

**OYSTER ECOSYSTEM-BASED FISHERY MANAGEMENT PLAN
FOR THE GREATER PENSACOLA BAY SYSTEM
GPBS STAKEHOLDER WORKING GROUP**

**MEETING IV—APRIL 9, 2020—8:30 AM CST
VIRTUAL MEETING VIA ZOOM**

**HOST: THE NATURE CONSERVANCY, FLORIDA
FACILITATOR: FACILITATED SOLUTIONS, LLC**

MEETING IV OBJECTIVES

- ✓ To Approve Regular Procedural Topics (Agenda and Meeting III Summary Report)
- ✓ To Receive Requested Presentations
- ✓ To Review and Refine Objectives and Strategies for Goals
- ✓ To Review and Refine Draft Performance Measures
- ✓ To Identify Needed Next Steps and Information, and Agenda Items for Next Meeting

GPBS STAKEHOLDER WORKING GROUP MEETING IV AGENDA—APRIL 9, 2020

**All Agenda Times are Central Time Zone
All Times Are Approximate and Subject to Change (including Public Comment and Adjournment)**

8:30 AM CST		CALL TO ORDER
1.	8:30	WELCOME AND INTRODUCTIONS
2.	8:40	REVIEW AND APPROVAL of Agenda
3.	8:45	APPROVAL OF FACILITATORS’ SUMMARY REPORT (JANUARY 15, 2020 MEETING)
4.	8:50	STAKEHOLDER REQUESTED PRESENTATIONS AND BRIEFINGS (15 MINUTES/PRESENTATION) <ul style="list-style-type: none"> • <i>Review of Habitat Suitability Map, Recent Shell-Planting Areas, and Options for Oyster Management Plan Boundary (HUC 4, 6, 8 boundaries).</i> Laura Geselbracht, The Nature Conservancy • <i>Pensacola and Perdido Bays Estuary Program Overview.</i> Matt Posner, Interim Director, Pensacola and Perdido Bays Estuary Program • <i>An Economic Research Agenda for the GPBS.</i> Tentative • <i>Social and Economic Outcomes from Oyster Reef Restoration in the Gulf of Mexico: Applying the GEMS Model to the Greater Pensacola Bay System.</i> Dr. Lydia Olander, Dir. Ecosystem Services Program, Duke Nicholas Institute for Environmental Policy Solutions
10:00 AM CST		BREAK
5.	10:15	A.) A HEALTHY AND PRODUCTIVE OYSTER REEF ECOSYSTEM <ul style="list-style-type: none"> • Review and Refine Draft Objectives • Identify and Clarify Strategies to Evaluate Using Decision-Support Tools • Review and Refine Relevant Performance Measures to Assess Strategies • Identification of Information Needs

6.	11:15	B.) THE MANAGEMENT AND REGULATION OF THE OYSTER FISHERY AND AQUACULTURE <ul style="list-style-type: none"> • Review and Refine Draft Objectives • Identify and Clarify Strategies to Evaluate Using Decision-Support Tools • Review and Refine Relevant Performance Measures to Assess Strategies • Identification of Information Needs
12:00 PM CST		BREAK
7.	12:15	C.) A Thriving Economy Connected to the Greater Pensacola Bay System <ul style="list-style-type: none"> • Review and Refine Draft Objectives • Identify and Clarify Strategies That Can Be Evaluated/Measured • Review and Refine Relevant Performance Measures to Assess Strategies • Identification of Information Needs
8.	12:45	D.) An Engaged and Informed Public <ul style="list-style-type: none"> • Review and Refine Draft Objectives • Identify and Clarify Strategies That Can Be Evaluated/Measured • Review and Refine Relevant Performance Measures to Assess Strategies • Identification of Information Needs
9.	1:00	PUBLIC COMMENT
10.	1:15	NEXT STEPS AND AGENDA ITEMS FOR THE NEXT MEETING <ul style="list-style-type: none"> • Review of the Working Group meetings schedule • Review of action items and assignments • Identify agenda items and any needed information for the next meeting • Meeting evaluation
~1:30 PM CST		ADJOURN

PROJECT WEBPAGE: <http://www.myescambia.com/oyster-ebfm-plan>

CONTACT: Please contact Andrea Graves if you have individual needs or dietary restrictions for lunch agraves@tnc.org.

MEETING FACILITATION: Meetings are facilitated by Jeff Blair and Robert Jones from Facilitated Solutions, LLC. Information at: <http://facilitatedsolutions.org>.



