



# Atlantic Menhaden Spatial Modelling

Matt Cieri

ERP Work Group Chair

October 19, 2021

# Background



At the 2021 Winter Meeting, the Board tasked the ERP WG & Atl. Menhaden TC with providing further details on the research recommendation to “develop a spatially-explicit model,” including:

- Data needs
- Timeline for development and implementation
- Whether or not a spatial model would resolve Chesapeake Bay management questions


# Spatial Model Approaches



- The TC and ERP WG developed a preliminary list of potential spatial approaches
  - Approaches cover a range of spatial complexity, data needs, and timelines
  - Provide different levels of information to support management
  - Data needs and model considerations are based on current understanding of feasibility (subject to change)
- The appropriate approach will depend on management goals, as well as data and funding availability

# Spatial Model Approaches



Attributes	Approach
 Coarse spatial scale, minimal additional data requirements	Coastwide BAM + NWACS-MICE + supplemental Bay information
	Coarse spatial BAM + coastwide NWACS-MICE
	Coarse spatial BAM + coarse spatial NWACS-MICE
	Detailed spatial BAM + detailed spatial NWACS- MICE

# Board Input



- Board objectives and priorities will help the TC & ERP WG determine which spatial approach is appropriate for menhaden, as well as what the model development timeline will be.
  - Funding priorities will depend on which approach is pursued
- The following questions for the Board will help the TC & ERP WG identify the best path forward

# Board Input



1. Is the Board interested in a spatially-explicit model for menhaden? (of any type, scale, or timeframe)

# Board Input



2. Is the Board willing to delay the next benchmark assessment in order to explore a spatially-explicit model for menhaden?
  - Considerations:
    - The next benchmark is scheduled for 2025
    - Work on the benchmark would start in 2023, following the single-species update in 2022
    - The last benchmark had a terminal year of 2017
    - A 2025 benchmark currently aligns well with the other ERP species' assessments

# Board Input



2. Is the Board willing to delay the next benchmark assessment in order to have a spatially-explicit model for menhaden?

→ **No:** the 2025 benchmark will go forward as planned; the ERP WG and TC will consider spatial issues in the benchmark after that

→ **Yes:** ERP WG and TC will postpone the 2025 benchmark to address Board input on the following questions



# Board Input



3. Does information for Chesapeake Bay (CB) take precedence or should the WG pursue a coarse regional spatial model that would also include CB (e.g., to inform regional allocations)?
- Considerations:
    - There may be simplified CB-only approaches that could take less time than a coastwide spatial model
    - Incorporating coastwide spatial dynamics is a reasonable next step in the evolution of the ERP approach

# Board Input



4. Is a rough approximation for CB sufficient (based on historical tagging data that includes MD & VA coastal waters)? Or does the Board want updated, CB-specific information?
- Considerations:
    - CB-specific information will require funding and time for a new abundance survey that provides CB-specific data

# Funding Priorities



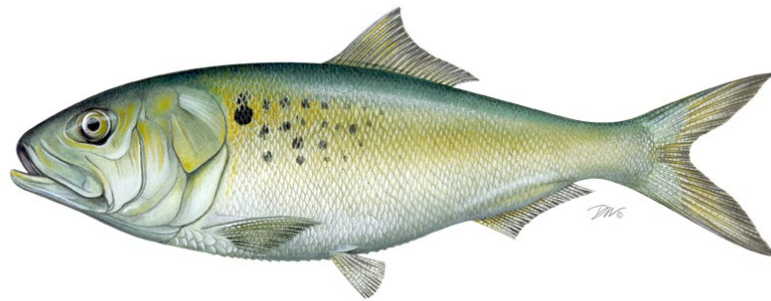
- If CB-specific information is desired (for CB-only or coastwide approaches) → fund abundance survey that includes CB
- If coastwide spatial information is desired → fund spatially and seasonally explicit diet data and spatial distributions for key predator and prey species
- Funding for model development may shorten development timelines



# QUESTIONS



# Progress Update & Board Guidance on Developing Addendum I to Amendment 3



October 19, 2021

# Background



- Aug 2021: Draft Addendum I to Amendment 3 initiated
- Board workgroup (WG) report was basis for developing management alternatives
- Challenges (time constraints, complexity of issues, further guidance needed) led to developing memo
- Memo included in supplemental materials



