



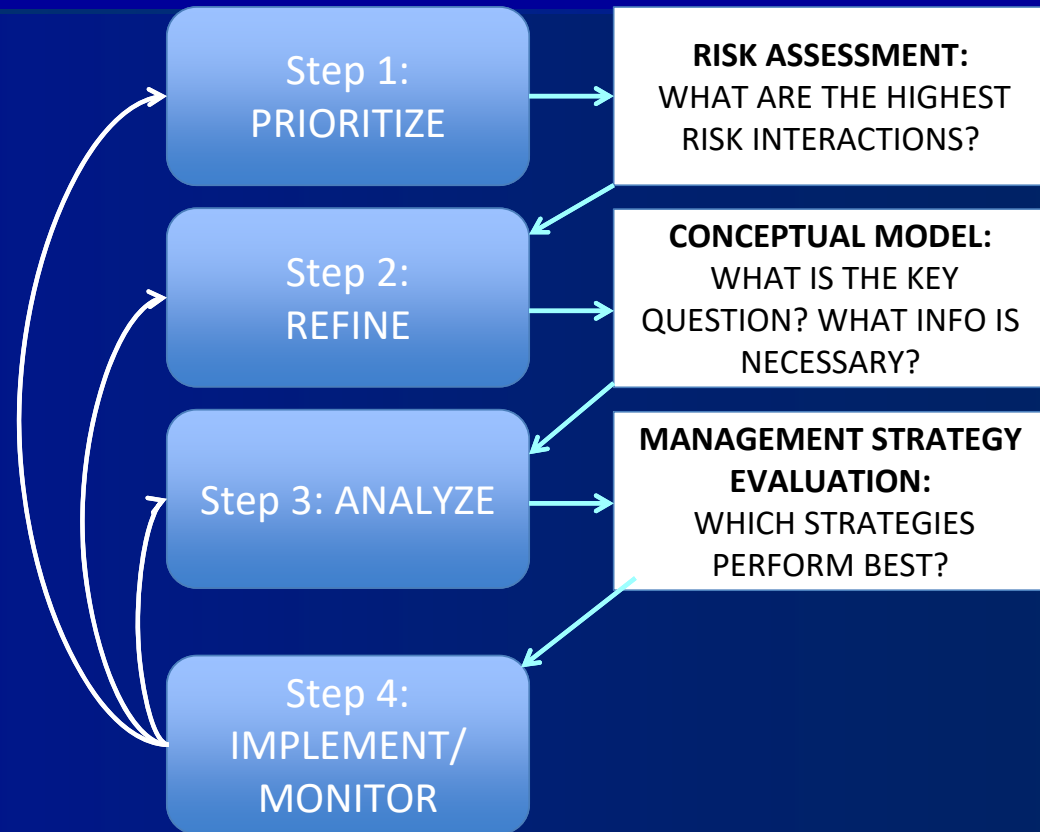
# **EAFM Summer Flounder Management Strategy Evaluation**

## ***Management Goals and Alternatives***

Council and Board Meeting  
*August 10, 2021*

# Council's EAFM Decision Framework

- Developed a strategic, deliberative, and structured process
  - Goal of incorporating species, fleet, habitat and climate interactions into management
  - Planning tool to help Council transition and incorporate EAFM approaches
- Completed **Step 1** (2017) and **Step 2** (2019); Initiated **Step 3** (2020)



Source: Sarah Gaichas, [http://www.mafmc.org/s/3\\_Habitat\\_in\\_IEAs\\_Gaiches.pdf](http://www.mafmc.org/s/3_Habitat_in_IEAs_Gaiches.pdf)



## Management Strategy Evaluation (MSE) – What? Why?

- MSE is a tool to test different strategies (e.g., regulations, HCR) and their ability to achieve specified management objectives before implementation
  - Evaluate and balance trade-offs of strategies in an ecosystem context
- Uses quantitative model(s) to simulate a population, its ecosystem, different strategies, and their interactions
- It won't specify a single outcome or strategy to address all objectives
- Use an inclusive stakeholder process to help the Council/Board identify clear objectives and strategies

