

**APALACHICOLA BAY SYSTEM INITIATIVE
COMMUNITY ADVISORY BOARD**

MEETING 1 PHASE V – 1 FEBRUARY 2023

**MEETING OBJECTIVES AND
UPDATED WORKPLAN AND SCHEDULE**

JEFF A. BLAIR



FacilitatedSolutionsJB@gmail.com

<http://facilitatedsolutions.org>

CAB MEETING OBJECTIVES 1 FEBRUARY 2023

AGENDA ITEM #3

- APPROVAL OF PROCEDURAL ITEMS (AGENDA & REPORT)
- REVIEW OF UPDATED WORKPLAN AND MEETING SCHEDULE
- SCIENCE AND DATA COLLECTION UPDATE
- FWC (NFWF 2) RESTORATION PROJECT UPDATE
- CAB SUCCESSOR GROUP AND RFWG UPDATES, & COMMUNITY OUTREACH UPDATE AND FEEDBACK ON OUTREACH AND MESSAGING STRATEGIES
- REVIEW OF CAB'S PLAN FRAMEWORK AND ABSI GOALS, & STRATEGIES EVALUATION WORKSHEET PROCESS REVIEW & CLARIFICATION OF CAB COMMENT ON BAY CLOSURE
- FISHERIES MODEL SIMULATION RESULTS DISCUSSION
- AGREEMENT ON NEXT SUITE OF SCENARIOS FOR FISHERIES MODEL SIMULATIONS
- PUBLIC COMMENT
- NEXT STEPS: ACTION & AGENDA ITEMS FOR 12 APRIL 2023

ABSI CAB PHASE V WORKPLAN-SCHEDULE

AGENDA ITEM #5

- **MEETING 1 – FEBRUARY 1, 2023 (ANERR)**

Initiation of Phase V of ABSI. ABSI science and data collection and restoration project updates. Sub-committee reports and public engagement initiative update. Review of CAB Plan Framework and Strategies Evaluation Worksheet process summary. Review and discussion of Fisheries Model simulation results for revised priority Habitat Restoration (Goal A) and Fisheries Management (Goal B) scenarios. Agreement on next suite of scenarios for model simulations. Public comment.

- **MEETING 2 – APRIL 12, 2023 (ANERR)**

ABSI science and data collection and restoration project updates. Sub-committee reports and public engagement initiative update. Evaluation of Plan Framework strategies using the CAB Strategies Evaluation Worksheet. Review and discussion of Fisheries Model simulation results for revised priority Habitat Restoration (Goal A) and Fisheries Management (Goal B) scenarios. Agreement on next suite of scenarios for model simulations. Public comment.

- **MEETING 3 – MAY 31, 2023 (ANERR)**

ABSI science and data collection and restoration project updates. Sub-committee reports and public engagement initiative update. Evaluation of Plan Framework strategies using the CAB Worksheet. Review and discussion of Community Workshop input. Finalize and adopt recommendations for strategies and actions (components) for inclusion in the Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan (Plan) and submit to FSUCML. Public comment.

ABSI CAB PHASE V WORKPLAN-SCHEDULE

- **MEETING 4 – JULY 26, 2023 (ANERR)**

Initiation of Phase V of ABSI. ABSI science and data collection and restoration project updates. Sub-committee reports and public engagement initiative update. Evaluation of Plan Framework strategies using the CAB Strategies Evaluation Worksheet. Review and discussion of Fisheries Model simulation results for revised priority Habitat Restoration (Goal A) and Fisheries Management (Goal B) scenarios. Agreement on next suite of scenarios for model simulations. Public comment.

- **MEETING 5 – SEPTEMBER 27, 2023 (ANERR)**

ABSI science and data collection and restoration project updates. Sub-committee reports and public engagement initiative update. Review and discussion of Community Workshop input. Evaluation of Plan Framework strategies using the CAB Strategies Evaluation Worksheet. Review and discussion of Fisheries Model simulation results for revised priority Habitat Restoration (Goal A) and Fisheries Management (Goal B) scenarios. Agreement on next suite of scenarios for model simulations. Public comment.

- **MEETING 6 – NOVEMBER 29, 2023 (ANERR)**

ABSI science and data collection and restoration project updates. Sub-committee reports and public engagement initiative update. Review and discussion of Community Workshop input. Finalize and adopt recommendations for strategies and actions (components) for inclusion in the Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan (Plan) and submit to FSUCML. Public comment.

ABSI CAB COMMUNITY ENGAGEMENT

- **COMMUNITY WORKSHOP 1.** April 12, 2023. Community input on ABSI Restoration Experiments, FWC Restoration Project, and CAB's evaluation of Plan Framework Strategies.
- **COMMUNITY WORKSHOP 2.** July 26, 2023. Community input on the CAB's evaluation of Plan Framework Strategies as the preliminary recommendations for the Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan.
- **COMMUNITY WORKSHOP 3.** October 24, 2023. Community input on the CAB's strategies recommendations for the Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan.

