# OYSTER ECOSYSTEM-BASED FISHERY MANAGEMENT PLAN (O-EBFM) FOR THE GREATER PENSACOLA BAY SYSTEM (GPBS)

# GPBS STAKEHOLDER WORKING GROUP

# MEETING III—MEETING SUMMARY

**JANUARY 15, 2020**

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

| *Convened by:* | *Facilitated and Summarized by:* |
|---|---|
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# January 15, 2020

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The Nature Conservancy

## OYSTER ECOSYSTEM-BASED FISHERY MANAGEMENT PLAN (O-EBFM) FOR THE GREATER PENSACOLA BAY SYSTEM (GPBS)

# GPBS STAKEHOLDER WORKING GROUP MEETING III EXECUTIVE SUMMARY- January 15, 2020

Anne Birch, Florida Marine Program Manager, The Nature Conservancy, welcomed the Stakeholder Working Group members back to the third meeting. Anne noted The Nature Conservancy (TNC) was excited about the outcomes from the first two meetings and looking forward to this meeting as we work together over the next 15 months seeking consensus on an oyster ecosystem-based fishery management plan for the Greater Pensacola Bay System.

Anne introduced Facilitated Solutions LLC and the facilitation team of Jeff Blair and Bob Jones. Members introduced themselves and the facilitator reviewed the meeting objectives and agenda and participation principles. The members agreed to follow the agenda and the Working Group accepted the Facilitator Meeting II Summary without changes.

Mike Norberg with the Florida Fish and Wildlife Conservation Commission (FWC) presented on the oyster fisheries in Florida that are co-managed by several state and federal agencies/organizations with varying degree of involvement or authority. The wild harvest is managed by the FWC, Aquaculture and oyster food safety is regulated by FL Department of Agriculture and Consumer Services (FDACS) Division of Aquaculture, responsibility for habitat and water quality is shared by FWC, Florida Department of Environmental Protection (FDEP) and FDACS. Research and industry development is handled by the FWC, Sea Grant, FDACS and the U.S. Food and Drug Administration (FDA).

Mike outlined the FWC's role in oyster management, including their management authority and the management process. The FWC Division of Marine Fisheries Management is responsible for oyster management; FWC Division of Law Enforcement is responsible for enforcement; the Division of Habitat and Species Conservation (HSC) Marine Estuarine Subsection and the FWRI are responsible for restoration and FWRI is responsible for monitoring. Fisheries-independent monitoring data is collected by a biologist, and fisheries-dependent monitoring data is derived directly from commercial catch from the sale of all wild-harvested seafood products which must be reported. Recreational oyster harvest data is not captured in monitoring programs.

The FWC Management activities are guided by an annual workplan which outlines and prioritizes topics intended to be addressed during the year. These are presented to the full FWC Commission with staff recommendations based on data collection and analysis, including stakeholder input, and modified or approved by the Commission.

Mike noted the following state oyster initiatives on the FWC workplan for FY19/20 of relevance to the Pensacola planning effort: : Greater Pensacola Bay System O-EBFM Working Group; Apalachicola Bay System Initiative (FSU) (research track to gain insight on oyster declines and a Community Advisory Board); FWC Apalachicola Bay Oyster Restoration – Phase I and FWC Apalachicola Bay Oyster Restoration Phase II (includes multiple partnerships-FSU/ABSI, UF, FDACS, Extensive restoration and management planning, and the Suwannee Sound baseline oyster assessment and management plan);

Florida Oyster Recovery Science Working Group; and multiple other projects being conducted or developed.

Michelle Smith presented on the FDACS shellfish harvesting area classification program noting that the management goals were to: maximize the acreage allowed for the harvest of shellfish; minimize the number of days closed to harvest; protect consumers from shellfish borne illnesses; and achieve goals by following guidelines set forth by the FDA and National Shellfish Sanitation Program (NSSP). She described the Comprehensive Shellfish Harvesting Area Survey, which includes the pollution source survey as well as water sampling and data analysis to determine classification and a management plan.

Management of Shellfish Harvesting Areas sometimes require temporary closures when rainfall or river levels exceed levels specified in the management plan or when emergency conditions arise (e.g. sewage spills, tropical storms/ hurricanes, harmful algal blooms). In terms of re-openings, the water sample results must indicate improvement in environmental conditions and shellfish meat samples may be needed for emergency conditions. For harmful algal blooms re-openings will need a combination of passing water and shellfish meat samples.

Portia Sapp presented on the FDACS Aquaculture Leasing program. FDACS administers over 700 aquaculture leases containing more than 2,000 acres. Aquaculture is the production of aquatic organisms including oysters but also involving other shellfish, crustaceans, fish, plants and reptiles.

Portia described the FDACS process for securing aquaculture leases for both new and existing leases: after an application is received and reviewed, a title determination for state-owned submerged lands and a site assessment and resource assessment survey is completed. Water column leases will need to apply for a Private Aids to Navigation permit. There is state, federal and local government review and a public hearing. Following that is a review and Governor and Cabinet authorization. Following authorization, a final lease document and Aquaculture Certificate are sent to the applicant and administration.

She also highlighted the potential advantages of Aquaculture Use Zones (AUZs): consolidates applications; stimulates and supports development in specific regions; facilitates resource surveys; reduces survey and marking costs; reduces potential user conflicts; encourages compliance with regulatory policies; and facilitates law enforcement and security. Aquaculture Lease Maps are available on the FDACS website at https://www.fdacs.gov/Agriculture-Industry/Aquaculture/Aquaculture-Submerged-Land-Leasing/Aquaculture-Lease-Parcel-Availability-Maps

The Working Group posed questions touching on a range of topics: frequency of Pollution Source Surveys; frequency of water samples; sample fecal coliform not metals or nutrients; no real-time data from sampling sites; closures cover both wild and aquaculture oysters; management plan updates incorporate land use changes based on water quality and include triggers for closing areas; recovery plans are undertaken by local government for a closed area; waterfront owner education on chemical and fertilizer use; FDA uses fecal coliform but it doesn't capture other pathogens such as Enterococci.

Farris Bukhari, Director of Strategic Communications and Marketing for TNC Florida offered a presentation on how communications could move the needle for the Greater Pensacola Bay System. He suggested the traditional view of marketing and communications is relatively limited. He suggested a broader view is discovering, developing and delivering the message It all comes together when you practice a multi-level combination of awareness (increasing the breadth and depth of audience understanding), engagement (encouraging interest and participation in our work and future plans for the

bay), reputation (protecting and enhancing the Working Group's position, work and strategy) and influence (shaping the conversation and driving action).

The communication for this project will need to tap the Working Group members to discover key target audiences, develop goals and messages, and deliver specific narratives. This is done through combining different touchpoints such as social media, digital, earned media, direct marketing, and events

He suggested he would like to work with the Working Group members to help with communication and marketing strategies to propel the plan, and noted that members can serve as connectors, advisors, ambassadors, and influencers. He suggested that an ongoing feedback loop was important to keep the message focused and strategic.

The Working Group agreed on the "vision of success" themes that were drawn from the questionnaire responses, reviewed and rated at the October 9 and November 15 Working Group meetings. The vision themes represent key topical issue areas that characterize the desirable future for the oyster reef ecosystem and the GPBS. At this meeting the Working Group agreed on the vision themes, goals, outcomes, and identified key topical issues and potential objectives and strategies.

### A. A HEALTHY AND PRODUCTIVE OYSTER REEF ECOSYSTEM

**Vision Theme:** 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:** Identifiable and achievable targets; growth impacts on the Bays; public understanding and support; best practices as a framework for recommendations; link the Oyster Plan to the new Estuary Program and CCMP; understand and model successes from other estuaries and scale up faster; leverage and support funding for advance wastewater treatment facilities and removal of surface water discharges; geospatial mapping; integrate agency management plans. Integrate and build on existing management plans; identify projects. identify existing and planned projects; resiliency and adaptive management as guiding principles; mitigate impacts to healthy PBS; clarify and mitigate potential impacts to sustainably managing a healthy PBS; identify historical stressors; address septic systems; stormwater runoff and bacteria to the water bodies; and state and federal funding.

