



The mission of the Mississippi Department of Environmental Quality is to safeguard the health, safety, and welfare of present and future generations of Mississippians by conserving and improving our environment and fostering wise economic growth through focused research and responsible regulation.

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Mississippi Department of Environmental Quality Environmental News

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DELTA SUSTAINABLE WATER RESOURCES TASK FORCE ADDRESSES WATER NEEDS IN THE REGION

The first meeting in 2014 of the Delta Sustainable Water Resources Task Force took place in January hosted by the Governor's Office. In 2011, MDEQ Executive Director Trudy Fisher formed the executive level multi-agency and multi-organization Task Force to develop and implement approaches that will result in sustainable water resources for agriculture, fisheries, and wildlife in the Delta. While state law designates MDEQ to manage the state's water resources, Director Fisher realized that addressing demands on the Mississippi River Valley Alluvial Aquifer required building a consensus among federal and state agencies, private organizations, and users.

"Together we have a clearly defined objective of sustainable water supplies in our Delta, and we know there is urgency in finding solutions to the challenges we are facing. Through a team effort this Task Force is addressing the complex issues and working on solutions that will benefit the region and the state," said Fisher.



R-L: Trudy Fisher, MDEQ, Pierce Moore, Governor's Office, Rob Abbay, producer and Chair of Yazoo Mississippi Delta Joint Water Management District, Randy Knight, President of Mississippi Farm Bureau, Don Gant, producer and Vice President of Mississippi Farm Bureau, Kay Whittington, MDEQ.

Water needs in the Delta are broad and include personal consumption, irrigation, aquaculture, fisheries and aquatic habitat, wetlands, wildlife, and waste water assimilation. More than 17,000 permitted irrigation wells screened in the shallow Mississippi River Valley Alluvial Aquifer are used for irrigation and aquaculture and pump approximately 1.5 billion gallons of groundwater each day. However, this pumpage demand has exceeded the recharge to the aquifer resulting in continuing overbalances of groundwater withdrawals versus aquifer recharge and notable water-level declines in the aquifer.

The Task Force continues to cooperatively research, discuss, and implement measures to address long-term water needs in the Delta. That includes conjunctive water management, which is managing the coordinated use of surface and groundwater; identification and evaluation of alternative surface water supplies; advancement of irrigation efficiency and conservation practices; understanding historical trends, current status, water use, and water budgets as a management tool; modeling future scenarios for planning and implementation purposes; monitoring and assessing water resources information; identifying and developing economic incentives and funding sources; implementing a program for producers to measure water used for irrigation and waterfowl management; and outreach on the issue to stakeholders.

The Task Force is comprised of the Yazoo Mississippi Delta Joint Water Management District, Delta Council, Delta F.A.R.M., Mississippi Farm Bureau, the U.S. Army Corps of Engineers, the USDA Natural Resources Conservation Service, the Mississippi Soil and Water Conservation Commission, and MDEQ.

L-R: Buck Falls, producer and YMD board member, Trudy Fisher, MDEQ, George King, producer and representing Delta Council, Rob Coker, producer and representing Delta F.A.R.M., and Buddy Allen, producer and representing the Mississippi Soil and Water Conservation Commission.



DEEPWATER HORIZON OIL SPILL TRUSTEES EXTEND GULF RESTORATION COMMENT PERIOD TO FEBRUARY 19

Responding to requests from the public, the *Deepwater Horizon* oil spill Natural Resource Damage Assessment Trustees have extended the public review and comment period for the Draft Programmatic and Phase III Early Restoration Plan and Draft Early Restoration Programmatic Environmental Impact Statement. The draft, which proposes \$627 million in early restoration projects across the Gulf states is now available for public review and comment through February 19 rather than February 4, the original deadline.

Mississippi Department of Environmental Quality's Executive Director Trudy Fisher said: "It's important that the public be given adequate time to review and comment on this document, and this extension ensures that we will go forward with thorough input from the public which is essential to all restoration efforts.

