

ST. ANDREW/ST. JOSEPH BAYS ESTUARY PROGRAM
DECEMBER 2020

STAKEHOLDER ASSESSMENT REPORT
CREATING AN ESTUARY PLAN FOR THE ST. ANDREW/ST. JOSEPH BAYS WATERSHED

DESIGNED, CONDUCTED & WRITTEN BY
ROBERT JONES, HAL BEARDALL & RAFAEL MONTALVO



CONSENSUS CENTER



**ST. ANDREW/ST. JOSEPH BAYS ESTUARY PROGRAM
STAKEHOLDER ASSESSMENT REPORT**
CREATING AN ESTUARY PLAN FOR THE ST. ANDREW/ST. JOSEPH BAYS WATERSHED

TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
STAKEHOLDER ASSESSMENT REPORT EXECUTIVE SUMMARY.....	3
STAKEHOLDER ASSESSMENT REPORT DETAILED SUMMARY.....	12
I. CONTEXT FOR THE ST. ANDREW/ST. JOSEPH BAYS ESTUARY PROGRAM.....	12
A. ABOUT THE WATERSHED.....	12
B. ESTUARY PROGRAMS.....	13
C. ST. ANDREW/ST. JOSEPH BAYS ESTUARY PROGRAM, HOST & PLAN.....	14
II. THE STAKEHOLDER ASSESSMENT PROCESS.....	16
A. STAKEHOLDER ASSESSMENT PURPOSE, PROCESS & INTERVIEWS	16
B. OVERARCHING ISSUES	17
1. A Watershed Approach to the Estuary Program	17
2. Resilience and Recovery in the Watershed	17
3. Funding for the Estuary Program and Plan Implementation	18
C. KEY CHALLENGES FOR THE ESTUARY PROGRAM	20
III. ESTUARY PROGRAM FINDINGS AND RECOMMENDATIONS ON GOVERNANCE.....	23
A. FINDINGS BASED ON INTERVIEWS AND SOURCE DOCUMENTS	23
B. RECOMMENDATIONS ON PROGRAM GOVERNANCE	25
IV. NEXT STEPS.....	28
ATTACHMENTS	
1. STAKEHOLDER ASSESSMENT INTERVIEW PARTICIPANTS BY SECTOR	29
2. STAKEHOLDER ASSESSMENT INTERVIEW PARTICIPANTS - ALPHABETICAL	32
3. LIST OF KEY CHALLENGES - ORGANIZED BY SECTIONS WITH ILLUSTRATIVE QUOTES	35
4. ABOUT THE FSU CONSENSUS CENTER	43

ST. ANDREW/ST. JOSEPH BAYS ESTUARY PROGRAM
DECEMBER 2020

STAKEHOLDER ASSESSMENT REPORT EXECUTIVE SUMMARY
CREATING ESTUARY PLAN FOR THE ST. ANDREW/ST. JOSEPH BAYS WATERSHED

The St. Andrew/St. Joseph bays watershed covers approximately 740,200 acres. The watershed is the only major estuarine drainage basin entirely within the Florida Panhandle and is unique among northwest Florida watersheds in that it has no major rivers. As a result, estuarine waters are comparatively deep, clear, and of relatively high and consistent salinity, as compared with major river-dominated estuaries. Its many ecosystems fall under the jurisdiction of multiple local and county governments, state regional, and federal agencies. The major tributary, Econfinia Creek, begins in southwestern Jackson County and flows through Washington and Bay counties before discharging into Deer Point Lake Reservoir.

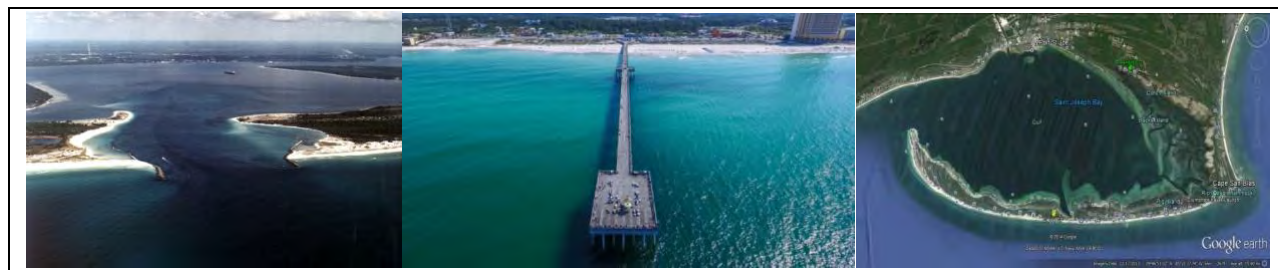


St. Andrew/St. Joseph Bays Watershed Maps, 2020 and 1781

The watershed begins in the southwestern portion of Jackson County at the headwaters of the Econfinia, and its range extends southwest through Bay, Washington, and Walton counties and southeast through Calhoun, and Gulf counties. The majority of the watershed, at 62% percent, crosses Bay County while the other thirty-eight percent is divided among Gulf (20%), Washington (10%) Calhoun (4%), Jackson and Walton counties (2%) respectively. All but one municipality located within the watershed are located in Bay County. Municipalities located within the watershed in Bay County are Callaway, Lynn Haven, Mexico Beach, Panama City (largest), Panama City Beach, Parker, and Springfield; Port St. Joe is in Gulf County.

The watershed includes both St. Andrew Bay, a 69,000-acre estuary and one of the most biologically diverse bays in North America, and St. Joseph Bay, with the richest and most abundant concentrations of marine grasses along the Northwest Florida coast. The St. Joseph Peninsula also supports the highest density of nesting loggerhead sea turtles in the Florida Panhandle. St. Joseph Bay is the only embayment in the eastern Gulf of Mexico that lacks a major source of freshwater inflow, with a surface area of 42,826 acres. It has the largest seagrass stock in the Florida Panhandle and its bay system is dominated by salt marshes and tidal flats that

support over 3,600 species of birds, fish, shellfish, and other rare, protected, and endemic species.



St. Andrew Bay East Cut, Russell-Fields Pier, Panama City Beach, St Joseph Bay

People have created homes, raised and fed families in the St. Andrew/St. Joseph bays watershed for over 12,000 years. Hunters, fishers and farmers have utilized the bounty of the rivers, estuaries, bays, and the Gulf of Mexico over this period. They responded and adapted to the changes in climate, resources, and new technology. The Native Americans living here were conservationists who practiced controlled burns, hunted based on seasons, and grew crops including corn and squash. They were very frugal and tried to balance their existence with the environment. This complex balancing of the economic and conservation issues in the watershed continues to this day as the many and diverse economic interests and people living in the watershed have a common interest in the continuing health and resilience of the watershed.

Estuary programs are non-regulatory and utilize a consensus-building model to create and update a Comprehensive Conservation and Management Plan ([CCMP](#)). Estuary programs identify goals, objectives, and actions contained in a CCMP that is based on a commitment to both good science and strategic actions. The CCMP reflects a balance of local conservation and economic consensus priorities, needs and values in the watershed that may cross jurisdictional lines. An estuary program can bring people and communities together to accomplish more than they could separately in order to achieve clean and healthy bays and watershed.



The St. Andrew/St. Joseph Bays Estuary Program, hosted by Florida State University Panama City, and initially supported by Bay County RESTORE Act funds, The Nature Conservancy and the Florida Legislature, will develop a plan by 2023 for the St. Andrew Bay/St. Joseph Bays Estuary Program and watershed that will seek to:

- Align and balance environmental and economic priorities;
- Implement projects to improve the bay system and watershed; and
- Monitor outcomes and adapt strategies through consensus building.

The Estuary Program will be designed to provide stakeholders and communities within the

watershed with a forum to come together to establish a vision, set goals and objectives, review information and progress, identify priority challenges and actions, and adopt and implement a plan to address the CCMP priorities. It will provide an integrated, holistic consensus-based approach to the management of the bay system and watershed balancing both a resilient and healthy watershed and estuary with a vibrant economy that in turn relies on the health of the bay system for sustaining the unique quality of life people enjoy in this region.

Through the course of the first three years of the Estuary Program in developing the CCMP, strategic alliances will be established with implementing partners to obtain both their ongoing technical and financial support. In implementing the CCMP, the ongoing Estuary Program will reinforce the partners' commitment by continuing to hold stakeholder meetings, managing the Program's Policy Board and Management Council and committee process, monitoring progress and working to sustain the consensus and common vision reached during the development of the CCMP. While the Program will implement some actions independently, it is expected to oversee, coordinate, and in other ways influence many more partner actions and projects designed to sustain the health of the St. Andrew/St. Joseph Bays Estuary and watershed.

FSU Panama City will serve as the Program host providing offices, meeting space and in-kind assistance on financial and administrative issues. Dean Randy Hanna, who leads the campus, will serve as a voting member of the Policy Board. Florida State University and Florida State University Panama City as host bring a strong commitment to the success of the Estuary Program, extensive experience in federal project and grants management and a preeminent academic reputation for excellence. The [Consensus Center](#), based at FSU and created by the Florida Legislature in 1988, will provide professional process design and facilitation and consensus building assistance for establishing and convening the Policy Board and the Management Council and its committees.

The 80+ stakeholder interviews, scheduled and conducted by staff from the FSU Consensus Center between September and December 2020, offered a range of perspectives and identified a range of key challenges and issues that stakeholders believe should be addressed or considered in the estuary program's Comprehensive Conservation and Management Plan. The impact of recent storm events on the health of the bay systems and watershed should not be underestimated in terms of the challenges presented in recovery and future resilience. An analysis of the Assessment interviews has formed and informed the basis for the findings and recommendations.

STAKEHOLDER SECTOR ORGANIZATIONS INTERVIEWED	
ACADEMIC/ CENTERS/ SCHOOLS	LOCAL GOVERNMENT
BUSINESS/INDUSTRY/TOURISM	STATE AND FEDERAL AGENCIES
CONSERVATION ORGANIZATION	MILITARY
CIVIC/COMMUNITY/CITIZENS	RECREATIONAL AND COMMERCIAL FISHING/BOATING
ESTUARY AND COASTAL PROGRAMS	

The following summary of themes from the open-ended interview questions have been organized into seven (7) sections that feature the over 35 key challenges that were identified in the interviews and that the Estuary Program might address in the CCMP. The frequency of identification is indicated by the numbers in parentheses.

OVERVIEW OF KEY CHALLENGES ORGANIZED BY SECTIONS

1. OVERALL CROSSCUTTING THEMES FOR THE ESTUARY PROGRAM

- Governance of the Estuary Programs (121)
- Watershed Approach (93)
- Resilience and Recovery (69)
- Funding (51)

2. INFRASTRUCTURE CHALLENGES AND APPROACHES FOR HEALTHY BAYS

- Stormwater and Flood Protection (131)
- Wastewater - Septic and Sewer infrastructure and Impacts on the Bays (89)
- Transportation and the Watershed (41)
- Natural Infrastructure (Living shorelines, restoration, conservation land acquisition, land stewardship) (38)
- Water Supply (17)

3. ESTUARY CHALLENGES AND APPROACHES FOR HEALTHY BAYS AND WATERSHED

- Water Quality Issues and Monitoring (80)
- East Pass - Flushing and Dredging (80)
- Fisheries and Aquaculture (80)
- Bays Marine Habitat, Wetlands Preservation, Aquatic Preserves, Seagrass, and Sea Level Rise (54)
- Intracoastal Canal Connecting Bays systems (29)
- Protected and Invasive Species (19)
- Shoreline Restoration, Beach Renourishment and Sand Dune Restoration (8)
- Red Tides and Algae Blooms (6)

4. ECONOMIC PROSPERITY AND A WORKING BAY: BUSINESS/TOURISM/MILITARY/INDUSTRY

- Economy/ Economic Development/Business/Tourism (90)
- Military Missions and the Economy (66)
- Industry and a Working Bay (54)
- The Recreation Economy (17)
- Workforce Development and Job Opportunities in the Estuary (7)
- Marine Science/Industry (5)

5. THE WATER-LAND INTERFACE FOR GROWTH AND DEVELOPMENT

- Growth/Development/Construction (77)
- Forestry, Silviculture and Urban Trees (34)
- Conservation Land Acquisition, and Land Stewardship (32)
- Agriculture (4)

6. RESEARCH, PUBLIC AND LEADERSHIP EDUCATION AND OUTREACH

- Public Education (34)
- Studies of the Bays and Watershed (8)
- Marine Science/Industry Education (5)

7. COMMUNITY QUALITY OF LIFE

- Community Values (26)

- Parks and Recreation (25)
- Volunteering (18)

