APALACHICOLA BAY SYSTEM INITIATIVE (ABSI)
ABSI COMMUNITY ADVISORY BOARD (CAB)

MEETING V SUMMARY REPORT

MAY 22, 2020
VIRTUAL ZOOM MEETING

APPROVED BY THE COMMUNITY ADVISORY BOARD ON JULY 16, 2020

FCRC CONSENSUS CENTER

FACILITATED AND SUMMARIZED BY ROBERT JONES AND JEFF BLAIR

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APALACHICOLA BAY SYSTEM INITIATIVE (ABSI)

ABSI COMMUNITY ADVISORY BOARD (CAB) ZOOM MEETING V EXECUTIVE SUMMARY

May 22, 2020

The FSU Facilitation Team welcomed the members to the 5th meeting of the Apalachicola Bay System Initiative's Community Advisory Board and introduced the online virtual meeting guidelines. FSU ABSI Team members Felicia Coleman and Sandra Brooke and members of the Community Advisory Board introduced themselves. The facilitators reviewed the agenda which members approved, and they also approved the Facilitator Summary for the March 11, 2020 Meeting IV, without changes.

The Community Advisory Board reviewed and adopted at the January 8, 2020 CAB Meeting III a definition the "Apalachicola Bay System." Sandra Brooke indicated that the boundary question is a work in progress. The CAB discussed clarifying the project boundaries regarding the ABSI project and the March 2020 CAB recommendation for closing of Apalachicola Bay to oyster wild harvest. Following the discussion, the CAB agreed to recommend that the FWC in consultation with FDACS establish a science-based boundary for the closure.

The following are brief overviews of the four presentations. More in-depth notes of each are provided the full summary. The CAB heard presentations on: the FWC proposal to close Apalachicola Bay to wild oyster harvesting; FMRI Oyster Monitoring and Restoration Efforts in Apalachicola Bay; the NFWF MK Ranch Hydrologic Restoration; and the Conservation and Management Plan for Lake Wimico.

Mike Norberg FWC provided the CAB with an update on the proposal for suspending harvest of the oyster fishery in Apalachicola Bay. He noted they were not able to bring the proposal at the FWC Commission May meeting and he indicated they hope to bring it to the July Commission meeting as an emergency response. It will be in the context of the FWC project to increasing oyster reefs in the system and the ABSI research and CAB initiative. He then provided an overview of the Florida Fish and Wildlife Conservation Commission's role in oyster management, FWC's management authority and management process.

Melanie Parker, Research Scientist with the Florida Fish and Wildlife Research Institute presented an overview of oyster monitoring and restoration efforts in Apalachicola Bay. She described three monitoring categories. Fishery Disaster Recovery which monitors to evaluate the success of large-scale habitat restoration following the collapse of the commercial oyster fishery in 2012. NFWF Oyster Restoration research to determine the most efficient methods for increasing potential oyster habitat and resilience of the commercial fishery. Population Monitoring research to determine the most efficient methods for increasing potential oyster habitat and resilience of the commercial fishery. The CAB discussion focused on cultch material, spat survival on cultch and funding for spat recruitment.

Dale James, Ducks Unlimited Director of Conservation Programs- South of Atlantic presented on the MK Ranch hydrologic restoration project involving 6,259 acres of historic floodplain swamp and tidal marsh within Apalachicola River Wildlife and Environmental Area. In the early to mid-1970s, MK Ranch's previous landowner excavated approximately 55 miles of ditches and constructed multiple embankments resulting in extensive loss of wetland habitat and alteration of wetland community structure which has adversely impacted water quality, habitat and reduced water storage and interruption of freshwater delivery patterns. Dale reviewed the $22 million project, which will span between 2019 and 2024, and the objectives including: restoring the wetland and floodplain function and connectivity; improving water management to benefit water quality and freshwater flows into the Jackson River, Lake Wimico, Apalachicola River, Apalachicola Bay and greater Gulf of Mexico; and enhancing habitat for species such as migratory birds, oysters, Gulf Sturgeon and other fish

species dependent upon nursery areas of the Bay. The project and the scope calls for an adaptive approach and includes removal of embankments, roads and berms, filling of ditches, and installation of strategic low-water crossings to improve the flow of water across the landscape, data collection and engineering and design, and the development of a Monitoring and Adaptative Management Plan which will measure hydrologic & vegetative responses.

Lindsay Stevens, Land Program Manager with The Nature Conservancy presented the Lake Wimico project which is located in Gulf County within a renowned biodiversity hotspot. The Lake Wimico project area is a 20,146+ acre parcel at the west end of the Apalachicola Bay in the Florida Panhandle and includes 4,055-acre, tidally influenced Lake Wimico proper which is connected to an existing inter-connected corridor of conserved lands that totals over 1 million-acres. The safeguarding of Lake Wimico helps preserve and protect the water quality of the highly productive Apalachicola River, Apalachicola Bay, and Gulf of Mexico. It was funded by a grant from the National Fish and Wildlife Foundation (NFWF), Florida Gulf Environmental Benefit Fund (GEBF) and TNC donor support. In 2019 TNC acquired fee simple title and simultaneously donated to the State of Florida. The cypress-dominated swamps, marshes and water flow help ensure a resilient landscape that provides adaptation to impacts of climate and sea level rise, and habitat for ecological communities. FWC will actively manage the Lake Wimico property with the intent of restoring its vegetative composition, habitat structure/function and species distribution. Existing management activities on adjacent managed lands (Box-R WMA) will be extended onto the Lake Wimico tract to restore and enhance the Project. The CAB discussion focused on flow data, a citizen proposal for a lock gate to control flow, and a NWWD investigation into St Joseph Bay, Lake Wimico and East Apalachicola Bay.

The CAB "Vision of Success" goal framework were finalized by the CAB at the January 8, 2020 and include:

A. A Healthy and Productive Bay Ecosystem
B. Sustainable Management of Oyster Resources
C. A Thriving Economy Connected to a Restored Apalachicola Bay System
D. An Engaged Stakeholder Community and Informed Public
E. An Ecosystem-Based Management and Restoration Plan that is Science-Based, Fully Funded and Supported by Apalachicola Bay System Stakeholders

A. A Healthy and Productive Bay Ecosystem Strategies

The CAB and conceptually approved the following strategies:

1) Link the metrics with specific objectives. Need to link each performance metric with specific objectives throughout the Plan.
2) Rebuild the oyster reef ecosystems using multiple approaches (i.e., adding substrate, spat-on-shell, adding spat). [Moved from Goal B]
3. Increase productivity of Apalachicola Bay by enhancing existing and new reef structure or restoring historical reefs that no longer exist using the best available scientific data coupled with the experience of managers and stakeholders.
4. Develop an approach for testing the relative effectiveness of strategically placed 3-dimensional reef structure, using traditional and alternative substrates.
5. Develop goals for habitat restoration in the Apalachicola Bay System that include desired quality and quantity of oysters across subtidal and intertidal habitats throughout the ABS.
6. Develop goals that ensure that the ABS has sufficient spat production to support sustainable growth of oyster reefs. [Moved from Goal B]
7. Develop strategies to add spat to specific bars on a specific timeline (e.g., every 3 years), if necessary to sustain the system, as a restoration strategy, but not for fisheries management.
8. Consider rotational closed areas based on decision support tool outputs.

