

## Council Member Applicant and Proposal Information Summary Sheet

<b>Council Member:</b> State of Florida	Point of Contact: Phil Coram <hr/> Phone: 850-245-2167 <hr/> Email: phil.coram@dep.state.fl.us
<b>Project Identification</b>	
Project Title: <b>Northwest Florida Estuaries and Watersheds</b> <span style="float: right;">Project</span>	
State(s): <b>Florida</b>	County/City/Region: <b>Escambia, Santa Rosa, Okaloosa, Walton, Bay, Gulf, Franklin, Wakulla, Holmes, Washington, Jackson, Calhoun, Liberty, Gadsden, Leon, and Jefferson Counties</b>
General Location: <i>Projects <u>must</u> be located within the Gulf Coast Region as defined in RESTORE Act. (attach map or photos, if applicable)</i> <b>Northwest Florida (Florida Panhandle)</b>	
<b>Project Description</b>	
<b>RESTORE Goals:</b> <i>Identify all RESTORE Act goals this project supports. Place a P for Primary Goal, and S for secondary goals.</i>	
<u>S</u> Restore and Conserve Habitat	<u>S</u> Replenish and Protect Living Coastal and Marine Resources
<u>P</u> Restore Water Quality	<u>S</u> Enhance Community Resilience
<u>S</u> Restore and Revitalize the Gulf Economy	
<b>RESTORE Objectives:</b> <i>Identify all RESTORE Act objectives this project supports. Place a P for Primary Objective, and S for secondary objectives.</i>	
<u>S</u> Restore, Enhance, and Protect Habitats	<u>S</u> Promote Community Resilience
<u>P</u> Restore, Improve, and Protect Water Resources	<u>S</u> Promote Natural Resource Stewardship and
<u>S</u> Protect and Restore Living Coastal and Marine Resources	<u>S</u> Environmental Education
<u>S</u> Restore and Enhance Natural Processes and Shorelines	<u>S</u> Improve Science-Based Decision-Making Processes
<b>RESTORE Priorities:</b> <i>Identify all RESTORE Act priorities that this project supports.</i>	
<u>X</u> Priority 1: Projects that are projected to make the greatest contribution	
<u>X</u> Priority 2: Large-scale projects and programs that are projected to substantially contribute to restoring	
<u>X</u> Priority 3: Projects contained in existing Gulf Coast State comprehensive plans for the restoration ....	
<u>X</u> Priority 4: Projects that restore long-term resiliency of the natural resources, ecosystems, fisheries ...	
<b>RESTORE Commitments:</b> <i>Identify all RESTORE Comprehensive Plan commitments that this project supports.</i>	
<u>X</u> Commitment to Science-based Decision Making	
<u>X</u> Commitment to Regional Ecosystem-based Approach to Restoration	
<u>X</u> Commitment to Engagement, Inclusion, and Transparency	
<u>X</u> Commitment to Leverage Resources and Partnerships	
<u>X</u> Commitment to Delivering Results and Measuring Impacts	
<b>RESTORE Proposal Type and Phases:</b> <i>Please identify which type and phase best suits this proposal.</i>	
<u>  </u> Project	<u>X</u> Planning
<u>  </u> Technical Assistance	<u>X</u> Implementation
<u>  </u> Program	
<b>Project Cost and Duration</b>	
<b>Project Cost Estimate:</b> Total : <b>\$16,845,000</b>	<b>Project Timing Estimate:</b> Date Anticipated to Start: January 1, 2016 Time to Completion: <u>  10  </u> years (including monitoring) Anticipated Project Lifespan: <u>  &gt;25  </u> years

## Northwest Florida Estuaries and Watersheds

### Executive Summary

Northwest Florida's major riverine-estuarine watersheds (Figure 1) encompass 16 Florida counties, including the entirety of Florida's eight counties disproportionately affected by the Deepwater Horizon oil spill. The watersheds include the following:

- Perdido River and Bay
- Pensacola Bay System
- Choctawhatchee River and Bay
- St. Andrew Bay
- Apalachicola River and Bay
- Ochlockonee River and Bay
- St. Marks River and Apalachee Bay

All of these, with the exception of the St. Andrew Bay watershed, are interstate in character. The overall drainage area extends over portions of 86 counties in Alabama and Georgia.



Figure 1. Northwest Florida Estuaries

The listed watersheds drain to the Florida Panhandle coast on the northern Gulf of Mexico. This region encompasses a series of estuaries, including Perdido, Pensacola, Choctawhatchee, St. Andrew, St. Joseph, Apalachicola, Ochlockonee, and Apalachee bays and Santa Rosa Sound. These waterbodies support significant habitat diversity and productivity and include extensive seagrass communities, shellfish beds, and salt marshes, among other habitat types. The region also supports a series of unique coastal dune lakes and other endemic habitats. These resources and their watershed functions provide an array of important public benefits and help define the character and economies of the surrounding communities.

Significant opportunities exist for restoration and enhancement. Historically, the region's watersheds and coastal waters have experienced adverse effects from urban stormwater runoff, domestic and industrial wastewater, widespread sedimentation, and habitat loss and alteration. Recently, the 2010 Deepwater Horizon oil spill directly and profoundly impacted the region, which includes all of Florida's eight disproportionately affected counties. The western counties in particular received direct impacts from the spill.

Through the proposed *Northwest Florida Estuaries and Watersheds* project, state and regional agencies and cooperating stakeholders will accomplish high priority near-term restoration and watershed protection actions while in the process building an enduring foundation for continuing cooperative efforts to protect and further restore watershed resources and functions. The project includes four major components: comprehensive updates to watershed management plans for each of the region's major watersheds; design and permitting of priority projects; project implementation; and monitoring. Implementation will include urban stormwater retrofit projects and application of best management practices; restoration and enhancement of wetland, riparian,

and floodplain habitats and functions; public outreach and engagement; and associated program and project monitoring. All of these activities are mutually supportive and complementary, leading to direct improvement of water quality, aquatic and coastal habitat quality, living resources, watershed functions, coastal resiliency, and associated public values and benefits. An objective of this effort will be to implement priority projects within each of the major watersheds, thus providing for ecosystem enhancement and protection and building foundations for future actions across a diverse set of estuaries.

The primary Gulf Coast Ecosystem Restoration Council Comprehensive Plan goal addressed by this proposal is **restore water quality**, with complementary emphasis on the goal to **restore and conserve habitats**. The watershed management effort is focused on water quality protection and the restoration of key coastal, estuarine and marine habitats. Overall accomplishment will also contribute significantly to protection and restoration of coastal, estuarine, and marine habitats; living coastal and marine resources; coastal resilience; and the Gulf economy. Similarly, the primary Comprehensive Plan objective addressed is to **restore, improve, and protect water resources**, with related focus on the objective to **restore, enhance, and protect habitats**. Project accomplishment will also contribute directly to the accomplishment of each of the other Comprehensive Plan goals and objectives.

Measures of success will be defined and developed in detail through the watershed plan updates. They will include timely plan and project completion; successful and ongoing stakeholder and public engagement; water quality metrics, with specific parameters varying based on specific sites and project objectives; and habitat restoration metrics, such as acres restored and site stability.

Risks and uncertainties include both programmatic and site-specific perspectives. Success will ultimately depend on long term engagement of stakeholders and communities, beyond the generation most immediately affected by Deepwater Horizon. The success of individual site restoration can be greatly affected by variable and intense weather conditions, as well as coastal erosion and sea level rise, but these risks can be mitigated through appropriate planning and design that enhance coastal resiliency and natural responsiveness to these processes and discrete events. Coastal areas may be subject to intensive public use, which has the potential to affect the stability and survivability of restoration sites, but can be mitigated through appropriate local site management and maintenance.

Under the proposal's time line, watershed planning efforts are expected to be completed within 24 months (years 1-2), design and permitting within years 3-4, project implementation in years 4-6, and project monitoring over years 4-10.

This proposal seeks funding in the amount of \$16,845,000 to complete all aspects of the project described above.

## **Proposal Narrative**

The *Northwest Florida Estuaries and Watersheds* project will accomplish high priority near-term restoration and protection actions benefitting the region's estuaries and coastal watersheds while building an enduring foundation for continuing cooperation to protect and further restore watershed resources. These actions will directly enhance water quality, aquatic ecosystems, and associated wetland and riparian habitats within and along the northern Gulf of Mexico. This project includes four major components:

- 1) Comprehensive updates to watershed management plans for each of the region's major estuarine/riverine watersheds (\$645,000);
- 2) Design and permitting of identified priority projects (\$3,000,000);
- 3) Project implementation (\$12,000,000); and
- 4) Project monitoring (\$1,200,000).

Implementation will include urban stormwater retrofits and best management practices; restoration and enhancement of wetland, riparian, and floodplain habitats and functions; public outreach and engagement; and associated monitoring. The updated watershed plans will also assist in identifying and prioritizing needed improvements to wastewater treatment and management. An ongoing community-based watershed planning process will continue, building upon recent efforts of The Nature Conservancy and regional stakeholders to establish holistic watershed-based initiatives and identify priority issues and project options.