# Stakeholder Outreach and Input

## 4 different initiatives identified

1. AP kick-off webinar and mock workshop
2. Online scoping survey
3. Regional MSE workshops
4. Core stakeholder group workshops

Early and continued engagement

**Scoping Feedback Survey -**  
Broad stakeholder input covering a variety of topics for input



**Regional Workshops -**  
Smaller (although could still be large), targeted group, and more focused input



**Core Stakeholder Group -**  
Small, representative group (10-15 members) providing direct input and feedback during 3 workshops

# MSE Stakeholder Facilitator



- Help ensure we maximize stakeholder input
- Use of a facilitator with MSE expertise was highly recommended
  - Independent and from outside region
- Contracted with Dr. Jonathan Cummings
  - 10+ years in facilitation, MSE, and structured decision making
  - Experience with a variety of MSE projects, including a current project on New England groundfish
- Work with technical WG to develop workshop agenda and materials, ensure workshop objectives achieved, collaborate on simulation and trade-off analysis

# AP Kick-Off Webinar and Mock Workshop

- Joint EOP and Council and ASMFC Summer Flounder, Scup, and Sea Bass Advisory Panels
  - Focus on stakeholders likely to participate in MSE project and familiarity with fishery
- Held September 22, 2020
- Goals for meeting:
  - Introduce MSE concepts, process, expectations
  - How MSE will be used within the EAFM process
  - Simulate a condensed MSE workshop – familiarity with participant role
- 55 participants with diverse representation

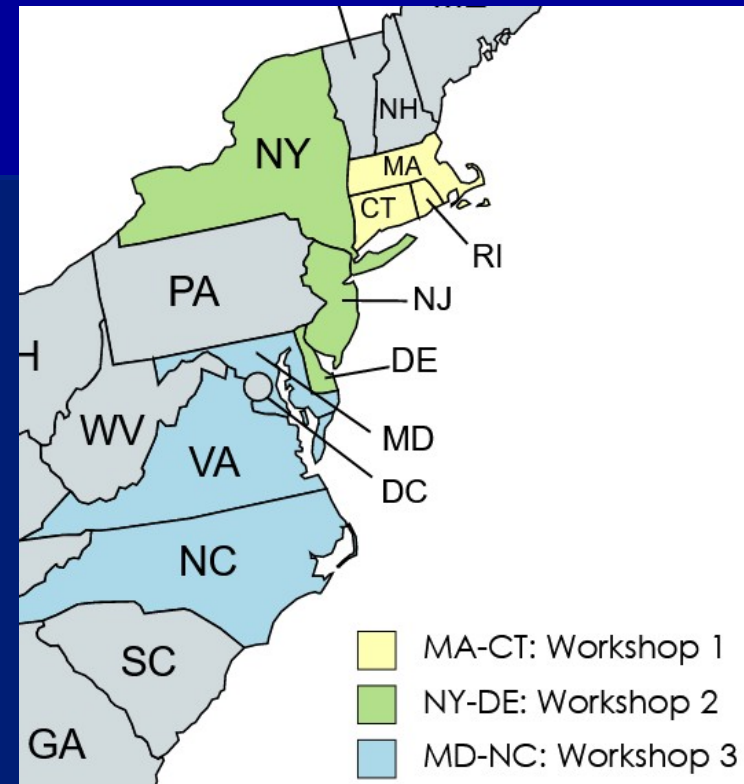
# Overview Stakeholder Scoping Feedback

- Online stakeholder feedback form available from January 11 – 25, 2021
- Combination of mandatory, close-ended and optional, open-ended questions
- Topics included – concerns, objectives, strategies, data, unknowns
- Solicitation for core stakeholder group – collected additional demographic info
- 818 individual responses – at least one from each state from MA-NC
  - 285 responses with additional demographic info – used for regional analysis



# Regional MSE Workshops

- Regions: MA-CT, NY-DE, MD-NC
- Timing: Late March/early April 2021
- Approach: similar topics and stakeholder participation as scoping form but more structured and interactive
- Workshop format:
  - Intro presentations – EAFM process, basics of MSE, summary of scoping results
  - Discussion and input – full and breakout groups
    - Concerns, objectives, strategies
  - Core group overview



