

Mobile Bay National Estuary Program
Management Conference
Infrastructure Transformations



Year One and Two Work Plan
2022 - 2023

Prepared by
Mobile Bay National Estuary Program
www.mobilebaynep.com

Preface

MBNEP's mission is to promote the wise stewardship of water quality and living resources of Alabama's estuaries. MBNEP's purpose is to catalyze actions of estuary stakeholders, build community organizational capacity for sound resource management, and leverage commitment and investment to ensure the estuary's sustainability. MBNEP's objectives are: 1) engage estuary stakeholders in the development of CCMPs; 2) expand resources and involvement in the implementation of these CCMPs; and 3) promote how to best protect this nationally significant ecological, economic, and cultural resource to ensure its conservation for our lifetime and beyond. To maximize effectiveness in promoting estuary health, the program's guiding principles are:

Those that live it know it - Citizens, anglers, boaters, scientists, hunters, and others have a unique insight into the environmental challenges we face, what works, and what doesn't. **Stakeholder input is vital to developing long-term solutions to local challenges.**

Economic opportunities must be available - Our coast is an economic engine, creating significant wealth for our State each year from trade through the Port of Mobile, recreational, and commercial fishing, tourism, hunting, and coastal construction. **Protection of the livelihoods of our coastal residents depends on high quality waters, vigorous populations of fish and wildlife, and a healthy mosaic of habitats providing essential natural functions.**

It happens in the river, in the sea, and on the street - Residents, towns, cities, counties, business and industry, academia, community developers, and social services all have a vested interest in preserving the quality of life derived from Mobile Bay and coastal Alabama's estuaries. Involvement of citizens in carrying out activities aimed at improving the Bay and its watersheds is paramount to ensuring the long-term health and vitality of Alabama's estuaries. **Citizens must be actively engaged in balancing the many uses of the Bay so that we can preserve its unique natural resources for all our needs.**

Our vision: Alabama's estuaries (where the rivers meet the sea) are healthy and support ecological functions and human uses. Alabama's estuaries are integral to our common good.

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Part One: Long Term Plan

Introduction

On November 6, 2021, Congress passed the Infrastructure Investment and Jobs Act (known as the Bipartisan Infrastructure Law -- BIL), a significant investment in the nation's infrastructure and resilience. The BIL specifically identifies the National Estuary Programs (NEPs) as key partners for implementation and therefore provides additional funding to these programs. Funding through the BIL provides a historic investment to the NEP, more than doubling the current base funding of \$700,000 per estuary annually. The BIL provides an additional \$26.4 million, or \$909,800 per year for the next five years, to the NEPs beginning in fiscal year 2022 through fiscal year 2026. The BIL funding is available to the NEPs until fully expended.

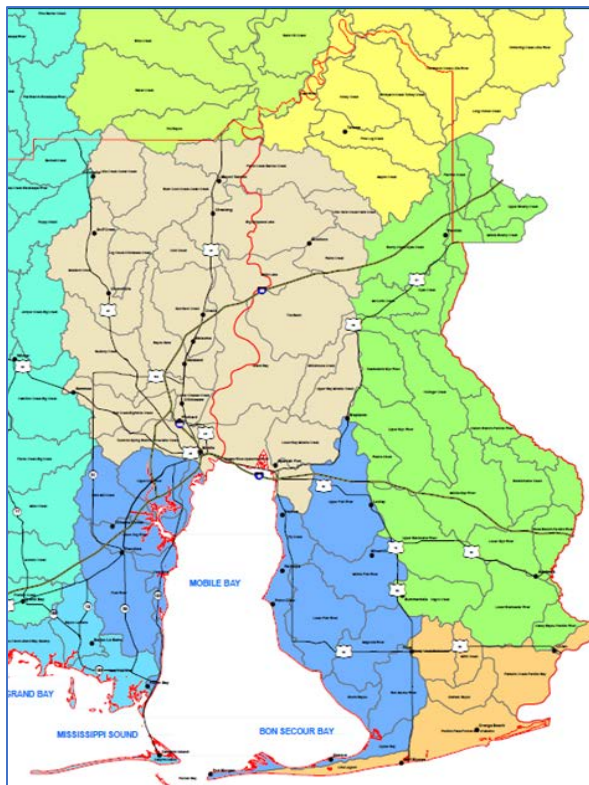
As with annual appropriations distributed to NEPs to implement Section 320 of the Clean Water Act, the funds distributed under the BIL must implement a management conference and EPA approved Comprehensive Conservation and Management Plan (CCMP), and annual workplan specifically developed for BIL funds. The workplan for expenditure of BIL funds shall focus on these six priorities:

1. Measurable outcomes
2. Implementation of the Act's Made-in-America requirements
3. High labor standards for all jobs funded with BIL, including prevailing wages
4. 40% of BIL investments targeted to disadvantaged communities
5. Investments on building resilient infrastructure able to withstand impacts of climate change
6. Coordination of investments with State, local, Tribal, and territorial governments to leverage BIL resources