QUESTIONS OR COMMENTS ON WORKPLAN AND SCHEDULE

JEFF A. BLAIR



FacilitatedSolutionsJB@gmail.com

<http://facilitatedsolutions.org>

**APALACHICOLA BAY SYSTEM INITIATIVE
COMMUNITY ADVISORY BOARD**

MEETING 1 PHASE V – 1 FEBRUARY 2023

**ABSI RESTORATION AND MANAGEMENT
PLAN FRAMEWORK AND ABSI OBJECTIVES**

JEFF A. BLAIR



FacilitatedSolutionsJB@gmail.com

<http://facilitatedsolutions.org>

ABSI PROJECT AREA MAP

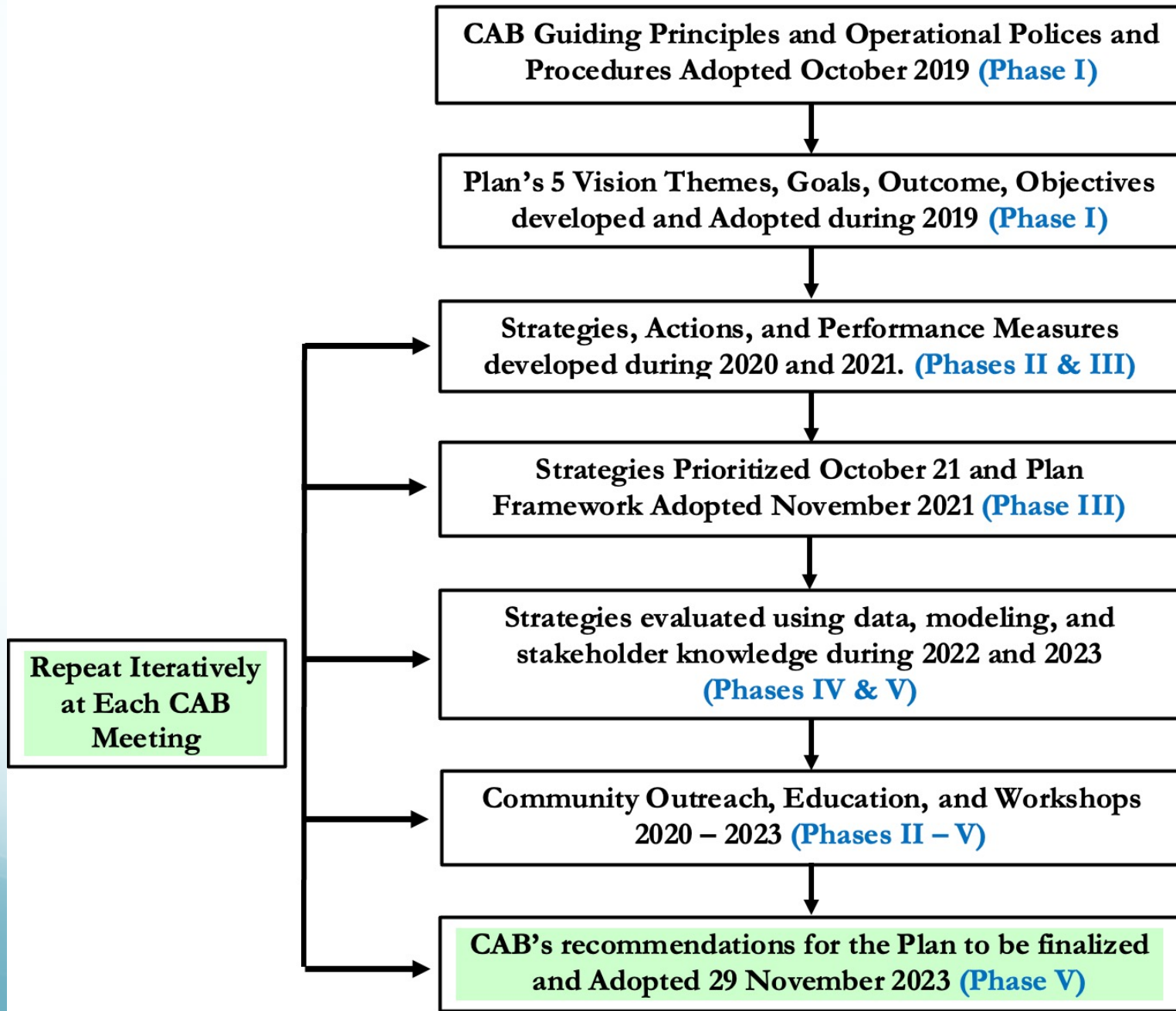
AGENDA ITEM #8



ABSI PROJECT AREA MAP



ABSI CAB PLAN DEVELOPMENT CHRONOLOGY



ABSI COMMUNITY ADVISORY BOARD TO DATE

- **PHASE I (2019). Standing up and Organization of the ABSI CAB** — *May 2019 – Dec. 2019 (Assessment, Questionnaire, and 2 CAB Meetings).*
Status – Complete
- **PHASE II (2020). Scoping of Issues, Identification of Performance Measures & Strategies** — *Jan. 2020 – Dec. 2020 (7 CAB Meeting and 1 Oystermen's Workshop).* *Status – Complete*
- **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 — Jan. 2021 – Nov. 2021 (7 CAB Meeting and 2 Oystermen's Workshops).* *Status – Complete*
- **PHASE IV (2022). Evaluation of Draft Adaptive Management and Restoration Plan Framework's Restoration and Management Strategies, Restoration and Funding Planning** — *Dec. 2021 – Dec. 2022 (6 CAB Meetings, 2 Public Workshops).* *Status – Complete*
- **CAB PHASE V (2023). Evaluation and Finalization of Recommendations for Inclusion in the ABS Ecosystem-Based Adaptive Management and Restoration Plan, Restoration and Funding Planning.** *Status – Initiated January 2023.*

ABSI CAB PHASE V OVERVIEW

- **CAB PHASE V (2023).** Evaluation and Finalization of Recommendations for Inclusion in the *Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan (Plan)*, Restoration Projects and Funding Planning. The CAB will evaluate the priority and efficacy of scenarios and associated actions and identify recommended restoration project types and management approaches for inclusion in the *Plan*. The CAB will vote to approve their package of consensus recommendations during their November 2023 meeting. *Status – Initiated January 2023.*
- **RESTORATION FUNDING WORKING GROUP (RFWG).** Initiated in late 2021 the Restoration Funding Working Group’s role is to seek resources and political, governmental, and organizational support for the CAB’s priority recommendations. *Status – Initiated.*
- **CAB SUCCESSOR GROUP.** The CAB Successor Group will be ready to convene when the CAB completes their work on the 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, once the CAB process is complete and to ensure that the *Plan* is implemented, monitored, and adaptively managed over time and has the support of the Community. The CAB Successor Group process will formally initiate January 2024. *Status – Organizing. Formal Initiation January 2024.*

ABSI PLAN DEVELOPMENT OVERVIEW

- **Management and Restoration *Plan Framework***. Comprised of Five Goals and associated Visions, Outcomes, Objectives, Prioritized Strategies, Actions, Roles, and Performance Measures and Estuarine Metrics.
- Each of the Strategies and Actions was consensus tested for acceptability during multiple meetings held in 2020 and 2021.
- The Strategies were prioritized by the CAB 19 October 2021.
