APALACHICOLA BAY SYSTEM INITIATIVE (ABSI)
ABSI COMMUNITY ADVISORY BOARD (CAB)
OYSTERMEN'S WORKSHOP II—MONDAY, MARCH 29, 2021
IN-PERSON FOR INVITED OYSTERMEN ONLY DUE TO SOCIAL DISTANCING REQUIREMENTS RESULTING FROM COVID-19 PANDEMIC

APALACHICOLA NATIONAL ESTUARINE RESEARCH RESERVE

ALL OTHERS OBSERVE BY VIRTUAL MEETING: VIA ZOOM WEBINAR
ZOOM MEETING URL: https://fsu.zoom.us/j/96826881644
MEETING ID: 968 2688 1644—PHONE NUMBER: 646.558.8656

WORKSHOP OBJECTIVES
✓ To Provide Project Updates ✓ To Provide Update and Receive Oystermen's Feedback on ABSI Restoration Experiment ✓ To Provide Update and Receive Oystermen's Feedback on FWC Restoration Project ✓ To Receive Oystermen's Feedback on Management Alternatives

ABSI OYSTERMEN'S WORKSHOP—MARCH 29, 2021		
All Agenda Times—Including Public Comment and Adjournment—Are Approximate and Subject to Change		
1.)	**2:00 PM**	**WELCOME AND REVIEW OF WORKSHOP PARTICIPATION GUIDELINES**
2.)	**2:05**	**AGENDA REVIEW AND WORKSHOP OBJECTIVES**
3.)	**2:10**	**REVIEW OF UPDATED PROJECT MEETING SCHEDULE AND WORK PLAN**
4.)	**2:15**	**UPDATE AND OYSTERMEN'S FEEDBACK ON ABSI RESTORATION EXPERIMENT**
5.)		**UPDATE AND OYSTERMEN'S FEEDBACK ON FWC RESTORATION PROJECT**
6.)		**OYSTERMEN'S FEEDBACK ON MANAGEMENT APPROACHES** • Approaches on Page 6
7.)	**4:55**	**NEXT STEPS** • Next Oystermen's Workshop (Tentatively May/June 2021)
~5:00 PM		***ADJOURN***

MEETING AND WORKSHOP FACILITATION
The ABSI CAB meetings and workshops are facilitated and reported on by Jeff Blair from the FCRC Consensus Center at Florida State University. Information at: http://consensus.fsu.edu/

FCRC CONSENSUS CENTER

PROJECT WEBPAGE (URL): https://marinelab.fsu.edu/the-apalachicola-bay-system-initiative/

PROJECT EMAIL: fsucml-absi@fsu.edu

ABSI CAB ORGANIZATIONAL AND PROCEDURAL POLICES AND GUIDELINES
Located under the ABSI CAB Procedures and Reports Menu: https://marinelab.fsu.edu/absi/cab/

COMMUNITY ADVISORY BOARD MEMBERSHIP AND REPRESENTATION

MEMBER	AFFILIATION
Agriculture/ACF Stakeholders/Riparian Counties	
1. Chad Taylor^	Riparian Counties Stakeholder Coalition/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. Ricky Jones^	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 and Oysterman
13. Roger Mathis^	Oysterman and R.D.'s Seafood
14. Steve Rash^	Water Street Seafood
15. Denita Sassor	Outlaw Oyster Company, Aquaculture
16. TJ Ward	Buddy Ward & Sons Seafood
State Government	
17. Jim Estes^	FWC Division of Marine Fisheries Management
18. Jenna Harper	ANERR/DEP
19. Alex Reed	FDEP Office of Resilience & Coastal Protection
20. Portia Sapp	FDACS Division of Aquaculture
21. Paul Thurman	NWFWMD
University/Researchers	
22. Tom Frazer	UF/DEP Governor's Science Advisor
23. Erik Lovestrand	UF/IFAS/Florida Sea Grant Franklin County

CAB SUBCOMMITTEES	
Community Outreach Subcommittee	* Lead: Chad Hanson
CAB Successor Group Subcommittee	^ Co-Leads: Anita Grove and Shannon Hartsfield

