APALACHICOLA BAY SYSTEM INITIATIVE COMMUNITY ADVISORY BOARD

MEETING II – PHASE IV - MARCH 30, 2022

MEETING OBJECTIVES
UPDATED WORKPLAN AND SCHEDULE

JEFF A. BLAIR

FacilitatedSolutionsJB@gmail.com
http://facilitatedsolutions.org

CAB MEETING OBJECTIVES 30 MARCH 2022

- APPROVAL OF PROCEDURAL ITEMS (AGENDA & SUMMARY REPORT)

- REVIEW OF UPDATE WORKPLAN AND MEETING SCHEDULE

- ABSI SCIENCE AND DATA COLLECTION UPDATE

- RFWG, COMMUNITY OUTREACH, AND CAB SUCCESSOR GROUP UPDATES

- COMMUNITY OUTREACH PLAN DISCUSSION AND APPROVAL

- GUIDANCE FOR DEVELOPMENT OF ECOLOGICAL MODEL AND DISCUSSION WITH FWC ON MANAGEMENT STRATEGIES

- PUBLIC COMMENT

- NEXT STEPS: ASSIGNMENTS AND AGENDA ITEMS FOR 25 MAY 2022 MEETING

ABSI COMMUNITY ADVISORY BOARD TO DATE

- **PHASE I (2019). Standing up and Organization of the ABSI CAB** — Status Complete *May 2019 – Dec. 2019 (Assessment, Questionnaire, and 2 CAB Meetings)*

- **PHASE II (2020). Scoping of Issues, Identification of Performance Measures & Strategies** — Status Complete
Jan. 2020 – Dec. 2020 (7 CAB Meeting and 1 Oystermen's Workshop)

- **PHASE III (2021). Building Consensus on CAB Recommendations for the ABS Ecosystem-Based Adaptive Management and Restoration Plan**
— Adoption of Final Draft Management and Restoration Plan Framework for Phase IV Evaluation — Status Complete
Jan. 2021 – Nov. 2021 (7 CAB Meeting and 2 Oystermen's Workshops)

ABSI CAB PHASE IV OVERVIEW

- **PHASE IV (2022). Evaluation of the Draft Adaptive Management and Restoration Plan Framework's Prioritized Restoration and Management Strategies, Restoration Projects Selection and Implementation, and Funding Planning** — Status Initiated
Dec. 2021 – Dec. 2022 - (6 CAB Meetings, Public Workshops – TBD)

- **COMMUNITY ADVISORY BOARD (CAB).** CAB initiates Phase IV and works on evaluating the best combination of strategies that will achieve management and restoration objectives for the Bay using decision support tools coupled with available and emerging data and research. The CAB vets recommendations with management and restoration agencies. The CAB evaluates the priority and efficacy of strategies and actions and identifies specific recommended restoration projects and management approaches.

ABSI CAB Phase IV Overview

- **Public Engagement in 2022.** The CAB working with the Community Outreach Subcommittee will initiate a community feedback initiative by soliciting and reviewing community input on the Plan Framework. The CAB will vet the results of their prioritized strategies with the larger ABS community through multiple formats including a questionnaire administered through a variety of methods including Facebook, online via the ABSI website, and direct mailings. In addition, public workshops will be held in-person and/or virtually depending on the COVID-19 pandemic status.

- **Restoration Funding Working Group (RFWG).** The Restoration Funding Working Group's role is to seek funding to implement the CAB's priority recommendations. The RFWG will be in place in early 2022.

- **CAB Successor Group.** The CAB Successor Group will be ready to convene when the CAB completes their work on the Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan. The Successor Group's role will be to organize a group of key stakeholders committed to working collaboratively for the long-term, and once the CAB process is complete (~June 2024), to ensure that the Plan is implemented, monitored, and adaptively managed over time and has the support of the Community.

ABSI CAB PHASE IV SCHEDULE

- **MEETING I – JANUARY 26, 2022 (VIRTUAL)**
  Review of Predictive Models

- **MEETING II – MARCH 30, 2022 (ANERR)**
  Community Outreach Plan discussion; Guidance on Ecological Model Development; Discussion with FWC on Management Strategies

- **MEETING III - MAY 25, 2022 (ANERR)**
  Decision Support Tools Briefing; Discussion with FDACS on Management Strategies; **TBD Pending Status of Model Development:** Model Simulation Results & Strategies Refinements

- **MEETING IV – JULY 27, 2022 (ANERR)**
  Model Simulation Results & Strategies Refinements; Discussion with FWC/DEP/ANERR on Restoration Strategies