"We want to hear what the people of Mississippi think of the Phase III Proposed Early Restoration projects, and I would encourage everyone to visit www.restore.ms to review the projects and leave their comments," said Fisher.

Long Beach NRDA public meeting on December 17, 2013, with (R to L) MDEQ's Trudy Fisher and Richard Harrell along with Debora McClain (DOI), Troy Pierce (EPA), Wesley Kerr (USDA), and Renata Lana (NOAA).



More information on Mississippi's projects can be found at www.restore.ms.

This marks the third and largest phase of early restoration to date. Included in the draft are 44 proposed projects. Some aim to restore barrier islands, dunes, marshes, shorelines, and oyster beds. Others, such as boat ramps and park enhancements, seek to address the lost recreational use of natural resources. The draft also proposes a programmatic plan for continuing to pursue early restoration. The draft, available at www.gulfspillrestoration.noaa.gov, includes the programmatic plan and the complete list of proposed projects, with locations and descriptions.

Of the \$627 million, ecological projects comprise about \$397 million, which is approximately 63 percent of the total. Lost recreational use projects make up the remaining \$230 million. Both approaches meet criteria under the Oil Pollution Act and other applicable laws and guidelines.

Written comments can be sent to:

Online: www.restore.ms

Online: www.gulfspillrestoration.noaa.gov

By U.S. Mail: U.S. Fish and Wildlife Service, P.O. Box 49567, Atlanta, Georgia 30345



COMMISSIONER JACK WINSTEAD

Jack Winstead has served on the Commission on Environmental Quality since 2004. He is in his second term having been appointed to both terms by former Governor Haley Barbour. Jack's life has been dedicated to improving the natural resources of Mississippi through his career and his volunteer work although his dedication has left him little free time. However, reading his list of associations and activities, one gets the impression he prefers it that way. Jack is living a full life and declares himself to be "a blessed man, thanks to God, to my family, and to many others."



"My professional career has been in the field of conservation and natural resource management. I continued to practice conservation as a farmer and natural resource planner after my retirement from the U.S. Soil Conservation Service (now Natural Resources Conservation Service). My career started with SCS as a student trainee after my second year at East Central Junior College. I continued as a trainee the following summer, and after graduating from Mississippi State University I was employed full time by SCS. My career with SCS spanned 35 years, and I enjoyed my work very much. I served at Meridian, Coffeeville and Laurel before moving to the Jackson office. I served in five different positions and retired as deputy state conservationist. I was offered positions in other states and in Washington, D.C., but I chose to stay in Mississippi. I have never regretted that decision. Remaining in Mississippi prepared me to serve on several commissions and boards after my retirement. After retirement, I operated a cattle farm in Newton County for 18 years, and I continue to operate a tree farm in Neshoba County," said Winstead.

Winstead reflected on the progression of natural resources policy in Mississippi: "The changes in natural resources management in Mississippi are very positive. Conservation district leaders and NRCS have provided strong leadership here for many years. Environmentalists, wildlife groups, economic developers and the general public have joined with farmers and conservation groups to better manage our natural resources.

Below: Jack Winstead with MDEQ Executive Director Trudy Fisher at WaterFest in 2010.

“There remains a need for developers, both commercial and residential, to do a better job of protecting our water and other natural resources. The management and operations of land fields and wastewater is very expensive. There is a great need for changes here, but it will require the attention and support of all involved. This may be an area where we need to change some public policies.”

Winstead has also been a front row observer to several high profile efforts by MDEQ in recent years: “The most rewarding experience serving on the Commission has been the faithfulness and dedication of the Commission members and MDEQ staff. Following Katrina and the BP oil spill, management and staff had major changes in their day-to-day activities. I recall visiting the office on the Coast and meeting with employees shortly after Katrina. The office did not have chairs for everyone, staff members were preparing their own meals, and some were sleeping in trucks, but in spite of these less-than-ideal conditions the staff’s commitment to the task at hand was relentless. Obviously, this was the most challenging event I have seen us face. The BP oil problem was soon to follow, and, once again, the staff stepped up and performed admirably. Insofar as changes made over the years by the Commission and staff, the changes I have observed were made in light of record-breaking natural disasters and were necessary to meet the environmental challenges and the needs of an uncertain citizenry.”