**Potential Objectives and Strategies:** Ecosystem impediments; sustainability and restoration targets; target more reef habitat; increase habitat availability; improve characterization of, mapping and data on reef habitat and oysters and the value of fishery independent data (biology); identify and secure short and long term funding sources for implementation; fund ongoing monitoring program to look at baseline and track progress; address and recover other shellfish and finfish in the habitat; consider bulk filtration; consider nitrogen removal; consider resiliency and wave attenuation; Seagrass and oysters; water quality; target substrate availability; shell recycling programs; stream restoration; sediment loading and sedimentation strategy; consider scenarios for land use changes; analyze plans and land use development codes; identify targets for conservation easements in sensitive areas; reduce impervious surfaces; education on awareness and outreach for engagement; and interface with local government.

## 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; "fair and equitable" in the proposed outcome; try to address licensing.

**Potential Objectives and Strategies:** Spatially-explicit targets; retain a sustainable wild oyster fishery over the longer term; recurring funding for the management, regulation and enforcement of the fishery; assess regulations; develop consensus management tools; integrated interagency management regime; consider terrestrial inputs; real time information on wild caught and aquaculture; stakeholder input into regulatory strategies for the managing agencies; recreational oyster harvest; reef resiliency (at Bay scales). Consider aquaculture education and opportunities; proactive Aquaculture Use Zones; mitigate and prevent user conflicts; newcomers and public appreciation of the Bay; competing use of the Bay; public right of way/access; incorporate recreation oyster fishing; and assessing the oyster stocks.

## B. 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.

**Proposed Alternate 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

**Potential Objectives and Strategies**: Develop economic measures; communication tools and message; develop an economic report card reflecting the economic value of the Bay; ROI- in terms of support of the oyster reef system of the local economy- fisheries and ecoservices; outreach and education of tourists on value of Bay; fish productivity; and address residential economy and impacts on the Bay.

### C. An Engaged and Informed Public and Decisionmakers

**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.

**Outcome:** By 2030, the Greater Pensacola Bay System, stakeholders, private and nonprofit civic leaders, and the public 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:** At the November 15, 2019 meeting members brainstormed key topical issues including: Communication strategy to bring the PBS back to health; marine habitats; Estuary Program CCMP; local government support; unique community/state partnership; distrust of science; and benefits to community for restored system.

**Potential Objectives and Strategies**: Better coordinating among management agencies; create an information portal; secure local government support for the plan; aquaculture education; ecotourism; create an Oyster Trail; link into the Estuary Program; build on cultural heritage; and engage locals and visitors through citizen science and monitoring.

The facilitator noted the draft performance measures could help to assess potential management options the Working Group will identify. He suggested that we could organize the strategies by the tools we have to measure them and those we can't. The Working Group suggested focusing on what we can do presently (low hanging fruits) and what will require additional resources. The Working Group discussed and added to the measures in the following five performance categories: oyster harvest; economics; oyster population; habitat; and ecosystem services.

The facilitators reviewed possible agenda items for the Meeting IV, which will take place March 18, 2020 at the UF/IFAS Extension Office in Santa Rosa County. The Working Group members suggested consideration of the following presentations and discussions: Draft objectives and strategies based on this meeting discussion and annotate in terms of performance measures; provide an opportunity for watermen perspectives; presentation on the Pensacola & Perdido Bays Estuary Program; presentation on the updated habitat suitability map; economic presentations

*The members completed meeting evaluation forms and adjourned at 3:00 pm. CST.*

# OYSTER ECOSYSTEM-BASED FISHERY MANAGEMENT PLAN (O-EBFM) FOR THE GREATER PENSACOLA BAY SYSTEM (GPBS)

# GPBS STAKEHOLDER WORKING GROUP MEETING III DETAILED SUMMARY- January 15, 2020

*This section provides a more detailed summary of the meeting with additional data from the presentations and verbatim comments from the Working Group members during review and discussion of the themes.*

## I. INTRODUCTION

### A. WELCOME

Anne Birch, Florida Marine Program Manager, The Nature Conservancy, welcomed the Stakeholder Working Group members back to the third meeting. Anne noted The Nature Conservancy (TNC) was excited about the outcomes from the first two meetings and looking forward to this meeting as we work together over the next 15 months seeking consensus on an oyster ecosystem-based fishery management plan for the Greater Pensacola Bay System. .

### B. AGENDA, CONSENSUS PROCEDURES AND GUIDING PRINCIPLES REVIEW

Anne introduced Facilitated Solutions LLC and the facilitation team of Jeff Blair and Bob Jones. Members introduced themselves and the facilitator reviewed the meeting objectives and agenda and members agreed to follow the agenda.

The facilitator briefly reviewed the Working Group operating assumptions and participation principles and consensus building procedures adopted at the first meeting. They also reviewed a set of guiding principles adopted at the first meeting covering: respecting differences; collaboration and consensus building; clear procedures equitably applied; and serving as accessible liaisons with the stakeholder groups and interests they have been appointed to represent.

## II. REQUESTED PRESENTATIONS ON THE GREATER PENSACOLA BAY SYSTEM

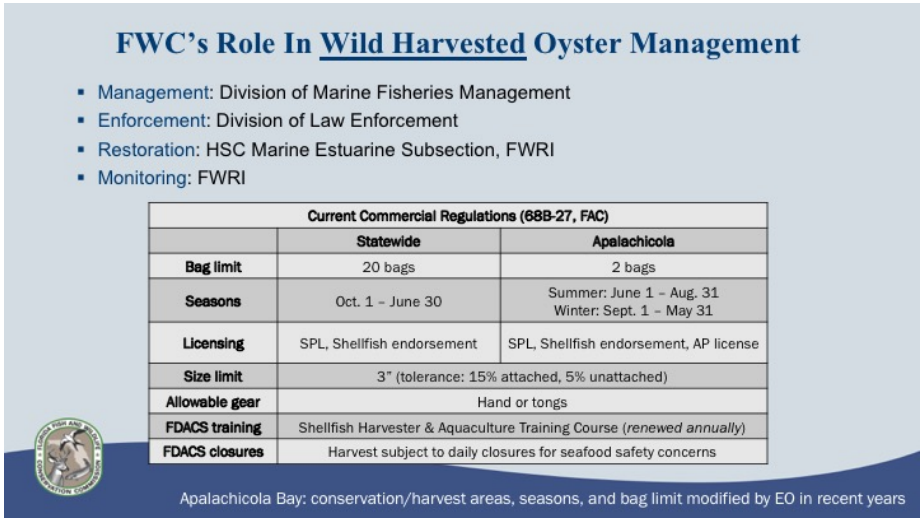
### A. OVERVIEW OF OYSTER MANAGEMENT IN FLORIDA