GENERAL

- Please be aware that background noise from participants is picked-up and amplified on the webinar system, especially when using a speaker-phone or your computer without a headset.
- Greater Pensacola Bay System Stakeholder Working Group (Working Group) members, and any other meeting participants should offer their names each time they speak to ensure all participants know who is speaking.
- Members should offer their names when making and seconding motions.
- Working Group members should announce if they have to sign-off before the virtual meeting is complete.
- Acceptability rating exercise results will be tallied by recording members' votes by name in turn.

ATTENDANCE

- Facilitator will conduct roll call of Working Group members and Project Team.
- Once attendance is complete, the agenda will be reviewed and approved by the Working Group.

PARTICIPANT ETIQUETTE

- Please keep your phones on mute if calling in, and mute the microphone icon in the Virtual Meeting Control Panel if you are connected by webinar. The default mode for your microphone is mute and is reflected by a red microphone icon next to your name, to unmute click the red microphone icon and it will turn green when you are unmuted.
- It works best if everyone mutes themselves except when speaking.
- Please don't put your phones on hold.
- Please wait until invited by the Facilitator to speak to avoid confusion.
- Names will be stacked by the Facilitator to ensure order.
- Participants will have ample time to speak on substantive agenda items.

DISCUSSION PROCESS

- Facilitator will introduce discussion item or presenter.
- Presenter will provide overview of issue and recommendation(s) for Working Group action.
- Hold questions until presentation is complete.
- Once presentation is complete, Facilitator will ask if Working Group members have clarifying questions on the issue, create a speaker's list, and call on members in-turn for clarification.
- Facilitator will ask if any Working Group member wishes to discuss the issue or propose alternative options, create a speaker's list, and call on members in-turn for discussion.
- Once clarification and discussion is complete, Facilitator will conduct a rating exercise or test for consensus on the issue as appropriate.

PUBLIC COMMENT

- Facilitator will ask if anyone from the public wishes to comment during the Public Comment agenda item, create a speaker's list, and call on members of the public in-turn for comments.
- Comments will be limited to three minutes per person.
- Members of the public having questions or wanting to provide additional feedback are encouraged to send their questions and comments to Andrea Graves: agraves@tnc.org.

GUIDELINES FOR VIRTUAL MEETING PARTICIPATION

COME PREPARED. Review the agenda, presentations and background documents ahead of time. Schedule at least 15 minutes to prepare for the meeting/webinar – if you don't need it you can have the time back. Do the pre-work. Make notes and be ready with questions.

TEST THE TECHNOLOGY AHEAD OF TIME. Log in the day before to ensure full access to whatever online technology is being used. Check your headset and/or telephone system.

PARTICIPATION VIDEO AND AUDIO: If you participate using your computer for audio (using a headset to listen and/or speak) do not use the teleconference call in number (it creates interference). You can listen and/or speak using your headset through the VOIP function of your computer. If you use your computer only for the video/visual function (to view presentations) you will need to call in on the teleconference line to listen and/or speak. Participants who wish to view the presentations will need to use their computers to log-in using the meeting URL provided on the meeting agenda whether they participate with VOIP or the teleconference participation option for audio and video functions.

TURN UP EARLY. Put the web address and teleconference details in your calendar and bookmark the web URL. Set the reminder 15 minutes ahead of the call.

REMOVE DISTRACTIONS. Schedule a quiet place to participate from. Clear your desk and computer desktop. Turn off email & instant messaging. Put your cell phone aside. Put a note on your office door. Create an environment that allows you to fully participate without distractions.

TAKE RESPONSIBILITY FOR YOUR OWN PARTICIPATION. Don't plan to do any "catch up" activities during the call. If you catch yourself multi-tasking, close your eyes and listen. Avoid side conversations whether in the room with colleagues or in an online chat space. Keep your phone on "Mute" unless speaking. Never place your phone on "Hold". Be aware that when your phone is on speaker mode it transmits background noise and can interfere with the meeting.

BE AWARE OF AIRTIME. Fully participate while allowing others to do the same. Speak your name before making a comment.

FOLLOW WORKING GROUP'S MEETING PARTICIPATION GUIDELINES. Do not speak without acknowledgement from the facilitator. Speaking out of turn is very disruptive to a virtual meeting.