Through the BIL, the Mobile Bay National Estuary Program (MBNEP) has an unprecedented opportunity to reinforce the wise stewardship of Alabama's estuarine and coastal natural resources, while making communities more resilient to the impacts of climate change. The following five-year strategy will implement the CCMP for Alabama's Estuaries and Coast 2019-2023, with a focus on transforming how we monitor environmental conditions (***Estuary Status and Trends***); how we manage coastal Alabama shorelines (***Ecosystem Restoration and Protection***); and how we build the environmental management capacity of local governments to serve disadvantaged communities who are marginalized, underserved, and overburdened by pollution (***Technical Assistance and Capacity Building***). This strategy for use of BIL funds includes:

- **Expanded environmental monitoring** to better understand and address pollutant loading and contamination across our two coastal counties;
- **Improved and better coordinated shoreline management** to strengthen the resilience of our first line of defense against rising seas and more intense and frequent storms resulting from climate change; and
- **Installation of green infrastructure in underserved areas** to counter chronic flooding and other stormwater management challenges facing disadvantaged communities.

Geographic Distribution



The MBNEP's service area covers all of Mobile and Baldwin counties, from the Florida border on the east, across coastal Alabama to the Mississippi border to the west. In addition, the target area extends seaward to the three-mile submerged land State jurisdictional limit. It includes Mississippi Sound, west to the Mississippi/Alabama border and Perdido Bay, east to the Florida state line. Major waterways include the Tombigbee, Spanish, Tensaw, Apalachee, Blakeley, Escatawpa, Mobile, Alabama, Dog, Fowl, Fish, Magnolia, Bon Secour and Perdido rivers; Chickasaw, Norton, Three Mile, and Eight Mile creeks; Wolf and Perdido Bays, Little Lagoon; Mississippi Sound; and the Intercoastal Waterway.

MBNEP will target 40% of BIL funds to disadvantaged communities as identified by the Climate and Economic Justice Screening tool. Shoreline funds will target the western shore of Mobile Bay. Environmental Monitoring will occur in Mobile Bay and begin in Western Perdido Bay, specifically in Peterson Branch.

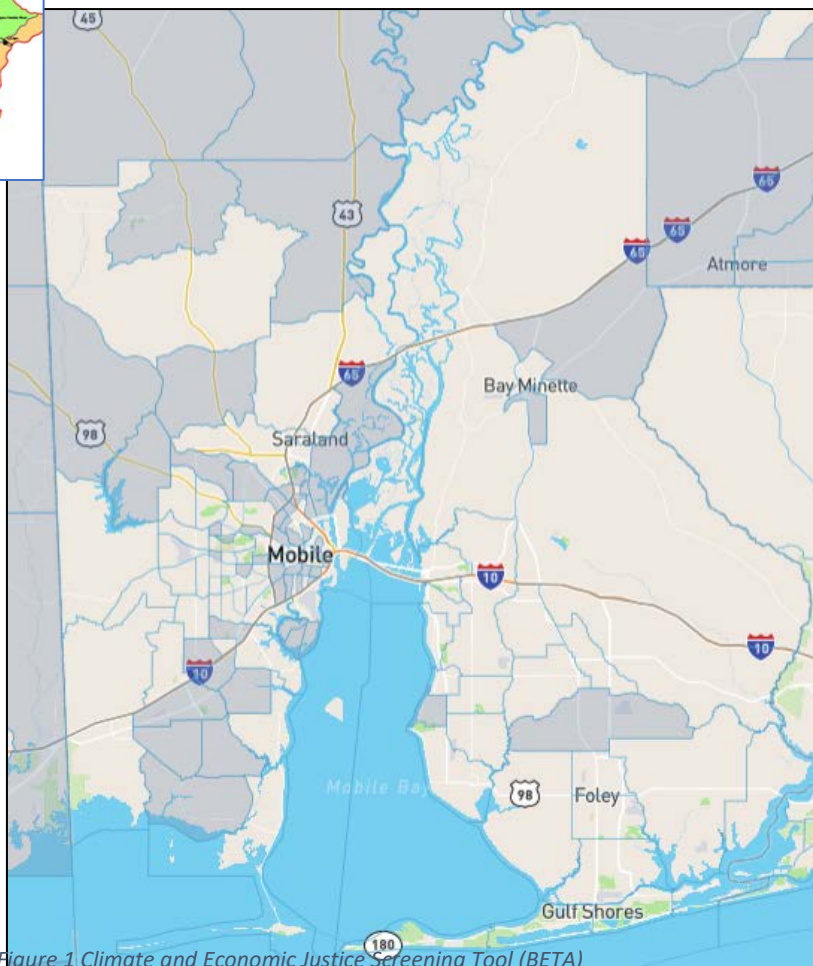


Figure 1 Climate and Economic Justice Screening Tool (BETA)

Five Year BIL Investment Strategy

The purpose of this five-year BIL strategy is to advance the wise stewardship of water quality and living resources of Alabama's estuaries and coast to withstand climate change related impacts.

