APALACHICOLA BAY SYSTEM INITIATIVE COMMUNITY ADVISORY BOARD



MEETING 4 OF PHASE V — AUGUST 9, 2023

FACILITATOR'S SUMMARY REPORT

APPROVED SEPTEMBER 27, 2023

APALACHICOLA NATIONAL ESTUARINE RESEARCH RESERVE EASTPOINT, FLORIDA



APALACHICOLA BAY SYSTEM INITIATIVE COMMUNITY ADVISORY BOARD AUGUST 9, 2023 FACILITATOR'S MEETING SUMMARY REPORT

TABLE OF CONTENTS

TABLE OF CONTENTS 1					
TABLE	TABLE OF ATTACHMENTS				
I.	MEETING SUMMARY AND OVERVIEW				
II.	Welcome and Introductions 4				
III.	MEETING PARTICIPATION 4				
IV.	MEETING OBJECTIVES 5				
v.	PREVIOUS MEETING SUMMARY REPORT APPROVAL				
VI.	UPDATED WORKPLAN-SCHEDULE REVIEW				
VII.	ABSI SCIENCE & DATA, AND FWC NFWF RESTORATION UPDATES 7				
VIII.	Working Group and Subcommittee Updates 11				
IX.	CAB SUCCESSOR GROUP ORGANIZATIONAL FRAMEWORK				
X.	Public Comment Opportunity #1 14				
XI.	ACCEPTABILITY RANKING OF PLAN FRAMEWORK STRATEGIES AND ACTIONS 15				
XII.	CAB PLAN RECOMMENDATIONS AND REPORT OUTLINE OVERVIEW				
XIII.	PUBLIC COMMENT OPPORTUNITY #2				
XIV.	NEXT MEETING OVERVIEW AND ISSUES				

ATTACHMENTS			
1.	Key To Common Abbreviations	5	
2.	MEETING PARTICIPATION LIST	6	
3.	MEETING AGENDA	8	
4.	CAB WORKPLAN, SCHEDULE, AND PROJECT FLOWCHART	9	
5.	MEETING CHAT SUMMARY (ZOOM) 4	3	
6.	MEETING SURVEY POLL (ZOOM) AND WRITTEN EVALUATION RESULTS 4	4	
7.	GLOSSARY OF MODELING TERMS 4	5	
8.	GLOSSARY OF ABSI PROJECT TERMS AND DEFINITIONS 4	6	

Florida Peninsula – From Space



APALACHICOLA BAY SYSTEM INITIATIVE COMMUNITY ADVISORY BOARD AUGUST 9, 2023 FACILITATOR'S MEETING SUMMARY REPORT



Oyster Boats – Eastpoint, Florida

OVERVIEW OF THE APALACHICOLA BAY SYSTEM INITIATIVE COMMUNITY ADVISORY BOARD'S WEDNESDAY, AUGUST 9, 2023 ACTIONS

I. MEETING SUMMARY AND OVERVIEW

At the August 9, 2023 meeting conducted at the Apalachicola National Estuarine Research Reserve (ANERR) in Eastpoint, Florida the Apalachicola Bay System Initiative (ABSI) Community Advisory Board (CAB): received an overview of the updated Project Workplan-Schedule; received updates on ABSI Science and Data, and FWC's NFWF Phase 2 funded restoration project; received reports and updates from the Restoration Funding Working Group, and Community Outreach Subcommittee; received an overview of and provided input on the CAB Restoration and Management Plan Report outline; and discussed next steps for the September 27, 2023 meeting. Specific actions included: discussion on the organizational framework for the CAB's Successor Group; unanimously agreeing by consensus to initially select *Partners for a Resilient Apalachicola Bay* as the name for the Successor Group; and concluding the process of acceptability ranking options by unanimously consensus ranking the entire package of revised goals, vision themes, goal statements, outcomes, objectives, strategies, and actions for inclusion in the *Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan* using the Consensus Solutions Strategies Evaluation Worksheet Process.

(Attachment 7 — Glossary of ABSI Project Terms and Definitions)

II. WELCOME AND INTRODUCTIONS

Jeff Blair, ABSI CAB Facilitator, opened the meeting at 8:30 AM and welcomed all participants.

SOCIAL SCIENCE SURVEY

The ABSI CAB members are participating in a Social Science Survey that is conducted at the beginning of each meeting to gauge participants' perspectives and attitudes regarding science and data, and stakeholder relationships throughout the ABSI CAB process. Ed Camp, University of Florida, is conducting the Survey that was first administered during the October 2020 meeting and will be continued throughout the duration of the ABSI CAB process. An online Social Science Survey was not offered for the August 9, 2023 CAB meeting.

III. ABSI CAB MEETING PARTICIPATION

The following CAB members participated in the Wednesday, August 9, 2023 meeting conducted in-person at the Apalachicola National Estuarine Research Reserve in Eastpoint, Florida:

Georgia Ackerman, *Mike Allen*, Ottice Amison, *Frank Gidus*, Anita Grove, Chad Hanson, Jenna Harper, Shannon Hartsfield, *Becca Hatchell*, Gayle Johnson, *Katie Konchar*, Erik Lovestrand, *Chuck Marks*, Carrie Jones alternate for Portia Sapp, Grayson Shepard, and *Ken Jones* alternate for Chad Taylor.

* Members who participated virtually are italicized.

(16 of 20 active members participated — 80%).

Absent CAB Members:

David Barber, Steve Rash, Alex Reed*, Devin Resko, and Paul Thurman.

*Jenna Harper is representing DEP.

PROJECT TEAM MEMBERS PARTICIPATING

Jeff Blair, Sandra Brooke, Madelein Mahood, and Joel Trexler.

(Attachment 2 — Meeting Participation)

MEETING FACILITATION

Meetings are facilitated and meeting reports prepared by Jeff Blair of Facilitated Solutions, LLC. Information at: <u>http://facilitatedsolutions.org</u>.



PROJECT WEBPAGE

Information on the Apalachicola Bay System Initiative project and the Community Advisory Board, including agenda packets, meeting reports, draft Plan frameworks, and related documents may be found at the ABSI CAB Webpage. Located at the following URL:

https://marinelab.fsu.edu/the-apalachicola-bay-system-initiative/

IV. AGENDA REVIEW AND APPROVAL

The ABSI CAB voted unanimously to approve the agenda for the August 9, 2023 meeting as presented. Following are the key agenda items approved for consideration:

- ✓ To Approve Regular Procedural Topics (Meeting Agenda and Summary Report)
- ✓ To Review Updated Workplan and Meeting Schedule
- ✓ To Receive Science and Data Collection, and Restoration Updates
- ✓ To Receive Reports from RFWG and Community Outreach Subcommittee
- ✓ To Discuss Organizational Framework of the CAB Successor Group
- ✓ To Receive Public Comment Prior to Acceptability Ranking Strategies
- ✓ To Review and Acceptability Rank Restoration and Management Plan Framework Strategies
- ✓ To Receive Public Comment After Acceptability Ranking Strategies
- ✓ To Identify Next Steps: Information, Presentations, Assignments, Agenda Items for Next Meeting

Amendments to the Posted Agenda:

There were no amendments to the posted agenda.

(Attachment 3 — August 9, 2023 ABSI CAB Agenda)

V. APPROVAL OF THE MAY 31, 2023 CAB MEETING FACILITATOR'S SUMMARY REPORT

The ABSI CAB voted unanimously to approve the May 31, 2023 CAB Meeting Facilitator Summary Reports as presented.

Amendments: None

VI. REVIEW OF UPDATED PROJECT WORKPLAN AND SCHEDULE

Jeff Blair provided the CAB with a review of the updated Project Workplan and Schedule and answered members' questions. The August 9, 2023 meeting represented the CAB's fourth meeting of the final Phase of the Project, Phase V.

For the August 9, 2023 meeting the CAB concluded the process of evaluating the best combination of strategies and actions predicted to achieve restoration and management objectives for the Apalachicola Bay using the results of predictive model simulations coupled with available and emerging data, research, and stakeholder knowledge. The range of options were evaluated using the Consensus Solutions Strategies Evaluation Worksheet Process. The strategies were evaluated with the overarching goal of restoring oyster reefs to a level that can sustainably provide needed ecosystem services for the Bay, and concurrently provide for a sustainable and economically viable level of commercial oyster harvesting.

Throughout the project, the CAB members representing management and restoration agencies have been vetting the strategies and actions under consideration with their leadership to gauge support and feasibility of implementation. The CAB is in the final stages of evaluating the relative priority and efficacy of strategies and associated actions and identifying restoration and management approaches for inclusion in the *Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan.*

Phase V focuses on the evaluation and final selection of restoration and management approaches conceptual and broad in scope from the Plan Framework, public engagement, and planning for funding restoration projects and the CAB Successor Group. During the August 9, 2023 meeting the CAB unanimously ranked

the entire package of revised goals, vision themes, goal statements, outcomes, objectives, strategies, and actions for inclusion in the *Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan* with all 4s out of a possible high ranking of 4. The CAB process will conclude with the 29 November 2023 meeting, when the CAB will adopt their final package of recommendations proposed for inclusion in the *Apalachicola Bay System Based Adaptive Management and Restoration Plan*.

Jeff reported as follows:

- The focus of the August 9, 2023 meeting was discussion of the organizational framework for the CAB Successor Group, and conclusion of the process of refining and ranking strategies and actions for inclusion in the *Plan*.
- The focus of the September 27, 2023 meeting will be discussion of the organizational framework for the CAB Successor Group, approval of the Report outline and *Draft Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan.*
- The focus of the November 28, 2023 meeting will be approval of the organizational framework for the CAB Successor Group, and adoption of the *Draft Final Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan.*
- The Community Outreach Committee will continue to communicate and meet with community stakeholders providing them with information and updates regarding the purpose and progress of the Apalachicola Bay System Initiative including Op-Eds, rack cards, social media posts/texts, ABSI newsletters, and the ABSI website. The CAB's draft recommendations and results of ABSI experiments will continue to be vetted with the larger ABS community through multiple formats, including online via the ABSI website, and in-person public workshops.
- The CAB is conducting planning for transitioning to a Successor Group whose role will be to organize a group of key stakeholders committed to working collaboratively for the long-term once the CAB process is complete. The Successor Group will continue providing input to natural resource management agencies with the goal of ensuring the Apalachicola Bay System is effectively monitored, and adaptively managed with the support of the Community. The CAB is scheduled to finalize their recommendations for the *Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan* at the November 29, 2023 meeting, and the CAB Successor Group is anticipated to formally convene in early 2024.
- In addition, the FSU ABSI Project Team continues to work with the Restoration Funding Working Group to seek resources and political, governmental, and organizational support for the CAB's priority restoration recommendations.

Jeff noted that the Project Team would keep the CAB updated and share additional information as it becomes available.

*The Draft Restoration and Management Plan Framework is available at the following URL: <u>https://marinelab.fsu.edu/absi/cab/</u>

(Attachment 4 — Workplan, Schedule, and Project Flowchart)

VII. PROJECT RELEVANT UPDATES AND BRIEFINGS PRESENTATIONS

ABSI SCIENCE AND DATA COLLECTION UPDATE

Sandra Brooke, FSUCML Faculty and ABSI Principal Investigator, provided the CAB with an update on ABSI science and data collection. A science and data update is provided at all CAB meetings.

Presentations are available on the project webpage: <u>https://marinelab.fsu.edu/absi/cab/</u>.

