

**Report to Congress for Future Water Resources Development (WRRDA 7001) Submission
Package**

Proposal Name: Three Mile Creek Ecosystem Restoration Study

Submission Date: 08/10/2017

Proposal ID Number: f622d789-ab95-4214-9ca6-a000753cc17e

Purpose of Proposal: The purpose of the proposal is to study the Three Mile Creek (TMC) watershed to achieve ecosystem restoration. The TMC watershed is located within the City of Mobile, Alabama. It drains approximately 30 sq. mi. - nearly 20% of the total city land area. The watershed has roughly 1,500 acres of wetland and 96.5 acres of riverine habitat. TMC stretches approximately 14 mi. from west of the University of South Alabama east to the Mobile River, which then drains to Mobile Bay. From 1974 to 2008, the TMC watershed experienced an increase in urbanization from 49% to 70%, accompanied by a decrease in upland forest from 30% to 12%. The watershed faces ecological challenges including an abundance of invasive species and aquatic vegetation. Altered watershed hydrology and altered creek geomorphology have impacted the ecosystem and severed wildlife corridors. The land use distribution in the TMC watershed is 42% residential; 26% commercial; 17% transportation; 6% industrial and 9% undeveloped/wetlands. The TMC watershed flows through residential areas, urbanized areas, and habitat-rich wooded wetlands supporting a diversity of marine and freshwater species. According to the USFWS, there are several federally listed species in the watershed area under the Endangered Species Act and the Fish and Wildlife Coordination Act. In 2015, the City adopted a public-input-based Comprehensive Plan called Map for Mobile. TMC watershed improvements (restoration, park improvements, greenway trails, water quality) were identified as key goals. One of the City's largest parks, Langan Park, sits at the confluence of TMC, Twelve Mile Creek and other tributaries. Development within the upper watershed has put pressure on the tributaries feeding into Langan Park Lake causing significant habitat degradation. Restoration of the aquatic system will have a direct impact on the ecosystem - returning the recreational value of the lake and enhancing the economic impact of park amenities adjacent to TMC.

1. Administrative Details

Proposal Name: Three Mile Creek Ecosystem Restoration Study

by Agency: City of Mobile, Alabama

Locations: AL

Date Submitted: 08/10/2017

Confirmation Number: f622d789-ab95-4214-9ca6-a000753cc17e

Supporting Documents

File Name	Date Uploaded
City of Mobile-7001-Photos.pdf	08/10/2017
ThreeMileCreekWatershed-map.pdf	08/10/2017
City of Mobile-Mayor-WRRDA-2017.pdf	08/10/2017

2. Provide the name of the primary sponsor and all non-Federal interests that have contributed or are expected to contribute toward the non-Federal share of the proposed feasibility study or modification.

Sponsor	Letter of Support
City of Mobile, Alabama(Primary)	<p>The City of Mobile supports the inclusion of the Three Mile Creek Watershed Restoration feasibility study proposal in the Annual Report to Congress on Future Water Resources Development (WRRDA Section 7001). Three Mile Creek and its surrounding watershed present an extraordinary opportunity for the City of Mobile to return what is now a community liability due to its degraded condition, into a community amenity and waterway destination for the region and state. The City of Mobile is committed to seeing this project through to fruition. While we have made significant investments, our municipal resources are limited and we need to leverage federal funds to make these vital improvements to the Three Mile Creek watershed.</p> <p>(Note: please refer to uploaded document for full statement)</p>

3. State if this proposal is for a feasibility study, a modification to an authorized USACE feasibility study or a modification to an authorized USACE project. If it is a proposal for a modification, provide the authorized water resources development feasibility study or project name.

Feasibility Study

4. Clearly articulate the specific project purpose(s) of the proposed study or modification. Demonstrate that the proposal is related to USACE mission and authorities and specifically address why additional or new authorization is needed.