- **MEETING V – SEPTEMBER 28, 2022 (ANERR)**
  Model Simulation Results & Strategies Refinements; Discussion with Science Advisory Board on Restoration and Management Strategies

- **MEETING VI – NOVEMBER 30, 2022 (ANERR)**
  Model Simulation Results & Strategies Refinements

APALACHICOLA BAY SYSTEM INITIATIVE COMMUNITY ADVISORY BOARD

MEETING II – PHASE IV - MARCH 30, 2022

RESTORATION AND MANAGEMENT STRATEGIES OVERVIEW

JEFF A. BLAIR

FacilitatedSolutionsJB@gmail.com
http://facilitatedsolutions.org

8 RESTORATION STRATEGIES AND 19 ACTIONS PRIORITY 1 RESTORATION STRATEGIES (5)

1) Restore and create reef structures suitable for sustained oyster settlement that enhance ecosystem services in designated restoration areas. (#1 – 9.6)

2) Use experimental evidence and habitat suitability analyses to determine the most suitable substrate (e.g., limestone, granite, spat-on-shell, artificial structures) for restoring, enhancing, and/or developing new reef structures that will increase productivity in the Apalachicola Bay oyster ecosystem. (#2 - 8.7)

3) Determine area (acres or km^2) of oyster reefs that currently support live oysters as well as the area needed to ensure sufficient spat production that will support sustainability of oyster reefs and sustainability of a wild oyster fishery throughout the ABS. (#3 - 8.6)

4)^ Develop criteria for restoring specific reefs or reef systems damaged by environmental conditions or natural disasters. (#4 – 8.2)

5)^ Identify monitoring needs for assessing the health of oyster populations (including disease), and detecting changes in environmental conditions and habitat quality (for oysters and other reef-associated species) over time. (#4 – 8.2)

^*Priority #4 and #5 above received the same ranking*

PRIORITY 2 RESTORATION STRATEGIES (2)

6.) Develop ecosystem models that forecast future environmental conditions and oyster population status. (#6 – 7.2)

7.) Assess existing ecosystem services metrics used for other oyster studies and develop a list of ABSI specific metrics to assess change over time. (#7 – 6.7)

PRIORITY 3 RESTORATION STRATEGIES (1)

8) Seagrass and other SAV, and wetland and riparian habitat should be restored concurrently on appropriate substrate/bottom to work synergistically with oyster habitat restoration to enhance restoration of the ABS. (#8 – 4.73)

12 Management Strategies and 44 Actions
Priority 1 Management Strategies (7)

1) Evaluate a suite of management approaches that in combination achieve the goal of maintaining a sustainable wild oyster fishery as measured in relation to relevant performance metrics for determining success. (#1 – 9.3)

2) Recommend specific criteria and/or conditions, with related performance measures for the reopening of Apalachicola Bay to limited wild oyster harvesting. (#2 – 9.0)

3) Conduct an oyster stock assessment for the ABS with periodic updates. (#3 – 8.8)

4) Manage the commercial oyster industry and recreational oyster fishing to provide for sustainable spat production and the recovery of oyster populations. (#4 – 8.75)

5) Work with FWC Law Enforcement to develop enforcement strategies and appropriate penalties sufficient to deter harvest or sale of undersized oysters as well as violations that harm wild or leased oyster reefs and other natural resources, and that will support restoration efforts in the ABS. (#5 – 8.6)

6) Evaluate the development of a policy that would require setting sustainable harvest goals and placing limitations on or a complete closure to harvesting based on the results of data (e.g., stock assessment) collected and evaluated under a comprehensive monitoring program designed to sustainably manage the resource. (#6 – 8.5)

7) Restore and create reef structures suitable in size, location, and substrate type for healthy and sustainable oyster settlement and production, and harvesting. (#7 – 8.3)

PRIORITY 2 MANAGEMENT STRATEGIES (5)

8) Recommend policies and actions that retain and recycle shell for habitat replenishment in the ABS. (#8 – 7.7)

9) Use decision-support tools to develop a system of potential closed areas that are well defined in terms of size, location, and longevity and include rotational and seasonal harvest areas, as well as long-term closed areas in strategic locations to provide habitat for year-round protection for brood stock and enhanced spawning opportunities. (#9 – 7.6)

10) Use ecological quantitative modeling and other decision support tools to evaluate strategies and actions, and define performance criteria for an oyster population that can sustain a pre-determined level of wild oyster harvest, with a stipulated number of harvesters (limited entry), and protocols to ensure sustainability. (#10 – 7.5)

11) Work with FDACS to ensure that oyster aquaculture practices and locations in the Bay are compatible with the goals and strategies for restoration and management of the ecosystem and are compatible with a wild fisheries and the important cultural role of a working waterfront and seafood industry. (#11 – 6.8)

12) Investigate oyster shell and oyster relay programs to move both cultch and live oysters to more favorable habitat (relay programs are recommended to only be used for restoration experiments). (#12 – 5.9)

Performance Measures Evaluated in the Dashboard of the OysterFutures Model

1. **Abundance (10,000s) Adults:** Total number of adults (one year old and older oysters) on October 1 across all the bars in System including sanctuaries and fishery areas.