- The CAB voted unanimously to adopt the *Plan Framework* 16 November 2021.
- The Plan Framework represents the CAB's recommendations for inclusion in the *Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan*.
- The CAB will vote to adopt their final package of consensus recommendations for inclusion in the *Plan* during the 29 November 2023 meeting.

ABSI PLAN DEVELOPMENT OVERVIEW

The Final CAB Meetings - 2023:

- The CAB will evaluate potential strategies and scenarios in the context of their adopted prioritization criteria and performance measures, fisheries model results, and stakeholder knowledge.
- The CAB will use data from ABSI experiments and research, stakeholders' knowledge, and Ed Camp's Fisheries Model to inform the evaluation of strategies.
- The ABSI Project Team's commitment is to be transparent and realistically manage expectations, and to clarify where appropriate what the implications, requirements, and trade-offs are for any given package of recommendations.
- The Fisheries Model does not have the detail (spatial resolution and scaling) to provide specifics as to the exact locations, size, spatial configuration, and locations for oyster reef restoration or the specific details for proposed management strategies.
- The Model will assist the CAB to evaluate proposed strategies and scenarios (combinations of strategies) at the level of how they **perform relative to each other** (e.g., x strategy performs better than y strategy, and a combination of x and y perform better than z).

ABSI PLAN DEVELOPMENT OVERVIEW

2023 – Final CAB Meetings:

- The final package of recommendations developed from the *Plan Framework* will provide decision-makers with the CAB's package of strategies predicted to provide the best approach for a successful and sustainable oyster reef restoration along with some level of sustainable wild oyster fishery.
- For the CAB's recommendations to have the best chance for broad support, funding, and implementation, the recommendations should balance predicted outcomes socially, politically, culturally, and economically based on an analysis of sustainable harvest potential (jobs), environmental, and ecosystem services, including but not limited to creating habitat and the resultant food source for hundreds of species including commercially valuable fish, water quality, shore protection, and storm protection, as well as other benefits including but not limited to recreational activities and tourism.

ABSI PLAN DEVELOPMENT OVERVIEW

For 2023 – Final CAB Meetings:

- The CAB's final package of recommendations will be **conceptual and general in scope** (e.g., large scale initial restoration, using durable cultch on good substrate with an oyster shell overlay, ongoing restoration, and an oyster repletion program) with the understanding that decision-makers (i.e., FWC, DEP, FDACS) can chose to implement all, part, or none of these recommendations.
- FWC and other decision-makers will need to work with stakeholders, especially the Franklin County oystermen and seafood industry along with the CAB Successor Group to refine and implement the CAB's recommendations.
- The CAB successor group will work with decision-makers to provide stakeholder input on management and restoration of oyster resources.