ABSI overarching goals are:

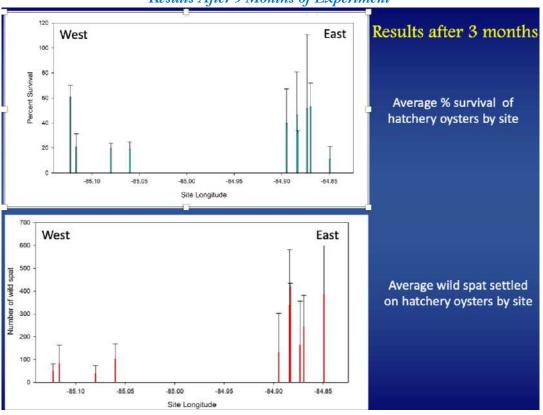
- Understand why the Apalachicola Bay oyster populations have not recovered and identify optimal restoration approaches that will inform larger efforts.
- Determine whether loss of oyster populations is causing a decline in overall ecosystem health.
- Work with local stakeholders to develop a science-based restoration and management plan for Apalachicola Bay.

Summary and Overview of Presentation

The August 9, 2023 Science and Data Collection update was focused on updates. Sandra reported as follows:

Oyster Ecology: Assessment of Survival and Growth of Juvenile Oysters in Different Biodegradable Containers Experiment

- 10 sites (planted with limestone rock in 2016).
- Each site: 5 biodegradable mesh, 5 chicken wire, 5 vexar cages, Water quality datalogger.
- Each container: 100 juveniles, individually tagged.
- Collected quarterly and assessed for survival, growth, spat recruitment, predators and status of containment material.



Results After 3 Months of Experiment

Oyster Ecology: Assessment of Survival and Growth of Spat-on-Shell_in Different Biodegradable Containers

- 10 sites (planted with limestone rock in 2016).
- Each site: 5 biodegradable mesh, 5 chicken wire, 5 vexar cages, Water quality datalogger.
- Each container: 5 kg of spat on shell, stained with calcein.
- Collected quarterly and assessed for survival, growth, spat recruitment, predators and status of containment material.

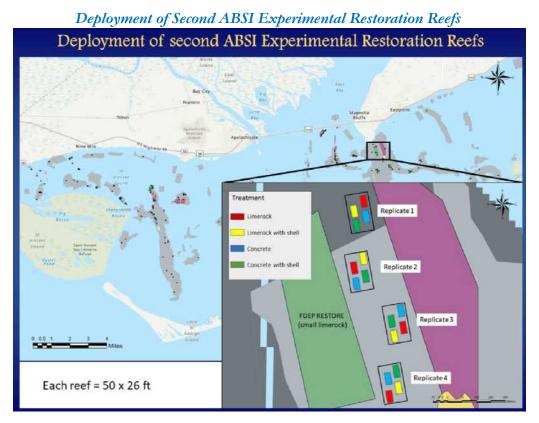
Second ABSI Restoration Experiment

This restoration experiment was deployed on an area of bare shell hash at Cat Point in early May with the help of local oyster harvesters. The reefs are all 15" high, the ones with shell have a foundation of 12" and a shell layer of 3." The experiment consisted of four treatments:

- Limerock (5-8 inch diameter) 15 inches tall*
- Limerock (5-8 inch diameter), 12 inches tall with a 3 inch layer of shell
- Concrete (4-6 inch diameter) 15 inches tall
- Concrete (4-6 inch diameter), 12 inches tall with a 3 inch layer of shell

* Three replicates of the limerock only treatment were deployed with material containing some larger rocks (~8-10 inches) than was intended. This material was excluded from further use and smaller rocks (5-7 inches) were used in response to stakeholder concerns and was used for the remainder of the limerock treatments.

There are four reefs of each treatment, each with a footprint of 50 x 26 ft as shown in the map below:



Restoration Mini-Reefs Experiment

• Excess hatchery spat on shell or seed, and live spat/seed collected as samples from experiments are rebagged into biodegradable bags and used to make mini-reefs adjacent to the new restoration experiment.

ABSI CAB Facilitator's Summary Report

- The mini-reef structures consist of a base layer of bare shell, a layer of spat on shell, and a top layer of seed.
- Mini reefs will be surveyed by divers quarterly for structural integrity, qualitative oyster metrics (TBD), and mobile associates.

Journal Article Accepted Into Estuaries and Coasts, July 2023

- An article titled: "Analysis of multidecadal nekton communities in a regulated river-fed estuary: assessing temporal changes relative to river flow rates in the Apalachicola Bay System, Florida" published by Cheston Peterson, David Gandy, and Sandra Brooke was accepted into the July 2023 edition of Estuaries and Coasts.
- Sandra will share the article once it is published.

Summary of Questions, Responses, and Comments:

(Note initials are only used to identify ABSI Team members, presenters, and state agency representatives)

- Settlement of wild type spat (400 spat/treatment) is low.
- How are you picking locations of mini reefs?
- SB: Putting them next to restoration experiment sites.
- Are the bags tied together?
- SB: No, they are just stacked, don't want anything too fancy or labor intensive
- When you put the shell on the limerock, I suspect there are a lot of spaces, does the shell settle in those spaces? Is that a good thing?
- SB: Suspects that the material on top will blow away, and the shell in the crevices will be retained. The point of this experiment is to see if you can augment non-tongable rock with shell to make it harvestable if the oysters get to that level.
- What do you think the reason is for the difference between the east and west results?
- SB: West tends to have higher salinity and a lot more drills than the west side, but environmental conditions are not correlated with these data yet. Limestone on the eastern side seems to be more persistent on than the west, so the quality of the substrate where the experiments are deployed might affect the survival as well as environmental conditions.
- The containment experiment is important. If folks are interested in creating reefs outside historically cultched area. It is my understanding that the material must be contained in some way, so this data will be useful to know.
- Is there anything in the management plan about monitoring nekton communities/associated fauna by monitoring?
- SB: It should be included if it is not already.
- SB: Monitoring of nekton (e.g., fishes) over reefs is tough, and hard on nets and monitoring materials.
- In the Plan, should describe working with FWC for monitoring enhancement, keeping it broad gives wiggle room for our recommendations.
- The BP sites, have you compared results with them?
- SB: The FDEP sites are the ones that are doing the best, specifically, the RESTORE sites that used limerock are where the oysters are according to our tonging data.
- SB: One of the FDEP employees has monitored those sites and would be happy to talk with folks about the data from those sites (AG to share).
- JT: The report referenced where the 56 acres with harvestable levels oysters are located. Four of the sites restored have reached the 400 bags/acre threshold, but not all. It is not an even distribution of oysters within or among sites.

FWC (NFWF PHASE 2) RESTORATION PROJECT UPDATE

Devin Resko, FWC Division of Marine Fisheries Management, provided the CAB with an update on the FWC restoration project funded by the National Fish and Wildlife Foundation (NFWF). Devin reported:

Summary and Overview of Update

Apalachicola Bay Oyster Restoration Pilot Study

- Originally budgeted at \$7 million utilizing NFWF funding.
- Budget has increased with additional funding allocated from Governor DeSantis' Framework for Freedom.
- Additional \$10 million for Apalachicola Bay oyster reef restoration.
- Allows FWC to perform a more robust pilot study, ensuring scientific merit and meaningful restoration.
- Dependent on quality of bids received.
- Dependent on the quality of received bids for the pilot study, these additional funds could be utilized towards expansion of the pilot if deemed appropriate.
- Pilot study will test multiple treatments.
- Reef height 1 ft (low) and 2 ft (high).
- Material size 6" (small) & 12" (large) FL dolostone.
- FSU ABSI's complimentary study.
- Increases scientific scope of work done in Apalachicola Bay.
- Provides more data to assist in future, larger restoration activities.

Reef Characteristics for Selecting Restoration Sites:

- Hardbottom
- Good waterflow
- Nearby oysters
- Not a navigational hazard
- Navigable for contractor





Next Steps

- Negotiating with contractors that had responsive bids.
- Goal is to have contractor, material in water in 2023.
- Dependent on quality of bids received.
- Hire part-time site monitor for restoration activities.
- Work with FWC researchers, university researchers to prepare monitoring and surveying methods.

Summary of Questions, Responses, and Comments:

(Note initials are only used to identify ABSI Team members, presenters, and state agency representatives)

- The biggest question the community has is when is the material going to get out there?
- Another big issue is sourcing the material, and how they are going to get the 12" rock, they haven't figured that out yet.
- Sounds like they are willing to change the size to a more common one it the preferred sizes are not available.
- You're not going to get the 12" rock easily, you can't filter that size easily, that will be a special cut.
- JB: Devin indicated in his audio report that FWC is willing to take a smaller sized material that will still work as intended if it is cheaper than getting a special cut of rock.
- I was under the impression that the bigger material was cheaper. Is 10" workable?
- No, even the 6-8 stuff when it first goes down is difficult to work until oysters start growing on it
- JB: Would 10" rock work the same as 12" in terms of whether it is or is not tongable?
- Yes, 10" would not be tongable same as 12"; but 10" will be a custom cut too, and it will all be dependent on negotiations.
- When the ABSI experiment was put out, there were a few larger pieces (10") but it wasn't all that size. I don't think what we put out will be a problem, because the bigger stuff seems to settle to the bottom. You can have 7-8 oysters growing on the rocks, and that's a pretty good average for one tong lick.
- Keep in mind the NFWF funding is for rebuilding oyster reefs, not just harvesting, which means some areas may be untongable by design, but the indirect effect will be to produce spat for other reefs, and more long term sustainability. There may not be direct benefit to the oystermen for the large rock areas, but the indirect effect of the population recovery and spat source will be of benefit.
- I do think the pilot study is a critical step that will affect restoration long-term, this is a key step for sustainable restoration.

VIII. WORKING GROUP AND SUBCOMMITTEE UPDATES AND REPORTS

A. RESTORATION FUNDING WORKING GROUP

Overview. The ABSI proposal contemplates a 15-year commitment from FSU, 10 years beyond the 5 years of funding provided by Triumph Gulf Coast, Inc. The Restoration Funding Working Group (RFWG) is a team of local, state, private, and NGO stakeholders focused on developing plans for long-term funding of the broader effort. The goal at the end of the 5-year ABSI period is to have a funding pipeline for restoration secured. Joel Trexler, RFWG Lead, previously reported that the RFWG has met several times, has broad representation, has identified the specific strategies and related actions that would require funding, agreed to a charge, are mapping actions with potential funding sources and approximate funding amounts needed, and understand that it is critical to identify gaps in funding and work to fill the gaps before the Plan is final. In addition, there are potential funding sources for some CAB recommended actions.

Joel reported as follows for the August 9, 2023 CAB meeting update on the RFWG:

- Received funding from NOAA NERR Catalyst/Science Transfer program for administration of the CAB Successor Group for one year.
- NOAA has made an announcement about the award, and FSU has started the process to create a position for a staff person to help coordinate the successor group as it goes to work in the new year.
- This would be bridge funding primarily to administer the Successor Group until recurring funding is attained.
- \sim \$79K is available for the first year.
- The Successor Group needs to draft a position description.
- The funding will start October 1, 2023 and last for one year.
- The position should be advertised prior to the October 1 date when funds are available.
- FSU is willing to assist with funds pending availability of the award money.
- NOAA has an open call for funding proposals from the Inflation Reduction Act, programs that are on the scale of the ABSI Restoration Plan.
- Two groups are discussing putting together a LOI for a future application that would involve oyster research and restoration.
- LOI due August 21st (Jenna, Chad, Joel, and Ken are working on this and would be happy to discuss).
- Funding is in the \$500,000 \$2 million range, NOAA planning to fund 20-25 projects, multiple can be awarded within the same region, but only one award in the region is likely.

Summary of Questions, Responses, and Comments:

(Note initials are only used to identify ABSI Team members, presenters, and state agency representatives)

• There were no questions or comments from the CAB.