9. Base all management and restoration decisions and monitoring requirements on high-quality scientific data. [Moved from Goal B]
10. Determine area (acres or km^2) of healthy oyster reefs needed to ensure reef sustainability throughout the ABS. [Moved from Goal B]
11. 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.
12. Continue to monitor for oyster diseases.

B. Sustainable Management of Oyster Resources Initial Draft Strategies

The CAB and conceptually approved the following strategies:

1) Develop closed areas to provide year-round protection for brood stock and enhanced spawning opportunities.
2) Define boundaries of closure.
3) Define specific criteria and/or conditions with related performance measures required for the reopening of the ABS to wild oyster harvesting.
4) Focus on strategies for increasing the funding for and reclamation of local (ABS) shells from local watermen, restaurants, and private citizens to supplement shelling of oyster bars and increasing the viability of the oyster resource.
5) Assess feasibility of a shell-recycling program.
6) Develop a shell budget for maintaining reef habitat that will sustain healthy oyster populations.
7) Define performance criteria for an oyster reef that can sustain an oyster harvest of x bags/acre (e.g., 400 bags/acre).
8) Evaluate rotational and seasonal harvest strategies.
9) Evaluate a limited entry wild oyster harvest and develop a protocol to ensure sustainability prior to any decision to increase entry.
10) Address enforcement presence on the water (both in increasing numbers and quality through training) to address poaching and support strategies such as focusing on the buyer level.
11) Propose enforcement strategies that will support restoration efforts in the ABS by reducing poaching (e.g., through increased FWC enforcement presence and increased number of checkpoints) and ensuring uniformity in the marketable size of oysters for fishers and buyers.

No members of the public wished to provide comments to the ABSI Community Advisory Board
The facilitators then reviewed the agenda for the 6th meeting scheduled for July 16, 2020. The plan is to continue to identify and refine CAB strategies and actions for the five goals and objectives. Members suggested possible updates and briefing presentations on an update on the FWC proposal to close Apalachicola Bay to wild oyster harvesting; and on the Florida vs. Georgia ACF basin waters apportioning case and the Water Control Manual.

The members completed an online Zoom meeting evaluation and adjourned at 12:20 pm.

APALACHICOLA BAY SYSTEM INITIATIVE (ABSI)

ABSI COMMUNITY ADVISORY BOARD (CAB)
ZOOM MEETING V SUMMARY

May 22, 2020

What follows is a more detailed summary with additional data from the presentations

I. INTRODUCTIONS AND ABSI BOUNDARY DISCUSSION

A. INTRODUCTION

Jeff Blair, FSU FCRC Consensus Center and part of the FSU Facilitation Team, welcomed the members to the 5th meeting of the Apalachicola Bay System Initiative's Community Advisory Board. He introduced the online virtual meeting guidelines and his partner member of the ABSI Facilitation Team, Bob Jones and the FSU ABSI Team members Felicia Coleman and Sandra Brooke. Members of the Community Advisory Board introduced themselves and the facilitators reviewed the agenda with the members which they approved. They also approved Facilitator Summary for the March 11, 2020 Meeting IV without changes.

B. ABSI BOUNDARY DISCUSSION

The Community Advisory Board reviewed and adopted the following definition of the "Apalachicola Bay System" at the January 8, 2020 Meeting III:

> **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). 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.

Sandra Brooke indicated that the boundary question is a work in progress and the ABSI team had reviewed Lee Edminston's 2008 paper as well as FWC commercial fishing boundaries. The CAB discussed at the meeting clarifying the project boundaries regarding the ABSI project and the recommended closing of the Bay to oyster wild harvest. Following the discussion, the CAB agreed to recommend that the FWC in consultation with FDACS establish a science-based boundary for the closure.

The CAB offered the following comments:

- Indian River Lagoon estuary program includes rivers and creeks
- FDACS has harvest areas 16 and 1601-73. *A: FDACS will provide the ABSI Team a shape file*
- FWC closure for Apalachicola Bay will to include areas have FDACS approved or conditionally approved.
- Alligator Harbor is part of the ABSI boundaries but not part of the FDACS areas.
- Is Alligator Harbor not included on biological grounds? *A: Shellfish harvesting areas- regionalized and influenced by Alligator Harbor vs Apalachicola Bay influenced by rainfall and tied to septic tanks etc.*

- The CAB recommendation for the closure should support what the FWC and FDACS managers and scientists need.
- We have a definition of the boundaries for ABSI
- FWC will have to consider impacts beyond Apalachicola Bay in whether to close or limit entry to other areas in West Florida and beyond.
- We know from a management perspective oysters are depleted in Apalachicola Bat. Is this the case in Alligator Harbor?
- Effort displacement may already be occurring. Has the horse left the barn? Most of our data and information is from Apalachicola Bay resource perspective. Don't think it would be too much for FWC?
- Would we invite criticism by a establishing a broader closed area? Not normally done in fishery management.
- Is the region from Indian Pass to St George's sound-Apalachicola Bay as defined by the FWC rule?

The CAB agreed to recommend that the FWC in consultation with FDACS establish a science-based boundary for the closure.

II. ABSI PROJECT BRIEFINGS AND UPDATES

The CAB heard presentations on: the FWC proposal to close Apalachicola Bay to wild oyster harvesting; FMRI Oyster Monitoring and Restoration Efforts in Apalachicola Bay; the NFWF MK Ranch Hydrologic Restoration; and the Conservation and Management Plan for Lake Wimico.

A. FWC Role in Oyster Management and Proposal to Close Apalachicola Bay to Wild Oyster Harvesting Update.

Mike Norberg FWC provided the CAB with an update on the proposal for suspending harvest of the oyster fishery in Apalachicola Bay. He noted they were not able to bring the proposal at the FWC Commission May meeting and he indicated they hope to bring it to the July Commission meeting as an emergency response. It will be in the context of the FWC project to increasing oyster reefs in the system and the ABSI research and CAB initiative.

He then provided an overview of the Florida Fish and Wildlife Conservation Commission's role in oyster management, FWC's management authority and management process.

In terms of authority the Commission is comprised of seven members (Commissioners) appointed by Governor and confirmed by Legislature. FWC authority in state waters provided by Florida Constitution ("The commission shall exercise the regulatory and executive powers of the state with respect to wild animal life and fresh water aquatic life,… and marine life…") and Authority to enforce regulations in federal waters. FWC does not have direct authority over: fines and penalties; licensing fees; and Florida Statutes enacted by Legislature.

Oyster resources in Florida are co-managed by several state and federal agencies/organizations with varying degree of involvement or authority including: wild-harvest management (FWC) aquaculture (FDACS); food safety (FDACS); habitat and water quality (FWC, FDEP, FDACS); and research and

industry development (FWC, FDACS, FDA, Sea Grant). In terms of wild harvest, FWC Division of Marine Fisheries Management is responsible for management; FWC Division of Law Enforcement is responsible for enforcement, FWRI HSC Marine Estuarine Subsection, is responsible for monitoring.

