



Update on Mid-Atlantic Council EAFM Activities

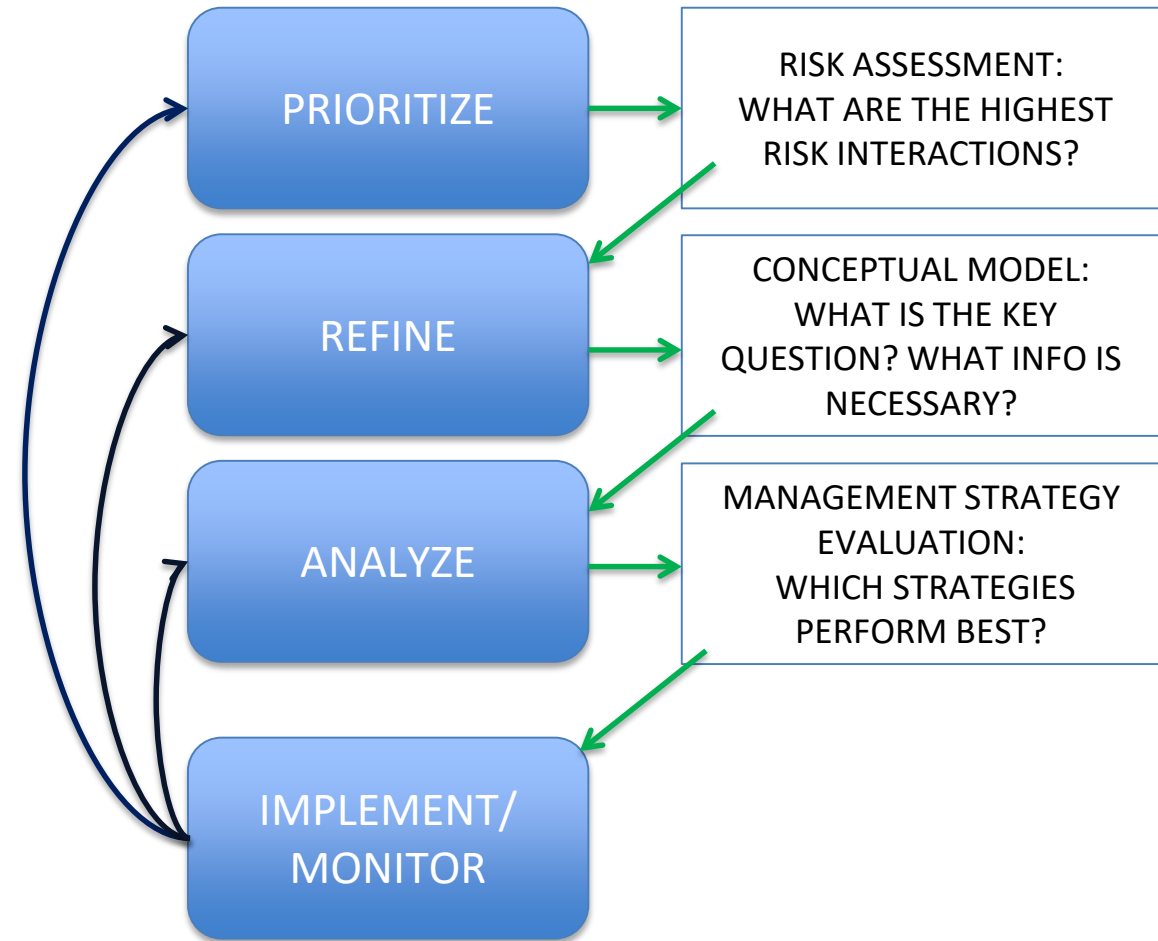
MAFMC SSC Meeting

March 10, 2020



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
 - Not an end to itself



Source: Sarah Gaichas,
http://www.mafmc.org/s/3_Habitat_in_IEAs_Gaiches.pdf

Step 2:

Refine

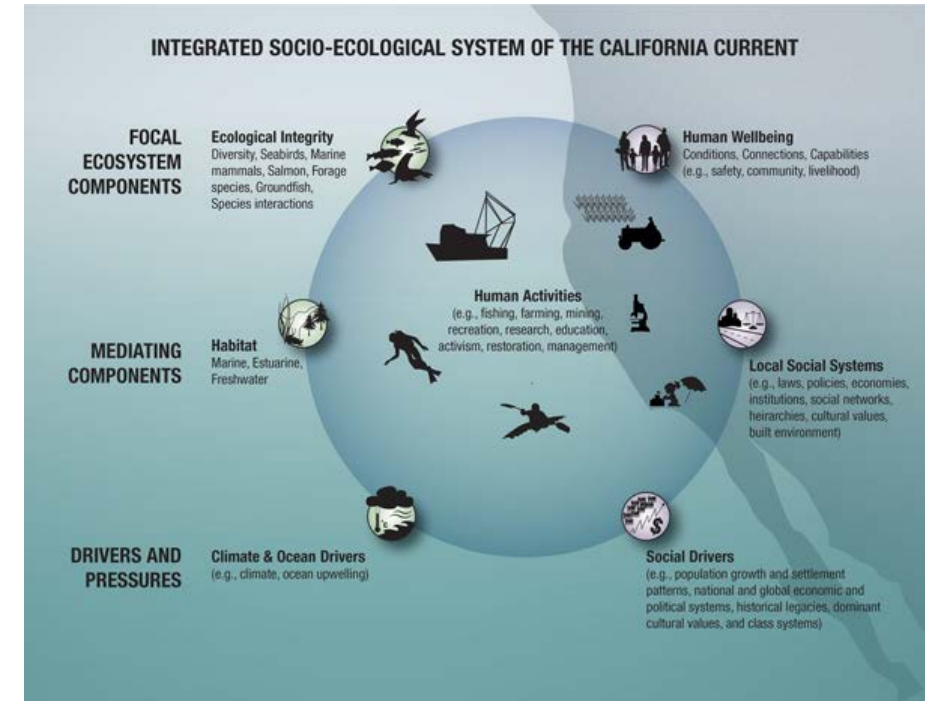


CONCEPTUAL MODEL: WHAT IS THE KEY QUESTION? WHAT INFO IS NECESSARY?

Council used risk assessment results to help prioritize and select species/fishery/element for further development

Begin conceptual model development

- Built to address high-risk factors and specific management questions
- Links and relationships throughout system remain to account for feedback and unexpected effects
- Not conducting a stock assessment or other comprehensive analysis



California Current IEA model –
www.noaintegratedecosystemassessment.noaa.gov

Summer Flounder Conceptual Model

- Potential outcomes identified by Council
 - Identify data availability and needs (i.e., gap analysis and inform research priorities)
 - Identify key ecosystem relationships associated with risk factors
 - Develop 10 management questions that could be answered with model and available data
 - Scoping process for specific and strategic approach to inform possible MSE



Conceptual Model Workgroup

- Diverse group of experts across disciplines
- Members:
 - Greg Ardini – GARFO/APSD
 - Jeff Brust - NJDFW
 - Jessica Coakley – Council staff
 - Kiley Dancy – Council staff
 - Geret DePiper – NEFSC/Social
 - Sarah Gaichas – NEFSC/Ecosystem
 - Emily Gilbert – GARFO/SF
 - Doug Lipton –
NMFS/Headquarters
 - Jason McNamee – RIDMF
 - Brandon Muffley - Council staff
 - Rob O’Reilly – Council/Demersal Chair
 - Danielle Palmer – GARFO/PR
 - Charles Perretti – NEFSC/Pop Dy
 - Kirby Rootes-Murdy - ASMFC
 - Mark Terceiro – NEFSC/Pop Dy
 - Mike Wilberg – U. Maryland/SSC
 - Dustin Colson Leaning – ASMFC
 - Emily Keiley – GARFO/SF