SUPPORT THE FACILITATOR. Acknowledge questions and pay attention. Use the raise hand function to speak and wait for the facilitator to invite questions and/or comments. The facilitator will create a speakers list at all appropriate times during the meeting. Keep your phone on "Mute" (not "Hold") whenever possible.

GPBS STAKEHOLDER WORKING GROUP MEMBERSHIP AND REPRESENTATION

MEMBER	AFFILIATION
Building/Development	
1. Shelby Johnson	Johnson Construction of Pensacola, Inc.
2. Glen Miley	biome Consulting Group
Business/Real Estate/Economic Development/Tourism	
3. Will Dunaway	Environmental Lawyer
4. Donnie McMahon	Business and Aquaculture
Environmental/Citizen	
5. Christian Wagley	Healthy Gulf
Local Government	
6. Shelley Alexander	Santa Rosa County Environmental Programs
7. Chips Kirschenfeld	Escambia County Natural Resources Management
8. Matt Posner	Pensacola and Perdido Bays Estuary Program
9. Keith Wilkins	Pensacola City Administrator
Recreational Fishing	
10. Chris Phillips	Hot Spot Charters
Seafood Industry	
11. Pasco Gibson	Seafood Industry/Waterman
12. Josh Neese	Aquaculture
13. Pete Nichols	Seafood Industry/Waterman
14. Tommy Pugh	Seafood Dealer
15. Phil Rollo	Seafood Dealer
16. Calvin Sullivan	Oyster Harvester
17. William (Hub) Williamson	Oyster Harvester
State Government	
18. Beth Fugate	FDEP/Aquatic Preserves
19. Kent Smith	FWC Division of Habitat and Species Conservation
20. Mike Norberg	FWC Division of Marine Fisheries Management
21. Portia Sapp	FDACS Division of Aquaculture
22. Paul Thurman	NWFWMD
Tourism	
23. Jack Brown	Visit Pensacola
University/Research	
24. Jane Caffrey	UWF
25. Rick O'Connor	UF/IFAS Escambia County
26. Chris Verlinde	UF/IFAS/Sea Grant Santa Rosa County
PROJECT TEAM AND FACILITATORS	
THE NATURE CONSERVANCY	
Anne Birch	Marine Program Manager, Florida
Bryan DeAngelis	Marine Habitat Scientist, North America
Laura Geselbracht	Sr. Marine Scientist, Florida
Andrea Graves	Marine Projects Coordinator, Florida
FACILITATED SOLUTIONS, LLC	
Jeff Blair	Working Group Facilitator
Robert Jones	Working Group Facilitator

GPBS STAKEHOLDER WORKING GROUP MEETING SCHEDULE AND WORKPLAN		
STANDING UP AND ORGANIZATION OF THE GPBS STAKEHOLDER WORKING GROUP		
Meeting I. Studer Institute	Oct. 9, 2019	Scoping and organizational meeting, review and refinement of overall project purpose, vision and goal framework.
Meeting II. UF/IFAS SRC Extension	Nov. 15, 2019	Introduction to decision-support tools and member requested presentations on oyster ecology and restoration. Review and refinement of vision themes and goal framework.
SCOPING OF GPBS ISSUES, IDENTIFICATION OF PERFORMANCE MEASURES & OPTIONS		
Meeting III. Sanders Beach	Jan. 15, 2020	Member requested presentations on Regulatory Framework, and Strategic Communications. Review and refinement of 4 goals framework continued. Introduction to performance measures.
Meeting IV. Virtual via ZOOM	April 9, 2020	Economic framing and integration with regional economic agendas. Review of draft vision theme objectives, strategies and related performance measures for the Oyster Ecosystem-Based Fisheries Management Plan.
Meeting V. Virtual via ZOOM	May 19, 2020	Review of decision-support tools scenarios and consensus rating of options. Review and agreement on Oyster Ecosystem-Based Fisheries Management Plan goals, objectives, and preliminary options. Public Workshop Draft.
Public Workshop 1	June 2020 Tentative Date	Review of Vision, Goal Framework, Plan outline, issues & preliminary options.
BUILDING CONSENSUS ON GPBS OYSTER ECOSYSTEM-BASED FISHERIES MANAGEMENT PLAN		
Meeting VI. Virtual via ZOOM	July 22, 2020	Review of public comments from Workshop 1, review of decision-support tools scenario results and consensus rating of options, draft performance measures.
Meeting VII. Sanders Beach Assess and hold Virtually if needed	Sept. 16, 2020	Review of Draft Plan, recommendations on policy issues, decision-support tools scenario results, and consensus rating of options.
FINALIZING CONSENSUS ON GPBS OYSTER ECOSYSTEM-BASED FISHERIES MANAGEMENT PLAN		
Meeting VIII. UF/IFAS Assess and hold Virtually if needed	Nov. 18, 2020	Review and consensus testing of Draft Plan and recommendations.
Meeting IX. Sanders Beach Assess and hold Virtually if needed	Jan. 27, 2021	Review and consensus testing of Draft Plan and implementation guidance and agreement on Workshop Draft Plan.
Public Workshop 2	February 2021 Tentative Date	Review of GPBS Oyster Ecosystem-Based Fisheries Management Plan and implementation guidance.
Meeting X. UF/IFAS SRC Extension Assess and hold Virtually if needed	March 17, 2021	Review of public comment, refinement and consensus on the GPBS Oyster Ecosystem-Based Fisheries Management Plan and implementation guidance.