B. COMMUNITY OUTREACH SUBCOMMITTEE

Subcommittee Charge:

- To work with ABSI leadership to inform the public of who we are and what we are doing.
- To create outreach and community engagement strategies that attract stakeholders and the public to actively inform the public about the Apalachicola Bay System Initiative's goals and actions.
- To measure effectiveness of these strategies through direct participation in achieving actions (as well as web analytics and media stories).

Chad Hanson reported that the Community Outreach Subcommittee (COC) has been active, and they are working on a variety of initiatives. For the August 9, 2023 update, Chad reported on the Subcommittee's Outreach and Messaging Strategies as follows:

The Committee met in mid-July and:

- Discussed the format for the Community Workshop.
- Brainstormed new outreach opportunities.
- Discussed what outreach will look like for the Successor Group.
- The newsletter went out.
- The Committee is finalizing Key Points document providing an accessible summary of the Plan.
- Creating "Damage-Control" Strategy worksheet to address emerging issues (e.g., on social media) rapidly.
- The Committee plans to get back to the County and City commissioners at some point in the future.

Summary of Questions, Responses, and Comments:

(Note initials are only used to identify ABSI Team members and partners, presenters, and state agency representatives)

• There were no questions or comments from the CAB.

IX. CAB SUCCESSOR GROUP ORGANIZATIONAL FRAMEWORK DISCUSSION

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, 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. Of note, the CAB Successor Group is anticipated to formally convene in early 2024 after the CAB's adoption of their recommendations in November 2023.

Shannon Hartsfield and Anita Grove led the CAB in a discussion of the Successor Group Framework. Following is a summary of the discussion by topical issues:

Logistics/Organization

- ~\$79K available to hire someone to administer the Successor Group for one year.
- A 501(c)(3) tax-exempt organization is the preferred structure for the Group.
- Need 3 individuals (board members) to start the process of forming the corporation.
- Could use attorney assistance in forming the corporation.
- FSU may be able to provide general guidance.
- There may be flexibility regarding how the award is used. Hiring an attorney for advice and an administrator could possibly both done with the funds.
- There are funds to hire a notetaker in the Grant.
- The Grant has specific deliverables that must be met.
- A position statement with the qualifications needed for the position needs to be drafted.
- The purpose of grant is to handle organizational and logistical needs for the Group, organize, convene, and facilitate meetings, take minutes, etc.
- The funds are available October 1, 2023, and must be used within a one-year-window.
- The Group should advertise for the position prior to the October start date.
- Betty Webb suggested as a possible administrator for the Group.
- Could have a chair run meetings so the administrator/coordinator won't have to run the meetings.

Membership of the Successor Group

- Need local people.
- Need representatives from the entire seafood industry, including crabbers, shrimpers, oystermen, etc.
- Need FWC to participate critical.
- State agencies could be advisory members and not voting members.

Stakeholder Groups Offering to Participate on the Successor Group – Partners for a Resilient Apalachicola Bay

- Apalachicola Riverkeeper Georgia Ackerman
- The Pew Charitable Trusts Chad Hanson
- The Nature Conservancy Will provide a representative.

- Franklin County Commission Ottice Amison
- Apalachicola City Commission Anita Grove
- Oystermen Shannon Hartsfield
- Aquaculture Gayle Johnson
- Charter Fishing Grayson Shepard
- ANERR Jenna Harper
- Scientists Mike Allen (UF)
- Scientists Sandra Brooke and Joel Trexler, FSUCML
- UF-IFAS/Florida Sea Grant/Franklin County Extension Erik Lovestrand
- FDACS Portia Sapp

Name for Group

The following names were offered as possible candidates:

- Apalachicola Bay Management/Restoration Working Group
- Apalachicola Bay Restoration Working Group
- Healthy Apalachicola Bay Working Group
- Healthy Apalachicola Bay Management Working Group
- Group should reflect what their purpose is
- Apalachicola Bay Seafood Industry
- Restoring Apalachicola Bay
- Apalachicola Bay Recovery and Management
- Keep it broad
- Healthy Apalachicola Bay Association
- Partners for a Resilient Apalachicola Bay

Selection of Successor Group Name:

• The CAB unanimously agreed by consensus to initially select *Partners for a Resilient Apalachicola Bay* as the name for the Successor Group.

Next Steps:

• Anita will send out an email regarding the date and time for the Successor Group Subcommittee's next meeting.

X. PUBLIC COMMENT OPPORTUNITY #1

The facilitator invited members of the public to provide comments.

Public Comments:

- Wayne Williams (Virtual), Seafood Work and Waterman's Association: stated that the size of the rock just needs to be 1-6" as far as tongable material, there are already reefs with huge rocks that are unharvestable, and the Coon Bars and area north of the bridge are closed. We need a smaller rock, and you need to be focused on getting material out that can be harvested, kill two birds with one stone. Cat Point and areas out there have places that are 2000 bags per acre. I went out and checked the other Saturday.
- Blue granite from FWC restoration is doing well, and is loaded with oysters.
- Need to get on with restoration ASAP.

- Can't we go on with putting material out with rock that we know works and that is available?
- Kentucky Blue, we can get material railed in even to PC or Bristol even if it is more expensive, we know it works.
- SWWA is already a 501(c)(3) with 500 members.
- We care about the Bay, main focus of our group is a restoration and management plan.

XI. ACCEPTABILITY RANKING OF CAB'S ADOPTED RESTORATION AND MANAGEMENT PLAN FRAMEWORK STRATEGIES AND ACTIONS USING THE STRATEGIES EVALUATION WORKSHEET

Jeff Blair provided the CAB with a brief summary of the Strategies Evaluation Worksheet Process that was reviewed in detail at the February 1, 2023 CAB meeting and answered members' questions.

Presentations are available on the project webpage: https://marinelab.fsu.edu/absi/cab/.

Summary and Overview:

- The CAB will evaluate strategies using a Strategies Evaluation Worksheet consistent with the Consensus Building Procedures unanimously adopted October 30, 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:

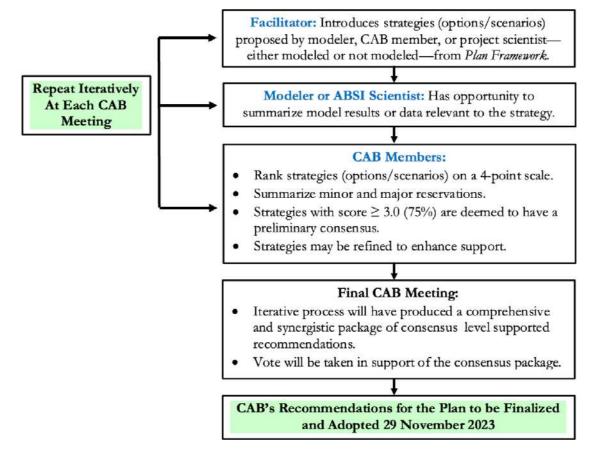
ACCEPTABILITY	4 = Acceptable	3 = Acceptable, I agree with	2 = Not Acceptable, I don't	1 = Not
RANKING SCALE	I agree	minor reservations	agree unless major reservations	Acceptable
			addressed	

- 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).
- 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.

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/	Is it likely that the proposed strategy will be successful in achieving the relevant goals of		
PRACTICAL	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?		

Criteria for Evaluation of Strategies

Consensus Solutions Strategies Evaluation Process



Process Summary

The CAB conducted an acceptability ranking exercise ranking each of the goals, vision themes, goal statements, outcomes, objectives, strategies, and actions for inclusion in the *Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan* using the Strategies Evaluation Worksheet Process.

All of the proposed revisions as revised by the CAB were unanimously consensus ranked with an average of 4 out of 4 and approved for inclusion in the Draft Plan as follows:

APALACHICOLA BAY SYSTEM INITIATIVE COMMUNITY ADVISORY BOARD UNANIMOUS CONSENSUS RANKED GOALS, VISION THEMES, GOAL STATEMENTS, OUTCOMES, OBJECTIVES, STRATEGIES, AND ACTIONS FOR INCLUSION IN THE DRAFT PLAN — AUGUST 9, 2023

GOAL A A HEALTHY AND PRODUCTIVE BAY 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.

OUTCOME: By 2030, the Apalachicola Bay System is a healthy, productive and sustainably managed ecosystem that supports a viable oyster fishery while providing a broad suite of ecosystem services that, in turn, afford additional opportunities for sustainable economic development.

GOAL A OBJECTIVES

A1) To define measurable ecosystem health metrics (e.g. oyster population demographics, condition indices, reef associated community, water quality, nutrient levels, submerged aquatic vegetation, fish and wildlife populations) that can be used to determine the level and effects of change in ecosystem services (e.g., oyster fishery harvest, habitat for other fishery species, filtration capacity) and societal benefit derived from Apalachicola Bay System management and restoration efforts, with target and threshold levels identified.

A2) To help establish a comprehensive monitoring plan to evaluate the health of the oysters and the ABS ecosystem and its measurable ecological functions and ecosystem services with clearly defined performance measures and strong coordination among the various entities conducting research in the region.

A3) To use observations, monitoring, experiments and modeling to create decision support tools that can inform how a range of natural and human influenced factors will affect the ABS ecosystem.

A4) To use decision support tools to identify viable strategies for restoration and management of the ABS oyster communities and the function of the ABS ecosystem.

GOAL A — ECOSYSTEM RESTORATION PRIORITIZED STRATEGIES

- 1) Establish Bay-wide metrics (e.g., targets, thresholds) to monitor the health and status of the ABS, including oysters, that can be used to sustainably restore and manage oysters and the ABS ecosystem.
 - *Action 1-A)* Restore and create reef structures suitable in size, location, and substrate type that can support a healthy and sustainable oyster ecosystem.

- *Action 1-B)* Obtain data at a Bay-wide scale to develop system-wide ecosystem-based metrics and models that will inform restoration and adaptive management decisions.
- *Action 1-C)* Design and implement projects to achieve multiple ecological and ecosystem service targets (e.g., provision of habitat for reef-associated species, water filtration, shoreline protection).
- Action 1-D) Implement oyster population enhancement studies to complement cultching for restoration.
- *Action I-E)* Establish performance measures and ecosystem service targets that can be used to guide restoration planning, implementation, and monitoring of restoration progress.
- *Action 1-F)* Use habitat suitability analyses and results from oyster larval dispersal models to select optimal locations for restoring, enhancing, and/or developing new reef structures.
- *Action 1-G)* Continue conducting restoration experiments to test efficacy of different reef structural designs (e.g., reef dimensions, orientation, shape and/or rugosity.)
- *Action 1-H)* Continue using knowledge gained from experiments to recommend best practices for broad scale restoration in the ABS.

2) Incorporate stakeholder knowledge/experience to help identify suitable substrate(s) (e.g., limestone, granite, spat-on-shell, artificial structures) and the best locations for restoring, enhancing, and/or developing new reef structures.

- Action 2-A) Include oystermen in discussions to evaluate cultching techniques and materials for growing oysters (e.g., historical non-traditional, trees), adding spat on shell or other substrates.
- *Action 2-B)* Include oystermen in discussions on spatial configuration of reefs (height, width, contours, etc.), locations (existing reefs and hard bottom), use of larger rock to protect restored reefs from siltation and sedimentation from prevailing currents and storms.
- Action 2-C) Include oystermen on material deployment projects for reef restoration to ensure material is deployed properly and in proper locations.

3) Determine area (acres or km²) of oyster reefs that currently support live oysters as well as the area needed to ensure sufficient spat production that will support development of sustainable oyster populations.