OVERVIEW OF KEY CHALLENGES AND ISSUES BY FREQUENCY OF IDENTIFICATION	
<i>Challenges for a Healthy Bays System ordered by frequency of mention, not necessarily by priority, in Stakeholder Interviews.</i>	
1. Stormwater and Flood Protection (131)	
2. Governance and Estuary Programs (121)	
3. Watershed Approach (93)	
4. Economy/ Economic Development/Business/Tourism (90)	
5. Wastewater- Septic and Sewer Infrastructure and Impacts on Water Quality (89)	
6. Fisheries (80)	
Water Quality and Monitoring (80)	
East Pass (80)	
7. Growth/Development/Construction (77)	
8. Resilience and Recovery (69)	
Military missions (69)	
9. Bays Marine Habitat loss and damage, Aquatic Preserves, Seagrass, Protected and Invasive Species, Shoreline Restoration and Sea Level Rise (56)	
10. Industry and a working Bay (54)	
11. Public Education (34)	
Forestry, Silviculture and urban trees (34)	
12. Conservation land acquisition, land stewardship (32)	
13. Intracoastal canal connecting bay systems (29)	
14. Community Values (25)	
Recreation (25)	
15. Funding (21)	
16. Protected and Invasive species (19)	
17. Water Supply (17)	
The Recreation Economy (17)	
18. Red tides and algae blooms (13)	
19. Erosion and Sedimentation (9)	
20. Studies of the Bays and Watershed (8)	
21. Beach renourishment and sand dune restoration (7)	
Workforce Development and Opportunities for the Estuary System (7)	
Living shorelines (7)	
Wetlands (7)	
22. Population Growth/Decline (5)	
Fear of regulation and mandates (5)	
Marine Science/Industry (5)	
23. Agriculture (4)	
24. Safety and Security (2)	
25. Aquaculture (1)	

FINDINGS

The Estuary Program is being launched and the initial plan is being created with a combination of Bay County RESTORE Act funding, The Nature Conservancy in Florida funding, a Florida Legislature appropriation and support from Florida State University Panama City serving as host for the Estuary program. Following a review and analysis of the stakeholder assessment interviews, the FSU Consensus Center offers the following fourteen (14) findings:

Finding 1: A Healthy Estuary. Water is truly the lifeblood of the bay and coastal ecosystems and economies for Bay and Gulf counties, and their citizens and visitors have embraced a lifestyle that relies on a healthy estuary that can support recreation, fishing, and tourism, trade, and emerging green and other industries.

Finding 2: A Consensus Plan. The funders are committed to developing consensus on a Comprehensive Conservation and Management Plan for the St. Andrew and St. Joseph watershed within three years through a collaborative, science-based process that will identify and implement strategic projects to enhance the health of the watershed and bays.

Finding 3: Stakeholder and Office Holder Willingness to Participate. There is strong stakeholder support for, and interest in participating in the effort to Develop, a Comprehensive Conservation and Management Plan for the St. Andrew and St. Joseph bays watershed. The only caveat is that all want to promote consensus recommendations that can catalyze actions and projects on the ground and ensure there is funding to advance and implement the resulting plan.

Finding 4: Science and Data. According to the stakeholders interviewed, there are a myriad of factors impacting the watershed and bays that will need to be evaluated based on science and data, including stormwater capacity and runoff, water quality, nutrient loading, wastewater and septic system leakage into the bays, development practices that can protect the shore-land interface, protection of marine habitat and fisheries, and upland watershed and forest impacts on the health of the bay.

Finding 5: Communication and Coordination. Stakeholders agree that it is important to communicate, coordinate and share data and science as appropriate with other planned and ongoing projects focused on the health of the two bay systems and other restoration and infrastructure efforts in the watershed. The Estuary Program's objectives and strategies should provide synergy for the other related efforts, with the cumulative results working to enhance the health of the bays and watershed.

Finding 6: Sustaining Military Missions. Stakeholders uniformly view the presence of military installations and their missions at the Naval Support Activity Panama City and Tyndall Air Force Base in a positive light. There is considerable support for preserving and enhancing the value of the installations and sustaining both the substantial contributions to the regional economy and related defense industry workforce, and their mission-central partnering efforts to maintain a healthy watershed system, including St. Andrew and St. Joseph bays.

Finding 7: Fishery & Habitat Agency Participation. The key fishery and habitat management agencies at the regional, state, and federal levels, and the recreational and commercial fishing stakeholders have expressed a willingness and interest participating in the Estuary Program.

Finding 8: Engagement of Recreational and Commercial Fishing. It is important to involve and engage recreational and commercial fishing groups and businesses in the Estuary Program due to their first-hand experience and knowledge on the water and their dependence on a healthy bay system.

Finding 9: Engagement of the Development Community. Given the increasing development pressures in both Bay and Gulf counties, it is important to provide representation for the development community on the stakeholder Management Council and its committees, and to address and manage growth through development best practices that maintain the health of the bays and watershed.

Finding 10: Education. The land-water interface on the bays is critical, and engagement with and education for developers, builders and homeowners regarding appropriate ground cover, fertilizer and lawn treatments to protect the water is critical. Education should be a central pillar in the estuary program.

Finding 11: Public Engagement and Support. Many stakeholders expressed the need to provide opportunities for public participation and engagement, education, and ultimately to build support for the changes that will be needed to sustain the health of the Bays and the watershed. This engagement is critical to funding the actions and projects needed to achieve the Community's vision for healthy bays and waters and keeping this a living plan.

Finding 12: Engage Volunteer Organizations. The region has a long successful history of volunteering to help keep the waters clean and preserve the heritage of working waterfronts, reflected by the work of such civic and school organizations as St. Andrew Bay Watch, the Panama City Marine Institute, UF/IFAS Lakewatch volunteer monitoring program, Historic St. Andrews Waterfront Partnership, Adopt a Park, Adopt a Highway, Emerald Coastkeepers Inc., and others.

Finding 13: Collaboration with Panhandle Estuary Programs. Stakeholders view the Estuary Program as both timely and positive, offering potential connections, collaboration and leveraging of the work and projects of the estuary programs being developed across the Florida Panhandle including the Pensacola and Perdido Bays Estuary Program, the Choctawhatchee Bay Coalition, and the Apalachicola Bay System Initiative.

Finding 14: Business and Industry Engagement and Support. There is strong support among area Chambers of Commerce and tourism organizations for enhancing the resilience of communities, preserving the health of the bay systems, and keeping the bay waters clean. There will be opportunities for enhancing the coordination and collaboration of economic, resiliency, and conservation organizations across Northwest Florida and strengthening the effectiveness of the three estuary programs.

RECOMMENDATIONS ON ESTUARY PROGRAM GOVERNANCE AND ROLES

This proposed governance structure was based on a review of the Estuary Programs in Florida¹ and elsewhere in the country. We sought input on this structure as part of our Assessment interviews and offer recommendations on the structure as part of this Stakeholder Assessment Report that will be reviewed, discussed, refined as needed, and adopted by the Policy Board.

Recommendation 1: Convene a Policy Board consisting of elected representatives from local government jurisdictions, a representative of the host FSU Panama City, and representatives from relevant regional, state and federal agencies who will serve ex officio as non-voting participants. The Policy Board should elect co-chairs from the two counties initially participating, provide overall direction in the context of a community-supported, science-based effort, and make policy decisions on the staff, workplan, program priorities, budgets and expenditures. It will oversee the recruitment and hiring of an executive director and staff and will share authority for program administration with FSU Panama City. It will also appoint stakeholder representatives and experts to serve on the Management Council. The Policy Board initially will be composed of twelve (12) voting representatives and will invite 9 non-voting agency representatives to participate.

PROPOSED ST. ANDREW/ST. JOSEPH BAYS ESTUARY PROGRAM POLICY BOARD

Twelve (12) Voting Members:	Nine (9) Participating Agencies (Non-Voting)
Two Bay County Commissioners (2)	FDEP (1)
One Gulf County Commissioner (1)	FFWCC (1)
<i>Mayors or City Commissioners</i>	DEO (1)
Callaway (1)	NWFWMD (1)
Lynn Haven (1)	Emerald Coast Regional Council (1)
Mexico Beach (1)	EPA (1)
Panama City (1)	NOAA (1)
Panama City Beach (1)	USFWS (1)
Parker (1)	USACOE (1)
Springfield (1)	
Port St. Joe (1)	

Recommendation 2: Stakeholders recognized that Bay and Gulf counties, occupying 82% of the watershed, should participate directly in the governance of the Estuary Program. The four counties comprising the remaining 18% of the watershed, with no municipalities located within the watershed, include Washington at 10%, Calhoun at 4%, Jackson at 2%, and Walton at 2%. Over time, these counties may come to see the value of the Estuary Program and could be invited to participate in the governance of the Estuary Program and invest the program or in discrete projects that may be identified in the program's Comprehensive Conservation and Management Plan.

¹ These include [Indian River Lagoon NEP](#), [Coastal & Heartland NEP](#) (formally Charlotte Harbor), [Sarasota Bay NEP](#), [Tampa Bay NEP](#), and new northwest Florida estuary programs [Pensacola & Perdido Bays Estuary Program](#) and the Choctawhatchee Bay Estuary program.

Recommendation 3: The Policy Board and Management Council should conduct meetings in an open and transparent process and allow for public comment at their meetings. The Estuary Program should offer opportunities for community input and engagement throughout the plan development process.

Recommendation 4: To build consensus on a Comprehensive Conservation and Management Plan for the bays and watershed, the Policy Board should appoint, convene and charge a Management Council, consisting of representatives from key stakeholder interests interested in the health of the Bays and watershed. The Council should include representatives from state, regional, and local government agencies, university and research, conservation and citizen/civic groups, business, industry and economic development, tourism, real estate, development, military, and commercial fishery and recreational interests.

ST. ANDREW/ST. JOSEPH BAYS ESTUARY PROGRAM MANAGEMENT COUNCIL

*Executive Committee: Chair and Vice Chair of the STEM, CAC and DFP advisory committees (6)
Management Council (39 members)*

Academic and Marine/Watershed Research (2)	Land Use Development, Real Estate and Construction (3)
Business, Tourism (3)	Local government (10)
Civic and Community (3)	Military (3)
Conservation and Environmental (3)	State and Regional agencies (5)
Industry/Trade (3)	Federal agencies (4)

Recommendation 5: The Management Council should organize any committees or special area workgroups to assist it in the development of the CCMP. It is recommended, at a minimum, that a technical, a community action and a development and finance committee be established, as well as any other committees the Council deems appropriate based on the Council's charge.

Recommendation 6: The Management Council should regularly communicate, coordinate and share science and data as appropriate with the Policy Board and other restoration and management initiatives and projects in the watershed. In addition, the Estuary Program staff should provide regular updates with elected commissions and councils in the watershed regarding the status and direction of the Comprehensive Conservation and Management Plan.

Recommendation 7: The Policy Board, Management Council and Program Staff with other estuary programs in West Florida should explore opportunities for mutual assistance and expertise.

Following the release of the Stakeholder Assessment Report, FSU Panama City will invite and seek to convene the Policy Board, composed of local elected officials and agency representatives, in January 2021. The Policy Board will meet in early 2021 for organizational meetings regarding the workplan, the recruitment of an executive director and staff, and the appointment of a stakeholder management council. The Comprehensive Conservation and Management Plan is scheduled for completion and adoption by the Policy Board in 2023.

STAKEHOLDER ASSESSMENT REPORT SUMMARY

CREATING AN ESTUARY PLAN FOR THE ST. ANDREW/ST. JOSEPH BAYS WATERSHED

I. WATERSHED CONTEXT FOR THE ST. ANDREW/ST. JOSEPH BAYS ESTUARY PROGRAM

A. ABOUT THE WATERSHED

The St. Andrew/St. Joseph bays watershed covers approximately 740,200 acres. The watershed is the only major estuarine drainage basin entirely within the Florida Panhandle and is unique among northwest Florida watersheds in that it has no major rivers. As a result, estuarine waters are comparatively deep, clear, and of relatively high and consistent salinity, as compared with major river-dominated estuaries. Its many ecosystems fall under the jurisdiction of multiple local and county governments, state, regional, and federal agencies. The major tributary, Econfina Creek, begins in southwestern Jackson County and flows through Washington and Bay counties before discharging into Deer Point Lake Reservoir.