PROJECT WEBPAGE URL <http://www.myescambia.com/oyster-ebfm-plan>

PROJECT FACILITATION: Meetings are facilitated, and meeting reports drafted by Jeff Blair and Robert Jones from Facilitated Solutions, LLC. Information at: <http://facilitatedsolutions.org>.



WORKING GROUP GOAL STATEMENT

The goal of the Greater Pensacola Bay System Working Group 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 Greater Pensacola Bay System.

The goal of the project is to ensure that the regulation and management of the oyster fishery, and oyster restoration policies are informed by the best available science and shared stakeholder stewardship values.

The process will be designed so that members can evaluate oyster fishery practices and management options and restoration policies in the Greater Pensacola Bay System. The Working Group's recommendations, in the form of a Greater Pensacola Bay System Oyster Ecosystem-Based Fisheries Management Plan, will be directed to the TNC Project Team, the Pensacola and Perdido Bays Estuary Program, state managers and regulators, and other agencies/entities as appropriate.

A.) A HEALTHY AND PRODUCTIVE OYSTER REEF ECOSYSTEM

Vision Theme A: The oyster reef ecosystem is managed in a manner that supports ecosystem services by protecting and enhancing the habitat and resource in a sustainable and productive manner.

Goal: The Greater Pensacola Bay System sustains a healthy and productive oyster reef ecosystem.

Outcome: By 2030, the oyster reef ecosystem within the Greater Pensacola Bay is managed in a sustainable manner providing measurable ecosystem services.

Key Topical Issues: At the November 15, 2019 meeting members brainstormed key topical issues including: Identifiable and achievable targets; Growth; Public understanding and support; Best practices as a framework for recommendations; Link the Plan to the Estuary Program; Model successes from other estuaries and scale up faster; Leverage and support funding for advance wastewater treatment facilities; Geo spatial mapping; Integrate and build on existing management plans; Identify existing and planned projects; Resiliency and adaptive management as guiding principles; and, Clarify and mitigate potential impacts to sustainably managing the PBS.

Draft Objectives

- Measurements of oyster reef and population conditions (including larval production, Spawning Stock Assessment, shell budgets) are defined and quantifiable, with target and threshold levels identified.
- Ecosystem services and ecological health indicators are defined and measurable, with identified target and threshold levels.
- Policies and programs are established and implemented that provide the means to return a significant portion of the harvested oyster shell back to the GPBS for substrate needed for larval recruitment to enhance population productivity.
- Restoration and management plans for the GPBS consider changes in management and future environmental conditions, such as freshwater flow (quantity, timing, hydrodynamics), water quality (e.g., salinity and temperature), sea level, and habitat change.
- Impacts and activities from future climate scenarios affecting the health and restoration of the GPBS ecosystem are considered and addressed to minimize negative effects to the GPBS ecosystem
- Reliable oyster larval production occurs in the estuary on an annual basis
- Abundant oyster settlement substrate exists across the estuarine salinity gradient, where appropriate for oyster growth and survival
- Spawning stock biomass has increased across the salinity gradient appropriate for oyster growth and survival