#### 1. Florida Fish and Wildlife Conservation Commission

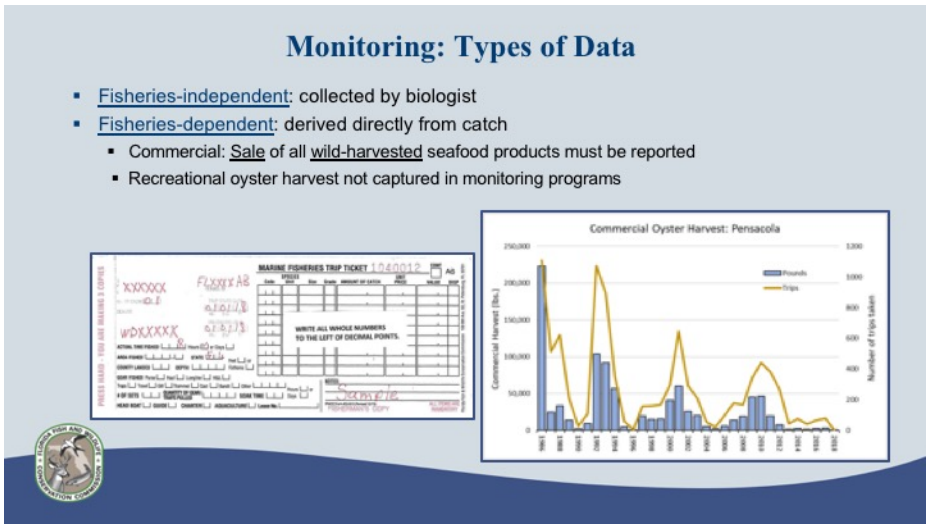
Mike Norberg with the Florida Fish and Wildlife Conservation Commission (FWC) presented on the oyster fisheries in Florida that are co-managed by several state and federal agencies/organizations with varying degree of involvement or authority. The wild of harvest are managed by the FWC, aquaculture and oyster food safety is regulated by FDACS, responsibility for habitat and water quality is shared by FWC, FDEP and FDACS. Research and industry development is handled by the FWC/FWRI, Sea Grant, FDACS and FDA.

The FWC is composed of seven commissioners who are appointed by Governor and confirmed by Legislature. The Commission's authority in state waters is provided by the 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…". The Commission has been granted authority to enforce regulations in federal waters. Fines and penalties and licensing fees and statutes are enacted by the legislature.




Mike outlined the FWC's role in oyster management, including their management authority and the management process. The FWC Division of Marine Fisheries Management is responsible for oyster management; FWC Division of Law Enforcement is responsible for enforcement; the HSC Marine Estuarine Subsection of FWRI is responsible for restoration and FWRI is responsible for monitoring.




Fisheries-independent monitoring data is collected by a biologist, and fisheries-dependent monitoring data is derived directly from commercial catch from the sale of all wild-harvested seafood products which must be reported. Recreational oyster harvest data is not captured in monitoring programs.

The FWC's management activities are established through an annual workplan which outlines and prioritizes topics intended to be addressed during the year. These are presented to the full FWC

commission with staff recommendations based on data collection and analysis, including stakeholder input, and modified or approved by the Commission. In FY19/20 there were 50 items, 10 of which were new for the fiscal year. Unanticipated "fly-in" items are those that emerge outside the work planning process and require a re-focusing or shift in FWC management priorities during the year.

Mike noted the following state oyster initiatives on the FWC workplan for FY19/20 of relevance to the Pensacola planning effort: Greater Pensacola Bay System O-EBFM Working Group; Apalachicola Bay System Initiative (FSU) (research track to gain insight on oyster declines and a Community Advisory Board); FWC Apalachicola Bay Oyster Restoration – Phase I and FWC Apalachicola Bay Oyster Restoration Phase II (includes multiple partnerships-FSU/ABSI, UF, FDACS, extensive restoration and management planning, and the Suwannee Sound baseline oyster assessment and management plan); Florida Oyster Recovery Science Working Group; and multiple other projects being conducted or developed.

**2. FDACS- Division of Aquaculture Programs**

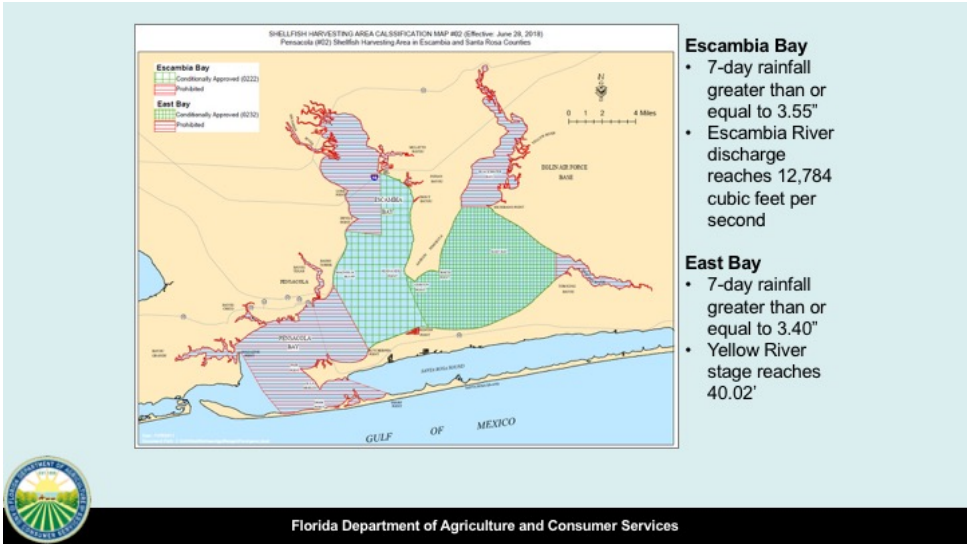
Michelle Smith presented on the Florida Department of Agriculture and Consumer Services (FDACS) shellfish harvesting area classification program noting that the management goals were to: maximize the acreage allowed for the harvest of shellfish; minimize the number of days closed to harvest; protect consumers from shellfish borne illnesses; and achieve goals by following guidelines set forth by the FDA and National Shellfish Sanitation Program (NSSP).

She described the Comprehensive Shellfish Harvesting Area Survey which includes the pollution source survey, as well as water sampling and data analysis to determine classification and a management plan.

The pollution source survey identifies all potential pollution sources in the study area. It includes marinas, wastewater treatment plants, septic tanks, stormwater outfalls, and areas with concentrations of domestic or wild animals.

Water sampling is conducted from fixed stations throughout harvesting areas and it monitors for water temperature, salinity, DO, and pH. FDACS water samples are sent to the lab in Apalachicola where they are analyzed for fecal coliform bacteria. When fecal coliform is present, it is considered an indication that human pathogens may be present.

An analysis of both geospatial survey data and water quality data is used to determine area-specific classification categories that are reflected in the shellfish harvest management plan. Rainfall and river levels are recorded daily and statistical analysis is used to assess correlations between fecal coliform and rainfall/river levels. This allows staff to determine the management plan closure criteria and classification for an area based on rainfall or river flows.

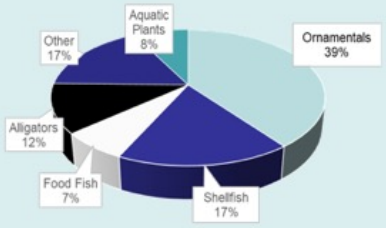



Management of Shellfish Harvesting Areas sometimes require temporary closures when rainfall or river levels exceed levels specified in the management plan or when emergency conditions arise (e.g. sewage spills, tropical storms/ hurricanes, harmful algal blooms. To re-open areas following rainfall or river-flow driven closures, water sample results must indicate improvement in environmental conditions; shellfish meat samples may also be assessed for other emergency conditions that necessitate closures based on the FDACS management plan (e.g., harmful algal blooms require a combination of water samples and shellfish meat samples).


Portia Sapp presented on the FDACS Aquaculture Leasing program. FDACS administers over 700 aquaculture leases containing more than 2,000 acres. Aquaculture is the production of aquatic organisms including oysters but also involving other shellfish, crustaceans, fish, plants and reptiles.

