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Spring Branch Springing to Life

By Marti Messick, Mobile Bay National Estuary Program

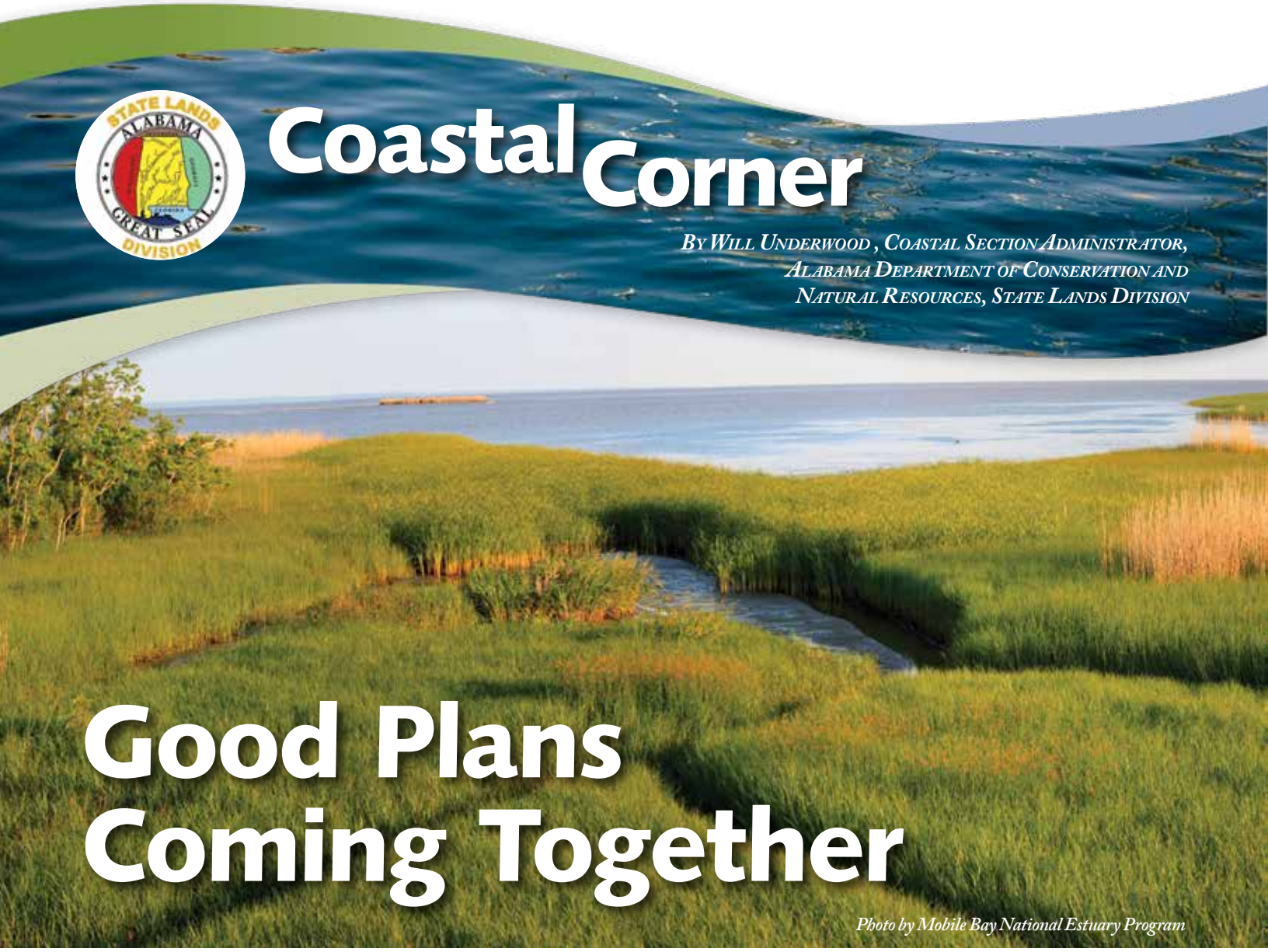
Photo by Jason Kudulis, Mobile Bay National Estuary Program

The results of the Spring Branch restoration are remarkable, even to those familiar with the world of stream stabilization. Three years ago, Spring Branch was caving in on itself. Today, it is a picturesque branch meandering into Fish River in Baldwin County. Native plants and flowers, like willow trees and *Coreopsis*, have begun to grow where a ravine had formed. Minnows and bronze frogs can be seen in the clear water as it gurgles and flows through the creek bed. Heavy rains no longer mean danger to adjacent property, nor send excessive sediment into Fish River and Weeks Bay. *Cont. on page 3*

Currently Inside

Coastal Corner

By Will Underwood, Coastal Section Administrator, Alabama Department of Conservation and Natural Resources, State Lands Division



Good Plans Coming Together

Photo by Mobile Bay National Estuary Program

In reviewing the articles for inclusion in this edition of the *Current Connection*, it struck me that in a field so focused on taking action to manage and conserve our natural resources, we do an awful lot of planning along the way. Watershed plans, comprehensive plans, stormwater plans, resilience plans, hazard mitigation plans, disaster response plans…the list goes on forever and the planning never ends. If you can imagine an environmental issue, we probably have a plan to address it.

When I was wrapping up my undergraduate education as a wildlife biologist a few decades ago, the senior capstone project was developing a habitat management plan for a given tract of land. The formula for the plan was quite simple: characterize the landscape, the flora and fauna, and the suite of management actions that were suitable for the site. The task was made even simpler by the primary driver underlying the management choices, the objectives of the singular landowner.

In the current world of coastal management, we do not have the luxury of answering to a single stakeholder. The complexities of planning seem greater and more elaborate than in those early career days and the consequence of error, of making the wrong management decision, carries a much higher price. During a recent office shuffle, I was compelled to purge years' worth of outdated plans and reports. I thumbed through some as time allowed and took note of the authors, many respected as leaders in the field and long since retired. It was sobering to think that perhaps the plans of our predecessors had the right answers but lacked the alignment of funding, stakeholder support, or political will to implement.