Below: Jack and Jeanette Winstead with Trudy Fisher and First Lady Deborah Bryant at the Project Rezway event at the Ross Barnett Reservoir in 2013.

Besides disaster response and recovery, there are other responsibilities assumed by the agency: “In many instances, the general public does not know what the MDEQ really does. The big events get a lot of attention, while many smaller events go unnoticed. The staff is trained and ready when there are needs such as a train derailment, a hazardous waste spill, or gas leaks near a school or hospital. Much of this is taken for granted unless our own communities are affected. The control of sediment and other materials from construction sites is an area where more help is needed from county and city officials. The water issue in the Delta is a major challenge and one that the public does not fully understand. The staff and Commission have devoted a lot of time and energy to this matter, but challenges appear to remain. The Commission and staff are receiving input from other groups and individuals as they attempt to find the best way to deal with this.”

Being a resident of the Ross Barnett Reservoir area and the MDEQ representative on the Pearl River Valley Water Supply District Board (PRV) means Winstead is at the forefront of policy for the Reservoir. The Reservoir has many roles as a drinking water supplier, a recreational destination, an economic driver, and its management has a huge impact on Central Mississippi.



“My role on the PRV board is one that I take very seriously. I am the MDEQ representative on this board of 14 people, which includes four state agencies. First and foremost, as a representative of MDEQ, I am to focus on environmental needs. Secondly, I reside at the Reservoir and am one of approximately 6,000 leaseholders who pay for the operation of the PRV District. As president of the board, I strive to maintain a balanced program for the five counties that paid for the project (55,000 acres of land, of which 33,000 is underwater).

“The question has been asked about changes needed at the Reservoir. The area is used by an estimated two and one-half million people per year. In almost all instances, there are no charges to the users. In order to properly maintain the area and, hopefully, to improve it, we need additional funds. Also, we need the drainage area outside of PRV land to be managed better in order to reduce the amount of sediment and trash coming into the water,” said Winstead.

As previously mentioned Jack does not have any specific hobbies or much free time. He enjoys being with family, friends, church, and various boards.

His latest challenge and one of his most rewarding is as President of the “Friends of Mississippi Veterans.” This group was organized four years ago to provide leadership in establishing a state veterans’ cemetery in Mississippi and to support the four VA nursing homes in Mississippi. The new Mississippi State Veterans Cemetery, dubbed the “Arlington of the South,” located at Newton, Mississippi, is now in operation and visitors are welcome. Jack was a driving force in the establishment of the cemetery and raising funds. He welcomes anyone interested in more information or to contribute to call him at 601-706-4874.

Below: Jack and Jeanette
Winstead.

Other boards on which Jack has served include the Farm Service Agency State Board, Mississippi Soil and Water Conservation Commission (past-chairman), Mississippi Association of Conservation Districts (past-president), National Gelbvieh Cattle Association, Farmers Market Board, Southern AgCredit (past-vice chairman), East Central Community College Board of Trustees (past-vice president), Newton County Cattlemen's Association (past-president), Keep Mississippi Beautiful, Keep Jackson Beautiful, and Newton County and Hinds County Soil and Water Conservation District Boards. He's a member of Delta Council and of Farm Bureau.

Jack's family consists of his wife Jeanette, described as his "number-one supporter and best friend," three surviving children (a daughter was lost to cancer), seven grandchildren and two great-grand-children.