In terms of management, a FWC Annual Workplan outlines and prioritizes topics intended to be addressed that is presented and approved or modified by Commission. In FY19/20 there were 50 items, with 10 new items. During the course of the year there are "Fly-in" items that re-focus or shift priorities. Staff rulemaking recommendations to the Commission are both science-and stakeholder-driven and may include public workshops with typically two-step process of draft recommendation and Final public hearing and rule adoption.

Current Commercial Regulations (68B-27, FAC), Apalachicola has a two bag limit vs. a 20 bag statewide bag limit, and a 3 inch + size limit. A SPL, Shellfish endorsement and AP license is required for Apalachicola Bay.

In terms of monitoring, Fisheries-independent data is collected by biologist and Fisheries-dependent is derived directly from catch: for Commercial sale of all wild-harvested seafood products must be reported; Recreational oyster harvest is not captured in current monitoring programs

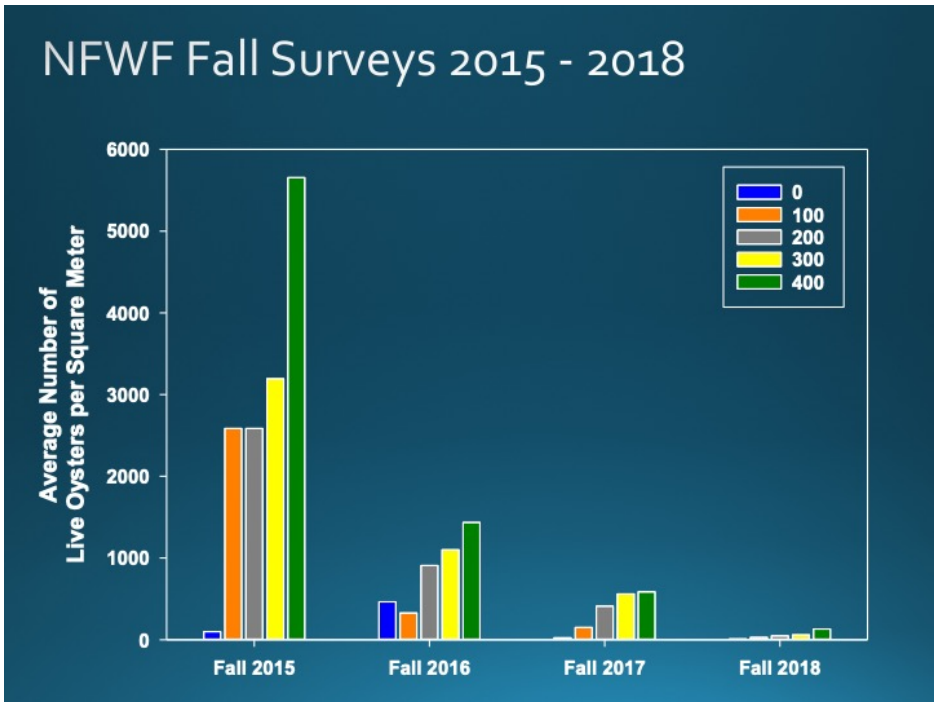
CAB Comments/Questions

- What about the fishing licenses if the Bay is closed? *A: Will propose an emergency order to immediately close the Bay. This will be addressed in the draft rule in July and finalize in August or October.*

B. FMRI Oyster Monitoring and Restoration Efforts in Apalachicola Bay

Melanie Parker, Research Scientist with the Florida Fish and Wildlife Research Institute presented an overview of oyster monitoring and restoration efforts in Apalachicola Bay. She described three monitoring categories:

- **Fishery Disaster Recovery**. Monitoring to evaluate the success of large-scale habitat restoration following the collapse of the commercial oyster fishery in 2012 including Pre and Post Season Assessments of Oyster Density and Distribution and Monthly Spat Settlement Rates
- **NFWF Oyster Restoration**. Research to determine the most efficient methods for increasing potential oyster habitat and resilience of the commercial fishery and to identify the most optimal and cost-effective shell cultching strategies for future restoration efforts featuring three 10 acre sites at Dry Bar, Hotel Bar and Bulkhead Bar and including: oyster density and size frequency; predator densities; and oyster health
- **Population Monitoring**. Research to determine the most efficient methods for increasing potential oyster habitat and resilience of the commercial fishery including: oyster health; reproductive development; and predator densities.



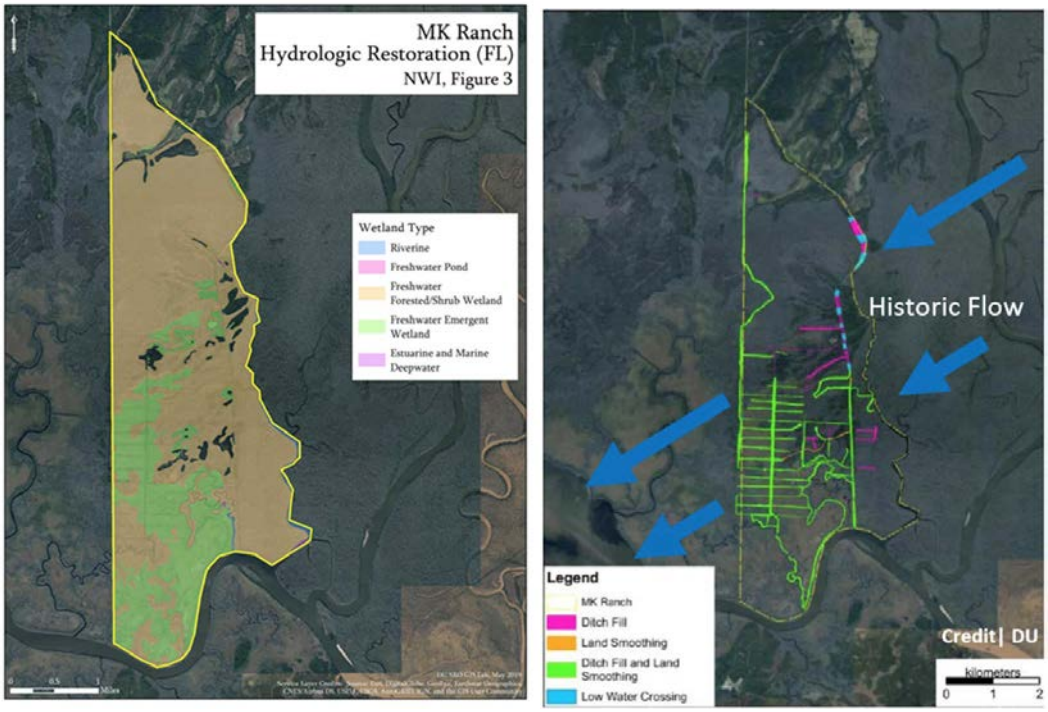
CAB Comments

- Rocks on Cat point thanksgiving 2019- DEP or DACS- last shelling DACS
- You need to collect a maximum of 2 bags by 10:30 am lots in little oysters and spats.
- Lime rock oysters disappeared.
- Cat Point Station has granite vs lime rock cultch. On Plant Point what made oysters grow?
- North Carolina using lime rock for creating refuges for sponges. Started using granite but moved to this
- Oysters growing are caught in less than 2 weeks.
- There was good spat set in first 2 years. However, then nothing grows on new material. If you go to the west there nothing on the clean rock North Spur. Are there any oysters settling on materials?
- Continued funding is needed for spat recruitment. Continue with state funding