ABSI PLAN FRAMEWORK OVERVIEW

- **SECTION I: CAB ABSI PLAN PRIORITIZED STRATEGIES**
 - **Goal A: A Healthy and Productive Bay Ecosystem** [4 Objectives, 8 Strategies, and 19 Actions]
 - **Goal B: Sustainable Management of Oyster Resources** [2 Objectives, 13 Strategies, and 48 Actions]
 - **Goal C: Ecosystem-Based Adaptive Management and Restoration Plan Supported by Apalachicola Bay System Stakeholders** [2 Objectives, 4 Strategies, and 15 Actions]
 - **Goal D: An Engaged Stakeholder Community and Informed Public** [2 Objectives, 3 Strategies, and 6 Actions]
- **SECTION II: STRATEGIES TO BE REFERRED TO OTHER PROGRAMS OR ENTITIES**
 - **Goal E (Outside of ABSI Scope): A Thriving Economy Connected to a Restored Apalachicola Bay System** [4 Objectives, 10 Strategies, and 1 Action] (Lead: CAB Successor Group)
 - **Additional Strategies Outside of the ABSI Scope** [5 Strategies and 1 Action] (Lead: CAB Successor Group)

OVERARCHING APPROACHES

1. Use the following ABSI-approved name for developing the management and restoration plan: The Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan (Plan).
2. Include commercial fishermen in discussions of and to help work on restoration design and implementation (locations, size, total coverage, cultching, etc.), establishment of permanent closed areas, shell recycling, shelling, mentoring, and workforce entry development.
3. Incorporate scientifically-derived and coordinated long-term monitoring guidelines and metrics for assessing the overall health of the ABS system with a focus on oyster resources.
4. Use only the best available science (including information derived from scientists, agency personnel and stakeholders) for all components of ongoing research, modeling exercises, and development of the Plan, including relevant information on adaptation to climate change impacts.
5. Identify local partners to coordinate and collaborate with the lead entities on the implementation of strategies (stakeholders: e.g., watermen, citizen scientists, advocacy groups, NGOs, universities, counties and other local governments, etc.).

GOALS AND VISION THEMES

GOAL A: A HEALTHY AND PRODUCTIVE ECOSYSTEM.

- **VISION THEME A:** The Apalachicola Bay System, including its oyster reef resources, is sustainably managed. Water resources and affected habitats are afforded adequate protection to ensure that essential ecosystem functions are maintained, and a full suite of economic opportunities are realized.
- **GOAL A:** The Apalachicola Bay System is a healthy and productive ecosystem that supports a vibrant and sustainable oyster fishery and other economically viable activities.

GOAL B: SUSTAINABLE MANAGEMENT OF OYSTER RESOURCES

- **VISION THEME B:** A restored Apalachicola Bay System has resulted in a sustainably managed and adequately enforced wild harvest oyster fishery while also providing opportunities for other economically viable and complementary industries, including tourism and aquaculture. This is accomplished by working collaboratively with stakeholders to create, monitor and fund a plan that ensures that the protection of the habitat and the fishery it supports is based on science, stakeholder input, and industry experience, and is implemented in a manner that provides both fair and equitable access to and protection of the resource.
- **GOAL B:** productive, sustainably, and adaptively managed Apalachicola Bay System supports sustainable oyster resources.

GOALS AND VISION THEMES

GOAL C: A FULLY FUNDED PLAN.

- **VISION THEME C:** The Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan is science-based, developed with engagement and support from the Apalachicola Bay System stakeholders, and is fully funded.
- **GOAL C:** The Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan is supported by the Apalachicola Bay System stakeholders and is fully funded.

GOAL D: AN ENGAGED STAKEHOLDER COMMUNITY AND INFORMED PUBLIC

- **VISION THEME D:** Stakeholders of the Apalachicola Bay System are committed to working together to disseminate relevant information and advocate for a sustainably managed oyster-based ecosystem. In so doing, the group will facilitate innovative research, development and implementation of best management practices and serve as a hub for information exchange as well as new innovation, education and communication opportunities.
- **GOAL D:** A productive and well-managed Apalachicola Bay System is supported by an actively engaged and informed stakeholder community and public.

GOALS AND VISION THEMES

GOAL E: A THRIVING ECONOMY CONNECTED TO A RESTORED APALACHICOLA BAY SYSTEM.

- **VISION THEME E:** A restored Apalachicola Bay System sustains a vibrant commercial oyster fishery, a thriving aquaculture industry and recreational and tourism-related activities and development opportunities that underpin a strong local economy and resilient coastal community.
- **GOAL E:** The broader Apalachicola Bay Region is thriving economically as a result of a fully-restored Apalachicola Bay System.