Goals for the expenditure of these funds are to:

- Expand environmental monitoring infrastructure to better track changing environmental conditions, including those related to climate change stressors;
- Improve the resilience of shorelines through stabilization measures that re-establish ecological functions and services; and
- Improve environmental conditions in watersheds in disadvantaged communities through the implementation of green infrastructure re-establishing ecological functions and services.

The objectives of these investments are to:

1. **Expand monitoring in a minimum of six (6) streams** to track environmental trends related to climate change and other factors including but not limited to higher water temperatures, increases in nutrient loading, reductions in dissolved oxygen, and increasing risks of bacterial contamination in freshwater and brackish systems.
2. **Develop and implement a Comprehensive Shoreline Resilience Plan for Coastal Alabama** to stabilize and adaptively manage at least three miles of shore using nature-based solutions.
3. **Build the capacity of local government to implement green infrastructure** in areas where disadvantaged communities of Mobile and Baldwin counties reside as recommended in comprehensive watershed management plans.

Projects to be undertaken to achieve these objectives will include but not be limited to:

- 1.1 Bay-Wide Monitoring: Re-establish the Middle Bay Lighthouse real-time monitoring station to measure changes in water temperature, salinity, dissolved oxygen, turbidity, pH, total chlorophyll, and other parameters necessary to measure climate change related trends.

Estimated timeline: Purchase and installation within one year of initial funds receipt. Continued support of data-sharing operations through existing partnerships.

Potential additional sources of funding: Dauphin Island Sea Lab; State of Alabama

Capacity Building Needs: NA

Opportunities for potential coordination with other key stakeholder groups: EPA Gulf of Mexico Division; NOAA National Estuarine Research Reserves; Alabama Department of Environmental Management; Alabama Department of Conservation and Natural Resources; Alabama State Port Authority

Equity Strategy: NA

- 1.2 Coastal Watershed Monitoring: Pilot a watershed monitoring protocol to improve data collection and transparent reporting of environmental conditions by developing a community communications program using EPA's **How's My Waterway** in Baldwin County and replicating in at least five (5) other streams throughout Mobile and Baldwin Counties.

Estimated timeline: Baldwin County pilot project to determine number and location of monitoring stations within six (6) months of funds receipt; establishment of long-term monitoring stations (# TBD) throughout Baldwin County by end of year one with continued support through year two; Potential for replication of pilot in Mobile County within three years of initial funds receipt.

Potential additional sources of funding: U.S. Geological Survey; EPA Gulf of Mexico Division; MBNEP Section 320 funding; Alabama Department of Environmental Management

Capacity Building Needs: NA

Opportunities for potential coordination with other key stakeholder groups: EPA Gulf of Mexico Division; NOAA National Estuarine Research Reserves; Alabama Department of Environmental Management; Baldwin County; Mobile County; Cities of Mobile, Foley

Equity Strategy: Where applicable, stations will be in Justice40 target communities where stormwater management is occurring.

- 2.1 Shoreline Resilience Program for the Alabama Coast: The Western Shore of Mobile Bay, its communities, its industry, and its government, all seek to coexist in a way that supports our communities, our economy, and our ecology. However, this important landscape is threatened by forces outside of its control including freshwater discharge from the greater Mobile Bay Watershed, prolonged boat wakes from ship channel traffic and other activities, sea level rise, and storm surge impacts. Manmade alterations of our waterways for development, industry, transportation, navigation, and shoreline armoring have created pressures along Alabama's coast, threatening its ability to recover and adapt to environmental changes, and resulting in the loss of 1) valuable intertidal fishery habitat, 2) infrastructure protection, and 3) property. To ensure the long-term resilience of these shorelines and their ability to provide a first line of defense for the flora, fauna, people, and industries who depend on it, a Comprehensive Shoreline Resilience Plan will be developed and implemented through the creation of a Coastal Shoreline Cost-Share Program. This plan will build on significant investments already made along the western shore providing an "additive lift" to bolster an already robust toolkit by creating a shared holistic strategy for managing the western shore of Mobile Bay.

Estimated timeline: Western Shoreline Stabilization Plan within 12 months of initial funds receipt. Coastal Shoreline Cost-Share Program within 2 years of initial receipt of funding and continued capitalization through year five.

Potential additional sources of funding: National Fish and Wildlife Foundation National Coastal Resilience Fund-Pending. (Note: If NFWF funds awarded, plan funds will be transferred to Cost-Share Program.)

Capacity Building Needs: Program Manager at 50% time to engage communities, guide plan development, coordinate project partners, identify/solicit additional funding sources for implementation.

Opportunities for potential coordination with other key stakeholder groups: U.S. Army Corps of Engineers; Alabama Department of Conservation and Natural Resources; Alabama State Port Authority; Mobile County; The City of Mobile; The Nature Conservancy

Equity Strategy: NA

- 3.1 Justice40 Green Infrastructure Initiative: To improve community environmental resilience in disadvantaged communities who are marginalized, underserved, and overburdened by pollution, MBNEP will establish a program working with local governments and public housing authorities to reduce chronic flooding and improve stormwater management through the installation of green infrastructure. One priority area will be Eight Mile Creek Watershed, where an outdated Watershed Management Plan will be revised and implemented to reduce pathogen pollution and improved water quality in this impaired stream.

