Update on the Dolphin Management Strategy Evaluation

SAFMC
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Acknowledgements

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MSE Modeling Technical Team:

Blue Matter Science: Tom Carruthers, Adrian Hordyk, Quang Huynh
SEFSC: Matt Damiano, Kyle Shertzer, John Walter, Cassidy Peterson
NCSU: Jie Cao

Stakeholder participants

The Goalpost: Empirical management procedure

John's Hypothetical Regulatory Amendment 3 to the Fishery Management Plan (FMP) for the Dolphin Wahoo Fishery

Action 1: Select Management procedure
Alternative 1: no action
Alternative 2: Candidate Management Procedure (CMP) #1
Alternative 3: Candidate Management Procedure #2
Alternative 4: Candidate Management Procedure #3 (preferred)

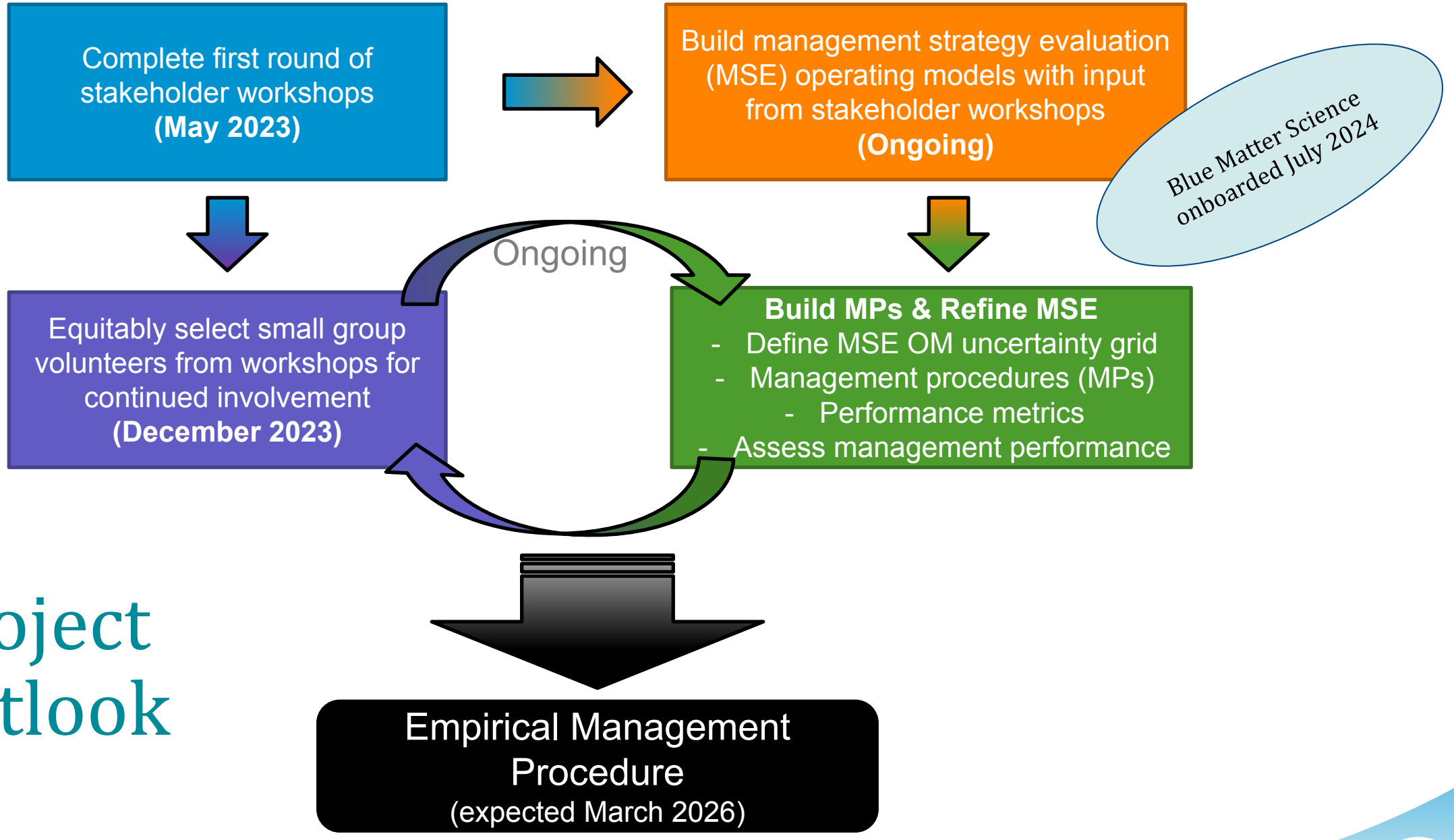
CMP1: OFL/ABC/ACL adjusted annually based on index, with 22" size limits, 40 fish/vessel boat limits
CMP2: State-based OFL/ABC/ACL adjusted annually based on index, with 24" size limits, 50 fish/vessel boat limits
CMP3: State-based OFL/ABC/ACL adjusted annually based on index with extra stability, 24" size limits, 60 fish/vessel boat limits when index > trigger point