- Action 3-A) Continue to update maps of existing oyster habitat using multibeam sonar and backscatter, and ground-truth for accuracy, on a timeframe determined by speed of environmental change (e.g., update mapping of the Bay every 5 years if data indicate detectable changes are occurring on this scale).
- Action 3-B) Continue to collect data to support estimates of oyster reef areas that support live oysters.
- Action 3-C) Use ecological modeling that incorporates reproductive output, recruitment (includes reef carrying capacity), natural mortality rates and fishery harvest to assess oyster population dynamics.
- *Action 3-D)* Study and incorporate the connectivity of shoreline (intertidal) oyster habitat with subtidal oyster reefs (e.g., larval transport modeling) when and where applicable.

- 4) Identify monitoring needs for assessing the health of oyster populations and detecting changes in environmental conditions and habitat quality (for oysters and other reef-associated species) over time.
 - *Action 4-A)* Monitor intertidal and sub-tidal reef/habitat using protocols and schedules FWC monitoring. Adjust and add to monitoring program as needed to sufficiently monitor and assess oyster habitat. After checking data accuracy, post updated monitoring data on a regular basis on an accessible public website.
 - *Action 4-B)* Conduct rapid 'spot-checks' (e.g. using tong surveys) at a sufficient number of different locations in the Bay to supplement the FWC site-level monitoring. Sufficient number of sites to be determined by statistical analysis of existing data. Document volume of material (rock/shell/oysters), abundance and size of live and box oysters (dead oyster with valves and hinge intact), abundance and type of predator and environmental data.
 - *Action 4-C)* Continue and expand sites for collecting long-term in situ environmental data (e.g., conductivity, pH, and temperature) and integrate ANERR environmental and nutrient data (e.g., TC, TN, and TP) as correlated with oyster metrics.
 - *Action 4-D)* Generate habitat condition indicators using monitoring data, and other ecological factors (e.g., oyster-associated communities and structural complexity).
 - *Action 4-E)* Evaluate the impacts of anthropogenic (human) nutrient loading and pollutants to oyster resources and the Bay ecosystem.
 - *Action 4-F)* Use data to evaluate status of oyster populations, oyster ecosystem health and quality of ecosystem services.
 - Action 4-G) Integrate ecosystem services metrics into a monitoring and adaptive management program to assess ecosystem recovery progress.
- 5) Use and update recently developed ecosystem models that forecast future environmental conditions and oyster population status for management and restoration strategies and decisions.
 - *Action 5-A)* Ensure data collected for use in ecosystem modeling are entered, receive data quality checks, and are made available to the public in an accessible online format.
 - Action 5-B) Incorporate existing data to forecast acceptable future environmental scenarios (or forecasts) and analyze potential effects on oyster populations and ecosystem-level services and habitat metrics (targets).
 - Action 5-C) Coordinate with appropriate state and federal agencies, out-of-state user groups, and other initiatives working on both geographically-constrained and basin-wide water-flow alterations and management strategies that affect the health of the ABS.
 - *Action 5-D*) Use models to identify potential oyster restoration areas that could be used as protected spawning reefs to enhance recruitment and productivity of other reefs in the ABS.
- 6) Conserve and/or restore watershed (landscape) habitat (i.e., Submerged aquatic vegetation (SAV) including seagrass, and wetland and riparian habitat) to work synergistically with oyster habitat restoration to enhance restoration of the ABS.

- *Action 6-A)* Develop restoration projects in the Bay that work toward meeting the ecosystem-level metrics for the Bay.
- Action 6-B) Monitor and model changes to foundational habitat (e.g., submerged aquatic vegetation, mangroves, salt marsh grasses) for identifying management and restoration priorities.
- 7) Develop criteria for restoring specific reefs or reef systems that are resilient to adverse environmental conditions or natural disasters and incorporate adaptive management actions into the Restoration and Management Plan, as appropriate.
 - *Action 7-A)* Restore and manage oyster habitat and reefs that are resilient to adverse environmental conditions, episodic events, or natural disasters and incorporate adaptive management actions into the Restoration and Management Plan, as appropriate.
 - *Action 7-B)* Develop and incorporate metrics established elsewhere in this Plan for monitoring and evaluating the degree of damage and potential for recovery.
 - *Action 7-C)* Develop an approach for mitigating damage (e.g., physical repair, spat supplements, or some combination of both).
 - *Action 7-D)* Determine periodicity of hatchery-produced spat addition (e.g., annually or longer) with a specific timeline for continuing the approach. This approach is not intended to create a put-and-take fishery.
 - Action 7-E) Apply projected climate scenarios to larval dispersal and habitat suitability models to identify target areas for restoration that will persist under future conditions (i.e., increased temperature, extreme weather, sea level rise).

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.

OUTCOME: By 2030, an engaged and collaborative group of stakeholders will have contributed to and helped spearhead a fully funded science-driven plan to sustainably manage oyster resources in the Apalachicola Bay System.

GOAL B OBJECTIVES

B1) To develop through a transparent and inclusive process a science-based ABS oyster recovery and adaptive management plan for both commercial and recreational industries that includes: broad stakeholder and community support; a long-term, comprehensive monitoring plan that will be carried out by state

agencies and their contractors; a regulatory framework that allows for rapid modifications when needed to address changing environmental conditions; and enforceable regulations that contain penalties sufficient to deter violations and harm to the resource. This Plan must be constructed with the direct involvement of entities within the State of Florida (e.g., FWC, FDACS, State Legislature) in cooperation with other relevant agencies to enhance the likelihood of consideration for implementation.

B2) To evaluate oyster aquaculture best-management practices that allow for the unimpeded recovery of oyster's reefs, the oyster fishery, and the ecological and societal health of the ABS ecosystem while providing economic opportunities to the aquaculture industry.

GOAL B — MANAGEMENT PRIORITIZED STRATEGIES

- 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.
 - Action 1-A) Evaluate the potential for limited-entry fishery that would be managed adaptively with the number of entrants in the fishery based on an adopted sustainable harvest level. Evaluate the potential for establishing a limited-entry oyster fishery program and various management strategies through a transparent representative stakeholder driven consensus-building process that includes vetting the plan with local oystermen and FWC law enforcement.
 - Action 1-B) Consider implementation of a Bay-wide summer (June August) wild-harvest fishery closure.
 - Action 1-C) Consider daily harvest limits in conjunction with a Monday Friday five-day harvest week.
 - Action 1-D) Consider a recreational wild oyster harvest limit (e.g., one 5-gallon bucket of oysters), and allow recreational hand-harvesting during the same season the fishery is open to commercial harvest.
 - Action 1-E): Evaluate managing harvest areas to prevent the concentration of effort in locations by allowing all of the legal and approved (by FDACS) harvest areas of the Bay to be open during the harvest season and harvesting hours (Action 1-B and 1-C above).
 - *Action 1-F):* Evaluate existing allowable and minimally destructive alternative gear type options and harvest methods, including the use of experimental gear for wild oyster harvesting.

2. Develop specific criteria and/or conditions, with related performance measures for the reopening and closing of Apalachicola Bay to limited wild oyster harvesting.

- Action 2-A.) Use the best available science and decision-support tools to develop criteria for opening and closing wild oyster harvest and for determining sustainable harvest before the harvest season and during the harvest season in conjunction with the annual stock assessments and frequent monitoring.
- *Action 2-B)* Select a reasonable but conservative starting target for reopening the fishery and adjust (through adaptive management) the allowable harvest based on monitoring and oyster population analysis (e.g., stock assessments).

- *Action 2-C)* Ensure that definitions of oyster population health are based on metrics/criteria specific to the resource in addition to the fishery.
- *Action 2-D)* Evaluate harvest-level or oyster population-based metrics used to manage oyster reef harvest at sustainable target levels and above threshold levels. Consider graduated metrics that serve as targets, or indicators when harvest should be limited or closed. This should be applied by area or reef data allows.
- Action 2-E) Consider temporary wild harvest closures based on the results of oyster population monitoring relative to the established metrics.
- Action 2-F) Add a spatial component to the ecological and fishery modeling to approximate historical and existing reefs and reassess management strategies based on the evaluation of modeling scenarios.
- 3. Conduct an oyster stock assessment for the Apalachicola Bay System with periodic updates.
 - Action 3-A) Conduct annual or biannual stock assessments using fisheries dependent and independent data, with data collection methods and site selection done in collaboration with oystermen, for determining a sustainable level of wild oyster harvest for each season.
 - *Action 3-B)* Conduct monitoring (i.e., spot-checks) of oyster abundance during the fishing season to facilitate adaptive management of harvest limits.
- 4. FWC Law Enforcement should 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.
 - Action 4-A) FWC should develop strategies to increase enforcement presence and number of checkpoints to provide a deterrent to illegal activities.
 - *Action 4-B)* Ensure law enforcement presence during peak harvesting periods, and on the water during harvest season hours.
 - *Action 4-C)* FWC should develop strategies to ensure consistent practices are used for enforcement of regulations regarding the harvestable and marketable size of oysters. (See Actions 5-F and 5-G)
 - Action 4-D) Statutes and/or rules should be revised as needed to require FWC to check harvested oysters for size-limit enforcement* before they are washed and processed. Once processed, enforcement of oyster size-limits should be limited to oysters under 2.75" because processing changes shell height.

* Sampling and other data collection activities shall not be impacted by this recommendation.

- *Action 4-E)* FWC should evaluate and enhance, as needed, the regulations and enforcement practices to ensure dealers accurately identify the source of oysters after processing and packaging.
- *Action 4-F)* FWC should evaluate and revise, as needed, the statutory and/or regulatory requirements to ensure that FWC has authority to enforce oyster regulations at the dealers' location.
- *Action 4-G)* FWC should work with oystermen to evaluate current rules and regulations to ensure they are enforced consistently, fairly, and practically with an understanding of real-world on-the-water harvesting practices and constraints.

- Action 4-H) FWC should evaluate and seek authority to implement a tiered system of penalties for willful violators (increased fines and license suspensions ranging from increased length of suspension to the permanent loss of license) to keep willful violators out of the industry.
- Action 4-I) FWC should encourage community and industry support for consistent judicial imposition of penalties within the exiting penalties framework for oyster harvest violations, including imposing stricter penalties for habitual and willful violators.
- *Action 4-J*) Prior to the opening of each harvest season FWC should conduct a joint workshop between FWC law enforcement and the oystermen to review the current rules and regulations, identify any changes, discuss enforcement approaches relative to harvest practices and constraints on the water, and to provide mutual two-way education, and enhance communication and collaboration between FWC and oystermen.
- *Action 4-K)* FWC should work together and with other stakeholders to seek funds to support the recommended increased law enforcement presence in the Bay.
- Action 4-L) FWC should establish the 5% allowable undersize oyster limit for both harvesters and dealers.
- *Action 4-M*) FWC should clarify that it is an allowable practice for oystermen to weigh oyster bags while on the water to ensure the bags meet the weight limit regulations.
- 5. Establish co-management advisory committees to provide advice and oversight to state managing agencies on oyster habitat and wild harvest. Evaluate the development of a policy that would require setting sustainable harvest goals and placing limitations on or a complete closure to harvesting in certain areas (e.g., important spawning reefs) based on the results of data (e.g., stock assessment, larvae transport modeling) collected and evaluated under a comprehensive monitoring program designed to sustainably manage the resource.
 - *Action 5-A)* Convene a co-management advisory committee comprised of state and federal agencies, and other appropriate experts, to assess and make recommendations on oyster habitat needs in conjunction with harvest management strategies.
 - Action 5-B) Convene an Oyster Fishery Advisory Board within FWC to review and make recommendations on management and enforcement of the oyster fishery in Apalachicola Bay.
- 6. Recommend policies and actions that retain and recycle shell or other suitable material for habitat replenishment in the Apalachicola Bay System.
 - Action 6-A) Develop agency rules and policies that require shell retention and/or obtain shell or other suitable material for habitat replenishment (through a fee or incentive program).
 - Action 6-B) Obtain legislative support for statutes that support or require shell recycling and oyster habitat replenishment. (e.g., Texas House Bill 51 (2017); North Carolina General Statute §130A-309.10 (2010); Maryland House Bill 184; Chapter 157, F.S. (McClellan 1881).
 - Action 6-C) Establish and/or expand partnerships with local organizations, stakeholder groups, industry, and universities in shell recycling programs.
- 7. Use decision-support tools to evaluate and develop a system of potential closed areas (e.g., spawning reefs) 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.