# Core Stakeholder Group

- Working in large groups can be challenging and inefficient
- Move to more focused and smaller groups to effectively progress through the MSE
- Serve as main source of input to technical WG and management on project goals, model considerations, and outcomes
- Core group:
  - 12-15 participants
  - Represent a range of fishery perspectives
  - Bring ideas, open mind, and support process
  - Participate in series of three workshops (work prior/between)



# Core Stakeholder Group

- Significant interest in participating
  - 582 potential participants for 12-15 slots
- Technical work group developed a thorough and deliberative process to evaluate participants
- Goal to have a regionally balanced and diverse composition
  - Tried to achieve a minimum threshold for each region (3) and stakeholder type (2)

Representation Type	# of Representatives
<b>Regional</b>	
MA-CT	5
NY-DE	6
MD-NC	2
<b>Stakeholder Type</b>	
For-Hire	5
Private Recreational	3
Commercial	1
Recreational Secondary Market	2
Other	2

# Core Group Workshop 1, Session 1 (June 14<sup>th</sup>)

## Workshop Topics

- Introduction to MSE, structured decision, and project process
- Develop consensus decision statement
  - Common understanding of the focus and expected outcomes the MSE might address
  - Identify the bounds of the of MSE based on Council direction

## Decision Statement

*Decide how to meet the challenges of satisfying the diverse groups of anglers engaged in the recreational fluke fishery by addressing discarding, discard mortality, and data quality, while allowing for meaningful access to the fishery, accounting for temporal and spatial differences in recreational mode availability, considering the impacts of size and male to female take ratios, and achieving equity in recreational modes given the bounds of what is viable given the regulatory framework.*

# Core Group Workshop 1, Session 2 (July 14<sup>th</sup>)

## Workshop Topics

Overview of simulation model development: bio-economic model focus

Reviewed and discussed comprehensive lists of draft management objectives and alternatives

**Management objectives** - help understand what a successful recreational fishery would look like that minimizes discards and discard mortality

## Draft Management Objectives (prioritized)

1. Improve the quality of the angler experience
2. Maximize the equity of anglers' experience
3. Maximize stock sustainability
4. Maximize the economic sustainability of the fishery
5. Maximize the sustainability of participation in the fishery

# Draft MSE Management Objectives

## Management Objective #1 – Maximize the quality of the angler experience

Sub-Objectives	Possible Metric
Maximize chances a trip produces a legal fish	% of trips w/ legal size fish
Maximize ratio of legal/discard catch per trip	Keep/discard ratio per trip
Maximize likelihood of a trophy catch	% of trips with 10lb or 28" fish
Maximize likelihood of successful subsistence fishing	% of trips supplying a meal
Maximize likelihood of achieving bag limit per trip	% of trips reaching bag limit
Maximize flexibility by customizing regs by state	Differential evaluation of regs
Maximize the quality of rec. fishing experience	
Minimize additional regulatory restrictions	# of regulation changes per year

# Draft MSE Management Objectives

## Management Objective #2 – Maximize the equity of anglers' experience

Sub-Objectives	Possible Metric
Minimize the differences in regs between neighboring states	# and scale of different regs
Minimize regulatory uncertainty	Survey response – mgmt. process understanding
Minimize changes in regulations from year to year	# of different regs over time
Minimize rate of regulatory change (1 large vs many small)	
Maximize rec fishery participation in all sectors	% or # of participants by sector over time
Minimize differences in retention rates across sectors	Keep/discard ratio by mode
Minimize the # of anglers unable to retain a legal fish	Change in trips with keeper

# Draft MSE Management Objectives

## Management Objective #3 – Maximize stock sustainability

Sub-Objectives	Possible Metric
Minimize negative impacts to stock Minimize discards per trip, mortality rate	Change in pop size, length/age, growth # of discards/trip, change in mortality rate
Minimize risk of overfishing and risk to becoming overfished	Probability of overfishing/overfished condition
Maximize regulatory compliance	# of violations/year
Minimize harvest of females	Female stock size/Female fishing mortality
Maximize large female abundance	Female # and size at age
Maximize spawning stock biomass	Changes in SSB