PROJECT TEAM AND FACILITATOR

FLORIDA STATE UNIVERSITY	
Sandra Brooke*	Marine Biologist
Ross Ellington	Professor Emeritus of Biological Science
Madelein Mahood*	Outreach and Education
Gary Ostrander	Previous Vice-President for Research
Joel Trexler^	FSUCML Director
FCRC CONSENSUS CENTER, FLORIDA STATE UNIVERSITY	
Jeff Blair	Community Advisory Board Facilitator

ABSI CAB Project Schedule and Work Plan

Updated As Of The February 24, 2021 CAB Meeting		
Phase I—Standing up and Organization of the ABSI CAB		
ABSI Assessment Process	May- Aug. 2019 Report Sept. 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	Sept. 2019	Questionnaire report on the CAB members' views on successful short and long-term outcomes and on critical ABSI challenges and issues.
Meeting I. Eastpointe FL	Oct. 30, 2019	Scoping and organizational meeting, review and refinement of overall project purpose, vision and goal framework. Presentation on the ABSI project's four main components: research, management, community engagement, and oyster reef and bay restoration. Public comment.
Meeting II. Eastpointe FL	Dec. 18, 2019	Member-requested presentations on Apalachicola River Slough Restoration project, Oyster Fishery and Harvest Statistics, ABSI Research Update, and FWC Apalachicola Bay Oyster Restoration, Phase II. Review and refinement of vision themes and goal framework, and identification of key topical issues to inform the drafting of objectives. Public comment
Meeting III. Eastpointe FL	Jan. 8, 2020	Member-requested presentations on Oyster Ecology, Hydrologic modeling and Oyster Population Models. Review, refinement and adoption of five vision themes, goals, outcomes and objectives, and initial review of draft performance measures. Public comment
Phase II—Scoping of ABSI Issues, Identification of Performance Measures & Strategies		
Meeting IV. Eastpointe FL	Mar. 11, 2020	Member-requested presentations on current status of Apalachicola Bay, FDACS Aquaculture Leasing Program, Oyster Reef Management in Apalachicola Bay, and the Chesapeake Bay Oyster Futures Consensus Process. Review of Apalachicola Bay System Ecosystem-Based Management and Restoration Plan goals, outcomes, and objectives. Identification of initial draft strategies and related performance measures. Public comment.
Meeting V. Virtual Meeting	May 22, 2020	Member-requested presentations on FWC Overview of Oyster Management, FWRI Oyster Monitoring and Restoration Effects in Apalachicola Bay, MK Ranch Hydrologic Restoration, and TNC Lake Wimico project. Identification and evaluation of preliminary strategies and performance measures to achieve each of the five goals and objectives. Public comment.
CAB Strategies	June 2020	CAB Worksheet to identify potential strategies for each of the five goals.
Meeting VI. Virtual Meeting	July 16, 2020	Member-requested presentations. Decision support tools update & demonstration. Review and evaluation of the preliminary strategies by CAB member for Plan Goal. Public Comment.
Meeting VII. Virtual Meeting	Sept. 9, 2020	Member-requested presentations. Identification, evaluation and refinement of objectives, strategies and performance measures for Goals A-E. Public Comment.
Meeting VIII. Virtual Meeting	Oct. 15, 2020	Member-requested presentations. Review of strategies and identification, and evaluation of actions steps to achieve strategies. Evaluation of Performance Measures and categories. Public Comment.
Meeting IX. Virtual Meeting	Nov. 12, 2020	Member-requested presentations. Agreement on Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan (Plan)