## Florida's Aquaculture Industry

- 2013 sales: $77.9 million
- ~1000 Aquaculture Certificates of Registration
- ~800 species in production




Florida Department of Agriculture and Consumer Services

## Commercial Oyster Sales

| | 2016 | | 2017 | | 2018 | | 2019 to date | |
|---|---|---|---|---|---|---|---|---|
| | Shell Lbs | No. Shellfish | Shell Lbs | No. Shellfish | Shell Lbs | No. Shellfish | Shell Lbs | No. Shellfish |
| Aquaculture | 1.4 million | 5.9 million | 482.5 K | 2.5 million | 808 K | 4.2 million | 809 K | 4.2 million |
| Wild | 8.3 million | 43.2 million | 7.1 million | 37 million | 4.4 million | 22.7 million | 2.4 million | 12.3 million |

Florida Department of Agriculture and Consumer Services

Portia described the FDACS process for securing both new and existing aquaculture leases: after an application is received and reviewed, a title determination for state-owned submerged lands and a site assessment and resource assessment survey is completed. Water column leases will need to apply for a Private Aids to Navigation permit as well. There is state, federal and local government review and a public hearing for new leases, followed by a review and Governor and Cabinet authorization. Following authorization, a final lease document and Aquaculture Certificate can be sent to the applicant and administration.

She also highlighted the potential advantages of Aquaculture Use Zones (AUZs): consolidates applications; stimulates and supports development in specific regions; facilitates resource surveys; reduces survey and marking costs; reduces potential user conflicts; encourages compliance with regulatory policies; and facilitates law enforcement and security. Aquaculture Lease Maps are available on the FDACS website



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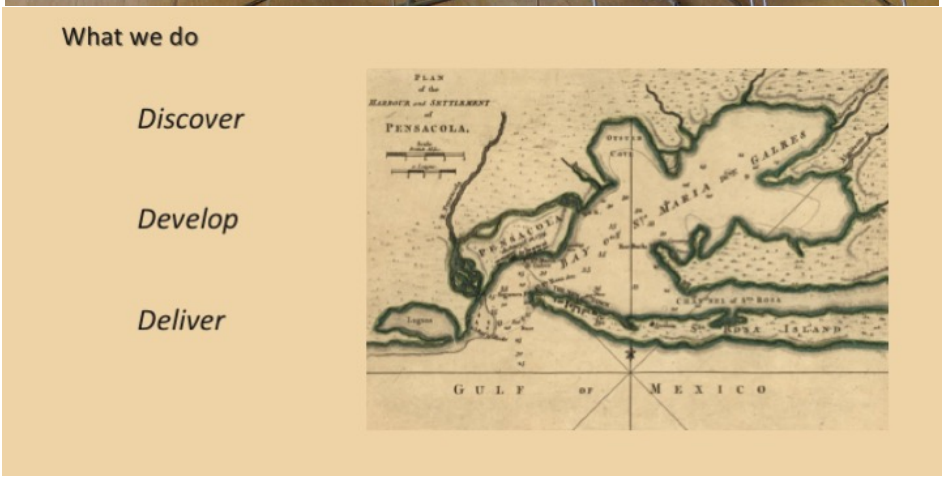
at https://www.fdacs.gov/Agriculture-Industry/Aquaculture/Aquaculture-Submerged-Land-Leasing/Aquaculture-Lease-Parcel-Availability-Maps

**Working Group Comments**

- How often are Pollution Source surveys conducted?
  A: Every 12 years
- Is remote sensing used?
  A: It is used in documenting wastewater treatment plants, surface water discharge buffer zones, and estimates of houses on septic systems
- What territory do you cover?
  A: Michelle Smith's district is from Escambia to Bay Counties. There are 39 harvest areas statewide
- In terms of pollution sources do you sample for metals or nutrients?
  A: No, only fecal coliform (but DEP monitors nutrients and other contaminants on a periodic basis).
- How often are water samples taken?
  A: They are taken monthly on a regular schedule. We sample during closures to determine whether the areas are ready for reopening. We also sample for rain events above a certain threshold.
- Does closure apply to both wild harvest and aquaculture?
  A: Yes
- Is the Management plan for Pensacola Bay on the FDACS website?
  A: Yes it covers marinas as well buffer zones
- When was the Management Plan last updated?
  A: 2016 and 2018. The Management Plan includes statistical models and triggers for threshold levels and when exceeded the area closes.
- Are there recovery plans for closed areas?
  A: Often this would require significant change in areas closed. FDACS doesn't create recovery plans. E.g. in a conditionally restricted area, it may be reopened after the removal and replacement of a septic tank system. Stations are sampled in restricted areas and they may function as recovery for spat for the system but there can't be harvest. E.g. Gulf Breeze septic tanks mean the area is prohibited. (NOTE: this is a useful entry point for the Working Group to develop strategies to meet plan objectives)
- It would be helpful to educate waterfront homeowners and developers on chemicals to use and to not use in septic systems and landscaping applications.
- Is there real time data available?
  A: No real time data from the sampling sites.
- How far back does the data go?
  A: To 1986.
- Do updates for management plans incorporate land use changes?
  A: It is based mainly on water quality. (However, see NOTE above)
- Fecal Coliforms vs. Enterococci (ENT). The FDA reviewed programs including the FWC. FDA should make a change in considering indicators of other pathogens, e.g. human pathogen vs. other animal pathogen.
  Note: Bacteria source tracking can help to identify potential sources of contamination and can inform management strategies that help to improve water quality results.

## B. How Communications Can Help Move the Needle

Farris Bukhari, Director of Strategic Communications and Marketing for TNC Florida offered a presentation on how communications could move the needle for the Greater Pensacola Bay System. He suggested the traditional view of marketing and communications is relatively limited and outlined a broader view for discovering, developing and delivering the message. It all comes together when you practice a multi-level combination of awareness (increasing the breadth and depth of audience understanding), engagement (encouraging interest and participation in our work and future plans for the bay), reputation (protecting and enhancing the Working Group's position, work and strategy) and influence (shaping the conversation and driving action).

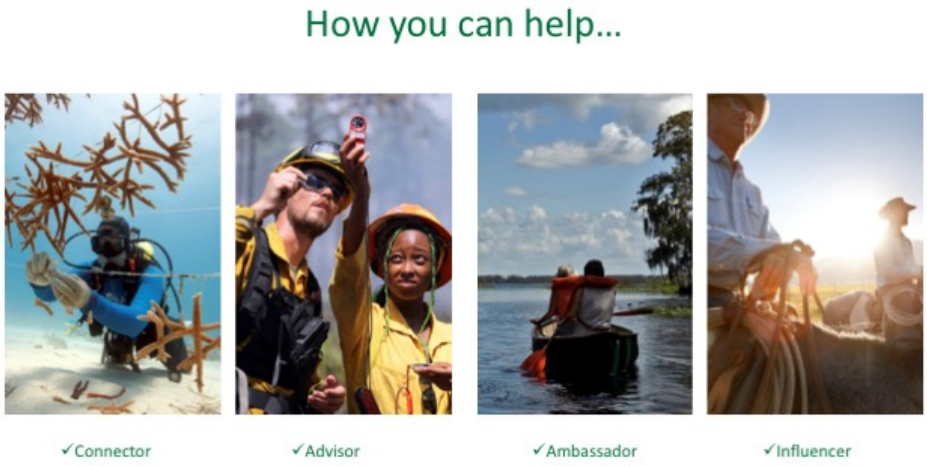





The Nature Conservancy

The communication for this project will need to tap into the Working Group members to discover key target audiences, develop goals and messages, and deliver specific narratives. This is done through combining different touchpoints such as social media, digital, earned media, direct marketing, and events

He suggested he would like to work with the Working Group members to help with communication and marketing strategies to propel the plan, and noted that members can serve as connectors, advisors, ambassadors, and influencers. He suggested that an ongoing feedback loop was important to keep the message focused and strategic.




