

ALABAMA STATE EXPENDITURE PLAN (SEP)

Project #24: Storm Water Management Improvements for Toulmin Springs Branch and Gum Tree Branch

Project Description/Summary

- a) The Mobile County Commission proposes to undertake planning and engineering and design to define the scope of work and develop construction documents for restoring and improving drainage and streams in Toulmin Springs Branch and Gum Tree Branch.

Funding from the RESTORE Act provides an unprecedented opportunity for the Mobile County Commission, along with the Cities of Mobile and Prichard, to transform degraded urban streams and storm water conveyances into community assets. Crossing and draining largely urban landscapes of Mobile and Prichard, Toulmin Springs Branch suffers from the negative effects of storm water runoff and decaying infrastructure, including trash, bacteria from sewage, excessive nutrients, invasive species, and erosion and sedimentation. Gum Tree Branch suffers from similar effects of urbanization.

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:** Toulmin Springs Branch is a tributary in the greater Three Mile Creek Watershed. The sub watershed drains approximately four-square miles of highly-urbanized areas in the cities of Mobile and Prichard. Classified for Fish & Wildlife use by the Alabama Department of Environmental Management (ADEM), Toulmin Springs Branch was first placed on the State's impaired waters list for pathogens (fecal coliform) in 2004. The primary source of the impairment has been identified as storm water runoff and failing sanitary sewer infrastructure. Gum Tree Branch is a tributary in the greater Eight Mile Creek Watershed. Classified for Fish & Wildlife Use by ADEM, Gum Tree Branch was first placed on the State's impaired waters list for pathogens (fecal coliform) in 2004. The primary source of the impairment has been identified as storm water runoff and failing sanitary sewer infrastructure.

The cost of No-Action will include continued and increased degradation to infrastructure, increased incidences of residential flooding in the communities adjacent to these tributaries, and continued negative impacts to the water quality and habitats of receiving waters.

Purpose: This planning project will provide planning, engineering and design analyses, and documents required to identify specific projects/activities in Gum Tree Branch and Toulmin Springs Branch. These projects will address stressors affecting water quality, localized flooding, and stream/riparian habitats degradation in the sub-watersheds, contributing to healthier and sustainable ecosystem service delivery.

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Objective: The primary objective of this project is to:

- Develop detailed plans and specifications; and
 - Develop construction documents for water quality improvements, stream and drainage restoration, and invasive vegetation control and eradication.
- b. This activity is located in the Gulf Coast region and will be carried out in Mobile County.
- c. This project is anticipated to begin on 7/1/19 and end on 6/30/21 (2 years).
- d. This project will be implemented by Mobile County.
- b) This project proposes to develop a plan which seeks to improve water quality and reduce incidences of urban flooding in parts of Toulmin Springs Branch and Gum Tree Branch in the cities of Mobile and Prichard, Alabama. Improved water quality and reduced flooding ensures enhanced ecosystem health and community resiliency, serving to contribute to the overall economic and ecological recovery of the Gulf Coast.

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 water quality of the Gulf Coast region’s fresh, estuarine, and marine water; and
- Goal 4: Enhance Community Resilience – Build upon and sustain communities with capacity to adapt to short- and long-term changes; and
- Goal 5: Restore and Revitalize the Gulf Economy – Enhance the sustainability and resiliency of the Gulf economy.

This project supports 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; and
- Objective 5: Promote Community Resilience – Build and sustain Gulf Coast communities’ capacity to adapt to short- and long-term natural and man-made hazards, particularly increased flood risks associated with sea-level rise and

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environmental stressors. Promote ecosystem restoration that enhances community resilience through the re-establishment of non-structural, natural buffers against storms and flooding.

Major Milestones

- a) Milestone 1: Procurement of professional services
- b) Milestone 2: Invasive species assessment
- c) Milestone 3: Restoration alternatives analyses
- d) Milestone 4: Preliminary engineering and design
- e) Milestone 5: Environmental compliance
- f) Milestone 6: Final design

Success Criteria/Metrics/Outcomes

The anticipated outcome of the Storm Water Management Improvements for Toulmin Springs Branch and Gum Tree Branch project will be:

- The development of plans, specifications, and construction documents to guide future implementation of drainage improvement projects in Toulmin Springs and Gum Tree Branch.

Table 25. Proposed Projects Success Criteria/Metrics/Outcomes

Activity	Anticipated Project Success Criteria/Metrics	Short-term outcome	Long-term outcome
Development of a plan to guide future implementation of drainage improvement projects	One plan written	Development of a restoration plan ready for implementation	Improved water quality Greater community resiliency

Monitoring and Evaluation

- a) Submit results of bid process to ADCNR prior to awarding contracts
- b) Submission of alternatives analyses to ADCNR
- c) Submission of completed plan to ADCNR
- d) Submission of quarterly and final reports

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Best Available Science

The Three Mile Creek Watershed Management Plan (2014) prepared for the Mobile Bay National Estuary Program by Dewberry & Davis documented the current state of water quality and ecological impairment in the Three Mile Creek watershed (including Toulmin Springs Branch); evaluated improvement measures and practices that could be implemented; and recommended a prioritized list of actions (including costs) needed to improve water quality and improve access for recreation, and by extension, the quality of life in the watershed. The plan also recommended incorporating Low Impact Development (LID) and Green Infrastructure (GI) practices, such as permeable pavement, storm water capture, and minimization of impervious surfaces, to mimic the predevelopment environment of these areas and lessen storm water impacts to the watershed where feasible. The Eight Mile Creek Watershed Management Plan (WMP) identified similar issues in Gum Tree Branch. The Prichard Drainage Study prepared for the Mobile County Commission and the Mobile Bay National Estuary Program (2016) by Neel Schaffer, Inc. performed site assessments along both Toulmin Springs Branch and Gum Tree Branch in Prichard, Alabama. Neel Schaffer also provided preliminary cost estimates for short-term and long-term improvements based on the field assessments.

The [Three Mile WMP](#) and the [Eight Mile Creek WMP](#) included recommendations for Best Management Practices and prioritized actions to address impairment in Toulmin Springs Branch and Gum Tree Branch. The engineering and design tasks will be guided by information provided in both plans. The [Prichard Drainage Study](#) will also be used as source material in the design of long term improvements in both waterbodies.

This project is consistent with the values and recommendations set forth in the MBNEP's Comprehensive Conservation and Management Plan 2013-2018, available on the MBNEP's [website](#).

Budget/Funding

- a) Estimated cost of the project and amount to be requested from Spill Impact Component Funds: \$1,222,744 (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.

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Other

Not applicable at this time.



Figure 24. The Storm Water Management Improvements for Toulmin Springs Branch and Gum Tree Branch project will be implemented in the Cities of Mobile and Prichard, Alabama in Mobile County.