One component of this initiative will be extensive community engagement. MBNEP will work with target communities to improve their understanding of how green infrastructure will not only reduce flooding and associated pollutant loading in area waters but will improve their quality of life by promoting enhancements to ecological functions. MBNEP will select up to four communities to develop Green Infrastructure plans and invest in their implementation over the remaining four years.

Estimated timeline: Eight Mile Creek Watershed Plan update complete within one year of funds receipt; Implementation of plan ongoing through year five. Requests for letter of interest will be released within three months of initial funds receipt; Target communities selected within six months of funds receipt; Initiation of green infrastructure projects upon plan completion and ongoing for remainder of BIL funding availability.

Potential additional sources of funding: Other BIL sources (Federal, State); EPA Gulf of Mexico Division; MBNEP Section 320 funding; Alabama Department of Environmental Management Section 319; Local sources

Capacity Building Needs: Program Manager at 50% time to engage communities, guide plan development, coordinate project partners and implementation, identify/solicit additional funding sources.

Opportunities for potential coordination with other key stakeholder groups: EPA Gulf of Mexico Division; Alabama Department of Environmental Management; Mobile, Prichard, and Foley Housing Authorities; Baldwin County; Mobile County; Cities of Mobile, Chickasaw, Prichard, Foley

Equity Strategy: All planning and projects will take place in disadvantaged communities.

Five-Year Budget Projections

		Year 1	Year 2	Year 3	Year 4	Year 5	Total
CCMP	BIL Five-Year Strategy	Budget Amount					
EST-1	Coastal Environmental Monitoring Program	125,241	50,000	100,000	100,000	100,000	475,241
	Bay Monitoring-ARCOS	75,241					75,241
	Watershed Monitoring	50,000	50,000	100,000	100,000	100,000	400,000
ERP-3	Shoreline Resilience Program	272,241	297,482	348,659	348,659	350,118	1,617,159
	Shoreline Resilience Plan	225,000					225,000
	Shoreline Resilience Fund		250,241	300,000	300,000	300,000	1,150,241
	Project Delivery	47,241	47,241	48,659	48,659	50,118	241,918
TAC-4	Community Resilience Green Infrastructure Initiative	393,648	443,648	342,471	342,471	341,012	1,863,247
	Eight Mile Creek Watershed Management Plan	150,000	100,000	100,000	100,000	50,000	500,000
	Justice40 Green Infrastructure Program	200,000	300,000	197,514	197,514	244,706	1,139,734
	Project Delivery	43,648	43,648	44,957	44,957	46,306	223,513
Subtotal Project Related Costs		791,130	791,129	791,130	791,130	791,130	3,955,647
	Indirect Charges	118,670	118,671	118,670	118,670	118,670	593,353
Total Infrastructure Budget		909,800	909,800	909,800	909,800	909,800	4,549,000

Part Two: Two Year Action Plan 2022-2023

The following budget and activity details summarize how MBNEP will utilize BIL funds to support transformative change through of the CCMP. Each Project is identified by the relevant CCMP Goal followed by the correlated activity, its purpose, objectives, outputs, and expected outcomes. Each activity table indicates its relevance to the Clean Water Act, where applicable, project lead, expected partners, and other potential sources of funding.

The Two-Year Action Plan Budget: 2022-2023

		Year 1	Year 2	
CCMP	BIL Five-Year Strategy	Budget Amount		%
EST-1	Coastal Environmental Monitoring Program	125,241	50,000	10%
	Bay Monitoring-ARCOS	75,241		
	Watershed Monitoring	50,000	50,000	
ERP-3	Shoreline Resilience Program	272,241	297,482	31%
	Shoreline Resilience Plan	225,000		
	Shoreline Resilience Fund		250,241	
	Project Delivery	47,241	47,241	
TAC-4	Community Resilience Green Infrastructure Initiative	393,648	443,648	46%
	Eight Mile Creek Watershed Management Plan	150,000	100,000	
	Justice40 Green Infrastructure Program	200,000	300,000	
	Project Delivery	43,648	43,648	
Subtotal Project Related Costs		791,130	791,129	
	Indirect Charges	118,670	118,671	
Total Infrastructure Budget		909,800	909,800	

EST - 1.2: Coastal Environmental Monitoring Program

Activity	1.2.1: Bay Monitoring- ArCOS
Purpose	• Support climate resilience, water quality and nutrient load monitoring.
Objectives	• Install monitoring stations to collect continuous data on water conditions in Mobile Bay.
Outputs	• Continuous Monitoring salinity, DO, temperature, turbidity, DOM, PH, Chlorophyll A
Outcomes	• Improve ability to mitigate the impacts of Climate Change.
Clean Water Act Relevance	• Improve water quality monitoring. • Support TMDL implementation.
Project Lead	• DISL
Partners	• ADEM • ASPA • EPA GOMD • NOAA NERR
Potential Additional Funding Sources	• AL • DISL