# Request for Board Guidance



- PDT has developed for each topic
  - Statement of the Problem
  - Objective to address the Problem
  - Initial Management Alternatives and Goals
  - Key Questions and Recommendations
- PDT is requesting the Board provide guidance for each topic
  - Confirm Statement of Problem & Objective
  - Consider PDT recommendations
  - Address Key Questions



# Presentation Outline of PDT Memo



- Overview of each Issue Topic
  - Current Management Status Quo (Amendment 3)
  - Statement of Problem
  - Objective
  - Management Alternatives
  - PDT recommendations
- Take questions
- Revisit each Issue Topic
  - Get Board feedback on Statement of Problem, Objective, PDT recommendations
  - Board provide answers to key questions







# Issue #1: Allocation



# Allocation Status Quo



- Each jurisdiction is allocated a 0.5% fixed minimum quota and the remainder of the TAC is allocated based on a three-year average of historical landings from 2009-2011

State	Allocation (%)
ME	0.52%
NH	0.50%
MA	1.27%
RI	0.52%
CT	0.52%
NY	0.69%
NJ	10.87%
PA	0.50%
DE	0.51%
MD	1.89%
PRFC	1.07%
VA	78.66%
NC	0.96%
SC	0.50%
GA	0.50%
FL	0.52%
<b>TOTAL</b>	<b>100.00%</b>



# Landings as % of Coastwide Total



State	Amendment 3 Directed Landings Allocations (%)	% of 2016 CW Landings	% of 2017 CW Landings	% of 2018 CW Landings	% of 2019 CW Landings	% of 2020 CW Landings
ME	0.52%	1.2%	2.3%	3.5%	4.9%	6.3%
NH	0.50%				1.0%	1.0%
MA	1.27%	0.8%	1.0%	1.4%	1.5%	2.2%
RI	0.52%	0.1%	0.5%	0.2%	0.0%	0.0%
CT	0.52%	0.0%	0.1%	0.2%	0.0%	0.0%
NY	0.69%	0.4%	0.4%	0.2%	0.3%	1.0%
NJ	10.87%	11.5%	12.2%	11.9%	11.0%	12.3%
PA	0.50%					
DE	0.51%	0.0%	0.0%	0.0%	0.0%	0.0%
MD	1.89%	1.4%	0.8%	0.7%	0.7%	0.6%
PRFC	1.07%	0.6%	0.5%	0.8%	0.5%	0.5%
VA	78.66%	83.9%	82.1%	80.8%	79.9%	75.7%
NC	0.96%	0.1%	0.2%	0.2%	0.1%	0.1%
SC	0.50%					
GA	0.50%					
FL	0.52%	0.1%	0.1%	0.1%	0.1%	0.1%



# Quota Transfers



State	2013	2014	2015	2016	2017	2018	2019	2020	2018-2020 Net Total	2018-2020 Average
ME				1,800,000	195,180	5,400,000	6,573,592	5,450,000	17,423,592	5,807,864
NH						0	3,373,592	2,300,000	5,673,592	1,891,197
MA	-500,000	-260,000	-508,685	-35,986		0	1,300,000	2,350,000	3,650,000	1,216,667
RI	15,000	50,000	33,685	35,986		0	-400,000	-1,800,000	-2,200,000	-733,333
CT						-500,000	-2,400,000	-2,000,000	-4,900,000	<b>-1,633,333</b>
NY	1,000,000	210,000	475,000	492,823	300,000	-1,000,000	-1,900,000	500,000	-2,400,000	<b>-800,000</b>
NJ						0	0	0	0	0
PA						0	0	-500,000	-500,000	-166,667
DE						-150,000	0	-100,000	-250,000	-83,333
MD						-1,500,000	-1,000,000	-1,350,000	-3,850,000	<b>-1,283,333</b>
PRFC						0	0	0	0	0
VA				-1,500,000		-1,000,000	-1,000,000	0	-2,000,000	-666,667
NC	-575,000			-877,823	-495,180	0	-600,000	-1,800,000	-2,400,000	-800,000
SC						0	-2,347,184	-1,650,000	-3,997,184	-1,332,395
GA						0	0	0	0	0
FL	60,000			85,000		-1,250,000	-1,600,000	-1,400,000	-4,250,000	<b>-1,416,667</b>



# Allocation: Statement of Problem



- Current allocations have resulted in TAC not being fully landed while some states do not have enough quota to maintain directed fisheries.
- Quota transfers alone are not enough to fix this issue.
- Some states are reliant on the EESA and incidental catch provision to maintain their fishery
- Other states regularly do not land their allocation.