The stories highlighted in this issue serve as evidence that while we have done a lot of planning, we are now witnessing the fruits of that labor through direct action. The stars have aligned for meaningful habitat conservation and restoration on Alabama's coast, and it is heartening to see the stakeholder driven planning process come full circle as plans are implemented, projects are completed, and new planning efforts begin. I challenge you as readers of the *Current Connection* to get involved in your local municipal and county planning efforts, as well as the watershed planning efforts of the Mobile Bay National Estuary Program. There is no better way to have your voice heard and participate in conserving Alabama's coastal resources.

Spring Branch Springing to Life

Cont. from page 1

A priority project in the Weeks Bay Watershed Management Plan, locals and Baldwin County officials have long been concerned about the conditions of Spring Branch. Headcuts create a domino effect on the riparian structure – collapsing banks, destabilizing trees, and introducing excessive silt and sediment creating a sandbar at the Cottages of Fish River Marina. In this deteriorating condition, downstream water quality and ecological function of the stream system suffer.

Local property owner, William Akridge, remembers the April 2014 flood. "The flood started exposing the Spring Branch area badly and is more than likely the main culprit. But it was also years of folks using [the area] as a dumping ground. In addition to the unsightliness, huge amounts of debris and sediment would make its way to the river anytime there was four inches or more of rain." Akridge said multiple cleanouts costing thousands of dollars were unsuccessful in stopping the ongoing issues.

This project, known as the Marlow project for the community in which it is located, was funded through the National Fish and Wildlife Foundation's (NFWF) Gulf Environmental Benefit Fund and was completed in August 2022. The project stabilized 1,437 linear feet of stream channel and re-established floodplain connectivity and riparian corridors. This multi-year project is a collaborative effort of the Mobile Bay National Estuary Program (MBNEP), the Baldwin County Commission, adjoining landowners, and contractors Thompson Engineering and Streamline Environmental.

In coastal Alabama, streams become degraded through natural causes, like heavy rains, and human causes like stormwater runoff. Stream degradation causes bank collapse as the sides of the stream are no longer able to support the weight of the soil, trees, or rocks. The caving in of the banks can lead to sedimentation, flood risk, habitat loss, and severe erosion of property. In some cases, it can be a safety hazard with the potential for falling trees, road or bridge collapse, or landslides.

While every stream project is unique and includes varying levels of complexity, MBNEP employs Regenerative Stormwater Conveyance techniques to emulate natural systems. This "green" option is used in place of "gray" traditional pipe and ditch infrastructure. There are advantages to designing with nature rather than against it, including less maintenance and cost, aesthetic improvements, enhanced environmental conditions, and reduced environmental impacts.

In addition to traditional project management elements (i.e., goals, objectives, engineering, and construction), the real locomotive pulling the train of every stream project is the people – property owners, concerned citizens, municipal officials, engineers, equipment operators, and scientists. By working together to solve complex problems, we are building collective capacity to improve stormwater management and care for resources. As we continue to build stream resilience, this model will reverberate across coastal Alabama to ensure it remains a place to be treasured now and in the future.

Akridge expressed gratitude for the project. "I am very thankful for the efforts of (then County Commissioner and Engineer) Chris Elliott and Joey Nunnally, and MBNEP's Roberta Swann. Once they were able to address the needs and get them appropriated, the team at MBNEP, led by Jason Kudulis, and actions put in place by David Smart and crew went as flawlessly as they could have gone."