		framework. Public engagement on the Plan strategy discussion. Discussion of strategies and action steps to achieve Goals. Discussion of ecological and management goals. Public comment.
Oystermen's Workshop #1	Dec. 2, 2020	Overview of Project Scope, Purpose, and Status, and Oystermen's input on restoration experiment, suitable habitat for restoration, and management and restoration alternatives.
PHASE III—BUILDING CONSENSUS ON CAB RECOMMENDATIONS FOR THE ABS ECOSYSTEM-BASED ADAPTIVE MANAGEMENT AND RESTORATION PLAN		
Meeting X. Virtual Meeting	Jan. 13, 2021	Member-requested presentations. Sub-committee reports. Discussion of estuarine metrics and restoration goals. Public comment.
Meeting XI.	**Feb. 24, 2021**	Member-requested presentations. Sub-committee reports. Review and approval of revised Draft Plan Framework. Discussion of management goals. Public comment.
Oystermen's Workshop #2	March 29, 2021	Oystermen's review and comments on draft Management approaches and Plan Framework (Strategies and Actions for Goals and Objectives)
Meeting XII.	April 21, 2021	Member-requested presentations. Presentation on modeling scenarios for potential restoration locations. Sub-committee reports. Discussion of estuarine metrics. Discussion and approval of revised Plan Framework and Performance Measures. Discussion of restoration and management goals. Prioritization of strategies. Public comment.
Oystermen's Workshop #3	***Tentatively May/June***	Review draft Plan Framework (Goals, Objectives, Strategies, Actions) with Oystermen, and Oystermen's input.
Meeting XIII.	June 16, 2021	Review and agreement on Draft Plan Framework (Goals, Objectives, Strategies, Actions) relative to goals and objectives. Public comment.
Meeting XIV.	Aug. 18, 2021	Continue review and consensus testing of Draft Plan and implementation strategies and actions, and agreement on Draft Plan for public comment. Public comment.
Public Workshop and/or Oystermen's Workshop #4 Date TBD		***Schedule & format dependent on status of the COVID-19 pandemic.*** Review and public comments on Revised Draft ABS Ecosystem-Based Adaptive Management Plan and implementation strategies.
Meeting XV.	Oct. 20, 2021	Review of public comment, agreement on recommendations for inclusion in the Plan. Public comment.
Meeting XVI.	Nov. 17, 2021	Complete Phase III of project. Final CAB approval of Management and Restoration recommendations for the Plan. Briefing on Phase IV of the ABSI CAB. Public Comment.
PHASE IV—RESTORATION PROJECT SELECTIONS AND IMPLEMENTATION/FUNDING PLANNING		
Tentatively January 2022		• CAB continues with some new members and works on identifying the best combination of strategies that will achieve restoration objectives for the Bay using decision support tools and available data, and prioritization of specific restoration projects. • Restoration Partners Working Group convened to seek resources and political support for CAB's priority recommendations. • Successor Group is organized and ready to convene when the CAB completes their work on the Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan. The Successor Group's role will be to organize a group of key stakeholders committed to working collaboratively for the long-term and once the CAB process is complete to ensure that the Plan is implemented, monitored, and adaptively managed over time and supported by the Community.

ABSI Mission Statement, Project Summary, and CAB Goal Statement

Apalachicola Bay System Initiative Mission Statement. 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.

Project Summary. In response to the rapidly declining health of the Apalachicola Bay System (ABS) and the collapse of the oyster fishery and reefs therein, Florida State University sought and was awarded a grant from Triumph Gulf Coast Inc. to undertake a series of scientific approaches intended to aid in the development of an ecosystem-based oyster management and restoration plan for the Apalachicola Bay System. The plan will be informed by science while involving representative stakeholders and the public in its creation, development and implementation by state and federal management agencies. Developing such a plan will help the state agencies responsible for marine resources improve the overall health and the rich biological diversity of the bay, including that of other ecologically and economically important species. Because oyster populations are declining in estuaries across the Florida panhandle, ABSI project leads will work with scientific, non-profit and governmental entities working on similar issues throughout this region to develop a consistent oyster management framework.

The vitality of Apalachicola Bay is key to the socio-economic prosperity of Franklin County and the surrounding area. Specifically, as the bay's health has declined, so has the area's once-booming oyster industry, resulting in widespread job loss and increased economic insecurity for many Franklin County residents whose livelihoods are tied to the Bay.