# Allocation: Objective



Allocations should be adjusted to:

- 1) align with recent availability (not long-term “average” availability) of the resource
- 2) ensure jurisdictions can maintain directed fisheries with minimal interruptions during the season;
- 3) reduce the need for quota transfers and;
- 4) fully utilize the annual TAC without overage.



# Allocation Management Alternatives



Use two step approach as outlined in Amendment 3

- Step #1- Fixed Minimum Allocation
  - **Reduce fixed minimum allocation (0.1%-0.3%):**
    - Redistribute latent quota from the original fixed minimum.
    - In combination with recent timeframe allocation, shifts quota to states with higher landings recent
  - **Fixed minimum tier approach:**
    - Example: 3 tiers
    - 1<sup>st</sup> tier= 0.1% or less of avg coastwide landings
    - 2<sup>nd</sup> tier= 0.1%-0.2% of avg coastwide landings
    - 3<sup>rd</sup> tier= 0.2% or more of avg coastwide landings



# Allocation Management Alternatives



- Step #2: Timeframe for Allocating Remaining TAC
  - **Long Time-series (e.g. 2009-2020):**
    - Includes highs and lows, but dilutes recent trends
  - **Recent Time-series (e.g. 2018-2020)**
    - Reflects recent landings and stock distribution
    - Does not reflect the past, does not predict the future
  - **Weighted Allocation (50% '09-'11 & 50% '18-'20)**
    - Considers both past and recent, but dilutes
    - PDT recommends 1) chose one of three time splits and 2) limit the weighting options (50/50, 75/25, and 25/75)
  - **Moving Average**
    - Lag one year, changes annually
    - Reduces need to revisit allocation thru addenda





# Other Allocation Management Alternatives



- **Pooled Quota**
  - Group jurisdictions with little-no landings or directed fishery
  - Could allow for less in-season monitoring
  - Conflicting signals on whether to pursue further- Board guidance needed
- **Second Best Year Strategy\***
  - Consider second best landing year; may represent current trends better than 'best year'
  - Challenge- second best year varies by jurisdiction and time period; difficult to compare
- **Open fishery, then reallocate\***
  - Open fishery with no allocation for several years to determine future allocations
  - Recent landings indicate TAC could be regularly exceeded

**\*PDT recommends not including in Draft Addendum**



# Comparing Timeframe Allocations



State	Timeframes							
	Status Quo	2009-2020	2016-2020	2017-2020	2018-2020	09-11/18-20	09-12/17-20	10-12/18-20
ME	0.52%	1.90%	3.96%	4.45%	5.00%	2.66%	2.36%	2.59%
NH	0.50%	0.66%	0.90%	0.99%	1.14%	0.80%	0.73%	0.79%
MA	1.27%	1.38%	1.76%	1.89%	2.04%	1.64%	1.50%	1.43%
RI	0.52%	0.61%	0.64%	0.65%	0.57%	0.54%	0.58%	0.54%
CT	0.52%	0.53%	0.56%	0.57%	0.58%	0.55%	0.54%	0.54%
NY	0.69%	0.79%	0.90%	0.91%	0.92%	0.80%	0.79%	0.78%
NJ	10.87%	11.54%	11.29%	11.35%	11.25%	11.08%	11.88%	12.43%
PA	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
DE	0.51%	0.52%	0.52%	0.53%	0.53%	0.52%	0.52%	0.52%
MD	1.89%	1.82%	1.28%	1.16%	1.15%	1.54%	1.71%	1.71%
PRFC	1.07%	1.15%	1.05%	1.05%	1.06%	1.07%	1.13%	1.14%
VA	78.66%	76.32%	74.46%	73.75%	73.07%	75.96%	75.46%	74.74%
NC	0.96%	0.73%	0.63%	0.64%	0.63%	0.80%	0.76%	0.74%
SC	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
GA	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
FL	0.52%	0.55%	0.56%	0.55%	0.55%	0.53%	0.54%	0.54%