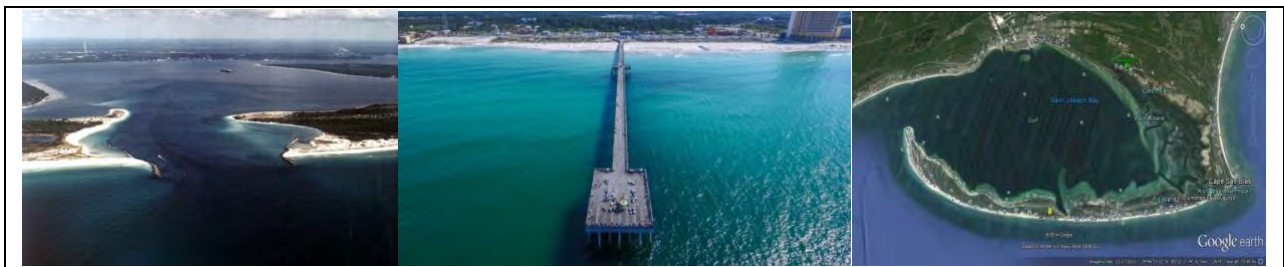
St. Andrew/St. Joseph Bays Watershed Maps, 2020 and 1781

The watershed begins in the southwestern portion of Jackson County at the headwaters of the Econfina, and its range extends southwest through Bay, Washington, and Walton counties and southeast through Calhoun, and Gulf counties. The majority of the watershed, at 62% percent, is within Bay County while the other 38% is divided among Gulf (20%), Washington (10%), Calhoun (4%), Jackson (>>x%) and Walton counties (2%) respectively. All but one municipality within the watershed are located in Bay County. Municipalities located within the watershed are Callaway, Lynn Haven, Mexico Beach, Panama City (largest), Panama City Beach, Parker, and Springfield in Bay County, and Port St. Joe in Gulf County.



Ecofina Creek, Deer Point Lake, and West Cut St. Andrew Bay

The watershed includes both St. Andrew Bay, a 69,000-acre estuary and one of the most biologically diverse bays in North America, and St. Joseph Bay, with the richest and most abundant concentrations of marine grasses along the Northwest Florida coast. The St. Joseph Peninsula also supports the highest density of nesting loggerhead sea turtles in the Florida Panhandle. St. Joseph Bay is the only embayment in the eastern Gulf of Mexico that lacks a major source of freshwater inflow, with a surface area of 42,826 acres. It has the largest seagrass stock in the Florida Panhandle and its bay system is dominated by salt marshes and tidal flats that support over 3,600 species of birds, fish, shellfish, and other rare, protected, and endemic species.



St. Andrew Bay East Cut, Russell-Fields Pier, Panama City Beach, St Joseph Bay

People have created homes and raised and fed families in the St. Andrew/St. Joseph bays watershed for over 12,000 years. Hunters, fishers and farmers have utilized the bounty of the rivers, estuaries, bays, and the Gulf of Mexico over this period. They responded and adapted to the changes in climate, resources, and new technology. The Native Americans living here were conservationists who practiced controlled burns, hunted based on seasons, and grew crops including corn and squash. They were very frugal and tried to balance their existence with the environment. This complex balancing of the economic and conservation issues in the watershed continues to this day as the many and diverse economic interests and people living in the watershed have a common interest in the continuing health and resilience of the watershed.

B. ABOUT ESTUARY PROGRAMS

Estuary programs are non-regulatory and utilize a consensus-building model to create and update a Comprehensive Conservation and Management Plan (CCMP). Estuary programs identify goals, objectives, and actions contained in a CCMP that is based on a commitment to both good science and strategic actions. The CCMP reflects a balance of local conservation and economic consensus priorities, needs and values. These estuary programs are guided by stakeholder and

intergovernmental management boards, councils and committees that enable communities to protect, manage, and restore the broader estuary and watershed that may cross jurisdictional lines. An estuary program can bring people and communities together to accomplish more than they could separately in order achieve clean and healthy bays and watershed.

Focused on watershed protection, restoration and water quality enhancement projects, estuary programs offer an effective method of protecting and managing all types of coastal habitats and watersheds. In 2014, following a series of community workshops in watersheds across the Florida Panhandle, The Nature Conservancy recommended “creating a long-term organizational structure (i.e., estuary program) in each Panhandle watershed to continue the watershed planning effort.” The collaboration and investments fostered by estuary programs among local, state and federal government, private business, and local communities, facilitate and leverage funding through partnerships that can ensure clean water, healthy bay systems and watersheds, and thriving waterfront communities. The nearly 30 estuary programs around the country have demonstrated the return on the investment is multiplied many times over through focused programs and projects, and is reflected in prosperous coastal economies, healthy watersheds, and enhanced quality of life for communities.

C. ST. ANDREW/ST. JOSEPH BAYS ESTUARY PROGRAM, HOST AND PLAN

The St. Andrew/St. Joseph Bays Estuary Program, hosted by Florida State University Panama City and initially supported by Bay County RESTORE Act funds, The Nature Conservancy and the Florida Legislature, will develop a plan by 2023 for the St. Andrew Bay/St. Joseph Bays Estuary Program and watershed that will seek to:

- Align environmental and economic priorities;
- Implement projects to improve the bay system and watershed; and
- Monitor outcomes and adapt strategies through consensus building.

The Estuary Program will seek to build on historic and ongoing efforts and projects that are designed to protect the health of the bays and watershed. This will likely include:

- Addressing and monitoring water quality in the bays and watershed;
- Enhancing the health, diversity, and resilience of key marsh habitat and other coastal, estuarine, and marine habitats, and protecting living coastal and marine resources;
- Enhancing community resilience and recovery; and
- Revitalizing and sustaining a prosperous regional economy.

The Estuary Program will be designed to provide stakeholders and communities within the watershed with a forum to come together to establish a vision, set goals and objectives, review information and progress, identify priority challenges and actions, and adopt and implement a plan to address the CCMP priorities. It will provide an integrated, holistic consensus-based approach to the management of the bay system and watershed, balancing both a resilient and healthy watershed and estuary with a vibrant economy that in turn relies on the health of the bay system for sustaining the unique quality of life people enjoy in this region.

The development of the CCMP will engage and enlist community and stakeholder support in a consensus process rooted in strong science. It will set forth programmatic and conservation goals, targets and specific actions and will characterize the watershed's current state and its stressors, while also recommending priority actions, projects and schedules. It will set out what is needed to restore, protect and sustain healthy bays and the watershed. The implementation of the plan will include monitoring progress made on targets and actions, and advocating for projects to address the CCMP consensus priorities.

The Estuary Program will support an expanded annual Water Quality Monitoring Report Card for the watershed with the St. Andrew Bay Resource Management Association (St. Andrew Bay Watch), which also will be incorporated into the program's implementation strategy and budget. This will assist the program in monitoring the effectiveness of actions taken pursuant to the CCMP.

Through the course of the first three years of the Estuary Program developing the CCMP, strategic alliances will be established with implementing partners to obtain both their ongoing technical and financial support. In implementing the CCMP, the ongoing Estuary Program will reinforce the partners' commitment by continuing to hold stakeholder meetings, managing the Program's Policy Board and Management Council and committee process, monitoring progress, and working to sustain the consensus and common vision reached during the development of the CCMP. While the Estuary Program will implement some actions independently, it is expected to oversee, coordinate, and in other ways influence many more partner actions and projects designed to sustain health of the St. Andrew/St. Joseph Bays Estuary and watershed.

One of the challenges for sustaining this community-based Estuary Program is to secure and sustain local support and funding by addressing local problems in a coordinated and collaborative manner, enhancing mutual benefits and making progress on solving problems throughout the watershed. During the development of the CCMP, a clear and realistic definition of success, including measurable indicators related to the bays and watershed, will be developed with public input and the Estuary Program's progress in meeting key milestones will be communicated to all stakeholders and the public.

FSU Panama City will serve as the Program host providing offices, meeting space and in-kind assistance on financial and administrative issues. Dean Randy Hanna, who leads the campus, will serve as a voting member of the Policy Board. Florida State University and Florida State University Panama City as host bring a strong commitment to the success of the Estuary Program, extensive experience in federal project and grants management and a preeminent academic reputation for excellence. The FCRC Consensus Center based at FSU will provide professional process design and facilitation and consensus building assistance for establishing and convening the Policy Board and the Management Council and its committees.

The St. Andrew/St. Joseph Bays Estuary Program will establish an effective institutional arrangement through a strong partnership with FSU Panama City Campus. FSU will provide a stable base ensuring oversight and accountability to funders and to those in the watershed through programmatic monitoring of outputs, outcomes and results and communicating these

to the public. In the fourth year of the Estuary Program, following the adoption of the CCMP, the Policy Board will assess its host experience with FSU Panama City in terms of its effectiveness in ensuring the long-term stability of the program and implementation of the CCMP.

II. THE STAKEHOLDER ASSESSMENT PROCESS

A. STAKEHOLDER ASSESSMENT PURPOSE, PROCESS & INTERVIEWS

The 80+ stakeholder interviews, scheduled and conducted by staff from the FSU Consensus Center between September and December 2020, identified a range of key challenges and issues that stakeholders believe should be addressed or considered in the Estuary Program's Comprehensive Conservation and Management Plan. Many of the estuary and watershed challenges identified in the stakeholder interviews are interrelated. The impact of recent storm events on the health of the bay systems and watershed should not be underestimated in terms of the challenges presented in recovery and future resilience.

The Stakeholder Assessment purposes were to:

- Interview and meet with stakeholders reflecting a broad range of key perspectives regarding the development of an St. Andrew/St. Joseph Bays Estuary Program;
- Help to identify key challenges as well as ideas for addressing the challenges;
- Inform and establish the issues framework for consideration of the St. Andrew/St. Joseph Bays Estuary Program's early meetings;
- Develop a set of findings based on the interviews; and
- Recommend a governance structure for the Estuary Program including a Policy Board, a stakeholder Management Council with committees, and identify potential participants in a Policy Board and a Management Council for the program.

Staff from the FCRC Consensus Center, based at the Florida State University main campus, conducted Zoom interviews with 80+ stakeholders in the watershed (*see Attachments #1 and #2*). An analysis of the Assessment interviews has formed and informed the basis for the findings and recommendations. The input reflects many challenges and concerns as well as opportunities from a range of perspectives that stakeholders believe should be addressed or considered in the Estuary Program's Comprehensive Conservation and Management Plan. The quotes contained in *Attachment #4* are included with no attribution to provide an illustrative context for the various challenges identified.

STAKEHOLDER SECTOR ORGANIZATIONS INTERVIEWED	
ACADEMIC/ CENTERS/ SCHOOLS	LOCAL GOVERNMENT
BUSINESS/INDUSTRY/TOURISM	STATE AND FEDERAL AGENCIES
CONSERVATION ORGANIZATION	MILITARY
CIVIC/COMMUNITY/CITIZENS	RECREATIONAL AND COMMERCIAL FISHING/BOATING
ESTUARY AND COASTAL PROGRAMS	

The interviewers asked the three following open-ended questions:

1. From your perspective, what are the key issues, concerns or challenges facing the development of a science and experiential-based estuary plan for St. Andrew Bay and St. Joseph bays?
2. What do you believe to be opportunities for strategies or projects that can address the challenges?
3. In the context of launching the Estuary Program, what is your view of the program's governance and roles of local elected officials and a range of stakeholder interests?

The following summary of themes from the open-ended interview questions have been organized into seven (7) sections that feature the over 35 key challenges that were identified in the interviews and that the Estuary Program might address in the CCMP.

B. OVERARCHING ISSUES

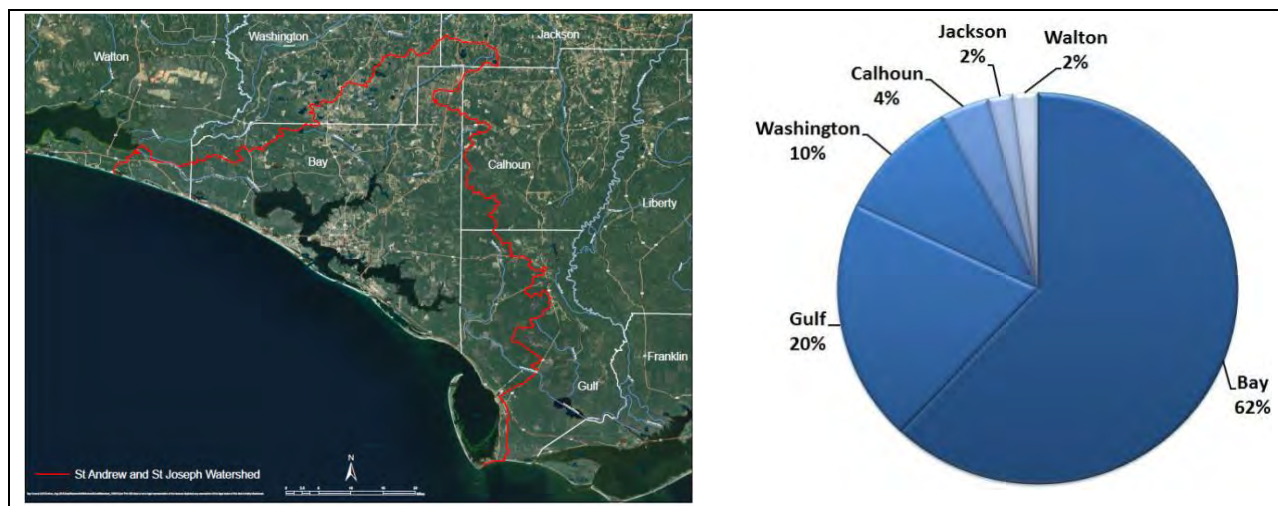
Three overarching issues were touched on in nearly every interview. Different from substantive challenges, these issues provided an overall sense of those interviewed for the best approach for an estuary program that was colored by a devastating hurricane in 2018 and recovery that is underway but not completed. There was a recognition of the fact that recovery of the built environment and infrastructure, and of the natural ecosystem of bays and the watershed, needed to be balanced and proceed hand-in-hand. There was also a recognition that the changes needed were going to require new and increased investments in rebuilding a more resilient built world and restoring and sustaining the natural systems. The plan that the Estuary Program creates will be informed, sharpened and shaped by stakeholders and the public. It will need to balance the future health of the estuary with a regional robust economy that is and will be dependent upon the continued health of the estuary.