Florida State University through its Coastal and Marine Laboratory will investigate what precipitated the dramatic decline of the Apalachicola Bay System, and working with the ABSI Community Advisory Board (CAB) and Science Advisory Board determine a viable course of action for improving its condition.

Apalachicola Bay System Initiative Community Advisory Board Goal Statement. The overarching goal of the Apalachicola Bay System Initiative Community Advisory Board 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, and to ensure there is a reliable mechanism and process for the monitoring, funding, and implementation of the Apalachicola Bay System Ecosystem-Based Adaptive Management and Restoration Plan.

A critical component of the management plan is 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 Adaptive 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.

KEY APPROACHES FOR OYSTERMEN'S FEEDBACK

APALACHICOLA BAY SYSTEM ECOSYSTEM-BASED ADAPTIVE MANAGEMENT AND RESTORATION PLAN FRAMEWORK (Vision Themes, Goals, Outcomes, Objectives, Strategies, and Actions)

- **Goal A:** A Healthy and Productive Bay Ecosystem [4 Objectives and 8 Strategies]
- **Goal B:** Sustainable Management of Oyster Resources [2 Objectives and 11 Strategies]
- **Goal C:** Ecosystem-Based Adaptive Management and Restoration Plan Supported by Apalachicola Bay System Stakeholders [2 Objectives and 4 Strategies]
- **Goal D:** An Engaged Stakeholder Community and Informed Public [2 Objectives and 3 Strategies]
- **Goal E** (Outside of ABSI Scope): A Thriving Economy Connected to a Restored Apalachicola Bay System [4 Objectives and 10 Strategies]
- **Additional Strategies** Outside of the ABSI Scope [5 Strategies]

GOAL B OUTCOME—SUSTAINABLE MANAGEMENT OF OYSTER RESOURCES: 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.

Discussion of Specific Management Alternatives/Approaches:

There are a number of approaches that have been used here or elsewhere to successfully manage oyster populations and support a sustainable wild harvest fishery.

From your observations, experience and stakeholder perspective please give your thoughts on the following management approaches for a sustainable wild oyster fishery:

- Summer fishing closures.
- Rotational closures (e.g., summer bars vs. winter bars, partial bar closures).
- Managing harvest areas to prevent the concentration of effort in specific locations.
- Limited entry fishery.
- Permanent refuge non-harvest (no fishing) areas.
- Stock-based temporary closures.
- Managing oyster reef harvest with a metric (e.g., 300 bushels per acre).
- Daily harvest limits vs. fishery or individual quotas.
- Elimination of the 'buffer' (5% allowance for undersized) oysters for seafood dealers.
- Reduced bag limits.
- Bag tags.
- Relaying oysters from intertidal to subtidal locations within the Bay as a management strategy.
- 5-day work weeks.
- Implement annual fisheries dependent and independent stock assessments.
- Enforcement – What is needed from FWC Law Enforcement.
- Other strategies?

ATTACHMENT 1
MANAGEMENT OPTIONS DISCUSSION—CAB FEBRUARY 24, 2021 MEETING

Summer fishing closures

- Good idea; don't like rotational closures; whole Bay should be open when the fishery is open.
- Good idea; it gives the bars a break.
- Water quality should be monitored year round.
- Where and when the oyster fishery is open is based on having water quality standards sufficient for safe human consumption of oysters.
- Zones should be different when the harvest season is open. We need to work on the zones.
- The summer closure should be a total closure with no options or variations to allow harvesting.
- If closed during summer, the whole bay should be open during harvest months.
- Oystermen have traditionally done other work in the summer so it makes sense to close the fishery for the summer.
- With a summer closure oystermen can have the time to get into aquaculture to supplement their incomes and remain working in commercial fishing.

  Summer closure is a good idea; aquaculture can fulfill the need for oysters in retail and restaurants, so that takes the pressure to harvest during the summer off.

