



Goose Creek-Dickerson Bay Sub-Basin Work Plan

Northwest Florida Watersheds Partnership Program

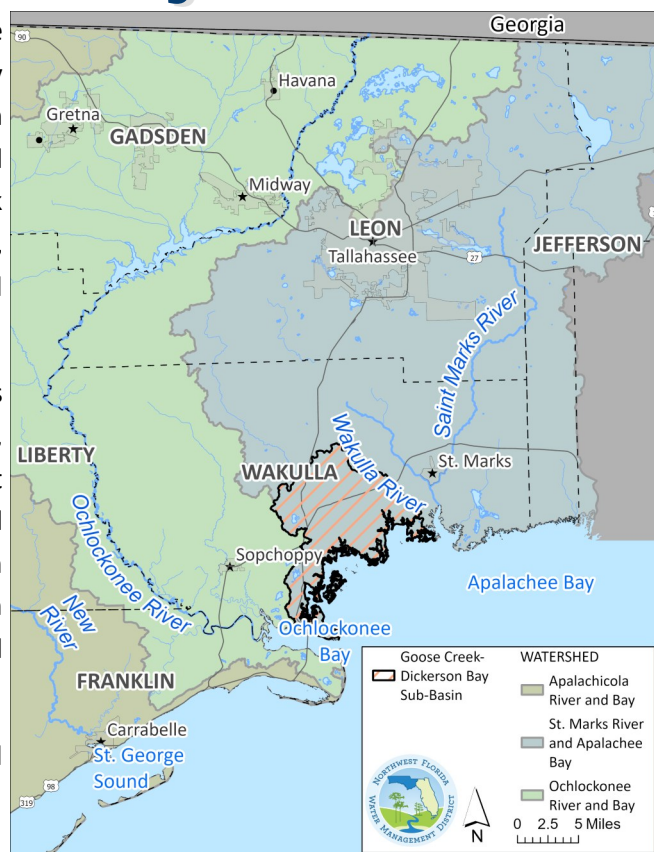
The **Northwest Florida Watersheds Partnership Program (Program)** is a collaborative, multi-party initiative to proactively address critical water resource issues within priority sub-basins of the Northwest Florida Water Management District (District). The program is being implemented in coordination with local and county governments, regional entities, and other interested parties to maximize effectiveness.

Goose Creek-Dickerson Bay

The **Goose Creek-Dickerson Bay** sub-basin was selected as the priority sub-basin within the St. Marks River and Apalachee Bay watershed. The sub-basin covers more than 59,000 acres in Wakulla County, and includes the community of Panacea and drainages to Dickerson, Dickson, Levy, Oyster, and Goose Creek bays. The work plan describes the sub-basin's characteristics, critical water resource issues, and strategies and proposed projects that can be implemented to address these issues.

The Goose Creek-Dickerson Bay sub-basin's estuarine waters are highly productive and include extensive tidal marshes, oyster reefs, seagrass beds, and tidal creeks. About 12 percent of the sub-basin consists of residential, commercial, and transportation land uses. The remainder of the sub-basin predominantly consists of wetlands and forestland. More than 35 percent of the sub-basin is within the St. Marks National Wildlife Refuge.

The sub-basin's population in 2020 was 10,964. It is projected to reach 14,758 by 2045, an increase of 35 percent.



Current Issues and Challenges

Water quality in the Goose Creek-Dickerson Bay sub-basin is affected by stormwater runoff across the landscape picking up pollutants from diffuse sources. Common pollutants include nutrients, sediments, bacteria, fertilizers, herbicides, insecticides, oils and greases. The sub-basin includes approximately 3,315 known and likely septic systems, which may also be a source of nutrients and bacteria.

Water quality impairments include:

Dickerson Bay (Fecal coliform bacteria)

Dickson Bay (Nutrients, Fecal coliform bacteria)

Gulf waters (Fecal coliform bacteria)

Oyster Bay (Nutrients, Fecal coliform bacteria)

Purify Creek (Fecal coliform bacteria)

Otter Creek (Dissolved oxygen)

The sub-basin is highly susceptible to coastal flooding, including storm surge associated with hurricanes and tropical storms. Additionally, the seagrass, salt marsh, and oyster habitats which are vital to the health of the estuarine environment and regional economy are vulnerable to anthropogenic impacts and environmental change.

Strategies and Solutions

The work plan summarizes management strategies to address the water resource challenges affecting the Goose Creek-Dickerson Bay sub-basin. Each approach identified addresses multiple issue areas and objectives, reflecting the interrelated nature of water resource attributes and conditions. Proposed strategies include stormwater system upgrades, central wastewater and septic system improvements, potable water system upgrades, and ecosystem restoration.



Dickerson Bay

Proposed Projects and Funding Needs

Proposed projects to address water resource issues within the Goose Creek-Dickerson Bay sub-basin are detailed in the work plan. As of January 2026, **15** projects have been proposed, at an estimated total cost of **\$80.9 million**. The current unmet funding need is **\$62.5 million**. Projects currently proposed include:

- Multiple septic to sewer projects
- Sanitary sewer system improvements
- Oyster reef establishment
- Water quality assessment
- Public access reuse
- Potable water system improvements

Addressing critical water resource issues will require a multi-year effort. Future projects, in addition to those currently identified, will likely be needed to fully address the water resource challenges described within the work plan.



Low Tide and Fog on the Bay