Dolphin MSE

Purpose: to develop an *empirical management procedure* for dolphin in the US Atlantic that is:

- Fully-specified 'recipe' for setting ABC/OFL/ACL along with additional management actions
- Simulation tested to be robust to uncertainty,
- meets stakeholder-defined management objectives

Project outlook



Project Update

MSE Modeling Dynamics

Blue Matter Science onboarded July 2024

Modeling Dynamics

- New MSE framework – following snapper/grouper multispecies MSE (https://safmc-mse.netlify.app/)
- Quarterly time-step; statistical catch-at-length operating model; spatial dynamics
- Model conditioned using Rapid Conditioning Model (RCM, openMSE) by aggregating over space

Stakeholder Small Group Meetings

1. MSE 101
2. Management objectives
3. State of dolphin science
4. International dolphin fisheries
5. Operating models
6. Local ecological knowledge (LEK) movement and distribution

openmse.com | openmse.com/tutorial-rcm/

Roles and Responsibilities

	Stakeholders	Modeling team	SSC	Council
Operating models	Advise on OM structure and key uncertainties	Construct	Adopt	Advise
Management objectives	Advise	Quantify	Advise on biological 'must-pays' e.g. not overfishing and rebuilding	Adopt
Management Procedures	Advise	Test and refine	Advise	Adopt and implement management procedure based on performance

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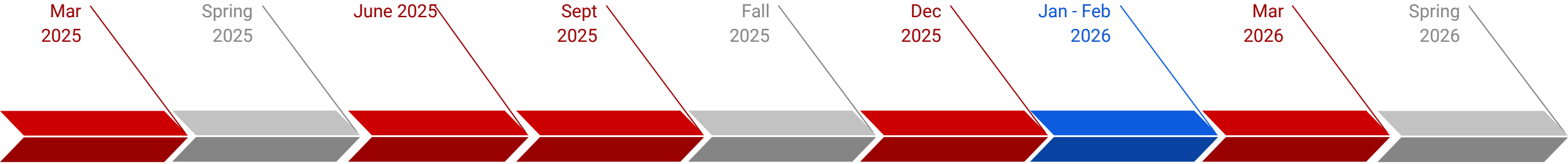
Draft Timeline & Schedule

* Timing of results will depend on ability to meet target timeline

Legend:
OM: operating models
PM: performance metrics
MP: panagement procedures

Council Meeting
SSC Meeting
CIE Review



March Council	Spring SSC	**[optional] June Council**	**September Council**	Fall SSC	**December Council**	**CIE Review**	**March Council**	Spring SSC
Initial phase: • PM advise • MP advise	Initial + revision phase: • OM review and advise • MP advise	Initial + revision phase: • PM advise • MP advise and review	Revision phase: • PM refine • MP review and revise	Revision + refinement phase: • **OM adopt** • "Must-pay" PMs advise • scientific sign-off of MSE framework	Refinement phase: • **PM adopt** • MP refine • manager sign-off on MSE	Review of MSE framework	Adoption phase: • **Adopt MP** (e.g., John's hypothetical reg amendment 3)	Adoption phase: • Exceptional circumstances provisions • MP / MSE review timeline

Note: only 2 SSC meetings before CIE review

https://www.iccat.int/Documents/CVSP/CV081_2024/n_6/CV08106103.pdf

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PrepScholar.com

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