- Positive shell-budget on both fished and non-fished reefs

Related Performance Measures to Evaluate Strategies

- Shell budget model indicators
- Area of settlement substrate in the estuary (possibly with goals defined for each 'management objective' – fishing, water filtration, fish production)
- Larval abundance in the water column or on standardized settlement substrates
- Density of oysters (number per m²)
- Total oyster biomass (by reef and/or by reefs with different management objectives)
- Biomass of spawning stock (> 3 inches or 75 mm) and biomass of very-large spawning stock (> 5 inches or 127 mm)
- Reef-enhanced species (or selected species) are increasing in abundance
- Seagrass area is expanding within the estuary
- Number of reef-enhanced species (Oyster Calculator, and FWC's fishery-independent monitoring program)

B.) THE MANAGEMENT AND REGULATION OF THE OYSTER FISHERY AND AQUACULTURE INDUSTRY

Vision Theme B: The management, regulation, restoration and enhancement of the oyster fishery and aquaculture industry is conducted by working collaboratively with stakeholders to create a plan that ensures that protection of the fishery and habitat is monitored and 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 oyster resource.

Goal: A productive, and sustainably managed and regulated oyster reef fishery and ecosystem and aquaculture industry in the Greater Pensacola Bay System.

Outcome: By 2030, oyster reefs in the Greater Pensacola Bay System support a sustainably managed and productive fishery and an aquaculture industry and supported by stakeholders, using the best available science and monitoring to manage and regulate fishery and aquaculture activities in a fair and equitable manner.

Key Topical Issues:

Ongoing funding for management; Ecological restoration principles; Fish and oyster production objectives; Adapt for future changes and circumstances; Incorporate state vetted plans; Address enforcement of regulation; Manage wild harvest differently than aquaculture; Regulation of aquaculture; define fair and equitable; and, Consider providing access to the fishery through changes in licensing requirements, building in a preference for locals or specific user types.

Draft Objectives

- Sustainable production target(s) established for wild (and aquaculture oysters?)

- Management plans have estuary-specific catch data for commercial and recreational oyster fishing
- Aquaculture spatial area management plans are developed with broad support of the industry and community to facilitate the ‘smart’ growth and expansion of the aquaculture industry in the GPSBS
- The oyster aquaculture industry is regulated using best management practices that enable economic opportunities, while maximizing beneficial services of aquaculture, and preventing negative effects to the GPBS and its users.

Related Performance Measures to Evaluate Strategies

- Total harvest in bushels
- Harvest by size category
- Harvest by location
- Harvest by fishery type (recreational/commercial)
- Timing of harvest during the fishing season
- Harvest per licensed harvester
- Effort expended harvesting
- Catch per unit effort (catch per trip)
- Amount of illegal harvest
- Number of full-time harvesters that the fishery can support
- % live oysters harvested
- Biomass of oysters (> 3 inches?) on fishable reefs
- Number and size of aquaculture leases

C.) A THRIVING ECONOMY CONNECTED TO THE GREATER PENSACOLA BAY SYSTEM

Vision Theme C: The Greater Pensacola Bay System oyster fishery, aquaculture, and oyster reef ecosystem serve as key components of the region’s cultural heritage and economic viability and serve to sustain an economically viable and thriving fishery, recreation and tourism industry.

Goal: A healthy Bay System contributes measurably to a thriving economy for the Greater Pensacola Bay region.

Outcome: By 2030, recovery of the Greater Pensacola Bay ecosystem spurred by restoration of oyster reef ecosystems and a sustainable oyster fishery and development of aquaculture has led to a thriving economy that provides opportunities for sustainable and responsible industry, development, business, recreation and tourism.

Key Topical Issues:

Growth and conflicts among users; Aquaculture regulation and user conflicts; Aquaculture Use Zones; Economic activities that rely on a healthy bay; Social science; Controlling runoff; Public pushback for living seashore projects; Revenue generation and the plan; Local government involvement; Access opportunities to the water; Maintaining working waterfronts; and, Promotion and branding of aquaculture and oysters and the health of the Bay.