Workplan Year	Total Budget	Description	Project Status
Bay Monitoring- ArCOS			
Year 1: 2022	\$75,240.70	ArCOS-Mobile Bay Station	New
Year 2: 2023	\$0.00		
TOT	\$75,240.70		

ARCOS This station, part of a larger Dauphin Island Sea Lab monitoring network, provides longitudinal data to scientists and regulatory agencies tasked with predicting the impacts of climate-related changes to the Mobile Bay system. In addition, these data are incorporated into forecasting models that are utilized by local industries (e.g., commercial and recreational fisheries) to make business decisions that impact and improve their livelihood resilience. Gaps in the current data record caused by storm-related failures and instrument limitations have reduced the regional capacity to both monitor baseline conditions of Mobile Bay water quality and to prepare dependent stakeholders for shifting circumstances.

Year One: Funding provided during year one will contribute toward replacement of damaged platform infrastructure and the expansion of current monitoring through the addition of total chlorophyll sensors. Access to these publicly available data will be through the Dauphin Island Sea Lab, promoted via the MBNEP website, and communicated through the Management Conference.

Year One Accomplishments: NA

EST - 1.2: Coastal Environmental Monitoring Program

Activity	1.2.2: Watershed Monitoring- Baldwin County
Purpose	• Support climate resilience, water quality and nutrient load monitoring.
Objectives	• Collect and compile data and evaluate effectiveness of program. • Install monitoring stations to collect continuous data on water conditions in Baldwin County.
Outputs	• Data report
Outcomes	• Improve understanding of pollutant loads.
Clean Water Act Relevance	• Improve water quality. • Support TMDL implementation.
Project Lead	• Baldwin County • MBNEP
Partners	• ADEM • Baldwin County • EPA GOMD • Foley • Mobile • Mobile County • NOAA NERR
Potential Additional Funding Sources	• ADEM • EPA GOMD • MBNEP Section 320 Funds • USGS

Workplan Year	Total Budget	Description	Project Status
Watershed Monitoring- Baldwin County			
Year 1: 2022	\$50,000.00	Pathogen monitoring program (Baldwin County)	New
Year 2: 2023	\$49,999.70	Pathogen monitoring program (Baldwin County)	Continuing
TOT	\$99,999.70		

Baldwin County Pilot Population growth and climatic changes will put additional stress on Baldwin County waterbodies due to projected increases in pathogen contamination from sanitary sewer overflows and stormwater runoff. Elevated rates of bacterial contamination continue to impact the waterways throughout the County, necessitating more rigorous monitoring to determine the primary contributors and potential mitigation strategies. The Alabama 2020 303(d) List of Impaired Water Bodies includes 43 impairment listings for 29 Baldwin County water bodies draining to either Mobile or Perdido bays. Of these, 14 were caused by pathogens (Enterococcus or E. coli) from pasture grazing, urban runoff/storm sewers, on-site wastewater systems, collection system failures, or unknown sources.

Year One: Infrastructure funds will be used to support the development of a pilot monitoring study on Peterson Branch in the Western Perdido Bay Watershed, a waterway selected by Baldwin County due to community interest and indications of high bacteria loads. This pilot will consist of monthly monitoring of a comprehensive suite of parameters as well as the development of a communications program using EPA's **How's My Waterway** to engage interested and involved residents.

Year Two: The process used to collect, synthesize, and communicate data during this first year will be replicated and refined in another waterway yet to be determined in Year Two, with a goal of producing a protocol for gathering and communicating environmental conditions consistently in impaired watersheds.

ERP - 3.1: Shoreline Resilience Program

Activity	3.1.1: Shoreline Resilience Plan
Purpose	• Support climate resilience.
Objectives	• Begin development of a comprehensive shoreline management plan and use to establish an interagency task force for longterm shoreline management.
Outputs	• NA
Outcomes	• NA
Clean Water Act Relevance	• Improve water quality. • Support TMDL implementation.
Project Lead	• MBNEP
Partners	• ADCNR • ASPA • Baldwin County • EPA GOMD • Mobile County • NOAA NERR • TNC • USACE
Potential Additional Funding Sources	• NFWF NCRF

Workplan Year	Total Budget	Description	Project Status
Shoreline Resilience Plan			
Year 1: 2022	\$225,000.00	Shoreline Resilience Plan	New
Year 2: 2023	\$0.00		
TOT	\$225,000.00		

Year One Accomplishments: NA

Shoreline Resilience Plan Manmade alterations of our waterways for development, industry, transportation, navigation, and shoreline armoring have exacerbated pressures along Alabama’s coast, threatening its ability to recover and adapt to environmental changes, and resulting in the loss of 1) valuable intertidal fishery habitat, 2) infrastructure protection, and 3) property. To ensure the long-term resilience of these shorelines and their ability to provide a first line of defense for the flora, fauna, people, and industries who depend on it, a Shoreline Resilience Plan will be developed for the Western Shore of Mobile Bay.

Year One: Infrastructure funds will be used to produce this Plan built on the lessons learned from significant investments already made in stabilizing publicly owned shores. The planning process will include extensive outreach to waterfront property owners, wave climate modeling, and a prioritization process for identifying which shorelines are most stressed and/or vulnerable to climate change impacts.