MDEQ TO SPONSOR ENVIRONMENTAL JUSTICE CONFERENCE

The Mississippi Department of Environmental Quality (MDEQ) will sponsor an Environmental Justice Conference this year recognizing the 20th anniversary of the Environmental Justice Executive Order. This conference will bring together communities, non-profit organizations, researchers, businesses, healthcare professionals, state and local government and federal partners committed to addressing Environmental Justice.

Before selecting a location or date, MDEQ wants to hear from the public. We encourage you to submit your ideas about speakers, topics, or other thoughts on the conference to Melissa Collier, Director of Office of Community Engagement, at melissa_collier@deq.state.ms.us or by mail to Post Office Box 2261, Jackson, Mississippi 39225.

2014 PROJECT REZWAY ANNOUNCEMENT



Project Rezway
2014

SAVE THE DATE!

Plans are underway for Project Rezway 2014, the Reservoir's Recycle fashion show.

**April 17, 2014,
MS Craft Center, Ridgeland**

DESIGNERS
Feeling crafty? Build apparel and accessories from 75 percent recyclable items and compete for awesome prizes.

SPONSORS
Help us get the word out about your business while helping a worthy cause! KRB is selling tables and sponsorships. Money raised from this event pays for litter clean-up and beautification efforts around the Reservoir. The event drew over 200 attendees last year. It received great press in The Clarion-Ledger, VIP Magazine, The Rankin Record and others.

CONTACT
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keeptherezbeautiful@gmail.com

**KEEP THE REZ
BEAUTIFUL**

DISPOSAL EVENT MAKES FARM CLEAN-UP EASIER

By Keri Collins Lewis, MSU Ag Communications

Producers accumulate a variety of unused materials on the farm over time, and some of them require special handling for disposal.

A pesticide disposal program has been making clean-up on the farm easier since 1994 by providing a way to get rid of waste pesticides and potentially hazardous materials.

On December 12, 2013, the Mississippi State University Extension Service coordinated one of two planned pesticide collection events. Organizers invited farmers to drop off leftover pesticide products, triple-rinsed pesticide containers and waste tires at a collection point in Sharkey County.

A licensed hazardous waste contractor collected materials for disposal according to state and federal environmental regulations.

The event collected 38,000 pounds of waste product from more than 30 growers in 11 counties.

Mary Love Tagert, an assistant Extension professor in agricultural and biological engineering at MSU, said proper disposal of farm chemicals helps farmers while also protecting the state's natural resources.

"Producers and landowners have few options when disposing of waste pesticides, especially for outdated products that are no longer registered for use," Tagert said. "This program provides farmers a safe, easy and legal way to dispose of any and all pesticide products they no longer need or are not able to use."

Jason Ward, an assistant Extension professor in agricultural and biological engineering, said he and Tagert worked with county Extension agents to promote the program to agricultural producers.

“Extension county agents helped us get the word out to growers so they could safely dispose of cancelled or otherwise unusable products such as insecticides, herbicides, fungicides and plant-growth regulators,” Ward said. “We provided information on how to handle the materials safely, how to transport them properly and the conditions for accepting their materials at the site.”

The program is provided at no cost to farmers by the MSU Extension Service and the Mississippi Department of Agriculture and Commerce with funds from the Mississippi Department of Environmental Quality.

Tagert and Ward will organize a second pesticide disposal event in the Northern Delta in early 2014, depending on funding. For more information, contact Ward at 662-325-4148 or Tagert at 662-325-4617.





MDEQ AWARDS FALL SOLID WASTE ASSISTANCE COMPETITIVE GRANTS

MDEQ approved more than \$600,000 in local government grant projects for award for the October 1, 2013, Competitive Solid Waste Assistance Grants funding cycle. These grants are used by local communities for programs to prevent and clean up unauthorized dumps; to aid in hiring local solid waste enforcement officers; for public education efforts on solid waste disposal and recycling; and to establish programs for the collection of white goods, bulky wastes and recyclables. Grants were awarded to the following local governments:

- ▶ The City of Byram was awarded \$25,000 to establish a drop-off recycling program that will initially include two drop-off recycling locations in the city for use by residents.
- ▶ The City of Canton was awarded \$25,000 to purchase additional large recycling drop-off containers to expand its current recycling program and to add an additional collection site.
- ▶ The City of Cleveland was awarded \$20,000 to sponsor a Household Hazardous Waste event in conjunction with the city's Earth Day program planned for the Spring of 2014 at the Cleveland Public Works Office on Old Highway 61 North.
- ▶ The City of Gautier was awarded a \$25,000 grant to identify and clean-up unauthorized dump sites and derelict properties.
- ▶ Grenada County was awarded \$17,479 for clean-up and enforcement efforts to address illegal dumping.
- ▶ The Golden Triangle Regional Solid Waste Authority was awarded a grant of \$36,675 to sponsor a Household Hazardous Waste Collection event planned for April 26, 2014, at the Golden Triangle Regional Landfill near Starkville.



► Harrison County was awarded \$70,000 to sponsor a Household Hazardous Waste collection event in the Spring of 2014. This event will be held at the Mississippi Power Company's Plant Watson location in Gulfport.

► The City of Hattiesburg was awarded \$75,000 for a regional Household Hazardous Waste collection event planned for the Spring of 2014 in partnership with the City of Petal, Forrest and Lamar Counties, the University of Southern Mississippi, and William Carey University.

► The Town of Jonestown was awarded \$15,000 for its local Clutter-To-Compost project. The town will chip woody material to facilitate composting of this material used in local gardening, landscape and beautification efforts.

► The City of Natchez was awarded \$25,000 to assist its efforts to clean-up and properly dispose illegal dumped solid wastes.

► Panola County was awarded \$71,900 to assist in employing the county's local solid waste enforcement officer and to expand recycling efforts.

► The City of Poplarville was awarded a \$15,000 grant to establish recycling drop-off centers at the city park, the fire station, and near the county courthouse for residents to drop off recyclables.

► The Town of Potts Camp was awarded a \$3,121 grant to upgrade the town's wood chipper to continue its wood waste recycling and mulching program.

► The City of Ridgeland was awarded a grant of \$25,000 to purchase additional solar powered collection and compactor containers. These recycling collection/compacting units will be placed at Hite Walcott Park and at the Jackson Street Pavillion.



► The City of Richland was awarded \$26,088 to help fund solid waste enforcement officers in the city's Code Enforcement Office. The officers will work to address illegal dumping and other solid waste management problems.

► Tate County was awarded a grant of \$23,420 to assist in employing a local solid waste enforcement officer and also for the recycling of electronic waste.

► The City of Tchula was awarded a grant in the amount of \$15,000 that will be used for clean-up efforts throughout the city to remove and properly dispose of illegally and indiscriminately dumped solid wastes.

► The Three Rivers Solid Waste Authority was awarded a \$60,000 grant to sponsor Household Hazardous Waste collection events in the Spring of 2014. These events will be held in Oxford and at the Lee County Agri-Center in Verona.

► Yalobusha County was awarded a grant of \$16,860 for the clean-up and proper disposal of wastes from illegal dumpsites.

► Wilkinson County was awarded a grant in the amount of \$15,000 for the clean-up of illegal dumping of solid wastes in two creek beds in the county.

MDEQ congratulates each of these local governments for their efforts to develop these projects and looks forward to working to advance these projects. The agency is in the process of finalizing the review of a few remaining projects and may be announcing additional awards soon. For questions on the MDEQ Solid Waste Assistance Grants program, contact Luis Murillo or Denise Rodgers at 601-961-5171.



PROTECTING MISSISSIPPI WATER RESOURCES: AN UPDATE ON NUTRIENT REDUCTION EFFORTS

Pradip Bhowal, MDEQ Basin Management Branch

Mississippi is blessed with abundant water resources, and the protection of these water resources is essential to ensure sustainability of Mississippi's ecosystems and its economy. One of the biggest challenges for Mississippi's surface waters, the Mississippi River, and the Gulf of Mexico is the presence of excess nutrients (i.e., nitrogen, phosphorus) in these waters. The Gulf of Mexico contains a hypoxic "dead zone" that is a result of nutrient-laden freshwater from the Mississippi River flowing into the Gulf.

