

A quarterly newsletter of the Alabama Department of Conservation and Natural Resources, State Lands Division, Coastal Section and the Mobile Bay National Estuary Program

Alabama current connection

Helen Wood Park Restoration Update II

BY TOM HERDER, MOBILE BAY NATIONAL ESTUARY PROGRAM

With the help of lessons learned and lower fuel prices, the marsh restoration efforts at the City of Mobile's Helen Wood Park have moved into full swing. Park improvement/enhancement by a partnership of the City, the Conservation Department, State Lands Division, Coastal Section, and the MBNEP, includes removal of a dense stand of the nuisance species, *Phragmites australis* (common reed), followed by planting with productive native marsh plants. The original plan included herbicide treatment, controlled burning, and then excavation to restore hydrology before replanting.

In an article published in *Current Connection* last summer, we reported that, after three failed burn attempts and skyrocketing fuel prices, we were forced to attempt "Plan B" – a series of herbicide treatments with BASF's Clearcast (imazamox), touted to eliminate 80 percent of standing *Phragmites*. Our intention was to treat the *Phragmites* with Clearcast in October, burn the dead plant material in early spring of 2009, and then to eliminate re-sprouting *Phragmites* with subsequent herbicide applications.

State Lands Division staff applied the herbicide in October, an extension of the NOAA Gulf of Mexico Community-based Restoration Partnership Grant was obtained, and State Lands and MBNEP staff performed a largely successful burn in early March. However, projections of an 80 percent kill-off



Mitch Dickens of Esfeller Construction operates the long stick excavator at Helen Wood Park

off the reeds were generous. By May, healthy new *Phragmites* again infested the 1.5 acre marsh site. Project managers concluded that Fred Nation's original assessment, that without excavation *Phragmites* elimination was unlikely, was correct.

In 2008, estimates for excavation of the site were cost prohibitive. However, in 2009 with a reduction in the proposed excavation area by partners, decreased fuel prices, and a favorable bid by south county excavation contractor Esfeller Construction, work began in July. Using a long stick excavator and oak mats, an average of four inches of substrate was removed and trucked off, allowing more tidal inundation into the area.

With excavation complete, the site will be monitored and treated for re-sprouting *Phragmites*. Volunteers will be recruited from MBNEP Community Action Committee organizations to replant the site with productive native marsh plants like cord grass (*Spartina* sp.), black needle rush (*Juncus romerianus*), and bulrush (*Scirpus* sp.).

View of the Helen Wood Park marsh excavation from the foot of Dog River Bridge.



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Coastal Corner

By PHILLIP HINESLEY, CHIEF, ADCNR, STATE LANDS DIVISION, COASTAL SECTION

Gulf of Mexico Alliance Releases Action Plan II

The Gulf of Mexico Alliance is a partnership of the states of Alabama, Florida, Louisiana, Mississippi, and Texas, with the shared goal of significantly increasing regional collaboration to enhance the ecological and economic health of the Gulf of Mexico. The five U.S. Gulf States have identified priority issues that are regionally significant and can be effectively addressed through increased collaboration at local, state, and federal levels.

On June 10, 2009 in Washington D.C., the Gulf of Mexico Alliance released the Governor's Action Plan II. Building on successes of the first Action Plan, the Gulf States and their partners developed the new Action Plan II, a farther-reaching, five-year regional plan that looks to expand partnerships. The core goals of the 2006 Action Plan I included building partnerships and laying a foundation for a true regional approach. Action Plan II sets a course for actions designed to improve the health of coastal ecosystems and economies of the Gulf in ways that a single entity could not achieve. It is a strategy for tangible results in the following priority areas:

- Water Quality for Healthy Beaches and Seafood
- Habitat Conservation and Restoration
- Ecosystems Integration and Assessment
- Reducing Nutrient Impacts to Coastal Ecosystems
- Coastal Community Resilience
- Environmental Education

In addition, the Gulf States Governors recognize that we are not the only residents of this important ecosystem. Our neighboring countries also contribute to, experience the

effects of, and reap the benefits of the Gulf of Mexico. To be truly successful in improving the ecological health of this region, a collaborative effort is necessary with other partners of the Gulf, including Mexico. To that end, Action Plan II supports the creation of a parallel Mexican Gulf of Mexico Alliance and strongly encourages the continued pursuit of collaboration among countries in the region.

Despite efforts on the part of state and federal agencies, the management of U.S. coasts and oceans is characterized by a sector-by-sector approach and one that is primarily reactive rather than proactive. The Governors Alliance working with the five Gulf States and the Federal partners are leading the way in implementing regional ocean governance. This regional approach is a happening in other parts of the nation these regional efforts include the Great Lakes Commission, the Northeast Regional Ocean Council, the West Coast Governors Agreement, the Southeast Governors' Alliance, and the Mid-Atlantic Regional Council on the Ocean are all examples of state-led efforts that are moving management of ocean and coastal resources from a state-by-state approach to a regional one.

A national framework is needed to advance and support regional efforts by state, territory and federal governments to develop and implement integrated ecosystem-based plans.

Regionally-based plans should be action-oriented and directed toward achieving shared goals and priorities; there should be significant opportunities for public input and

involvement; more information is needed to improve management of our oceans and coasts; and, a mechanism is needed to develop, fund and implement regional plans. Currently Congress is debating a regional ocean bill, the "Oceans 21" legislation as it is called gives us the opportunity to take advantage of the foundation already laid by existing regional ocean partnerships. The Gulf of Mexico Alliance has been able to accomplish a lot over the last few years. If "Oceans 21" legislation is past it would provide a framework for all the regional efforts and provide a steady source of funding.

As members of the Gulf of Mexico Alliance, the Gulf States have been able to accomplish more as a region than as individual states including establishment of Environmental Education Network with Coastal Ecosystem Learning Centers in each Gulf State and Veracruz, Mexico, creation of a Regional Sediment Management Master Plan developed to decrease coastal erosion and support restoration, the holding of three bi-national workshops to standardize harmful algal bloom identification and sampling methods, and the creation of an ecosystem data portal established to evaluate habitat extent and changes over time. With the release of the Second Governors' Action Plan we are looking for continued success. This new action plan builds on these accomplishments and identifies new concrete action items to be addressed regionally with measures of success. For additional information on the Gulf of Mexico Alliance go to: www.gulfofmexicoalliance.org.

Estuary Reflections

ROBERTA SWANN, DEPUTY DIRECTOR, MOBILE BAY NATIONAL ESTUARY PROGRAM

A Team-Developed, Interactive, GIS-Based Habitat Prioritization Support Tool for Coastal Alabama

NOAA's Kara Meckley and I teamed up at the Coastal Zone 2009 meeting in Boston on July 23 to deliver a presentation entitled: A Partnership: Building An Ecosystem-based Online Geospatial Tool to Guide Priority Habitat Conservation. We described an online visualization tool currently in development that will be accessed through the Mississippi Alabama Habitats Database (www.restoration.disl.org/www). This effort is being funded by the NOAA Coastal Services Center and Fisheries Office of Habitat Conservation in a partnership with The Nature Conservancy (TNC) and the MBNEP. These groups have come together to engage a diverse, 60-person Coastal Habitats Coordinating Team (CHCT) made up of area environmental resource managers in using geographic information system (GIS) based tools to prioritize critical habitats based on several factors, including proximity to already protected areas, presence of threatened and endangered species, and distance to similar types of habitat. Ultimately the tool will be used to help coastal managers target scarce resources towards protecting identified critical habitats that contribute the most in ecosystem services through acquisition, restoration or other conservation tools.

This effort builds upon a "Priority Habitats Atlas" developed between 2004 and 2006 by the CHCT in partnership with the MBNEP, TNC, and EPA's Gulf of Mexico Program. Thirty-five federal, state, local, and private resource managers from coastal Alabama – the original CHCT – were brought together to develop a list of priority habitats throughout Mobile and Baldwin Counties targeted for acquisition or restoration. The goals of this project were to maintain adequate extent, diversity, distribution, connectivity and natural functions of all habitat types and to restore, enhance and protect important coastal and marine habitats essential to recreational and commercial

fisheries. The Atlas identified 17 and 31 areas, respectively, as priorities for acquisition and restoration, but it had no geospatial ability to analyze priorities (instead relying upon local knowledge) and no land use/land cover data. Its conservation activities were limited to acquisition and restoration.

The new interactive, decision-support, GIS tool uses geospatial analysis programs (like GAP and C-CAP) to provide new habitat and land use data coupled with user defined habitat "patch" selection criteria to generate a preliminary analysis of priority habitat patches using the NOAA Habitat Priority Planner (HPP) tool. Once the habitat priority patches were identified through HPP, the CHCT performed subsequent "gut checks" and refined selection criteria to generate a final analysis. This final analysis will generate a GIS layer of priority habitat patches for terrestrial, fresh water, and salt water habitats that will be uploaded into an online decision support tool. This tool will bring these habitat priority patches together with other datasets, including Mobile and Baldwin County parcel data, impervious

cover, urbanized areas, and impaired water bodies to help the user identify protection strategies based on different protection objectives. The tool can produce maps showing selected priority habitat patches in a defined area and generate reports describing results.

One of the limitations of this effort has been a lack of current data sets on land uses, threatened and endangered species, shoreline armoring, seagrass assemblages, better delineation of protected lands, sedimentation in- and off-shore, and oyster reefs locations, to name a few. The partners are committed to working together and independently to generate more robust datasets to improve future analyses for updating the online priority habitats tool. As new data is acquired, it can be added to the tool's GIS inventory as a layer in anticipation of a subsequent habitat analysis, providing resource planners and other stakeholder groups such as chambers of commerce and transportation and recreation planners with information necessary to optimize resource investment and protect critical habitats.

Coastal Cleanup 2009. Help Us Out at McNally Park!

For Coastal Cleanup 2009, the Mobile Bay NEP will be "captaining" the McNally Park site on the western shore of Mobile Bay, about a mile south of the Dog River Bridge. With the help of volunteers we will remove litter and refuse from the length of shoreline that runs north to Brookley Field and south to Helen Wood Park and the Mobile Yacht Club. Volunteers should meet at the Park at 8 a. m., and the activity will conclude at noon. If coming north on DIP, take a right at Canal Rd. and a left on Park Ave. If coming south on DIP, take a left on Terrell Rd. and a right on Park Ave. Lunch will be served and tee shirts provided to all volunteers. Bring the whole family!

For information about helping at the Coastal Cleanup McNally Park site call Brenda Lowther (blowther@mobilebaynep.com) or Tom Herder (therder@mobilebaynep.com) at 431-6409. For information about other locations around coastal Alabama call Amy King (amy.king@dnr.alabama.gov) at the Alabama Department of Conservation and Natural Resources, State Lands Division, Coastal Section at 621-1216.

Mobile Bay National Estuary Program Mobile Bay Sub-Estuary Monitoring Program

By TOM HERDER, MOBILE BAY NATIONAL ESTUARY PROGRAM

In 2005 the Mobile Bay National Estuary Program (MBNEP) initiated a program to monitor water quality within the sub-estuaries of Mobile Bay. Under an agreement between the MBNEP, the Alabama Department of Environmental Management (ADEM), and the Dauphin Island Sea Lab, the program began with an evaluation of the Bon Secour River/Intracoastal Waterway/Oyster Bay sub-estuary in southwestern Baldwin County in 2005. It concluded in 2008 after completion of evaluations of the Bayou La Batre sub-estuary in southern Mobile County and the Dog River sub-estuary in middle Mobile Bay.

The data generated for these sub-estuaries supplemented what ADEM generates at its regular monitoring sites, and both agencies benefitted from the collaborative effort. It provided support for components of the MBNEP Comprehensive Conservation and Management Plan (CCMP) while fulfilling the needs of ADEM by using departmental personnel and procedures and providing useful data. The data was collected by ADEM personnel, analyzed using ADEM standard operating procedures, and compared to the "use criteria" for different water body classifications as set forth by the Department. The State is required to monitor and report the condition of its water resources under Sections 305(b) and 303(d) of the federal Clean Water Act.

The MBNEP coordinated the sub-estuary monitoring effort with ADEM's coastal Alabama Monitoring and Assessment Program. Sampling sites were selected within each sub-estuary and near major tributaries to each. At each monitoring location, samples were analyzed for turbidity, total suspended solids, total dissolved solids, ammonia, total nitrogen, total phosphorus, dissolved reactive phosphorus, total Kjeldahl nitrogen, chlorophyll a, 5-day carbonaceous biochemical oxygen demand, hardness, and pathogens. Sediment was collected once at each monitoring location and analyzed for an array of metals, polynuclear aromatic hydrocarbons, and pesticides (DDD, DDE, DDT, dieldrin, heptachlor, and BHC).

Results of the studies revealed similarities between water quality trends at the three geographically disparate sub-estuaries. Over half the sampling stations revealed the presence of pathogens (*Enterococcus* sp.) in concentrations too great to support their ADEM use classifications. Nutrient over-enrichment is a common problem in Bay tributaries, as evidenced by "poor" National Coastal Assessment (NCA) ratings at over half of the sampling stations in each sub-estuary, but all stations were rated "good" for total phosphorus. Measurements of Chlorophyll a, sometimes used as a proxy for nutrient over-enrichment, were not uniform, with all 13 sampling locations rated "good" at Dog River sites, eighty percent of Bayou La Batre sites rated "fair", and 92 percent of Bon Secour sites rated "poor." Water Clarity was rated good at each sampling site at all three sub-estuaries. Water Quality Indices, calculated for NCA, were either "fair" (85 percent) or good at Dog River stations and roughly half "fair" and half "poor" at Bayou La Batre and Bon Secour sites. While some exceedances for metals were identified, sediment quality was generally "good" with no reported exceedances for hydrocarbons or pesticides. Finally, atmospheric deposition of mercury ranged from mid-level to among the highest nationally over the study period, generally attributed to the high amount of rainfall characteristic of our region.

This project provided the MBNEP with an opportunity to support State efforts towards identifying and improving the quality of impaired water bodies. Once identified as impaired and listed on the 303(d) list, total maximum daily loads (TMDLs) for impairments can be calculated, followed by implementation of practices that improve the quality of the water so that it again meets criteria set for its use classification. Further, the data obtained through this effort will be applied to water quality and hydrological models prescribed by the U.S. Environmental Protection Agency to enhance calculations of TMDLs.

Current events

September

Thursday and Friday, Sept. 10-11
What: 23rd Annual Alabama Water Resources Conference 2009

Where: Perdido Beach Resort Hotel and Convention Center, Orange Beach, AL
Contact: Dennis Block (blockdh@auburn.edu) or Kay Stone (stonemk@auburn.edu) at 334-844-4132

Saturday, September 19, 8 a.m.

What: 23rd Annual Coastal Cleanup 2009

Where: McNally Park (4380 Park Rd, East of DIP and one mile north of the Dog River Bridge) or various locations in Baldwin and Mobile Counties

Contact: Brenda Lowther at 251-431-6409 (blowther@mobilebaynep.com) for McNally Park or for other locations contact Amy King at 251-621-1216 or amy.king@dcnr.alabama.gov

October

Thursday-Sunday, Oct. 16-19, 6 p.m.

What: 5th Annual John L. Borom Coastal Alabama Bird Fest 2009

Where: Faulkner State Community College, Fairhope, and various venues around coastal Alabama (www.alabama-coastalcleanup.com/cleanup-zones/)

Contact: For more information, see www.alabamacoastalbirdfest.com.

Thursday-Saturday, Oct. 29-31, daily from 8 a.m. - 5 p.m.

What: Wolf Bay Watershed Watch Trash, Treasures and Plant Sale

Where: Miflin Community Center on County Road 20 East near Elberta

Contact: Check web site for contacts at www.wolfbaywatch.com

November

Friday, Nov. 13, Captains Meeting from 5- p.m. and Saturday, Nov. 14 Tournament from 6 a.m. - Noon.

What: Riviera Utilities & Wolf Bay Watershed Junior Fishing Tournament

Where: Barber Marina in Josephine community

Contact: Check web site for contacts at www.wolfbaywatch.com

Dog River Clearwater Revival Update

By TOM HERDER, MOBILE BAY NATIONAL ESTUARY PROGRAM

The Dog River Clearwater Revival (DRCR) in Mobile is one of the area's most active place-based environmental organizations and a member of the Mobile Bay NEP's Community Action Committee. Below is a summary of recent events and on-going activities and projects:

Dog River/American Rivers National Cleanup The second annual Dog River/American Rivers National Cleanup was held at Dog River Park on Saturday, April 4. Twenty-five volunteers collected over 100 bags of trash, tires, and other items. A hot dog lunch was enjoyed by all of the participants after a busy morning of picking up trash.

Dog Paddle 2009 On Saturday, May 16, sixty-six kayakers and canoers tested their skills on Dog River in numerous races – 1/2- and one-mile races, a novice race, a dog and owner race, etc. Additional events and attractions held that day in beautiful Dog River Park included pet adoption, pet parade, and doggie fashion show by Friends of the Mobile Animal Shelter; music by *Southern Current*; the LifeSouth Blood Mobile; the Dauphin Island Sea Lab Manatee Program; loaned a Space Walk provided by Port City Rentals; and a Trash & Treasures Sale which raised money for the revitalization of Dog River Park.

River Run One hundred fifty one runners participated in the first annual River Run on Saturday, June 6, held to increase public awareness of the one-mile running/biking path along Montilmar Creek and to raise funds to extend the path. The two-mile race began on the road into Matthews Park off of Michael Boulevard,

turned left onto the I-65 Service Road to the stretch down the Montilmar Canal Fitness Trail, and ended at Bob Baumhauer's WINGS Restaurant. There was also a 400-meter Children's Doggie Dash. At the post-race party included a DJ, food, beer and cokes provided by WINGS Restaurant.

Wildlife of Dog River Mural Kathy Friedline, the artist who produced the DRCR logo, has painted a mural of the wildlife of Dog River at Gilliard Elementary School on Dauphin Island Parkway. University of South Alabama professor and naturalist David Nelson assisted Kathy with this project.

Storm Drain Marker Project The DRCR Storm Drain Marker Project began in 2006, and to date over a hundred volunteers have installed approximately 3,500 markers on storm drains throughout the largely urban Dog River Watershed that includes west Mobile, Springhill, Mid-Town, Tillman's Corner, Theodore, the DIP area. The markers raise public awareness of impacts of non-point source pollution into Dog River. Volunteers should contact Janet Miller at 654-1827 or j46miller@yahoo.com. We would be delighted to have you work with us!



Litter Barriers The City of Mobile and DRCR installed a litter barrier on Montilmar Canal last year, and two more litter barriers will be installed soon on two new sites. The barriers were purchased with funding from the Mobile Bay NEP and will be maintained by the City.

"Keep It Clean" Decals "Keep It Clean" decals have been placed on 100 trash cans at businesses and local parks around the watershed to remind citizens that trash needs to go in cans before its carried by stormwater to the River.

Website Keep your eye on www.dogriver.org to find information about our organization, Dog River, and the Dog River Watershed.

Dog River Park A revitalization of Dog River (formerly Luscher/NAVCO) Park undertaken by Dog River Clearwater Association is underway. Working with the City of Mobile Parks and Recreation Department, Mobile Bay National Estuary Program, and District 4 Councilman John Williams, we erected a new park sign and new street signs, placed thirty "Mobile green" trash cans around the park, added a new public canoe/kayak launch, and installed a new double-sided bulletin board near the boat ramps. Thriving new trees were planted with the help of Keep Mobile Beautiful. Work is progressing on the shoreline protection project. USA Professor Scott Douglass has formulated a plan, and a permit is expected from the Corps of Engineers. Bids are presently being sought for the installation of wooden wave fences.

Rivers Trails and Conservation Alignment The DRCR is working with the National Parks system to institute a program to encourage the development of "blueways" and trails in the area to increase access to and awareness of the local environment. Please contact bruce@brucecoldsmith.com for details or to help. A grant application is due in August.

Hurricane Hardware – Scientists are developing a new device to make homes safer during storms

By MELISSA SCHNEIDER, MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM

Catastrophic losses due to hurricanes are the largest and most pervasive risk faced by Gulf of Mexico coastal communities. Because residential structures are a predominant casualty of hurricanes, the four Gulf of Mexico Sea Grant college programs are funding a project to improve home construction techniques so homes can withstand Category 4 hurricane conditions.

The project strengthens the connections between a building's roofs, walls, and foundations. Arindam Chowdhury, assistant professor of civil and environmental engineering at Florida International University, is leading the research project, assisted by Emil Simiu and Amir Mirmiran, also of Florida International University, and Steve Cai of Louisiana State University.

"Residential buildings often fail under hurricane stress due to weak or inadequate connections that prevent the load from being spread across the structure, leading to disintegration," said Chowdhury. In their quest to develop a novel residential connection device, the researchers constructed a unique, full-scale testing facility capable of producing winds of up to 140 miles per hour, called the Wall of Wind (WoW). Using a series of fans, diffusers, and grids to simulate wind-driven rain, the WoW facility mimics real hurricane conditions, meeting one of the main objectives of the research.

The other main objective of the research is developing a non-intrusive residential connection system able to withstand hurricane conditions. According to hurricane damage reports by the Federal Emergency

Management Agency and the National Institute of Standards and Technology, poor performance of residential buildings has been observed when structures did not respond as units due to "discontinuous load paths".

Chowdhury and his associates are designing a connection system that will distribute the windforce along a continuous path using connections between the roof, walls and foundations.

Small-scale component testing of a Fiber Reinforced Polymer (FRP) connection system has shown promise in its effectiveness. Fiber composite connections, once used only in aerospace engineering, have considerable civil engineering application in coastal areas due to their strength, light weight, non-corrosiveness and long-term durability. After determining the most suitable connection

could be a significant step toward increasing the resilience of coastal communities. According to Chowdhury, although sheetrock repairs would be necessary, retrofitting an existing home with FRP

requires much less strain to the structure compared to retrofitting with traditional hurricane clips and toe nails which require penetration of the structural members.

"In older homes, the biggest advantage of the FRP connection system is that the already weakened wood members from earlier nail/screw penetration do not have to be weakened further by more nails, but can be retrofitted by the FRP and epoxy," said Chowdhury. The preliminary cost analysis indicates that retrofitting with FRP is approximately equal to retrofitting with existing hurricane hardware.

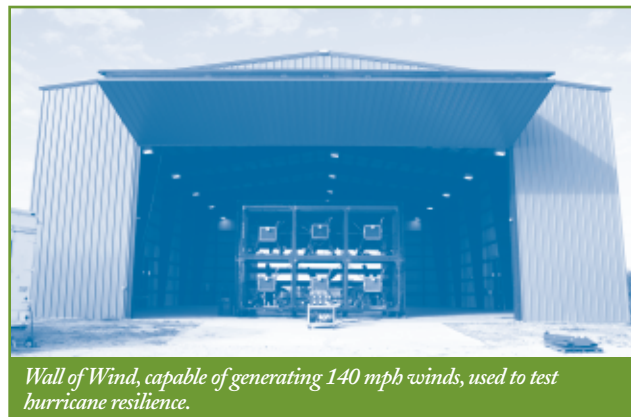
Potential users in the construction and insurance industries have been brought into the planning, funding and execution of the project.

Carl Schneider, of Schneider Insurance Agency, Inc., in Mobile, Ala., said that science and engineering is the answer to reducing loss exposure on the coast. In fact, Alabama just passed legislation that requires insurance carriers to offer discounts for fortified or mitigated structures. As a result, the industry will be very interested to see and discuss the outcome of the final testing of this innovative connection system.

The Gulf of Mexico Sea Grant programs include Florida Sea Grant, Mississippi-Alabama Sea Grant Consortium, Louisiana Sea Grant and Texas Sea Grant.



Fiber reinforced polymer connection used to strengthen structures in hurricane vulnerable coastal areas.



Wall of Wind, capable of generating 140 mph winds, used to test hurricane resilience.

design using the small-scale tests, the next step will be to test the connections at full-scale under simulated hurricane conditions in the WoW.

If the connection system performs as well in the full-scale tests, the application of this system to existing residential structures

The Coastal Alabama Clean Water Partnership – Working Together to Protect Our Water Resources

By CHRISTIAN MILLER, AUBURN UNIVERSITY MARINE EDUCATION AND RESEARCH CENTER AND FACILITATOR, COASTAL ALABAMA CLEAN WATER PARTNERSHIP

The Alabama Clean Water Partnership (ACWP) is a state-wide, non-profit organization which is a coalition of individuals working in local governments, Federal and State agencies (such as the U.S. Fish and Wildlife Service [F&WS] and the Alabama Department of Environmental Management), local business leaders, local organizations (such as Wolf Bay Watershed Watch), and private individuals. Although these groups represent varied interests, the goal of the ACWP is to provide a framework to bring these groups together to identify water quality problems and help implement science-based solutions.

The ACWP is a neutral entity which is not involved in permitting, lawsuits, regulations, or promoting issues that could serve to alienate any one stakeholder group. The goal of the ACWP is to work with stakeholders to identify common ground and affect positive changes to protect and preserve Alabama's valuable natural aquatic resources. The ACWP has separated the state into eleven basins, each with a facilitator tasked with bringing basin stakeholders together to initiate projects to improve and protect water quality. The Coastal Alabama Clean Water Partnership (CACWP) includes partners in the Coastal Alabama/ Escatawpa River Basin, which encompasses all of Mobile and Baldwin Counties, and part of Washington County.

The CACWP has been active in South Alabama, partnering with local groups on projects to improve local water quality throughout the basin. Two current projects include the installation of trash barriers along tributaries in the Dog River Watershed.



Students in the Mobile County Schools Grasses in Classes Program restore dunes behind the Dauphin Island Sea Lab.

Funded by the Mobile Bay National Estuary Program (MBNEP), this partnership between the ACWP, Dog River Clearwater Revival, City of Mobile, and the MBNEP will help eliminate trash and debris from across the predominantly urban Dog River Watershed from reaching Dog River and eventually Mobile Bay.

Another ongoing CACWP project is the Mobile County Grasses in Classes Program, established by the MBNEP and modeled after a successful program in Baldwin County. It was established to satisfy a need for emergent grasses for use in restoration projects along the coastlines in Mobile County. CACWP partners in this program include the Mobile County Public Schools Environmental Studies Center, F&WS, Dauphin Island Sea Lab, Weeks Bay NERR, Alabama Coastal Foundation, Alabama Department of Conservation and Natural Resources-State Lands Division, and Mobile County Parks and Recreation Department. There are currently four Mobile County public high schools participating in the program – Alma Bryant, Baker, Murphy, and Satsuma – and students are growing smooth cord grass, black needle rush, panic grass, and sea oats to plant in restoration efforts planned for the coming school year.

As the facilitator for the CACWP, I hope this serves as a good overview of the Partnership for those unfamiliar with its purpose. I also hope to be able to share ongoing and completed projects in future editions of this newsletter. If you have questions, are interested in becoming involved in the CACWP, or have an idea for a project, please feel free to contact me at 251-438-5690 or christian@auburn.edu. More information, including upcoming meetings and events, can be found on the ACWP website: www.cleanwaterpartnership.org.

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Watershed Wagon: A Rolling Watershed Education Classroom

MIKE SHELTON, ADCNR, STATE LANDS DIVISION AND THE WEEKS BAY RESERVE

The Watershed Wagon is a rolling environmental classroom packed neatly in a trailer that will come to the intended audience. Hands-on activities, demonstrations and interactive exercises teach local citizens of all ages about the connection between land uses, stormwater pollution and natural resource protection. Watershed Wagon events are tailored to the audience and provide information to initiate a change to improve our coastal environment. Conducting outreach which includes ways to improve the health of the Gulf of Mexico is the primary objective for the program. Also, building lasting partnerships with audiences who may not regularly receive this type of environmental outreach is a goal.

The Watershed Wagon offers activities for youth and adults, indoors or outdoors. Community groups, civic clubs, churches,



The Watershed Wagon of the Weeks Bay Reserve and the State Conservation Department, State Lands Division, Coastal Section

schools and festivals are within Watershed Wagon rolling distance. To learn more about the Watershed Wagon or to schedule an interactive learning experience, please call Mike Shelton at (251) 928-9792. Project partners include Weeks Bay Reserve, Alabama Department of Conservation

and Natural Resources/Lands Division, Weeks Bay Foundation and Baldwin County Planning and Zoning Department. Funding provided by Gulf of Mexico Alliance and National Oceanic and Atmospheric Administration.