MBNEP is actively pursuing funding for this plan through the National Fish and Wildlife Foundation’s National Coastal Resilience Fund, with award announcements expected in November 2022. In the event this grant is awarded, Year One funds will be added to Year Two funds to augment capitalization of the Shoreline Resilience Fund.

Year One Accomplishments: NA

ERP - 3.1: Shoreline Resilience Program

Activity	3.1.2: Shoreline Resilience Fund
Purpose	• Support climate resilience.
Objectives	• Implement a cost share program for shoreline stabilization and improved management.
Outputs	• 1200 Linear feet of stabilized, resilient shoreline using nature-based solutions.
Outcomes	• Improve resilience of first line of defense along Alabama Coast.
Clean Water Act Relevance	• Improve water quality. • Support TMDL implementation.
Project Lead	• MBNEP
Partners	• ADCNR • ASPA • Baldwin County • EPA GOMD • Mobile County • NOAA NERR • TNC • USACE
Potential Additional Funding Sources	• NFWF NCRF

Workplan Year	Total Budget	Description	Project Status
Shoreline Resilience Fund			
Year 1: 2022	\$0.00		
Year 2: 2023	\$215,241.00	Living Shorelines Cost Share Program	New
TOT	\$215,241.00		

Shoreline Resilience Fund Investigating development of incentives for living shorelines as a habitat conservation strategy along residential coasts, (Scyphers, 2019) determined only 18% of residents with vertical armoring would be likely to adopt a living shoreline technique without additional incentives. However, when homeowners who initially indicated living shoreline implementation as less than “very likely” were offered a cost-share, the percentage likely to opt for living shorelines increased by 67%. Overall, the presence of a cost-share had a positive effect on 42.5% of participants, and the generally positive effect was statistically similar across all percentages offered, indicating that the amount of cost-share did not substantially influence decision-making. The results of this study indicate that even small economic incentives can influence homeowner decisions.

Year One: NA

Year Two: Funds used to create a Shoreline Resilience Fund will provide an incentive to private waterfront property owners to engage as partners for the long-term resilience and protection of Alabama’s coastal shores by actively collaborating on restoration strategy development, prioritization of impacted shoreline reaches, and determination of match allocations sufficient to incentivize action.

Year One Accomplishments: NA

ERP - 3.1: Shoreline Resilience Program

Activity	3.1.3: Shoreline Program Manager
Purpose	• Support climate resilience.
Objectives	<ul style="list-style-type: none"> • Begin development of a comprehensive shoreline management plan and use to establish an interagency task force for long-term shoreline management. • Conduct community/stakeholder engagement related to shoreline management plan. • Implement a cost share program for shoreline stabilization and improved management.
Outputs	• NA
Outcomes	• NA
Clean Water Act Relevance	<ul style="list-style-type: none"> • Improve monitoring of wetland function & coverage. • Improve water quality.
Project Lead	• MBNEP
Partners	• ADCNR • ASPA • Baldwin County • EPA GOMD • Mobile County • NOAA NERR • TNC • USACE
Potential Additional Funding Sources	• NFWF NCRF

Workplan Year	Total Budget	Description	Project Status
Shoreline Program Manager			
Year 1: 2022	\$47,241.37	Shoreline Program Manager	New
Year 2: 2023	\$47,241.37	Shoreline Program Manager	Continuing
TOT	\$94,482.74		

Shoreline Project Manager: 50% FTE project manager to ensure project delivery.

TAC - 4.2: Community Resilience Green Infrastructure Initiative

Activity	4.2.1: Eight Mile Creek Watershed Management Plan
Purpose	• Support climate resilience, water quality, Justice40.
Objectives	• Implement high priority project from Eight Mile Creek WMP. • Update comprehensive watershed management plan for Eight Mile Creek.
Outputs	• NA
Outcomes	• NA
Clean Water Act Relevance	• Improve water quality. • Support TMDL implementation.
Project Lead	• MBNEP
Partners	• ADEM • EPA GOMD • MHB • Mobile • Mobile County
Potential Additional Funding Sources	• ADEM 319 funding • EPA GOMD • Local Sources • MBNEP Section 320 Funds • Other BIL Sources

Workplan Year	Total Budget	Description	Project Status
Eight Mile Creek Watershed Management Plan			
Year 1: 2022	\$150,000.00	Watershed Management Plan	New
Year 2: 2023	\$100,000.00	Stormwater Plan/Improvements	New/Ongoing
TOT	\$250,000.00		

Eight Mile Creek Watershed Management Plan A significant portion of the population of the Eight Mile Creek Watershed include traditionally underserved, low-income, largely minority communities of Prichard, Alabama, disproportionately affected by poverty and pollution. Statistical means for the 37 census blocks within or intersecting with the boundaries of this Watershed indicate 66% of the population are people of color with 52% classified as low income. With known sources of fecal coliform loads such as septic system failures, sanitary sewer overflows, leaking sewer lines, and illicit discharges, little has been invested to rectify water quality contamination issues.

