accept?**



# Public Comment: Reduction



	Support Reduction/ Taking Action	Maintain Status Quo/ Action Not Needed
Written Total	2,853	517

- Comments tallied explicitly indicated support for taking a reduction in 2025, or explicitly opposed action at this time
- Comments noting which measures were preferred *if* the Board were to take action, or comments only opposing specific measures or noting certain measures were tolerable, were not tallied here
  - Unclear whether those comments supported/opposed taking a reduction in 2025 → Tallies could be an underestimate

# Public Comment: Reduction



- Comments supporting action noted the need to act quickly to rebuild the stock by 2029, especially with low recruitment
- Concern about more drastic action in the future
- Risk-averse given uncertainty in stock projections

# Public Comment: Reduction



- Comments supporting status quo noted current management measures (narrower slot) are working to rebuild the stock
- Projections indicate stock will be close to rebuilding goal with no action, and further restrictions would have negative economic consequences
- Another reduction would not address underlying environmental factors contributing to poor recruitment

# AP Report: Reduction



## **9 AP members support taking reduction in 2025:**

- Data point to declining fishery, including low recruitment; fishery must be managed to smaller level
- Avoid larger reduction later
- Not taking action would be greatest risk
- Some support -14%, others support at least -10%
- Board should be conservative given uncertainty in projections and recruitment failure

**1 AP member supports either up to -8% reduction, or status quo (get one more year of data)**

# AP Report: Reduction



## **8 AP members support status quo:**

- More reductions will put industry out of business
- Wait until performance of current regulations can be evaluated
- Projection scenarios are not statistically different
- Taking a reduction does not address environmental conditions; value of hatcheries should be considered
- Economic risk to fishing businesses of taking a reduction outweighs the potential reward since unclear if a reduction would have meaningful impact on the stock
- Other species cannot withstand additional effort



**For any reduction, how should the reduction be split between the recreational and commercial sectors?**

# Public Comment: Sector Split



	Both Sectors Take a Reduction*	No Reduction for Commercial
Written Total	2,726	5

\*Most comments support both sectors taking even reductions (same percent reduction for each sector).

Small number of comments support each sector taking a reduction based on its contribution to total removals.

# Public Comment: Sector Split



- Comments supporting both sectors taking a reduction note all sectors should share the burden to rebuild
- Some comments support reductions from landings, not quota
- Comments supporting no reduction for the commercial sector noted another cut to would not be economically sustainable, and the commercial sector is managed by a hard quota



# AP Report: Sector Split



- 5 AP members support equal percent reductions for both sectors noting all sectors should share the burden equally
- 3 AP members support no reduction for the commercial sector noting further reductions would put industry out of business
- 3 AP members support each sector taking a reduction based on sector contribution to total removals

# AP Report: Sector Split



- 1 AP member noted the overall reduction is the most important aspect, and no preference on sector split
- 1 AP member noted the importance of considering which sector is contributing to excess fishing mortality; commercial sector under-harvesting its quota and recreational fishery increasing over time



**For recreational measures, should  
the Board change size limits?**

# Public Comment: Rec Size Limit



	Support Changing Size Limit
Written Total	2,050

Comments in support of changing the size limit provided a wide range of recommendations

# Public Comment: Rec Size Limit



- Some comments support lowering the slot limit below 28” to protect the 2015s and 2018s
  - Some comments noted strong opposition to this due to risk of targeting immature fish
- Some comments recommended narrowing the current slot (e.g., 28-30”) or implementing a high minimum size limit to protect the 2018 year-class
- Other recommendations included expanding the slot or returning to a 28” minimum to reduce releases

# AP Report: Rec Size Limit



- No AP members support changing the recreational size limit
- 1 AP member noted the science seems to indicate harvesting immature fish would be problematic
- 1 AP member noted size limit changes could be considered after 2025 instead of considering season changes



**For recreational seasonal closures,  
should the Board implement no-  
harvest closures or no-targeting  
closures?**

# Public Comment: Rec Closures



	Support No-Harvest Closure Options	Support No-Targeting Closure Options	Oppose Both No-Harvest No-Targeting Options/ General Opposition	Oppose Only No-Targeting Closures
Written Total	421	746*	2,252	640

\*700 of those comments specific to Chesapeake Bay



# Public Comment: Rec. Closures



## **Those in opposition to no-targeting closures noted:**

- Severe economic consequences to local fishing economies
- Prohibiting fishing is a drastic, unnecessary measure that would devastate the fishing industry
- Unenforceable

## **Those in opposition to no-harvest closures noted:**

- Similar economic concerns
- Unfairly impact those who prefer to harvest fish
- Some oppose this set of no-harvest options, but could support modified options that are more equitable

# Public Comment: Rec. Closures



## Equity Concerns

- States with shorter fishing seasons disproportionately impacted
- States/regions should take equitable reductions
- Concern about current regional breakdowns

## New Jersey Closures

- Many comments opposing closures in New Jersey during October, November, and December
- Peak fishing season and devastating economic impacts
- Some noted that if closures had to be implemented, should occur during the spring spawning season

# Public Comment: Rec. Closures



- Those in support of no-harvest closures noted effective way to reduce fishing mortality while preserving the ability to fish catch-and-release
- Some comments support no-targeting closures
  - Some specific support for no-targeting closures in the Chesapeake Bay when release mortality rates are high
  - Other comments support no-targeting closures as the only fair way to address removals from harvest and catch-and-release

# AP Report: Rec. Closures



## **9 AP members support no-harvest closures instead of no-targeting closures:**

- Many anglers could still participate catch-and-release
- Impacts on businesses from a no-harvest closure would be less severe than no-targeting closure
- Lack of other species to target, especially in New England
- No-targeting closures are unenforceable and not practical given the overlap with other species
  
- 1 AP member supports no-harvest season as a step toward no-targeting season (later start date/earlier close date instead of mid-season closure)

# AP Report: Rec. Closures



## **5 AP members support no-targeting closures:**

- All parts of the fishery should be part of the closures
- Not equitable to allow catch-and-release to operate and not the harvest component
- No-targeting closures would be shorter
- Support closures when water temperatures are high to maximize benefit

1 AP member noted the importance of maintaining harvest for shore anglers who are often part of minority groups which are underrepresented

# AP Report: Rec. Closures



## **Several AP members concerned about the proposed regional breakdowns:**

- Regions are too large and one/two states in a region take a majority of the reduction
- States within the proposed regions have different timing of peak season
- Closures should be evaluated state-by-state to determine the most equitable approach, so all states take the same reduction



# **Other Topics Raised by Public Comments and Advisory Panel**

# Public Comment: Other Topics



- Support for harvest moratorium (temporary or permanent)
- Support for eliminating commercial harvest
- Need to better understand the cause of low recruitment and impacts of environmental factors
- Support for additional recreational gear restrictions
- Need to increase angler education on best practices
- Need for increased enforcement, increased fines, poaching concerns
- Support for managing the for-hire mode separately from the rest of the recreational sector
- Need to address menhaden harvest



# AP Report: Other Topics



- Concern about accuracy of stock assessment data and whether the assessment can identify the spawning origin of fish and concern
- Concern the for-hire mode is not managed separately
- May need to consider hatcheries to support the stock. Research needed on environmental conditions and chemical impacts on striped bass (e.g., impacts on male fish)
- Concern about the number of fish being handled/released in the current narrow slot
- Discussed commercial quota utilization (regulation vs. fish availability)



# Questions