# 3 Year Moving Average Alt



State	Year								
	2013	2014	2015	2016	2017	2018	2019	2020	2021
ME	0.52%	0.51%	0.51%	0.51%	0.51%	0.97%	1.64%	2.76%	3.85%
NH	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.52%	0.85%
MA	1.27%	0.91%	0.77%	0.95%	1.09%	1.13%	1.24%	1.46%	1.69%
RI	0.52%	0.52%	0.52%	0.55%	0.71%	0.72%	0.82%	0.71%	0.69%
CT	0.52%	0.51%	0.51%	0.51%	0.51%	0.51%	0.53%	0.59%	0.59%
NY	0.69%	0.67%	0.68%	0.70%	0.77%	0.79%	0.85%	0.77%	0.72%
NJ	10.93%	13.45%	13.94%	12.81%	10.67%	10.89%	11.25%	11.41%	11.23%
PA	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
DE	0.51%	0.52%	0.52%	0.53%	0.53%	0.53%	0.52%	0.52%	0.52%
MD	1.90%	2.18%	2.33%	2.52%	2.16%	2.02%	1.71%	1.38%	1.18%
PRFC	1.07%	1.20%	1.30%	1.41%	1.23%	1.15%	1.06%	1.11%	1.06%
VA	78.60%	76.18%	75.57%	76.30%	78.57%	78.04%	77.15%	76.08%	74.92%
NC	0.96%	0.83%	0.80%	0.64%	0.68%	0.67%	0.66%	0.64%	0.65%
SC	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
GA	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
FL	0.52%	0.52%	0.54%	0.55%	0.57%	0.57%	0.57%	0.56%	0.55%



# Pooled Quota Alternative



State	Timeframes							
	2009-2011	2009-2020	2016-2020	2017-2020	2018-2020	09-11/18-20	09-12/17-20	10-12/18-20
ME	0.52%	1.93%	4.02%	4.53%	5.08%	2.71%	2.40%	2.63%
NH	0.50%	0.66%	0.90%	1.00%	1.15%	0.81%	0.73%	0.80%
MA	1.29%	1.40%	1.78%	1.92%	2.07%	1.66%	1.51%	1.45%
RI	0.52%	0.61%	0.64%	0.65%	0.57%	0.54%	0.58%	0.54%
CT	0.52%	0.53%	0.56%	0.57%	0.58%	0.55%	0.54%	0.54%
NY	0.69%	0.79%	0.90%	0.92%	0.93%	0.81%	0.79%	0.79%
NJ	11.15%	11.76%	11.49%	11.55%	11.45%	11.30%	12.11%	12.66%
PA	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
DE	0.51%	0.52%	0.53%	0.53%	0.53%	0.52%	0.52%	0.52%
MD	1.93%	1.85%	1.29%	1.17%	1.16%	1.56%	1.74%	1.73%
PRFC	1.09%	1.16%	1.06%	1.06%	1.07%	1.08%	1.15%	1.15%
VA	80.28%	77.79%	75.82%	75.11%	74.41%	77.47%	76.93%	76.18%
NC	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
SC								
GA								
FL								



# Allocation- PDT Recommendations



- Tiered Approach: provide guidance on setting tiers  
Clarify whether to include a Pooled Quota alternative
- Limit the number of weighted allocation options
- Not include the following in the Draft Addendum
  - longer time-series average option for allocating remaining available TAC
  - Second Best Year Strategy
  - Open Fishery, then reallocate





# Issue #2: Incidental Catch and Small-Scale Fisheries



# Incidental Catch Status Quo



After a quota allocation is met for a jurisdiction, the fishery moves to an incidental catch fishery

- small-scale gears & non-directed gear types may land up to 6,000 pounds of menhaden per trip per day( up to 12,000 pounds for 2 authorized individuals, working from the same vessel fishing stationary multi-species gear).