In 1998, both Eight Mile Creek and the Gum Tree Branch were placed on ADEM's 303(d) List of Impaired Waters for exceeding the maximum allowable levels of pathogens (fecal coliform). Both waterbodies were classified as Fish and Wildlife use, except for a section of Eight Mile Creek from Gumtree Branch upstream to U.S. Hwy 45 that is listed as Public Water Supply. ADEM identified urban runoff, failing septic systems, and sanitary sewer collection system failure as the sources of pollution in the Eight Mile Creek Watershed (which includes Gum Tree Branch).

In 2004, the US Environmental Protection Agency (EPA) approved the pathogen TMDL for Eight Mile Creek/Gumtree Branch indicating Eight Mile Creek would require a 72% reduction in pathogen contamination. In 2005 the Mobile Bay National Estuary Program (MBNEP) initiated a monitoring program within the Eight Mile Creek Watershed with funding from the US EPA Gulf of Mexico Division. This program was a three-phase effort to examine the hydrology, drainage basin characteristics, and pathogen loads, and determine the source of pathogens in the Watershed. Phase One involved collecting samples at ten monitoring stations located on Eight Mile Creek and Gumtree Branch. Phase

Two mapped data from the sampling events and coupled it with information about existing conditions of the Watershed and Phase Three attempted to identify sources of impairment across the drainage area. This information formed the basis of the Eight Mile Creek Watershed Management Plan produced by the MBNEP in 2011. Unfortunately, however, there was little funding available to implement its recommendations. Although studies of septic system failures [CIR Septic System Study](#) (2014) and drainage improvement needs [Prichard Drainage Study](#) (2016) were completed, little on-the-ground action has been taken to address the needs in this underserved area.

Year One: Infrastructure dollars will be used to update this watershed plan and weave it into a regional planning effort along the western side of the Mobile Tensaw Delta, currently underway. By updating the plan and rebuilding partnerships throughout the watershed, MBNEP will follow its publication with future Infrastructure fund investments to jumpstart improved environmental protection across this area. The watershed planning process will follow MBNEP's standard operating procedures including requirements to address U.S. Environmental Protection Agency's nine key elements while also providing recommendations for how to conserve what people value across coastal Alabama: Access to the water and open spaces; healthy shorelines; robust populations of fish and wildlife; conservation of the area's heritage and culture; community resilience; and improved water quality.

Year Two: Infrastructure dollars will be used to install green infrastructure at a location to be determined during the planning process. Project selection will be based on "biggest bang for the buck" in terms of the installation's ability to reduce pathogen loading into Eight Mile Creek.

Year One Accomplishments: NA

TAC - 4.2: Community Resilience Green Infrastructure Initiative

Activity	4.2.2: Justice40 Green Infrastructure Program
Purpose	• Support climate resilience, water quality, Justice40.
Objectives	<ul style="list-style-type: none"> • Develop stormwater management plans for low-income, public housing developments. • Develop stormwater management plans to reduce flooding. • Implement high priority project from stormwater plans to reduce chronic flooding.
Outputs	• Flood reduction
Outcomes	<ul style="list-style-type: none"> • Improve ability to mitigate the impacts of Climate Change. • Improve resilience of disadvantaged community. • Improve resilience of low income public housing community. • Improve water quality.
Clean Water Act Relevance	<ul style="list-style-type: none"> • Improve water quality. • Support TMDL implementation.
Project Lead	• MBNEP
Partners	• ADEM • Baldwin County • EPA GOMD • Mobile County
Potential Additional Funding Sources	• ADEM 319 funding • EPA GOMD • Local Sources • MBNEP Section 320 Funds • Other BIL Sources