C. NFWF MK Ranch Hydrologic Restoration

Dale James, Ducks Unlimited Director of Conservation Programs- South of Atlantic presented on the MK Ranch hydrologic restoration project involving 6,259 acres of historic floodplain swamp and tidal marsh within Apalachicola River Wildlife and Environmental Area. In the early to mid-1970s, MK Ranch's previous landowner excavated approximately 55 miles of ditches and constructed multiple embankments resulting in extensive loss of wetland habitat and alteration of wetland community structure which has adversely impacted water quality, habitat and reduced water storage and interruption of freshwater delivery patterns.
Dale reviewed the $22 million project objectives that included: restoring the wetland and floodplain function and connectivity; improving water management to benefit water quality and freshwater

flows into the Jackson River, Lake Wimico, Apalachicola River, Apalachicola Bay and greater Gulf of Mexico; and enhancing habitat for species such as migratory birds, oysters, Gulf Sturgeon and other fish species dependent upon nursery areas of the Bay.



The project will span between 2019 and 2024 and the scope calls for an adaptive approach and includes removal of embankments, roads and berms, filling of ditches, and installation of strategic low-water crossings to improve the flow of water across the landscape, data collection and engineering and design, and the development of a Monitoring and Adaptative Management Plan which will measure hydrologic & vegetative responses.

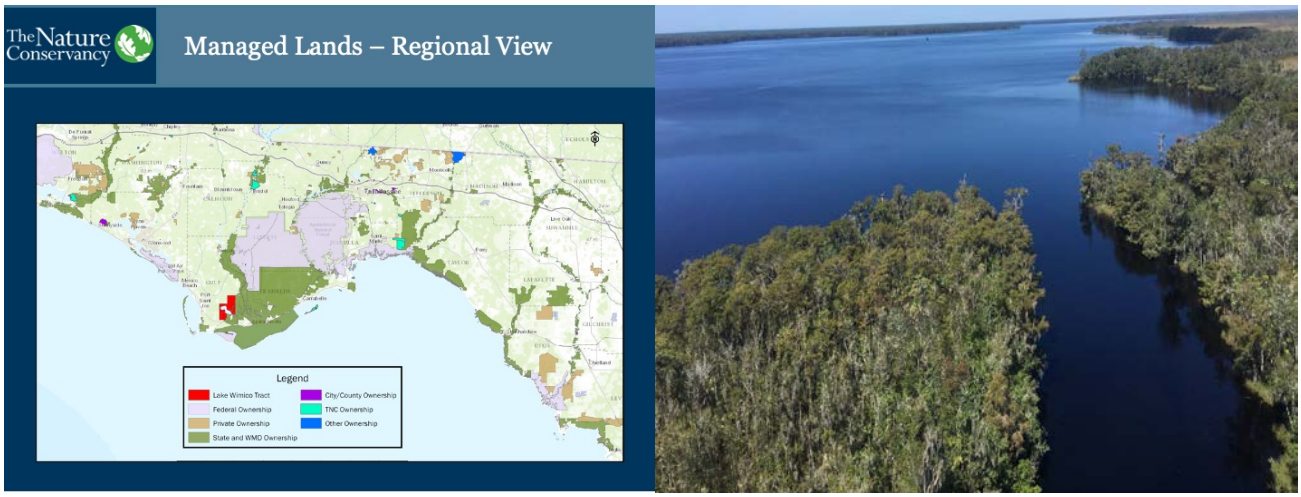
CAB Comments

- *No questions or comments*

D. NFWF Conservation and Management Plan for Lake Wimico

Lindsay Stevens, Land Program Manager with The Nature Conservancy presented the Lake Wimico project which is located in Gulf County within a renowned biodiversity hotspot. The project area has long been identified by TNC, state and federal partners as being critically important for conservation and the Lake Wimico project is part of the larger St. Joe Timberland Florida Forever project and ranked #2 in the Climate Change category on the state of Florida's Florida Forever list.

The Lake Wimico project area is a 20,146±acre parcel at the west end of the Apalachicola Bay in the Florida Panhandle and includes 4,055-acre, tidally influenced Lake Wimico proper. The safeguarding of Lake Wimico helps preserve and protect the water quality of the highly productive Apalachicola River, Apalachicola Bay, and Gulf of Mexico. It was funded by a grant from the National Fish and Wildlife Foundation (NFWF), Florida Gulf Environmental Benefit Fund (GEBF) and TNC donor support. In 2019 TNC acquired fee simple title and simultaneously donated to the State of Florida.



The protection of Lake Wimico will add over 20,000 acres to an existing inter-connected corridor of conserved lands that totals over 1 million-acres. The cypress-dominated swamps, marshes and water flow help ensure a resilient landscape that provides adaptation to impacts of climate and sea level rise, and habitat for ecological communities. The lake and its surrounding lands and waters are home to of several federally or state imperiled species including: Florida black bear; Manatee; American alligator; Bald eagles; Ospreys; Swallow-tailed kites; and Mississippi kites.

FWC will actively manage the Lake Wimico property with the intent of restoring its vegetative composition, habitat structure/function and species distribution. Existing management activities on adjacent managed lands (Box-R WMA) will be extended onto the Lake Wimico tract to restore and enhance the Project.

CAB Comments

- Is there flow data for the interaction between the Apalachicola River and St. Joseph Bay?
- Do you know of a proposed lock gate to control the flow down to St. Joseph Bay. *A: There is no interaction between the River and St. Joseph Bay. It is the first that TNC has heard of that proposal for the proposed lock gate.*
- The Water Management District is heading up investigation St Joseph Bay, Lake Wimico and East Apalachicola Bay. There is no data on flows and it is a complicated challenge for monitoring stratified flows. Working to try to reestablish Gulf County Canal. There is only observation data on flows.
- Please keep ABSI project informed regarding data over time.
- There has been misinformation or lack of information on the issue of the lock gate.

III. ABSI CAB VISION THEMES, GOALS, OUTCOMES AND OBJECTIVES FOR THE APALACHICOLA BAY SYSTEM

The following draft "Vision of Success" themes were drawn from the September 2019 CAB Questionnaire responses and reviewed and rated by the Community Advisory Board at the October 30 and December 18 meetings. The language for vision themes, goals were reviewed and finalized by the CAB at the January 8, 2020. The five goal CAB framework includes:

A. A Healthy and Productive Bay Ecosystem
B. Sustainable Management of Oyster Resources
C. A Thriving Economy Connected to a Restored Apalachicola Bay System
D. An Engaged Stakeholder Community and Informed Public
E. An Ecosystem-Based Management and Restoration Plan that is Science-Based, Fully Funded and Supported by Apalachicola Bay System Stakeholders

The Vision Theme, Goal, Outcome and Objectives for the five-goal framework are in Appendix #7.

IV. REVIEW OF STRATEGIES

A. A Healthy and Productive Bay Ecosystem Strategies

The Vision Theme Goal, Outcome and Objectives for a Healthy and Productive Bay Ecosystem are in Appendix #7.