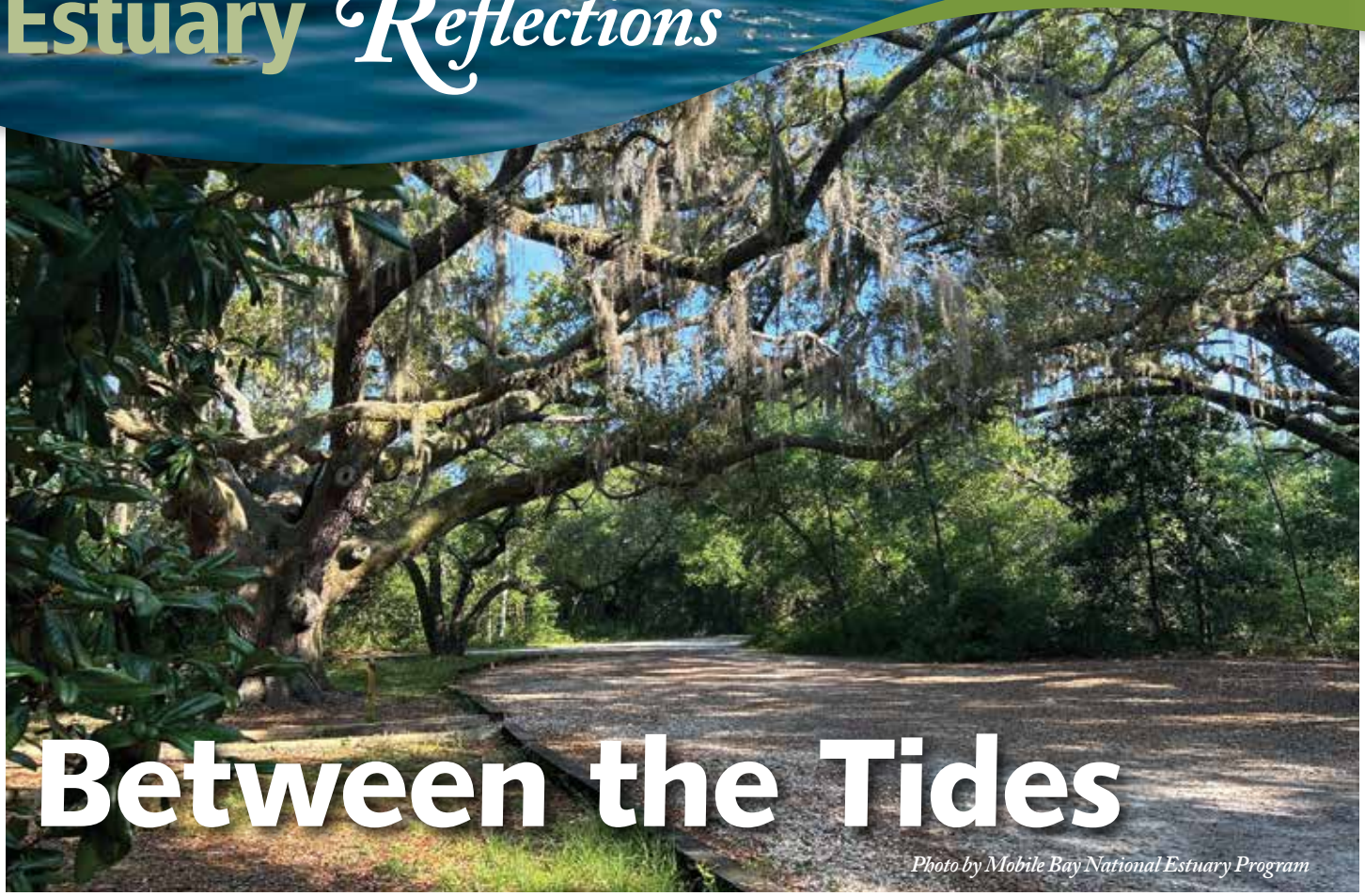
Meet Bocephus – A Monitoring Assistant

Nicknamed Bocephus, this blue box contains instrumentation that is one part of the post-restoration monitoring strategy. It is used to gauge water quality, focusing primarily on turbidity (water clarity). To evaluate the success of the Marlow restoration project, the stream's turbidity and suspended sediment levels are checked and compared to geologic baselines.

Bocephus contains two main parts: a sensor to measure turbidity and a pump apparatus to pull water samples. Both components connect to a computer and data logger – the brains of Bocephus. The data logger allows the two pieces of instrumentation to interact. For example, data collected by the turbidity sensor can trigger the pump to sample water when certain turbidity thresholds are detected. This setup allows us to remotely sample water over the duration of a rain or storm event when turbidity levels typically rise and fall with precipitation levels. Additionally, Bocephus is equipped with the capacity to send updates via a cellular network. In other words, this device can send us emails telling us how it's doing!

Over the next several months, MBNEP staff will be making regular site visits to be sure Bocephus is well maintained, and Alabama Department of Environmental Management protocols are being followed. These regular visits will also help ensure quality data on sediment being transported in a variety of flow conditions can be gathered. The goal is to document that the work in Marlow results in improved water quality and ecologic function.

Estuary Reflections



Between the Tides

Photo by Mobile Bay National Estuary Program

By Marti Messick, Mobile Bay National Estuary Program

Liminal spaces are the in-between spaces, the thresholds. They are transitory places or states of being. They are often eerie and devoid of the expected...an empty parking garage, a playground with no children.

Some liminal spaces are physical connectors between other spaces – doorways, elevators, bridges, tunnels, and waiting rooms. Others are psychological or emotional, like graduations, weddings, divorces, or shifts between two ways of thinking. Sometimes they are metaphorical, like times of change or decisions about a new job, a new partner, or a new place to live. Then there are those liminal spaces seeming to embody each of these types simultaneously. Walking down a quiet corridor alone to see a dying loved one or leaving a silent building for the last time upon retirement can be physical, emotional, and metaphorical all at once. Liminal spaces are often surreal, sometimes even unsettling, yet they are where growth occurs. With a little appreciative awareness, they can be gratifying and hopeful.

At the Mobile Bay National Estuary Program (MBNEP) find ourselves in a liminal space as we look back at ten years of implementation of a very ambitious Comprehensive Conservation and Management Plan (CCMP). This issue highlights some of the recent projects emerging from the current CCMP. Dozens of completed watershed plans, projects, and hundreds of relationships and connections fill the space behind us. As we turn and shift our gaze forward, monumental plans impacting the next decade and beyond are moving from the horizon into clearer focus. From this present liminal space, we look ahead to:

- a Management Conference organizational assessment and bylaws update;
- a new *State of the Bays and Coast Report*;
- the next CCMP development including outreach, strategy, financing, and publication;
- and finally, implementation of the next ten years of strategies aimed at improving the management of what we value most about living on the Alabama coast.

The estuary itself is a liminal space. It is a place of change and transition. The estuary is where the rivers meet the sea and two worlds merge. The water is a mix of fresh and salt; the tides ebb and flow. There is something both familiar and exotic in estuaries, grounded and ethereal. Perhaps it is the way they seem to straddle two worlds, or the way they are constantly changing. Whatever the reason, I find estuaries to be places of liminality reminding me of the interconnectedness of all life, and the importance of protecting our natural resources. Estuaries inspire me to step out of the in-between and move into the work before us. At the MBNEP, we look forward to the journey with all who will join us, in arriving at a new state of being.

Support for Coastal Resilience *Through ACAMP Funding*

By Aubrey Blanco, Natural Resources Planner, Alabama Department of Natural Resources, State Lands Division

Alabama Department of Conservation and Natural Resources, State Lands Division, Coastal Section announces an annual request for proposals for projects to be completed in the Alabama Coastal Area (defined as Mobile County and Baldwin County). This competitive funding opportunity is administered by the Alabama Coastal Area Management Program (ACAMP) utilizing federal funds provided by the National Oceanic and Atmospheric Administration (NOAA) pursuant to the Coastal Zone Management Act of 1972. Applications are accepted for planning projects or public access projects that protect, enhance, and improve the management of natural, cultural, and historical coastal resources and increase the sustainability, resiliency, and preparedness of coastal communities. Planning projects (Section 306) must address coastal management issues related to at least one of the following focus areas: Government Coordination and Local Government Planning, Coastal Hazards and Resilient Communities, Coastal Habitats, Wetland Protection and Coastal Resource Stewardship, or Coastal Nonpoint Source Pollution Control. Public Access project proposals (Section 306A), including land acquisition and low-cost construction, must focus on Public Access to Coastal Resources. Both of these project types require a 1:1 ratio of non-federal matching funds by the applicant.