1. A Watershed Approach to the Estuary Program

In the interviews, there was widespread support among stakeholders for taking a watershed approach that addressed both the St. Andrew and St. Joseph bays and included the Econfina Creek and Deer Point Lake. This is consistent with the watershed definition set forth in the 2017 Surface Water Improvement and Management Plan adopted by the Northwest Florida Water Management District and The Nature Conservancy in Florida 2014 St. Andrew/St. Joseph Bays Community Based Watershed Plan. It is the only watershed in the Panhandle region of Florida that is entirely within the State of Florida.

Stakeholders recognized that Bay and Gulf counties occupy 82% of the watershed and should participate directly in the governance of the estuary program. Some suggested, that over time, the four counties comprising the remaining 18% of the watershed (Washington at 10%, Calhoun at 4%, Jackson at 2%, and Walton at 2%) may come to see the value of the program and could be invited to participate in the governance of the program or in discrete projects that may be identified in the program's Comprehensive Conservation and Management Plan. The overall watershed presents a fragile ecosystem facing many challenges as well as opportunities that have been well documented in recent years that will offer a solid foundation for developing the CCMP. These include: the 2019 Bay County Recovery Task Force report, Bay County Long Term Recovery

Task Force, “Rebuild, Sustain, Grow” Long Term Recovery Plan, 2019; The 2017 update of the St. Andrew Bay Watershed Surface Water Improvement and Management (SWIM) Plan and the Regional Water Supply Plan (RWSP) for Region III (Bay County) by the Northwest Florida Water Management District, which is directed primarily at the maintenance of surface and ground water quality in the ecosystem;

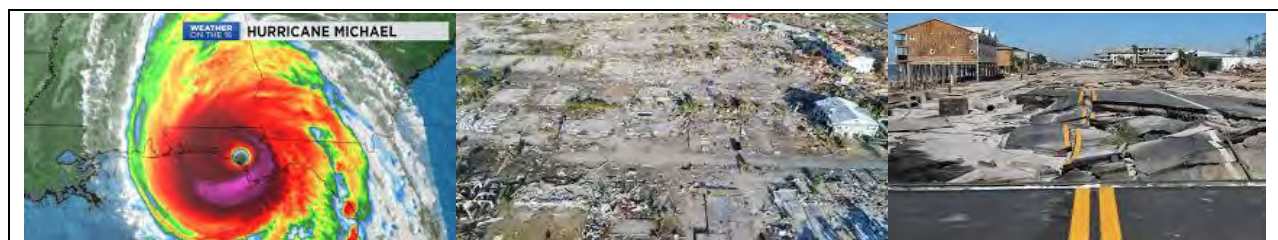


St. Andrew/St. Joseph Bays Watershed Map and County Watershed Percentage

the 2014 Nature Conservancy Community Based Watershed Plan identifying restoration needs and projects, the management plans of the St. Andrews Aquatic Preserve and the St. Joseph Bay Aquatic Preserve, as well as ongoing water quality monitoring work conducted by the St. Andrew Bay Resource Management Association/St. Andrew Bay Watch over the past two decades.

2. Resilience and Recovery in the Watershed

Hurricane Michael’s damage was catastrophic due to the historically high winds and massive storm causing a minimum of \$25 billion in property loss and damages. Community infrastructure such as public buildings, roads, bridges, stormwater facilities, telecommunications, energy, water and wastewater services form the primary critical systems supporting local health, welfare and economy.



Hurricane Michael Landfall, 12:30 pm, October 10 2018

Hurricane Michael destroyed and/or severely damaged key infrastructure, and work on projects continues to this day to bring local infrastructure back to pre-storm levels while building increased resiliency to prepare for future disasters. It is no surprise that recovery and resilience

continue to be at the top of the region's challenges and the interviews bore this out. Also, in the midst of the interviews, Hurricane Sally struck as a Category 1 storm on September 16, 2020 near Gulf Shores, Alabama, more than 100 miles to the west of the watershed. However, it produced an unexpected rain event taxing the stormwater and wastewater facilities with multiple reported releases of raw sewage from several locations due to flooding from Hurricane Sally.

The Bay County Long-term Recovery Task Force was established and tasked to build a broad, ambitious, yet achievable blueprint for the future of all Bay County communities. "Our vision is that Bay County will emerge from this disaster as an even better home for our residents and a more desirable destination for our millions of visitors each year." Their report, released in July 2019, addressed: Economic Recovery; Infrastructure; Housing; Health and Social Services; Natural and Cultural Resources; and Planning and Capacity Building. The Long-term Recovery Plan focuses on all aspects of rebuilding a community and presents the stakeholders with clear initiatives, funding mechanisms for those initiatives and actionable next steps to meet the goals and objectives. Bay County Long Term Recovery Task Force, "Rebuild, Sustain, Grow" Long Term Recovery Plan, 2019.



Bay County Long Term Recovery Task Force Report Sections

The Citizens of Gulf County Recovery Team (CGCRT) works to strengthen Gulf County's recovery from Hurricane Michael and other disasters through a coordinated community-wide approach. The CGCRT's role is to provide a coordinated community-wide response to rebuilding the community after Hurricane Michael. CGCRT'S mission is to meet the needs of the county's most vulnerable, including the elderly, people with disabilities, veterans experiencing disability or homelessness, and those experiencing poverty.



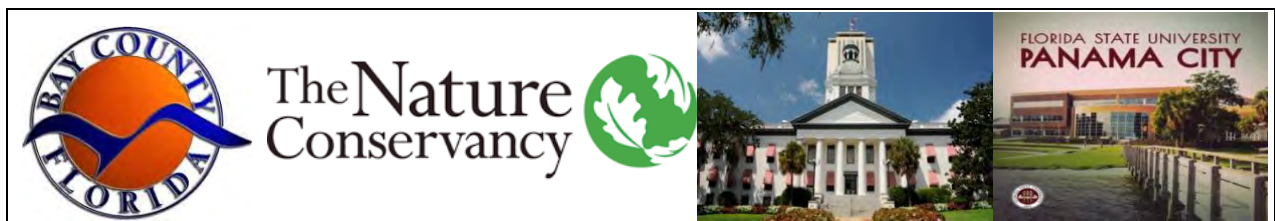
Damage, Recovery and Resiliency in Gulf County

Data collected by the CGCRT confirms that Hurricane Michael hit Gulf County's most vulnerable populations the hardest, with 46% of those in need described as elderly and 27% with living with disabilities. Another 10% were single heads of household, and 15% were veterans in need of assistance. The CGCRT now consists of 236 members and partners, representing business leaders, faith-based organizations, social services, health care, mental health, family assistance, childcare and disaster relief organizations, such as the United Way, Salvation Army, American Red Cross, the Methodist Caring Ministries, and Catholic Charities, as well as others that served and will serve the community in the event of any future disasters. The Team seeks funding for materials and services to continue the long-term process of rebuilding and recovery and seeks to build strong partnerships and volunteer networks.

3. Funding for the Estuary Program and the Implementation of the CCMP.

In every interview, the question of funding was raised in related to the challenges facing the continued health of the bay system and watershed and for the continued support for the Estuary Program, *(see Attachment #3 for list of challenges identified in the interviews)*. A plan for the Estuary Program must engage and educate the public regarding the critical role of the watershed in the regional economy in order to enlist support for investments in infrastructure and projects that can restore and preserve the health of the bay system and watershed.

Funding for the Estuary Program's plan development has been provided by Bay County, The Nature Conservancy, and the Florida Legislature. The implementation of the plan will need to include federal, state, regional and local funding, as well as support from private and non-profit sectors to achieve maximum success. The CCMP will need to identify links with current projects, unmet needs, and opportunities for collaboration. The plan must prioritize actions and define and structure specific funding mechanisms for each of the plan's actions.



C. KEY CHALLENGES IDENTIFIED IN THE STAKEHOLDER INTERVIEWS

The key challenges and issues that stakeholders believe should be addressed or considered in the Estuary Program's Comprehensive Conservation and Management Plan are often interrelated. The key challenges identified in the open-ended interviews are organized into seven sections.

The frequency of mention in the interviews does not necessarily reflect the priority of the issue; the number of times an issue was mentioned in the interviews is noted in parenthetical numbers. *Attachment #3* reflects a list of challenges by the frequency of identification in the interviews. *Attachment #4* features the sections along with unattributed quotes from the interviews to provide context and reflect the themes emerging from the interviews.

1. OVERALL CROSSCUTTING THEMES FOR THE ESTUARY PROGRAM

- Governance of the Estuary Programs (121)
- Watershed Approach (93)
- Resilience and Recovery (69)
- Funding (51)

2. INFRASTRUCTURE CHALLENGES AND APPROACHES FOR HEALTHY BAYS

- Stormwater and Flood Protection (131)
- Wastewater - Septic and Sewer Infrastructure and Impacts on the Bays (89)
- Transportation and the Watershed (41)
- Natural Infrastructure (Living shorelines, restoration, conservation land acquisition, land stewardship) (38)
- Water Supply (17)

3. ESTUARY CHALLENGES AND APPROACHES FOR HEALTHY BAYS AND WATERSHED

- Water Quality Issues and Monitoring (80)
- East Pass - Flushing and Dredging (80)
- Fisheries and Aquaculture (80)
- Bays' Marine Habitat, Wetlands Preservation, Aquatic Preserves, Seagrass, and Sea Level Rise (54)
- Intracoastal Canal Connecting Bays Systems (29)
- Protected and Invasive Species (19)
- Shoreline Restoration, Beach Renourishment and Sand Dune Restoration (8)
- Red Tides and Algae Blooms (6)

4. ECONOMIC PROSPERITY AND A WORKING BAY: BUSINESS/TOURISM/MILITARY/INDUSTRY

- Economy/ Economic Development/Business/Tourism (90)
- Military Missions and the Economy (66)
- Industry and a Working Bay (54)
- The Recreation Economy (17)
- Workforce Development and Job Opportunities in the Estuary (7)
- Marine Science/Industry (5)

5. THE WATER-LAND INTERFACE FOR GROWTH AND DEVELOPMENT

- Growth/Development/Construction (77)
- Forestry, Silviculture and Urban Trees (34)
- Conservation Land Acquisition, and Land Stewardship (32)
- Agriculture (4)

6. RESEARCH, PUBLIC AND LEADERSHIP EDUCATION AND OUTREACH

- Public Education (34)
- Studies of the Bays and Watershed (8)
- Marine Science/Industry Education (5)

7. COMMUNITY QUALITY OF LIFE

- Community Values (26)
- Parks and Recreation (25)
- Volunteering (18)