Eligible Small-scale and non-directed gears are listed in Amendment 3



# Annual Summary of total incidental catch as % of TAC



Year	Total incidental landings	Total incidental % of TAC	Incidental landings from purse seine	% of Incidental from purse seine
2017	7,407,441	1.8%	4,291,347	58%
2018	3,290,066	0.7%	2,419,194	74%
2019	10,750,929	2.4%	9,545,747	89%
2020	13,957,206	3.1%	12,332,677	88%





# Incidental Landings per Trip



Landings (lbs)	1-1000	1001-2000	2001-3000	3001-4000	4001-5000	5001-6000	6000+	
Year								Total Trips
2013	1807	286	158	111	130	158	133	2783
2014	3671	516	318	190	206	265	109	5275
2015	3040	551	304	136	130	196	141	4498
2016	1673	184	91	61	53	125	35	2222
2017	1443	267	89	66	83	140	20	2108
2018	495	190	113	56	46	319	5	1224
2019	943	355	182	127	140	1320	46	3113
2020	846	363	266	153	184	1647	106	3565
Total Trips	13918	2712	1521	900	972	4170	595	24788
% of Total Trips	<b>56%</b>	<b>11%</b>	<b>6%</b>	<b>4%</b>	<b>4%</b>	<b>17%</b>	<b>2%</b>	<b>100%</b>



# Incidental Catch: Statement of Problem



- Intent: provide access for low-volume landings once a quota was met.
- Availability in the north has led to quotas being met earlier in year
- Incidental Landings have exceeded state quotas and ranged 1-4% of the annual TAC.
- Amend 3 language has led to different interpretations
  - i.e. sector allocation is met or full jurisdiction allocation
- Without changes these landings may remain at high levels or increase; could jeopardize management objectives.



# Incidental Catch: Objective



Sufficiently constrain landings to achieve overall management objectives such as:

- 1) meeting the needs of existing fisheries;
- 2) reducing discard mortality by limiting eligible gear types,
- 3) indicating when landings can occur and that those landings are not a part of the directed fishery; and
- 4) establishing trip and season limits.



# Incidental Catch Management Alternatives



- **Permitted Gear Types**
  - No purse seines
  - Non-directed gears only
- **Timing of Incidental Catch**
  - Sector/fishery/gear type allocation within jurisdiction is met
  - Entire jurisdiction allocation is met
  - Full closure when allocation met (no incidental catch)
- **Incidental Catch Trip Limit**
  - 4,500 lb trip limit (up to 9,000 lbs for 2 individuals)
  - 3,000 lb trip limit (up to 6,000 lbs for 2 individuals)



## Catch Accounting\*

- Catch cap = 1% of the TAC and 10% management trigger
- 1% set-aside of the TAC, overages deducted from next year's set-aside
- Sub-option version specific to small-scale directed gear types

**\*PDT recommends not including in Draft Addendum**



# PDT Recommendations



- Clarify whether adjusting the trip limit is priority
  - Changes to trip limit alone may not significantly reduce landings
- Not include catch accounting in the draft addendum
  - Same goal can be achieved through reallocation and gear/trip restrictions