Implementation of the *Northwest Florida Estuaries and Watersheds* project will contribute to accomplishment of each of the Gulf Coast Ecosystem Restoration Council's Comprehensive Plan Goals:

Comprehensive Plan Goal	Project Contributions
1. Restore and Conserve Habitat – Restore and conserve the health, diversity and resilience of key coastal, estuarine and marine habitats.	This initiative will guide completion of water quality improvement and habitat restoration projects that will contribute to the restoration and conservation of coastal ecosystem health, diversity, and resilience.
2. Restore Water Quality – Restore and protect water quality of the Gulf Coast region’s fresh, estuarine and marine waters.	Stormwater treatment, wetland and riparian restoration, and associated efforts will restore and protect the quality of the Gulf Coast region’s fresh, estuarine and marine waters.
3. Replenish and Protect Living Coastal and Marine Resources – Restore and protect healthy, diverse and sustainable living coastal and marine resources.	Restoration and protection of water quality and wetland and aquatic habitats will directly restore and protect living coastal and marine resources.
4. Enhance Community Resilience – Build upon and sustain communities with capacity to adapt to short- and long-term changes.	Restored riparian, wetland, and floodplain functions will contribute to the resilience of coastal ecosystems and coastal human communities.
5. Restore and Revitalize the Gulf Economy – Enhance the sustainability and resiliency of the Gulf economy.	Northwest Florida’s economy and quality of life are closely associated with the health and quality of the region’s watersheds and coastal waters. Completion of effective watershed plans and water quality and habitat restoration priorities will benefit the public and enhance the resilience and quality of the region’s economy.

The primary goal this proposal will address is **restore water quality**, with complementary emphasis on the goal to **restore and conserve habitats**, as the watershed management effort is focused on water quality protection and restoration and the restoration of key coastal, estuarine and marine habitats. Accomplishment of this, however, also contributes significantly to living coastal and marine resources; coastal resilience; and the Gulf economy.

Among the Comprehensive Plan’s objectives, the emphasis of this proposal is to **restore, improve, and protect water resources** with related focus on the objective to **restore, enhance, and protect habitats**. Similarly, however, project accomplishment will contribute directly to the accomplishment of each of the stated objectives:

<b>Comprehensive Plan Objective</b>	<b>Project Contributions</b>
1. Restore, Enhance, and Protect Habitats.	Completion of water quality improvement and habitat restoration projects will directly restore and conserve aquatic, wetland, and riparian habitats, contributing to the restoration and conservation of coastal ecosystem health, diversity, and resilience.
2. Restore, Improve, and Protect Water Resources.	Completed projects will directly improve and protect water resources. Public engagement will further promote long-term stewardship and success.
3. Protect and Restore Living Coastal and Marine Resources.	Protection and restoration of water quality and coastal and wetland habitats will directly protect and restore living coastal resources.
4. Restore and Enhance Natural Processes and Shorelines.	Protection and restoration of riparian and wetland habitats will directly enhance natural process and shorelines.
5. Promote Community Resilience.	Restored riparian and wetland habitats and floodplains will contribute to the resilience of coastal ecosystems and coastal human communities.
6. Promote Natural Resource Stewardship and Environmental Education.	Public engagement and outreach and public distribution of watershed data and information will contribute to long-term resource stewardship and environmental education.
7. Improve Science-Based Decision-Making Processes.	Specific projects will be prioritized based on professionally accepted scientific methodology, to include water and habitat quality data and empirically-based evaluations of best management practices and treatment and restoration methods.

In addition to contributing to the achievement of Comprehensive Plan goals and objectives, implementation of the proposal will help fulfill commitments made within the Comprehensive Plan, outlined in the table that follows.

<b>Comprehensive Plan Commitment</b>	<b>Project Contributions</b>
Commitment to Science-based Decision Making	Specific projects will be prioritized based on professionally accepted scientific methods, water and habitat quality data, and empirically-based evaluations of BMPs and treatment and restoration methods.
Commitment to Regional Ecosystem-based Approach to Restoration	Using the major estuarine watersheds as the basis for planning, project design, and prioritization directly achieves a regional and ecosystem-based approach to restoration. Watersheds are an appropriate basis for defining affected ecosystems and their contributing human, environmental, and physical attributes.
Commitment to Engagement, Inclusion, and Transparency	The cooperative planning and project development process proposed explicitly incorporates engagement with and participation on the part of the public and other governmental and nongovernmental stakeholders.
Commitment to Leverage Resources and Partnerships	Implementation and long-term maintenance will be accomplished cooperatively with local governments and other watershed partners. The effort will also leverage funding associated with state programs and other public and private initiatives.
Commitment to Delivering Results and Measuring Impacts	Watershed planning is focused on articulating realistic goals and operational objectives. The implementation phase will directly achieve priority results; associated monitoring will be conducted on both programmatic and project specific levels.

Background

Northwest Florida covers approximately 11,200 square miles and encompasses seven major watersheds (listed here west to east):

- 1) Perdido River and Bay
- 2) Pensacola Bay
- 3) Choctawhatchee River and Bay
- 4) St. Andrew Bay

- 5) Apalachicola River and Bay
- 6) Ochlockonee River and Bay
- 7) St. Marks River and Apalachee Bay

These watersheds cover the entirety of northwest Florida and over 30,000 square miles in Florida, Alabama, and Georgia. All except one (St. Andrew Bay watershed) are interstate systems. The majority of the overall watershed area is north of the state line in Alabama or Georgia (Figure 1).

Northwest Florida’s watersheds drain to the Florida Panhandle’s coast on the northern Gulf of Mexico. Coastal waters in the region include Perdido, Pensacola, Choctawhatchee, St. Andrew, St. Joseph, Apalachicola, Ochlockonee, and Apalachee bays and Santa Rosa Sound. These estuarine systems are among the state’s most productive. They comprise a zone of habitat diversity and productivity and include seagrass communities, shellfish beds, and salt marshes, among other habitat types. The region also supports coastal dune lakes, which are unique to northwest Florida, and other endemic habitats and species. These resources and their associated watershed functions provide an array of important public benefits and help define the character of the surrounding communities. Among these benefits are high quality water resources, fish and wildlife resources, flood protection, recreational opportunities, and aesthetic benefits. These are critical to the health of the Gulf of Mexico and integral to the region’s economy and the quality of life of residents and visitors.

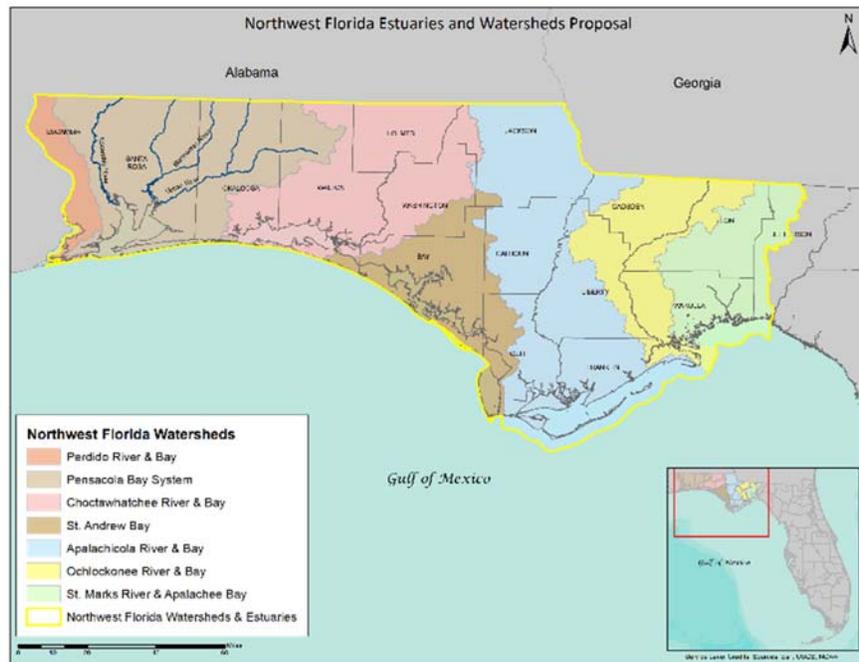


Figure 2. Northwest Florida Watersheds

The character of most of northwest Florida’s estuaries is strongly influenced by riverine inflow. The region has three of Florida’s five largest rivers: the Apalachicola, Choctawhatchee, and Escambia. The largest rivers of northwest Florida drain extensive watershed areas within Alabama and Georgia as well as Florida. They are alluvial, receiving most of their flow from overland runoff and surficial aquifer flow. Several other rivers and streams, including the Wakulla, St.

Marks, and Chipola rivers and Holmes and Econfina creeks, are karst streams. These receive a major portion of flow from numerous Floridan aquifer springs and tend to have relatively consistent flows. Spring discharges are vital to aquatic habitats and species, and they are valued for public recreation and enjoyment. They also provide important linkages between surface and ground water systems and help define the characteristics of many waterbodies, including riverine tributaries and receiving coastal waters.

Florida's legislature, in 1987, passed the Surface Water Improvement and Management (SWIM) Act, encompassed within sections 373.451-459, Florida Statutes. The Act requires the state's water management districts to prioritize waterbodies of regional or statewide significance. The Act further provides for cooperative development of SWIM plans and programs for the identified priority waterbodies. These plans must identify effective strategies and include management actions to both restore and protect priority waters.

In response, the Northwest Florida Water Management District (NFWFMD or "District") has adopted a watershed approach, identifying as priorities each of the major watersheds listed above (NFWFMD 2006). Currently approved SWIM plans may be accessed at <http://nfwfwater.com/water-resources/swim/> and include the following:

- Apalachicola River and Bay Management Plan (Tonsmeire et al.1996);
- Pensacola Bay System SWIM Plan (Thorpe et al. 1997);
- Lake Jackson Management Plan (Ochlockonee River watershed) (Macmillan and Diamond 1994; Macmillan 1997);
- Choctawhatchee River and Bay System SWIM Plan (Thorpe et al. 2002);
- St. Andrew Bay Watershed SWIM Plan (Thorpe et al. 2000); and
- St. Marks River Watershed SWIM Plan (Brooks et al. 2009).