PRIORITY OF STRATEGIES BY GOAL AREA

ALL STRATEGIES WITHIN EACH PRIORITY LEVEL (1 – 3) ARE OF EQUAL PRIORITY AND WILL BE IMPLEMENTED BASED ON A LOGICAL SEQUENCING

Priority 1 Strategies (10, 9, 8) = Important To Do Now

| GOAL A | GOAL B |
|---|---|
| 1.) Restore and create reef structures suitable for sustained oyster settlement that enhance ecosystem services in designated restoration areas. (#1 – 9.6) <i>(#1 overall rank for Goal A – 9.6 mean/average)</i> | 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) <i>(#1 overall rank for Goal B – 9.3 mean/average)</i> |
| 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) | 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.) 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) | 3.) Conduct an oyster stock assessment for the ABS with periodic updates. (#3 – 8.8) |
| 4.) [^] Develop criteria for restoring specific reefs or reef systems damaged by environmental conditions or natural disasters. (#4 – 8.2) | 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.) [^] 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) | 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) |
| [^] Priority #4 and #5 above received the same ranking. | 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 Strategies (7, 6, 5) = Important But Less Time Sensitive

| GOAL A | GOAL B |
|--|---|
| 6.) Develop ecosystem models that forecast future environmental conditions and oyster population status. (#6 – 7.2) | 8.) Recommend policies and actions that retain and recycle shell for habitat replenishment in the ABS. (#8 – 7.7) |
| 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) | 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) |

Priority 3 Strategies (4, 3, 2, 1) = As Time and Resources Allow

| GOAL A | GOAL B |
|---|--------|
| 3.) 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) | |

PRIORITY OF STRATEGIES BY GOAL AREA

ALL STRATEGIES WITHIN EACH PRIORITY LEVEL (1 – 3) ARE OF EQUAL PRIORITY AND WILL BE IMPLEMENTED BASED ON A LOGICAL SEQUENCING

Priority 1 Strategies (10, 9, 8) = Important To Do Now

| GOAL C | GOAL D |
|---|--|
| 1.)^ The ABSI Team and the CAB will continue to have an open and transparent process for the development of the Plan with many opportunities for stakeholder engagement and input in a variety of forums (e.g., workshops, online, public/government meetings) for generating awareness and support while incorporating any changes the CAB deems appropriate and necessary to fulfill the goals and objectives. (#1 – 9.1) <i>#1 overall rank for Goal C – 9.1 mean/average</i> | 1.) Develop a Community Advisory Board (CAB) for the ABSI that provides critical information and perspective to the ABSI leadership and whose members recognize the importance of their role as ambassadors for the initiative*. (#1 – 8.9) <i>* Status: Initiated. (#1 overall rank for Goal D – 8.9 mean/average)</i> |
| 2.)^ A successor group to the CAB will be developed and in place by the time the Plan is completed*. (#1 – 9.1) <i>* Status: under development</i> | |
| 3.) During 2021, the ABSI Team will form a sub-committee within the CAB to evaluate the efficacy of forming a CAB successor group. The intent of a successor group would be to ensure continuity between the CAB members and the agencies responsible for oyster management. (#3 – 8.8) | |
| 4.) Create a comprehensive funding approach for the Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan implementation including a comprehensive analysis for future grant funding for strategies, including support for sustainable monitoring deriving from the Plan. (#4 – 8.5) <i>^Priority #1 and #2 above received the same ranking.</i> | |

Priority 2 Strategies (7, 6, 5) = Important But Less Time Sensitive

| GOAL C | GOAL D |
|--------|--------|
|--------|--------|

| | |
|--|---|
| | 2.) Build, with the help of the CAB, community support and stewardship by educating stakeholders on the importance of maintaining healthy oyster reefs and by engaging them in the Bay restoration through a variety of hands-on programs. (#2 – 7.7) |
| | 3.) Support and participate in providing educational opportunities for students at all levels (primary & secondary school through college) to understand the value of their coastal ecosystems, importance of stewardship and the role oysters play in ecosystem health and fisheries. (#3 – 6.7) |

Priority 3 Strategies (4, 3, 2, 1) = As Time and Resources Allow

| | |
|---------------|---------------|
| GOAL C | GOAL D |
| | |

**PRIORITY OF STRATEGIES BY GOAL AREA
STRATEGIES OUTSIDE OF ABSI SCOPE**

Priority 1 Strategies (10, 9, 8) = Important To Do Now

| GOAL E STRATEGIES TO BE REFERRED | ADDITIONAL STRATEGIES TO BE REFERRED |
|---|---|
| 1.) Engage commercial fishermen in the restoration of the bay and encourage future participation in restoration such as monitoring, shell recycling, shelling, and relaying. (#1 – 8.5) <i>(#1 overall rank for Goal E – 8.5 mean/average)</i> | |
| 2.) Recommend monitoring and enforcement programs continue with appropriate metrics to measure output from and impact of harvest on oyster reefs. (#2 – 8.3) | |