Excess nutrients come from a variety of sources. Rainfall on over-fertilized residential and agricultural land carries these chemicals into water bodies. Rainfall also can wash nutrient-rich animal waste from farms and pastures to waterways. Rainfall across hard surfaces can sweep excess nutrients and chemicals into flowing water bodies. Also, wastewater treatment plants and overflow from failing septic systems can discharge nutrients.

The issues of nutrient pollution and Gulf Hypoxia have become priorities for Mississippi's Delta, Uplands, and Coastal regions that contribute significant nutrients loading to the Gulf. The Mississippi River/Gulf of Mexico Hypoxia Task Force and the Gulf of Mexico Alliance have been working to reduce the impact of nutrient pollution in-basin and to the Gulf, and have developed action plans to accomplish real nutrient reduction. A key component of these action plans (the *Gulf Hypoxia Action Plan for Reducing, Mitigating, and Controlling Hypoxia and Improving Water Quality in the Mississippi River Basin 2008* and the *Governors' Action Plan for Healthy and Resilient Coasts 2009*) is the development and implementation of state nutrient reduction strategies.



Accordingly, these plans have been incorporated into Mississippi's approach to reduce nutrient loadings in-basin and to the Gulf of Mexico. This approach involves coordinating MDEQ's Basin Management, Nonpoint Source, TMDL, Water Quality Monitoring, Water Quality Assessment, and NPDES programs with appropriate programs of other federal, state, and local government agencies. This multi-program, multi-agency, and multi-stakeholder approach has created significant leveraging opportunities.

In addition, twenty-two agencies and organizations signed a Memorandum of Agreement (2010) to work together to collaboratively support the development and implementation of nutrient reduction strategies to benefit the quality of in-state waters and the Gulf of Mexico. These partners agreed to identify and pursue opportunities to leverage available resources to implement these strategies, where possible.

Nutrient Reduction Strategies

Mississippi's collaborative, leveraged approach to reduce excessive nutrients and their impacts continues to focus on the development and implementation of appropriate nutrient reduction strategies. In 2009, MDEQ co-led an effort with Delta Farmers Advocating Resource Management (F.A.R.M.) to develop a nutrient reduction strategy for the Delta region, Mississippi's primary row-crop agricultural area. In 2011, MDEQ developed the strategies to reduce excessive nutrient loadings to the waters in the Coastal and Upland regions of the state. These strategies were developed through local workshops with stakeholder input. In 2012, the Delta, Coastal, and Upland strategies were consolidated to establish a comprehensive, state-level, approach to reduce nutrient loadings from non-point and point sources, whether in a predominantly agricultural environment, areas of higher municipal and industrial uses, or more coastal environments. The effective implementation of these regional strategies in the state is currently ongoing.

Delta Nutrient Reduction Strategy Implementation

Seven watersheds have been identified for implementation of the Mississippi Delta Nutrient Reduction Strategy. These include three new projects in the Harris Bayou, Porters Bayou, and Coldwater River watersheds, and the expansion of four existing sediment reduction projects in the Bee Lake, Lake Washington, Steele Bayou, and Wolf/Broad Lake watersheds.



Harris Bayou

Harris Bayou watershed project: Implementation of the Delta strategy is currently ongoing to improve both water quality and water quantity. Harris Bayou, a tributary of the Big Sunflower River, flows through portions of Bolivar and Coahoma counties. Many BMPs were installed in this watershed by using EPA 319, NRCS, and other funds. Installed BMPs include tail-water recovery system; on-farm storage reservoir; land forming; low grade weirs; water control structures; two-stage ditches; grass waterway; and others. Some of these BMPs help improve both water quality and quantity. For example, one way to prevent sediment and nutrient runoff is through the use of a tailwater recovery/onfarm storage system that captures both irrigation and rainfall runoff for reuse. This system helps keep the water on the fields, allowing producers to use less groundwater. The collection of nutrient data for this project is currently ongoing.