2. **Habitat (1000 bushels):** Total amount of substrate over all bars in the System including shell, stone, and other materials.

3. **Harvest (1000 bushels):** Total harvest in 1000 bushels across all regions in the System and all gears. The total also includes undersized oysters and any harvest that occurs in sanctuaries.

4. **Fraction of Oysters Harvested:** Fraction of market-sized (>3 inch) oysters harvested. This fraction includes oysters that are in sanctuaries.

5. **Revenue ($1000):** Total dockside value of harvest across all regions in the System. Revenue is calculated as the harvest in bushels times the price per bushel. It does not include any additional multipliers for effects on the rest of the economy.

6. **Number of Licenses:** The total number of licensed operators harvesting oysters in the System.

Performance Measures Evaluated in the Dashboard of the OysterFutures Model

7. **Water Clarity:** Percent increase in light available to seagrass at 2 m depth.

8. **Reef: N Removed:** Total pounds of nitrogen removed by oyster reefs in all regions of the System. This performance measure includes nitrogen that is converted from other sources into nitrogen gas.

9. **Catch: N Removed:** The total amount of nitrogen removed in the oyster meats from harvest.

10. **Social Value: N ($1000):** Value of nitrogen removed by reefs and harvest using a price of $834* per pound. *Note: this value will need to be calculated for the ABS working with the watermen.*

11. **Cost/Year ($1000):** Total cost of substrate and spat additions.

12. **Fishery Revenue – Cost (per year):** Revenue from harvest minus the cost of substrate and spat additions.

13. **Social Value N Removed + Revenue (fishery harvest) – Cost (restoration and management):** The social value of nitrogen removed plus the revenue (dockside value) of the harvest minus the cost of shell and spat on shell.
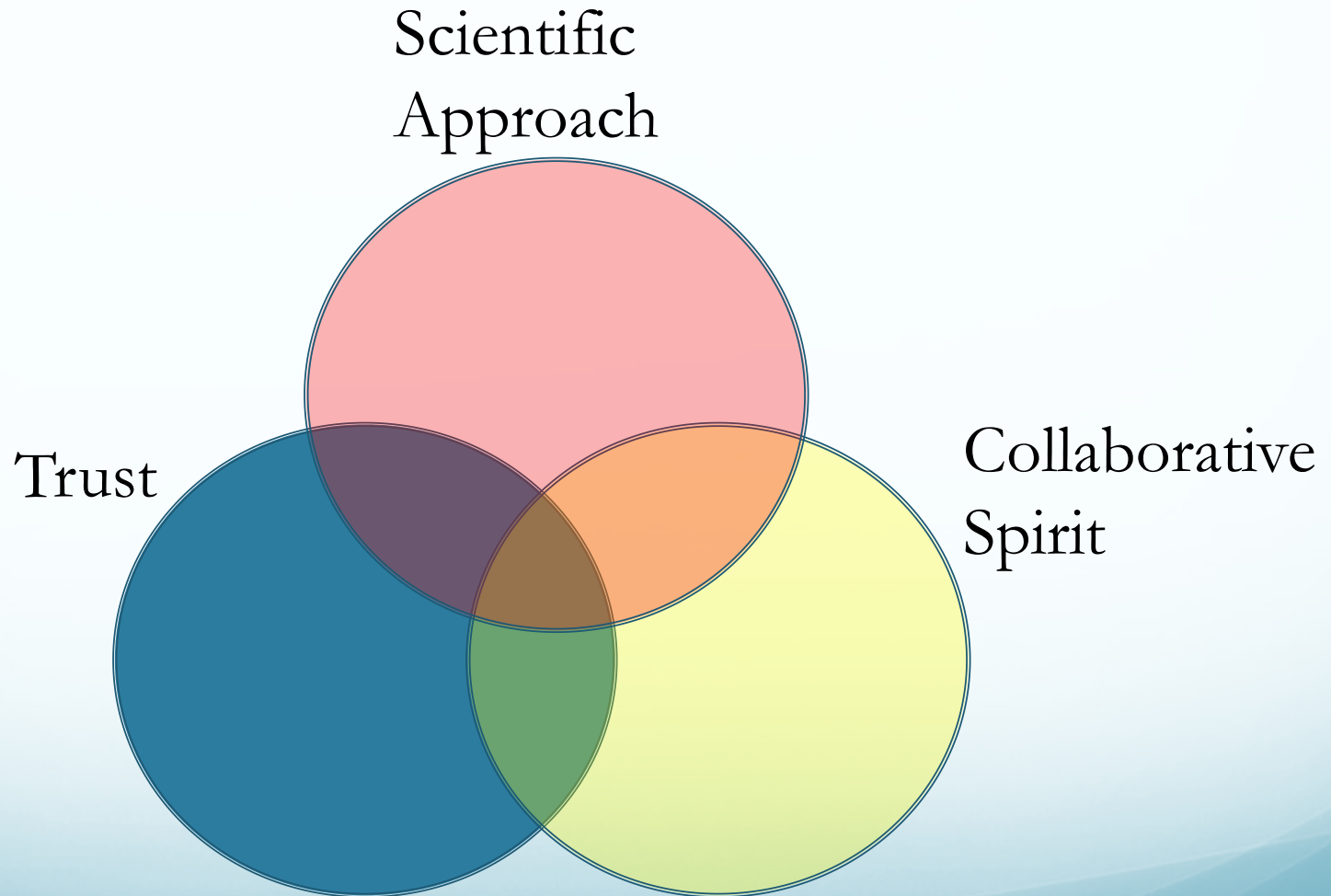
QUESTIONS OR COMMENTS