Draft Objectives

- Economic indicators of the commercial oyster fishery, aquaculture industry and other associated industries in the GPBS demonstrate increasing viability and growth over X years.
- Key water quality management investments are being made with the goal of protecting and enabling the oyster fishery and oyster aquaculture industry.
- The oyster aquaculture industry provides economic opportunities and is complementary to the wild harvest fishery
- Industries, and businesses within the GPBS are supportive and compatible with a healthy and well-managed ABS ecosystem.
- Growth management policies, plans and regulations affecting the GPBS are compatible with a healthy and well-managed ecosystem while maintaining a thriving economy and supporting cultural heritage.
- Oyster reefs, oyster fishing and oyster aquaculture are recognized as an important (key?) component of the local (Panhandle?) economy

Related Performance Measures to Evaluate Strategies

- Value of harvest that meets an economic minimum for sustainability for waterman
- Cost/value per bags
- Number of fishermen participating in the fishery
- Number of aquaculturists
- Total aquaculture production and revenue
- Revenue per harvester (and perhaps its distribution)
- Travel time costs, and distance travelled
- Cost of management measures (e.g., restoration efforts)
- % local oysters in the market
- Revenue per harvester (and perhaps its distribution)
- Revenue raised in fees/bushel taxes
- Restoration costs avoided
- Social benefits (value of ecosystem benefits)
- Performance metric for economic sustainability of the community
- Cost-Benefit Analysis (total economic investment versus outcome to economy)
- Area of prohibited (or open) waters
- Number of days of emergency closures
- WQ data
- Economic measures (number of fishers, aquaculturists, days fishing)
- Commercial and recreational catch, as well as aquaculture production (bags per day, total annual catch)
- Estimated filtration at estuarine scale (Oyster Calculator)
- Percentage of “residence time filtration” (Oyster Calculator)
- Estimated enhancement of reef-enhanced species (Oyster Calculator, along with FWC’s fishery-independent monitoring program?)
- Turbidity/Water clarity (reduction in suspended matter)

- Nitrogen reduction (sequestration, burial and/or denitrification)
- Value of nitrogen reduction (\$)
- % Removal of Nitrogen
- Filtration of estuary volume by oysters (wild and aquaculture stock) occurs within estuary residence time (27 days)

D.) An Engaged and Informed Public and Decision-Makers

Vision Theme D: Stakeholders of the Greater Pensacola Bay System are committed to working together collaboratively to serve as a hub for best practices and research, and provide education and communication on the importance of maintaining the health and productivity of the oyster reef ecosystem, fishery, and aquaculture, and the role they play in ensuring a thriving community.

Goal: The oyster reef ecosystem of the Greater Pensacola Bay System is supported and protected by an engaged and informed public, and decision-makers.

Outcome: By 2030, the Greater Pensacola Bay System, stakeholders, private and nonprofit civic leaders, the public, and decision-makers are informed of the importance of sustaining the health of the Bay System, and work actively together along with elected and appointed leaders and managers to invest in and implement the Plan.

Key Topical Issues:

A communication strategy to bring the PBS back to health; Marine habitats- out of sight out of mind; Plan should fit into the Estuary CCMP; Local government support; Unique community/state partnership; Distrust of science; and, Lack of information and measures on benefits to the community for a restored system.

Draft Objectives

- City, county and state-level budgets are influenced by the Oyster EBFM Plan
- City and county officials are incorporating Oyster EBFM Plan recommendations into relevant growth management plans and decisions
- A coordinated outreach and education plan is established and implemented to increase public awareness and support for a healthy and well-managed GPBS ecosystem.
- 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 GPBS ecosystem.
- Funding resources are identified and utilized to generate awareness, education, and support for a healthy oyster and GPBS ecosystem.
- The new estuary program incorporates and promotes the recommendations of the new oyster plan.

Related Performance Measures to Evaluate Strategies

- Amt. funding for plan implementation

- # times plan is referenced in growth mgt. plans
- # of people with improved understanding of the issues important to health and restoration of the Bay
- # of businesses, industries, non-profits, and local governments participating in outreach efforts
- % funding of available versus needed to implement the plan
- Amount of local, state, federal (and RESTORE?) funds allocated for management and restoration actions in Pensacola Bay
- The extent to which the new estuary program implements recommendations in the new oyster plan

DRAFT PERFORMANCE MEASURES
Use to Evaluate Management and Restoration Strategies

DRAFT PERFORMANCE MEASURES

HARVEST

- Total harvest in bushels
- Harvest by size category
- Harvest by location
- Timing of harvest during the fishing season
- Harvest by fishery type (recreational/commercial)
- Harvest per licensed harvester
- Effort expended harvesting
- Catch per unit effort (catch per trip)
- Number of full-time harvesters that the fishery can support
- Amount of illegal harvest
- Fraction of oysters that are being harvested