Conceptual Model Development Process

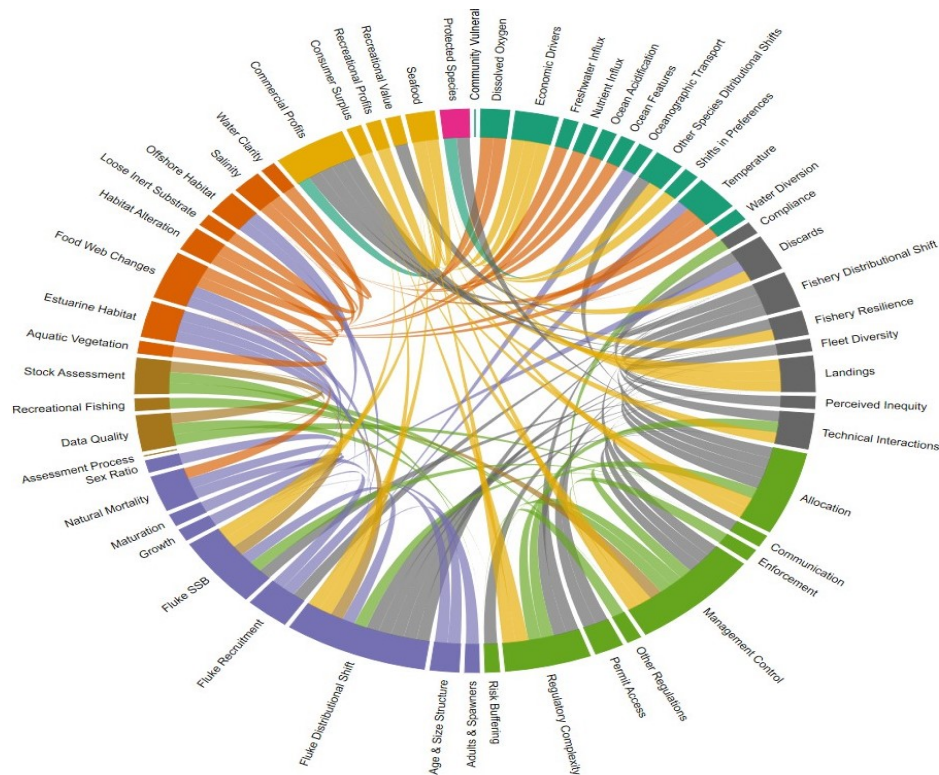
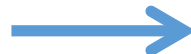
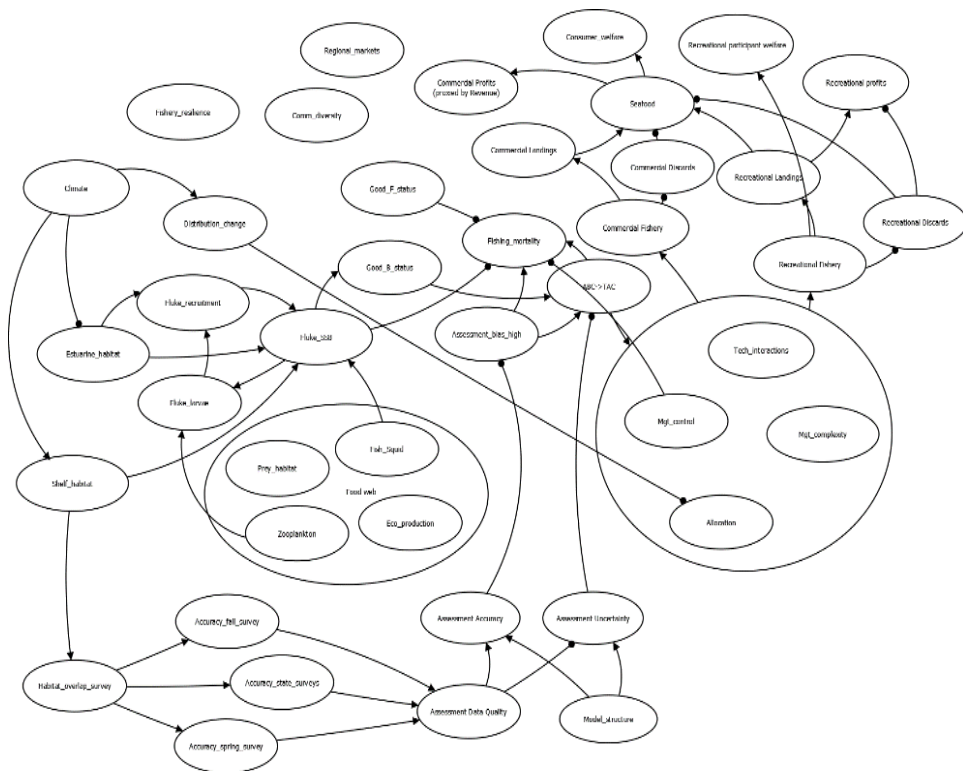
Established sub-groups – Physical Environment and Human Dimension

- Identified key elements that are drivers/have influence on high risk elements
 - Elements linking models
 - Documenting justification for inclusion and linkages
 - Data availability (Y/N) and if yes, documentation
- Full workgroup then review and identify cross-linkages, data sources



Conceptual Model Development Process

- Once elements finalized, development of visualization tools



- Once “ecosystem” built, development of management questions
- Built a website(s) for increased utility and functionality
 - https://gdepiper.github.io/Summer_Flounder_Conceptual_Models/sfconsmod_riskfactors_subplots.html
 - https://gdepiper.github.io/Summer_Flounder_Conceptual_Models/sfconsmod_final_2col.html

Conceptual Model Management Questions

- EOP Committee initially considered a wide range of topics and issues covering:
 - Distribution shifts, discards, data quality, commercial profits, recreational satisfaction, habitat change, and changes in stock dynamics
- Three priority questions to full Council for consideration and selection:
 1. How does utilizing recreational data sources at scales that may be inappropriate for the data source (e.g., Marine Recreational Information Program (MRIP) data at the state/wave/mode level) affect management variability, uncertainty, and fishery performance? Evaluate the impact of that variability and uncertainty and its use in the current conservation equivalency process on recreational fishery outcomes.
 2. What are the mechanisms driving summer flounder distribution shift and/or population range expansion? What are the biological, management, and socioeconomic implications of these changes? Identify potential management and science strategies to help account for the impacts of these changes.
 3. Evaluate the biological and economic benefits of minimizing discards and converting discards into landings in the recreational sector. Identify management strategies to effectively realize these benefits.
 - Opportunity to align EAFM work with traditional management process
 - EAFM issue – seven linked risk factors: Management, Summer Flounder Stock, Science, Fishing Fleets, and Benefits

Step 3:

ANALYZE



MANAGEMENT STRATEGY EVALUATION: WHICH STRATEGIES PERFORM BEST?

- Conceptual model provided the initial scoping of the MSE
 - Identified management goal and objectives
 - Potential data availability and modeling approaches
- In 2020, will begin a deliberative and iterative process involving Council, ASMFC, EOP and AP members and stakeholders
- Develop and evaluate potential management strategies the Council can implement
- Implement, monitor, adapt, and repeat....

Management questions



3

Evaluate the biological and economic benefits of minimizing discards and converting discards into landings in the recreational sector. Identify management strategies to effectively realize these benefits.

Full model