## III. GREATER PENSACOLA BAY SYSTEM VISION OF SUCCESS THEMES, GOALS, OUTCOMES, KEY ISSUES, OBJECTIVES & STRATEGIES

The Working Group agreed on the "vision of success" themes that were drawn from the questionnaire responses, reviewed and rated at the October 9 and November 15 Working Group meetings. The vision themes represent key topical issue areas that characterize the desirable future for the oyster reef ecosystem and the GPBS:

**GPBS STAKEHOLDER WORKING GROUP GOAL FRAMEWORK**

A. A HEALTHY AND PRODUCTIVE OYSTER REEF ECOSYSTEM
B. THE MANAGEMENT AND REGULATION OF THE OYSTER FISHERY AND AQUACULTURE INDUSTRY
C. A THRIVING ECONOMY CONNECTED TO THE GREATER PENSACOLA BAY SYSTEM
D. AN ENGAGED AND INFORMED PUBLIC

At this meeting the Working Group agreed on the vision themes, goals, outcomes, and identified key topical issues and potential objectives and strategies.

## A. A HEALTHY AND PRODUCTIVE OYSTER REEF ECOSYSTEM

**Vision Theme:** 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.
*WG Comments 1-15-20*

- OK

**Draft Goal:** The Greater Pensacola Bay System sustains a healthy and productive oyster reef ecosystem.
*WG Comments 1-15-20*

- OK

**Draft Outcome:** By 2030, the oyster reef ecosystem within the Greater Pensacola Bay is managed in a sustainable manner providing measurable ecosystem services.
*Working Group Comments 1-15-20*

- Does this capture "fisheries" and enhancing fishery habitats?
  A: Yes.

**Key Topical Issues:** At the November 15, 2019 meeting members brainstormed key topical issues including:

- **Targets:** Identifiable and achievable targets
- **Growth**
- **Public understanding and support**
- **Best practices** as a framework for recommendations
- **Estuary Plan.** Link the Plan to the Estuary Program
- **Model successes** from other estuaries and scale up faster
- **Wastewater treatment.** Leverage and support funding for advance wastewater treatment facilities and removal of surface water discharges
- **Geospatial mapping**
- **Integrate agency management plans.** Integrate and build on existing management plans
- **Identify projects.** Identify existing and planned projects
- **Resiliency and adaptive management** as guiding principles
- **Mitigate impacts to healthy PBS.** Clarify and mitigate potential impacts to sustainably managing a healthy PBS.

*Additional Key Topical Issues WG 1-15-20:*

- **Wastewater treatment.** Add to the issue: Leverage and support funding for advance wastewater treatment facilities and removal of surface water discharges. Smaller ones are not yet there.
- **Historical stressors.** Something to provide a historical perspective on stressors on the system? Outcome of the plan or an information piece. Discovery objective as a part of the plan- survey the past efforts.
- **Septic systems.** Should be mentioned.
- **Stormwater runoff and bacteria** to the water bodies.
- **State and federal funding.**
  - Raise level of importance for state and federal funding. Raise the level and awareness of the funding needs.
  - Increase funding for this area in relation to Apalachicola.

- Beyond DWH funding is needed.
- Florida Panhandle needs to get more support and funding that has gone to other areas around the state coasts.

- **Rapid growth impacts the watershed and Bays**. Need to connect this to the Plan.
- **Estuary program** emerging. This project focuses on the reef system and drill down on and have a sharper focus on this.
- We should seek to incorporate this into the Estuary Program's CCMP as it develops. 2 vehicles in motion.

**Potential Objectives and Strategies**

- **Ecosystem impediments.** Identify the impediments in the ecosystem presently. Address in the Plan and solve those problems and impediments.
- **Targets.** "Restoring back" vs. and/or "sustainable forward"
  - Historical data to set targets should not prevent us from focusing on the best we can do today and in the future.
  - Restoration to historic baseline? Look at where oyster reefs can exist today. Restoration in a broader context- habitat creation (where it once existed or where new places given changes in the system). Adaption is important, there can be more than there is today. Creative about where it can happen.
- **Target more reef habitat.** Setting targets for more reef habitat- (what we have now)- management objective- more oyster reef habitat.
- **Increase habitat availability**. Quantitative reduction in the FDACS prohibited areas as an outcome to increase habitat availability.
- **Characterization of, mapping and data on reef habitat.**
  - Better characterization of the reef habitat in the system itself.
  - Data generation needs to be a primary objective for this goal.
  - Habitat assessment underpins fishery assessment.
  - Oyster size. What size oysters are there – condition analysis.
  - Emphasize the value of independent data (biology)
  - State's Oyster Integrated Mapping and Monitoring Program (OIMMP) Mapping info for the Bay. Don't know a lot of what we have. Data assessment and historical information. 90% loss of reef habitat. The OIMMP document on the Greater Pensacola Bay can be revised with new data, as appropriate.
  - 3D mapping- old reefs 8 feet high. Maintaining the elevation out of the sediments. Have the area but not the third component.
  - Santa Rosa County mapping, by TNC per a grant with the county, will be underway soon. Mapping also needs to be conducted in Escambia County (need to identify funding)
  - SWIM plan documented changes from the 1950s when there was approx. 10,000 acres of oyster reefs
- **Identify and secure funding sources for implementation**. Need long term recurring funding no one time funding.
- **Fund ongoing monitoring program** to look at baseline and track progress.
- GIS to synergize existing data- gather for the watershed with this project.
- **Other shellfish, finfish and habitat.** Recovery of other shellfish and finfish in the habitat
- Species enhanced with healthy oyster reefs. How many other species in the mix.

- **Bulk filtration** – set a target for the total water filtered by oyster reefs at different levels of oyster abundance
- **Nitrogen removal**- benefit with living oyster reefs. (Cedar Key research/data). Shellfish doing this for free.
- **Resiliency and wave attenuation** and structure to help with storms. Protecting inland infrastructure
- **Seagrass** co-benefits that oysters provide.
- **Water quality.** What are the essential parameters for ecosystem services- water quality,
- Oyster habitat suitability maps (2D) where spatially it is OK to be an oyster in the bay system. E.g. expanded 3 x oyster reefs will require substrate support and availability.
- **Target substrate availability.** What is the cause of substrate availability-
  1. Extraction of oyster shell material (shell budget)
  2. Sedimentation/burial challenges for
  3. Altered hydrologic conditions (salinity, flows timing and magnitude, changes in climate
  4. Overall water quality
- **Shell recycling programs** so material doesn't leave the bay system
- **Stream restoration** in the counties.
- **Sediment loading.** Land side issues. What is going on landside is important- sediment loads- channelized and no longer in the flood plains.
- Sediment is a big shift in the system- stormwater runoff and industry.
- **Sedimentation strategy**? Clay and silt. Land use changes. Building on the landscapes.
  E.g. DOT putting pilons for the bridge- had to go 120 feet through sediment and from 120-150 foot hit hard bottom.
- **Land use changes** have contributed to problems in the ecosystem.
  - e.g. Tampa Estuary program had increase seagrass as a primary target
  - Oyster calculator tool- biomass and area are measured.
  - Provide a definition for a healthy ecosystem?
- **Review with public different land use scenarios.** Land use- public understanding- visual patterns of land use going forward. Looking at different scenarios for growth and impacts on quality of the bay.
- **Analyze plans and land use development codes.** Analysis of land development codes and plans.
- **Identify targets for conservation easements in sensitive areas.** Land use- are there identifiable key areas for greater conservation easements for sensitive areas, to minimize insults to restoration.
- **Reduce impervious surfaces.** Work to decrease and mitigate impervious surfaces in the basin
- **Education on awareness and outreach for engagement.** Increase the programs- for education and outreach and awareness and engagement.
- **Interface with local government.** Interfacing with local government. Get the data from them to make more effective in communicating with them on recommendations.