Priority 2 Strategies (7, 6, 5) = Important But Less Time Sensitive

| GOAL E STRATEGIES TO BE REFERRED | ADDITIONAL STRATEGIES TO BE REFERRED |
|---|--|
| 3.) Coordinate with the local business community and governing bodies (i.e., city and county commissions) to ensure that growth management plans, land use and development regulations meet strong standards that are compatible with and minimize the environmental impact of industry and business activities within the ABS and are conducive to a healthy ecosystem. (#3 – 7.2) | 1.) Work with State legislators and state agencies to develop funding strategies, and incentives for involving local watermen, seafood dealers, restaurants, aquaculture operations, and private citizens in oyster reef restoration efforts that will increase the viability of oyster resources. (#1 – 7.7) <i>(#1 overall rank for Referred Strategies – 7.7 mean/average)</i> |
| 4.) Coordinate with and encourage recreational businesses and activities that recognize the importance of and support a sustainable commercial oyster fishery and the importance of the seafood industry to the Region’s cultural heritage. (#4 – 5.9) | 2.) Provide training and financial support for new workforce entrants (particularly young entrants) interested in being employed in existing industries as well as and developing industries in new fisheries, aquaculture, and restoration science. (#2 – 6.4) |
| 5.) Work with existing partners (e.g., the Chamber of Commerce, Apalachee Regional Planning Council, and city and county staff) to monitor and report on the economic benefits of a restored ABS, including key economic indicators relevant to the commercial oyster fishery and associated industries in the region. This can be displayed as a dashboard that includes key economic indicators over time based on restoration efforts in the Apalachicola Bay System (ABS). (#5 – 6.8) | 3.) Develop surveys or other tools that can be used to measure and track changes in stakeholder and public understanding of the issues important to the health and restoration of the Bay. (#3 – 6.3) |

| | |
|--|--|
| 5.) Support planning tied to economic indicators that consider future conditions (climate, SLR, reduced river flow) and their effects on the ABS. (#6 – 6.6) | 4.) Build Gulf-wide mechanism for communities interested in the restoration and revitalization of fisheries to exchange best practices and lessons learned. (#4 – 6.0) |
| 7.) Review land development regulations to provide flexibility while supporting and enhancing efforts to maintain and revitalize working waterfronts in Apalachicola and Eastpoint to ensure preservation of Franklin County’s cultural heritage and a viable seafood industry. (#7 - 6.5) | 5.) Engage the public (students, residents and tourists) in learning about the history and the ecological and economic importance of the Apalachicola Bay region, including the natural resources, and lumber, cotton shipping, and fishing industries. (#5 - 5.3) |
| 3.) Work with oystermen and other community stakeholders to promote post-recovery Apalachicola oysters. (#8 – 6.2) | |
| 2.) Develop complementary industries in wild oyster harvest and oyster aquaculture that provide new economic opportunities by building a network of experts that can help Franklin County citizens build successful programs through business training, identifying sources of funding for equipment, and developing products that will enhance and diversify local industries. (#9 – 6.0) | |
| Priority 3 Strategies (4, 3, 2, 1) = As Time and Resources Allow | |
| GOAL E STRATEGIES TO BE REFERRED | ADDITIONAL STRATEGIES TO BE REFERRED |
| 10.) Develop new markets for selling oysters to areas within and outside of Florida in part by investing in location (Apalachicola Bay) branding. (#10 – 4.5) | |

**APALACHICOLA BAY SYSTEM INITIATIVE
COMMUNITY ADVISORY BOARD**

MEETING 1 PHASE V – 1 FEBRUARY 2023

**STRATEGIES EVALUATION WORKSHEET
PROCESS REVIEW**



FacilitatedSolutionsJB@gmail.com

<http://facilitatedsolutions.org>

REFINING AND FINALIZING ABSI CAB PLAN

RECOMMENDATIONS

- The CAB will evaluate strategies using a **Strategies Evaluation Worksheet** consistent with the **Consensus Building Procedures** unanimously adopted **30 October 2019**.
- During the meetings, CAB members will be asked to develop and rank strategies (options) using a 4-Point acceptability ranking scale. Once ranked for acceptability, strategies with a ≥ 3.0 average ranking (75%) will be considered preliminary consensus recommendations for inclusion in the package of recommendations for the *Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan (Plan)*.

The following scale will be utilized for the ranking exercises:

| | | | | |
|------------------------------------|--------------------------------|--|--|---------------------------|
| ACCEPTABILITY RANKING SCALE | 4 = Acceptable, I agree | 3 = Acceptable, I agree with minor reservations | 2 = Not Acceptable, I don't agree unless major reservations addressed | 1 = Not Acceptable |
|------------------------------------|--------------------------------|--|--|---------------------------|

- CAB members should be prepared to state their minor and major reservations when asked, and to offer proposed refinements to the strategy to address their concerns. If a CAB member is not able to offer refinements to make the strategy acceptable (4) or acceptable with minor reservations (3) they should rate the strategy with a 1 (not acceptable).