Plans for the Ochlockonee River and Bay and Perdido River and Bay watersheds are in draft.

A defining characteristic of the SWIM program is that implementation is conducted primarily through cooperative projects, prioritized with regional stakeholders and with implementation, ownership, and long-term maintenance being accomplished by local governments and other watershed partners. This characteristic helps ensure the continuing success of completed projects. Funding available for implementation, primarily in the late 1980s and 1990s, has been limited. Despite this constraint, the program established a successful track record and resulted in accomplishment of significant priorities:

- Construction of urban stormwater retrofit facilities (Pensacola, Choctawhatchee, and St. Andrew bays; St. Marks River and Ochlockonee River watersheds);
- Removal of enriched sediments (Pensacola Bay and Ochlockonee River watershed);
- Salt marsh and shoreline habitat restoration (Choctawhatchee, Pensacola, and St. Andrew bays);
- Intensive data collection and analysis (Apalachicola Bay); and
- Public outreach and awareness (all watersheds).

Because of its continuity, watershed focus, support under existing state law, and history of building and engaging multi-jurisdictional participation, the SWIM program is ideally suited to defining and coordinating comprehensive and transformational watershed restoration and protection as envisioned under the RESTORE Act. Accomplishing this requires the update and modernization of each of northwest Florida's SWIM plans. Doing so will encompass engaging the public and other governmental and private stakeholders, articulating a detailed understanding of current conditions and challenges, establishing realistic goals and operational objectives, and developing responsive project plans.

In January 2013, The Nature Conservancy (TNC) initiated community-based watershed planning across the Florida Panhandle. This labor intensive, highly successful process facilitated a cooperative, watershed-based response to the effects of the Deepwater Horizon oil spill and the RESTORE Act. Through TNC's efforts, a diverse set of stakeholders representing federal, state, and local agencies; nongovernmental organizations; universities; businesses; community groups; and individuals, including representatives from Alabama, have embraced cooperation.

Community-based planning has been implemented through a series of meetings in each of the region's watersheds. Stakeholders established holistic, consensus-based visions for healthy watersheds and identified major issues, root causes, responsive solutions, and preliminary project priorities for each watershed. They also collectively committed to further developing and applying a science-based approach to prioritization and decision-making, providing a basis for the implementation and success of priority projects.

#### Project Approach and Implementation Methodology

##### ***1. Comprehensive Watershed Management Plan Updates (\$645,000)***

The NFWFMD will build upon past effective SWIM program efforts and the community-based watershed planning process currently underway to develop comprehensive updates to watershed management plans for each of the region's major estuarine/riverine watersheds:

- 1) Perdido River and Bay (including Perdido Bay and Big Lagoon);
- 2) Pensacola Bay System (including Pensacola, Escambia, and East, and Blackwater bays and western Santa Rosa Sound);
- 3) Choctawhatchee River and Bay (including eastern Santa Rosa Sound, Choctawhatchee Bay, and coastal dune lakes);
- 4) St. Andrew Bay (including St. Andrew Bay, North Bay, West Bay, East Bay, St. Joseph Bay, and Lake Powell);
- 5) Apalachicola River and Bay (including Apalachicola Bay, East Bay, St. George Sound, and Alligator Harbor);
- 6) Ochlockonee River and Bay; and
- 7) St. Marks River and Apalachee Bay

These encompass all of northwest Florida's coastal waters with their contributing basins.

The work will be accomplished cooperatively with a broad base of public and private stakeholders, including dedicated public engagement. Each of the District's SWIM plans will be updated and modernized. Current watershed goals and project priorities will be established. The scope of work will include engagement of technical advisory committees for each watershed with representation from governmental and private stakeholders; focused public outreach and engagement; identification of current conditions, establishment of realistic goals and operational objectives; and development and prioritization of conceptual project plans. More specifically, the process will include the following:

- Detailed review of current watershed and resource conditions, including updated literature reviews, together with evaluation of current data and assessments compiled by state and federal resource agencies, local governments, academic researchers, and others.
- Establishment of advisory committees within each watershed. Participation will be invited and requested from local governments, state and federal resource agencies, public and private watershed and resource initiatives, and other public and private stakeholders. A focus of this effort will be to continue and build upon the community-based watershed planning process initiated by TNC and watershed stakeholders. Stakeholders within Alabama will continue to be invited to participate, together with those from across northwest Florida.
- Engagement of the advisory committees to further identify and articulate current watershed issues and objectives, to identify and prioritize strategies and projects, and to assist in the development and review the updated plans.
- Focused public outreach and engagement. Public workshops will be held locally for each watershed. Public review and comment will be invited on the content of updated plans and proposed project priorities. The District's website and social media outlets will also be used to engage the public, as well as outreach through the news media. All public meetings will be appropriately noticed and advertised.
- Following review on the part of state and federal agencies, local governments, advisory committees, and the public, with subsequent revisions as needed, the proposed plans will be brought to the Governing Board of the Northwest Florida Water Management District in public hearings for final approval. The approved plans may be further updated in the future as needed.
- Implementation will be ongoing, in cooperation with local governments, state and federal agencies, members of the public, and other public and private stakeholders.

Outcomes of this effort will include:

- Completion of updated watershed management plans for each of the region's seven major watersheds in accordance with statutory requirements for the SWIM program and supporting the goals and objectives of the Gulf Coast Ecosystem Restoration Council Comprehensive Plan.
- Identification of a current set of realistic goals and operational objectives for each watershed. This will include a program monitoring plan and guidelines for project specific monitoring and success criteria.

- Identification and description of priority projects, designed to achieve the established goals and objectives. Conceptual plans will be developed so projects can be readily implemented by local governments or other cooperators as funding becomes available. The specific projects to be prioritized will include such activities as urban stormwater retrofits; implementation of watershed best management practices; restoration and enhancement of wetland, riparian, and floodplain habitats and functions; public outreach and engagement; and associated monitoring.

This process will support and complement related initiatives, including Florida's Total Maximum Daily Load program and potentially the establishment of National Estuary or related programs.

The goal is to complete this effort within approximately 24 months. Individual plans may be completed more quickly. The timeframe will allow for focused engagement with stakeholders of multiple watersheds and the reality of staggered completion of projects.

## ***2. Design and Permitting of Identified Priority Projects (\$3,000,000)***

Design and permitting will immediately follow completion of watershed plan updates, initiating work toward implementation of the high priority projects. This work will typically be accomplished by local government or other cooperators specifically responsible for implementation and long-term operation and maintenance. District staff will provide technical assistance. In some cases, District or other resource agency staff may participate in project design and engineering, particularly in cases of multi-jurisdictional projects and when work is planned for state or regional agency land. The work will encompass development of detailed engineering plans and completion of permitting. Additional public outreach is anticipated to ensure final plans are consistent with public goals and expectations within each affected community.

Specific projects will be based on those defined in the planning stage. Examples of project types include:

- Major stormwater retrofit projects, to include regional-scale facilities and treatment train approaches featuring an array of best management practices specific to site characteristics.
- Restoration of wetland, riparian, floodplain, and shoreline habitats and functions.
- Public education and outreach; and
- Data collection and monitoring directly supportive of watershed protection and restoration.

All of these activities are mutually supportive and complementary, leading to direct improvement of water quality, aquatic and coastal habitat quality, living resources, watershed functions, coastal resiliency, and associated public values and benefits.

Project design and permitting efforts, as well as implementation, will be conducted with the objective of achieving estuarine restoration and protection priorities within each of the major watersheds, thus providing for ecosystem enhancement and protection and building foundations for future actions across a diverse set of estuaries

The timeline for implementation varies significantly by project. For major construction projects, detailed engineering design and permitting are affected by project complexity and other factors such as land ownership, site conditions, and affected utilities and other infrastructure. The work will be conducted on a continuing basis as plans are updated and funding sources become available. The outcome will include completion of shovel-ready project plans that meet all federal and state environmental compliance requirements. Detailed project information, such as plans for specific restoration, pollutant load reduction estimates, and detailed cost estimates, will be available at this time.

### ***3. Project Implementation (\$12,000,000)***

Implementation of specific projects will follow design and permitting. Construction activities will typically be conducted by local cooperators specifically responsible for long-term ownership, operation and maintenance. Specific construction or other implementation details and timelines are highly variable, depending on site conditions and project scope and complexity. Due to the extensive scope of the overall initiative and the fact that it spans several major watersheds, design, permitting, implementation, and monitoring of multiple projects will be conducted concurrently over many years, ultimately engaging and leveraging a number of different funding sources.

Outcomes will include reduced pollutant loading into coastal waters proximate to the effects of the Deepwater Horizon oil spill, enhanced and restored aquatic and wetland habitats, and increasing public awareness and understanding of watershed resources and associated programs. Associated public benefits are also expected, including enhanced fish and wildlife resources, strengthened community resiliency, improved water quality in public use areas, and enhanced community aesthetics. Additionally, stormwater retrofit and floodplain and wetland restoration projects will enhance flood protection and public safety. Projects will be implemented with the intention to restore and protect waterbodies, and achieve other goals and objectives, within each of the region's major watersheds.

As with the design and permitting phase, this work will be ongoing, ultimately extending well beyond the timeframe envisioned with this specific proposal. It is expected that continuing experiences, identification of lessons learned, adaptive management, and future funding options will continue to generate new and revised project opportunities. Future revisions to watershed management plans and local capital improvement plans will also further define program objectives and future project opportunities.

