EAST COAST CLIMATE CHANGE **SCENARIO PLANNING**

Update to MAFMC August 10, 2022

EAST COAST CLIMATE CHANGE SCENARIO PLANNING



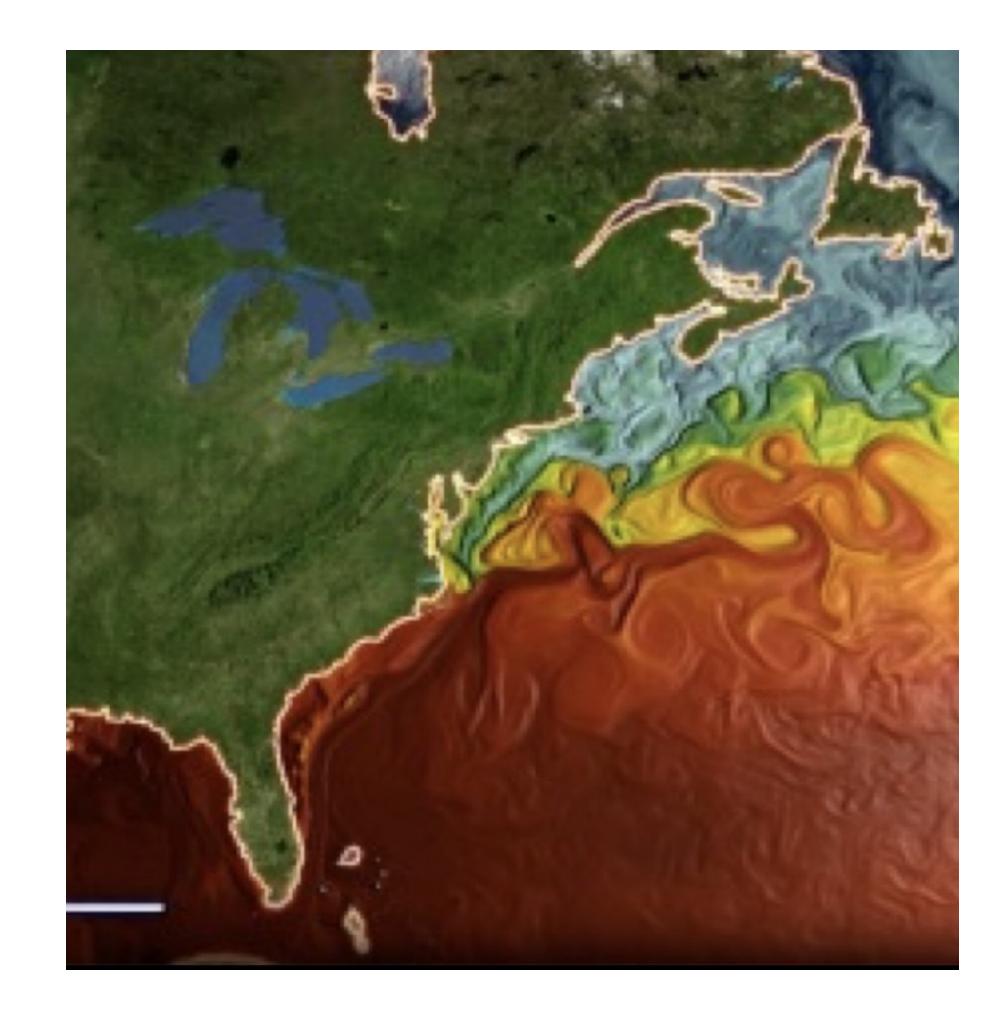








- Explore how East Coast fishery governance and management issues will be affected by climate driven change in fisheries, particularly changing stock availability and distributions.
- 2. Advance a set of tools and processes that provide flexible and robust fishery management strategies, which continue to promote fishery conservation and resilient fishing communities, and address uncertainty in an era of climate change.



Steps in this Multi-Year Initiative

Orientation:

establish draft objectives, expected outcomes and project focus

Fall 2020 – Summer 2021

Scoping:

reach out to stakeholders to gather input on forces of change that could affect fisheries over the next 20 years

Summer –

Fall 2021

Exploration:

analyze forces driving change in greater detail

Winter 2022

Creation:

conduct workshop sessions to construct and discuss scenarios

Application:

use scenarios to identify actions and recommendations

Monitoring:

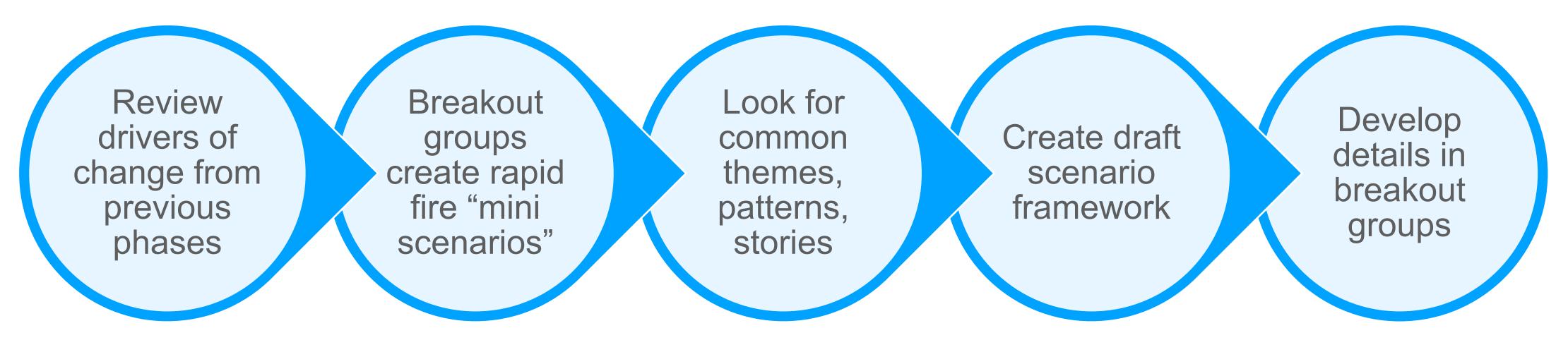
identify key indicators to monitor change and outline next steps

Summer 2022

Fall 2022-Winter 2023

Scenario Creation Workshop

- June 21-23 in Arlington VA
- Attended by approximately 75 stakeholders & staff
- Productive 2.5-day workshop with highly engaged participants







• At workshop, combined 3 different critical uncertainties,

Mostly declining

Stock production / replacement in 2040

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Mostly maintained

Scenario Framework Construction

The scenario framework is constructed by combining two "critical uncertainties" – important factors that are likely to shape the future but could develop in unpredictable ways.

1. What happens to stock production / species productivity as climate change continues out to 2040? Does it result in declining productivity (alongside worsening habitat, and low rates of species replacement), or is productivity mostly maintained (with adequate habitat and sufficient levels of species replacement)?



Scenario Framework Construction

The scenario framework is constructed by combining two "critical uncertainties" – important factors that are likely to shape the future but could develop in unpredictable ways.

2. How unpredictable are ocean conditions, and how well is science able to assess and predict stock levels and locations by 2040? Do conditions become far more unpredictable, where existing science is clearly unable to provide much useful information, or are conditions sufficiently predictable to allow science to provide mostly accurate information about stocks and location?

Unpredictable changes & conditions, low ability to assess

Predictability of conditions / ability of science to assess by 2040

Predictable changes & conditions, high ability to assess

Scenario Framework: East Coast Fisheries in 2040

Combining the uncertainties results in a matrix that creates four different stories of the future

Stocks maintained, but hard to assess / locate

Unpredictable conditions, low ability to assess & predict

Predictability of conditions / ability of science to assess

Stocks decline, and are hard to assess / locate

Mostly declining

Mostly maintained

Stock

Stocks maintained, mostly straightforward to assess / locate

> Predictable conditions, high ability to assess & predict

production

Stocks decline, straightforward to assess / locate

Scenario Framework: East Coast Fisheries in 2040

Ocean Pioneers: a 'wild

west' of new ocean users, risk-taking fishery operators taking advantage of confusing, unpredictable but ultimately positive conditions Mostly maintained

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Unpredictable changes & conditions, low ability to assess

Predictability of conditions /

Stress Fractures: a world

with multiple sources of stress facing operators and managers, where the industry fractures between some who play it smart, and others who lose out,

Mostly declining

Checks & Balance: where

strong science combines with collaborative management to help mitigate and adapt to climate-driven changes in the ocean

ability of science to assess by 2040

Predictable changes & conditions, high ability to assess

Seafood Lemonade: a

world where the science is good, but the news is bad. Success comes from anticipating lower stocks and preparing for new catch limits

Scenario Deepening and Applications: Next Steps

Scenario Deepening Webinars: August 2022

- . Two 2-hour webinars will be held on the following dates:
 - . Wednesday, August 17, 3-5 pm
 - . Tuesday, August 23, 10 am-12 pm

Applications Phase Fishery Manager Brainstorming Working Groups: September 2022 (new)

. Purpose: Identify the issues, ideas, and options that should be discussed at scenario planning conversations at Council & Commission fall

Summit Meeting: Tentatively February 2023

The summit meeting will discuss input from management body sessions, with the goal of developing a final set of governance, management, and monitoring recommendations from the scenario planning process