## 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.

*WG Comments 1-15-20*

- Leave management and regulation together.
- "Create and monitor"- stakeholders?

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

*WG Comments 1-15-20*

- OK

**Proposed Alternate 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.

~~**Draft Outcome:** By 2030, stakeholders have established and supported a productive, science driven, sustainably managed, monitored, and appropriately and fairly regulated oyster fishery reef ecosystem and integrated with the aquaculture industry in the Greater Pensacola Bay System.~~

*WG Comments 1-15-20*

- Does it need to be described as "complementary"
- "Sustainably managed"
- Stakeholders: monitors?

**Key Topical Issues:** At the November 15, 2019 meeting members brainstormed key topical issues including:

- 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; and
- Regulation of aquaculture.
- "Fair and equitable" in the proposed outcome? Add this an issue?
- Trying to address licensing. Can build a preference for locals or specific user types.

**Potential Objectives and Strategies**

- **Spatial targets.** Understanding where you want aquaculture, wild oysters, habitat for ecoservices. How much do you want spatially for these

- **Retain a sustainable wild oyster fishery** over the longer term
- **Recurring funding for the management, regulation and enforcement** of the fishery
- **Assess regulations**.
  - Assessment of current regulations support by those being regulated?
  - Oysters- not enough regulation and enforcement?
  - Pensacola & Perdido Bays Estuary Program will do an assessment of the regulatory context. It is a consensus-based group.
- **Tools.** Developing consensus management tools- e.g. a shell budget model tool
- **Integrated interagency management regime** among the various agencies
- **Terrestrial inputs.** Identify and regulate terrestrial inputs to the system (e.g. farming, septic systems etc.)
- **Education and tools and real time information**
  - On wild caught and aquaculture to let them better evaluate what they are doing
  - Encourage buy-in from the stakeholders in the process of recommending regulatory strategies for the managing agencies.
- **Recreational harvest.** Addressing the lack of recreational harvest opportunities? Account for recreational.
- **Reef resiliency.**
  - Add "Resiliency"- in the fishery as well.
  - Ties into shell budgets, bio targets for fishery stock.
  - Management objective to deal with reef by reef resilience analysis tied to what the biology tells us
- **Aquaculture opportunities.**
  - Improving/expanding aquaculture education and opportunities? FDACS Id areas for aquaculture use zones? Outreach and education about aquaculture.
  - Facilitate education and ~~conversion~~ of wild caught fishermen to consider aquaculture opportunities?
  - How can we keep cultural heritage of working on the water. They might do both. Training and education- business planning, financial planning.
  - Proactive Aquaculture Use Zone- e.g. pre-allocated space, mechanisms for intro to this new fishery.
  - Seen some public objections e.g. of aquaculture facilities, living shorelines. Opportunity for public input upfront. Need to address this in the plan. Get homeowners involved. How to best address potential public objections.
  - Developing protection for aquaculture leases. E.g. touch a commercial crab trap is a felony. Look at penalty structure. That would be a statutory change.
  - Improving communication between aquaculture and FWC law enforcement.
- **Prevent user conflicts.** Different user groups- appreciate the Bay in different ways. Prevent conflicts by anticipating this.
- **Incentives** for projects and land use changes.
- **Newcomers and public appreciation of the Bay.** Newcomers- welcome and education – about importance of the industry and the Bay's health (NOTE: is this a role or Chambers of Commerce, tourism boards, real estate and homebuilders associations?).
- **Competing use of the Bay strategies**- build in/need real time information.
- **Public right of way/access**

- Go to water and collect food for family. Address limiting access to the water.
- Relate to the engaged public vision theme.

- **Recreation oyster fishing.**
  - Future oyster fishery. Regulate and manage a recreational component of the oyster reef fishery? Real time info needed (e.g., annual surveys, or perhaps 'app-based' data collection)
  - Recreational regulations- similar to commercial. No trip ticket and no data associated. Objective on providing an adequate basis for regulation
  - FWC Dockside surveys- for anglers?
  - Oyster qualification on fish license – education and/or agree to provide data.
- **Assessing the oyster stocks.** Routine detailed assessment of oyster stocks to inform management on trends.

## 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.
*WG Comments 1-15-20*

- OK

**Draft Goal:** A healthy Bay System contributes measurably to a thriving economy for the Greater Pensacola Bay region.
*WG Comments 1-15-20*

- OK

**Proposed Alternate 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.
~~**Draft Outcome:** By 2030, the Greater Pensacola Bay region is thriving economically, enhanced by achieving and sustaining a healthy Bay System that supports a cultural heritage of an oyster fishery, oyster reef ecosystem, and aquaculture, and provides opportunities for sustainable and responsible industry, development, business, recreation and tourism.~~
*WG Comments 1-15-20*

- OK

**Key Topical Issues:** At the November 15, 2019 meeting members brainstormed key topical issues including:

- Growth and conflicts among users.
- Aquaculture regulation and user conflicts;
- Aquaculture Use Zones;
- Economic activities that rely on a health 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
- Promotion and branding of aquaculture and oysters and the health of the Bay

**Potential Objectives and Strategies**

- **Develop economic measures.** Economic measures needed to meet the goal. What are they?
- **Communication tools**
  - Help the public understand the Bay and its ecosystem contributes to the economy.
  - The story to be told
  - Develop an economic report card reflecting the economic value of the Bay. Services and economic components included.
  - ROI- in terms of support of the oyster reef system of the local economy- fisheries and ecoservices
- **Outreach and education of tourists**- about the Bay and its continuing health
- **Fish productivity** put in economic terms and measured- charters and rec fishing tied to oyster reefs.
- **Address residential economy and impacts on the Bay.** The regional thriving economy includes growing residential with impacts of the health of the Bay.

### D. AN ENGAGED AND INFORMED PUBLIC AND DECISIONMAKERS

*WG Groups comments on vision theme headline 1-15-20*

- Making informed decisions? "Decision makers"?
- "elected and appointed leaders and managers" "Governmental", "Community"?
- Elected officials set priorities for staff and managers.

**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.
*WG Comments 1-15-20*

- OK

**Draft Goal:** The oyster reef ecosystem of the Greater Pensacola Bay System is supported and protected by an engaged and informed public.
*WG comments 1-15-20*

- Include governmental appointed and elected representatives
- Proposed recommendations will be reviewed by elected officials
- OK

**Draft Outcome:** By 2030, the Greater Pensacola Bay System, stakeholders, private and nonprofit civic leaders, and the public 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.

*WG Comments 1-15-20*

- OK

**Key Topical Issues:** At the November 15, 2019 meeting members brainstormed key topical issues including:

- **Communication strategy.** A communication strategy to bring the PBS back to health;
- **Marine habitats.** Marine habitats- out of sight out of mind;
- **Estuary Plan.** Plan should fit into the Estuary CCMP;
- **Local government support**
- **Unique community/state partnership**
- **Distrust of science**.

*Additional Key Topical Issues*

- **Benefits to community for restored system.** Lack of information and measures on benefits to the community for a restored system.