1) Link the metrics with specific objectives. Need to link each performance metric with specific objectives throughout the Plan.

CAB Comments

- Strategies should link back to objectives and performance measures
- *Ratings: All 4s and 3s; no 2s and 1s.*

2) Rebuild the oyster reef ecosystems using multiple approaches (i.e., adding substrate, spat-on-shell, adding spat). [Moved from Goal B]

CAB Comments

- *Ratings: All 4s and 3s; no 2s and 1s.*

3) Increase productivity of Apalachicola Bay by enhancing existing and new reef structure or restoring historical reefs that no longer exist using the best available scientific data coupled with the experience of managers and stakeholders.

CAB Comments

- We should be increasing reefs in Apalachicola Bay for new areas wherever suitable.
- We should consider adding new areas if there are no endangered species.
- We should not waste material to build a unsustainable bottom that doesn't allow oysters to survive
- The bottom on Cat Point is white sand as a hurricane and water flows have covered up the bottom. I don't see spat on the beach.
- Proposed more than ensuring a hard bottom. Need to look at larvae distribution and water flows. Where are the best sites is part of research agenda.
- Give a presentation on a habitat suitability model.
- Not an either or, but inclusive of new and historic reefs.
- We still want to assess the suitability of existing reef structure
- *Ratings: All 4s and 3s; no 2s and 1s.*

4) Develop an approach for testing the relative effectiveness of strategically placed 3-dimensional reef structure, using traditional and alternative substrates.

CAB Comments

- Found oysters on platforms and growing on little rocks
- Traditional shell substrate is not readily available to bring reefs back to their functional heights. May want to try prototyping on a small scale.
- *Ratings: All 4s and 3s; no 2s and 1s.*

5) Develop goals for habitat restoration in the Apalachicola Bay System that include desired quality and quantity of oysters across subtidal and intertidal habitats throughout the ABS.

CAB Comments

- *Ratings: All 4s and 3s; no 2s and 1s.*

6) Develop goals that ensure that the ABS has sufficient spat production to support sustainable growth of oyster reefs. [Moved from Goal B]

CAB Comments

- *Ratings: All 4s and 3s; no 2s and 1s.*

7) Develop strategies to add spat to specific bars on a specific timeline (e.g., every 3 years), if necessary, to sustain the system, as a restoration strategy, but not for fisheries management.

CAB Comments

- Clarify "not for fisheries management"? *A: A healthy Bay incudes fishery and spat will help the system. However, there are no public funds for a put and take a fishery.*
- May boost a reef that was environmentally damaged. Go back and add spat to the reefs?
- Environmentally damaged is broadly worded. What triggered? For how long etc.?
- These are concepts and then we can add specifics.
- *Ratings: All 4s and 3s; no 2s and 1s.*

8) Consider rotational closed areas based on decision support tool outputs.

CAB Comments

- We should focus on rebuilding reefs that have doing well. Look at last 10 years at Cat Point areas. Then look to other areas suitable.
- We have had Winter to Summer bars rotational harvest.
- Overharvest has been a problem, "Like vultures they jump on this."
- Summer bars you can't pick up live oysters and the shell deteriorates or is covered over with sediment. Disappearing shells?
- Sedimented covers over, or are blown away. The shells are vulnerable to moving.
- On Dry Bar is in decline and there are no shells there going back 8-9 years. "You pick up shells and they crumbled in your hand. These turned into sand bars.
- Boring sponge? Absence of shells and live oysters

- Higher PH and calcium carbonate dissolved by acid in water.
- *Ratings: All 4s and 3s; no 2s and 1s.*

9) Base all management and restoration decisions and monitoring requirements on high-quality scientific data. [Moved from Goal B]

CAB Comments

- If this in the management area, we should stakeholder input and quality data
- *Ratings: All 4s and 3s; no 2s and 1s.*

10) Determine area (acres or km^2) of healthy oyster reefs needed to ensure reef sustainability throughout the ABS. [Moved from Goal B]

CAB Comments

- Without information and data on the fishery, how will we handle the management.
- Inclusive of fishery but more towards resource and ecosystem services.
- Link to the fishery and address in Goal B strategies.
- *Ratings: All 4s and 3s; no 2s and 1s.*

11) 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.

CAB Comments

- Clarify the monitoring and environmental and habitat condition changes.
- *Ratings: All 4s and 3s; no 2s and 1s.*

12) Continue to monitor for oyster diseases.

CAB Comments

- Outside of aquaculture, it is already in place. Monitoring for Dermo continues.
- In South Florida they have stopped monitoring parasites as they are not prevalent.
- *Ratings: All 4s and 3s; no 2s and 1s.*

B. Sustainable Management of Oyster Resources Initial Draft Strategies

1) Develop closed areas to provide year-round protection for brood stock and enhanced spawning opportunities.

CAB Comments

- Selected for value sources of larvae/brood stock protection
- Needs to be based on science and modeling-habitat. Assess areas suitable for closed and harvestable areas.
- *Ratings: All 4s and 3s; no 2s and 1s.*

2) Define boundaries of closure.

CAB Comments

- Already did this in boundary discussion and decision.
- *Ratings: All 4s and 3s; no 2s and 1s.*

3) Define specific criteria and/or conditions with related performance measures required for the reopening of the ABS to wild oyster harvesting.

CAB Comments

- Reopening? Consider the management of oysters in Apalachicola Bay to guide management with performance metrics to be part of the overall plan.
- Need to consider reopening but it is more expansive. For example X bushels per acre? Look at more areas of a bar vs 1 or 2 points in the bar. Go to one area again and again.
- FWC will include some criteria tied to metrics and a timeline of 3-5 years.
- Hoping that implemented in the closure.
- Not in favor of the closure. Have heard negative feedback from other oystermen.
- Two things going on. Agency action and longer-term restoration. How much will you provide the FWC CAB process. Sustainability- agency and stakeholder. Briefed on components.
- At our last meeting we discussed after the 1985 hurricane we had 300 bushels an acre. Will oyster men understand this metric?
- *Ratings: All 4s and 3s; no 2s and 1s.*

4) Focus on strategies for increasing the funding for and reclamation of local (ABS) shells from local watermen, restaurants, and private citizens to supplement shelling of oyster bars and increasing the viability of the oyster resource.

CAB Comments

- *Ratings: All 4s and 3s; no 2s and 1s.*

5) Assess feasibility of a shell-recycling program.

CAB Comments

- *Ratings: All 4s and 3s; no 2s and 1s.*

6) Develop a shell budget for maintaining reef habitat that will sustain healthy oyster populations.

CAB Comments

- *Ratings: All 4s and 3s; no 2s and 1s.*

7) Define performance criteria for an oyster reef that can sustain an oyster harvest of x bags/acre (e.g., 400 bags/acre).

CAB Comments

- *Ratings: All 4s and 3s; no 2s and 1s.*

8) Evaluate rotational and seasonal harvest strategies.

CAB Comments

- Need to include number of years for rotations, specific locations, size within the locations, and whether shell and/or spat will be added during the closures.
- Put in because of validity
- This is a starting point
- *Ratings: All 4s and 3s; no 2s and 1s.*

9) Evaluate a limited entry wild oyster harvest and develop a protocol to ensure sustainability prior to any decision to increase entry.