#### ***4. Project Monitoring (\$1,200,000)***

As with design, permitting, and implementation, monitoring will be conducted by cooperators specifically responsible for implementation and long-term operation and maintenance. District staff will provide technical assistance and regional-scale data analysis.

Monitoring will be conducted on two levels: programmatic and project specific. Programmatic monitoring will focus on successful implementation of the funded program. Thus, it will include such criteria as timely plan completion, successful engagement of stakeholders, completion of engineering and permitting for the highest priority projects, and timely project implementation.

At the project level, monitoring is specific to resource outcomes. Project-specific monitoring is important as a means of validating strategies and best management practices employed and developing lessons learned applicable to future projects. Examples of project level monitoring include:

- Water quality (e.g., nutrients, total suspended solids, bacteria);
- Restoration area, percent vegetation cover and survival of target species; and
- Long-term restoration area success.

Together, programmatic and project level monitoring will be conducted to understand, document, and analyze how well projects perform compared to the expected outcomes, and to provide lessons learned to help guide future implementation efforts.

Water quality can be monitored using a variety of techniques, including baseflow, storm flow, inflow vs. outflow, time series, and paired watersheds, depending on specific project objectives and site characteristics. With the general exception of inflow vs. outflow monitoring, most of these monitoring approaches would require a sustained period to account for climatic and precipitation variability. The same is true for restoration site monitoring, accounting for growth, succession, and response to climate variability and extreme weather events.

Detailed programmatic and project-specific monitoring plans will be developed as part of the updated SWIM and project plans. These will incorporate definition of long-term and short-term metrics as described below.

#### **Monitoring and Adaptive Management**

As described above, monitoring will support documentation and analysis of how well projects perform compared to expected outcomes, and to provide lessons learned to guide future implementation. The monitoring will include both long and short-term metrics. Detailed plans will be developed as part of the watershed plan updates to include such metrics as:

- 1) Long-term metrics:
  - a. Evaluation of long-term water quality trends. This requires multiple years of data collection following specific project implementation. It also includes evaluation of historical and baseline data for affected areas, as available.

- b. Evaluation of long-term trends affecting key habitats and communities, to include seagrass, tidal marshes, and shellfish.
  - c. Monitoring and evaluation of site stability and resilience. Coastal restoration sites will be monitored to evaluate effects of public use, seasonal conditions, erosion or accretion, and major storm events.
- 2) Short-term metrics:
- a. Specific facility performance (e.g., inflow vs. outflow pollutant concentration or load reduction monitoring); and
  - b. Restoration area (e.g., acres of habitat types restored).

### Measures of Success

Measures of success will be defined by and will help inform the monitoring plans described above. They will be developed in detail through the watershed plan updates. Among those envisioned are:

- Timely plan and project completion;
- Successful and ongoing stakeholder and public engagement;
- Water quality, with specific parameters varying based on specific sites and project objectives; and
- Restoration area and site stability.

### Risks and Uncertainties

Risks and uncertainties are understood at different levels from both a programmatic and site-specific perspective.

- The long-term continuity of watershed planning, coordination, and implementation efforts will ultimately depend on successful engagement of stakeholders and communities, beyond the generation most immediately affected by Deepwater Horizon.
- The success of individual site restoration can be greatly affected by variable weather conditions, as well as coastal erosion and sea level rise. Additionally, the northern Gulf coast is periodically affected by coastal storms, including tropical storms and hurricanes. Such events have the potential to impact restoration sites and result in needs for repair, enhanced maintenance, and replanting. Ideally, however, appropriately planned and designed shoreline, floodplain, and wetland restoration and protection projects should enhance coastal resiliency and natural responsiveness to both long-term processes and discrete events.
- Coastal areas may be subject to intensive public use, which has the potential to affect the stability and survivability of restoration sites. This will result in ongoing needs for appropriate local site management and maintenance.
- Stormwater treatment systems, as well as restoration sites, require long-term maintenance. The Northwest Florida Water Management District requires stormwater management

systems to be designed with a 25-year effective service life. Implementing priority projects as cooperative efforts with local ownership and operation helps provide reasonable assurance of success. A number of local governments have implemented stormwater utility fees or local option taxes to provide for long term maintenance of their stormwater infrastructure.

### Outreach and Education Opportunities

Outreach and education are integral components of this proposal at two levels:

- 1) Plan development – During plan development, the public will be engaged through workshops and the Internet, including the agency website and social media. Specific web pages will be established for each of the watershed plan updates. Public review and input will be invited. Public comments and recommendations will be closely reviewed and incorporated within the final plans. All public meetings will be appropriately noticed and advertised.
- 2) Project development and implementation – Site specific construction projects will include public outreach components, depending on the project details, to ensure proposed activities and facilities are compatible with and help advance community goals and preferences.

It is also expected that there will be specific public education and outreach projects for each of the watershed management plans. Through these projects, educational strategies will be developed and implemented, tailored to the different segments of the public.

### Leveraging of Resources and Partnerships

A central characteristic of the SWIM program is that priority actions are implemented as cooperative projects with local governments or other responsible institutions, together with state and federal agencies and other public and private stakeholders. As a result:

- 1) All facilities and sites, on public or private lands, will have requisite assurances for long-term operations and maintenance.
- 2) Implementation combines the efforts of multiple partners and readily integrates and leverages a variety of funding sources, including local, state, federal, and private resources. Cumulatively, the overall effort results in significant protection and improvement of watershed resources District-wide.

From the late 1980s to early 2000s, over \$11.5 million was expended through the SWIM program for watershed planning, protection, and restoration. Additionally, through the Florida Forever Program, the NFWFMD expended over \$25 million from 2003 to 2009 on restoration and capital improvement projects to protect and restore water quality and watershed habitats. This was matched by over \$53 million in local government expenditures.

TNC has to date expended over \$332,000 towards the community based watershed planning process. These funds have been allocated through the Florida Chapter's operating budget, from a Walton Foundation grant to TNC's Gulf of Mexico Program to support state activities associated with RESTORE. TNC has also covered the cost of staff resources associated with a pilot project in the Pensacola and Perdido watersheds applying the landscape model known as the Resource

Investment Optimization System (RIOS), which employs biophysical, social, and economic data to help users identify the best locations for protection and restoration activities in order to maximize the ecological return on investment. Numerous local governments, as well as state and federal agencies, have also contributed significant staff resources to assist in the recent watershed planning process.

### Project Benefits

Outcomes of this project and the encompassing multi-jurisdictional effort will include:

- 1) Completion of updated watershed management plans for each of the region's major watersheds. The plans will be developed in accordance with statutory requirements for the SWIM program.
- 2) Identification of a current set of realistic goals and operational objectives for each watershed.
- 3) Identification, design, and permitting of priority projects. Project plans will be developed so that they can be engaged and implemented by local governments or other cooperators as funding becomes available.
- 4) Implementation of water quality improvement projects, reducing pollutant loading into coastal waters proximate to the effects of the BP oil spill.
- 5) Implementation of wetland, floodplain, and riparian habitat restoration projects, improving aquatic habitat, benefitting fish and wildlife resources, improving coastal resiliency, and providing additional flood protection and related benefits for surrounding communities.

### Compliance and the NEPA Process

All restoration activities implemented by the *Northwest Florida Estuaries and Watersheds* proposal will fully comply with Federal statutory and regulatory procedures and state and local permits prior to construction. The watershed planning efforts, and design and permitting elements of this proposal will not trigger National Environmental Policy Act (NEPA) requirements for preparation of an Environmental Impact Statement (EIS) or Environmental Assessment (EA), and instead will be covered by a categorical exclusion. These planning and design activities will support the development of an EIS or EA needed for any priority projects selected for implementation through the planning.

## Location Information

Listed below are the major watersheds addressed in this proposal and the locational center point of each derived from geographical information system computation. Following the table is a generalized locational map of the subject watersheds and then a series of maps focusing on the estuaries of each system, in order from west to east.

Watershed	Coordinates of Basin Centroid	
	Longitude (X)	Latitude (Y)
1) Perdido River and Bay Watershed	458844.535392	3393282.70622
2) Pensacola Bay System	514382.495194	3401898.63484
3) Choctawhatchee River and Bay Watershed	600193.497855	3394412.63144
4) St. Andrew Bay Watershed	640626.10983	3347214.8249
5) Apalachicola River and Bay Watershed	685974.771739	3358234.52333
6) Ochlockonee River and Bay Watershed	732679.562382	3363508.81167
7) St. Marks River and Apalachee Bay	769874.781322	3360936.60936

Figure 2 displays the overall area of focus for each of the major watersheds. Figures 3-9 focus on the lower watersheds and estuarine area to illustrate additional detail on affected resources.