REFINING AND FINALIZING ABSI CAB PLAN RECOMMENDATIONS

CRITERIA TO CONSIDER FOR PROPOSING AND EVALUATING STRATEGIES AND RECOMMENDATIONS

| CRITERIA | EXPLANATION |
|--------------------------------|---|
| IMPORTANCE | Is this proposed strategy critically important to achieving the goals of the Adaptive Management and Restoration Plan? |
| TIMELY | Will things get worse if the proposed strategy is not implemented? |
| FEASIBLE/ PRACTICAL | Is it likely that the proposed strategy will be successful in achieving the relevant goals of the Adaptive Management and Restoration Plan? |
| RESOURCES | Are there resources available, or likely to become available for implementing the proposed strategy? Is implementation of the proposed strategy cost effective? |
| COMMITMENT | Is there commitment from the stakeholders and regulators regarding implementation of the proposed strategy? |

- This is an iterative process (the issues/strategies agreed to at each meeting serve as the starting point for the next, and no recommendation is final until the last meeting), and at any point during the process any strategy may be reevaluated and re-ranked at the request of any CAB or ABSI Team member.
- The status of a ranked strategy will not be final until the final CAB meeting, when a vote will be taken on the entire package of consensus ranked recommendations for submittal to the FSUCML. The CAB will finalize their recommendations for the *Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan* at the 29 November 2023 meeting.

CONSENSUS SOLUTIONS STRATEGIES EVALUATION PROCESS

**Repeat Iteratively
At Each CAB
Meeting**

Facilitator: Introduces strategies (options/scenarios) proposed by modeler, CAB member, or project scientist—either modeled or not modeled—from *Plan Framework*.

Modeler or ABSI Scientist: Has opportunity to summarize model results or data relevant to the strategy.

CAB Members:

- Rank strategies (options/scenarios) on a 4-point scale.
- Summarize minor and major reservations.
- Strategies with score ≥ 3.0 (75%) are deemed to have a preliminary consensus.
- Strategies may be refined to enhance support.

Final CAB Meeting:

- Iterative process will have produced a comprehensive and synergistic package of consensus level supported recommendations.
- Vote will be taken in support of the consensus package.

**CAB's Recommendations for the Plan to be Finalized
and Adopted 29 November 2023**

CONSIDERATIONS - SUMMARY OF MODELING ISSUES, ASSUMPTIONS, AND TAKE-HOME POINTS

- Preliminary Model results suggest that extensive initial restoration to a threshold level, plus ongoing restoration including oyster repletion, fishing on locations based on a specific oyster abundance level.
- Significant funding will be required to achieve sufficient and sustainable habitat restoration, and FWC management and enforcement will be required to ensure a viable wild oyster fishery.
- An initial oyster-reef restoration sufficient to achieve the predicted threshold for sustainability (a successful restoration) using cultch that has been demonstrated to remain in place and not degrade in the near-term would be required, and then an ongoing oyster shell repletion regime ranging from yearly to every 3 years.
- Ongoing restoration (annual – triennial) would be required.
- Preliminary model results predict a minimum threshold level for initial restoration of oyster reefs would be approximately 33% - 35% of the pre-collapse level of oyster reefs. This is the predicted level required to jump start oyster growth.

CONSIDERATIONS - SUMMARY OF MODELING ISSUES, ASSUMPTIONS, AND TAKE-HOME POINTS

- Restored oyster reefs require some time to establish themselves before harvesting to provide oysters with the time they need to reach market size.
- All options will need to have a cost-benefit analysis conducted including evaluating the ecological, ecosystem, socio-cultural, socio-economic, and political considerations.
- Recurring funding will be required to support ongoing shelling and restoration (Oyster Repletion Program) of specific oyster reefs using shell as the cultch applied on top of restored reefs intended for sustainable harvesting.
- Enforcement will be critical to successful restoration and the establishment and maintenance of a sustainable wild oyster fishery.

CLARIFICATION OF CAB COMMENT ON BAY CLOSURE IN PLAN FRAMEWORK

***Disclaimer.** While reviewing the CAB Plan Framework, the ABSI leadership realized that the original language for this section was misleading and implied that the CAB had a significant influence on FWC's decision to close the oyster fishery. This was not the case; the CAB simply indicated support for the closure, which FWC was considering at the time. The revised text is proposed for the CAB's consideration during the 1 February 2023 meeting.*

Closing the Apalachicola Bay to Wild Oyster Harvest. At the March 11, 2020 ABSI CAB meeting, the CAB's FWC representative reported that FWC was considering closing the Apalachicola Bay to wild oyster harvest (commercial and recreational). As part of this process, FWC solicited input from various stakeholder groups and requested that the CAB provide their perspective. The CAB discussed the issue and unanimously supported a Bay closure as proposed by FWC.

The closure of the Apalachicola Bay recreational and commercial wild oyster harvest went into effect on August 1, 2020 via Executive Order pending approval of final rules. At the December 16, 2020 meeting the FWC approved the final rules to suspend all wild oyster harvest and to prohibit on-the-water possession of wild oyster harvesting equipment (tongs) from Apalachicola Bay through December 31, 2025. The oyster fishery closed area has well-defined boundaries (set by FWC in consultation with FDACS) and contained within the Apalachicola Bay System as defined in FWC's Rule 68B-27, F.A.C.