# Draft Alternatives and Strategies

- **Alternatives and Strategies** – potential management options, tools, and actions that may be implemented at conclusion of MSE
- Will be evaluated through simulation models – biological, economic, and social implications

## Draft Alternative Categories

- |                            |   |
|----------------------------|---|
| 1. Size Limits             | 2. Possession Limits                    |
| 3. Season Length           | 4. Discard Allowance or Limits          |
| 5. Gear/Tackle Regulations | 6. Mode Specific Regulations            |
| 7. Spatial Considerations  | 8. Dynamic Regulations                  |
| 9. Licensing               | 10. Recreational Fishing Enhancements   |
| 11. Enforcement            | 12. Education Programs (best practices) |
| 13. Habitat Management     | 14. Data Collection                     |
| 15. Forage Fish Status     |   |

# Draft MSE Alternatives

- Alternative Category: **Size Limits**
- Potential Alternative Options:
  - Combinations of minimum, maximum, or total trip size limits
    - Bag size ranges:
      - Minimum options: 15, 16, 17, 18 inches
      - Maximum options: 20, 21, 22, 23, 24 inches
    - Trip (total/cumulative) length limit: 54 - 128 inches
    - No limits
  - Modify limits by sex ratio at length

# Draft MSE Alternatives

- Alternative Category: **Discard Allowance or Limits**
- Potential Alternative Options:
  - None
  - Limited per trip: 1-##
  - Limited per season: 1-##
  - Limited per length: 1-##
  - Unlimited
  - Banned or allowances for:
    - Injured fish      Gut hooked
    - Retention time      Special tag

# Draft MSE Alternatives

- Alternative Category: **Spatial Considerations**
- Potential Alternative Options:
  - Spatial scales:
    - Coastwide
    - States
    - Regions (across states)
    - Regions (within states)
    - Protected/closed areas (e.g., protect juveniles)

# Next Steps

- Progressing on schedule
- Anticipated timeline similar to what was presented previously
- Technical work group, and modeling sub-group, scheduled to meet several times in Sept
  - Identify initial alternative priorities for analysis and presentation and feedback from core group
- Not holding Committee and sub-group of Board meetings
  - Full Council and Board check-ins and feedback
  - Committee and Board leadership invited to all technical WG calls
- Core group workshop #2 in November; Council/Board in December

# Anticipated Tasks and Timeline

Task/Activity	Timeframe (subject to change)
Finalize technical work group membership and initial meeting	<b>May 2020</b>
Kick-off webinar and mock workshop with Council and ASMFC advisory panels	<b>September 2020</b>
Stakeholder scoping feedback form	<b>January 2021</b>
Regional MSE workshops	<b>March – April 2021</b>
Finalize core stakeholder group; initial core stakeholder workshop (session 1 and 2) and Committee/Board meeting to develop objectives/performance metrics/uncertainties; data synthesis, initial model development and linking existing models	<b>May – August 2021</b>
Simulation testing of management strategies; model refinement as necessary; deliver interim results at second stakeholder workshop and Committee/Board sub-group meeting	<b>September – December 2021</b>
Continue with MSE analysis; third stakeholder workshop to review draft final results; refine models and results, as needed	<b>January 2022 – April 2022</b>
Review final results; Council and ASMFC Board considers potential management alternatives and action to address recreational summer flounder discards	<b>May/June 2022</b>

# Other Considerations

## Intersection of MSE project and Recreational Reform (HCR)

- Projects designed to address specific (and different) issues
  - However, both intended to improve recreational fisheries management and management implementation
- Given inter-connected goals, opportunity to use process, analyses, and outcomes to inform each other
  - Evaluate discard implications of HCR “steps” for summer flounder
  - Bio-economic model being considered by FMAT/PDT
  - MSE approach for future evaluation of HCR performance
- Consider intersection, timelines, utilization of projects

# Meeting Goals

- Feedback on draft management objectives and alternatives
  - Add or delete any options
- Approve lists of objectives and alternatives for further refinement and prioritization
- Discuss intersection of MSE and Rec Reform (HCR)

<https://www.mafmc.org/actions/summer-flounder-mse>

## Questions??