Figure 3. Northwest Florida Watersheds

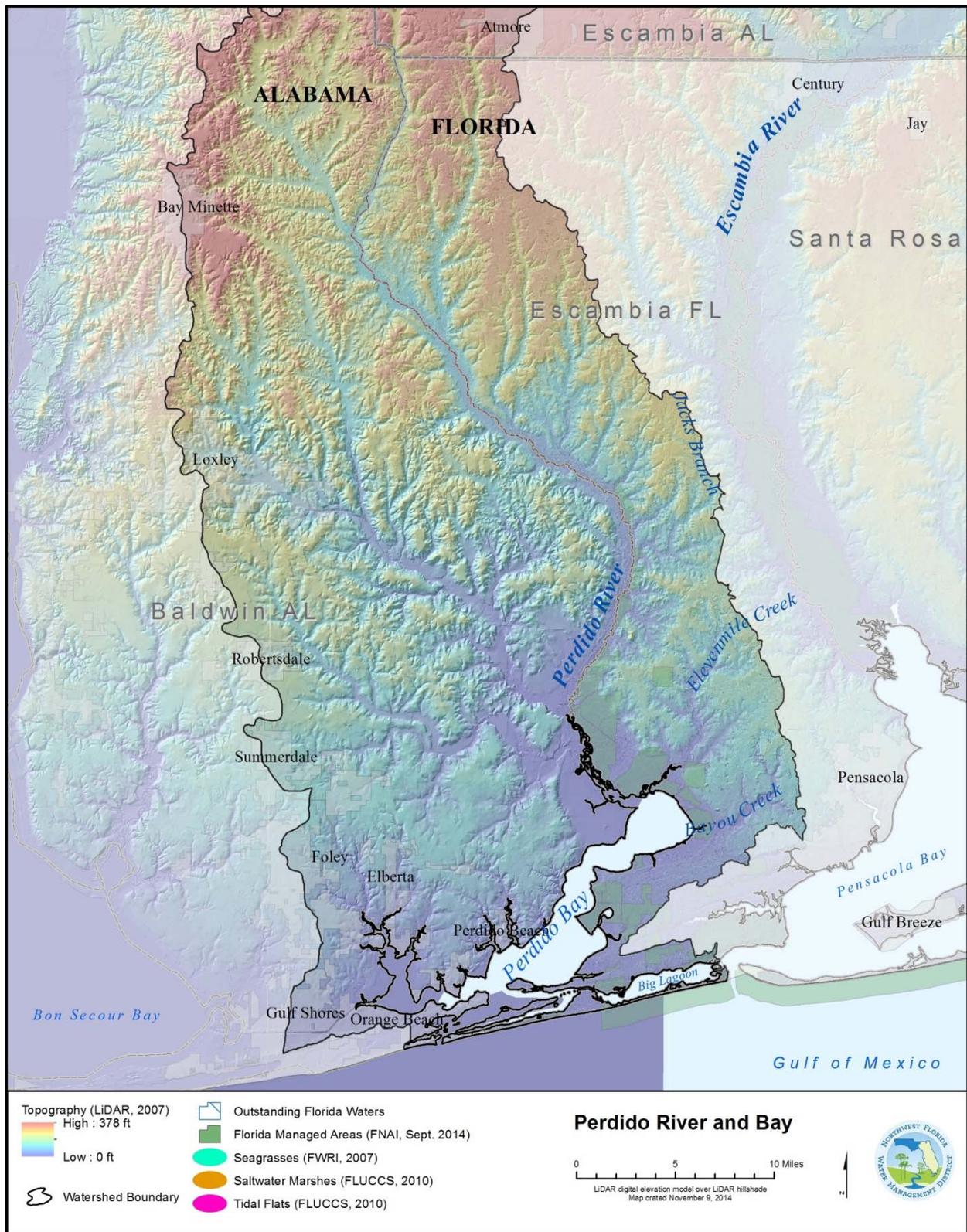


Figure 4. Perdido River and Bay

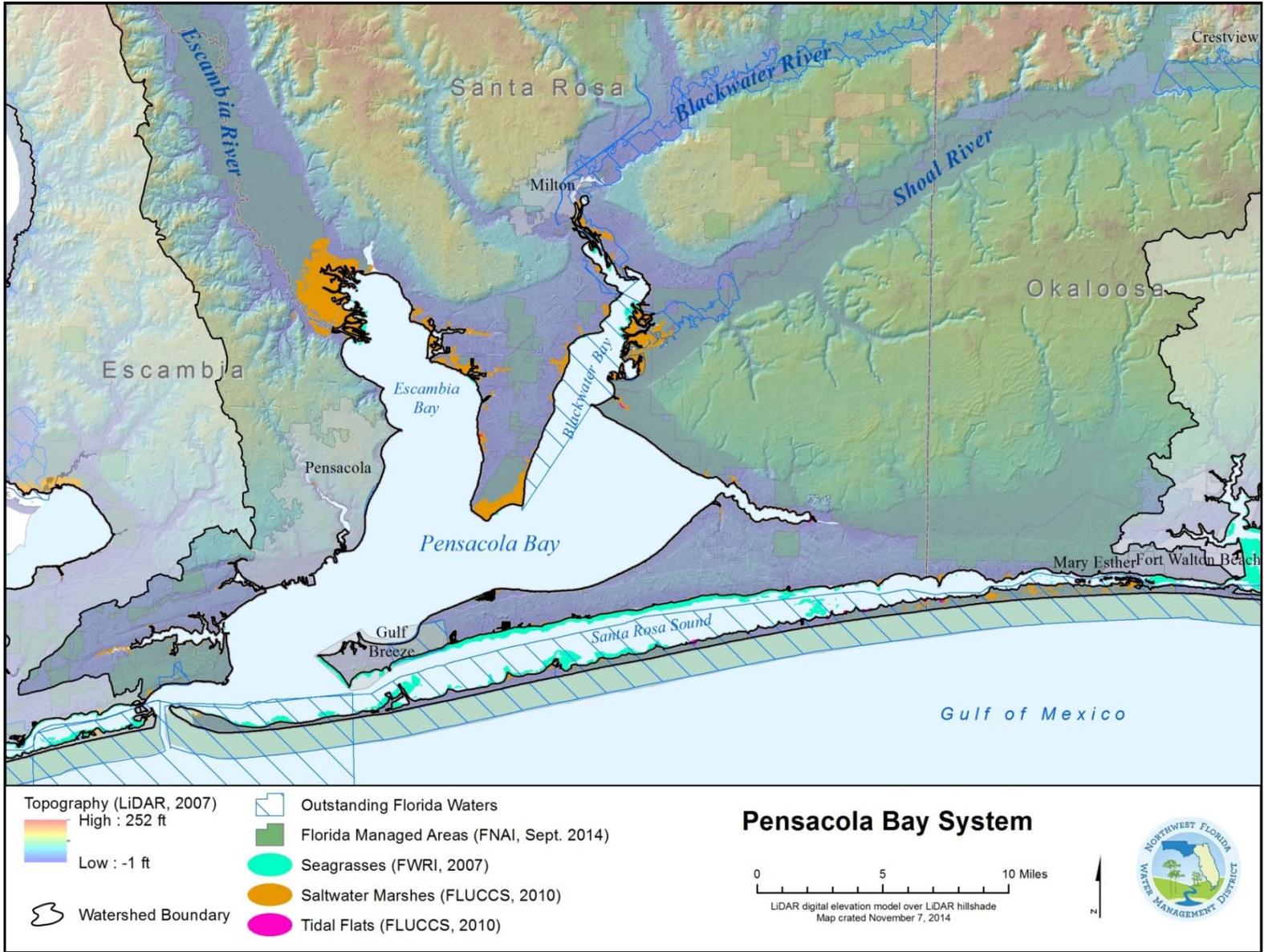


Figure 5. Pensacola Bay System

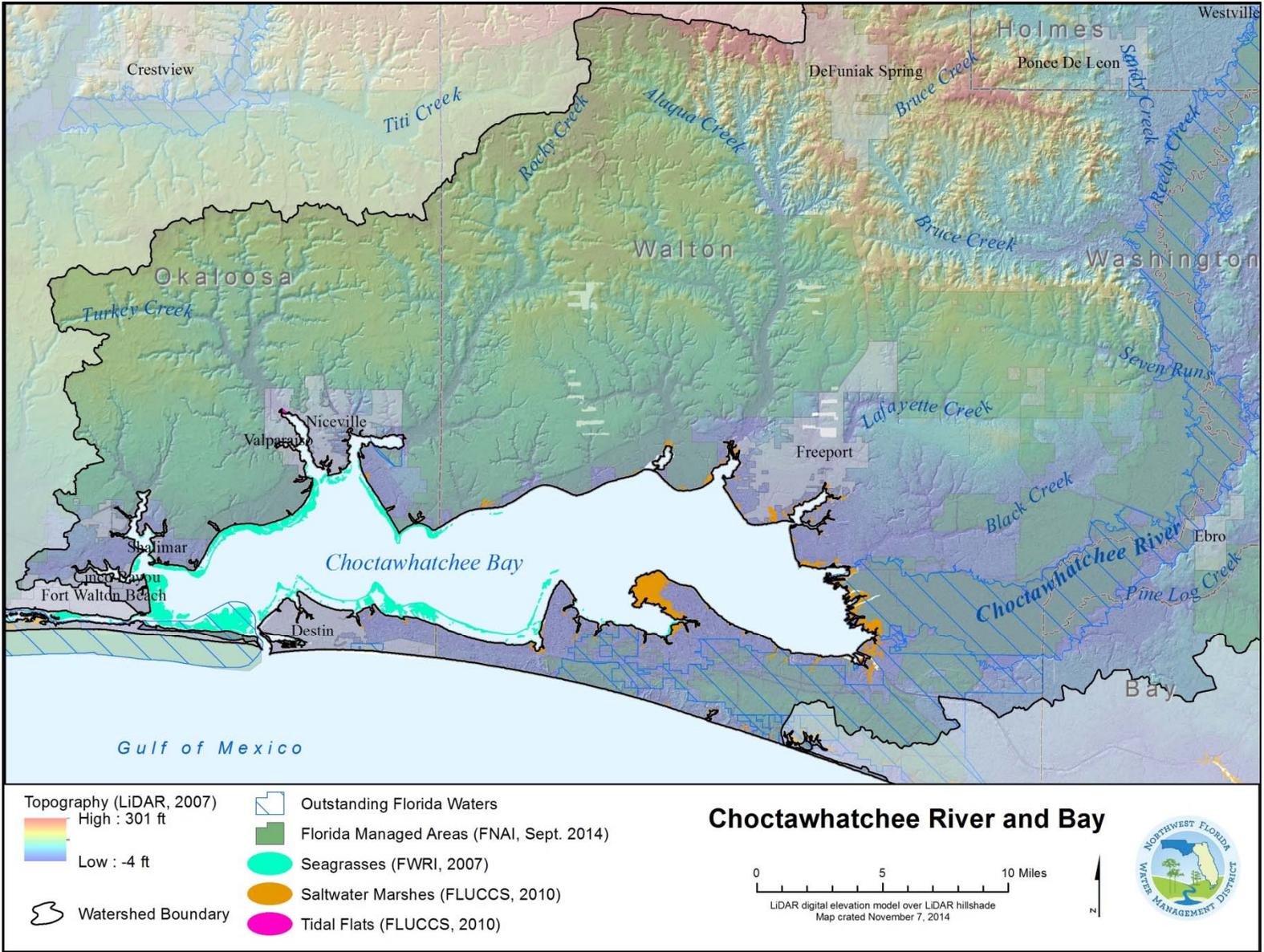


Figure 6. Choctawhatchee River and Bay

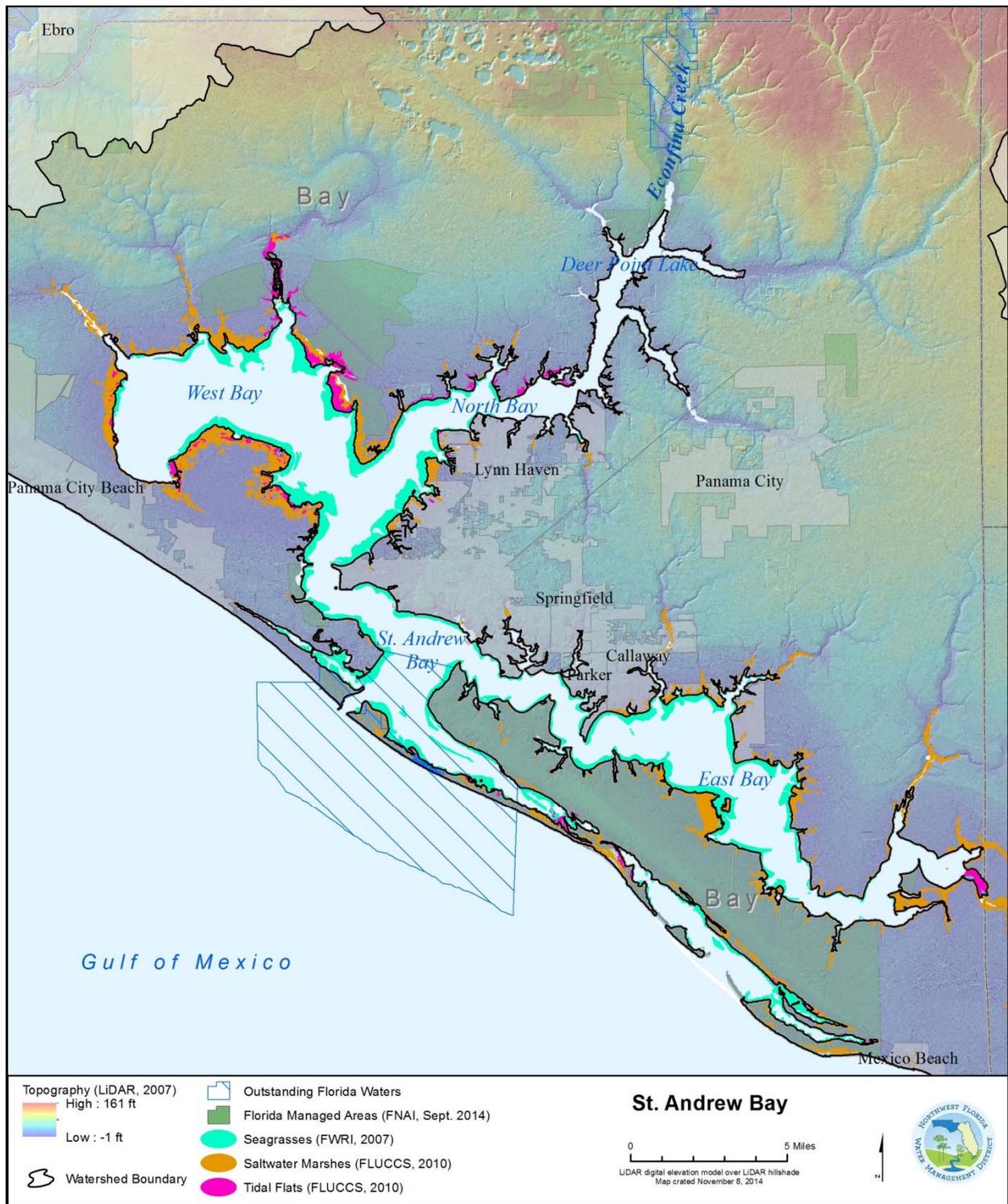


Figure 7. St. Andrew Bay

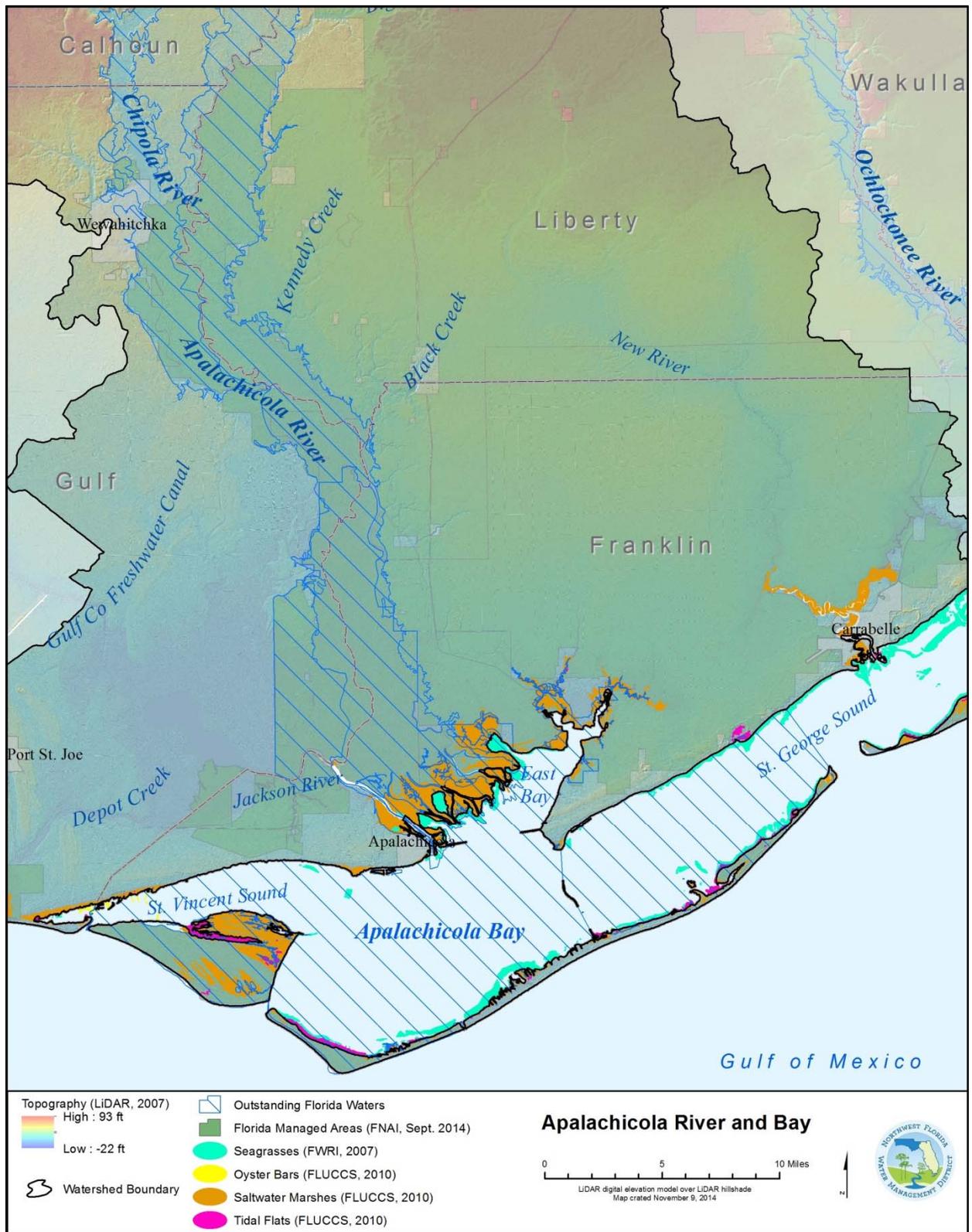


Figure 8. Apalachicola River and Bay

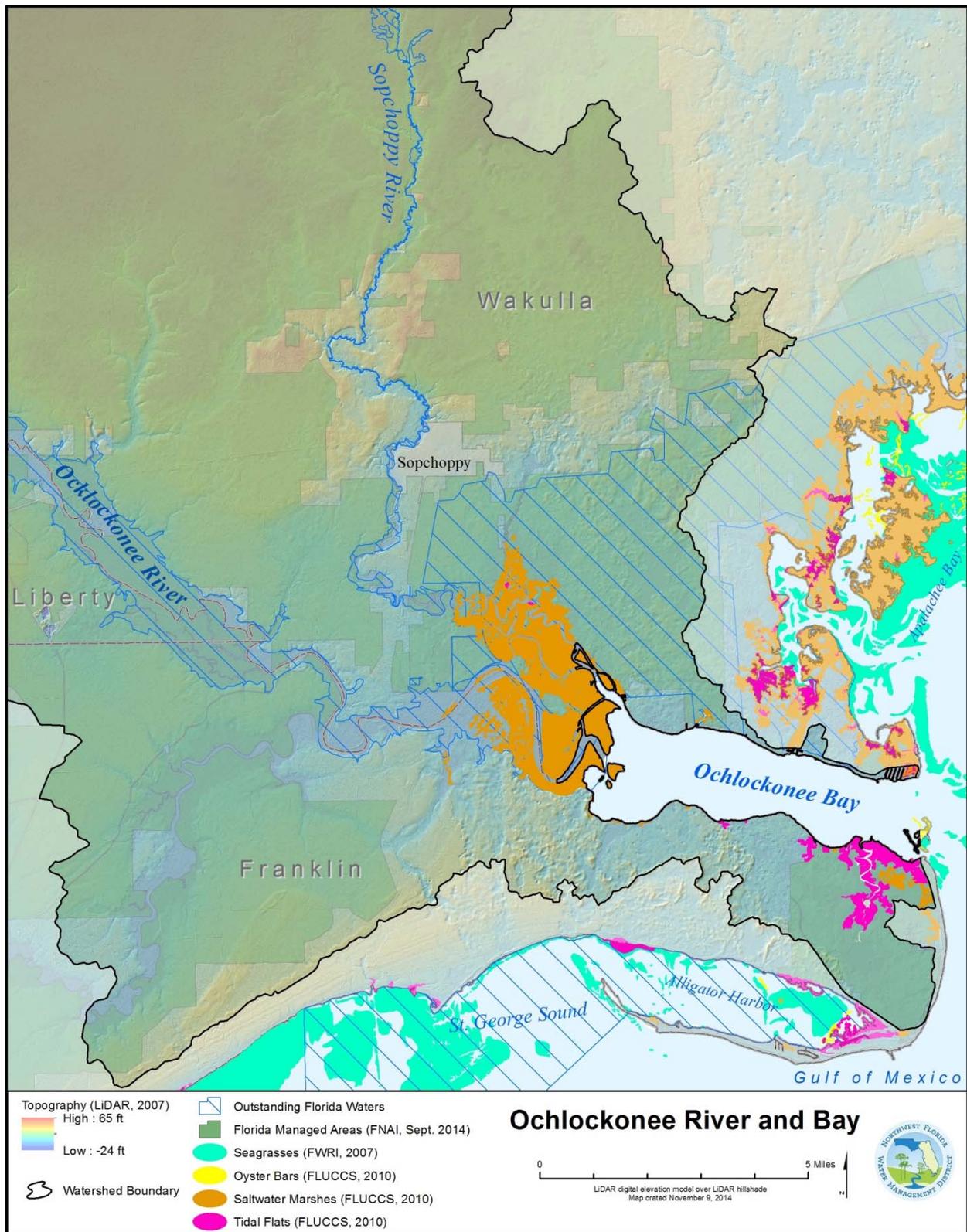


Figure 9. Ochlockonee River and Bay

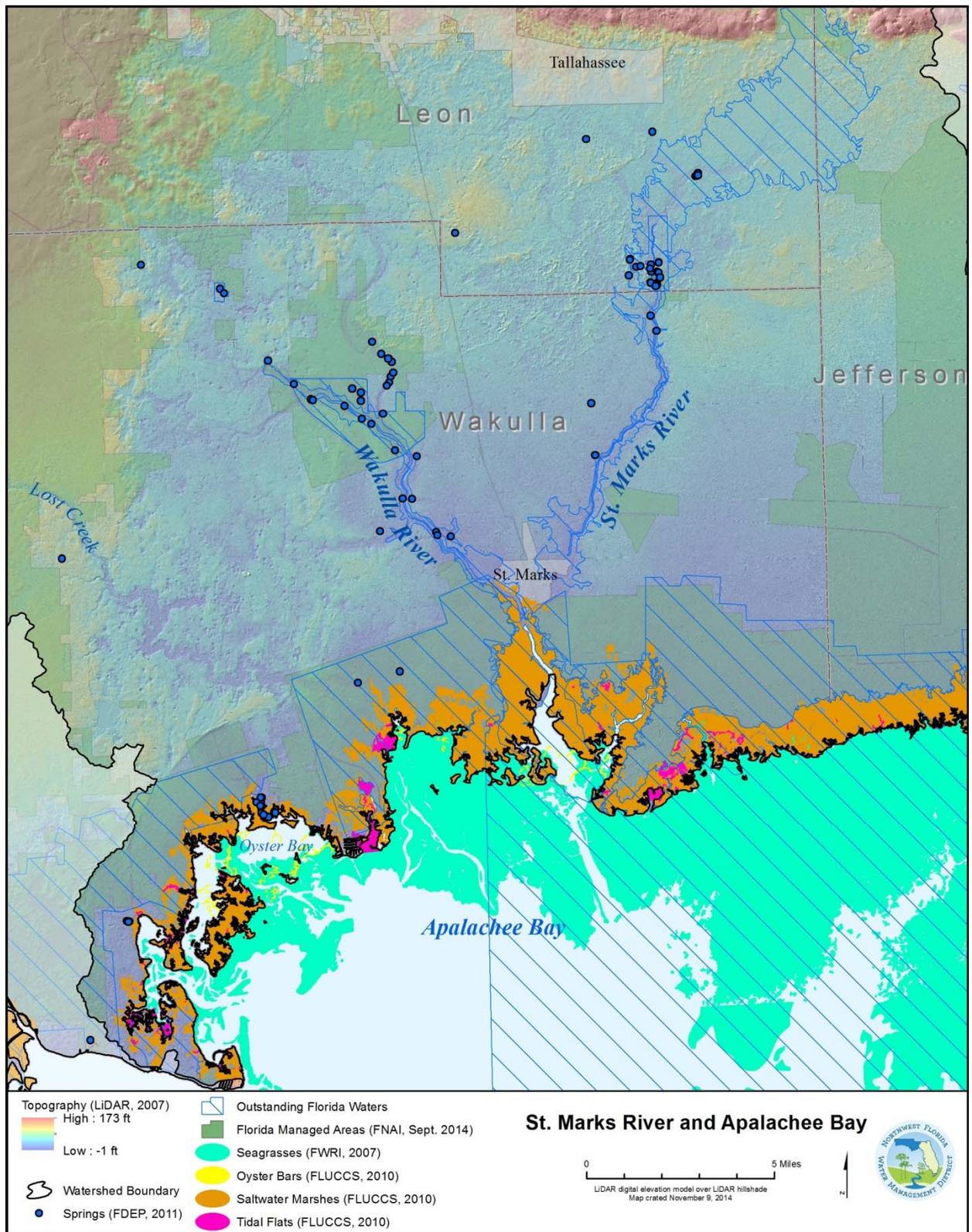


Figure 10. St. Marks River and Apalachee Bay

**High Level Budget Narrative**

<b>Project</b>	<b>Project Implementation</b>	<b>Project Contingency</b>	<b>Project Oversight</b>	<b>Project Administration</b>	<b>Total Funding Requested</b>
1a. Update Watershed Management Plans	\$495,000	\$0	\$0	\$0	\$495,000
1.b Community Engagement	\$150,000	\$0	\$0	\$0	\$150,000