# Issue #3: Episodic Event Set-Aside Program



# EESA Status Quo

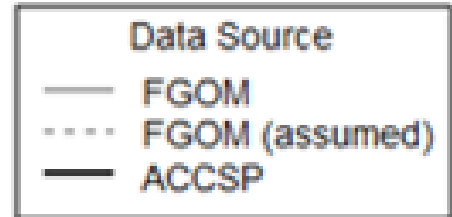
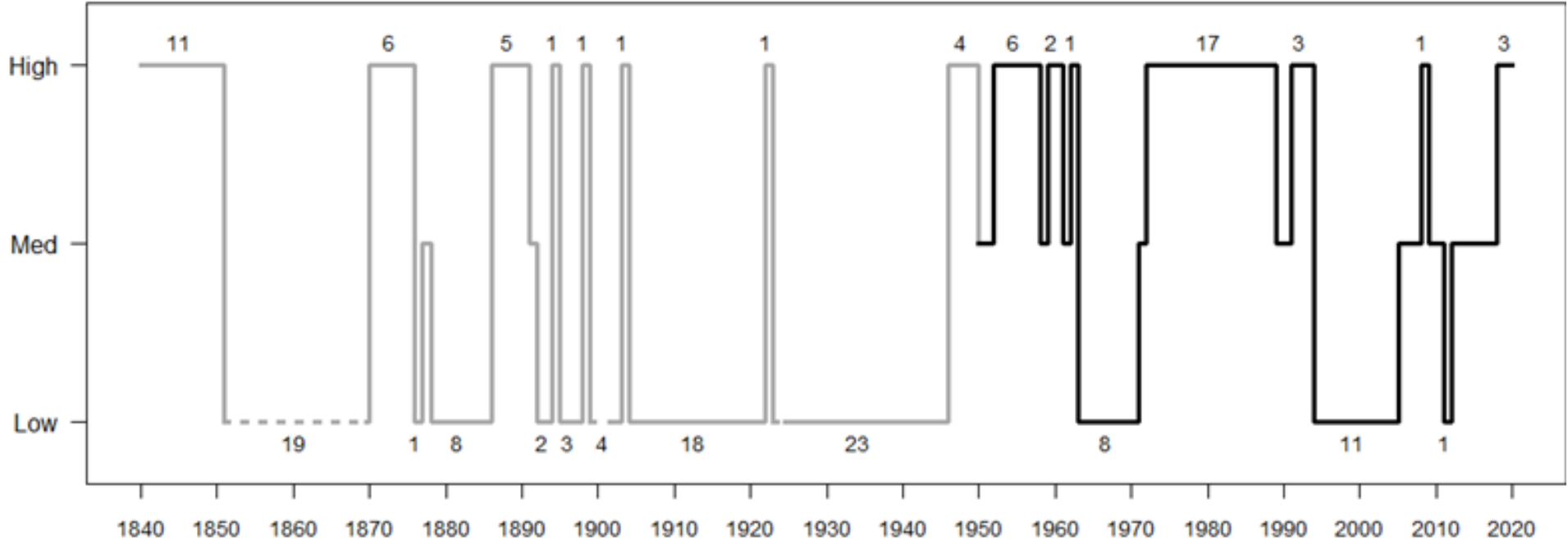


- 1% of the TAC is set aside for episodic events
- Episodic event:
  - 1) any instance of a qualified state reaching its quota allocation prior to Sept 1 and;
  - 2) the state can prove the presence of unusually large amounts of menhaden in its state waters
- Qualifying states: ME-NY
- Provisions
  - Daily trip level harvester reporting
  - Landings must be restricted to state waters
  - Maximum daily trip limit of 120,000 lbs/vessel





# History of Menhaden Availability in GOM



# EESA: Statement of Problem



- Over 90% of the EESA has been utilized in all years since 2016.
- With the increase in abundance to the northeast, the program has become a secondary regional quota for several jurisdictions to continue fishery operations in jurisdictional waters.
- The dependency on EESA highlights the mismatch of biomass to current commercial allocations.



# EESA: Objective



Ensure sufficient access to “episodic” changes in regional availability in order to minimize in-season disruptions and reduce the need for quota transfers and incidental harvest.



# EESA Management Alternatives



- **Eliminate the EESA**
  - Address resource availability through reallocation
- **Increase the Set-Aside**
  - How much?
  - Source of increase
    - 1) initial set-aside from the overall TAC
    - 2) Relinquished quota
    - 3) Adjust fixed minimum, create additional %
- **Adjust the date unused EESA is redistributed\***
- **Consider additional restrictions\***
- **Allow access at <100% jurisdictional allocation\***



# PDT Recommendations



- Not to include in Draft Addendum:
  - Adjust date unused EESA is redistributed
  - Consider additional restrictions on the EESA
  - Not to allow jurisdictions to fish under the EESA prior exhausting state allocation
- Clarify the language of whether a state can apply for the EESA prior to fully landing their allocation





# Questions?



# Revisit Each Issue Topic

## Board:

- Confirm Statement of Problem and Objective
- Consider PDT recommendations
- provide answers to key questions





# Allocation





# Allocation: Statement of Problem



- Current allocations have resulted in TAC not being fully landed while some states do not have enough quota to maintain directed fisheries.
- Quota transfers alone are not enough to fix this issue.
- Some states are reliant on the EESA and incidental catch provision to maintain their fishery
- Other states regularly do not land their allocation.



# Allocation: Objective



Allocations should be adjusted to:

- 1) align with recent availability (not long-term “average” availability) of the resource
- 2) ensure jurisdictions can maintain directed fisheries with minimal interruptions during the season;
- 3) reduce the need for quota transfers and;
- 4) fully utilize the annual TAC without overage.