Porter Bayou watershed project: This project is currently ongoing to improve both water quality and quantity. Porter Bayou, also a tributary of the Big Sunflower River, flows through portions of Bolivar and Sunflower counties. Numerous BMPs were installed throughout this watershed using EPA 319, NRCS, and other funds. Installed BMPs include tailwater recovery/onfarm storage system; land forming; low grade weirs; water control structures; two-stage ditches; and others. Collection of nutrient data for this project is currently ongoing.



Porter Bayou.



Bee Lake

Recently, through the National Water Quality Initiative (NWQI), Natural Resources Conservation Service (NRCS) along with MDEQ, identified mutually agreed upon watersheds, which were high priority for the installation of targeted BMPs. Three watersheds were selected in Mississippi, one of which was Porter Bayou. Since MDEQ had already developed and begun implementation of the Delta Nutrient Reduction Strategy in Porter Bayou watershed, NRCS targeted it for their NWQI Project. NRCS continues to coordinate with state and local agencies, conservation districts, non-governmental organizations and others to implement this initiative. This strategic approach helps leverage funds and provide streamlined assistance to help individual agricultural producers take needed actions to reduce the flow of sediment, nutrients and other runoff into impaired waterways.

Coldwater River watershed project: Implementation of the Delta strategy is currently ongoing to improve water quality by reducing nutrients and also to measure conservation benefits by evaluating water use data and associated agricultural production information. Coldwater River, a tributary of the Tallahatchie River, flows for about 220 miles through portions of Coahoma, Desoto, Marshall, Quitman, Tate and Tunica counties in northwestern Mississippi. Many BMPS were installed in this watershed using EPA 319, NRCS, and other funds. Installed BMPs include: on-farm storage reservoirs/ tail-water recovery systems; land forming; low grade weirs; water control structures; two-stage ditches; and others. Collection of nutrient data for this project will begin soon.

Bee Lake watershed phase II project: Bee Lake is an existing project retrofitted for implementation of the Delta nutrient reduction strategy. Bee Lake is a 1,400-acre oxbow lake located in Holmes County. Primary inflow to Bee Lake is through Tchula Lake (a nearby oxbow lake) during high water periods in the spring, and outflow is back through Tchula Lake to the Yazoo River.



Lake Washington

Implementation of the Delta strategy is currently ongoing to improve water quality by reducing nutrient loading to downstream aquatic ecosystems. The Bee Lake phase II project is comprised of one project area (740 acres). Installed BMPs include low grade weirs; water control structures; and two-stage ditches. Also, collection of nutrient data for this project is currently ongoing.

Lake Washington watershed project: Lake Washington is another existing project retrofitted for implementation of the Delta nutrient reduction strategies. Several BMPs were installed by using EPA 319, NRCS (through EQIP, CSP and other programs), and other funds. 319 BMPs included numerous grade stabilization structures, outlet protections, pads, and several grassed waterways. NRCS BMPs included nutrient management, grade stabilization structures, land leveling, pads, pipes, and other irrigation systems/management. Collection of pre-BMP storm data was completed by USGS. Post-BMP water quality monitoring began in June 2013.

Steele Bayou and Wolf/Broad Lake watershed projects are currently under development.

Upland Nutrient Reduction Strategic Plan Implementation

Implementation of the Upland strategic plan is currently ongoing in the Muddy Creek and Tarebreeches Creek watersheds of the North Independent Streams Basin. MDEQ is partnering with MSWCC, USDA NRCS, USEPA, USGS, and the local county soil & water conservation districts to install appropriate BMPs on farmland areas in these watersheds. BMPs implemented so far include: stream bank and shoreline protection; pasture and hay land planting; nutrient management; tank/troughs; water and sediment control basins; grade stabilization structures; and others. Implementation of these BMPs has begun to show significant nutrients/sediment load reductions. USGS is tasked with water quality monitoring for both projects.