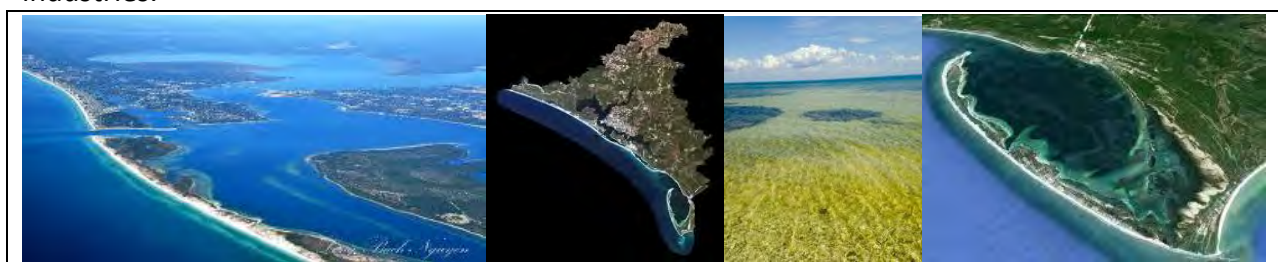
OVERVIEW OF KEY CHALLENGES AND ISSUES BY FREQUENCY OF IDENTIFICATION	
<i>Challenges for a Healthy Bays System ordered by frequency of mention, not necessarily by priority, in Stakeholder Interviews.</i>	
1. Stormwater and Flood Protection (131)	
2. Governance and Estuary Programs (121)	
3. Watershed Approach (93)	
4. Economy/ Economic Development/Business/Tourism (90)	
5. Wastewater- Septic and Sewer Infrastructure and Impacts on Water Quality (89)	
6. Fisheries (80)	
Water Quality and Monitoring (80)	
East Pass (80)	
7. Growth/Development/Construction (77)	
8. Resilience and Recovery (69)	
Military missions (69)	
9. Bays Marine Habitat loss and damage, Aquatic Preserves, Seagrass, Protected and Invasive Species, Shoreline Restoration and Sea Level Rise (56)	
10. Industry and a working Bay (54)	
11. Public Education (34)	
Forestry, Silviculture and urban trees (34)	
12. Conservation land acquisition, land stewardship (32)	
13. Intracoastal canal connecting bay systems (29)	
14. Community Values (25)	
Recreation (25)	
15. Funding (21)	
16. Protected and Invasive species (19)	
17. Water Supply (17)	
The Recreation Economy (17)	
18. Red tides and algae blooms (13)	
19. Erosion and Sedimentation (9)	
20. Studies of the Bays and Watershed (8)	
21. Beach renourishment and sand dune restoration (7)	
Workforce Development and Opportunities for the Estuary System (7)	
Living shorelines (7)	
Wetlands (7)	
22. Population Growth/Decline (5)	
Fear of regulation and mandates (5)	
Marine Science/Industry (5)	
23. Agriculture (4)	
24. Safety and Security (2)	
25. Aquaculture (1)	

III. ASSESSMENT FINDINGS AND RECOMMENDATIONS

A. FINDINGS

The Estuary Program is being launched with a combination of Bay County Restore program funding, The Nature Conservancy in Florida funding, a Florida Legislature appropriation and support from Florida State University Panama City serving as host for the Estuary Program, for support in creating the initial plan. Following a review and analysis of the stakeholder assessment interviews, the FSU Consensus Center offers the following fourteen (14) findings:

Finding 1: Water is truly the lifeblood of the bay and coastal ecosystems and economies for Bay and Gulf Counties, and their citizens and visitors have embraced a lifestyle that relies on a healthy estuary that can support recreation, fishing, and tourism, trade, and emerging green and other industries.



St. Andrew and St. Joseph Bays Aerial Views

Finding 2: The funders are committed to developing consensus on a Comprehensive Conservation and Management Plan for the St. Andrew and St. Joseph bays watershed within three years through a collaborative, science-based process that will identify and implement strategic projects to enhance the health of the watershed and bays.

Finding 3: There is strong stakeholder support for, and interest in, participating in the effort to develop a Comprehensive Conservation and Management Plan for the St. Andrew and St. Joseph bays watershed. The only caveat is that all want to promote consensus recommendations that can catalyze actions and projects on the ground and ensure there is funding to advance and implement the resulting plan.

Finding 4: According to the stakeholders interviewed, there are a myriad of factors impacting the watershed and bays that will need to be evaluated based on science and data, including stormwater capacity and runoff, water quality, nutrient loading, wastewater and septic system leakage into the bays, development practices that can protect the shore-land interface, protection of marine habitat and fisheries, and upland watershed and forest impacts on the health of the bay.

Finding 5: Stakeholders agree that it is important to communicate, coordinate and share data and science as appropriate with other planned and ongoing projects focused on the health of the two bay systems and other restoration and infrastructure efforts in the watershed. The Estuary Program's objectives and strategies should provide synergy for the other related efforts, with the cumulative results working to enhance the health of the bays and watershed.

Finding 6: Stakeholders uniformly view the presence of military installations and their missions at the Naval Support Activity Panama City and Tyndall Air Force Base in a positive light. There is considerable support for preserving and enhancing the value of the installations and sustaining both the substantial contributions to the regional economy and related defense industry workforce, and their mission-central partnering efforts to maintain healthy watershed system including St. Andrew and St. Joseph bays.



Tyndall Airforce Base and the U.S Naval Support Activity Panama City

Finding 7: The key fishery and habitat management agencies at the state, regional and federal levels, and the recreational and commercial fishing stakeholders have expressed a willingness and interest in participating in the Estuary Program.

Finding 8: It is important to involve and engage recreational and commercial fishing groups and businesses in the Estuary Program due to their first-hand experience and knowledge on the water.



Recreational and Commercial Fishing from the Bays and the Gulf

Finding 9: Given the increasing development pressures in both Bay and Gulf counties, it is important to provide representation from the development community on the stakeholder Management Council and its committees, and to address and manage growth through development best practices that maintain the health of the bays and watershed.

Finding 10: The land-water interface on the Bays is critical, and engagement with and education for developers, builders and homeowners regarding appropriate ground cover, fertilizer and lawn treatments to protect the water is critical. Education should be a central pillar in the Estuary Program.

Finding 11: Many stakeholders expressed the need to provide opportunities for public participation and engagement, education, and ultimately to build support for the changes that will be needed to sustain the health of the bays and the watershed. This engagement is critical

to funding the actions and projects needed to achieve the community's vision for healthy bays and waters and keeping this a living plan.

Finding 12: The region has a long successful history of volunteering to help keep the waters clean and preserve the heritage of working waterfronts, reflected by the work of such civic and school organizations as St. Andrew Bay Watch, the Panama City Marine Institute, UF/IFAS Lakewatch volunteer monitoring program, Historic St. Andrews Waterfront Partnership, Adopt a Park, Adopt a Highway, and Emerald Coastkeepers Inc., and others.



St Andrew Bay Watch and St Joseph Bay Aquatic Preserve Volunteer Programs

Finding 13: Stakeholders view the Estuary Program as both timely and positive, offering potential connections, collaboration and leveraging of the work and projects of the estuary programs being developed across the Florida Panhandle including the Pensacola and Perdido Bays Estuary Program, the Choctawhatchee Bay Estuary Program, and the Apalachicola Bay System Initiative.

Finding 14: There is strong support among area Chambers of Commerce and tourism organizations for enhancing the resiliency of communities, preserving the health of the bay systems, and keeping the bay waters clean. There will be opportunities for enhancing the coordination and collaboration of economic, resiliency, and conservation organizations across Northwest Florida and strengthening the effectiveness of the three estuary programs.

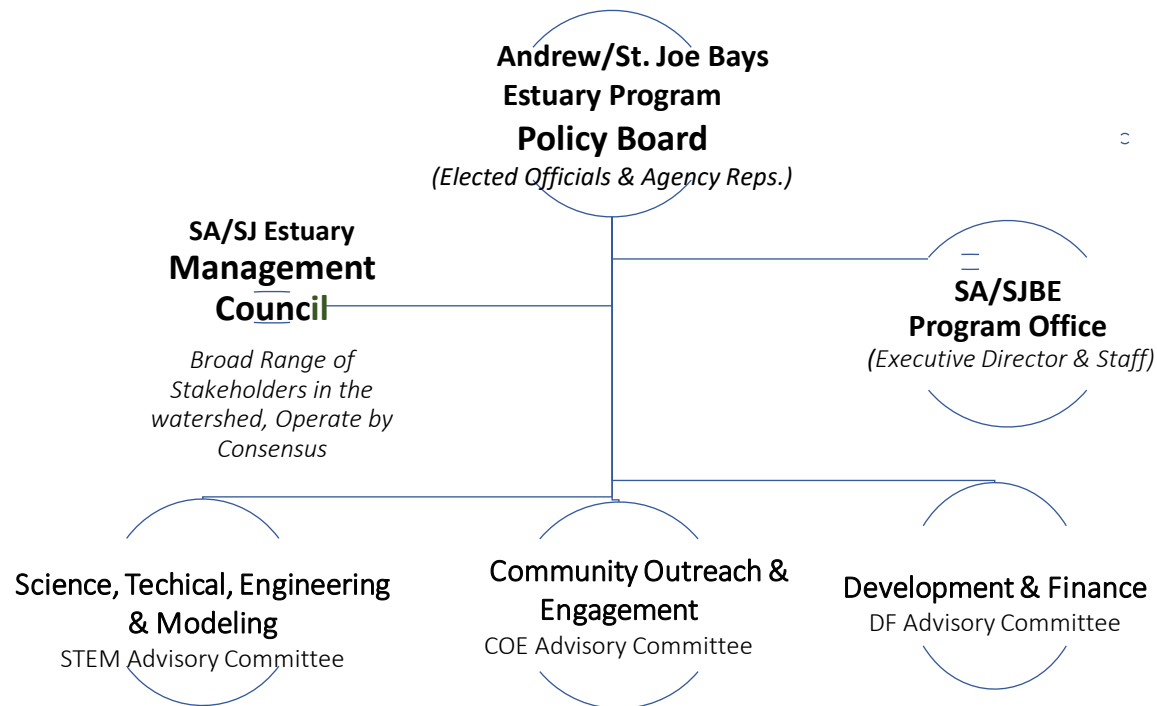


Business and Economic Development Organizations Supportive of the Estuary Program

B. RECOMMENDATIONS ON ESTUARY PROGRAM GOVERNANCE AND ROLES

This proposed governance structure was based on a review of the estuary programs in Florida² and elsewhere in the country. We sought input on this structure as part of our Assessment interviews and offer recommendations on the structure as part of this Stakeholder Assessment Report that will be reviewed, discussed, refined as needed, and adopted by the Policy Board.

² These include [Indian River Lagoon NEP](#), [Coastal & Heartland NEP](#) (formally Charlotte Harbor), [Sarasota Bay NEP](#), [Tampa Bay NEP](#), and new northwest Florida estuary programs [Pensacola & Perdido Bays Estuary Program](#) and the Choctawhatchee Bay Estuary program.



Recommendation 1: Convene a Policy Board consisting of elected representatives from local government jurisdictions, a representative of the host FSU Panama City, and representatives from relevant regional, state, and federal agencies who will serve ex officio as non-voting participants. The Policy Board should elect co-chairs from the two counties initially participating, provide overall direction in the context of a community-supported, science-based effort, and make policy decisions on the staff, workplan, program priorities, budgets and expenditures. It will oversee the recruitment and hiring of an executive director and staff and will share authority for program administration with FSU Panama City. It will also appoint stakeholder representatives and experts to serve on the Management Council. The Policy Board initially will be composed of twelve (12) voting representatives and will invite nine (9) non-voting agency representatives to participate.

PROPOSED ST. ANDREW/ST. JOSEPH BAYS ESTUARY PROGRAM POLICY BOARD

Twelve (12) Voting Members:	Nine (9) Participating Agencies (Non-Voting)
Two Bay County Commissioners (2)	FDEP (1)
One Gulf County Commissioner (1)	FFWCC (1)
<i>Mayors or City Commissioners</i>	DEO (1)
Callaway (1)	NWFWMD (1)
Lynn Haven (1)	Emerald Coast Regional Council (1)
Mexico Beach (1)	EPA (1)
Panama City (1)	NOAA (1)
Panama City Beach (1)	USFWS (1)
Parker (1)	USACOE (1)
Springfield (1)	
Port St. Joe (1)	

Recommendation 2: Stakeholders recognized that Bay and Gulf counties, occupying 82% of the watershed, should participate directly in the governance of the Estuary Program. The four counties comprising the remaining 18% of the watershed, with no municipalities located within the watershed, include Washington at 10%, Calhoun at 4%, Jackson at 2%, and Walton at 2%. Over time, these counties may come to see the value of the Estuary Program and could be invited to participate in the governance of the Estuary Program and invest in the program or in discrete projects that may be identified in the program’s Comprehensive Conservation and Management Plan.

Recommendation 3: The Policy Board and Management Council should conduct meetings in an open and transparent process and allow for public comment at their meetings. The Estuary Program should offer opportunities for community input and engagement throughout the CCMP development process.