CURRENT CAB COMMENT ON BAY CLOSURE FROM PLAN FRAMEWORK

~~Closing the Apalachicola Bay to Wild Oyster Harvest. At the March 11, 2020 ABSI CAB meeting, the CAB's FWC representative requested that the CAB recommend whether to close Apalachicola Bay to all wild harvest of oysters (commercial and recreational). The CAB discussed the issue and unanimously recommended to FWC that they immediately close Apalachicola Bay to all wild harvest of oysters. This recommendation was reviewed and accepted by FWC, and the closure of the Bay to recreational and commercial wild oyster harvest proactively went into effect on August 1, 2020 via Executive Order pending approval of final rules. The oyster fishery closed area has well-defined boundaries (set by FWC in consultation with FDACS) and contained within the Apalachicola Bay System as defined in FWC's Rule 68B-27, F.A.C. At the December 16, 2020 meeting the FWC approved the final rules to temporarily suspend all wild oyster harvest and to prohibit on-the-water possession of wild oyster harvesting equipment (tongs) from Apalachicola Bay through December 31, 2025.~~

~~The CAB agreed that in subsequent meetings, it would make science-based recommendations for the criteria and performance metrics that should be met before reopening the Bay to wild oyster harvest. Under consideration are the following strategies related to closing the wild oyster fishery:~~

FWC's Rule 68B-27.013, F.A.C. (as modified in the proposed draft rule language presented at the July 22, 2020, commission hearing): "Apalachicola Bay" or "Bay" means all waters within St. George Sound, East Bay in Franklin County, Apalachicola Bay, St. Vincent Sound in Franklin County, and Indian Lagoon in Gulf County, including canals, channels, rivers and creeks.

**QUESTIONS OR COMMENTS ON
ABSIS RESTORATION AND
MANAGEMENT PLAN AND PROJECT
OBJECTIVES**



FacilitatedSolutionsJB@gmail.com

<http://facilitatedsolutions.org>

**APALACHICOLA BAY SYSTEM INITIATIVE
COMMUNITY ADVISORY BOARD**

MEETING 1 PHASE V – 1 FEBRUARY 2023

MANAGEMENT SCENARIOS FOR MODELING

JEFF A. BLAIR



SCENARIOS FOR MODELING - AGENDA ITEM #9

Previous Scenarios Modeled (30 November 2022)

- Summer oyster fishery closure of June-August. (*Agreed to 11/20/22*)
- Ongoing shelling and restoration (Oyster Repletion Program) after an initial above the threshold for sustainability oyster reef restoration (~35%). (*Agreed to 11/20/22*)
- An initial oyster reef restoration sufficient to achieve the predicted threshold for sustainability (a successful restoration) using cultch that has been demonstrated to remain in place and not degrade in the near term (durable), and then model various ongoing oyster shell repletion regimes ranging from yearly to every 3 years. (*Agreed to 11/20/22*)

Current Scenarios Modeled (1 February 2023)

- A combination of management strategies, including but not limited to, active management, an open fishery, and limited entry. All of these combination scenarios would include a summer closure (June-August). (*For Evaluation 02/01/23*)
- An open access fishery with shorter harvesting seasons. (*For Evaluation 02/01/23*)

FUTURE SCENARIOS FOR MODELING

AGENDA ITEM #10

Future Scenarios

- An Active harvest management scenario similar to the AL approach using monitoring and an oyster abundance minimum density threshold.
- Different management strategies under a range of different assumptions to see what works best.
- A put-and-take sustainable wild oyster harvest fishery.
- Restoration approaches using data from the restoration projects and the restoration experiments and pilot projects (specific locations, size, height/spatial configurations, type of cultch material, density of cultch, etc.).
- A combination of limited entry and active management.

FUTURE SCENARIOS FOR MODELING

When the Model Can Be Expanded to a Spatially Explicit Platform

- Opening and closing specific oyster bars and potentially even parts of specific oyster bars based on the metrics for sustainability of the resource (e.g., oyster density).
- Different scenarios with the Bay wide-open and various areas of the Bay closed.
- Develop and maintain one area of the Bay (e.g., Cat Point) for high intensity commercial oyster harvesting, and the rest of the Bay will be set aside as protected areas (MPA/Sanctuaries) to provide ecosystem services such as water filtration and marine species habitat, and also to provide brood stock/spat source for the system.
- Updated periodic oyster population evaluations are being conducted and used as the metric for how much and when harvesting is allowed.
- Total Allowable Catch (TAC) as a component of a limited entry and/or minimum density active managed scenarios.
- Seasonal closures.
- Consider the size, spatial configuration, amount and location for oyster reef habitat restoration initiatives.

ASSUMPTIONS FOR MODELING

Previous Assumptions Used for Modeling (18 October 2022)

- Depensation, Collapse, Restoration.
- Restoration and Sustainable Fishing.
- Alternative Fisheries Management Approaches.

Modeled Simulations Include

- Closed seasons
- Bag limits
- Potential for bioeconomic entry (i.e., based on assumptions about profitability and variable costs, so not capped at number of trips/participants), as is most recent status quo.
- Fixed effort remains an option, as does, allowing for an effort cap with bioeconomic operations below that.
- Discard mortality applied to oysters captured but not harvested.
- Potential for density dependent catchability which there is some evidence may occur.

* *The models still include shell budget information.*