The purpose of the proposal is to study the Three Mile Creek (TMC) watershed to achieve ecosystem restoration. The TMC watershed is located within the City of Mobile, Alabama. It drains approximately 30 sq. mi. - nearly 20% of the total city land area. The watershed has roughly 1,500 acres of wetland and 96.5 acres of riverine habitat. TMC stretches approximately 14 mi. from west of the University of South Alabama east to the Mobile River, which then drains to Mobile Bay. From 1974 to 2008, the TMC watershed experienced an increase in urbanization from 49% to 70%, accompanied by a decrease in upland forest from 30% to 12%. The watershed faces ecological challenges including an abundance of invasive species and aquatic vegetation. Altered watershed hydrology and altered creek geomorphology have impacted the ecosystem and severed wildlife corridors. The land use distribution in the TMC watershed is 42% residential; 26% commercial; 17% transportation; 6% industrial and 9% undeveloped/wetlands. The TMC watershed flows through residential areas, urbanized areas, and habitat-rich wooded wetlands supporting a diversity of marine and freshwater species. According to the USFWS, there are several federally listed species in the watershed area under the Endangered Species Act and the Fish and Wildlife Coordination Act. In 2015, the City adopted a public-input-based Comprehensive Plan called Map for Mobile. TMC watershed improvements (restoration, park improvements, greenway trails, water quality) were identified as key goals. One of the City's largest parks, Langan Park, sits at the confluence of TMC, Twelve Mile Creek and other tributaries. Development within the upper watershed has put pressure on the tributaries feeding into Langan Park Lake causing significant habitat degradation. Restoration of the aquatic system will have a direct impact on the ecosystem - returning the recreational value of the lake and enhancing the economic impact of park amenities adjacent to TMC.

5. To the extent practicable, provide an estimate of the total cost, and the Federal and non-Federal share of those costs, of the proposed study and, separately, an estimate of the cost of construction or modification.

	Federal	Non-Federal	Total
Study	\$1,500,000	\$1,500,000	\$3,000,000
Construction	\$19,500,000	\$10,500,000	\$30,000,000

Explanation (if necessary)

The cost estimate for the study is based on the vast amount of area (approximately 30 square miles) of the subject watershed and the complexity of the resources involved. The cost estimate for construction was developed in consultation with the Joint Agency Task Force based on known conditions of the watershed.

6. To the extent practicable, describe the anticipated monetary and nonmonetary benefits of the proposal including benefits to the protection of human life and property; improvement to transportation; the national economy; the environment; or the national security interests of the United States.

The primary benefits of this proposal will be the habitat restoration for the diverse biological resources that live in the Three Mile Creek (TMC) watershed. Signs of habitat degradation are evident from anthropogenic activities and population pressures. Species that will benefit from ecological restoration within the watershed include: several federally-listed species (Wood Stork, Black Pine and Eastern Indigo Snakes, Gulf Sturgeon); Alabama red-belly turtle (threatened); rare plant species (some critically imperiled); numerous fish species (at least 19 fish species representing 10 families of fish); over 24 bird species of egrets, herons, ospreys, hawks and other bird types; and North America's largest reptile, the American alligator - a keystone species controlling the long-term vegetation dynamics in wetlands. The City is building the first segment of a proposed 12-mile multi-modal greenway trail along TMC. While our research supports significant economic and social benefits associated with greenway trail development, without improvements to the watershed and the aquatic ecosystem, the impact may not be fully realized. The human population impacted by the study is diverse, with more vulnerable populations (including but not limited to, lower income individuals, racial minorities, seniors, youth, persons with disabilities, and renters) located largely in the lower portion of the watershed. Within 1 mile of the proposed trail, there are roughly 70,000 people (almost 35% of the City's population) and nearly 900 businesses (food, entertainment, retail). If property values within just ½ mi. of the trail were to increase by 2% as a result of trail users, the total Fair Market Value would increase by \$21,900,000. We see this study as a comprehensive way to look at the contributing factors from the upper, middle and lower watershed so we can have plans that improve capital planning, flood control, recreation, invasive species control and native species protection.

7. Does local support exist? If 'Yes', describe the local support for the proposal.

Yes

Local Support Description

We have broad based support from multiple public and private entities and stakeholders. These include: The University of South Alabama, Mobile County, the Mobile Bay National Estuary Program, Mobile Area Water and Sewer System (MAWSS), The Nature Conservancy, Alabama Department of Conservation and Natural Resources, the Alabama State Port Authority, the Alabama Department of Environmental Management, and many more. The Joint Agency meetings that the City and USACE have been hosting have been extremely engaging – especially with the City's recently-adopted Comprehensive Plan. The community at large is very engaged and supportive of these implementation goals.