Recommendation 4: To build consensus on the Comprehensive Conservation and Management Plan for the bays and watershed, the Policy Board should appoint, convene and charge a Management Council, consisting of representatives from key stakeholder interests interested in the health of the bays and watershed. The Council should include representatives from state, regional, and local government agencies, university and research, conservation and citizen/civic groups, business, industry and economic development, tourism, real estate, development, military, and commercial fishery and recreational interests.

ST. ANDREW/ST. JOSEPH BAYS ESTUARY PROGRAM MANAGEMENT COUNCIL

Executive Committee: Chair and Vice Chair of the STEM, CAC and DFP advisory committees (6)

Management Council (39 members)

Academic and Marine/Watershed Research (2)	Land Use Development, Real Estate and Construction (3)
Business, Tourism (3)	Local government (10)
Civic and Community (3)	Military (3)
Conservation and Environmental (3)	State and Regional agencies (5)
Industry/Trade (3)	Federal agencies (4)

Recommendation 5: The Management Council should organize any committees or special area workgroups to assist it in the development of the CCMP. It is recommended, at a minimum, that a technical, a community action and a development and finance committee be established, as well as any other committees the Council deems appropriate based on the Council’s charge.

Recommendation 6: The Management Council should regularly communicate, coordinate and share science and data as appropriate with the Policy Board and other restoration and management initiatives and projects in the watershed. In addition, the Estuary Program staff should provide regular updates with elected commissions and councils in the watershed regarding the status and direction of the Comprehensive Conservation and Management Plan.

Recommendation 7: The Policy Board, Management Council and Estuary Program staff should explore with other estuary programs in Florida opportunities for mutual assistance and expertise.

IV. NEXT STEPS

Following the release of the Stakeholder Assessment Report, FSU Panama City will invite and seek to convene the Policy Board, composed of local elected officials and agency representatives, in January 2021.

The Policy Board will meet in early 2021 for organizational meetings regarding the workplan, the recruitment of an executive director and staff, and the appointment of a stakeholder Management Council. The Comprehensive Conservation and Management Plan is scheduled for completion and adoption by member local governments in 2023.

Attachment #1 List of Interviews Participants by Sector

SA/SJ BAYS ESTUARY ASSESSMENT LIST OF INTERVIEWS BY SECTOR			
	NAME	AFFILIATION	TITLE/ROLE
LOCAL GOVERNMENT			
1	Robert Majka PB	Bay County	Manager
2	Jim Muller	Bay County	RESTORE Act Coordinator
3	Warren Yeager	Gulf County	EDC & RESTORE Act Coordinator, Asst. County Manager
4	Mark McQueen	Panama City	City Manager
5	Greg Brudnicki	Panama City	Mayor
6	Kelly P. Jenkins, P.E.	Panama City Beach	Public Works Director
7	Mark Sheldon	Panama City Beach	Mayor
8	Vickie Gainer	Lynn Haven	City Manager
9	Greg Kidwell	Lynn Haven	Dir. of Public Utilities
10	Ben Janke	Lynn Haven	Dir. Economic Development
11	Eddie Cook PB	Callaway	City Manager
12	Pamn Henderson	Callaway	Mayor
13	Philip Griffitts	Bay County BOCC	Chair
14	Scott Jackson/	UF/Bay Cty. Sea Grant	Extension Agent [Director of office]
15	Julie McConnell	UF/Bay Co	Extension Agent
16	Andrea Albertin	UF IFAS	NW Water Resources Regional Specialized Agent
17	Richard Musgrave	City of Parker	Mayor
18	Ralph Hammond	City of Springfield	Mayor
19	Jenny Baldwin	City of Springfield	Director, Public Utilities
20	Mario Gisbert	Mexico Beach	City Administrator
21	Jim Anderson	Port St. Joe	City Manager
STATE, REGIONAL & FEDERAL AGENCIES			
22	Mike Norberg	FWC Div. of Marine Fisheries Mgt.	NW Regional Biologist
23	Kent Smith	FWC Div. Habitat Conservation	Aquatic Habitat Conservation & Restoration Section
24	Jonathan Brucker	DEP	Aquatic Preserves
25	Lisa Robertson	DEP	Restore, Environmental Admin
26	Kimberly Bodine	Career Source Gulf Coast	Executive Director
27	Ada Clark	Emerald Coast Regional Council	Community and Economic Development Manager
28	Leah Fox	Emerald Coast Regional Council	Planner
29	Paul Thorpe	Northwest Fl Water Mgt District	Chief, Bureau of Env. & Resource Planning
30	Darryl Boudreau	Northwest Fl Water Mgt District	Resource Program Planning Mgr

	SA/SJ BAYS ESTUARY ASSESSMENT LIST OF INTERVIEWS BY SECTOR		
	STATE, REGIONAL & FEDERAL AGENCIES		
	NAME	AFFILIATION	TITLE/ROLE
31	Melody Ray Culp	USFWS	Coastal Program
32	Marci Jackson	USACE Jacksonville	Florida Silver Jackets Liaison
33	Jennifer German	Career Source Gulf Coast	Deputy Director
34	Joy Swanson Pleas	FDOT Dist. 3	Environmental Administrator
35	Rick Durbrow,	US EPA	Sustainability Advisor
36	Ben Scaggs	Gulf Restore Council	Director
	BUSINESS/INDUSTRY/TOURISM		
37	Carol Roberts MC	Bay Co. Chamber of Comm	CEO
38	Dan Rowe	Visit Panama City Beach	
39	Kristopher McLane MC	Panama City Chamber of Commerce	CEO
40	Matt Griffiths	Panama City Chamber of Commerce	Chair Board
41	Becca Hardin	Bay Economic Development Alliance	President
42	Catherine McCloy	St Joe Company	Director of Planning and Development
43	Parker McClellan	NW Florida Beaches Intl. Airt.	Executive Director
44	Alex King	Port of Panama City	Operations Manager
45	Wayne Stubbs	Port of Panama City	Executive Director
46	Charles Boyett	Next Era Energy/ Gulf Power	Regional Representative
47	Jennifer Vigel	Destination Panama City	President & CEO
48	Olivia Crosby Sanches	Central Panhandle Realtors Assn.	Governmental affairs Director
49	Michael Archibald	Deseret Cattle & Timber	General Manager
50	Nina Butler	Westrock Company	Chief Environmental Officer and Associate General Counsel
51	Don Holtzclaw	Westrock Company	WestRock Demopolis Manager.
52	Brett Tremblay	Westrock Paper Mill Company	General Manager
	RECREATIONAL FISHING/BOATING		
53	Tom Putnam,	Half Hitch	Owner
54	Pam Anderson	Capt. Anderson's Marina	Owner
55	Bob Zales	Bob Zales Charter	Owner
	CONSERVATION ORGANIZATION		
56	Keith Hagen	St. Andrew Bay Watch SABW	President
57	Candis Harbison	Bay County Conservancy	President
58	Jonnie Smallman	St. Andrew Bay Watch SABW	Vice President
59	Gail Carmody MC	Citizen	former USFWS Scientist
60	Anne Birch	The Nature Conservancy	Florida Marine Program Manager
61	Brian Pelc	The Nature Conservancy	Coordinator, Apalachicola Regional Stewardship Alliance

SA/SJ BAYS ESTUARY ASSESSMENT LIST OF INTERVIEWS BY SECTOR			
STATE, REGIONAL & FEDERAL AGENCIES			
	NAME	AFFILIATION	TITLE/ROLE
62	Chad Hanson	Pew Trusts	Fisheries Science and Policy Analyst
63	Hollie Binns	Pew Trusts	Project Director
64	Thomas Wheatley	Pew Trusts	Manager, Conserving Marine Life, Gulf Coast
MILITARY			
65	Traycee Chapman	Tyndall AFB	Community Planner
66	John Skaggs	Naval Support Activity Panama City	Community Planning and Liaison Officer
67	Christopher Moore	Bay Defense Alliance Bay County Chamber of Commerce	Board Member Chair
68	Tom Neubauer	Bay Defense Alliance ERA Neubauer Real Estate	Chair Owner and President
69	Glen McDonald	Bay Defense Alliance	Board Member, Vice President, Gulf Coast State College
CIVIC/COMMUNITY/CITIZENS			
70	Ron Boyce	AMikids Panama City Marine Institute	Executive Director
71	Cecilla Scoon	Florida League of Women Voters	Bay Co Chapter President, Florida LWV Vice President
72	Dr Dusty May	Baysavers/ Dentist	Chair
73	Alvin Peters	Peters & Scoon	Attorney /Environmentalist
74	Lisa Tapscott	St. Andrews Historic Partnership and Museum	Executive Director
75	Nancy Hudson	St. Andrews Historic Partnership and Museum	Board Member
ACADEMIC/ CENTERS/ SCHOOLS			
76	Randy Hanna	Dean	FSU Panama City, Estuary Host
77	Jane Caffrey	Professor	UWF, Center for Environmental Diagnostics
78	Matt Deitch	Professor	Univ of Florida/UWF
79	Linda Fitzhugh	Professor	Gulf Coast State College
80	Chris Anderson	Professor	Auburn University, Wetlands Ecology
ESTUARY AND COASTAL PROGRAMS			
81	Matt Posner	Pensacola Perdido Bays Estuary Program	Interim Executive Director
82	Brian Underwood	Choctawhatchee Bay Estuary Program	Executive Director
83	Holly Greening	Coast Wise	Former Tampa Bay Estuary Exec. Dir.

Attachment #2 List of Interviews Participants- Alphabetical

SA/SJ BAYS ESTUARY ASSESSMENT LIST OF INTERVIEWS- ALPHABETICAL		
NAME	AFFILIATION	TITLE/ROLE
Jim Anderson	Port St. Joe	City Manager
Pam Anderson	Capt. Anderson's Marina	Owner
Michael Archibald	Deseret Cattle & Timber	General Manager
Chris Anderson	Auburn University School of Forestry	Professor, Wetland Ecology
Jenny Baldwin	City of Springfield	Director, Public Utilities
Anne Birch	TNC Florida	
Hollie Binns	Pew Trusts	Project Director
Kimberly Bodine	Career Source Gulf Coast	Executive Director
Charles Boyett	Next Era Energy/ Gulf Power	Regional Rep
Greg Brudnicki	Panama City	Mayor
Jonathan Brucker	DEP	Aquatic Preserves
Darryl Boudreau	Northwest Water Management District	
Ron Boyce	AMIkids Panama City Marine Institute	Executive Director
Nina Butler	Westrock	Chief Environmental Officer and Associate General Counsel
Jane Caffrey	Professor	UWF, Center for Environmental Diagnostics
Gail Carmody	Citizen	former USFWS
Traycee Chapman	Tyndall AFB	Community Planner
Ada Clark	Emerald Coast Regional Council	Economic and Community Development
Eddie Cook	Callaway	City Manager
Melody Ray Culp	USFWS	Coastal Program
Matt Deitch	Professor	Univ of Florida/UWF,
Rick Durbrow,	US EPA	Sustainability Advisor
Linda Fitzhugh	Gulf Coast State College	Professor
Leah Fox	Emerald Coast Regional Council	Planner
Vickie Gainer	Lynn Haven	City Manager
Jennifer German	Career Source Gulf Coast	
Mario Gisbert	Mexico Beach	City Administrator
Holly Greening	Coast Wise	Fmr Tampa Bay Estuary ED

SA/SJ BAYS ESTUARY ASSESSMENT LIST OF INTERVIEWS- ALPHABETICAL		
NAME	AFFILIATION	TITLE/ROLE
Matt Griffiths	Panama City Chamber of Commerce	Chair Board
Phillip Griffiths	Bay County Board of County Commission	Chair
Keith Hagen	St. Andrew Bay Watch SABW	President
Ralph Hammond	City of Springfield	Mayor
Randy Hanna	Dean	FSU Panama City, Estuary Host
Chad Hanson	Pew Trusts	Fisheries Science and Policy Analyst
Becca Hardin	Bay Economic Development Alliance	President
Candis Harbison	Bay County Conservancy	President
Pamn Henderson	Callaway	Mayor
Don Holtzclaw	Westrock	WestRock Demopolis Manager.
Nancy Hudson	St. Andrew Historic Partnership and Museum	Board Member
Ben Janke	Lynn Haven	Dir. Economic Development
Marci Jackson	USACE Jacksonville	Florida Silver Jackets Liaison
Scott Jackson	UF/Bay County Sea Grant	Extension Agent [Director of office]
Kelly P. Jenkins	Panama City Beach	Public Works Director
Greg Kidwell	Lynn Haven	Dir of Public Utilities
Alex King	Port of Panama City	Operations Manager
Parker McClellan	Northwest Florida Beaches Intl. Airport	Executive Director
Catherine McCloy	St Joe Company	Director of Planning & Development
Glen McDonald	Bay Defense Alliance Gulf Coast State College	Member Vice President
Kristopher McLane	Panama City Chamber of Commerce	CEO
Mark McQueen	Panama City	City Manager
Julie McConnell	UF/Bay Co	Extension Agent
Dr Dusty May	Dentist/Baysavers	Chair
Robert Majka	Bay County	Manager
Christopher Moore	Bay Defense Alliance	
Jim Muller	Bay County	Restore Act Coordinator
Richard Musgrave	City of Parker	Mayor
Tom Neubauer	Bay Defense Alliance	Chair
Mike Norberg	FWC Div. of Marine Fisheries Mgt.	NW Regional Biologist,