- *Action 7-A)* Engage local stakeholders in determining total coverage (how much to protect), placement (where to protect), and size (how large) of all types of potential closed areas using gridded maps as well as distributions of selected fishery and ecologically important species.
- *Action 7-B)* Use ecological quantitative modeling outputs to identify: the oyster population abundance that can support sustainable harvest; percentage of the total reef area that is sufficiently productive to support sustainable harvest; annual recruitment required to support sustainable harvest; and to determine the amount and frequency of habitat replacement to maintain productive oyster reefs.
- 8. Work with FDACS and oyster aquaculture industry stakeholders 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 wild fisheries and the important cultural role of a working waterfront and seafood industry.
 - Action 8-A) Develop maps using FDACs data showing all proposed and existing aquaculture activities in the ABS, superimposed on existing maps of essential fish habitat, fishing activities, seagrass beds, and natural existing hard bottom (reefs/bars) to identify potential conflicts.
 - Action 8-B) Evaluate and consider programs and policies that use farmed oysters for restoration on wild oyster reefs and to retain oysters and/or shells from aquaculture industry to be recycled on wild reefs.
- 9. Assess the effectiveness of an oyster replenishment program for maintaining a sustainable wild oyster harvest in Apalachicola Bay. Specific areas would receive regular cultching and/or deployment of hatchery spat-on-shell and would be subject to the same fishery management regulations as non-supplemented areas.
- *Action 9-A)* Conduct field studies of survival of planted spat-on-shell to harvestable size and time required to attain market size.
- *Action 9-B)* Use fishery models to estimate the amount and frequency of cultch and/or spat-on-shell required to maintain the minimum threshold for sustainable harvest (i.e., 400 bags/acre).
- *Action 9-C)* Conduct cost-benefit analysis of deploying cultch and/or spat-on-shell in support of wild oyster harvest in Apalachicola Bay. This includes cost of cultch and spat-on-shell production, cost of deployment, survival of hatchery spat, and value of harvest and associated industry.
- Action 9-D) Monitor the stability of oyster populations using the oyster replenishment program approach to wild fishery harvest, to determine whether deploying cultch or spat-on-shell helps reduce natural fluctuations in oyster populations.

GOAL C

A FULLY FUNDED ECOSYSTEM-BASED ADAPTIVE MANAGEMENT AND RESTORATION PLAN SUPPORTED BY APALACHICOLA BAY SYSTEM STAKEHOLDERS STRATEGIES TO ENSURE THE IMPLEMENTATION, MONITORING, AND ADAPTABILITY OF THE 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.

OUTCOME: By 2030, the Apalachicola Bay System is a productive and sustainably managed ecosystem. A fully funded and well-executed science-based Ecosystem-Based Adaptive Management and Restoration Plan that incorporates the monitoring necessary for evaluation and adaptation is broadly supported by Apalachicola Bay System stakeholders with guidance from a permanent stakeholder advisory board.

GOAL C OBJECTIVES

C1) To establish a fully funded permanent, representative stakeholder process to monitor the long-term implementation of the Plan.

C2) To identify funding sources and define mechanisms for full implementation of the Plan.

GOAL C PRIORITIZED STRATEGIES

- The CAB "Successor Group" will have an open and transparent process for the implementation
 of the Plan with many opportunities for stakeholder engagement and input in a variety of forms
 (e.g., workshops, online, public/ government meetings) for generating awareness and support
 while incorporating any changes the "Successor Group" deems appropriate and necessary to
 fulfill the goals and objectives.
 - *Action 1-A)* The successor group actively engages with state programs to encourage their adoption of long-term monitoring guidelines and metrics for assessing water quality, oyster abundance, and demographics and to regularly review and update these guidelines and metrics to maintain a healthy and sustainable oyster harvest and Bay ecosystem.
 - Action 1-B) The successor group will monitor the Plan's implementation and make recommendations for revisions required to adaptively respond to changing conditions.
 - *Action 1-C)* The successor group will encourage agencies to prioritize the Plan's recommendations for investing more funding in the management and restoration of oyster resources.
 - *Action 1-D)* The successor group facilitates bidirectional information flow between agencies implementing the restoration and management plans and the public, other government entities and NGOs.
 - Action 2-E) The successor group facilitates bidirectional information flow between agencies implementing the restoration and management plans and the public, other government entities and NGOs. The successor group should evaluate whether to initiate the development of an Apalachicola Bay Estuary Program (ABEP) to coordinate and lead in the implementation and monitoring of the Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan. The successor group should explore whether it's a better model to be a part of the Environment Protection Agency's (EPA) National Estuary Program or to model the ABEP after the EPA program

with funding provided from other entities as was done with the St. Andrew and St. Joseph Bays Estuary Program.

- 2) 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 that support sustainable monitoring deriving from the Plan. [Status: Initiated and Ongoing]
 - *Action 2-A)* Evaluate and seek funding sources for implementation of management and restoration strategies included in the Plan (e.g., state agencies, region-wide Gulf trustee implementation group for NRDA funding, federal agencies)
 - Action 2-B) Evaluate and seek grant opportunities from recommendations included in the Plan.
 - *Action 2-C)* Evaluate and seek funding for the engineering design, permitting and implementation of habitat restoration efforts based on oyster habitat suitability mapping and modeling and restoration and management targets in consultation with stakeholders.
 - *Action 2-D)* Evaluate and seek funding sources to generate awareness, education, and support for a healthy oyster and ABS ecosystem.
 - *Action 2-E)* Evaluate and seek long-term funding for a comprehensive monitoring program that is used across programs and projects with a dashboard on metrics and indicators to leverage resources, standardize the metrics and indicators measured, and to share data.
 - Action 2-F) Develop and seek a funding source to provide cultch for habitat restoration on an ongoing basis.
 - *Action 2-G)* Work across estuary programs to fund and leverage large scale monitoring for the Panhandle Region Perdido to Suwanee.
 - *Action 2-H)* The successor group should evaluate whether to initiate the development of an Apalachicola Bay Estuary Program (ABEP) to coordinate and lead in the implementation and monitoring of the Plan. The successor group should explore whether it's a better model to be a part of Environmental Protection Agency's National Estuary Program or to model an ABEP after the EPA program with funding provided from other entities as was done with the St. Andrew and St. Joseph Bays Estuary Program.

GOAL D

AN ENGAGED STAKEHOLDER COMMUNITY AND INFORMED PUBLIC STRATEGIES TO SUPPORT EDUCATION, OUTREACH, AND COMMUNITY SUPPORT FOR THE PLAN

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 habitat and a healthy Bay 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 that supports 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.

OUTCOME: By 2030, stakeholders, private and nonprofit civic leaders, and the public are informed of the importance of sustaining the health of the Apalachicola Bay System, and are engaged and working actively together along with elected and appointed leaders and managers to invest in and implement the Plan.

GOAL D OBJECTIVES

D1) To coordinate community engagement efforts to increase public awareness of and support for a healthy and well-managed ABS ecosystem; and to ensure that businesses, industries, non-profits, community groups, individuals, and local governments are supportive and included in these efforts.

D2) To measure public and stakeholder understanding of the issues important to the health and restoration of the Bay and socio-economic indicators.

GOAL D PRIORITIZED STRATEGIES

- 1) Build, with the help of the Successor Group, community support and stewardship by educating stakeholders on the importance of maintaining a healthy ABS ecosystem and oyster reefs and by engaging them in the Bay restoration through a variety of hands-on programs.
 - Action 1-A) The successor group shall support development of a community outreach strategy intended to inform and educate stakeholders and the public about the research, the Plan, and focusing on a healthy ABS ecosystem. The audience will include local city, county, and state government officials, businesses and organizations, citizens of every age, and other interested stakeholder groups.
 - Action 1-B) Work with local groups, agencies, businesses and other stakeholders to develop a successful shell-recycling program.
 - *Action 1-C)* Develop a "Bay Stewards" program to honor, reward, and provide incentives for businesses and individuals that demonstrate their stewardship of the resource.
- 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.
 - *Action 2-A)* Work with existing entities (e.g., WeatherStem, Scientist in Every Florida School program of the Florida Museum) to expose more K-12 students to the research being conducted to support ABS restoration and management.
 - *Action: 2-B)* Provide training and financial support for new workforce entrants in the Franklin County Community through an aquaculture internship program.
 - *Action 2-C)* Provide research opportunities for undergraduate and graduate students in science that supports the Plan's goals.

GOAL E A THRIVING ECONOMY CONNECTED TO A

RESTORED APALACHICOLA BAY SYSTEM STRATEGIES TO MONITOR, ASSESS, AND REPORT ON THE ECONOMIC VIABILITY OF THE PLAN

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.

OUTCOME: By 2030, the broader Apalachicola Bay Region is thriving economically as a result of a restored Apalachicola Bay System that reflects a unique coastal cultural heritage, based on a vibrant oyster fishery, while simultaneously providing new opportunities for sustainable and responsible development, business, recreation and tourism.

GOAL E OBJECTIVES

E1) To ensure that economic indicators of the commercial oyster fishery and associated industries in the ABS demonstrate increasing viability and growth.

E2) To ensure that industries and businesses within the ABS are compatible with a healthy and well-managed ABS ecosystem.

E3) To develop growth management policies, plans and regulations affecting the ABS that are compatible with a healthy and well-managed ABS ecosystem while maintaining a thriving economy and supporting cultural heritage.

E4) To develop an oyster aquaculture industry that provides economic opportunities and is complementary to the wild harvest fishery.

GOAL E — ECONOMIC STRATEGIES OUTSIDE ABSI SCOPE PRIORITIZED STRATEGIES

- 1) Engage all stakeholders to support the regional economy linked to a restored and functionally robust ABS.
 - Action 1-A) Engage commercial fishermen in the restoration of the Bay and encourage future participation in restoration such as monitoring, cultching, and shell recycling.
 - Action 1-B) 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.
 - Action 1-C) 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.

- Action 1-D) Work with existing partners (e.g., the Chamber of Commerce, Apalachee Regional Planning Council, and city and county staff) and initiatives such as the Regional Recreation Economy Alliance to leverage resources to support the local economy and monitor and report on the economic benefits of a restored Apalachicola Bay System (ABS). Include key economic indicators relevant to the commercial oyster fishery and associated industries in the region. Develop a dashboard that includes key economic indicators over time based on restoration efforts in the ABS.
- 2) Develop economic information and tools necessary to support efforts connecting ABS restoration and management with local and regional economies.
 - Action 2-A) Recommend monitoring* and enforcement programs continue with appropriate metrics to measure output from and impact of harvest on oyster reefs. *Ongoing fisheries-dependent and fisheries-independent monitoring by FWRI, coupled with ABSI complementary data based on request of watermen. Both entities are sharing data with one another which is critical for ABSI model development.
 - *Action 2-B)* Support development of planning strategies tied to economic indicators that consider future conditions (climate, SLR, altered river flow) and their effects on the ABS.
 - Action 2-C) 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.
 - *Action 2-D)* Work with oystermen and other community stakeholders to promote markets for post-recovery Apalachicola oysters products.
 - *Action 2-E)* 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.
 - *Action 2-F)* Develop new markets for selling oysters to areas within and outside of Florida in part by investing in location (Apalachicola Bay) branding.