8. Does the primary sponsor named in (2.) above have the financial ability to provide for the required cost share?

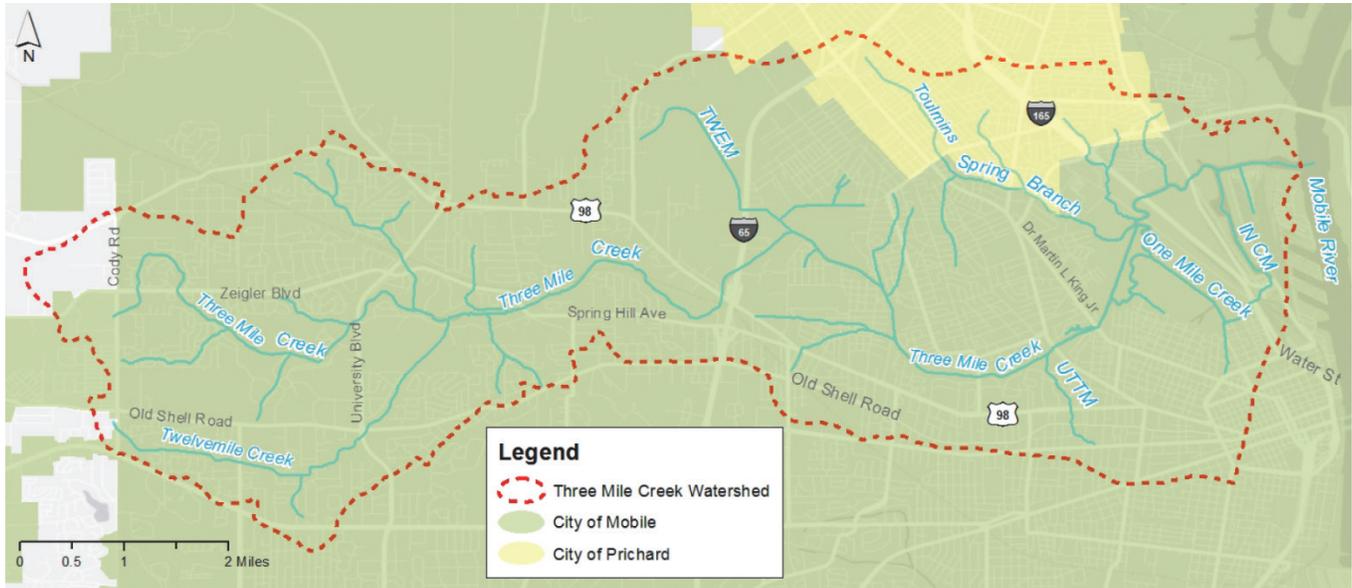
Yes

Additional Proposal Information

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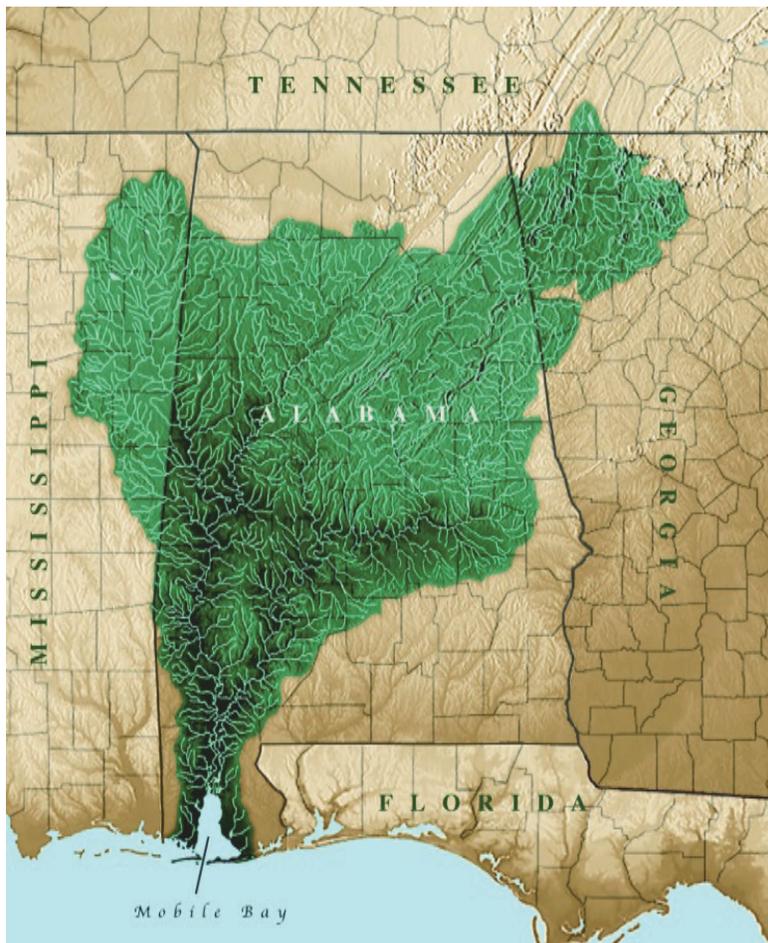
City of Mobile_7001_Photos.pdf

Image 1 – Three Mile Creek Watershed



Three Mile Creek watershed drains a total area of approximately 30 square miles within the City of Mobile, which represents nearly 20% of the total city land area.

Image 2 – Mobile Bay Watershed



The Mobile Bay watershed covers approximately 65% of the state of Alabama and portions of Mississippi, Georgia, and Tennessee. Serving as a drainage system for 43,662 square miles, the Mobile Bay watershed is the sixth largest in the nation by area and at 62,000 cubic feet per second on average it has the fourth largest

Image 3 – 12 Mile Creek (A)



Example of erosion occurring along 12 Mile Creek.

Image 4 – 12 Mile Creek (B)



Turbid water observed in 12 Mile Creek.

Image 5 – 12 Mile Creek (C)



Example of sedimentation occurring in 12 Mile Creek.

Image 6 – 12 Mile Creek (D)



Example of sedimentation occurring in 12 Mile Creek.

Image 7 – Three Mile Creek (A)



Example of erosion occurring along Three Mile Creek.

Image 8 – Three Mile Creek (B)



Example of existing weir structure in Three Mile Creek.

Image 9 – Three Mile Creek (C)



Example of flood control structure and erosion control measures in Three Mile Creek.

Image 10 – Three Mile Creek (D)



Example of flood control structure and erosion control measures in Three Mile Creek.