SA/SJ BAYS ESTUARY ASSESSMENT LIST OF INTERVIEWS- ALPHABETICAL		
NAME	AFFILIATION	TITLE/ROLE
Brian Pelc	TNC	LIT Coordinator, Apalachicola Regional Stewardship Alliance
Alvin Peters	Attorney	Peters & Scoon
Joy Swanson Pleas	FDOT Dist. 3	Environmental Administrator
Matt Posner	Pensacola Perdido Bays Estuary Program	Interim Executive Director
Tom Putnam,	Half Hitch	Owner
Lisa Robertson	DEP	Restore, Environmental Admin
Carol Roberts	Bay County Chamber of Commerce	CEO
Dan Rowe	Visit Panama City Beach	
Olivia Crosby Sanches	Central Panhandle Realtors Assn.	Governmental affairs Director
Ben Scaggs	Gulf Restore Council	Director
John Skaggs	Naval Support Activity Panama City	Community Planning and Liaison Officer
Cecilla Scoon	Florida League of Women Voters	Bay Co Chapter President, Florida LWV Vice President
Mark Sheldon	Panama City Beach	Mayor
Jonnie Smallman	St. Andrew Bay Watch SABW	Vice President
Kent Smith	FWC Div. Habitat Conservation	Aquatic Habitat Conservation & Restoration Section
Wayne Stubbs	Port of Panama City	Executive Director
Lisa Tapscott	St. Andrew Historic Partnership and Museum	Executive Director
Paul Thorpe	Northwest Water Management District	
Brett Tremblay	Westrock PC	General Manager
Brian Underwood	Choctawhatchee Bay Estuary Prog	Executive Director
Jennifer Vigel	Destination Panama City	President & CEO
Thomas Wheatley	Pew Trusts	Manager, Conserving Marine Life, Gulf Coast
Warren Yeager	Gulf County	EDC & Restore Act Coordinator, Asst. County Manager
Bob Zales	Bob Zales Charter	Owner

Attachment #3 Challenges Organized in Sections with Illustrative Quotes from Interviews

Attachment #3 Challenges Organized in Sections with Illustrative Quotes from Interviews

1. OVERALL CROSSCUTTING THEMES

- Governance and Estuary Programs (121)
- Watershed Approach (93)
- Resilience and Recovery (69)
- Funding (21)

Governance. *"Allocate based on the size of waters and land in the watershed. We need them involved at least to some extent. I don't want Bay county to be saddled with the full costs of the estuary program."*

Resilience and Recovery. *"92% of Springfield homes and businesses damaged or destroyed." "Michael opened up the possibility of some projects we would never have been able to do before. For example, funding for a \$3.1 million stormwater project that includes most of Bay county." "We have a growing understanding of what hurricanes do. It is hard to be civically engaged if you are displaced and this has been exacerbated by COVID-19." "In 2016 we had a ten-inch tropical storm, then Michael and now Sally – but we are learning important lessons from each to improve our ability to limit future impacts of flooding and runoff. If road washes out, we don't just rebuild, but figure out how to rebuild better."*

Funding. *"People are afraid of asking more from taxpayers, but it is crucial we deal with both wastewater and stormwater and we need to find resources to upgrade the old systems." "We have to have a defined plan in order to ask for more money/resources." "The finance piece is important but local governments need the capacity to write good grants, manage the grants and account for the program results." "The CCMP would help identify needs and projects for funding by state and federal agencies." "National Coastal Wetlands Conservation Grants could be a great funding source for high-dollar Estuary Program projects, for acquisition (especially) and restoration." "The financing piece is important. While there is lots of potential money for resilience and restoration, you need the capacity of local governments to both write good grant proposals, and to manage the grants and account for the program results."*

2. INFRASTRUCTURE CHALLENGES AND APPROACHES FOR HEALTHY BAYS

- Stormwater and Flood Protection (131)
- Wastewater- Septic and Sewer infrastructure and Impacts on the Bays (89)
- Natural Infrastructure, Living shorelines, Conservation Land Acquisition (38)
- Transportation (29)
- Water Supply (17)

Stormwater and wastewater. *"For stormwater and wastewater, retrofitting the former and higher treatment for the latter, higher treatment and updating aging infrastructure to prevent leaks and spills." "Septic systems and stormwater - those are two top issues affecting the quality of the bays." "With septic tanks in the county, we need to prioritize those closest to and leaking into the bays." "Link stormwater systems to green spaces and ecosystem resilience."*

Unpaved roads and sedimentation. *“Since the 1990's we have addressed the easiest unpaved roads questions - still have the difficult ones and looking for grant funds to contribute our share. Money is now there to address the remaining issues with unpaved roads.”*

Natural infrastructure. *“Panama City Beach’s Conservation Park is a model that hopefully can be replicated using a natural treatment area to get the nutrients out of the wastewater and remove the old plant and help the bay system.” “Living shorelines, green infrastructure or nature-based solutions have been adopted by FDOT.”*

Water Supply. *“I am concerned about Deer Point Lake as our water source and we need to be sure new growth is done with protection of the Bay in mind.”*

Water reuse. *“Water reuse can be a key strategy in reducing or eliminating wastewater discharges and associated pollution of surface waters.”*

3. COASTAL CHALLENGES AND APPROACHES FOR HEALTHY BAYS

- Water Quality Issues and Monitoring (80)
- East Pass- Flushing and Dredging (80)
- Fisheries and Aquaculture (80)
- Bays Marine Habitat, Wetlands preservation, Aquatic Preserves, Seagrass, Protected and Invasive Species and Sea Level Rise (54)
- Intracoastal Canal Connecting Bays systems (29)
- Shoreline restoration, Beach Renourishment and Sand Dune Restoration (8)
- Red Tides and Algae Blooms (?)

“Water quality is biggest challenge by far since it drives everything else.” “The bays formerly flourished with scallops and oysters, but no longer. We have some clean areas and some dirty areas where we need to determine the sources.” “We lost all our trees, the water table is extremely high, and yards are waterlogged. The water goes directly into and adversely impacts the health of the bays.” “Indian Lagoon area runoff may be impacting St. Joe Bay.”

Water Quality Monitoring. *“For 30 years Bay Watch has operated water sampling using citizen volunteers and has struggled to sustain funding for a director, volunteer coordinator and technical person.” “Bay Watch has done and is still doing good baseline work.”*

East Pass. *“We should reopen the old pass as it will be critical to increasing health of the Bay.” “Open east pass and fund infrastructure improvements. This will offer more opportunity to learn about the Bay ecology.” “The cut would also add to the quality of life by providing additional access to the Gulf.” “The East Pass discussion has gone along for a long time, but with no community consensus yet. Many argue it will improve circulation others challenge what the impacts will be on the bay’s health and the ongoing cost of maintaining it.” “The Pass is an interesting question that must be supported by science.” “Love to see us open the old pass for more flow, but we need the science to back this action up.” “Based on the about to be launched feasibility study, may I suggest the Estuary program should await the study results before taking this issue up.” “If this pass is reopened it should come with a commitment of the residents and businesses in Grand Lagoon to contribute to keeping the water clean.”*

Fisheries. *"Healthy bays and our fisheries are very important to both the residents and visitors." "Water access for water users is big issue in both bay systems." "Scallops did very well this year. I have never seen so many boats on opening weekend." "Seagrass beds on the back of Shell Island are home to many diverse species of commercially and recreationally important fish." "FWC fisheries are generally managed well." "Bay County's Artificial Reef Program has been helpful for the fishing community, the diving community, and the tourism, and could bringing fish species that we prize, like grouper and snapper." "Local fishermen, tour boat operators and divers over time added material to nearby sites which are near very high-density seagrass beds and pose a risk to this valuable underwater habitat. Marine debris can include paper and plastic products, construction debris, derelict vessels, and derelict aquaculture and fisheries gear. Solutions may include locating appropriate sites for approved artificial reef structures along with the removal of the marine debris objects." "We have experienced a loss of oysters in St. Andrews Bay which historical oyster fishery supported an oyster association which has now disappeared. A West Bay oyster reef project was aimed at resilience and restoring habitat, but enforcement of poaching has still been a challenge." "From state management perspective focus increasing for good management we acknowledge the need for quality habitat like sea grass to support fishery habitat. This goes beyond just fishery management to the habitat that supports that fishery."*

Preservation and conservation. *"Most of the area around the bay is conservation land and undeveloped." "The state did buy quite a bit of land that protects bay from development related impacts." "Helps to have so much state land around the bays." "Preservation and use are conflicting but equally important pillars. This plan needs to reflect that dichotomy." "Re-forestation following Michael should be strategic with public and private landowners involved and not just a shotgun approach." "Community support for preservation of a functioning watershed and the Bay is essential." "We need to keep water frugal forests frugal going forward." "It is in our best interest in terms of water supply and quality to see land reforested."*

Restoration and living shorelines. *"A living shoreline is an environmentally alternative to a seawall to control shoreline erosion and restore habitat." "We have a substantial amount of mangroves in St Joseph Bay now. We are not sure what the impacts will be of the northern progression of the mangroves up the Florida coast. Could become a shoreline restoration technique in the future."*

Seagrass, marshes and mangroves. *"Several factors contribute to the bay's clarity, such as its spring-fed tributaries, low amounts of silty clay in the local soils and the filtering effect of the marshes and seagrasses." "If left alone seagrass would flourish in all the bays in the watershed." "Prop scarring is important issue to deal with given the large amount of boat traffic, tourists in both bay systems and the need to protect sea grass beds." "Sea grass is a key indicator of broader bay health for DEP and FWC and they are working on mitigating and replanting." "Sea grass is the canary in the coal mine. We need a paid person to run a monitoring program, something more consistent, constant and institutionalize both water quality and sea grass monitoring." "Sea grass is gorgeous in St. Joe and improving in St. Andrew. It is a key indicator of the bays health." "Sea grass beds are a keystone community for both bays."*

Wetland habitat. *"Coastal wetland habitat conservation is critical to ensure that wildlife and coastal communities continue to thrive. Wetlands provide crucial habitat for fish, birds and*

other wildlife, including breeding grounds, nurseries, shelter and food.” “Wetland protection is a major issue. The storm ironically destroyed some of the old buildings that were infringing on the wetlands and we are rebuilding with this in mind.”

Protected species. “The Panama City crawfish, a micro species listed by the FWC as a species of special concern, thrives in drainage ditches and swales from West Bay to Calloway Creek. St. Joe has agreed to sell land to the County to preserve habitat without requiring a species listing which would have impacted development.” “

“Sea level rise and climate change will be huge for the bays, but we are currently building along shoreline impacting shoreline ecosystem.” “With sea level rise we will have to deal with salt water intrusion.”

Red tide and harmful algae blooms. “We need to keep an eye on red tide – it can devastate an estuary.” “Red tide is a significant problem and was very bad two years ago. If red tide hits our bays, then our tax base is directly hit as we are dependent on business tax and it hurts our economy.” “Harmful algae blooms have in the past impacted scallop seasons in St Joseph Bay.”

Intracoastal Canal. “There is a group collecting data and looking at Intracoastal and river canal contributing sediment into St Joseph Bay. If we are able to show the community the data on the problem, then it will be willing to address possible options.” “Many have strong opinions about the topic but we need more reliable data as to what is happening and where the flow is going.”

4. ECONOMIC PROSPERITY AND A WORKING BAY: BUSINESS/TOURISM/ INDUSTRY/MILITARY

- Economy/ Economic Development/Business/Tourism (90)
- Military missions and the Economy (66)
- Industry and a working Bay (54)
- The Recreation Economy (17)
- Workforce Development and Job Opportunities in the Estuary (7)
- Marine Science/Industry (5)

Connect the health of the watershed with the economy. “Hope this program helps connect environmental health of the Bay with economic issues. To achieve balance, it will be important to have all interests at the table.” “People come here for water related industries and jobs.”