CAB Comments

- Need to be more specific
- SB- # oysters out of bay- limit oysterman. Sustainable econ. Protect in the fishery
- Right now, only 10-15 people are making a living.
- Oyster license, some watermen don't know how to get online.
- In terms of the guy trying to make a living, this is better for the oystermen over the long term.
- *Ratings: All 4s and 3s; no 2s and 1s.*

10) Address enforcement presence on the water (both in increasing numbers and quality through training) to address poaching and support strategies such as focusing on the buyer level.

CAB Comments

- Oystermen won't bring them in if the dealer won't buy. Problem now with harvesting undersized oysters.
- Need to focus on the dealer

11) Propose enforcement strategies that will support restoration efforts in the ABS by reducing poaching (e.g., through increased FWC enforcement presence and increased number of checkpoints) and ensuring uniformity in the marketable size of oysters for fishers and buyers.

CAB Comments

- *Ratings: All 4s and 3s; no 2s and 1s.*

IV. PUBLIC COMMENT AND NEXT STEPS

No members of the public wished to provide comments to the ABSI Community Advisory Board
The facilitators then reviewed the agenda for the 6th meeting scheduled for July 16, 2020. The plan is to continue to identify and refine CAB strategies and actions for the five goals and objectives. Members suggested possible updates and briefing presentations on: update on the FWC proposal to close Apalachicola Bay to wild oyster harvesting; and on the Florida vs. Georgia ACF basin waters apportioning case and the Water Control Manual.

The members completed an online Zoom meeting evaluation and adjourned at 12:20 pm.

APPENDICES

APPENDIX #1

COMMUNITY ADVISORY BOARD AGENDA, MEETING 5, MAY 22, 2020

APALACHICOLA BAY SYSTEM INITIATIVE (ABSI)
ABSI COMMUNITY ADVISORY BOARD (CAB)
MEETING V
FRIDAY, MAY 22, 2020
VIRTUAL MEETING VIA ZOOM WEBINAR

ABSI COMMUNITY ADVISORY BOARD MEETING V OBJECTIVES		
To Approve Regular Procedural Topics (Meeting V Agenda and Meeting IV Summary Report) To Receive Project Briefings and Community Advisory Board Requested Presentations To Review ABSI Strategies Evaluation Worksheet To Identify Strategies to Achieve Goals, and Relevant Performance Measures and Information Needs To Identify Needed Next Steps, Information and Presentations, and Agenda Items for Next Meeting		
ABSI COMMUNITY ADVISORY BOARD MEETING V AGENDA—MAY 22, 2020		
1.)	**8:30 AM**	**WELCOME, REVIEW OF VIRTUAL MEETING PARTICIPATION GUIDELINES, AND ROLL CALL**
2.)	**8:35**	**AGENDA REVIEW AND MEETING OBJECTIVES**
3.)	**8:40**	**APPROVAL OF FACILITATORS' SUMMARY REPORT (MARCH 11, 2020)**
4.)	**8:45**	**PROJECT BRIEFINGS AND REQUESTED PRESENTATIONS (15 MINUTES EACH)** • *FWC Proposal to Close Apalachicola Bay to Wild Oyster Harvesting Update.* Jim Estes • *FWRI/FWC Research Conducted in ABS Update.* Melanie Parker • *NFWF MK Ranch Hydrologic Restoration.* Dale James, Ducks Unlimited • *NFWF Conservation and Management Plan for Lake Wimico.* Lindsay Stevens, TNC
	~10:00	***BREAK***
5.)	**10:15**	**A.) A HEALTHY AND PRODUCTIVE BAY ECOSYSTEM** • Identification of Additional Strategies to Achieve Goal • Consideration of Relevant Performance Measures • Identification of Information Needs
6.)	**11:00**	**B.) SUSTAINABLE MANAGEMENT OF OYSTER RESOURCES** • Identification of Additional Strategies to Achieve Goal • Consideration of Relevant Performance Measures • Identification of Information Needs
7.)	**11:30**	**C.) A THRIVING ECONOMY CONNECTED TO A RESTORED APALACHICOLA BAY SYSTEM** • Consider Any Member Proposed Revisions to Vision, Goal, Outcome, Objectives • Review and Refinement of Key Issues • Identification of Initial Draft Strategies to Achieve Goal
8.)	**12:00**	**OVERVIEW OF REMAINING GOALS** **D.) An Engaged Stakeholder Community and Informed Public** **E.) A <u>Fully Funded Science-Informed</u> Ecosystem-Based Management and Restoration Plan**
9.)	**~12:15 PM**	**PUBLIC COMMENT**
10.)	**12:25**	**NEXT STEPS AND AGENDA ITEMS FOR THE NEXT MEETING** • Review of the CAB Schedule of Meetings • Review of action items and assignments • Identify agenda items and needed information and presentations for the July 16, 2020 CAB meeting • Meeting evaluation
	~12:30 PM	***ADJOURN***

APPENDIX #2
CAB MEMBERS & FLORIDA STATE UNIVERSITY TEAM PARTICIPANT LIST
Bold= Participating CAB Member and Team Member

MEMBER	AFFILIATION
Agriculture/ACF Stakeholders/Riparian Counties	
1. Chad Taylor	**Riparian Counties Stakeholder Group/ACF Stakeholders/Agriculture**
Business/Real Estate/Economic Development/Tourism	
2. Chuck Marks	**Acentria Insurance**
3. Mike O'Connell	**SGI Civic Club/SGI 2025 Vision**
4. John Solomon	*Apalachicola Chamber of Commerce*
Environmental/Citizen	
5. Georgia Ackerman	**Apalachicola Riverkeeper**
6. Lee Edmiston	*Retired DEP/ANERR*
7. Chad Hanson	**Pew Charitable Trusts**
Local Government	
8. Anita Grove	**Apalachicola City Commissioner**
9. Smokey Parrish	*Franklin County Commissioner*
Recreational Fishing	
10. Chip Bailey	**Peregrine Charters**
11. Frank Gidus	*CCA Florida*
Seafood Industry	
12. Shannon Hartsfield	**Franklin County Seafood Workers Association**
13. Cary Williams	Apalachicola Oyster Company, Aquaculture
14. Vance Millender	*Millender & Sons Seafood*
15. Roger Mathis	**Oysterman and R.D.'s Seafood**
16. Steve Rash	*Water Street Seafood*
17. TJ Ward	*Buddy Ward & Sons Seafood*
State Government	
18. *Jim Estes*/Mike Norberg	**FWC Division of Marine Fisheries Management**
19. Jenna Harper	**ANERR/DEP**
20. Alex Reed	**FDEP Office of Resilience & Coastal Protection**
21. Portia Sapp	**FDACS Division of Aquaculture**
22. Paul Thurman	**NWFWMD**
University/Researchers	
23. Tom Frazer	**UF/DEP Governor's Science Advisor**
24. Erik Lovestrand	*UF/IFAS/Florida Sea Grant Franklin County*
FSU PROJECT TEAM AND FACILITATORS	
NAME	**AFFILIATION**
Sandra Brooke	**Marine Biologist**
Felicia Coleman	**Marine Biologist**
Madelein Mahood	**Public Outreach Specialist**
Jeff Blair	**Community Advisory Board Facilitator, FCRC Consensus Center FSU**
Robert Jones	**Community Advisory Board Facilitator, FCRC Consensus Center FSU**
MEMBERS OF THE PUBLIC	
Doug Alderson, Apalachicola Riverkeeper Outreach and Advocacy Director	Anne Birch, The Nature Conservancy
Ed Camp, University of Florida	Chelsey Crandall, University of Florida
Gabriel Diaz, Biologist, FIU Marine Sciences Program	Matt Davis, FWC/FWRI
Ross Ellington, FSU	Dale James (presenter) Ducks Unlimited
Steve Leitman, FSU	Melanie Parker (presenter) FWC/FWRI
Alison Shields	Lindsay Stevens (presenter) The Nature Conservancy