Rotational closures (e.g. summer bars vs. winter bars, partial bar closures)

- Don't like rotational closures; need to open the entire Bay all at one time when the fishery is open unless the water quality is bad.
- In other areas minor bars are part of a rotational harvest strategy, as micro management areas that open and close during the harvest season; a middle approach for rotational harvesting.
- It's a problem for law enforcement to enforce closed areas around open areas, and it pushes the oystermen into concentrating in smaller harvest zones.
- Winter water quality is also a problem for opening and closing zones; there are really only about 1-2 months when the fishery is open in winter due to water quality.
- We need to get with FWCLE to ensure they can regulate harvest to make any type of rotational harvest work.

Managing harvest areas to prevent the concentration of effort in specific locations

- In general the oystermen expressed support for opening the entire Bay (unless water quality is bad) during the open harvest season to spread the effort out and avoid over harvesting of bars.
- FWC will need a larger presence to enforce effectively; the problem is that harvesters all tend to congregate and harvest where the oyster concentrations are so they end up in the same areas anyway.
- When most of the harvest is complete, some harvesters take undersize oysters.
- There should be a stepped sequence to close the fishery when the limits are being reached to avoid concentrating all of the effort on the same bars (overharvest issue).
- Regulations: the CAB needs to get feedback on what approaches are enforceable.

- Consider creating an Oyster Advisory Board (OAB) within FWC once harvesting resumes in the Bay.

Limited entry fishery

- The oystermen mostly support this if it is implemented fairly so locals who have been full-time in the oyster fishery can continue fishing as a way of life and make a living.
- Limited entry is essential for the Bay to survive long-term. We have to do this.
- This is a very sensitive issue; the devil will be in the details for how to fairly implement this.
- This will keep the oystermen who wild harvest oysters as their primary living working at a manageable and sustainable level.
- This will also hold oystermen accountable, if you depend on your license for your income to oyster harvest in a limited fishery, then you have a strong incentive to follow the rules.
- Most Franklin County folks have been oystering at one time or another, so we have to come up with a fair system for who gets into the fishery.
- Need to design a fair system, for example determine who has been primarily oystering for x number of years (e.g., 10 years of landings/trip tickets).
- Blue crab fishery should be looked at as a possible model for determining entry requirements.
- Need to determine how much harvest can occur and still sustain the oyster fishery, and based on this how many individuals can participate in a limited entry fishery.
- There is an issue with using trip tickets for determining who should be eligible for a limited entry fishery. The dealers don't always turn in all of the tickets. I checked my tickets turned into to dealers against the FWC database reflecting what the dealers turned in and not all of my landings were reported. Consider using 2000 - 2010 data for determining landings and who was working full time oyster harvesting.
- The demand might not be as high as we think, many oystermen have changed careers, and making better money, and won't want to enter the fishery.
- Might consider a rotational entry system that varies form year-to-year to allow a larger number of participants into the fishery, and to ensure that the participation matches up with what is sustainable to harvest.
- The system also needs to have an appeals process.

Permanent refuge non-harvest (no fishing) areas

- Look to land management practices like for silviculture, there are areas that are not harvested. These general land-based practices could apply to the Bay.
- Look for depleted reefs to use for brood/larval production with proximity to harvest reefs based on larval transport and based on hydrodynamics etc. to determine the best locations for non-harvest areas. Also use areas where the water not safe for eating but good for oysters to provide ecological services such as cleaning the water.
- Always had closed areas; USACE buried some of these such as East Bay due to freshwater flow.
- The Bay has always had areas that were closed; hard to define boundaries of non-harvest areas within specific bars. Closed areas will need to be spatially distant from harvest areas. Concerns about specific details of delineating non-harvest areas.
- Using imaginary lines to close off part of a bar such as Cat Point, creates problems for harvesters and for enforcement.
- Need to work with oystermen to select the best locations for closed areas relative to harvest areas.

- Need to close an area ¼ mile from where you are harvesting to avoid problems. Need a major gap between where you can and can't harvest.
- The closure of the Bay in summer is the sanctuary (2 spat sets in Spring/Summer).
- Some places create non-harvest areas by using non-harvest material that can't be tonged. This can be done to divide reefs into harvest and non-harvesting areas and avoid the imaginary lines issue.
- The CAB should have a short presentation on where refuge reefs might be located relative to harvest reefs from other places. Chad Hanson has contacts to scientists who can help with this information.