**Potential Objectives and Strategies:**

- **Coordinate management among agencies.**
  - Different agencies with oversight aren't on the same page? Some way for current issues to be addressed locally. Hard to connect the dots on different investments and roles
  - Coordination between and among agencies state and local
  - Process with state agencies to have the plan "adopted" "endorse".
  - FWC- have county and cities and organizations appear and support the resulting plan with their commission.
- **Information portal.** Highly visible and user-friendly portal for dissemination of the technical stuff
- **Local government support.**
  - When plan is done, and presented and read into minutes of all local government planning entities in the watershed
  - Cities and Counties "adopt" the plan.
  - Set some education priorities and order in terms of sequence effectiveness
  - Local Government Comp Plans and LDC- State of Florida Comp Plan
- **Aquaculture education.**
  - FDACS- how to assist with aquaculture education. Focus on the panhandle. Bring as a potential career choice for schools.
  - Aquaculture training zone- school- working with schools and UWF. 4 H club and get younger generation educated.
- **Ecotourism**
- **Oyster Trail.**
  - Big Bend/Cedar Key Shellfish Trail- tourism development council (NOTE: this is well-established in Virginia as well).
  - E.g. "Pearl homes" "Pearl" neighborhoods- engagement steps with the development community and residential. See Virginia's "Lynnhaven River Now" for examples of this and other community-engagement strategies that have worked (i.e., water quality closures have decreased dramatically there)-

- **Estuary Program.** Promote a development of a nonprofit to advance community engagement strategies, or promote strategies through the Estuary Program (PPBEP).
- **Cultural heritage.** UWF Archeology heritage cultural water way- 14 counties. Heritage, culture and archeology. National Park Service program.
- **Citizen science and monitoring**.
  - Regional Planning Council- partner and educator, and involved with the Estuary program
  - John Appleyard- community historian. Jack will get with Farris to make a connection with John.

## IV. DRAFT PERFORMANCE MEASURES

The facilitator noted the draft performance measures could help to assess potential management options the Working Group will identify. He suggested that we could organize by the tools we have to measure and those we can't. The Working Group suggested focusing on what we can do presently (low hanging fruits) and what will require additional resources.

### A. HARVEST

- Total harvest in ~~bushels~~ pounds
- Harvest by oyster size category
- Harvest by location
- Harvest by fishery type (recreational/commercial/aquaculture)
  - 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
  - Fraction of oysters that are being harvested

*WG Comments 1-15-20*

- **Aquaculture**- category= metrics? # leases, # of acres under leases. Increase/decrease in aquaculture.
- Some exempt/confidential information is collected by FDACS
- **Water quality new category**- separately. Reduction of inputs, e.g. sediment loads, nutrient loads and its change as a result of the plan
- Affect/reduce "inputs" to the system- will help with other issues
- **Education** as a separate category?
- Means to measure both education and economics
- **Economics**- not just fishery. Impacts on tourism, recreation etc.
- **Carbon removal?**
  - Adoption of practices or enrollment in training.
- **Recreational harvest measures**? Oyster harvest data difficult to capture.
  - How would we capture this data, recurring.
  - Measuring sustainability of scallops- data independent data- pre-season surveys. Shell budgets.

- Get permit added to license- gives you a potential data base. Like a lobster endorsement.
- Renewal of license- ask if you harvested oysters recreationally.
- Limit the license early and charge. Doesn't bring in much money. Perceived as a tax.
- If successful, we need to think about the "then what will we do". Future thinking
- Trip tickets data- oyster size is not being collected. Location is very broad- NOAA codes, FDACS harvest area. Caution "catch per unit" effort as a single metric. Stable even when collapsing.
- Have consistent measurements in terms of oysters.
- Use for performance of strategies.

**B. ECONOMICS**

- Frequency of harvest that meets an economic minimum for sustainability
- % of local 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 management 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
- Total economic investment versus outcome to economy

**C. POPULATION**

- Abundance of oysters in the population
- Density of oysters (number per $m^2$)
- 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)

**D. 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)

*WG Comments 1-15-20*

- Habitat quality metrics?
- Richness, abundance and diversity of other species using the habitat

- Water quality in the habitat.
- Shell budget applies to Habitat, Harvest and Population- zero net loss in terms of the oysters

**E. ECOSYSTEM SERVICES**

- 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

## V. NEXT STEPS

The facilitators reviewed possible agenda items for the Meeting IV, which will take place March 18, 2020 at the UF/IFAS Extension Office in Santa Rosa County. The Working Group members suggested consideration of the following presentations and discussions:

- Draft objectives and strategies based on this meeting discussion and annotate in terms of performance measures.
- Provide an opportunity for watermen perspectives.
- Presentation on the Pensacola & Perdido Bays Estuary Program.
- Presentation on the updated habitat suitability map.
- Economic presentation related to the ecosystem (Bill Hulth, UWF Resource Economist?) and to economic drivers in the region (Haas Center?).
- EPA Gulf Ecology Lab- GEMMS presentation- Lisa Smith (economic assessment); Jane willing to make the introduction for Anne.
- DEP management structure a topic for the May meeting, and management of cultched reefs.

*The members completed meeting evaluation forms (See Appendix #3) and adjourned at 3:00 pm. CST*

## Appendix #1 Meeting Agenda

**OYSTER ECOSYSTEM-BASED FISHERY MANAGEMENT PLAN**
**FOR THE GREATER PENSACOLA BAY SYSTEM**
**GPBS STAKEHOLDER WORKING GROUP**
**MEETING III—JANUARY 15, 2020**
**SANDERS BEACH-CORINNE JONES RESOURCE CENTER, 913 SOUTH I STREET**
**PENSACOLA, FL 32502**

| MEETING III OBJECTIVES | | |
|---|---|---|
| ✓ To Approve Regular Procedural Topics (Agenda and Meeting II Summary Report)<br>✓ To Receive Requested Presentations: Regulatory Requirements, Communications Strategy<br>✓ To Review and Refine As Needed: Vision Themes, Goals, Outcomes, Key Issues<br>✓ To Review and Refine Preliminary Options, and Performance Measures<br>✓ To Identify Needed Next Steps and Information, and Agenda Items for Next Meeting | | |
| **GPBS STAKEHOLDER WORKING GROUP MEETING III AGENDA—JANUARY 15, 2020** | | |
| *All Agenda Times—Including Public Comment and Adjournment—Are Approximate and Subject to Change* | | |
| **1.** | **8:30 AM** | **WELCOME AND INTRODUCTIONS** |
| **2.** | **8:40** | **REVIEW AND APPROVAL of Agenda** |
| **3.** | **8:45** | **APPROVAL OF FACILITATORS' SUMMARY REPORT (NOVEMBER 15, 2019 MEETING)** |
| **4.** | **8:50** | **STAKEHOLDER REQUESTED PRESENTATIONS AND BRIEFINGS**<br>• Overview of Oyster Management in the State of Florida (20 min.) [FWC/FDACS]<br>• How Communications Can Help Move the Needle (20 min.) [TNC] |
| | *~9:45* | *BREAK* |
| **5.** | **10:00** | **A.) A HEALTHY AND PRODUCTIVE OYSTER REEF ECOSYSTEM**<br>• Review and Revise Vision Theme, Goal Statement, and Outcome as Needed<br>• Identification of Additional Key Topical Issues<br>• Identification of Preliminary Options to Address Key Topical Issues |
| **6.** | **11:00** | **B.) THE MANAGEMENT AND REGULATION OF THE OYSTER FISHERY AND AQUACULTURE**<br>• Review and Revise Vision Theme, Goal Statement, and Outcome as Needed<br>• Identification of Additional Key Topical Issues<br>• Identification of Preliminary Options to Address Key Topical Issues |
| *12:00 PM* | | *LUNCH—ON SITE* -Lunch Provided by The Nature Conservancy |
| **7.** | **12:30** | **C.) A Thriving Economy Connected to the Greater Pensacola Bay System**<br>• Review and Revise Vision Theme, Goal Statement, and Outcome as Needed<br>• Identification of Additional Key Topical Issues<br>• Identification of Preliminary Options to Address Key Topical Issues |
| **8.** | **1:15** | **D.) An Engaged and Informed Public**<br>• Review and Revise Vision Theme, Goal Statement, and Outcome as Needed<br>• Identification of Additional Key Topical Issues<br>• Identification of Preliminary Options to Address Key Topical Issues |
| **9.** | **2:00** | **PRELIMINARY DISCUSSION OF DRAFT PERFORMANCE MEASURES** |
| **10.** | **2:30** | **PUBLIC COMMENT** |
| **11.** | **2:45** | **NEXT STEPS AND AGENDA ITEMS FOR THE NEXT MEETING**<br>• Review of the Working Group meetings schedule<br>• Review of action items and assignments<br>• Identify agenda items and any needed information for the next meeting |
| | *~3:00 PM* | *ADJOURN* |