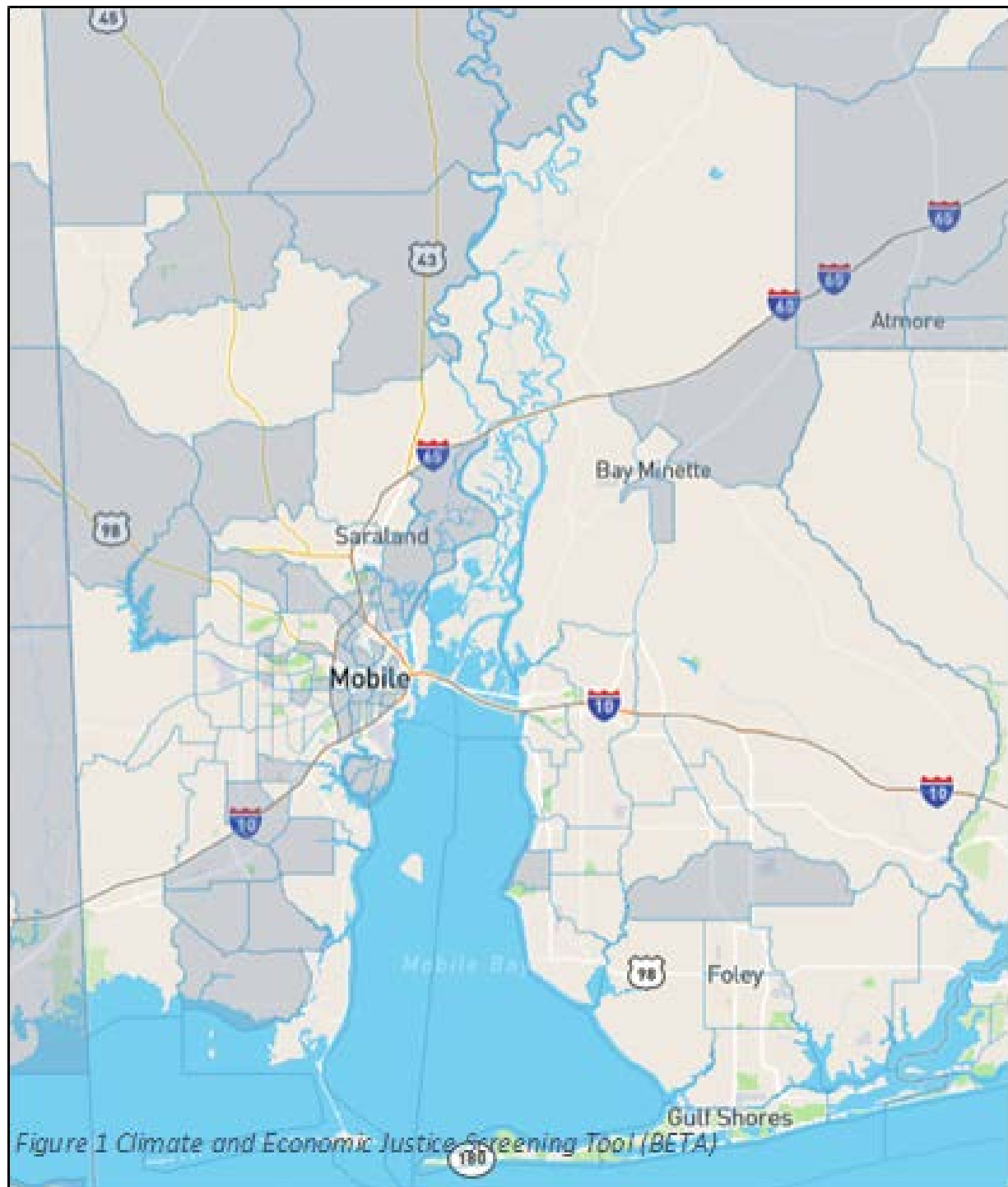
Workplan Year	Total Budget	Description	Project Status
Justice40 Green Infrastructure Program			
Year 1: 2022	\$200,000.00	Stormwater Plan/Improvements	New
Year 2: 2023	\$300,000.00	Stormwater Plan/Improvements	Continuing
TOT	\$500,000.00		

Justice40 Green Infrastructure Initiative According to the Climate and Economic Justice Screening Tool, there are several areas throughout Mobile and Baldwin counties which meet the definition of disadvantaged communities. To spur investments in green infrastructure in these areas, MBNEP will use BIL funds as an incentive for local governments to improve environmental conditions, reduce flooding, and improve stormwater management in these underserved areas.

MBNEP will recruit interest from both local government as well as public housing authorities and use information compiled in existing watershed management plans to guide project development.

Year One: MBNEP will solicit letters of interest from local government and public housing authorities. A selection team will review letters of request, rank requests based on criteria including but not limited to:

- Area of identified need in a watershed management plan
- Area of chronic flooding
- Number of indices met in Justice40 tool
- Level of commitment and willingness to leverage funds on part of agency



From the selection process, up to three different communities/areas will be selected for stormwater planning and project implementation. These three communities will be the sole recipients of Infrastructure funding for the remainder of the five-year period.

Year One Accomplishments: NA

TAC - 4.2: Community Resilience Green Infrastructure Initiative

Activity	4.2.3: Stormwater Program Manager
Purpose	• Support climate resilience, water quality, Justice 40.
Objectives	• Conduct community engagement and project management related to stormwater management program.
Outputs	• NA
Outcomes	• NA
Clean Water Act Relevance	• Improve water quality. • Support TMDL implementation.
Project Lead	• MBNEP
Partners	• ADEM • Baldwin County • Chickasaw • EPA GOMD • Foley • Foley Housing • MHB • Mobile • Prichard • Prichard Housing
Potential Additional Funding Sources	• ADEM 319 funding • EPA GOMD • Local Sources • MBNEP Section 320 Funds • Other BIL Sources

Workplan Year	Total Budget	Description	Project Status
Stormwater Program Manager			
Year 1: 2022	\$43,647.50	Stormwater Program Manager	New
Year 2: 2023	\$43,647.50	Stormwater Program Manager	Continuing
TOT	\$87,295.00		

Outreach Project Manager: 50% FTE project manager to ensure project delivery.

References

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- Scyphers, S. B. (2019). Designing Effective Incentives to Reverse Coastal Habitat Degradation along Residential Shorelines. *SSRN 3443243*.