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Section 306A Municipality Highlight: The City of Gulf Shores continues to be a popular coastal destination year-round for people throughout the state of Alabama, from across the nation, and even from other countries. What is the appeal of this tiny Alabama town? The vast white-sand beaches, the abundantly biodiverse coastal ecosystems, and the beautiful weather on winter days are just a few examples.

The City of Gulf Shores works diligently to ensure that locals and visitors alike have safe and equitable access to its many coastal resources. In 2019, the City, funded in part by ACAMP 306A Funds, completed the design and construction of an ADA accessible multi-use pier, along with an ADA accessible sidewalk and parking stalls at the park at Little Lagoon Pass, a popular beach access point. To continue the improvements at Little Lagoon Pass Park, the city received another round of 306A funding to construct a pedestrian pathway and an elevated wetland boardwalk with an overlook. The pedestrian pathway extends along West Lagoon Avenue towards Sandpiper Lane and provides easier and safer access to the park for pedestrians. This project was completed in spring 2021.

Most recently, the City completed improvements to the existing 6th Street Public Beach Access. The wooden boardwalk, ramp, and stairs were replaced for enhanced safety and access. ADA parking stalls and a connecting sidewalk were added, and the beach shower system was remodeled.

Projects of this nature, whether land acquisition or low-cost construction, provide improved accessibility to the valuable natural resources of coastal Alabama. In addition, these projects and enhancements help to protect the resources, while also increasing the public's awareness, understanding, and appreciation for the natural environment through access, recreation, and educational signage.

ADA parking stalls and a connecting sidewalk were added, and the beach shower system was remodeled.

Projects of this nature, whether land acquisition or low-cost construction, provide improved accessibility to the valuable natural resources of coastal Alabama.

Since these competitive 306A funds were made available to the Alabama Coastal Area through the ACAMP, more than 56 projects in the two coastal counties have been funded. Additional municipalities and 306A projects that have been funded include, but are not limited to, City of Satsuma Gunnison Creek canoe and kayak launch, City of Foley Graham Creek Nature Preserve boardwalk and outdoor classroom, Town of Dauphin Island Bayou Heron Park kayak launch, and the City of Orange Beach Canoe Trail.

Section 306 Municipality Highlight: Numerous municipalities within Mobile and Baldwin counties have been awarded ACAMP 306 funding to be used for planning activities, such as watershed and stormwater management plans, comprehensive plans, and zoning ordinances and maps. Baldwin County has experienced rapid growth over the years and remains one of the fastest growing counties in Alabama. The Port of Mobile experienced the fastest container terminal growth in the United States from 2017-2022 and delivered $85 billion in value to the State of Alabama in 2021. With the booming expansions along the Alabama coast, it is imperative that the counties and municipalities plan and prepare for continued growth. In recent years, municipalities such as Bayou La Batre, Chickasaw, Creola, Dauphin Island, Orange Beach, Prichard, and Semmes have received ACAMP funding to develop or update either parts of or the entirety of their comprehensive plan to help define how property in specific areas can be used.

In 2019, the City of Semmes requested ACAMP 306 funding to develop a zoning ordinance to regulate the use of land within the City as there was no established city zoning prior. Without a zoning ordinance the City was forced to rely solely on subdivision regulations to address stormwater management and the protection of environmentally sensitive areas. With ACAMP 306 funds, the City was able to prepare a draft zoning ordinance with regulations for each zone classification and critical land development policies, as well as a zoning map – both of which were adopted in July of 2021. This addition to the overall comprehensive plan allowed the City to properly manage growth and development, while ensuring the protection of sensitive areas. This in turn helps create a prosperous and resilient community.

In addition to comprehensive plans, municipalities apply for ACAMP 306 funding for the development of floodplain, stormwater, and other management plans which are used to implement necessary updates to help ensure the resiliency of coastal communities as environmental stressors increase. Within Alabama's two coastal counties, numerous homes and businesses are located in floodplains, making floodplain management plans (FMP) necessary planning practices. FMPs are intended to identify known flood areas and provide strategies to reduce flooding and flood related hazards. Like FMPs, stormwater management plans are developed to assist in the reduction of hazardous flooding related to storm events, and support healthy streams, rivers, and coastal waterways by reducing runoff and improving overall water quality. As climate change increases the intensity of storm events, municipalities must prepare and build infrastructure that is capable of handling larger amounts of rainwater while simultaneously working to manage the increasing population.

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To learn more about the Alabama Coastal Area Management Program, please visit https://www.outdooralabama.com/coastal-programs/alabama-coastal-area-management-program.

Watershed Planning *Moves Mountains in Bon Secour*

Photo by Mobile Bay National Estuary Program

By Marti Messick, Mobile Bay National Estuary Program with Andrew James, Volkert, Inc.

Moving mountains is not a typical task in coastal Alabama; creating mountains is most assuredly not. However, some residents of Foley recently spotted a small "mountain" of dirt rising near their backyard. This mountain is serving a purpose other than providing an anomaly in the Baldwin County scenery. How did it get there?

Eight years ago, the Mobile Bay National Estuary Program (MBNEP) contracted with Volkert, Inc. to create a Watershed Management Plan (WMP) for the Bon Secour Watershed and in January 2017, the *Bon Secour River, Oyster Bay, Skunk Bayou Watershed Management Plan* was completed. The plan identified five critical issues within the Bon Secour River Watershed: stormwater management, litter control, water quality, erosion and sedimentation, and invasive species.

Residential development in the headwaters of the Bon Secour River has exploded over the past ten years as subdivisions have replaced farmland. Erosion and sedimentation are primary issues resulting from stormwater runoff from developed areas. Urbanized and agricultural land use in the headwaters of the watershed have contributed to nutrient loading, negatively impacting water quality. Additionally, heavy concentrations of invasive plant species and litter have been documented. The Bon Secour WMP provided guidance for a constructed wetlands project near the headwaters of the Bon Secour River to address these issues.

The City of Foley secured grant funding through the National Fish and Wildlife Foundation's Gulf Environmental Benefit Fund to purchase approximately 88 acres of property adjacent to the headwaters of the Bon Secour River to design and implement a constructed wetlands project. The main goal was to improve water quality in the Bon Secour River and in Bon Secour Bay by implementing measures to reduce nutrient and sediment loads and mitigate litter problems.

A secondary goal was to enhance existing natural wetland vegetative communities by controlling invasive species. The design phase of this multi-year project began in 2019 with a Volkert, Inc. design team comprised of Andrew James, PE; Sean Miller, EI; Annelise Dodd, PE, CFM; and Katy Hines, EI. The unique design was completed in 2020 and construction concluded in August of 2022. The project included:

- restoration of 1,500 linear feet of perennial stream in the headwaters of the Bon Secour River;
- invasive species removal targeting Chinese tallow, Chinese privet, wild taro, Japanese climbing fern, and cogon grass;
- management of 20 acres of existing wetlands;
- creation of 15 acres of emergent wetlands, including planting of wetland seed mix with live staking (black willow and silky willow) in the upper elevation area to aid in nutrient uptake, sediment reduction, and stormwater mitigation;

- construction of a secondary stream channel (approximately 2,300 linear feet) and associated forested wetland floodplain to provide nutrient uptake and sediment reduction during high flow events;
- connection of the Bon Secour River and constructed emergent wetland via development of an approximately 770 linear foot stream channel and associated forested wetland floodplain; and
- installation of a litter trap to capture litter in the headwaters of the Bon Secour River.

The parcel acquired for this project will be permanently managed for conservation.

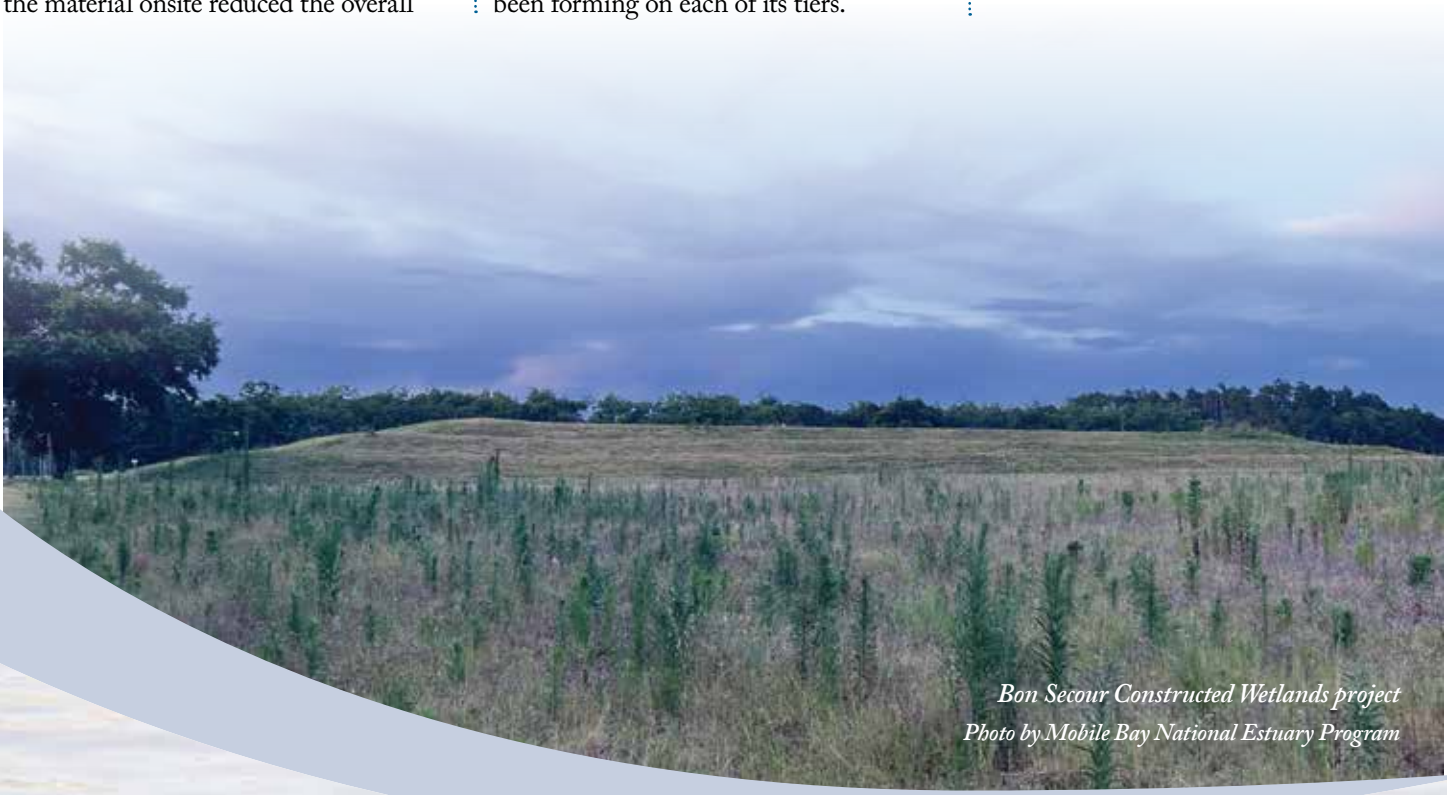
Unlike many restorations of eroded channels or headcuts, this project focused on floodplain expansion, thus generating more material than needed onsite. The extraneous material would have been difficult to utilize toward the larger water quality goals, so the materials were placed at an area strategically selected on the north side of the project location – and the mountain was created. The stockpiled material was nicknamed Mount Foley as it towered over the project site. Keeping the material onsite reduced the overall cost of the project and the risk of damage to the surrounding roadways. After the mountain of dirt was leveled and terraced to prevent erosion, it was no longer high enough to be visible from nearby roads. It still provides an unexpected change in the landscape as it rises above the wetland floodplain. Interestingly, due to terracing on the "mount," wetland pockets have been forming on each of its tiers.

Watershed Management Plans (WMP) identify problems threatening the quality of receiving waters and recommend prioritized solutions to those problems. Every WMP is different as they identify significant issues specific to that watershed. The critical issues identified in the Bon Secour River Watershed include:

- **Stormwater Management**
- **Litter Control**
- **Water Quality**
- **Erosion and Sedimentation**
- **Invasive Species**

Project monitoring began immediately after construction and the area was tested by a significant storm soon afterward. The main braid of Bon Secour River had no issues, and the constructed floodplain braid and emergent wetland areas performed exceptionally well. The lower tributary had not been fully planted, so adaptive management was implemented in the area to give the vegetation time to grow in. The site has held up well and pollinator species were evident in the spring. Monitoring is ongoing.

With residential growth in Baldwin County and the City of Foley among the highest in the state of Alabama for over a decade, protecting and restoring watershed health has become a priority. Bon Secour River and Bay are significant and juvenile finfish nursery and shellfish habitat, and the Bon Secour Constructed Wetlands project will help protect this vital area. Watershed Management Plans provide invaluable support and guidance for the protection and management of coastal Alabama's resources. Updated information on WMP status for all coastal Alabama intertidal watersheds can be found on the MBNEP website.



Bon Secour Constructed Wetlands project
Photo by Mobile Bay National Estuary Program

Weeks Bay Kayak Launch

By Johanna Gertsch, Coastal Training Program Coordinator, Weeks Bay National Estuarine Research Reserve

Weeks Bay National Estuarine Research Reserve (WBNERR) located in Fairhope, Alabama, is one of 30 Reserves in the National Estuarine Research Reserve System. The estuary of Weeks Bay is formed by Fish and Magnolia Rivers, with the Reserve itself encompassing approximately 10,000 acres of tidal and forested wetlands and water bottoms. The Reserve provides various public access trails and piers, with the most recent addition of a BoardSafe kayak launch located at the Tonsmeire Resource Center. This ADA accessible kayak launch includes a floating dock and provides easy access to Weeks Bay and its tributaries for paddlers of all skill levels. The launch was constructed using Alabama Coastal Area Management Program (ACAMP) 306A funds, designated for low-cost public access improvement projects, matched by ADCNR and a donation from the South Alabama Land Trust (SALT).

Kayakers in Weeks Bay will be able to enjoy fishing and the excellent wildlife viewing opportunities the bay has to offer, ranging from osprey stalking their prey from the sky to bottlenose dolphin tail flukes breaching the water's surface as they hunt for shrimp in the shallows. The vantage point of a kayak also provides a unique perspective of this area's abundant wetlands habitats and vibrant waterways that are most commonly observed from land.

In addition to the kayak launch, ADA accessible parking and a new access ramp were installed to enhance access to both the launch and the 45' *Weeks Bay Explorer* pontoon vessel. The vessel is used as an educational platform for primary and secondary school groups, visiting higher education classes, community groups, and participants of special events such as the annual Alabama Coastal BirdFest.

We invite you to see the results of this funding for yourself! When you visit, be sure to stop by the Weeks Bay Visitor Center right down the road, open from 9 a.m. - 5 p.m. Monday through Saturday, to learn more about the critical role Weeks Bay plays in conserving the ecosystems of coastal Alabama.

Weeks Bay Tonsmeire Resource Center
11525 US-98, Fairhope, AL 36532

Weeks Bay Visitor Center
11300 US-98, Fairhope, AL 36532

Dredging Up Protection *for Deer River Marsh*

By Jason Kudulis, Restoration Program Lead, Mobile Bay National Estuary Program

In 2018, the Mobile Bay National Estuary Program (MBNEP) was awarded funding from the National Fish and Wildlife Foundation's (NFWF) Gulf Environmental Benefit Fund to undertake engineering and design activities to stabilize and restore priority marsh and shoreline habitat in the Deer River Watershed. The 275-acre Deer River marsh system is one of the largest intact marsh complexes on the western shore of Mobile Bay.

Intertidal marshes and flats like the Deer River marsh system represent one of coastal Alabama's most important natural communities. Birds, wildlife, shellfish, and finfish frequently inhabit and visit salt marshes to dine on the juvenile fish, small crustaceans, snails, and bivalve mollusks they support. These areas also act as storm buffers, and in Deer River they are a first line of defense protecting critical infrastructure at the Theodore Industrial Port and long-established Hollinger's Island residential community. This project is a multi-pronged approach intended to protect these valuable salt marshes, address shoreline recession and loss of natural function from erosional forces, and help prevent the loss of recreational access and tidal flushing in portions of the Middle and South Forks of Deer River from sedimentation and shoaling.

The Deer River shoreline has suffered from the impacts of storm surge, winds, and wakes over the past several decades. On the next page is a sequence of satellite images documenting the progressive and dramatic deterioration of the marsh shoreline from 1997 until December 2022, totaling 51 acres lost to date. Without action, these impacts will be exacerbated by continued exposure and rising sea levels. The restoration strategy for this area is to construct an offshore marsh complex (up to 20 acres), with a sandy shoreline, armored by a series of riprap breakwaters to reduce wave energy and allow for accretion.

Photo by Sam St. John (FlyTheCoast.com)

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A sequence of satellite images documenting the progressive and dramatic deterioration of the marsh shoreline from 1997 until December 2022, totaling 51 acres lost to date.

An exciting aspect of this project will be the beneficial use (BU) of dredged material from the Mobile Harbor Channel expansion to create the marsh. There is an intentional shift at the U.S. Army Corps of Engineers (Corps) to repurpose dredged material for beneficial use and the MBNEP team has been closely coordinating with the Corps to incorporate BU for this project. This partnership represents a new opportunity to establish precedent for future shoreline and marsh creation projects in coastal Alabama. The Deer River project and Mobile County's forthcoming Dauphin Island Causeway project are set to be the first benefactors of this mutually beneficial collaboration. Cost savings for Deer River construction using the Corps' provided material are estimated at $6M.

The Middle and South Forks of Deer River are now extremely shallow, limiting tidal exchange and preventing shallow draft boats from passing through. Historically, these reaches had depths of 10 feet. The source of this sediment is likely related to the gaping breach in the river, formed along the Bay shoreline. This project will dredge those impacted reaches to improve circulation and water quality, and the river material will be placed in thin layers to increase marsh elevation across the adjacent 51 acres of marsh. This beneficial use technique increases resilience by adding sand to the hourglass, slowing the impacts of sea level rise. Undertaking large complex restoration requires great planning, coordination, time, and often presents challenges. MBNEP is grateful to NFWF and the Alabama Department of Conservation and Natural Resources for their stewardship and unwavering support to protect and restore Alabama's coastal way of life. With the additional funding provided by the NFWF Gulf Environmental Benefit Fund and the National Coastal Resilience Fund, construction is scheduled to begin fall 2023.