Coastal Nutrient Reduction Strategy Implementation

The Rotten Bayou watershed project was developed to implement the Mississippi Coastal Nutrient Reduction Strategy. This strategy used the Gulf of Mexico Alliance (GOMA) Coastal Template and leveraged on work done in the Delta with the Delta Nutrient Reduction Strategy. Various issues related to livestock, forestry, urban stormwater, and atmospheric deposition were included in the strategy.

As part of the Federal Government's efforts to recover from the Deepwater Horizon oil spill, NRCS introduced the Gulf of Mexico Initiative (GoMI), an innovative water- and wildlife-conservation effort along the Gulf Coast. GoMI was developed in close collaboration with local, state, and federal partners. It is a new approach to better target conservation activities in the Gulf Coast region to improve the health of the Coast's rivers, wetlands, and estuaries that are integral to jobs and the economy in the Gulf. Because MDEQ had already developed and begun implementation of the Coastal Nutrient Reduction Strategy in Rotten Bayou watershed, NRCS targeted this project for the GoMI initiative.

The Mississippi Soil and Water Conservation Commission, the Soil and Water Conservation District, the Land Trust for the Mississippi Coastal Plain, and NRCS, have been working with local landowners in the Rotten Bayou watershed to install agricultural BMPs. Implemented BMPs in the watershed include: pasture and hay planting; nutrient management; pond (alternative water source); critical area planting; water and sediment control structures; and fencing. USGS is tasked with water quality monitoring for the project. Also as part of this project, the Department of Landscape Architecture at Mississippi State University is working with the City of Diamondhead to develop Low Impact Development Urban BMPs for reducing non-point source pollution.

Conclusion

Several federal, state, and local government agencies along with non-government organizations are working together with local stakeholders to help develop and implement comprehensive nutrient reduction strategies for Mississippi's Delta, Upland, and Coastal regions. As of now, ten watersheds have been selected for implementation of these strategies and significant resources are being leveraged to support implementation. Because of the similarities of the goals, objectives, and core and supporting management practices of the Mississippi River Basin Healthy Watersheds Initiative and the Delta Nutrient Reduction Strategy, additional opportunities have been created to leverage the resources generated from these two endeavors. Such leveraging could lead to more comprehensive implementation of the nutrient reduction strategies, improved quantification of results, and a higher likelihood of achieving the goals and objectives of both endeavors.

Please contact the MDEQ Basin Management Branch at 601-961-5171 for any questions or additional information on Mississippi's nutrient reduction activities.

Partnering Agencies/Organizations



MDEQ ENVIRONMENTAL ACTION LINKS



- Draft permits currently at public notice, <http://opc.deq.state.ms.us/publicnotice.aspx>.
- Permits and certificates issued in the last 90 days, http://opc.deq.state.ms.us/report_permits.aspx.
- General permit coverages issued in the last 90 days, http://opc.deq.state.ms.us/report_gnp_issued.aspx.
- Notices of Intent for coverage under a Statewide General permit received by the Environmental Permits Division, http://opc.deq.state.ms.us/report_gnp_notice.aspx.
- List of the 401 Water Quality Certifications currently at public notice, http://opc.deq.state.ms.us/report_wqc_public_notice.aspx.
- List of the compliance inspections recently conducted, http://opc.deq.state.ms.us/report_eced_tasks.aspx.
- Orders issued by the Mississippi Commission on Environmental Quality, http://opc.deq.state.ms.us/report_orders.aspx.

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Quality**

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PICTURE OF THE MONTH

Highway 51 in Madison
County.

Taken by Kenneth
LaFleur, Environmental
Compliance Division.