ADDITIONAL PRIORITIZED STRATEGIES OUTSIDE ABSI SCOPE For Referral To Other Entities

- 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.
 - Action 1-A) Identify source of shell, or other restoration material.
- 2) Provide training and seek financial support for new workforce entrants (particularly young entrants) interested in being employed in existing industries as well as developing industries in new fisheries, aquaculture, and restoration science.
- 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.
- 4) Support existing entities in building Gulf-wide mechanisms for communities interested in the restoration and revitalization of oyster fisheries to exchange best practices and lessons learned.

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.

Summary of Questions, Responses, and Comments:

• All of the substantive comments from CAB members for this Agenda item are reflected in the revisions made to the goals, objectives, strategies, and actions as reflected in the revised versions above.

XII. CAB PLAN RECOMMENDATIONS AND REPORT OUTLINE OVERVIEW

Joel Trexler reviewed the Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan Outline as follows:

Introduction

- 1. <u>Executive Summary</u>
- 2. Statement of Purpose for Plan
- 3. Apalachicola Bay System and its oyster fishery
 - About Franklin County.... historical to today demographics and economy
 - Historical context (oyster fishery)
 - Collapse of fishery
 - Recent restoration efforts
 - Current status
- 4. ABSI
 - Triumph Gulf Coast Inc grant history including discussion of FSU team
 - Goals of ABSI and statement of purpose
 - ABSI partners
 - CAB
 - (a) Membership list and backgrounds as an appendix, dates of service
 - (b) Subcommittees
 - CAB Successor Group (it would be nice to have a formal name for this entity....)
 - Facilitated Solutions, LLC
- 5. Plan development
 - Role of the CAB (appendix with list of meetings)
 - Role of oystermen's group and public (appendix with list of oystermen's and public meetings)
 - Outreach (appendix with list of outreach vehicles)
 - Detailed discussion of consensus building process
 - Table of Performance Measures

Plan Composition

- 1. Structure
 - Themes A-E
 - Each theme has a defined Goal and Outcome
 - Each goal has a series of Objectives
 - Each Objective has a series of Strategies

- Each Strategy has a series of Actions
- 2. Target audiences for the Plan
 - Themes/Goals A and B For FWC, DEP
 - Themes/Goals C, D and E For the CAB Successor Group and others as relevant

Themes A-E

- 1. 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 and Outcome
 - Objectives
 - Strategies and Actions
 - Summary and context
- 2. 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 and Outcome
 - Objectives
 - Strategies and Actions
 - Summary and context
- 3. 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 and Outcome
 - Objectives
 - Strategies and Actions
 - Summary and context
- 4. 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 that supports new innovation, education and communication opportunities.
 - Goal and Outcome
 - Objectives
 - Strategies and Actions
 - Summary and context
- 5. 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 and Outcome
 - Objectives
 - Strategies and Actions
 - Summary and context

ABSI CAB Facilitator's Summary Report

6. Additional prioritized strategies outside ABSI scope

ABSI Science and Data Collection Supporting Plan Development and Implementation

- 1. Brief summary of historical information with links to data repository.
- 2. Brief summary of major ABSI science efforts thus far with links to the data repository.
- 3. Brief summary of on-going ABSI science efforts and timelines with links to data repository.
- 4. Complementary science efforts by other groups.
- Gaps in science. Science information gaps identified while developing this plan. Modeling needs for future Plan implementation Spatial data and models

Implementation and Adaptive Oversight

- 1. Recommendations for implementation. Define use of "adaptive" in this context.
- 2. Need for adaptive oversight
- 3. Role of the CAB Successor Group and other stakeholders

Summary of Questions, Responses, and Comments:

(Note initials are only used to identify ABSI Team members, presenters, and state agency representatives)

- A subset of the CAB along with FSUCML should present a summary of the recommendations to FWC.
- The Community Outreach Subcommittee should be consulted for coordination on distribution of the Plan.
- A reference should be included regarding the ABSI experiments in the Report.
- Assistance is requested for photos and graphics for the Report.
- A CAB member and Project Team group photo should be taken and included in the Report.
- More specific information on ABSI science and experiments will be provided in a separate report from the FSUCML to TRIUMPH.

XIII. PUBLIC COMMENT OPPORTUNITY #2

The facilitator invited members of the public to provide comments.

Public Comments:

Wayne Williams, Seafood Work and Waterman's Association commented as follows:

- Members of SWWA in Franklin Co, trying to do what's right.
- The Bay decline had nothing to do with overharvesting, the Bay was at a decline, not sure what it was, we did have a bad drought, oysters died on seawalls, etc. Lots of other things died besides oysters.
- After the oil spill came and they got the green light to harvest, people only harvested legal size.
- Need a management plan that is flexible, our Bay will come back.
- No need for grid system or rotational harvest, just close the Bay for 3 months.
- Open the entire Bay, mother nature will open and close the Bay as needed with the water quality, it will naturally open and close itself.
- Folks in AL don't like the grid system out in their fishing area, hard to monitor and get correct data.
- Naturally oystermen are going to work the highest densities that they can find.
- Keep in mind that this management plan needs to be flexible, and as the resource will fluctuate.
- Cat Point the most reliable bar because of its location and the source of the freshwater.

ABSI CAB Facilitator's Summary Report

- Just want to be part of what's going on, feel like we haven't had a say so for the plan and restoration effort.
- Worked through the entire decline, weren't more than 40 families that were harvesting and catching their limits.
- This late in the game, for the management plan, to have someone to come in that doesn't know the lingo or the system would be very confusing for them.
- CH: Is there anything about the plan that you don't like? It is pretty flexible, and it doesn't push the grid system or any other recommendation. What about specifically about our plan are you are commenting on?
- WW: Do not need limited licenses so many other ways to limit harvest like bag limits. If there is a high price and low bag limit, then not a rush and people can still make a living. That system worked in the past, prior to oil spill there were record numbers coming out of the Bay.
- JB: There will be a draft of the Plan incorporating the consensus recommendations from today that can be read and that you can review it. It would be helpful if you could review the Plan and provide comments to specific items that concern you. The Plan is flexible and does not advocate for any specific management approaches that you spoke against.
- SH: Do you realize if there is no more harvest on the summer bars, the bars would not be open in the winter-time based on the FDACS restrictions. The FDACS report indicated that if there was no summer harvest the summer bars would never be open because the water quality would not be viable for harvest.

Cheryl Carr, Seafood Work and Waterman's Association commented as follows:

- With regards to who said they didn't have anyone to help them, SWWA has all oystermen and women to help out.
- The oystermen have asked SWWA to help speak for them.
- The rock is too big, the tonging methodology for the monitoring is not how tonging is done.
- Could cast net and pull up oysters.
- Want an area that is being tonged regularly, to compare with areas that are not tonged → to show a comparison between areas of tonging and no tonging.
- Results are not proper if the Bay is not being worked.
- Oystermen can't come to these meetings, have to work, they asked SWWA to come speak on their behalf.
- SWWA is a 501(c)(3) all volunteer.
- I watch all the videos and meetings "it doesn't add up to what is out there."
- Feel that the community is not being involved pick and choose who is involved.
- "Everything that has gone on, is nothing that the oystermen have said."

XIV. NEXT MEETING OVERVIEW AND ISSUES

The September 27, 2023 meeting will focus on discussion of the organizational framework for the CAB Successor Group, and approval of the Report outline and *Draft Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan.*

NEXT STEPS AND AGENDA ITEMS

- Review of updated Workplan and Meeting Schedule.
- Science and data collection, and Restoration updates.
- Organizational Framework for the CAB Successor Group discussion.
- Subcommittees and Working Group updates.
- Review, Evaluation, and Approval of the CAB Report Format and Draft Plan.
- Public Comment.
- CAB Member and Project Team Group Photo.

MEETING CHAT COMMENTS

Meeting participants were able to provide comments during the meeting through the on-line Chat function. The results are compiled and included as *Attachment 5* of this Summary Report.

(Attachment 5 — Meeting Zoom Chat Summary)

ADJOURNMENT

The Facilitator thanked CAB members, ABSI Project Team members, and the public for their participation, and adjourned the meeting at 1:45 PM on Wednesday, August 9, 2023.

ATTACHMENT 1 Key To Common Project Abbreviations

ABBREVIATION	DEFINITION
ABS	Apalachicola Bay System
ABSI	Apalachicola Bay System Initiative
ACFS	Apalachicola-Chattahoochee-Flint Stakeholders
ANERR	Apalachicola National Estuarine Research Reserve
CAB	Community Advisory Board (ABSI)
County	Franklin County
DACS or FDACS	Florida Department of Agriculture and Consumer Services
DEP or FDEP	Florida Department of Environmental Protection
DOH or FDOH	Florida Department of Health
EPA	U.S. Environmental Protection Agency
FDOT	Florida Department of Transportation
FSU	Florida State University
FSUCML	Florida State University Coastal and Marine Laboratory
FWC	Florida Fish and Wildlife Conservation Commission
FWRI	FWC Fish and Wildlife Research Institute
NGO	Non-Governmental Organization
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resource Conservation Service
NWFWMD	Northwest Florida Water Management District
Plan	Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan
RESTORE	Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast Act of 2012
RCSG	Riparian County Stakeholder Coalition
RPC	Regional Planning Council
SAB	Science Advisory Board (ABSI)
SAV	Submerged Aquatic Vegetation
TNC	The Nature Conservancy
TRIUMPH	Triumph Gulf Coast, Inc.
UF	University of Florida
UWF	University of West Florida

ATTACHMENT 2 MEETING PARTICIPATION LIST

MEMBER	MEMBER AFFILIATION					
AGRICULTURE/ACF STAKEHOLDERS/RIPARIAN COUNTIES						
1. Chad Taylor*	Riparian County Stakeholder Coalition/ACF Stakeholders/Agriculture					
BUSINESS/REAL ESTATE/ECONOMIC DEVELOPMENT/TOURISM						
2. Chuck Marks	Business (Insurance Industry)					
	ENVIRONMENTAL/CITIZEN GROUPS					
3. Georgia Ackerman Apalachicola Riverkeeper						
4. Chad Hanson	The Pew Charitable Trusts					
5. Katie Konchar	The Nature Conservancy (TNC)					
	LOCAL GOVERNMENT					
6. Ottice Amison	Franklin County Commissioner					
7. Anita Grove	Apalachicola City Commissioner					
	Recreational Fishing					
8. Frank Gidus	CCA Florida					
9. Grayson Shepard	Hang on Charters (Charter Fishing)					
	SEAFOOD INDUSTRY					
10. David Barber	Barber's Seafood					
11. Shannon Hartsfield	Seafood Management Assistance, Resource Recovery Team and Oysterman					
12. Gayle Johnson	Apalachicola Oyster Company					
13. Brett Lolley	Seafood Work and Watermen's Association/Oysterman/Commercial Fisherman					
14. Steve Rash Water Street Seafood						
	STATE GOVERNMENT					
15. Jenna Harper	ANERR/DEP					
16. Becca Hatchell	FWC Division of Habitat and Species Conservation					
17. Alex Reed	FDEP Office of Resilience & Coastal Protection (Jenna Harper is representing DEP)					
18. Devin Resko	FWC Division of Marine Fisheries Management					
19. Portia Sapp*	FDACS Division of Aquaculture					
20. Paul Thurman	NWFWMD					
	UNIVERSITY/RESEARCHERS/SCIENTISTS					
21. Mike Allen	Scientist: Director of UF/IFAS Nature Coast Biological Station (NCBS)					
22. Erik Lovestrand	UF/IFAS/Florida Sea Grant/Franklin County Extension					
The names of CAB members attending the meeting are indicated in bold font.						
CAB members who partic	ipated virtually are indicated in red font and italicized.					
* Members whose designated alternates participated for them.						

PROJECT TEAM AND CAB FACILITATOR					
FLORIDA STATE UNIVERSITY					
Sandra Brooke	Marine Biologist				
Ross Ellington Professor Emeritus of Biological Science					
Madelein Mahood Outreach and Education					
Joel Trexler	Joel Trexler FSUCML Director				
	FACILITATED SOLUTIONS, LLC				
Jeff Blair Community Advisory Board Facilitator					
The names of Project Team members participating in the meeting are indicated in bold font.					
*Team members who participate	*Team members who participated virtually are indicated in red font and italicized.				

ALTERNATES FOR CAB MEMBERS					
ALTERNATE CAB MEMBER					
Ken Jones	Chad Taylor				
Carrie Jones Portia Sapp					
The names of CAB member's altern	ates participating in the meeting are indicated in bold font.				

MEMBERS OF THE PUBLIC					
PARTICIPANT AFFILIATION					
1. Norris Amber	Representative Jason Shoaf's Office				
2. Anne Birch	TNC				
3. Julie Boisseau	Public (No Affiliation Provided)				
4. Josh Breithaupt	Florida State University Coastal and Marine Lab				
5. Ed Camp	University of Florida				
6. Cheryl Carr	Seafood Work and Waterman's Association				
7. Jared Fuqua	Florida State University Coastal and Marine Lab				
8. Laura Geselbracht	TNC, ABSI Science Advisory Board (SAB)				
9. Betsy Mansfield	Florida State University Coastal and Marine Lab				
10. Linda Shepherd	Public (No Affiliation Provided)				
11. Wayne Williams	11. Wayne Williams Seafood Work and Waterman's Association				
*The names of members of the public att	ending virtually are italicized.				

AUGUST 9, 2023 MEETING AGENDA

ABSI COMMUNITY ADVISORY BOARD MEETING OBJECTIVES

- ✓ To Approve Regular Procedural Topics (Meeting Agenda and Summary Report)
- ✓ To Review Updated Workplan and Meeting Schedule
- ✓ To Receive Science and Data Collection, and Restoration Updates
- ✓ To Receive Reports from RFWG and Community Outreach Subcommittee
- ✓ To Discuss Organizational Framework of the CAB Successor Group
- ✓ To Receive Public Comment Prior to Acceptability Ranking Strategies
- ✓ To Review and Acceptability Rank Restoration and Management Plan Framework Strategies
- ✓ To Receive Public Comment After Acceptability Ranking Strategies
- ✓ To Identify Next Steps: Information, Presentations, Assignments, Agenda Items for Next Meeting

ABSI COMMUNITY ADVISORY BOARD AGENDA

All Agenda Times — Including Public Comment and Adjournment — Are Approximate and Subject to Change

	0						
1)	8:30 AM	WELCOME AND ROLL CALL					
2)	8:35	SOCIAL SCIENCE SURVEY					
3)	8:40	AGENDA REVIEW AND MEETING OBJECTIVES					
4)	8:45	APPROVAL OF FACILITATOR'S CAB SUMMARY REPORT (May 31, 2023)					
5)	8:50	REVIEW OF UPDATED PROJECT MEETING SCHEDULE AND WORKPLAN					
6)	9:00	SCIENCE AND DATA COLLECTION, AND RESTORATION UPDATES					
		ABSI Science and Data Collection Update. Sandra Brooke, FSUCML (20)					
		• FWC (NFWF Phase 2) Restoration Project Update. Devin Resko, FWC (10)					
7)	9:30	WORKING GROUP AND SUBCOMMITTEE UPDATES					
		Restoration Funding Working Group Update. Joel Trexler (5)					
		Community Outreach Subcommittee Update. Chad Hanson (10)					
8)	9:45	CAB SUCCESSOR GROUP ORGANIZATIONAL FRAMEWORK DISCUSSION					
		Successor Group Subcommittee. Anita Grove and Shannon Hartsfield (20)					
9)	10:05 AM	PUBLIC COMMENT OPPORTUNITY #1 — THREE MINUTES PER PERSON					
10)	10:15	ACCEPTABILITY RANKING OF CAB'S ADOPTED RESTORATION AND					
		MANAGEMENT PLAN FRAMEWORK STRATEGIES AND ACTIONS USING THE					
		STRATEGIES EVALUATION WORKSHEET					
10:30	am	BREAK					
	10:45	ACCEPTABILITY RANKING OF STRATEGIES AND ACTIONS — CONTINUED					
12:00	1	LUNCH — ON CAMPUS					
	1:00	ACCEPTABILITY RANKING OF STRATEGIES AND ACTIONS - CONTINUED					
11)	2:10pm	PUBLIC COMMENT OPPORTUNITY #2 — THREE MINUTES PER PERSON					
12)	2:25	ACTION ITEMS AND AGENDA ITEMS FOR NEXT MEETING (September 27, 2023)					
		Review of Action Items and Assignments from Meeting					
		Identify Agenda Items, Presentations, and Information Needs for Next Meeting					
		• Community Workshop #2 – August 9, 2023					
		Complete Meeting Evaluation					
	2:30pm	ADJOURN					

WORKPLAN, SCHEDULE, AND PROJECT FLOWCHART AND MAP

UPDATED AS OF THE AUGUST 9, 2023 CAB MEETING

PHASE I (2019) — STANDING UP AND ORGANIZATION OF THE ABSI CAB

May 2019 – December 2019 (Assessment Process, Questionnaire, and 2 CAB Meetings) – Status Complete

PHASE II (2020) - SCOPING OF ISSUES, IDENTIFICATION OF

PERFORMANCE MEASURES AND STRATEGIES

Jan. 2020 – Dec. 2020 (7 CAB Meeting & 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 and V Evaluation

Jan. 2021 – Nov. 2021 (7 CAB Meeting & 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, 1 Oystermen's Workshops, and 1 Community Workshop) — Status Complete

PHASE V (2023) — EVALUATION AND FINALIZATION OF RECOMMENDATIONS FOR INCLUSION IN THE APALACHICOLA BAY SYSTEM ECOSYSTEM-BASED ADAPTIVE MANAGEMENT AND RESTORATION PLAN, RESTORATION AND FUNDING PLANNING

Jan. 2023 – Dec. 2023 (6 CAB Meetings, 3 Community Workshops) — Status Initiated

COMMUNITY ADVISORY BOARD (CAB). The CAB initiated Phase V in January of 2023 and is currently evaluating the best combination of strategies predicted to achieve restoration and management objectives for the Bay using decision support tools, including predictive models coupled with available and emerging data, research, and stakeholder knowledge. The strategies are being evaluated with the overarching goal of restoring oyster reefs to a level that can sustainably provide needed ecosystem services for the System, and concurrently provide for a sustainable and economically viable level of commercial oyster harvesting.

Throughout the project, the CAB members representing management and restoration agencies will vet the strategies and actions under consideration with their leadership to gauge support and feasibility of implementation. The CAB will evaluate the priority and efficacy of strategies and associated actions and identify restoration and management approaches for inclusion in the *Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan* (Plan).

Phase V focuses on the evaluation and finalization of recommendations for inclusion in the Plan, and restoration projects and funding planning. The CAB will vote to approve their package of consensus recommendations during their November 29, 2023 meeting. *Status: Initiated and Ongoing*

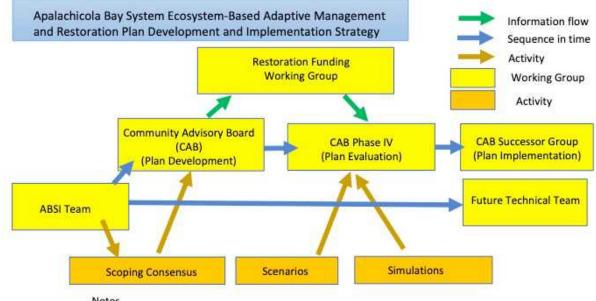
1. COMMUNITY OUTREACH SUBCOMMITTEE - PUBLIC ENGAGEMENT. The CAB working through the Community Outreach Subcommittee initiated a community feedback initiative by providing information and seeking community input on the Plan Framework. The CAB will vet the results of their prioritized strategies with the larger ABS community through multiple forums including questionnaires administered through a variety of methods including Facebook, online via the ABSI website, and direct mailings. In addition, community workshops will be conducted at appropriate times to provide the Community with information on ABSI and solicit community input. *Status: Initiated and Ongoing*

- 2. **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 and Ongoing*
- 3. 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 is 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 will approve the Organizational Framework for the Successor Group at the November 29, 2023 meeting, and the Successor Group process will formally initiate January 2024. *Status: Ongoing Organizational and Planning Meetings. Discussion of Organizational Framework during CAB meetings. Formal Convening Pending CAB Approval of Consensus Recommendations for the Plan and the Organizational Framework for the Successor Group at the November 29, 2023 meeting.*

ABS	SI CAB PHASE V MEE	TINGS SCHEDULE AND WORKPLAN — 2023
Meeting #1 ANERR 8:30am	Feb. 1, 2023 • Reports and Updates • Fisheries Model Simulation Results & Scenarios Refinements • Review of Plan Framework Strategies and Actions • Public Comment	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 the <i>Apalachicola Bay Restoration and Management Plan Framework</i> and Strategies Evaluation Worksheet process. Summary 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 ANERR 8:30am	 April 12, 2023 Reports and Updates Acceptability Ranking of Strategies and Actions Public Comment April 12, 2023 	ABSI science and data collection and restoration project updates. Sub-committee reports and public engagement initiative update. Acceptability ranking of proposed strategies and actions for inclusion in the <i>Apalachicola Bay Restoration and</i> <i>Management Plan Framework</i> using the Strategies Evaluation Worksheet Process. Public comment. Community Input on ABSI Restoration Approaches, ABSI
Workshop Forum #1	ANERR 6:00pm – 8:00pm	Management Strategies, and ABSI Science.
Meeting #3 ANERR 8:30am	 May 31, 2023 Reports and Updates Acceptability Ranking of Strategies and Actions Public Comment 	ABSI science and data collection and restoration project updates. Sub-committee reports and public engagement initiative update. Evaluation of Community Workshop Forum input. Acceptability ranking of proposed revisions to strategies and actions for inclusion in the <i>Apalachicola Bay</i> <i>Restoration and Management Plan Framework</i> using the Strategies Evaluation Worksheet Process. Public comment.
Meeting #4 ANERR 8:30am	 August 9, 2023 Reports and Updates Acceptability Ranking of Proposed Revision to Strategies and Actions 	ABSI science and data collection and restoration project updates. Sub-committee reports and public engagement initiative update. Discussion on the Organizational Framework for the CAB Successor Group. Acceptability ranking of proposed revisions to strategies and actions for inclusion in the <i>Draft Apalachicola Bay Restoration and</i>

	Public Comment	Management Plan using the Strategies Evaluation Worksheet Process. Public comment.
Community Workshop Forum #2	August 9, 2023 ANERR 6:00pm – 8:00pm	Community Input on ABSI Restoration Approaches, ABSI Management Strategies, and ABSI Science.
Meeting #5 ANERR 8:30am	 Sept. 27, 2023 Reports and Updates Approve Plan Outline and Draft Plan Public Comment 	ABSI science and data collection and restoration project updates. Sub-committee reports and public engagement initiative update. Discussion on the Organizational Framework for the CAB Successor Group. Evaluation of Community Workshop Forum input. Approval of the Report outline and <i>Draft Apalachicola Bay System Ecosystem-Based</i> <i>Adaptive Management and Restoration Plan.</i> Public comment.
Community Workshop Forum #3	October 24, 2023 ANERR 6:00pm – 8:00pm	Community Input on the CAB's recommendations for the <i>Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan.</i>
Meeting #6 ANERR 8:30am	 Nov. 29, 2023 Reports and Updates Final Plan Revisions Public Comment Adopt Final CAB Recommendations for the ABS Plan 	ABSI science and data collection and restoration project updates. Sub-committee reports and public engagement initiative update. Approval of the Organizational Framework for the CAB Successor Group. Evaluation of Community Workshop Forum input. Adoption of the <i>Draft Final</i> <i>Apalachicola Bay System Ecosystem-Based Adaptive Management and</i> <i>Restoration Plan Report and Recommendations,</i> and submittal to FSUCML. Public comment.