Map Document

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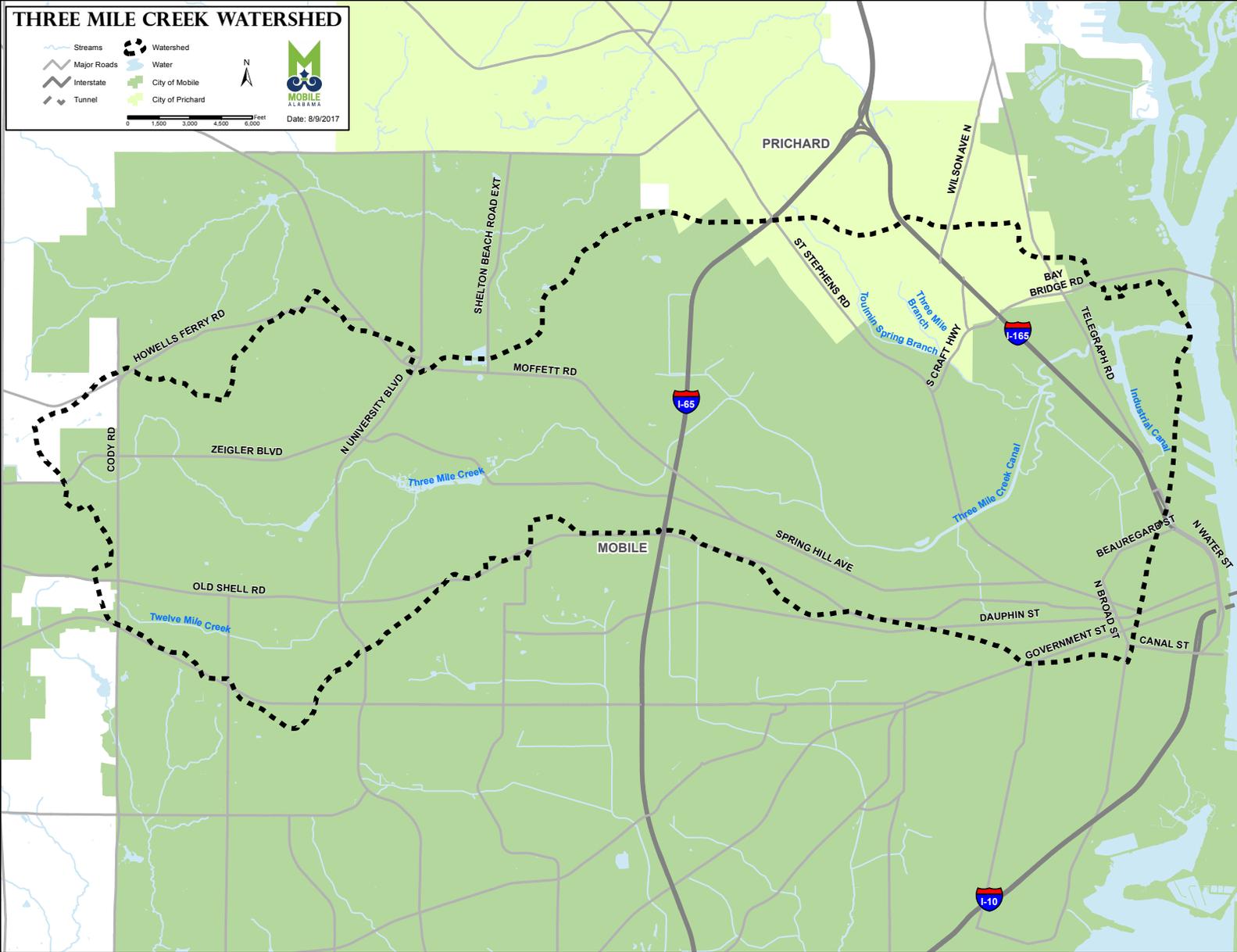
ThreeMileCreekWatershed_map.pdf

THREE MILE CREEK WATERSHED

Streams Watershed
Major Roads Water
Interstate City of Mobile
Tunnel City of Prichard



0 1,500 3,000 4,500 6,000 Feet
Date: 8/9/2017



Primary Sponsor Letter of Support

(As uploaded)

City of Mobile_Mayor_WRRDA_2017.pdf

OFFICE OF THE MAYOR



August 8, 2017

Assistant Secretary of the Army for Civil Works
Headquarters, US Army Corps of Engineers
441 G Street, NW
Washington, DC 20314-1000

RE: City of Mobile WRRDA Section 7001 Proposal

Dear Secretary:

I am writing to express my enthusiastic support for the City of Mobile, Alabama's Three Mile Creek Watershed Restoration feasibility study proposal to be included in the Annual Report to Congress on Future Water Resources Development (WRRDA Section 7001).

It is my vision to create "One Mobile" by becoming the safest, and most business and family-friendly city in America by 2020. Three Mile Creek and its surrounding watershed present an extraordinary opportunity for the City of Mobile to return what is now a community liability due to its degraded condition, into a community amenity and waterway destination for the region and state.

The City of Mobile is committed to seeing this project through to fruition. In the past 10 years the City has spent in excess of two million dollars for watershed restoration activities. While we have made significant investments, our municipal resources are limited and we need to leverage federal funds to make these vital improvements to the Three Mile Creek watershed.

Thank you for your consideration of this proposal. If you have any questions or need additional information, please do not hesitate to contact me at 251-208-7395 or at mayorstimpson@cityofmobile.org.

Sincerely,

A handwritten signature in blue ink, appearing to read 'W. Stimpson'.

William S. Stimpson
Mayor