ECONOMICS

- Value of harvest that meets an economic minimum for sustainability for waterman
- Cost/value per bags
- Number of fishermen participating in the fishery
- Number of aquaculturists
- Total aquaculture production and revenue
- Revenue per harvester (and perhaps its distribution)
- Travel time costs, and distance travelled
- Cost of management measures (e.g., restoration efforts)
- Cost-Benefit Analysis (total economic investment versus outcome to economy)
- Frequency of harvest that meets an economic minimum for sustainability
- % of oysters in the local market
- Number of fishermen participating in the fishery
- Revenue per harvester (and perhaps its distribution)
- Travel time costs, and distance travelled
- Investment in mgt measures (e.g., restoration and/or fishery enhancement efforts)
- Revenue raised in fees/bushel taxes
- Restoration costs avoided
- Social benefits (value of ecosystem benefits)
- Harvest rate (bags per day)
- Performance metric for economic sustainability of the community

HABITAT

- Surface area of reef
- Reef structure (vertical relief)–suitability for settlement, fish production, shoreline protection, climate change
- Habitat suitability – area suitable for settlement and changes over time
- Change in oyster habitat/year (area or volume)

DRAFT PERFORMANCE MEASURES

POPULATION

- Abundance of oysters in the population
- Density of oysters (number per m²)
- Size of oysters by location/region
- Number of large oysters (>5") by location/region
- Biomass of the population
- Amount of brood stock (spawning stock biomass) protected in the population
- Spat production (Recruitment)

ECOSYSTEM SERVICES

- Estimated filtration at estuarine scale (Oyster Calculator)
- Percentage of "residence time filtration" (Oyster Calculator)
- Turbidity/Water clarity (reduction in suspended matter)
- Number of reef-enhanced species (Oyster Calculator, and FWC's fishery-independent monitoring program)
- Nitrogen reduction (sequestration, burial and/or denitrification)
- Value of nitrogen reduction (\$)
- % Removal of Nitrogen
- Biomass of reef-enhanced species supported
- Change in abundance of enhanced fishery species (e.g., blue crabs, stone crabs)
- Volume of water filtered
- Days to filter estuary volume
- Water clarity
- Reduction in suspended matter
- Area of the bottom (<6ft deep) with enough light to support seagrass
- Reduction in nitrogen in pounds
- Value of nitrogen reduction
- Nitrogen removed as percentage of inputs

Engaged and Informed Public and Decision-Makers

- Amt. funding for plan implementation
- # times plan is referenced in growth mgt. plans
- # of people with improved understanding of the issues important to health and restoration of the Bay are increased
- # of businesses, industries, non-profits, and local governments participating in outreach efforts
- % funding of available versus needed to implement the plan

GPBS PROJECT SUMMARY AND STATEMENT OF PURPOSE

PROJECT SUMMARY. The Nature Conservancy (TNC) in Florida is convening stakeholders to develop an oyster ecosystem-based fisheries management plan for the Greater Pensacola Bay System (GPBS). For the purpose of this initiative the system is defined as Escambia, Pensacola, East and Blackwater Bays in Escambia and Santa Rosa Counties. TNC has been supporting and implementing projects in the GPBS for the past several years in collaboration with partners. Oysters and the once vibrant fishery are disappearing from the System. Significant funding as a result of the Deepwater Horizon oil spill is being dedicated to restoration of oysters throughout the Gulf of Mexico. This is a once-in-a-lifetime opportunity to reverse the trend and create a robust future for oysters and the fishery in Florida and the Gulf.

STATEMENT OF PURPOSE. The goal of the initiative is that by 2022 an oyster ecosystem-based fisheries management plan (Plan) for the GPBS is approved by the stakeholders. The Plan will be offered as a model for management of oyster resources throughout Florida's estuarine systems, the Gulf of Mexico and other regions. The intent is for the Plan to be developed, owned and implemented by the community and the State, not a "TNC plan".

The Working Group and the resulting Plan will seek to address and determine the priority of multiple objectives including wild harvest, oyster aquaculture, ecosystem service outcomes (i.e., clear water, more crabs and fish, nitrogen removal), and social benefits (e.g., recreational angling opportunities, and opportunity to participate in defining credible management processes) for the GPBS.

The Plan resulting from this initiative will help to define long-term estuary-scale goals for restoring and sustaining oysters in the estuary. It will work in the broader context of the Pensacola and Perdido Bays Estuary Program that received EPA funding in 2018 as part of the Deepwater Horizon oil spill settlement. The program hired an executive director in 2019 and is organizing to develop a Comprehensive Conservation and Management Plan (CCMP) for the Estuary Program's planning region.