2. Design and Permitting	\$3,000,000	\$0	\$0	\$0	\$3,000,000
3. Implementation of Projects	\$12,000,000	\$0	\$0	\$0	\$12,000,000
4. Project Monitoring	\$1,200,000	\$0	\$0	\$0	\$1,200,000
<b>Proposal</b>	<b>Proposal Implementation</b>	<b>Proposal Contingency</b>	<b>Proposal Oversight</b>	<b>Proposal Administration</b>	<b>Total Funding Requested</b>
Northwest Florida Estuaries and Watersheds	\$16,845,000	\$0	\$0	\$0	\$16,845,000

Notes:

It is requested that project implementation and monitoring funds be held in reserve until the design, permitting, and environmental compliance documentation are completed. No funds are requested for project contingencies, project oversight, or project administration. The State of Florida will provide these services as match. Any cost overruns or additional scope for updating the watershed plans, design and permitting of projects, implementation of projects, and monitoring will be responsibility of the State of Florida and local project sponsors.

An objective of this initiative is to accomplish waterbody restoration and protection priorities within each of the region’s major watersheds. Thus, it is anticipated that design, permitting, and implementation expenditures will generally be equitably distributed across the region’s major watersheds.

Funding through this proposal will leverage additional state, federal, and local funding for cooperative actions. Historically, the SWIM program has expended in excess of \$11.5 million toward watershed planning, protection, and restoration since 1987. Additionally, through the Florida Forever Program, the NFWFMD expended over \$25 million from 2003 to 2009 on restoration and capital improvement projects to protect and restore water quality and watershed habitats. This was matched by over \$53 million in local government expenditures.