APPENDIX #3
CAB MEETING IV, MAY 22, 2020 ZOOM MEETING EVALUATION SUMMARY

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 10 CAB members

1. The meeting objectives were clearly communicated at the beginning

Average Rating	*5.Strongly Agree*	*4.Agree*	*3.Not Sure*	*2.Disagree*	*1.Strongly Disagree*
4.7 of 5	**7**	**3**	**0**	**0**	**0**

2. The meeting objectives were met.

Average Rating	*5.Strongly Agree*	*4.Agree*	*3.Not Sure*	*2.Disagree*	*1.Strongly Disagree*
4.5 of 5	**5**	**5**	**0**	**0**	**0**

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

Average Rating	*5.Strongly Agree*	*4.Agree*	*3.Not Sure*	*2.Disagree*	*1.Strongly Disagree*
4.6 of 5	**8**	**2**	**0**	**0**	**0**

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

Average Rating	*5.Strongly Agree*	*4.Agree*	*3.Not Sure*	*2.Disagree*	*1.Strongly Disagree*
4.8 of 5	**8**	**2**	**0**	**0**	**0**

5. The facilitators accurately documented the Working Group Member input

Average Rating	*5.Strongly Agree*	*4.Agree*	*3.Not Sure*	*2.Disagree*	*1.Strongly Disagree*
4.7 of 5	**7**	**3**	**0**	**0**	**0**

6. The meeting was the appropriate length of time.

Average Rating	*5.Strongly Agree*	*4.Agree*	*3.Not Sure*	*2.Disagree*	*1.Strongly Disagree*
4.6 of 5	**6**	**4**	**0**	**0**	**0**

7. Working Group Members had the opportunity to participate and be heard.

Average Rating	*5.Strongly Agree*	*4.Agree*	*3.Not Sure*	*2.Disagree*	*1.Strongly Disagree*
5.0 of 5	**10**	**0**	**0**	**0**	**0**

8. What do you think worked well using the virtual Zoom platform for the meeting?

- Good visual of most attendees. Maddie's willingness to help people was appreciated as I was worried some people may not be able to participate.
- Presentations and interactions went pretty smoothly.

9. How could the virtual meeting format be improved for future meetings?

- Maybe send out a tutorial beforehand if we have people that have not used Zoom so all members can participate fully. I have used Zoom often but some others had some issues today.
- Make sure that the folks on the phone are muted. It was distracting. When sharing, remove the videos so that the shared screen is larger. Overall it went really well, though. Kudos to you guys!
- Share worksheet or most current documents ahead of time.

APPENDIX #4

PROJECT SCHEDULE & WORKPLAN

Meetings Dates are Subject to Change

ABSI CAB DRAFT MEETING SCHEDULE AND WORKPLAN		
STANDING UP AND ORGANIZATION OF THE ABSI CAB		
ABSI Assessment Process	May-August 2019	Assessment report based on interviews of over 60 stakeholders and agency personnel (May – August 2019) summarized key challenges and issues that should be addressed in the Apalachicola Bay System Initiative (ABSI) and by its Community Advisory Board (CAB); facilitators recommend members for the CAB.
ABSI CAB Questionnaire	September, 2019	Questionnaire report on the CAB members' views on successful short and long-term outcomes and on critical ABSI challenges and issues.
Meeting I.	Oct. 30, 2019	Scoping and organizational meeting, review and refinement of overall project purpose, vision and goal framework.
Meeting. II	December 18, 2019	Introduction to decision-support tools and member requested presentations. Review and refinement of vision themes and goal framework.
Meeting III.	January 8, 2020	Member requested presentations. Review and refinement of vision themes and goal framework continued
SCOPING OF ABSI ISSUES, IDENTIFICATION OF PERFORMANCE MEASURES & OPTIONS		
Meeting IV.	March 11, 2020	Identification of decision-support tools options, review of performance measures and identification of policy issues, review of Oyster Ecosystem-Based Fisheries Management Plan outline.
Meeting V.	May 22, 2020	Review of decision-support tools scenarios and consensus rating of options and policy Issues. Review and agreement on draft Oyster Ecosystem-Based Fisheries Management Plan. Public Workshop Draft.
Meeting VI.	July 16, 2020	Review and agreement on draft Oyster Ecosystem-Based Fisheries Management Plan. Public Workshop Draft.
Public Workshop 1	August 2020	Review of Vision, Goal Framework, Plan outline, issues & options.
BUILDING CONSENSUS ON ABS OYSTER ECOSYSTEM-BASED FISHERIES MANAGEMENT PLAN		
Meeting VII.	September 9, 2020	Review of public comments on Draft Plan, review of decision-support tools scenario results and consensus rating of options, draft performance measures, and identification of policy issues.
Meeting VIII.	November 4, 2020	Review of Draft Plan, recommendations on policy issues, decision-support tools scenario results, and consensus rating of options.
FINALIZING CONSENSUS ON ABS OYSTER ECOSYSTEM-BASED FISHERIES MANAGEMENT PLAN		

Meeting IX.	Jan. 13, 2021	Review and consensus testing of Draft Plan and recommendations on policy issues.
Meeting X.	TBD	Review and consensus testing of Draft Plan and implementation guidance and agreement on Workshop Draft Plan.
Public Workshop 2	TBD	Review of GPBS Oyster Ecosystem-Based Fisheries Management Draft Plan and Implementation Guidance.
Meeting XI.	TBD	Review of public comment, refinement and consensus on the GPBS Oyster Ecosystem-Based Fisheries Management Plan, and Implementation Guidance.
Additional Meetings Schedule	*TBD*	

APPENDIX #5
ABSI CAB TERMS AND DEFINITIONS *(AS OF MARCH 2020)*

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.

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.

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

OUTCOMES: 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*).

OBJECTIVES: 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 Management and Restoration Plan for the Apalachicola Bay System.")*

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

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.

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).

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). 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.

HEALTHY APALACHICOLA BAY SYSTEM:
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.

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.

APPENDIX #6
ABSI CAB MISSION & CAB GOAL STATEMENT

APALACHICOLA BAY SYSTEM INITIATIVE MISSION

The Apalachicola Bay System Initiative (ABSI) seeks to gain insight into the root causes of decline of the bay's ecosystem and the deterioration of oyster reefs. Ultimately, the ABSI will develop a management and restoration plan for the oyster reefs and the health of the bay.