Stock-based temporary closures (establish a density threshold (TBD) that when reached the reef is closed until the density increases back to a sustainable harvest level)

- Thought 300 bushels/acre was the threshold established for when the harvest would be stopped to allow recovery of the reef.
- We hit this threshold in 2010 and oyster density was declining quickly.
- We all need to learn to stop harvesting when the density is too low (300)
- Need to match monitoring with density. Maybe slow down at 350 or some other level above 300 so the numbers always stay above the 300 threshold (fine-tune and adapt the management for sustainability).
- Manage Bay by regulation for the market
- We are limited what we can catch legally (bag limit), and with a limited number of people (limited entry system) allowed to harvest, this will make enforcement easier.

Daily harvest limits vs. fishery or individual quotas

- Daily limit is all you can catch e.g. 2 bags/person, so don't need an individual quota.
- Don't like a quota, people game the system and pay people to harvest for them.
- Prefer bag limit.

Elimination of the 'buffer' (undersized) oysters for seafood dealers

- Dealers should be held accountable, as well as the harvester. Need to check dealers at their fish-house and put illegal oysters back on the bars. Don't wait to stop the trucks and then throw the oysters in the dump.
- In Louisiana dealers put their tags on the oystermen's already tagged bags to hold them both accountable to law enforcement.
- Reputable dealers won't but undersize oysters, if they don't buy them then harvesters won't bring them to sell. If dealers have no repercussions they will buy and sell shorts. Need to hold all in the chain accountable.
- 5% under 3" should we eliminate this buffer?
- FWC: 5% buffer is to avoid mistakes and not penalize honest mistakes for 2.5" oyster in bag. The buffer is not the reason undersize harvesting and selling is going on.
- FWC not going into fish-houses was a problem in Apalachicola and is still going on in other parts of the State. This needs to change so dealers have an incentive not to buy and sell undersize oysters.
- FWC needs to review enforcement penalty structure and hold dealers accountable.
- A big issue is that some harvester don't cull strictly for only 3" and larger and get mad if you don't keep oysters that are just undersize.

- Need to ensure harvester clean and cull oysters properly and legally and that dealers only but them from harvesters that do this.
- Need incentives to clean up oyster so only 3" are brought into the dealers.
- Currently harvesters get paid by the pound, so there is no incentive to clean and cull the oysters and lose the extra weight you could get paid for.
- Need strong enforcement to prevent harvesting undersize oysters.
- FDACS inspectors report undersize oysters to FWC, but have no authority to seize them.

The following management approaches will be evaluated at the April 21, 2021 CAB meeting:

- Implement annual fisheries dependent and independent stock assessments
- Enforcement – Identify what is needed from FWC Law Enforcement.
- Managing oyster reef harvest with a metric (e.g., 300 bushels per acre).
- Reduced bag limits.
- Bag tags.
- Relaying oysters from intertidal to subtidal locations within the Bay as a management strategy.
- 5-day work-week.
- Additional CAB member proposed management approaches.

ATTACHMENT 2
ABSI STRATEGIES AND ACTIONS RESPONSIVE TO OYSTERMEN'S COMMENTS PROVIDED DURING DECEMBER 2, 2021 OYSTERMEN'S WORKSHOP

OVERARCHING APPROACHES

Approach 2.) Include commercial fishermen in discussions of and to help work on restoration design and implementation (locations, size, total coverage, clutching, etc.), establishment of permanent closed_areas, shell recycling, shelling, oyster relaying, mentoring, and workforce entry development, etc.