# Allocation- PDT Recommendations



- Provide guidance on an equitable approach for setting tiered approach for fixed minimum
- Clarify whether to include a Pooled Quota alternative
- Limit the possibly weighted allocation options
- Not include the following alternatives in the Draft Addendum
  - longer time-series average option for allocating remaining available TAC
  - Second Best Year Strategy
  - Open Fishery, then reallocate



# Minimum Allocation Questions



- Is an overall redux in the fixed minimum quota the Board's goals?
  - If yes, is there a range of options the Board would find most applicable?
- Does the tiered fixed minimum approach meet the Board's goals?
- Does the Board agree that fixed minimum tiers be distributed based on bait landings or should the PDT explore total landings instead?
- Suggestions on criteria to assign states into fixed minimum quota tiers, other than average landings?
- 8% of the TAC is distributed using the Amendment 3 fixed minimum approach. Both options reduce the percentage. Should the difference be added to a 1) set aside program or 2) reallocating based on a timeframe?



# Timeframe for Allocating Questions



- Does the Board want the longer time-series average, which is less likely to match current fishery performance or can it be removed from the list of options?
- Does the Board want to consider only the most current timeframes and not historical landings?
- If weighted allocation aligns with Board goals, what time frame option does the Board select for further development of this option?
- What suggested weightings of the timeframe would the Board recommend?
- Does the Board want to consider the moving average method?





# Incidental Catch and Small-Scale Fisheries



# Incidental Catch: Statement of Problem



- Intent: provide access for low-volume landings once a quota was met.
- Availability in the north has led to quotas being met earlier in year
- Incidental Landings have exceeded state quotas and ranged 1-4% of the annual TAC.
- Amend 3 language has led to different interpretations
  - i.e. sector allocation is met or full jurisdiction allocation
- Without changes these landings may remain at high levels or increase; could jeopardize management objectives.



# Incidental Catch: Objective



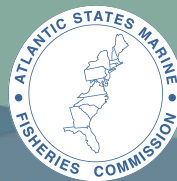
Sufficiently constrain landings to achieve overall management objectives such as:

- 1) meeting the needs of existing fisheries;
- 2) reducing discard mortality by limiting eligible gear types,
- 3) indicating when landings can occur and that those landings are not a part of the directed fishery; and
- 4) establishing trip and season limits.





# PDT Recommendations



- Clarify whether adjusting the trip limit is priority
  - Changes to trip limit alone may not significantly reduce landings
- Not include catch accounting in the draft addendum
  - Same goal can be achieved through reallocation and gear/trip restrictions



# Incidental Catch Key questions



- Given current trend does the Board want the provision to be an incidental catch only or to continue allowing directed small-scale fisheries under this provision?
- If directed small-scale fisheries are allowed under this provision, would the Board rather constrain landings and not count against the TAC or not constrain landings but count against the TAC?
- Is adjusting the trip limit a priority? If so, should the PDT pursue different trip limits for non-directed vs small-scale gears





# Episodic Event Set Aside Program



# EESA: Statement of Problem



- Over 90% of the EESA has been utilized in all years since 2016.
- With the increase in Atlantic menhaden abundance to the northeast, the program has become a secondary regional quota for several jurisdictions to continue fishery operations in jurisdictional waters.
- The dependency on EESA highlights the mismatch of Atlantic menhaden biomass to current commercial allocations.



# EESA: Objective



Ensure sufficient access to “episodic” changes in regional availability in order to minimize in-season disruptions and reduce the need for quota transfers and incidental harvest.



# PDT Recommendations



- Not to include in Draft Addendum:
  - Adjust date unused EESA is redistributed
  - Consider additional restrictions on the EESA
  - Not to allow jurisdictions to fish under the EESA prior exhausting state allocation
- Clarify the language of whether a state can apply for the EESA prior to fully landing their allocation



# EESA Key Questions



- Is the EESA intended to cover only 'one off' episodic events or continue to serve as a secondary regional quota for extended periods of increased availability?
- Should there be an alternative to remove EESA?
- If interest is to increase EESA
  - What should the maximum value be?
  - Where should the increase come from?
    - 1) initial set-aside from the overall TAC
    - 2) Relinquished quota
    - 3) Adjust fixed minimum, create additional %