ABSI CAB PROCESS FLOWCHART AND PROJECT AREA MAP



Notes

1. Yellow boxes are groups of people. Blue arrows connecting yellow boxes indicate some or all of the people in one group may comprise the next group in time sequence



ABSI Project Area Map

ATTACHMENT 5 MEETING CHAT SUMMARY (ZOOM)

MEETING CHAT – AUGUST 9, 2023

•	08:34:24	Maddie Mahood:	Sorry for our technical difficulties everyone! We will be getting
	started sho	rtly. :)	
•	08:50:37	Becca Hatchell, FW	C: Congratulations on the new pub, Sandra! :)
•	08:53:49	Becca Hatchell, FW	C: This method was also used in West Bay, St. Andrew Bay
	Shell or	n Large Limestone	
٠	08:59:52	Wayne Williams:	I would like to comment at 10:05 or whenever public commenting
	1S.		
•	09:00:26	Maddie Mahood:	Noted, thanks Wayne! I'll make sure the team in the room knows
		time comes.	
•	09:12:59	Maddie Mahood:	In case you couldn't hear the beginning - Devin will be at the
			ANERR from 6:00 - 8:00 pm to answer any questions you may have!
•	9:43:45	Mike Allen:	I would be happy to continue into the next group.
•	09:45:01	Wayne Williams:	Wayne Williams seafood work and waterman's association., Would
		tinue in the group	
•	10:06:50	Wayne Williams:	Public comments?
•	10:20:34	Maddie Mahood:	See y'all in 15 minutes!
•	10:40:53	Anne Birch:	audio is breaking up bad
•	10:41:10	Michael Allen:	Yes very hard to follow, FYI.
•	10:42:55	Michael Allen:	Thank you!
•	10:43:39	Maddie Mahood:	Hi everyone! Thanks for your patience with the audio issues. Truly
	the bane o	f my existence haha 🥺	
•	11:35:54	Michael Allen:	All, I have to step off for another meeting, and will join in again
	after lunch		
•	11:36:12	Maddie Mahood:	Ok, thanks Michael!
•	12:05:12	Maddie Mahood:	See everyone at 12:35! 💛
•	12:06:31	Katie Konchar:	I need to sign off for the afternoon session. Great work on the
		nd I look forward to se	0
•	12:06:47	Maddie Mahood:	Thanks for your contributions Katie! See you next time :)
•	01:36:18	Maddie Mahood:	Hey all! Please fill out the survey and send me any
	comments	/improvements you thi	nk can be made for our next two meetings! Thanks 💛
•	01:37:45	Georgia Ackerman :	I'll be there tonight
•	01:38:01	Georgia Ackerman :	Thanks Maddie
•	01:40:09	Maddie Mahood:	Great, thanks Georgia! :)
•	01:40:21	Maddie Mahood:	Ok thanks everyone! See you next time! :

MEETING EVALUATION RESULTS (ZOOM POLL AND WRITTEN POLL RESULTS)

CAB Members used a 5-point polling scale where a 1 meant "Strongly Disagree" and a 5 meant "Strongly Agree." The evaluation summary reflects average rating scores and comments from respondents participating in person and virtually.

There were 7 hard copy end of meeting survey questions (Evaluations) completed, and 5 completed virtually.

1.) The meeting objectives were clearly communicated at the beginning

Average out of 5	5. Strongly Agree	4. Agree	3. Neutral	2. Disagree	1. Strongly Disagree
4.8	10	2	0	0	0

2.) The meeting objectives were met.

Average out of 5	5. Strongly Agree	4. Agree	3. Neutral	2. Disagree	1. Strongly Disagree
4.8	10	2	0	0	0

3.) The presentations were effective and informative.

Average out of 5	5. Strongly Agree	4. Agree	3. Neutral	2. Disagree	1. Strongly Disagree
4.9	11	1	0	0	0

4.) The facilitation of the meeting was effective for achieving the stated objectives

Average out of 5	5. Strongly Agree	4. Agree	3. Neutral	2. Disagree	1. Strongly Disagree
4.8	10	2	0	0	0

5.) Follow-up actions were clearly summarized at the end of the meeting

				0		
Average out of 5	5. Strongly Agree	4. Agree	3. Neutral	2. Disagree	1. Strongly Disagree	
4.8	10	2	0	0	0	

6.) The facilitator accurately documented CAB Member input

Average out of 5	5. Strongly Agree	4. Agree	3. Neutral	2. Disagree	1. Strongly Disagree
4.8	10	2	0	0	0

7.) The meeting was the appropriate length of time.

Average out of 5	5. Strongly Agree	4. Agree	3. Neutral	2. Disagree	1. Strongly Disagree
4.6	8	3	1	0	0

8.) CAB Members had the opportunity to participate and be heard.

Average out of 5	5. Strongly Agree	4. Agree	3. Neutral	2. Disagree	1. Strongly Disagree
4.8	10	2	0	0	0

Open Ended Survey Questions – In Person Participants

• None were offered.

Open Ended Survey Questions – Virtual Responses

• None were offered.

ATTACHMENT 7 Glossary of Modeling Terms

Assumptions – A description of the world that is accepted as true and is based on common knowledge or theory but not on proof.

Baseline - Model output that is used as a starting point for comparison with other sets of model output.

Calibration – Process of adjusting model inputs or parameters to obtain optimal agreement between model output and observations (data).

Circulation/Hydrodynamic Model – A mathematical tool that calculates water currents and water properties (like salinity and temperature).

Data Gap - The lack of data or information necessary for a given scientific study.

Data Set - A collection of observations or measurements.

Deviation – The difference between a data point and a model prediction.

Fishery-Dependent Data – Data collected directly on a fish or fishery from commercial or sport fishermen and seafood dealers.

Fishery-Independent Data – Characteristic of information (e.g. stock abundance, index) or an activity (e.g. research vessel survey) obtained or undertaken independently of the activity of the fishing sector.

Hypothesis – An idea that can be tested.

Larval Transport - The movement of oyster larvae in the water.

Model – A series of mathematical equations that describes, with great simplification, how a part of the world works.

Model Output/Model Result – A solution or a set of solutions obtained from a model simulation.

Performance Measure/Metric – A number used to indicate the effectiveness of an option for achieving a desired outcome.

Population Dynamics – The growth, death, and reproduction of individuals over time that leads to increase, decrease, persistence or extinction of a population.

Simulations – Repeated runs of a model using different inputs (e.g., different options).

Uncertainty – A way to represent how likely model predictions are given the inherent variability in the environment and the difference between model output and observations.

Validation – Comparison of model output with a set of independent data to determine the degree of confidence in model results.

Water Quality – Describes the physical, chemical, biological, and aesthetic characteristics of water and is a measure used to determine the suitability of water for a specific purpose (e.g., drinking, fishing, swimming, etc.).

GLOSSARY OF ABSI PROJECT TERMS AND DEFINITIONS

APALACHICOLA BAY SYSTEM: Consists of six bays: Apalachicola Bay, East Bay, St Vincent Sound, East and West St George Sound, and Alligator Harbor comprising a total of 155,374 acres (62,879 Ha). Confined to Franklin County and ending to the north at river mile zero (0). Important considerations include riverine and offshore inputs to the ABS as well as the reciprocal influences of outputs from the ABS to the Gulf of Mexico.

APALACHICOLA BAY SYSTEM, HEALTHY:

A healthy ecosystem is one in which material and energy flows are balanced through interacting biological, physical, and chemical processes (involving microorganisms, plants, animals, sunlight, air, water) that conserve diversity, support fully functional evolutionary and ecological processes, and sustain a range of ecological and ecosystem services.

ECOSYSTEM SERVICES: The direct and indirect contributions of ecosystems to human wellbeing. These services include **provisioning services** (food, raw materials, fresh water, medicinal resources), **regulating services** (climate, air quality, carbon sequestration & storage, moderation of extreme events, waste water treatment, erosion prevention & maintenance of soil fertility), **habitat or supporting services** (habitat for all species, maintenance of genetic diversity), and **cultural services** (recreation for mental & physical health; tourism; aesthetic appreciation and inspiration for culture, art & design; spiritual experience & sense of place).

ESTUARINE METRICS: These are variables that can be measured and used to assess the benefits or impacts of the different upstream management and climate scenarios that influence freshwater flow into the ABS.

GOAL: A goal is a statement of the project's purpose to move towards the vision expressed in fairly broad language.

GUIDING PRINCIPLES: The Community Advisory Board's Guiding Principles reflect the broad values and philosophy that guides the operation of the Community Advisory Board and the behavior of its members throughout its process and in all circumstances regardless of changes in its goals, strategies or membership.

OBJECTIVE: Objectives describe in concrete terms how to accomplish the goal to achieve the vision within a specific timeframe and with available resources. (E.g., by 2023, the State of Florida will have approved a stakeholder developed Ecosystem-Based Adaptive Management and Restoration Plan for the Apalachicola Bay System.")

OUTCOME: Outcomes describe the expected result at the end of the project period – what is hoped to be achieved when the goal is accomplished. (*E.g., an ecologically, and economically viable, healthy and sustainable Apalachicola Bay System oyster fishery and ecosystem*)

OYSTER RESOURCES: Sources of oysters that provide natural and cultural benefits to humans. These sources can come from the wild or from aquaculture (see ecosystem services). The responsible management of oyster resources for present-day needs and future generations requires integrated approaches that are place-based, embrace systems thinking, and incorporate the social, economic, and environmental considerations of sustainability.

PERFORMANCE MEASURES: The regular measurement of outcomes and results, which generates reliable data on the effectiveness, efficiency, and sustainability of programs and plans.

RESTORATION: The process of establishing or re-establishing a habitat that in time can come to closely resemble a natural condition in terms of structure and function.

STAKEHOLDERS: All interest groups whether public, private or non-governmental organizations who have an interest or concern in the success of a project and can affect or be affected by the outcome of any decision or activity of the project. For purposes of the Apalachicola Bay System Initiative, stakeholders include but are not limited to agriculture, silviculture, business, real estate, economic development, tourism, environmental, citizen groups, recreational fishing, commercial seafood industry, regional groups (i.e., ACF Stakeholders, and Riparian Counties), local government, state government, federal government, universities, and research interests.

STRATEGY: A method, action, plan of action, or policy that can be tested to determine whether it solves a problem and helps to achieve objectives and goals in the context of bringing about a desired future for the Apalachicola Bay System.

VISION: An idealized view of where or what the stakeholders would like the oyster resource and ecosystem to be in the future.

VISION THEMES: The related key topical issue area strategies that characterize the desirable future for the oyster resource and ecosystem. The Vision Themes establish a framework for goals and objectives. They are not ordered by priority.