COMMUNITY ADVISORY BOARD GOAL STATEMENT
(Adopted as Revised January 8, 2020)

The overarching goal of the Apalachicola Bay System Initiative (ABSI) Community Advisory Board (CAB) is to develop a package of consensus recommendations informed by the best available science, data, and stakeholders' experiences for the management and restoration of the Apalachicola Bay System (ABS), and to ensure there is a reliable mechanism and process for the monitoring, funding, and implementation of the Apalachicola Bay System Ecosystem-Based Management and Restoration Plan.

A primary focus is on oyster reef restoration with full consideration of factors affecting the biology, ecology and sustainable management of the resource. Restoration related actions, as indicated above, should be informed by the best available science and shared stakeholder values, that in turn, result in an economically viable, healthy, and sustainable Apalachicola Bay System.

The process will be designed so that members can explore and evaluate oyster fishery practices and management options, and restoration policies in the Apalachicola Bay System. The Community Advisory Board's consensus recommendations, in the form of an Apalachicola Bay System Ecosystem-Based Management and Restoration Plan, will be directed to the Apalachicola Bay System Initiative project team, natural resource managers and environmental regulators, and other agencies/entities as appropriate.

APPENDIX #7
ABSI CAB VISION THEMES, GOALS, OUTCOMES & OBJECTIVES *(AS OF MARCH 2020)*

A.) A Healthy and Productive Bay Ecosystem

Vision Theme: 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: 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.

Objectives:

A1) Restoration and management plans for the ABS consider changes in management and future environmental conditions, such as freshwater flow (e.g., quantity, timing, hydrodynamics), water quality including temperature and salinity, sea level rise, and habitat change.

A2) Ecosystem services and ecological health indicators derived from Apalachicola Bay System recovery are defined and measurable, with identified target and threshold levels.

A3) Measurements of oyster reef and population conditions are defined and quantifiable, with target and threshold levels identified.

A4) Impacts and activities from activities and future climate scenarios affecting the health and restoration of the ABS ecosystem are considered and addressed to minimize negative effects to the ABS ecosystem. *(Moved-Previously Objective E5)*

A5) Policies and programs are established and implemented that provide the means to return a significant portion of the harvested oyster shell back to the ABS for substrate needed for larval recruitment to enhance population productivity.*(moved from B4)*

A6) Observations, experiments and modeling efforts conducted through ABSI and related efforts will identify viable strategies for restoration.

B.) Sustainable Management of Oyster Resources

Vision Theme: A restored Apalachicola Bay System has resulted in a sustainably managed wild harvested oyster fishery while also providing opportunity ~~also~~ for other economically viable and complementary industries, including aquaculture. This is accomplished by working collaboratively with stakeholders to create, monitor and fund a plan that ensures that protection of the fishery and habitat, is implemented in a manner that is supported by science, data, and field and industry experience and observation, and provides fair and equitable access to the resource.

Goal: A 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.

Objectives:

B1) A comprehensive monitoring plan for oyster resources is established, implemented, ~~and~~ evaluated for the ABS with strong coordination among the various entities conducting work in the Bay.

B2) By year four (2022), a science-based oyster management plan is developed with strong stakeholder and community support and implemented by the State of Florida (e.g., FWC, FDACS, State

Legislature, etc.) for the ABS that considers, at a minimum: rotational harvest, open and closed areas (both permanent and seasonal), harvesting methods, limited entry, surcharge fees, the recreational fishery component, shell recycling, and a shell budget.
B3) Regulations for oyster management are well-enforced with sufficient penalties that deter violations and harm to the resource.
B4) The oyster aquaculture industry is regulated using best management practices that enable economic opportunities while preventing negative effects to the ABS ecosystem and its users.

C.) A Thriving Economy Connected to a Restored Apalachicola Bay System

Vision Theme: 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: 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.
Objectives:
C1) Economic indicators of the commercial oyster fishery and associated industries in the ABS demonstrate increasing viability and growth over the course of the ABSI project by *year X*.
C2) Industries, and businesses within the ABS are supportive and compatible with a healthy and well-managed ABS ecosystem.
C3) Growth management policies, plans and regulations affecting the ABS are compatible with a healthy and well-managed ABS ecosystem while maintaining a thriving economy and supporting cultural heritage.
C4) The oyster aquaculture industry provides economic opportunities and is complementary to the wild harvest fishery.

D.) An Engaged Stakeholder Community and Informed Public
Vision Theme D: Stakeholders of the Apalachicola Bay System are committed to working together beyond the Apalachicola Bay System Initiative to disseminate relevant information and advocate for a sustainably managed oyster-based ecosystem. In so doing, the group will facilitate innovative research, development and implementation of best management practices and serve as a hub for information exchange as well as new development, education and communication opportunities.
Goal: A productive and well-managed Apalachicola Bay System is supported by an actively engaged stakeholder community and informed 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 engaged and working actively together along with elected and appointed leaders and managers to invest in and implement the plan.
Objectives:
D1) A coordinated outreach and education plan is established and implemented to increase public awareness and support for a healthy and well-managed ABS ecosystem.
D2) Businesses, industries, non-profits, and local governments are supportive and included in outreach and education efforts to generate and increase public awareness and support for a healthy and well-managed ABS ecosystem.

D3) During the Project and following funding resources are identified and utilized to generate awareness, education, and support for a healthy oyster and ABS ecosystem.
D4) Public understanding of the issues important to health and restoration of the Bay are improved and increasing as measured by public and stakeholder surveys, and socio-economic

E.) An Ecosystem-Based Management and Restoration Plan that is Science-Based, Fully Funded and Supported by Apalachicola Bay System Stakeholders

Vision Theme: The Apalachicola Bay System Ecosystem-Based Management and Restoration Plan is science-based and developed with engagement and support from the Apalachicola Bay System stakeholders, including the State of Florida, and fully funded and informed by the best available science and other relevant socio-economic information**.**

Goal: The Apalachicola Bay System Ecosystem-Based Management and Restoration Plan is informed by the best available science, supported by the Apalachicola Bay System stakeholders, and implementation 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 Management and Restoration Plan that incorporates the monitoring necessary for evaluation and adaptation is ~~unanimously~~ broadly supported by Apalachicola Bay System stakeholders with guidance ~~oversight~~t from a permanent stakeholder advisory board.

Objectives:

E1) The ABSI Community Advisory Board approves a stakeholder driven and science-informed Ecosystem-Based Management and Restoration Plan for the Apalachicola Bay System with broad community support by 2022 that is implemented.
E2) The ABS Management and Restoration Plan has clearly defined performance measures used to monitor the health of the oyster resource and ABS ecosystem, including indicators of social and economic welfare of the area's coastal and surrounding communities.
E3) State of Florida accepts, approves and adopts and implements the ABS Management and Restoration Plan.
E4) Agencies and other entities responsible for implementing the ABS Management and Restoration Plan work in close coordination.
E5) Funding sources and mechanisms are identified and utilized for full implementation of the ABS Management and Restoration Plan.
E6) A fully funded permanent, representative stakeholder process is established to monitor the long-term implementation of the ABS Management and Restoration Plan.