WORKING GROUP GUIDING PRINCIPLES

WORKING GROUP DRAFT GUIDING PRINCIPLES

- 1.) Working Group members will strive to work together collaboratively and seek to understand and respect differing perspectives.
- 2.) The Working Group will strive to achieve consensus on the evaluation and development of recommendations submitted to the TNC Project Team and appropriate management and regulatory agencies.
- 3.) The Working Group will operate under policies and procedures that are clear, concise, and consistently and equitably applied.
- 4.) Working Group members will serve as accessible liaisons between the stakeholder groups they have been appointed to represent and the GPBS Working Group and should strive to both inform and seek input on issues the Working Group is addressing from those they represent.

WORKING GROUP CONSENSUS-BUILDING PROCEDURES

The GPBS Stakeholder Working Group (Working Group) will seek consensus on its recommendations for options to be evaluated using the best available science and decision-support tools for management and restoration of the GPBS. General consensus is a participatory process whereby, on matters of substance, the members strive for agreements which all of the members can accept, support, live with or agree not to oppose. In instances where, after vigorously exploring possible ways to enhance the members' support for the final package of recommendations, and the Working Group finds that 100% acceptance or support is not achievable, final consensus recommendations will require at least 75% favorable vote of all members present and voting. This super majority decision rule underscores the importance of actively developing consensus throughout the process on substantive issues with the participation of all members and which all can live with. In instances where the Working Group finds that even 75% acceptance or support is not achievable, publication of recommendations will include documentation of the differences and the options that were considered for which there is more than 50% support from the Working Group. The report that will be a product of the Working Group process will clearly describe the level of agreement between Working Group members on each specific recommendation as well as on the suite of recommendations as a whole.

Working Group members, staff, and facilitators will be the only participants seated at the table. Only Working Group members may participate in discussions and vote on proposals and recommendations. The facilitators, or a Working Group member through the facilitators, may request specific clarification from a member of the public in order to assist the Working Group

in understanding an issue. Observers/members of the public are welcome to speak during the public comment period provided at each meeting, and all comments submitted on the public comment forms provided will be included in the facilitators’ summary reports. In order to provide balance to the Working Group process, members agree to represent and consult with their stakeholder interest groups.

ACCEPTABILITY RATING SCALE FOR OPTIONS AND RECOMMENDATIONS

During an early meeting, Working Group members will be asked to propose an initial suite of options to address each of the Key Topical Issues in turn. During subsequent meetings Working Group members will be asked to review existing proposed options and will be invited to propose any additional options for Working Group consideration, and subsequently to rate the options for acceptability. In addition, following discussion and refinement of options, members may be asked to do additional ratings of proposed options if requested by a Working Group member or project scientist. Members should be prepared to offer specific refinements to address their reservations.

Once rated for acceptability, options with a 75% or greater number of 4s and 3s in proportion to 2s and 1s will be considered preliminary consensus recommendations for inclusion in the final package of recommendations.

At any point during the process, any option may be re-evaluated and rated at the request of any Working Group member. The status of a rated option will not be final until the final Working Group meeting, when a vote will be taken on the entire package of consensus ranked recommendations.

The following scale will be utilized for acceptability rating exercises:

Acceptability Rating Scale	4 = Acceptable, I agree	3 = Acceptable, I agree with <i>minor reservations</i>	2 = Not Acceptable, I don’t agree unless <i>major reservations</i> are addressed	1 = Not Acceptable
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TERMS AND DEFINITIONS

GUIDING PRINCIPLES: The Working Group’s Guiding Principles reflect the broad values and philosophy that guides the operation of the Working Group 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.

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

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

OBJECTIVE: Objectives describe in concrete terms how to accomplish the goal to achieve the vision within a specific timeframe and with available resources. (*e.g., By 2023, the State of Florida has approved a stakeholder developed oyster ecosystem-based fishery management plan for the Greater Pensacola Bay System.*)

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

PERFORMANCE MEASURES: The regular measurement of outcomes and results that generates reliable data on the effectiveness and efficiency of programs and plans. Performance measure will be used to measure the results of proposed management and restoration options.

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 Greater Pensacola Bay System Working Group process, stakeholders include but are not limited to: agriculture, silviculture, business, real estate, economic development, tourism, environmental, citizen groups, recreational fishing, commercial seafood industry, local government, state government, federal government, universities, and research interests.