Industry and a working Bay. “Keep in mind we are here because it is a working Bay.” “The Panama City port is important to the community as well as the two military bases.” “The port has a strong commitment to being an environmental steward and our projects are environmentally sound. We will want to support general goals of cleaning up and improving the Bay.” “Waterways and bay are vital for the port with two companies on site and also the West Rock Paper Mill.” “We used to have a St Joe port authority and it may try to reestablish a functioning port.” “Ships no longer discharge ballast in the Bay.” “We provide incentives to keep land in forestry rather than sell it for development by Walmart and we are one of the country’s largest recyclers of wood fiber.”

Military missions and the economy. “My concern is protecting military training and operating areas across the multiple counties and allowing bases to grow. Keeping the bays clean is critical to their missions.” “The Navy Support Center has a heavy emphasis on underwater

training and testing and heavy use and interest in sustaining the health of the Bay. It represents a large source of civilian employment with over 3000 civilians and nearly 300 military personnel.”

Recreation economy. “All of the cities looking to redevelop their economic centers and promote recreational and trail opportunities.” “The underlying infrastructure is very limited for exploiting recreational opportunities.” “Just like a watershed, they are also looking at recreation sheds.” “Lots of conversation about waterways and related recreation.” “St. Joe Bay is unique as relatively secluded with lots of human impacts. Recreational use can impact the sea grass habitats. Scallops drive their tourism.” “Recreation is an important part of the tourism economy.”

Marine Science/Industry. “A Canadian private equity firm has purchased property near the Bay for a marine focused academic program.” “We are targeting marine technology industries such as Suzuki Marine out of California which bought 20 acres on the Bay to build buildings and docks for testing motors on boats.”

5. THE WATER-LAND INTERFACE FOR GROWTH AND DEVELOPMENT

- Growth/Development/Construction (77)
- Forestry, Silviculture and Urban Trees (34)
- Conservation Land Acquisition, and Land Stewardship (32)

Current growth. “Bay County was fortunate to see an additional 9% growth in ad valorem despite the storm.” “Biggest problem is 500 new houses planned post Michael in Port St Joe, along with their boats. With increased scallops, more people are coming and we need to guard against over harvesting.” “There are also mitigation banks that sell credits in exchange for building on remaining areas.”

Future growth. “Human population and growth management are major issues.” “Future growth will need to comply with much higher building standards.” “Long term I think balancing the message of sustainability with development as the status quo now is not sustainable and will result in major impacts on the health of the bays within ten years.” “Also St. Joe is a major developer in the area with a 40-year plan to build 100,000 homes with marina on the Bay. St. Joe is looking at 3500 homes in just the first phase. This may be the next Villages. However, St. Joe has been a great partner in this area and responsible in setting aside lands to protect the water quality in West Bay.” “The 2015 Bay-Walton Sector Plan is an update and expansion of the previously approved West Bay Sector Plan adopted in 2003 covering 75,000 acres. This adds 46,000 acres, most of these are located in Bay County, with a smaller component located in Walton County. The larger Bay-Walton Sector Plan, with a 50-year vision for directing growth, development and environmental resource protection, will have a significant active adult/retirement component.”

Growth that protects water quality. “St. Joe has big plans with Margaritaville 55+community, much of it along West Bay. We support growth within the sector plan that includes conservation areas, but we also need to be sure the water quality is protected in the bay.”

Greater resiliency. “Barring unforeseen circumstance, the population is on the increase with new units going in weekly. The demand is there with new development going in with up-to-date regulation. The problem is the old systems. Stormwater was designed to handle road

runoff but not the increased development. New development must retain and treat runoff. We need to be sure the design standards are doing what is intended, especially if the storm levels are increasing. We need to monitor to be sure we are meeting the challenges presented by higher frequency events.” “Before Michael, we were an economic engine. As more housing was built, we didn’t keep up with stormwater capacity.”

Development and the conversion of septic systems. *“New development should be required to be on sewer system. The county will never require existing septic systems to hook up to sewer unless state mandated.” “Need to be sure new growth is done with protection of the Bay in mind, along with addressing the old systems and converting them from septic to sewer systems.” “People building in unincorporated areas then want to tie in to our sewer systems.”*

Building codes and flooding. *“After the hurricane, counties were forced to rethink building codes. You have to build two feet above the base flooding level. It is increasing the cost and limiting some of the rebuilding.”*

Community support for conserving land to protect the water. *“Much of the land adjacent to the Bay is already in conservation or preserved or buffered from building directly on the water. The estuary program should build community support for the preservation of the land and water quality essential to the health of the bays.”*

County and City cooperation. *“There is a better relationship between Bay County and local cities than there was ten years ago. The estuary program should build on this”*

Developer and Homeowner awareness of impacts on the bays. *“You need to have pesticide and fertilizer application certification here in Florida. At least educate developers and homeowners on the issue and require more proficiency for irrigation or landscaping.”*

6. RESEARCH, PUBLIC AND LEADERSHIP EDUCATION AND OUTREACH

- Public Education (34)
- Studies of the Bays and Watershed (8)
- Marine Science/Industry Education (5)

Outreach to the general public. *“People have a limited understanding of the importance of the Bay to the communities economy and their well being.” “Need an active outreach program for the estuary. Bay Watch has depended on volunteers with their own resources.” “Sea grass important indicator and Bay Watch is very interested in helping with education of visitors.”*

Inclusion of all communities that impact health of the bays. *“There are more black fishermen than most realize, Redfish point was a black fishing community displaced by Tyndall AFB. There is still a historic graveyard there. Need to reach out to involve communities not traditionally included. They are hard to find and engage at times, but they have a long history and love for the water and they know the bay waters and bayous.” “The Estuary Program should engage with existing community, educational and civic organizations to help leverage its efforts at outreach and education.”*

Schools and the bays. *“Deane Bozeman School’s agricultural students partnered with St. Andrew Bay Watch as a part of their “Bay Grasses in Classes.” The environmentally friendly projects are funded by the U.S. Fish and Wildlife Service Coastal Program and the National Fish and Wildlife Foundation. The students have been monitoring a “living shoreline” for the*

past three years. The students go out twice a year to monitor the living shoreline and to plant cord-grass plants, which improve the habitat for the organisms that live in West Bay.” “We support STEM education with at risk kids adding underwater drones to our capacity and trying to work with Duke University on developing a certification program for high school kids with underwater drones.”

Volunteers and living shorelines. “It was constructed at Naval Support Activity alongside St. Andrew Bay and the Navy decided to take a greener approach. This project included three segments of shoreline that were 800, 900, and 1400 feet long, and about 200 oyster reefs were installed using loose shell. More than 600 civilian and military volunteers worked nearly 3000 hours to make this project happen, and two high schools helped grow the 21,000+ plants required.”

Homeowners. “Education on the importance of the bays health is needed for homeowners to limit impacts from their properties.” “We don’t control the rain but we do control how much we put on our yards.” “We should help educate homeowners on living by a bay system in terms of best practices.”

An Estuary Educational Center. “I would love to see a St. Andrew/St Joseph estuary center at the old depot site near Lynn Haven to educate kids and the importance of the bays health to the community.”

Estuary program outreach and education. “Focused education might be enhanced - opportunity possibly through the estuary program.” “Promoting stewardship, education and outreach will be critical for the estuary program.”

Build on the Bay studies. “There have been many studies conducted of the Bay - would like to use those to get a head start - hopefully gathering existing information will be the first step.”

7. Quality of Life and Heritage as a Fishing Community

- Community Values (25)
- Parks, Recreation and Access to the Bays (25)
- Cultural Heritage & Working Waterfronts (10)

Community connection and public access to the bays. “The bay system itself is a huge opportunity. Everyone is connected to the bays, but many lack an understanding of the need for sustainable approach to protecting the bay as an asset to enjoy for the generations to come.” “For clean bays and fishing and recreation opportunities, then we need to recognize the activities that will support sustainability and promote economic value of the bays.” “Health of the bay is vital to the community.” “People who historically have been here want to save our resources.”

Parks. “Parks are heavily utilized - any park near water is well utilized.” “We enrich lives through parks, recreation and wellness.”

Cultural Heritage and Working Waterfronts. “The heritage of working waterfronts and fishing villages should be celebrated and preserved for future generations.”

Access to the Bays. “The vision for the Estuary Program should include access to the bays.”

Community Redevelopment. “The Downtown North and Millville Community Redevelopment Agencies partnered with First Baptist Church of Panama City to provide sites for World Changers whose mission is to equip students to share and work within communities by

painting and performing minor repairs to homes where homeowners cannot afford the repair. Many applicants for these services are elderly and also live alone.” “Four CRAs in Panama City is a testament to this community’s too many blighted areas.”

Attachment #4- About the FSU Consensus Center

ABOUT THE FCRC CONSENSUS CENTER AT FLORIDA STATE UNIVERSITY

The Consensus Center is based at Florida State University in Tallahassee. For over 25 years, the Consensus Center has helped to demonstrate the power of solutions that have been developed through collaboration and consensus-building. From our neutral home in the State University System, the FCRC has assisted hundreds of federal, state, and local governments as well as private and civic interests with engaging in collaboration on public issues.

The Center brings to all our projects a first-hand in-depth understanding of the organizational, intergovernmental and agency relationships on a wide range of public issues. The Center's experienced and expert staff is committed to work with public sponsors and clients, conveners and interested stakeholders to develop, design, and implement high quality consensus-building projects that are aimed at achieving collaborative solutions to complex public issues.

The Consensus Center Team embodies a wealth of communication, facilitation, strategic planning and problem-solving experience. The Consensus Center has years of experience developing collaborative planning processes, facilitating meetings and developing public outreach programs. The Center has worked with hundreds of stakeholder groups with diverse representation that has included: public agencies, recreation users, agriculture, landowners, water management districts, environmental groups, transportation interests, non-profits, community and civic leaders, business leaders, public officials, and the public.

The Center has worked around the state and the country facilitating stakeholder and public input processes and is currently working on initiatives with: the FDACS, SJRWMD, SRWMD, DBPR, FDOT, DEP and Monroe County. Current and past strategic planning projects include: MPOAC statewide Strategic Directions plan; Emergency Notification Strategic Planning Summit; South Florida Water Management District Strategic Integration process; Florida Ports Council strategic planning process; Florida Geographers Association statewide strategic planning process; center and department strategic plans (FSU Department of Sociology, Center for Advanced Power Systems, FSU). Additional information regarding the FCRC Consensus Center at Florida State University and our projects is available at the following URL: <http://consensus.fsu.edu/>.

ABOUT THE FSU CONSENSUS CENTER TEAM

Harald (Hal) M. Beardall is the Assistant Director at the FCRC. He has designed and facilitated numerous large and small-scale collaborative processes to build consensus around statewide, regional and local public policy issues. He has served as a project lead for FCRC initiatives with the Florida Department of Transportation including statewide stakeholder committees on modal plans and the Florida Transportation Plan. Mr. Beardall served on the DOD Gulf of Mexico Regional Airspace Initiative team involving modeling and assisted in facilitating the Cyber Security Standards Drafting Team of the North American Electric Reliability Corporation (NERC). He helped create the MPOAC Institute with CUTR at University of South Florida, which trains local elected officials. He co-facilitated the Committee for a Sustainable Emerald Coast and the “How Shall We Grow”

Visioning Process in Central Florida.

Robert Jones has been the Director of the FCRC since 1991. He is highly respected nationally for his leadership in the field of collaboration and consensus building on environmental, land use, and community engagement issues, serving on a number of national practitioner boards and committees and is a member of the USEICR and EPA National Rosters. He has extensive experience and expertise in designing and facilitating large consensus-building stakeholder collaboration processes from national strategic planning summits to statewide and regional task forces and commissions on regional visions and strategic plans. Mr. Jones has provided consultation to public, private and non-profit organizations on assessing readiness for collaboration, strategic planning and building collaborative capacity in the context of Everglades restoration initiatives, endangered species, estuary programs, water resource and water supply, regional visioning, military-civilian landscape planning and community engagement. In the past he has also facilitated and mediated land-use, development and environmental and natural resource disputes.

Rafael Montalvo is an Associate Practitioner with the FCRC. He is nationally and internationally respected for his meeting facilitation and training in a variety of cultural settings. He has facilitated and mediated numerous large and small-scale processes to build consensus around controversial public policy issues, as well as trained hundreds of individuals who participate in public policy discussions and consensus-building. His cases have included siting of phosphate mines, response to wildfire emergencies, naval base reuse, military air space allocation, and many environmental and transportation processes. Recent cases included a collaborative process to develop a Florida Oceans and Coasts strategic plan, measures to address water quality in coastal waters of southwest Florida, a county-wide collaboration involving seventeen local governments in developing and adopting ordinances and programs to implement smart growth, a regional effort to develop a regional transportation authority, and a federal, state and local effort to renegotiate airspace allocation and use over the Florida Panhandle and Gulf of Mexico.