GOAL A—A HEALTHY AND PRODUCTIVE BAY ECOSYSTEM

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

- *Action 5-A.):* Continue monitoring intertidal and begin monitoring sub-tidal reefs monthly and bi-annually using same protocols as FWC sub-tidal monitoring. Adjust to add metrics as needed. Data will be shared between FWC and ABSI.
- *Action 5-B.):* Continue monitoring intertidal and begin monitoring sub-tidal habitats using same protocols as FWC. Data will be shared between FWC and ABSI.
- *Action 5-C.):* Conduct 'spot-checks' at a large number (TBD) of different locations in the Bay to supplement the more intensive monitoring data. Document volume of rock/shell/oysters, number of spat, medium and market sized live oysters and boxes together with environmental data.
- *Action 5-D.):* Collect long term in situ environmental data using ABSI instruments and integrate ANERR environmental and nutrient data as correlates with oyster metrics.
- *Action 5-E):* Generate health indicators for ABSI using monitoring data, and other ecological factors (e.g. oyster-associated communities and structural complexity).

Strategy 8.) Seagrass and other SAV, and wetland and riparian habitat should be restored concurrently to work synergistically with oyster habitat restoration to enhance restoration of the ABS.

GOAL B—SUSTAINABLE MANAGEMENT OF OYSTER RESOURCES

Strategy 4.) *Action 4-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.

Strategy 5.) Manage the commercial oyster industry and recreational oyster fishing to provide for sustainable spat production and spawning and the recovery of oyster populations.

- *Action 5-A.):* Evaluate management scenarios (e.g., seasonal (summer) closure to wild harvesting, rotational closures, 5-day work weeks, non-harvested spawning reefs (permanent closures), limited entry, transferable license program, closures based on stock levels (stock assessment), reduced bag limits, bag tags, relaying oysters to better habitat, additional enforcement presence, manage harvest areas to prevent the concentration of effort in specific locations.
- *Action 5-B.):* Evaluate existing allowable and minimally destructive alternative gear type options and harvest methods, including the use of experimental gear for wild oyster harvesting.

Strategy 6.) Restore and create reef structures suitable for sustained oyster settlement and production for harvesting.

- *Action 6-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 6-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 6-C.):* Design and implement projects to achieve oyster fishery production targets.
- *Action 6-D.):* Design projects that include both fished and non-fished reefs.

Strategy 8.) Investigate oyster shell and oyster relay programs to move both cultch and live oysters to more favorable habitat.

- *Action 8-A.):* Use model and mapping information on larval source areas and environmental conditions to inform the potential programs.
- *Action 8-B.):* Research similar relay programs in other areas as potential models and cautionary tales.

Strategy 11.) Work with FWC Law Enforcement to develop enforcement strategies and appropriate penalties sufficient to deter harvest or sale of undersized oysters as well as violations that harm wild or leased oyster reefs and other natural resources, and that will support restoration efforts in the ABS.

- *Action 11-A.):* Develop strategies to increase FWC enforcement presence and number of checkpoints.
- *Action 11-B.):* Develop strategies to ensure uniformity in the harvestable and marketable size of oysters.
- *Action 11-C.):* Develop strategies to potentially limit oyster harvest to periods outside of peak spawning season.
- *Action 11-D.):* Develop standards for a potential limited entry fishery.
- *Action 11-E.):* Propose strategies to FWC and FDACs for implementation.
- *Action 11-F.):* Convene an Oyster Advisory Board within FWC to review and make recommendations on management and enforcement of the oyster fishery once wild oyster harvesting resumes in Apalachicola Bay.

GOAL D—AN ENGAGED STAKEHOLDER COMMUNITY AND INFORMED PUBLIC

Strategy 2.) *Action 2-B.):* Define what makes a successful shell recycling program, and work with local groups, businesses and other stakeholders to help initiate its development.

GOAL E—THRIVING ECONOMY CONNECTED TO A RESTORED ABS

Strategy 4.) Work with oystermen and other community stakeholders to promote post-recovery Apalachicola oysters.

Strategy 9.) Engage commercial fishermen in the restoration of the bay and encourage future participation in restoration such as monitoring, shell recycling, shelling, and relaying.

STRATEGIES TO REFER TO OTHER ENTITIES

Strategy 4.) Provide training and financial support for new workforce entrants (particularly young entrants)-interested in being employed in existing industries as well as and developing industries in new fisheries, aquaculture, and restoration science.

Strategy 5.) 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 5-A.): Identify source of shell, or other restoration material.