ALABAMA STATE EXPENDITURE PLAN (SEP)

Project #27: Eastern Shore Sanitary Sewer Overflows Prevention Plan

Project Description/Summary

a) This planning assistance project proposes to develop a plan to minimize or eliminate altogether sanitary sewer overflows along the Eastern Shore of Baldwin County, Alabama. This plan will include the cities of Spanish Fort, Daphne, and Fairhope. Improving water quality along the Eastern Shore will restore and enhance the ecosystem functionality of Mobile Bay and the entire estuarine system. In addition, the development of this plan will ensure the protection of public health and recreational assets, as well as providing decision-makers the necessary tools to effectively manage anticipated growth.

   Activities also include the comprehensive administration of this grant, including, but not limited to, project development and oversight, contracting, and sub-recipient monitoring.

   a. **Need:** The population of the Eastern Shore of Baldwin County is rapidly growing. This area is generally considered the geographic area of Baldwin County lying immediately north of Interstate 10 and south of Interstate 10 to Point Clear along Mobile Bay. The municipalities of Daphne, Fairhope, and Spanish Fort make up most of this area with unincorporated areas of Baldwin County filling some gaps between these municipalities. These municipalities have experienced tremendous growth over the last twenty years which has stressed both the wastewater and storm water systems of the Eastern Shore. The primary stressors from this growth result in capacity constraints in the wastewater systems, creating situations where sewer overflows can and have occurred. In addition, erosion from development adds to sediment loading in Mobile Bay.

      Economic forecasts predict the growth rate for the next twenty years will continue at the historical rates, while some forecasts suggest the growth rates could potentially exceed the historical average. To properly support this growth with effective wastewater and storm water infrastructure, it is imperative the Eastern Shore area identify the potential demand this anticipated growth will have on this vital infrastructure. To provide a comprehensive analysis of the potential impacts this growth will have to the wastewater and storm water infrastructure, the existing systems need to be mapped and modeled, so the demands of the projected growth can be assessed in relationship to the existing capacity(ies).

      With comprehensive wastewater and storm water system models in place, coupled with a comprehensive plan for growth, future capacity constraints can be determined. Such a plan can also identify the short-term and long-term capacity improvements needed to meet the demands of the anticipated growth in the Eastern Shore area in concert with modeling the wastewater and storm water systems of the Eastern Shore. A comprehensive model is needed to better understand the mixing characteristics of the discharges to the waters of the bay, and to eliminate any concerns where discharges may

promote water quality issues from a lack of dispersion due to the locations or the volumes of the existing discharges and outfalls. A comprehensive modeling program can also help predict threshold limitations on discharge volumes to ensure water quality improvement, over time.

Purpose: The purpose of this project is to develop a plan to minimize, or eliminate altogether, sanitary sewer overflows on the Eastern Shore resulting from insufficient capacity and inflow and infiltration from excess storm water. In addition, the project aims to improve the overall water quality of Mobile Bay by protecting runoff to the Bay from sanitary sewers and sediment from storm water erosion.

Objective: The primary objectives of this project are to:

- Map and model projected growth patterns along the Eastern Shore;
- Identify areas of wastewater and storm water needs to address this anticipated growth; and
- Develop short-term strategies for dealing with current capacity issues related to growth and long-term plans for capacity improvements.

b. This project is located in the Gulf Coast region and will be implemented in the cities of Spanish Fort, Daphne, and Fairhope in Baldwin County, Alabama.

c. This project is anticipated to begin on 7/1/19 and end 6/30/22 (3 years).

d. The proposed project will be implemented by the City of Fairhope.

b) This project will develop a plan which will lead to improved water quality in Mobile Bay, the fourth largest estuary in the United States. Improved water quality ensures enhanced ecosystem health and recreational opportunities resulting in the restoration of the Gulf economy.

Eligibility and Statutory Requirements

This activity is located in the Gulf Coast Region and is eligible for Spill Impact Component funding under Category #8 – Planning Assistance (primary). Secondary activities include Category #3 - Implementation of a federally approved marine, coastal, or comprehensive conservation management plan, including fisheries monitoring.

Comprehensive Plan Goals and Objectives

This project is consistent with the following Comprehensive Plan goals:

- Goal 2: Restore Water Quality and Quantity – Restore and protect the water quality and quantity of the Gulf Coast region's fresh, estuarine and marine waters; and
- Goal 5: Restore and Revitalize the Gulf Economy – Enhance the sustainability and resiliency of the Gulf economy.

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This project complies with the following Comprehensive Plan objectives:

- Objective 2: Restore, Improve, and Protect Water Resources – Restore, improve, and protect the Gulf Coast region's fresh, estuarine, and marine water resources by reducing or treating nutrient and pollutant loading; and improving the management of freshwater flows, discharges to and withdrawals from critical systems.

Major Milestones

a) Milestone 1: Procure professional services

b) Milestone 2: Complete Geographic Growth Study

c) Milestone 3: Complete Wastewater System Modeling Study

d) Milestone 4: Complete Wastewater Rehabilitation Study

e) Milestone 5: Complete Wastewater Management Study

f) Milestone 6: Complete modeling of each watershed and establish tracking tool

Success Criteria/Metrics/Outcomes

The anticipated outcome of the Eastern Shore Sanitary Sewer Overflows (SSOs) Prevention Plan will be:

- Development of a plan to eliminate SSOs and sediment runoff along the Eastern Shore in Baldwin County

Table 28. Proposed Projects Success Criteria/Metrics/Outcomes

Activity	Anticipated Project Success Criteria/Metrics	Short-term outcome	Long-term outcome
Coordination and development of an SSOs Prevention Plan	Map growth patterns Identify areas of storm water infrastructure improvements One plan written	Identification of SSO and sediment runoff sources	Prioritization of future projects to implement the Prevention Plan

Monitoring and Evaluation

a) Submission of final plan to ADCNR for review

b) Submit results of bid process to ADCNR prior to awarding contracts

c) Submission of quarterly and final reports

Best Available Science

A Best Available Science (BAS) review is required for programs and activities that would restore and protect the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, coastal wetlands, and economy of the Gulf Coast. The primary focus of this project is to develop a plan to eliminate SSOs and sediment runoff along the Eastern Shore in Baldwin County; therefore, BAS does not apply. However, Best Available Science will be considered and utilized, as appropriate, throughout the development of the planning activities.

In addition, this project is supported by the values and recommendations set forth in the MBNEP's Comprehensive Conservation and Management Plan 2013-2018, available on the MBNEP website.

Budget/Funding

a) Estimated cost of the project and amount to be requested from Spill Impact Component Funds: $1,030,000 (100% - Planning). While it is noted that funding available under a grant award cannot exceed the amount described in the SEP for this project, the percentages listed in this section are estimated and will be more clearly cultivated in the grant application.

b) No other funding sources are anticipated at this time.

Partnerships/Collaboration (if applicable)

Not applicable at this time.

Leveraged Resources (if applicable)

Not applicable at this time.

Funds Used As Non-Federal Match (if applicable)

Not applicable at this time.

2. Other

Not applicable at this time.

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Figure 27. The Eastern Shore Sanitary Sewer Overflows Prevention Plan will be developed along the Eastern Shore in Baldwin County, Alabama.