TNC has to date expended over \$332,237 towards the community based watershed planning process from the Florida Chapter's operating budget, and a Walton Foundation grant. TNC has also covered the cost of staff resources associated with a pilot project in the Pensacola and Perdido watersheds that uses a landscape model known as the Resource Investment Optimization System (RIOS). Numerous local governments, as well as state and federal agencies, have also contributed significant staff resources to assist in the recent watershed planning process.

### Environmental Compliance Checklist

This Environmental Compliance Checklist (Checklist) is being completed at the overall proposal level. Since the various proposed projects in this proposal are at various stages of environmental compliance review, we have checked No for all environmental compliance types listed on this Checklist. Individual Checklists will be submitted for each proposed project at a later date.

<u>Environmental Compliance Type</u>	Yes	No	Applied For	N/A
<b>Federal</b>				
National Marine Sanctuaries Act (NMSA)		X		
Coastal Zone Management Act (CZMA)		X		
Fish and Wildlife Coordination Act		X		
Farmland Protection Policy Act (FPPA)		X		
NEPA – Categorical Exclusion		X		
NEPA – Environmental Assessment		X		
NEPA – Environmental Impact Statement		X		
Clean Water Act – 404 – Individual Permit (USACOE)		X		
Clean Water Act – 404 – General Permit(USACOE)		X		
Clean Water Act – 404 – Letters of Permission(USACOE)		X		
Clean Water Act – 401 – WQ certification		X		
Clean Water Act – 402 – NPDES		X		
Rivers and Harbors Act – Section 10 (USACOE)		X		
Endangered Species Act – Section 7 – Informal and Formal Consultation (NMFS, USFWS)		X		
Endangered Species Act – Section 7 - Biological Assessment (BOEM,USACOE)		X		
Endangered Species Act – Section 7 – Biological Opinion (NMFS, USFWS)		X		
Endangered Species Act – Section 7 – Permit for Take (NMFS, USFWS)		X		
Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat (EFH) – Consultation (NMFS)		X		
Marine Mammal Protection Act – Incidental Take Permit (106) (NMFS, USFWS)		X		
Migratory Bird Treaty Act (USFWS)		X		
Bald and Golden Eagle Protection Act – Consultation and Planning (USFWS)		X		
Marine Protection, Research and Sanctuaries Act – Section 103 permit (NMFS)		X		
BOEM Outer Continental Shelf Lands Act – Section 8 OCS Lands Sand permit		X		
NHPA Section 106 – Consultation and Planning ACHP, SHPO(s), and/or THPO(s)		X		
NHPA Section 106 – Memorandum of Agreement/Programmatic Agreement		X		
Tribal Consultation (Government to Government)		X		
Coastal Barriers Resource Act – CBRS (Consultation)		X		
<b>State</b>				
As Applicable per State		X		

## **Data / Information Sharing Plan**

The Florida Department of Environmental Protection will provide a central location to access data and other information related to all of the projects in the proposal. In addition, all data and information developed and compiled through the District's SWIM program is publicly available. Draft and completed watershed plans will be available to any person or entity upon request. They will also be made available continuously via the District's website. The District's SWIM website is <http://www.nfwmd.state.fl.us/water-resources/swim/>.

Completion reports and monitoring data will be made available to the Gulf Coast Ecosystem Restoration Council, the Florida Department of Environmental Protection, regional partners and stakeholders, and any person or entity upon request. Overall program implementation will also be reported annually as part of the District's March 1 Consolidated Annual Report (<http://nfwwater.com/data-publications/reports-plans/consolidated-annual-reports/>).

Water quality data will be collected pursuant to approved quality assurance plans and made available through the Florida Department of Environmental Protection's Storage and Retrieval Data Warehouse (STORET), <http://storet.dep.state.fl.us/DearSpa/>.

## Reference List of Literature Cited

The SWIM program, as discussed above, is based on application of current and historical scientific data and analysis. Current program documents and resources, as well as major baseline studies, include, but are not limited to, those listed below.

Gulf Coast Ecosystem Restoration Council. 2013. *Restoring the Gulf Coast's Ecosystem and Economy*. 32 pp. <http://www.restorethegulf.gov/>

Brooks, L., P. Thorpe, and R. Bartel. 2009. St. Marks River Watershed Surface Water Improvement and Management Plan Update. Program Development Series 2009-02. Havana, FL: Northwest Florida Water Management District. [www.nfwwater.com/water-resources/swim/](http://www.nfwwater.com/water-resources/swim/)

Macmillan, T.L., and C. Diamond. 1994. Lake Jackson Management Plan: A Comprehensive Plan for the Restoration and Preservation of Lake Jackson. Northwest Florida Water Management District.

Macmillan, T.L. 1997. Lake Jackson Management Plan Addendum. Northwest Florida Water Management District, Program Development Series 97-4.

Northwest Florida Water Management District. 2014. Consolidated Annual Report. Annual Report 2014-01. Havana, FL: Northwest Florida Water Management District. [www.nfwwater.com/system/assets/310/original/CAR2014.pdf](http://www.nfwwater.com/system/assets/310/original/CAR2014.pdf)

Northwest Florida Water Management District. 2006. Surface Water Improvement and Management Program Priority List. Program Development Series 2006-02. Havana, Florida.

Thorpe P., F. Sultana, and C. Stafford. 2002. Choctawhatchee River and Bay System Surface Water Improvement and Management Plan 2002 Update. Program Development Series 2002-02. Havana, FL: Northwest Florida Water Management District. [www.nfwwater.com/water-resources/swim/](http://www.nfwwater.com/water-resources/swim/)

Thorpe P., P. Ryan, C. Stafford, R. Bartel, T. Macmillan, M. Culbertson, D. Cairns, and K. Horowitz. 2000. St. Andrew Bay Watershed Surface Water Improvement and Management Plan. Program Development Series 2000-2. Havana, FL: Northwest Florida Water Management District. [www.nfwwater.com/water-resources/swim/](http://www.nfwwater.com/water-resources/swim/)

Thorpe P., R. Bartel, P. Ryan, K. Albertson, T. Pratt, and D. Cairns. (1997). The Pensacola Bay System Surface Water Improvement and Management Plan: Comprehensive Plan for the Restoration and Preservation of the Pensacola Bay System. Program Development Series 97-2. Havana, FL: Northwest Florida Water Management District. [www.nfwwater.com/water-resources/swim/pensacola-bay/](http://www.nfwwater.com/water-resources/swim/pensacola-bay/)

Tonsmeire, D., D. J. Cairns, E. Hemmert, P. Ryan. (1996). Apalachicola River and Bay Management Plan. Program Development Series 96-1. Havana, FL: Northwest Florida Water Management District. [www.nfwwater.com/water-resources/swim/apalachicola/](http://www.nfwwater.com/water-resources/swim/apalachicola/)

**Other**

Not applicable; pertinent information has been included above.



# ELIGIBILITY REVIEW

Bucket 2 – Council Selected Restoration Component

**PROPOSAL TITLE**

Northwest Florida Estuaries and Watersheds

**PROPOSAL NUMBER**

FL-5

**LOCATION**

Northwest Florida (Florida Panhandle)

**SPONSOR(S)**

Florida

**TYPE OF FUNDING REQUESTED (Planning, Technical Assistance, Implementation)**

Planning/Technical Assistance/Implementation

**REVIEWED BY:**

Bethany Carl Kraft/ Ben Scaggs

**DATE:**

11-18-14

**1. Does the project aim to restore and/or protect natural resources, ecosystems, fisheries, marine and wildlife habitat, beaches, coastal wetlands and economy of the Gulf Coast Region?**

YES     NO

Notes:

Proposal seeks funding for high-priority near-term restoration and watershed protection actions while also building a foundation for continuing cooperative efforts to protect and further restore watershed resources and functions.

**2. Is the proposal a project?**

YES     NO

**If yes, is the proposed activity a discrete project or group of projects where the full scope of the restoration or protection activity has been defined?**

YES     NO

Notes:

**3. Is the proposal a program?**

YES     NO

**If yes, does the proposed activity establish a program where the program manager will solicit, evaluate, select, and carry out discrete projects that best meet the program's restoration objectives and evaluation criteria?**

YES     NO

Notes:

**4. Is the project within the Gulf Coast Region of the respective Gulf States?**

YES     NO

**If no, do project benefits accrue in the Gulf Coast Region?**

YES     NO

Notes:



**Eligibility Determination**

ELIGIBLE

**Additional Information**

[Empty box for additional information]

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**Proposal Submission Requirements**

**1. Is the project submission overall layout complete? *Check if included and formatted correctly.***

- |                                |                                     |                                       |                                     |
|--------------------------------|-------------------------------------|---------------------------------------|-------------------------------------|
| A. Summary sheet               | <input checked="" type="checkbox"/> | F. Environmental compliance checklist | <input checked="" type="checkbox"/> |
| B. Executive summary           | <input checked="" type="checkbox"/> | G. Data/Information sharing plan      | <input checked="" type="checkbox"/> |
| C. Proposal narrative          | <input checked="" type="checkbox"/> | H. Reference list                     | <input checked="" type="checkbox"/> |
| D. Location information        | <input checked="" type="checkbox"/> | I. Other                              | <input type="checkbox"/>            |
| E. High level budget narrative | <input checked="" type="checkbox"/> |                                       |                                     |

If any items are NOT included - please list and provide details

[Empty box for details of missing items]

2. Are all proposal components presented within the specified page limits (if applicable)?

YES     NO

Notes: