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Stepping Up! Coastal Alabama Cities Demonstrate Stewardship

By TOM HERDER, MOBILE BAY NATIONAL ESTUARY PROGRAM

The Orange Beach Department of Coastal Resources was featured in the winter 2017-2018 *Alabama Current Connection*, and other cities in the State's two coastal counties are increasingly demonstrating wise stewardship of Alabama's estuarine waters. The Mobile Bay National Estuary Program is successfully engaging these important partners in fulfilling its mission. Watershed management plans (WMPs) for the D'Olive Creek, Eight Mile Creek, Three Mile Creek, Fowl River, Dog River, Bon Secour River, Weeks Bay, and Bayou La Batre watersheds are complete, and funding has been secured to develop WMPs for all Alabama watersheds with tidal influence. *Continued on page 6*

Daphne's Gator Alley along D'Olive Creek at Highway 98 employs low impact design, stormwater management measures, and interpretive signage to educate visitors.

Photo: Ashley Campbell



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Coastal Corner

By LEE YOKEL, ENVIRONMENTAL EDUCATION
COORDINATOR, GULF OF MEXICO ALLIANCE

Gulf of Mexico Alliance Holds All Hands Meeting

The Gulf of Mexico Alliance (GOMA) is holding their annual All Hands meeting in the new premier coastal destination, The Lodge at Gulf State Park, June 10-13, 2019. Each year, GOMA meets to address critical issues shared by all five U.S. Gulf states.

This week-long meeting provides a unique networking opportunity to implement GOMA's Governors' Action Plan III, the guiding document of the organization. It is the third five-state Governor-approved action plan for a healthy Gulf of Mexico. The State of Alabama has been a lead partner since GOMA's inception in 2004.

GOMA addresses water resources, habitat resources, wildlife and fisheries, data management, coastal resilience, and education and engagement through six separate teams comprising professionals from those topical areas. These teams overlap in three additional initiatives: marine debris, ecosystem services assessment, and coastal restoration and resilience planning. Dedicated Team and Initiative sessions allow participants opportunities for professional development, action advancement, and peer-to-peer program collaboration.

Each year, GOMA meets in a different Gulf state. It is the first time partners will gather on Alabama beaches. The new Lodge is a model of resilient, environmentally-friendly coastal

development. A central focus of the facility is connectivity to the outdoors. GOMA is drafting a robust agenda for the week to include the popular reception, Tools Cafe', a "Get to Know GOMA" breakfast, in addition to the working sessions. A list of popular activities, like bird watching and kayaking, will allow visitors to make the most of their networking. "State partners in Alabama are very supportive of working collaboratively to achieve regional results. This year's meeting will highlight resilient practices from buildings and structures to ecology and tourism. Alabama has some great practices to show off and we look forward to highlighting them as a part of our 2019 meeting." – Laura Bowie, GOMA executive director.

Registration for the meeting is open, and organizers encourage stakeholders to make their reservations before The Lodge is full. Everyone is welcome to participate.

About the Gulf of Mexico Alliance

GOMA is a regional ocean partnership that works to sustain the resources of the Gulf of Mexico. Led by the five Gulf states, the broad partner network includes federal agencies, academic organizations, businesses, and non-profits in the region. The goal of the partnership is to significantly increase regional collaboration to enhance the environmental and economic health of the Gulf of Mexico. The Gulf of Mexico Alliance is a 501c3 non-profit organization.



The Lodge at Gulf State Park, the site of the 2018 Gulf of Mexico Alliance All-Hands Meeting.



GulfCorps walkway construction to reduce impacts to habitat.

GulfCorps Efforts in Alabama: Restoring Local Habitats and Growing Conservation Leaders

By LARISSA GRAHAM, GULF COAST TEAMS MANAGER, STUDENT CONSERVATION ASSOCIATION

The GulfCorp Program is supported through a RESTORE Act grant; administered by the National Oceanic and Atmospheric Administration (NOAA); and implemented by The Nature Conservancy (TNC), The Corps Network (TCN), the Student Conservation Association (SCA), and other Conservation Corps organizations along the Gulf of Mexico. This conservation and restoration program is

creating a workforce from Gulf communities and with the guidance and support of federal, state, and local agencies, non-governmental organizations (NGOs), and community groups.

What is GulfCorps?

GulfCorps deploys participants to work on projects benefiting coastal habitats, like wetlands, maritime forests, bogs, savannahs, oyster reefs, rivers, and streams. This helps restore our coastal habitats and create more resilient coasts. GulfCorps crews are skilled manual

laborers specializing in invasive species eradication, shoreline stabilization, wetland and stream revegetation, oyster reef restoration, conservation and land management activities, habitat and water quality assessments, prescribed fire management, project monitoring, and other key habitat conservation skills. After graduation from the program, some will continue their education or vocational training in habitat restoration. Others will return to GulfCorps crews as team leaders, spending their second years guiding newly-arriving crew members.

GulfCorps is expanding in its second year, both in number of participants and locations around the Gulf of Mexico. GulfCorps crews will begin work again in the fall of 2019 in various locations to leave a lasting impact on the Gulf Coast and its communities.

What success has GulfCorps demonstrated to date?

GulfCorps is wrapping up Year 2 of the grant and is currently planning for the kick-off of Year 3 in September of this year. The inaugural year of the program, which ended in August 2018, showed that conservation corps are highly effective and efficient at helping our partners achieve conservation and restoration goals. In Year 1 alone, GulfCorps crews across the Gulf of Mexico accomplished the following:

- **Five crews**, comprising 50 crew members and leaders, were hired and trained.
- **Sixty-two acres of invasive species were mapped or treated**, including popcorn trees, Chinese privet, apple snails, and cogon grass, among others.
- **Twenty-four acres of wetlands, marshes, or beaches were revegetated with native plants**, including smooth cordgrass, sea oats, black needle-rush, and longleaf pine.
- **Three hundred sixty-six acres of wetlands, marshes, or beaches were enhanced through protection, conservation, and restoration**, including pitcher plant bog restoration and protection of bird nesting beaches.
- **One hundred twenty-eight acres of upland were conserved or restored**, including clearing vegetation and brush to create fire lanes and improve public access trails.

How is the Student Conservation Association Involved?

In Alabama, the Student Conservation Association (SCA) manages GulfCorps crews. The SCA was founded in 1957 to



GulfCorps dune restoration and sea oats planting.

build the next generation of conservation leaders by engaging young people in hands-on service to our public lands. The SCA's GulfCorps crews are based in Mobile, AL, and work with state, local, and federal partners in Mobile and Baldwin counties to restore coastal habitats and improve public lands.

Since GulfCorps began in early January 2018, SCA has recruited, hired, and trained 28 young adults who have accomplished a diverse array of projects and activities. During their six-month employment, these crew members worked with many State of Alabama agencies, the U.S. Fish & Wildlife Service, the Mobile Bay National Estuary Program, the Dauphin Island Parks and Beach Board, and NGOs like the Weeks Bay Foundation and The Nature Conservancy in Alabama. In Years 1 and two the crews have:

- **Rebuilt 2,250 feet of boardwalk and maintained 4,000 feet of trails** at Meaher State Park, Bon Secour National Wildlife Refuge, and Dauphin Island Park and Beach Board property;
- **Installed fencing and planted more than 6,400 sea oats to restore sand dunes** on Dauphin Island public beaches;

- **Cleaned up hurricane debris** to protect beach mouse habitat on Gulf Shores public beaches;
- **Removed more than 1,800 invasive apple snails and 4,500 egg masses** in Langan Lake lakes and Tricentennial Park;
- **Treated about 400 acres of privet, popcorn trees, climbing ferns, coral ardisia, and other invasive plant species** at multiple properties owned by state, local, and federal entities;
- **Created and maintained 32,000 feet of fire lanes** prior to prescribed burns in Mobile and Baldwin counties; and
- **Mapped more than 55 acres of state water-bottoms** to help determine suitability for oyster restoration efforts in the future.

Training is an important part of GulfCorps, and the Student Conservation Association provides rigorous professional training courses so that crew members can properly use hand tools and safely conduct the work they are asked to do. Crews are also exposed to a variety of opportunities to help explore potential career options as they gain work experience. In addition to Wilderness First Aid and CPR, S-212 Wildland Fire Chainsaw Certification, and Prescribed Fire Certification, crew members have attended the Alabama Coastal Foundation's Sustainability Summit and Gulf Coast Wildlife Symposium and received Alabama Water Watch training in water quality monitoring. As each work season concludes, SCA staff organizes a career day, so members can hone their resumes, gain exposure to the workforce with local professionals engaged in areas of their interest, and learn from a panel-discussion from their professional peers.

The SCA also coordinates and leads the GulfCorps Orientation, which brings all of the crews from each Gulf state together at the start of each season. Crew members learn how to resolve conflicts that may occur, prepare for emergency situations, and use habitat restoration tools and techniques in a safe and effective way.



Mobile's GulfCorps Team after successful cleanup efforts on the Causeway.

They also learn the importance of team work, the value of diversity, and how to prepare for their next career steps. After orientation, crew members ideally understand they each play an important role in this Gulf-wide conservation effort and have the tools and skills to have a successful field season.

What's next?

GulfCorps will kick-off Year 3 with another Orientation in September in Fairhope, AL. The program is expanding again in Year 3 to include more people, more crews, and a longer field season. Year 3 is different because the crews starting in September will work for nine to 12 months, giving participants a higher-quality experience and providing more flexibility and time to the project partners GulfCorps serves. SCA will begin filling GulfCorps positions over the summer of 2019.

Want to learn more?

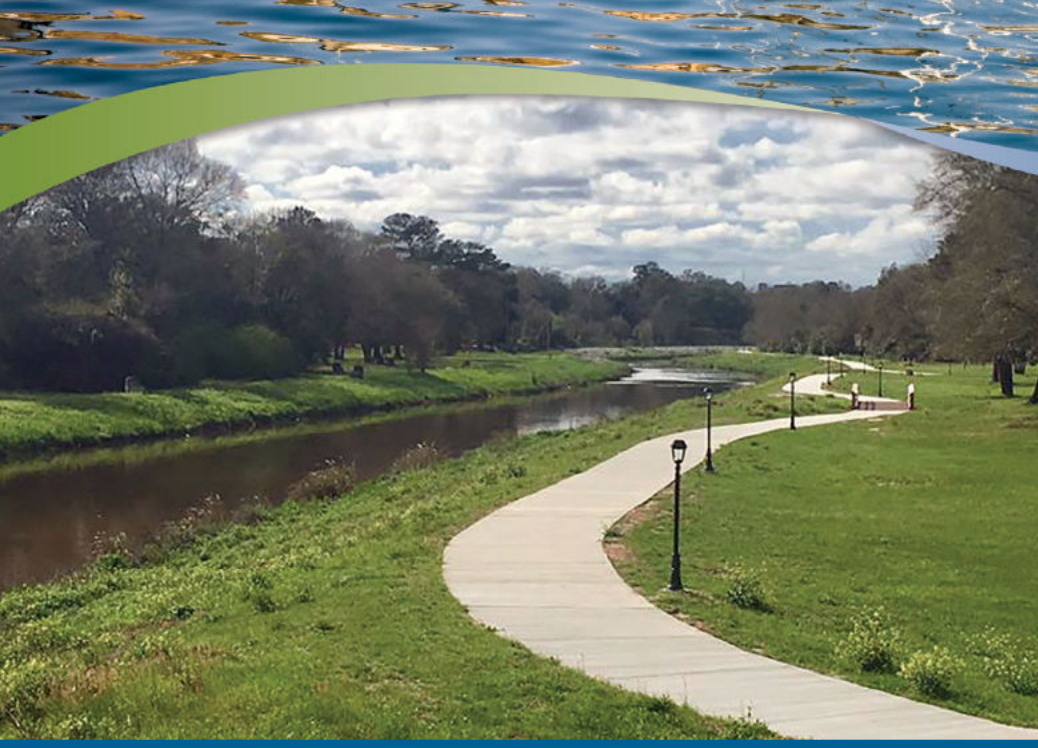
Watch videos and read stories about GulfCorps at www.nature.org/gulfcorps. To find more information about open positions in Alabama, visit SCA's GulfCorps conservation crew page at <https://www.thesca.org/serve/program/gulfcorps-conservation-crew>.

For information about the overall GulfCorps Program, contact Jeff DeQuattro with The Nature Conservancy at jdequattro@tnc.org.

For information about the Student Conservation Association and their Alabama GulfCorps Crews, contact Larissa Graham at lgraham@thesca.org.



GulfCorps trail maintenance.



The Three Mile Creek Greenway bicycle and walking trail in Mobile, AL.

Stepping Up! *Continued from page 1*

The positive effects of the community involvement and educational engagement involved in the planning process are being realized. While each watershed has its own unique qualities, challenges, and paths to success, certain issues, like trash, nonpoint source pollution, and public access, are shared across coastal Alabama communities, and cities are stepping up to respond.

In Mobile County, the City of Mobile, Alabama's most populous coastal city, has endorsed and embraced the Three Mile Creek WMP and was implementing recommendations of the Dog River WMP even before its publication. The City is currently involved in reducing trash conveyed to its waters by stormwater runoff, providing access to resources through construction of a bicycle trail along Three Mile Creek, and reducing the delivery of sediment to the lakes at Langan Park.

In 2015, the City partnered with Dog River Clearwater Revival to install and maintain a large-scaled Bandalong™ Litter Trap in Eslava Creek north of McVay Drive. It successfully captures an average of 400 cubic yards, or 30 dump trucks, of floatable trash each year from the Dog River system. In 2019, the City contracted Osprey Initiative to use boats to remove trash from the banks of Dog River and Three Mile Creek.

With trash carried by stormwater runoff into our receiving waters from roadways and parking lots, the City

established a Litter Crew in 2017. Seven days a week, eight city employees supervise community service offenders who have worked a total of 11,000 hours from April 2017 through February 2019, picking up 46,000 lbs. of litter from outside Mobile rights-of-way. Mowing contractors removed over 800 cubic yards of litter from rights-of-way in 2017 and 2018. The City also partnered with Mobile Baykeeper, who secured a NOAA Marine Debris grant to fund installation of 150 marine debris interceptors (MDIs) in storm drains along City parade routes as part of

the Litter-Free Mardi Gras campaign. They function as litter baskets inside storm drains to keep litter from entering waterways. An additional 79 MDIs were deployed across all seven Council Districts.

Outreach, planning, and construction are underway to build a bicycle trail to connect communities along Three Mile Creek from the University of South Alabama east to Downtown. Construction began in 2017 with a mile of trail from Tricentennial Park to near the Strickland Youth Center on the Creek's north side. RESTORE Act funding has been secured to complete the trail.

The City also secured RESTORE funding to dredge the shallow, sediment-impacted lakes at Municipal/Langan Park to enhance stormwater management and improve ecological condition. First, they are partnering with MBNEP to stabilize incised sections of Twelve Mile Creek, the primary source of the sediment impacting the lakes.

Environmental stewardship is on display in Baldwin County. The City of Daphne is also involved in litter abatement, stormwater management, and provision of public access, guided by a 15-member, voluntary Environmental Advisory Committee. Daphne employs two workers to remove trash from rights-of-way prior to mowing and has installed educational D'Olive Watershed signs. Their

City of Mobile employees removing captured floatable trash from the Bandalong™ Litter Trap in the Eslava Creek Tributary to Dog River. Photo: David Ludwig, City of Mobile



Environmental Programs Manager has been key throughout the seven-year, \$13M National Fish and Wildlife Foundation (NFWF)-funded program to restore erosion-impacted D'Olive Watershed streams choking Lake Forest Lake and D'Olive and Mobile bays with silt and sediment. The City purchased four lots to supplement a donation of 26 acres surrounding Tiawasee Creek, then secured half of the \$1.3M cost through a Coastal Impacts Assistance Program to restore the 1,200 feet of the channelized and incised stream channel. In 2011, Daphne added new regulations to address stormwater impacts, including more rigorous stormwater management requirements and implementation of 30-foot and 50-foot buffers for wetlands and streams, respectively.

In addition to Gator Alley, Bayfront Park, and other outstanding green spaces, Daphne has purchased a 12-acre bayfront



Controlled burning is used to manage forests in the City of Foley's Graham Creek Park and protect special habitats like pitcher plant bogs. Photos: Leslie Gabagan, City of Foley



The restoration of D'Olive Creek between I-10 and Highway 90 in Daphne is the largest coastal stream restoration project undertaken in the State. Photo: Ben Bremner

tract of bottomland hardwoods and wetlands with boardwalks and trails planned. The City is also pursuing funding and designation by Forever Wild of the 100-acre wooded, wetland D'Olive Bay Tract for protection.

With a WMP for the Bon Secour Complex (Bon Secour River, Skunk Bayou, and Oyster Bay watersheds) completed, the City of Foley continues to inspire. With similar capacity as Daphne, personnel continue to remove trash from rights-of-way prior to mowing, and, like Mobile, Foley has contracted Osprey

Initiative. In Foley, the firm has installed and will maintain a small, portable LitterGitter™ litter trap in an unnamed tributary to the Bon Secour River draining the most urbanized portions of the City.

With some funding from the MBNEP in 2011, Foley restored 500 feet of Wolf Creek and installed Bon Secour Watershed signs along roadways. The City recently secured NFWF funds to purchase 94 acres along the Bon Secour River and use natural features, constructed wetlands, and sediment sumps to enhance downstream water quality. They also used a regulatory approach to

manage stormwater. New City ordinances require low impact development, or LID, measures for all new developments and re-developments to ensure that the first inch and a quarter (1.25") of rainwater has to be retained and cannot run off the property. Foley requires 50-foot and 30-foot buffers for named streams and wetlands in undisturbed natural states, respectively.

Foley's 500-acre Graham Creek Nature Preserve, containing pine savannahs, wetlands, and tidal marshes, is another example of coastal Alabama municipal stewardship. Careful habitat management including controlled burns and invasive species control provide protection for rare plant and animal species. The Preserve provides a mix of recreational opportunities for hikers, paddlers, and bird and wildlife watchers along with conservation, and protection of natural habitat.

City of Gulf Shores' stewardship efforts include beach protection, litter abatement, recycling, and acquisition to provide more public access. As part of the Leave Only Footprints program, Gulf Shores (along with Orange Beach) has adopted strong ordinances that require all personal items to be removed from the beach each night and prohibits people from disrupting dunes, instead requiring them to use walkovers or boardwalks. *Continued on page 8*



Foley's 500-acre Graham Creek Nature Preserve with a visitor center, biking and hiking trails, kayak launches, and disc golf courses. Photo: Leslie Gabagan, City of Foley

Stepping Up! *Continued from page 7*

The ordinances have been well-received, enhancing the beauty of the beaches and protecting nesting turtles, shorebirds, and the endangered Alabama beach mouse. Two to three City employees work seven days a week along State routes to pick up trash that would otherwise be carried by runoff to the City's extensive network of waters. Despite the lack of profit incentive, Gulf Shores has developed a comprehensive recycling program, and they sort and pulverize glass products to create sand used in road repairs.

Gulf Shores received a \$12.5M NFWF Grant for the Bon Secour-Oyster Bay Wetland Acquisition Project, to protect and restore 836 acres of tidal marshes, maritime forests, and wetlands within the city limits, adding to the Gulf Highlands and Bon Secour Refuge acquisitions on

the neighboring Fort Morgan Peninsula. The City is partnering with the State of Alabama to provide environmental improvements within Gulf State Park, including development of over nine miles of new trails, restoration of dunes, and partnering with the Jean-Michel Cousteau Ocean Futures Society to establish a coastal ecosystems interpretive center.

As a WMP will soon be developed for Fly Creek, City of Fairhope efforts include public outreach related to storm drains, curbside recycling, stream bank restoration to reduce sedimentation, marina upgrades, and regulatory revisions to promote greenspaces and LID. Through a partnership between the City,



Fairhope High School, and the Weeks Bay Reserve, students competed to design and install educational storm drain makers throughout the City to foster awareness about protecting Mobile Bay. Fairhope is one of the only local municipalities offering curbside recycling, and nearly 35% of City waste is recycled. Fairhope is restoring streambanks along Rock Creek to reduce downstream sediment loads. Moving towards Clean Marina status, upgrades to the Fairhope Docks Marina include installation of a new pump-out station and parking lot stabilization.

Fairhope's current staff includes eight certified stormwater quality control inspectors. Their subdivision regulations were recently amended to increase greenspace requirements and remove 10 impractical LID requirements, instead requiring "as many LID techniques as practical and appropriate for the development." Fairhope ordinances require buffers of 50 to 100 feet for waterways.

Other coastal cities are also increasingly demonstrating wise stewardship of the waters that make Lower Alabama special. With intensive watershed management planning continuing throughout the two counties, education and public involvement will increase concerns and efforts to conserve and protect.

City of Fairhope partnered with Fairhope High School and the Weeks Bay Reserve to host a storm drain marker design contest. Markers with the winning design were installed on storm drains across the City to foster awareness about protecting the Mobile Bay. Photos: Nancy Milburn, City of Fairhope



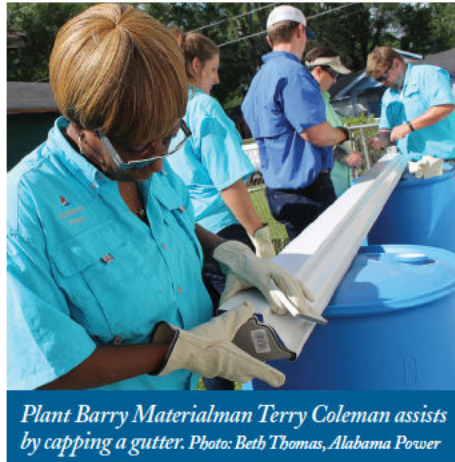
Private Sector Partners Install Rain Barrels in Prichard, Alabama

By BETH THOMAS, PUBLIC INFORMATION REPRESENTATIVE, ALABAMA POWER

The Summer 2017 edition of the *Alabama Current Connection* featured a program created to implement recommendations of the 2016 Prichard Drainage Study, the Toulmins Spring Branch rain barrel program, conducted by Mobile Bay National Estuary Program staff and the Coastal Alabama Conservation Corp. Supervised Corp members installed 30 rainwater catchment systems consisting of gutters, down spouts, two 55-gallon rain barrels, and hardware at homes in this flood-prone, low-lying community.

Two years later, several Mobile-area groups are teaming up to help the residents in the Three Mile Creek Watershed better manage stormwater impacts. Alabama Power Service Organization, members of the Plant Barry Environmental Stewardship Team (BEST), local land management company Greif, Inc. and its subsidiary Soterra, and the MBNEP are working together to install rain barrels in this Prichard community. The rain barrels are being installed to help collect water and reduce the impacts of localized flooding and stormwater runoff. Residents can also use the stored water as an inexpensive source for watering lawns or gardens.

Greif, Inc. donated 200 rain barrels to the MBNEP to help the organization continue the work begun in 2017 with the Conservation Corps in the Toulmins Spring Branch Subwatershed, which drains into Three Mile Creek. The MBNEP is working to implement the 2014 Three Mile Creek Watershed Management Plan (http://www.mobilebaynep.com/assets/landing/TMC_Final_WMP.pdf) to restore the Creek and surrounding neighborhoods. Coastal Alabama receives close to six feet of rain per year. In urban areas, most of this water flows across hard surfaces, picking up



Plant Barry Materialman Terry Coleman assists by capping a gutter. Photo: Beth Thomas, Alabama Power



Plant Barry Team Leader Matt Weatherford, MBNEP's Christian Miller, and Plant Barry Compliance Specialist Adam Moore shaping a down spout. Photo: Beth Thomas, Alabama Power

and carrying pollutants into waterways. The U.S. Environmental Protection Agency considers stormwater runoff to be the greatest threat to water quality in the United States. Rainwater harvesting, the practice of collecting and storing stormwater from roofs and other hard surfaces for future use, is one way to reduce impacts associated with residential stormwater runoff.

One inch of rain falling on a typical 1,000-square-foot roof yields over 600 gallons of water. Installing a rain barrel

at your home is an inexpensive way to capture and store some of this water for later use. With a rain barrel, you'll not only help reduce stormwater runoff, but you'll also have a supply of free, non-chlorinated soft water for washing the car, watering plants, and many other household uses.

The MBNEP's mission is to promote wise stewardship of water quality and living resources throughout the coastal waters draining to Mobile Bay. They bring tighter local citizens, State and government agencies, businesses and industries, conservation and environmental organizations, as well as academic institutions to meet the environmental challenges facing our coastal resources.

Plant Barry's BEST is made up of employees who enjoy volunteering their time to help improve environmental conditions. The group meets monthly to coordinate and plan stewardship projects.



Alabama Power Business Office Manager Jobnetta Jackson puts on the finishing touch with a Create a Clean Water Future decal. Photo: Beth Thomas, Alabama Power

As Alabama Celebrates Its Bicentennial, Watershed Management Plans Inform About Its Heritage and Culture

By TOM HERDER, MOBILE BAY NATIONAL ESTUARY PROGRAM

With Alabama's Bicentennial on December 14, 2019, eight watershed management plans (WMPs) developed by the Mobile Bay National Estuary Program provide insights into the heritage and culture of the coastal "cradle" from which the State arose. The MBNEP employs a "watershed approach," a shift from traditional city planning, where political borders limit available actions and resources. It ensures restoration efforts are based in science and fit into an overall management program. This approach involves development of WMPs for areas at the U.S. Geological Survey's 12-digit-hydrologic-unit-code scale draining to the receiving waters for which each WMP is named (with individual links found at http://www.mobilebaynep.com/the_watersheds). A WMP takes over a year to develop, requires intense community engagement, and focuses on informing watershed communities with data related to governance, demographics, socioeconomics, geography, geology, biology, ecology, hydrology, hydrography, and climate vulnerability. Since the 2013 update of the MBNEP's Comprehensive Conservation and Management Plan (CCMP), WMPs are expected to chart a conceptual course for improving or protecting things people value most about living in coastal Alabama: water quality, fish and wildlife, resilience, beaches and shorelines, and heritage and culture.

The **D'Olive Creek WMP**, published in 2010, preceded identification of those six values. This Plan has guided effective restoration of two miles of degraded streams and stemmed delivery

of tons of sediment into fishery nursery areas, but it did not address heritage and culture of this drainage area. The first WMP to do so in 2011 and also prior to the CCMP update was for **Eight Mile Creek**. It tracks the history and cultural diversity of the City of Prichard from the 1860 delivery of a community of slaves from the scuttled ship, *The Clotilda*; the formation of the community of Africatown by Clotilda survivors and descendants; and forward to the designation of the Whistler Historic District in 1975 (page 16).

The first Plan developed under current CCMP protocols was the 2014 **Three Mile Creek WMP**. Charting a course from the early 1900s through today, it recalls an expanding African-American community downstream baptizing new church members in the Creek's waters. It references historic paintings of horse races and hotels

along the Creek's banks, stories told by community members of swimming in and exploring the Creek as children, and the mid-20th century urbanization that degraded the Creek (pages 16 and 38).

The first WMP funded through *Deepwater Horizon*-related sources was for the **Fowl River Watershed** in 2016. It provides descriptions of early European exploration and settlement long before the 1812 creation of Mobile County, predating Alabama statehood, and the challenges faced by early settlers in shipbuilding, fishing, farming, raising livestock, and cutting timber. It describes mid-1800s horticultural development and early-1900s national recognition of Fowl River, Belle Fontaine, and Mon Louis Island as citrus-producing regions (before most citrus trees were destroyed in the mid-1930s by freezing). The building of the Home and Gardens by Walter and Bessie Bellingrath



Early-Twentieth Century baptisms in Three Mile Creek, Mobile, AL.

Photo: The McCall Library University of South Alabama



*Aerial view of the State Docks in Mobile, AL, 1937
Photo: Alabama Dept. of Archives and History*

and nursery establishment by early 20th century entrepreneurs are detailed in the Plan. Early 1900s challenges of transportation and development of infrastructure, including the Old Bay Shore Railroad Line and the paving of roads, is described, along with development of the Dawes, St. Elmo, Irvington, and Theodore communities. It includes an account of a Catholic parish and construction of St. Rose of Lima Church. It lists various area clubs and organizations, like the Fowl River Area Civic Organization, concerned with sustaining the quality of its waters, developing community spirit, and providing a voice to gain the attention of elected officials for resolving problems (pages 92-94).

The most extensive historical account of the settlement of Mobile from pre-Columbian times to the modern era is provided in the 2017 **Dog River WMP**. This Plan's area includes Upper Dog River, Lower Dog River, and Halls Mill Creek watersheds, together comprising 56% of the City of Mobile. This account, from the Mississippian period and occupation by the Muscogee Creek Confederacy through documented historical times, includes an unverified (and generally rejected) account of Mobile's first European visitor, Welsh Prince Madoc, fleeing power struggles in his native land for Fort Morgan in 1170.

Continued on page 12



1920s image of cotton being carted to the gin. Photo: Alabama Dept. of Archives and History



Women and children spinning and weaving cotton, circa 1900. Photo: Alabama Dept. of Archives and History

The historically-verified line of European explorers, indigenous peoples, and major historical events is presented in the greatest detail of any WMP yet developed. It includes the Spanish explorers and their explorations of the Bahia del Espiritu Santo (Bay of the Holy Spirit) in the early 1500s; de Soto's clashes with Native Americans at Mauvila (from which Mobile's name is derived), and the arrival of French explorers Sieurs d'Iberville and de Bienville and their first attempt at a settlement at Twenty Seven Mile Bluff (near Mount Vernon). The account includes the Revolutionary War and War of 1812, construction of Fort Charlotte by the British on the site of French Fort Conde, and Andrew Jackson's presence in Mobile prior to his 1814 victory at New Orleans. The emergence of cotton as the cash crop, the Civil War, the Blockade, and Battle of Mobile Bay with Farragut's famous quote ("Damn the torpedoes...") precede the account of the 1865 explosion at the waterfront armory that killed 300 people. After timber replaced declining cotton around the turn of the century, World War I led to economic expansion and creation of the Alabama State Docks. After the Great Depression, World War II transformed Mobile into a shipbuilding city with a 60% increase in City population. Brookley Field, a famous air supply depot, was established before its closure in the early 60s and resurrection in the 21st Century as the home of Airbus. The Civil Rights movement,

desegregation cases, and transition into the present were all described in this detailed account (*found on pages 53-57*). A table of culturally significant resources is also included in this exceptional WMP section.

The 2017 **Bon Secour WMP**, comprising the Bon Secour River, Oyster Bay, and Skunk Bayou watersheds in southwest Mobile County, describes archeological records revealing the indigenous peoples who preceded European settlement by Spanish missionaries, French explorers, and Baltic Germans. Frenchman Jacques Cook named the River and village after the Cathedral Notre Dame de Bon Secour in Montreal – a name which, in English, means "safe harbor." Since the 1700s, the culture of the unincorporated village of Bon Secour has been oriented toward the sea. Timber, fur, and salt provided the raw materials for the first commercial businesses. As agricultural production rapidly developed in the 19th century, the City of Foley emerged as the center of population, commerce, and finance in the area, but commercial fishing and shellfishing remained the principle industry driving the local economy. While the seafood industry has slowed in recent years, the industry still employs many Watershed

residents and remains important to their heritage. Oral accounts of the 20th century are included, as is a table listing historically-significant sites in the Watershed (*pages 3-34 through 3-36*).

The vast area draining into **Weeks Bay** includes the Upper, Middle, and Lower Fish River and the Magnolia River watersheds. The Creek Indians, who preceded European settlers there, were mainly hunters and gatherers and sustained a population of 18,000 to 24,000 people. They thrived among the network of waterways, as evidenced by 25-foot-tall shell midden mounds still seen in southern Baldwin County. The establishment of Baldwin County (named for U.S. Senator Abraham Baldwin) in 1809, like Mobile County across the Bay, predated the founding of the State. The Weeks Bay WMP describes the Battle of Mobile Bay in some detail and the influx of Union veterans to the area following the Civil War. Unique to this Plan are accounts of the settlement of the many towns and communities lying fully or in part within this 203-square-mile drainage area, including Fairhope, Daphne, Spanish Fort, Loxley, Robertsedale, Silverhill, Summerdale, and Foley (*pages 2-49 through 2-53*).



Civil rights leader Jerry Pogue carries the flag in an April 7, 1968 march in memory of the slain Dr. Martin Luther King, Jr. March in Mobile, AL. Photo: Wilbur F. Palmer Collection, Doy Leale McCall Rare Book and Manuscript Library.



Child laborers shuck oysters for Alabama Canning Company in Bayou La Batre in 1911. Photo: Lewis Wickes Hines, Library of Congress



*Bayou La Batre oystermen replenishing a reef with oyster cultch, 1938.
Photo: Alabama Dept. of Archives and History*



Julius Patronas and L.B. McAdams examining oysters in Mobile County, AL, 1938. Photo: Alabama Dept. of Archives & History

Folks living in the **Bayou La Batre Watershed** have depended on the abundance of coastal fishery resources for food and trade dating back to indigenous cultures over 8,000 years ago. The area was claimed by the French in 1699 and dubbed “the French Coast.” Original French settlers, including Joseph Bosarge, petitioned the Spanish Governor in 1786 for a tract of land on the west bank of the Bayou La Batre River. The petition was granted, and the name “Bayou La Batre” is derived from the artillery battery the French maintained there. Spanish settlers later moved into the area, and the resulting fusion of cultures was recognized for its seafood, cooking styles, and work ethic. By the late 1800s, the area was known for hotels, riverboat excursions, canning industries, and sport fishing, and a railroad brought tourists from throughout the nation to the waters of Portersville Bay. Hurricanes decimated the area in 1906 and 1916, and resilience became a key quality necessary for survival there. In the 1970s, during and after the Viet Nam War, an influx of immigrants from Southeast Asian nations assimilated into the local seafood industry as boat owners or seafood shop workers.

Hurricane Katrina in 2005 and the Deepwater Horizon oil spill in 2010 both dealt devastating blows to the area and its inhabitants, again testing resilience and forcing many to move from the area or pursue livelihoods less dependent upon coastal resources. Seafood harvesting and processing and shipbuilding remain the driving economic forces in the City of Bayou La Batre. But residents understand

the need for a more tangible ecotourism industry and the jobs it could bring, while preserving the natural beauty and heritage of the area (*pages 125-126*).

As WMPs continue to be developed for each of Alabama’s tidally-influence watersheds, they will provide added resources to the heritage and culture enjoyed by residents, visitors, and students.



*Southeast Asian immigrants arriving at Eglin Air Force Base in 1975
Photo: U.S. Air Force*

Two New Additions *to the Mobile Bay National Estuary Program*

The Mobile Bay National Estuary Program (MBNEP) announces the hiring of Sherry-Lea Bloodworth Botop to serve as Deputy Director of the Program and Katie Dylewski as Project Manager.

Bloodworth Botop has served as Director of Economic and Community Development for the City of Fairhope since 2017. Dylewski graduated from Auburn University with a M.S. in Horticulture and was employed by the University for five years.

Bloodworth Botop returned to the Alabama Gulf Coast in 2017 from Washington D.C., where she served as National Executive Director of the American Institute of Architects Foundation. She served on the first White House Innovation Initiative team under the President's Climate Action Plan and from this work was selected to participate



Sherry-Lea Bloodworth Botop



Katie Dylewski

in Harvard University's National Preparedness Leadership Initiative which she completed in 2015. She received the Points of Light Award for her recovery and rebuilding efforts following Hurricane Katrina.

"I look forward to working with Sherry-Lea in partnership with MBNEP. She is one of the most positive, collaborative people I've worked with," claimed Mayor Karin Wilson of Fairhope.

Dylewski comes to the MBNEP having played a key role in developing the Low Impact Development Handbook for the State of Alabama and the Alabama Smart Yards Program. Her experience with watershed management planning, grant writing, teaching workshops, and stream restoration will serve her well as she oversees and coordinates restoration projects in both Mobile and Baldwin counties.

"Katie Dylewski brings a wealth of knowledge of watershed education, restoration, and problem solving. She was a tremendous asset to Alabama Extension Water Team and will hit the ground running to improve, protect, and restore coastal watersheds as a member of the MBNEP team," commented Eve Brantley Associate Professor and Extension Specialist, Auburn University and Alabama Cooperative Extension System.

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Alabama Coastal Comprehensive Plan *Web-based Viewer Phase I*

By WILL UNDERWOOD, ADCNR, STATE LANDS DIVISION COASTAL SECTION ADMINISTRATOR

The Alabama's Coastal Comprehensive Plan (ACCP) has been designed as a proactive and stakeholder-driven planning tool for coastal Alabama. Given the rapid population growth in coastal Alabama coupled with the frequency and severity of natural disasters, the ACCP will play a vital role in helping to understand how our communities can best work together to protect and enhance, well into the future, the critical resources we all value.

Commissioned by the Alabama Department of Conservation and Natural Resources, the United States Army Corps of Engineers Mobile District (USACE) began the development of the ACCP by soliciting input from the general public and selected stakeholders to better understand what they value about Alabama's coastal resources and their social, economic, and environmental vision for the future of these resources. After thoroughly researching, cataloging, and mining existing management plans for visions and strategies that would result in a more resilient coast, the USACE began the process of integrating this information into an interactive GIS-based map viewer that will allow users to visualize how their resource-related values align with current and future coastal resource conditions.

The ACCP's web-based viewer combines state-of-the-art storm surge and sea level rise modeling with existing satellite-based maps to allow users to identify areas and resources which might be at risk from future storm surge and water level conditions. Users of the ACCP viewer can choose to view the average flooding extent of 50-year, 100-year, and 500-year return-interval storm surge events under current water level conditions and with the addition of one-half meter and one meter of sea level rise. By zooming in to areas of interest, users of the viewer can begin to understand the vulnerability of familiar areas to current and future storm surge events. The map viewer also allows users to geographically visualize current and future values and comments that were expressed during public and stakeholder forums. The comments can be sorted based on value area and highlighted to discover existing plans and documents that address the comments. This function of the viewer will be useful to planners and natural resource managers as they work to preserve and protect the valuable natural resources of the Alabama Gulf Coast.

The current iteration of the Alabama Coastal Comprehensive Plan web-based viewer can be found at: <https://www.sam.usace.army.mil/Missions/Program-and-Project-Management/Alabama-Coastal-Comprehensive-Plan/>. Stay tuned for the role-out of Phase II of the ACCP viewer, which will include an assessment of risk and resilience to risk for the Alabama Gulf Coast along with recommendations for mitigating hazard-related risks.

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 the Mobile Bay and 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, please 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 have recommendations for future articles or would like to subscribe, please contact the editor:

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Carl Ferraro Retires from State Service

On April 30, 2019, the Alabama Coastal Area Management Program bid a fond farewell to Carl Ferraro upon his retirement from State service after 25 years.

Carl received his Bachelor of Science in Wildlife Biology from Auburn University and began his work with the State of Alabama as an employee with the Alabama Department of Environmental Management (ADEM) Air Division in Montgomery in 1994. He transferred to the ADEM Mobile Field Office in May 1997 to serve as an environmental scientist with ADEM, where he began his career with the Alabama Coastal Program. At ADEM, Carl worked directly with the regulatory, monitoring, and compliance components of the program. In May 2004, Carl joined ADCNR-State Lands Division's Coastal Section, where his focus shifted towards coastal public access



projects, planning, grants management, and ecological restoration activities.

Following the *Deepwater Horizon* Oil Spill of 2010, Carl worked closely with ADCNR and other trustees on the Natural Resource Damage

Assessment and the restoration efforts that grew out of that process.

Carl's career has certainly made a lasting impression on Coastal Alabama! Carl represented the Department on numerous interagency and technical working groups and served as the State Lead for the Gulf of Mexico Alliance's Habitat and Conservation Coordination Team. For two decades, he actively coordinated efforts to map and monitor submerged aquatic vegetation along the Alabama coast, and was a project manager for ADCNR on two major restoration efforts in south Mobile County. Completed in 2010, the award-winning Little Bay Marsh Creation

project installed nearly a mile of wave attenuation devices and marsh enhancements to restore an eroding peninsula that was heavily impacted by Hurricane Katrina. Carl was also a project manager on the Marsh Island Restoration Project in Portersville Bay, which was completed in 2017. The Marsh Island project installed over a half mile of breakwater structures south of the island and restored approximately 50 acres of salt marsh community on the north side of the island.

"Carl and his family will be missed in Coastal Alabama, but his accomplishments provide us with a lasting legacy. Although he has retired from the State of Alabama, I'm confident that the next phase of his career will continue to produce successful restoration projects around the Gulf and beyond," said Hank Burch, Assistant Director, ADCNR, State Lands Division.