A Return to the Water

By Henry Perkins, Private Sector Program Lead, Mobile Bay National Estuary Program

Pat Lambert, a Bayou La Batre oysterman, is pictured with his oyster tongs next to his boat.

Bayou La Batre sits on the southern edge of Alabama, overlooking a beautiful and abundant piece of the world. It's a small town, but not quiet by any means. Metal workers build ships and boats, shrimpers bring in thousands of pounds of harvest, and millers grind mountains of oyster shells to dust useful for its calcium carbonate content. The town has witnessed considerable change in its 200-year history. It began as a Spanish territory, became a French battery, then eventually an American tourist destination as fate shuffled the coastal settlement from hand to hand. After the major Hurricane of 1906 wiped out the landmark hotel, fishing became the predominant economic and cultural mainstay, and has tied the community together ever since.

Pat Lambert is from Bayou La Batre. He grew up there, his ancestors grew up there, and he's raising his daughter there. He spent his youth as a part of the Bayou's fishing industry. On the water, he'd bring in oysters, crabs, fish, shrimp – if it came from the Gulf and was edible, Pat was making sure people could eat it.

Circumstances forced him to give this life up. "When times are good," Pat says, "you can make a week's pay in a single day," but unfortunately the inverse is also true. When times are bad, you've got nothing, and bad times aren't uncommon in the Bayou. Wind, rain, and the general fickleness of fisheries means you can't always guarantee your income, especially if you don't have the right kind of gear and equipment to overcome those challenges. He had to work longer hours in lower paying, but more reliable, jobs.

Pat is a single parent. His wife passed when their daughter was just two years old, and he's been the sole guardian since. His daughter is in high school now, and working those long, steady hours meant Pat couldn't always be at home to help his teenager navigate life. He knew he needed to be back out on a boat so he could set his own hours, not just for the freedom of being his own boss and pleasure of working on the water, but to be home when his daughter was, to be present for those formative years of her life.

It wasn't going to be easy to make the change. Getting out on the water meant investment. He had a boat, but it was small – the kind of craft tossed around by a breeze, and the motor didn't work. He thought he'd be able to save up the money to fix it all himself, but it would have taken more time than he had before his daughter would be moving on. Then he heard from a friend about something called the Coastal Alabama Fisheries Fund.

Alabama Fisheries Fund. A representative from the Mobile Bay National Estuary Program (MBNEP) had come down to south Mobile County to talk to the oystermen about a loan program. The program offered small loans for catching or farming oysters, but with low-interest rates, flexible repayment policies, and without some of the roadblocks you can encounter with traditional loans. You wouldn't be turned away automatically for a low credit rating, for instance.

Pat reached out to the MBNEP, and after some paperwork and a waiting period, he secured the money he needed to make the desired changes in his life.

With the money from the fisheries fund, he fixed his motor and bought a boat big enough to go out in rougher weather. He also purchased a few sets of oyster tongs, gear needed for this sort of fishing. To catch oysters, Pat bends over the side of his boat and lowers a set of these enormous oyster tongs into the water. The tongs are 14-feet long and function a little like a posthole digger, though instead of a shovelhead, they have enormous barbed rakes, perfect for scooping up dozens of oysters from a reef. He pulls the oysters up and drops them into a bucket to be sorted. He throws back any rocks or debris and any oyster too small or hosting juvenile oysters.

He says he can tell the quality of the oysters he's pulling by touch alone. Once you have them raked, you can tell if you have a good bunch, or just empty shells. His old callouses came back after about a week of work. There's a lot of skill involved in this, he says, "bigger guys think they can come out here and clean up. It's not easy, they'll wear themselves out not knowing what they're doing."

"You've got to love to do it," Pat says, "oyster harvesting is extremely hard work." He says he intends to continue to oyster "as long as my body will let me do it."

Pat's family worked these same reefs before he did, and he's happy to be back doing the work his people have always done. "My daughter wants to be a writer," he says, "and I support her in that. She helps me to do what I want to do, so I'm going to help her do what she wants."

Now Pat has the time he wanted to be there for his daughter. People in the Bayou have always worked hard being many things – fishermen, manufacturers, oystermen; and there's no reason they couldn't produce some very fine writers too.

The Coastal Alabama Fisheries Fund is a revolving loan fund to support local fisheries and fishing communities with an initial focus on oyster industries. This low-interest micro-loan fund allows oyster farmers and catchers in Mobile and Baldwin counties to easily access small amounts of capital to support their businesses, create jobs, and provide oysters.

Photo by Mobile Bay National Estuary Program

SCAN the QR code for information about the Coastal Alabama Fisheries Fund.

Losing a Coastal Alabama Champion, *Gaining a New Perspective on Life*

By Roberta Swann, Mobile Bay National Estuary Program

Chris Plymale was a man full of joy radiating to everyone he met. If you weren't blessed to have known him, he was a Physical Scientist at the United States Environmental Protection Agency (EPA) Region 4 serving as the Watershed Coordinator and champion for Mobile Bay National Estuary Program (MBNEP). In this role, Chris kept the MBNEP accountable to EPA priorities, coached staff on best practices, marshalled resources at the regional and federal level to support the Comprehensive Conservation and Management Plan (CCMP) implementation, and most of all, was a longtime colleague, partner, dreamer, and friend to me.

To Chris, family was everything, and to Chris, we were family. For someone based in Atlanta, Chris felt part of our internal team. He took every opportunity he could to come down to Mobile, to watch and learn about our projects, and take that knowledge back to the EPA where he touted our work throughout the halls of EPA and beyond.

But it was more than just his human family he loved. Raised a Catholic in the Northeast, Chris had a deep connection with God, a relationship which illuminated and defined him. His faith wasn't a solitary part of his life, hidden away for only Sunday mornings. He lived it in his everyday actions and in the joy he carried with him. Many conversations were had discussing why we do what we do. "We were charged with being stewards of this earth," he would say in passing, a deep spiritual belief he took for granted in his life and assumed others should too.

When I heard the news of Chris' passing, I felt a great sense of loss intermingled with the joy of having been blessed with his passage through my life. His passion for protecting the environment, for thinking outside of the box, for Three Mile Creek and D'Olive Watershed, and Mon Louis Island and all things coastal Alabama fueled my desire to be my best in leading the MBNEP. He once shared a quote he had seen during one of our Monday morning drive-to-work chats: "The right relationship will never distract you from God. It will bring you closer to him." Chris Plymale lived life to the fullest, loved life to the fullest, and I am positive he will continue to look down on us as we collectively strive to conserve the beauty of our Alabama coast. Thank you, Chris, for inspiring me. We hope his life will be an inspiration to you as well.

May he rest in peace, and may his memory be a blessing.

MBNEP Welcomes New Staff

The Mobile Bay National Estuary Program welcomed Shemika Brown (right) to the team in November of 2022. Shemika is the Community Engagement Program Lead and is building and supporting the Community Action Committee (CAC), engaging diverse communities, providing program development, and educating audiences about issues affecting the Alabama coast and activities being undertaken to mitigate stress on coastal resources.

She is a 2001 graduate of Alabama State University with a B.A. in Political Science, and a 2005 graduate of Auburn University Montgomery with a master's degree in Public Administration. Prior to joining the MBNEP, Shemika served as a Program Coordinator for a national biomedical research program with the Center for Healthy Communities at the University of South Alabama.

A native of Anniston, Ala. Shemika is a community advocate working on various committees with her sorority Delta Sigma Theta, Incorporated on issues like voting rights, as well as physical and mental health. She enjoys cooking, working out, gardening, and music.

Blair Morrison (left) joined the staff in December and serves as the Science and Monitoring Program Lead, coordinating with stakeholders on the long-term evaluation of ecosystems throughout watersheds of coastal Alabama. As a key component of this work, she helps oversee the MBNEP's Science Advisory Committee – an interdisciplinary group of researchers and scientists experienced in the estuarine environments of southern Alabama.

Despite her origins in the rolling hills of Kentucky, Blair has always wanted to be a marine scientist. This passion for the ocean brought her to Alabama, where she graduated with a B.S. in Marine Science/Biology from the University of Alabama in 2018 and an M.S. in Marine Sciences from the University of South Alabama in 2021. Based at the Dauphin Island Sea Lab, her master's thesis focused on the interactions between environmental factors, plankton communities, and Vibrio bacteria in the eastern Mississippi Sound. Although her research has taken place over a variety of localities and a wide array of study organisms, Blair's work features the central themes of estuaries, disturbance, water quality, and climate change. Outside of the workplace, she enjoys hiking, birdwatching, taking care of far too many plants, and spoiling her pet turtle, Freddy.

Alabama current connection

About the Mobile Bay National Estuary Program: The Mobile Bay National Estuary Program's mission is to lead the wise stewardship of water quality and living resources of Mobile Bay and the Tensaw Delta. The MBNEP serves as a catalyst for activities of estuary stakeholders, helping to build community-based organizational capacity for sound resource management and leveraging commitment and investment to ensure the estuary's sustainability. For more information, please contact the MBNEP office at 251-431-6409.

About ADCNR, State Lands Division, Coastal Section: In an effort to protect and enhance coastal resources and reduce potential conflicts between environmental and economic interests, the Alabama Coastal Area Management Program (ACAMP) was approved by the National Oceanic and Atmospheric Administration (NOAA) in 1979. The ACAMP is administered through the Alabama Department of Conservation and Natural Resources, State Lands Division, Coastal Section. For more information, contact the Coastal Section office at 251-621-1216.

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Alabama Current Connection encourages reprinting of its articles in other publications. If you would like to subscribe, visit mobilebaynep.com/currentconnection. If you have recommendations for future articles, please contact:

Henry Perkins
Mobile Bay National Estuary Program
118 North Royal Street, Suite 601
Mobile, AL 36602
Office: 251-431-6455
Fax: 251-431-6450
E-mail: hperkins@mobilebaynep.com
mobilebaynep.com

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Dauphin Island Sea Lab
Marine Environmental Science Consortium
101 Bienville Boulevard
Dauphin Island, AL 36528

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Shape the Future of the Western Delta

The Mobile Bay National Estuary Program (MBNEP) employs a holistic, watershed-based approach to guide coastal ecosystem protection and restoration. Throughout this issue, we have highlighted projects emanating from watershed planning – and the results of Watershed Management Plans (WMP).

Before the stream channels are repaired, before the floodplain is created, before invasive plant species are replaced with natives, there is extensive planning. Scientists and engineers, local municipalities and decision-makers, and numerous other entities and organizations are involved. However, the process starts with local citizens.

Each of the 15 WMPs developed to date in coastal Alabama incorporated the input of people who live, work, and play in the watershed. The MBNEP is currently seeking your thoughts and observations for the next plan…The Western Delta Watershed Management Plan. The plan area includes parts of Saraland, Satsuma, Eight Mile, Axis, Chunchula, Creola, Mobile, and some unincorporated areas.

As you have seen, watershed planning helps improve water quality and habitats, watershed and community resilience, and access opportunities for the public. Your input is vital to the planning process.

We invite you to scan the QR code to complete the short survey (also found on the Western Delta Watershed page of the MBNEP website). Your feedback will help create a plan leading to the types of projects you have seen in this edition of the *Current Connection*.

A Watershed Management Plan (WMP) identifies problems that threaten the quality of receiving waters (waterbodies to which a watershed drains) and recommends prioritized solutions to those problems. It even identifies and recommends potential funding sources to pay for those solutions.

The goals of watershed planning are to:

- **Improve water quality**
- **Improve habitats**
- **Protect continued customary uses of biological resources**
- **Improve watershed resilience**
- **Expand opportunities for community access**