## Appendix #2 Working Group Members, Project Team & Facilitators

(**Bold** = members who attended the January 15, 2020 meeting)

| 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/Barbara Albrecht** *(Alternate)* | **Environmental Lawyer** |
| 4. Donnie McMahon/ **Thomas Derbes II** *(Alternate)* | **Business and Aquaculture** |
| **Environmental/Citizen** | |
| **5. Christian Wagley** | **Healthy Gulf** |
| **Local Government** | |
| **6.** Shelley Alexander/ **Naisy Dolar** *(Alternate)* | **Santa Rosa County Environmental Programs** |
| 7. **Chips Kirschenfeld/Mark Nicholas***(Alternate)* | Escambia County Natural Resources Management |
| **8. Matt Posner** | **Pensacola and Perdido Bays Estuary Program** |
| 9. Keith Wilkins/**Cynthia Cannon** *(Alternate)* | Pensacola City Administrator |
| **Recreational Fishing** | |
| **10. Chris Phillips** | **Hot Spot Charters** |
| **Seafood Industry** | |
| 11. Pasco Gibson (afternoon) | 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** | **DEP/Aquatic Preserves** |
| 19. Kent Smith/**Katie Konchar** ***(Alternate)*** | **FWC Division of Habitat and Species Conservation** |
| **20. Mike Norberg** | **FWC Division of Marine Fisheries Management** |
| **21. Portia Sapp/Michelle Smith** *(Alternate)* | **DACS 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, FL** |
| **Robert Brumbaugh** | **Senior Marine Scientist, FL** |
| **Farris Bukhari** | **Director of Strategic Communications and Marketing FL** |
| Andrea Graves | Marine Projects Coordinator, FL |
| **FACILITATED SOLUTIONS, LLC** | |
| **Jeff Blair & Bob Jones** | **Working Group Facilitators** |



The Nature Conservancy

**Appendix #3 Meeting Evaluation Summary**

## GREATER PENSACOLA BAY SYSTEM STAKEHOLDER WORKING GROUP MEETING III, JANUARY 15, 2020—PENSACOLA, FLORIDA
## MEETING EVALUATION SUMMARY REPORT

*Members used a 0 to 10 rating where a 0 meant Totally Disagree and a 10 meant Totally Agree. The average ratings and comments from the 13 evaluation forms that were submitted are presented below.*

**1. PLEASE ASSESS THE OVERALL MEETING.**

9.4 The background information was very useful.
9.5 The agenda packet was very useful.
9.7 The objectives for the meeting were stated at the outset.
9.2 Overall, the objectives of the meeting were fully achieved.

**2. DO YOU AGREE THAT EACH OF THE FOLLOWING MEETING OBJECTIVES WAS ACHIEVED?**

9.8 Oyster Management in the State of Florida Presentation.
9.7 How Communication Can Help Move the Needle Presentation.
9.5 Vision Themes, Goals, Outcomes, Key Issues and Objectives
9.5 Review of Preliminary Strategies and Performance Measures
9.6 Next Steps, Schedule and Assignments Discussion.

**3. PLEASE TELL US HOW WELL THE FACILITATOR HELPED THE PARTICIPANTS ENGAGE IN THE MEETING.**

9.4 The members followed the direction of the Facilitator.
9.8 The Facilitator made sure the concerns of all members were heard.
9.8 The Facilitator helped us arrange our time well.
9.9 Participant input was documented accurately in the meeting and in the Facilitator's Report (last meeting's summary report).

**4. PLEASE TELL US YOUR LEVEL OF SATISFACTION WITH THE MEETING?**

9.8 Overall, I am very satisfied with the meeting.
9.9 I was very satisfied with the services provided by the Facilitator.
9.6 I am satisfied with the outcome of the meeting.

**5. PLEASE TELL US HOW WELL THE NEXT STEPS WERE COMMUNICATED?**

9.9 I know what the next steps following this meeting will be.
9.7 I know who is responsible for the next steps.

**6. WHAT DID YOU LIKE BEST ABOUT THE MEETING?**

- Location, attendees and respect for one another
- Easy to communicate ideas
- Full and thoughtful participation.
- Everyone participated, everyone's input honored and valued. Not judgmental setting.
- The care in exchanging information

**7. HOW COULD THE MEETING HAVE BEEN IMPROVED?**

- Have everyone stand to talk



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- It was a little cold in the meeting room later in the afternoon.

**8. DO YOU HAVE ANY OTHER COMMENTS? PLEASE USE THE BACK OF THIS PAGE IF NEEDED.**

- Map of where shell has been put back already.
- Jeff and Bob are a great team. Thanks for all you do.
- Awesome job facilitating.
- I found no deficits in today's meeting. Not being laze with the 10s.
- Keep the chocolates coming!

**Appendix #4 Project Schedule & Workplan**

*Meetings Dates are Subject to Change*

| PROJECT WORKPLAN | | |
|---|---|---|
| **GPBS STAKEHOLDER WORKING GROUP MEETING SCHEDULE AND WORKPLAN** | | |
| **STANDING UP AND ORGANIZATION OF THE GPBS STAKEHOLDER WORKING GROUP** | | |
| Meeting I. Studer Institute, Pensacola | Oct. 9, 2019 | Scoping and organizational meeting, review and refinement of overall project purpose, vision and goal framework. |
| Meeting II. UF/IFAS SRC Extension, Milton | Nov. 15, 2019 | Review and refinement of goal framework, draft management plan outline, review of science and data gaps. Introduction to decision-support tools and requested presentations. |
| **SCOPING OF GPBS ISSUES, IDENTIFICATION OF PERFORMANCE MEASURES & OPTIONS** | | |
| Meeting III. Sanders Beach, Pensacola | Jan. 15, 2020 | Review of oyster management plans, issues and options. Identification of draft performance measures, draft outline of Oyster Ecosystem-Based Fisheries Management Plan. |
| Meeting IV. UF/IFAS SRC Extension, Milton | March 18, 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. Sanders Beach, Pensacola | May 19, 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. |
| Public Workshop 1 | June 2020 | Review of Vision, Goal Framework, Plan outline, issues & options. |
| **BUILDING CONSENSUS ON GPBS OYSTER ECOSYSTEM-BASED FISHERIES MANAGEMENT PLAN** | | |
| Meeting VI. UF/IFAS SRC Extension, Milton | July 22, 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 VII. Sanders Beach, Pensacola | 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 MGT. PLAN** | | |
| Meeting VIII. UF/IFAS SRC Extension, Milton | Nov. 18, 2020 | Review and consensus testing of Draft Plan and recommendations on policy issues. |
| Meeting IX. Sanders Beach, Pensacola | Jan. 27, 2021 | Review and consensus testing of Draft Plan and implementation guidance and agreement on Workshop Draft Plan. |
| Public Workshop 2 | February 2021 | Review of GPBS Oyster Ecosystem-Based Fisheries Management Plan and implementation guidance. |
| Meeting X. UF/IFAS SRC Extension, Milton | March 17, 2021 | Review of public comment, refinement and consensus on the GPBS Oyster Ecosystem-Based Fisheries Management Plan and implementation guidance. |

# 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 Pensacola and Perdido Estuary System.

**PROJECT WEBPAGE (URL):** https://myescambia.com/our-services/natural-resources-management/restore/pensacola-perdido-bay-estuary-program/gpbs-oyster-ecosystem--based-fisheries-management-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.



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