JEFF A. BLAIR

FaciltatedSolutionsJB@gmail.com

http://facilitatedsolutions.org

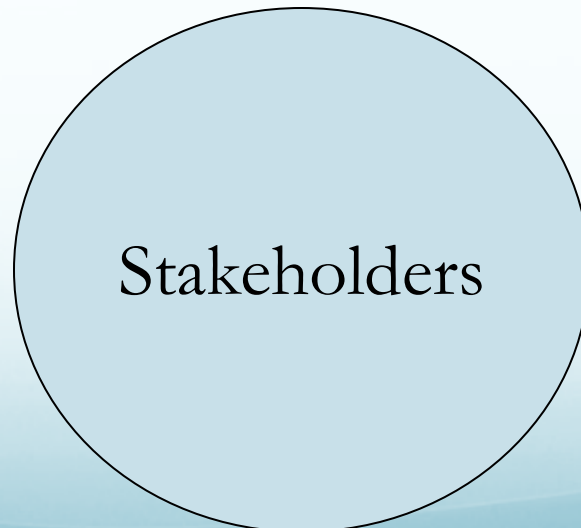# THE INGREDIENTS FOR COLLABORATIVE MODELING

Scientific Approach

Trust

Collaborative Spirit

STAKEHOLDER-CENTERED APPROACH TO COLLABORATIVE MODELING?

Stakeholders propose
objectives, options/strategies,
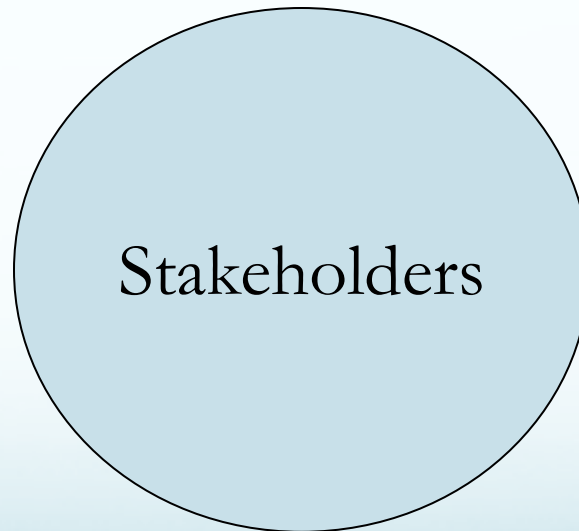and performance measures

Stakeholders

STAKEHOLDER-CENTERED APPROACH

Stakeholders propose
objectives, options/strategies,
and performance measures

Model development
and modification

Stakeholders

Scientists

STAKEHOLDER-CENTERED APPROACH

Stakeholders revise objectives, options/strategies, and performance measures

Model development and modification

Scientists

Stakeholders

Discuss options and performance measures

Review model results