Mississippi Department of Environmental Quality

2007 Annual Report

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Trudy Fisher
Executive Director

January 31, 2008

The Honorable Haley Barbour
Governor, State of Mississippi
Post Office Box 139
Jackson, Mississippi 39205

Dear Governor Barbour:

I hereby submit to you the Mississippi Department of Environmental Quality's report for the state fiscal year ending June 30, 2007, and additional information for calendar year 2007. We will continue to strive to safeguard the health, safety, and welfare of all Mississippians by conserving and improving our environment and fostering wise economic growth through focused research and responsible regulation.

The largest initiative for the agency this year was the continued implementation of the Mississippi Gulf Region Water and Wastewater Plan. In 2007, MDEQ made grants of $570 million for projects in Pearl River County, Jackson County, Harrison County, and Hancock County. In addition, we will soon issue grants for $38.6 million for projects in Stone County. Groundbreaking ceremonies were held in the City of Moss Point and in Pearl River County, and those projects are under construction. We look forward to additional projects underway soon to aid the recovery and rebuilding of South Mississippi.

I hope you find this report useful and informative. We appreciate your support and welcome your suggestions and comments.

Trudy D. Fisher
Executive Director
Mississippi Department of Environmental Quality

Cc: Members of the Mississippi Legislture

Mississippi Commmission on Environmental Quality

Chairman: R. B. (Dick) Flowers - 1st District
Vice Chairman: Jack Winstead - 3rd District

Martha Dalrymple - 2nd District

Charles Dunagin - 4th District

Howard McKissack - 5th District

Chat Phillips - At Large

W. J. (Billy) Van Devender - At Large

Mission Statement

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.

Values

- Truth is the foundation of everything we do.
- We vigilantly resist bias and prejudice.
- We respond promptly, courteously, and as completely as possible to every complaint question, or request for assistance.
- Inside the agency, we respect the capabilities, responsibilities, and contributions of every member of the MDEQ family. Outside the agency, we respect everyone, regardless of who they are or why we are brought together.
- We strive for a secure, stimulating, rewarding work environment in which all member of the MDEQfamily are empowered and encouraged to reach their full potential.
- We are committed to the highest standards of performance in every aspect of our jobs.
- We are accountable, individually and collectively, for effective, efficient management and use of the resources provided to accomplish our mission.

Mississippi Gulf Region Water and Wastewater Plan

During 2006 the Mississippi Department of Environmental Quality developed the Mississippi Gulf Region Water and Wastewater Plan (Plan) as directed by Governor Barbour in response to Hurricane Katrina. This Plan recommends approximately $600 million to fund water, wastewater, and storm water projects in Pearl River, Stone, Hancock, Harrison, and Jackson counties. The purpose of these infrastructure projects are to (1) support existing and future growth patterns, particularly as realized through new housing construction, (2) to promote economic development, and (3) to emphasize the regional concept for infrastructure management. The funding is provided by the U.S. Department of Housing and Urban Development (HUD) through Disaster Recovery Community Development Block Grant Grants(CDBG).

Governor Barbour, local offcials & Executive Director Trudy Fisher break ground in Moss Point

The Plan was approved by HUD in April, 2007. All monies for funding were made available by HUD for these projects by June, 2007.

Groundbreaking in Poplarville

MDEQ has made grants to Pearl River County Utility Authority (PRCUA), Jackson County Utility Authority (JCUA), Harrison County Utility Authority (HARCUA), and Hancock County Utility Authority (HANCUA) for emergency projects totaling approximately $21.6 million. MDEQ has made grant awards to JCUA, PRCUA, HARCUA, HCUA, and the cities of Moss Point, Ocean Springs, Gautier, and Pascagoula for other projects of $570 million. It is expected that grants for projects in Stone County will be made to the Stone County Utility Authority (SCUA) for projects totaling $38.6 million during the first quarter of 2008.

The MDEQ created and fully staffed the Coast CDBG Branch during 2007. This group's function is to implement the CDBG disaster recovery grants and to provide assistance to the local grantees.

The City of Moss Point and the Pearl River County Utility Authority (PRCUA) broke ground in October, 2007, on projects funded by the HUD Disaster Recovery Grants. These projects were the Poplarville Regional Water Supply System and the Three Rivers Regional Water Treatment System in Moss Point.

MDEQ and its contractor, Mississippi Engineering Group, Inc., continue to work with local officials to assist them in the implementation of these projects. Most of the projects are in the engineering and environmental phase, and it is anticipated that construction will begin for the majority of the projects in 2008 and 2009.

Hurricane Katrina Two Year Report

In the weeks and months after Hurricane Katrina, MDEQ along with its state and federal partners worked hard to evaluate environmental conditions along the coast. This monitoring included sampling of Mississippi Sound, the connected bays and bayous and the freshwater inflows into the bays. Encompassing air, water, soil sediment, fish, shrimp, and crabs. The results of multiple monitoring studies indicated very limited chemical contamination as a result of the storm. In fact, the thirty foot storm surge seemed to have a temporary cleansing or flushing effect on some systems. Since the initial monitoring results were generally very positive, the intensity of the monitoring has been reduced. However, continued monitoring of coastal Mississippi is still very important during the rebuilding process, and MDEQ continues to lead this effort, as the agency and the state strive to get back to normal following the storm

- Safe beaches are a major attraction to the Mississippi Gulf Coast, and MDEQ has an important role in ensuring the safety of the bathing public. As the swimming beaches have been reopened following debris removal, MDEQ with support from the Gulf Coast Research Laboratory and the Beach Monitoring Task Force has re-established the Beach Monitoring Program to advise the public of potential health risks if bacteria concentrations exceed State Water Quality Criteria.

- Fresh seafood is important to the economy of the coast, and to the health and quality of life of coastal residents and visitors. MDEQ helps to ensure the safety of this important resource by monitoring for contaminants in the tissues. MDEQ and the Gulf Coast Research Laboratory are working together to monitor mercury levels in fish tissue to evaluate health risks associated with eating these fish.

- MDEQ has continued to coordinate the removal of hazardous materials and containers still being found in the woods or remote areas.

- In April 2007, MDEQ received an $897,000 Post Katrina Supplemental Air Monitoring Grant from EPA to improve our air monitoring capabilities along the coast and to increase our ability to respond and to continue to function following another hurricane or other disaster. The funding will be used to:
    1. Replace air monitoring sites and equipment which were destroyed by the storm.
    2. Strengthen existing air monitoring sites to make them more resistant to future storms.
    3. Purchase satellite radios that will improve our ability to communicate and respond effectively after a similar incident.
    4. Install a backup generator for the MDEQ laboratory that will prevent the loss of key environmental samples and data, and allow the lab to continue to mission critical functions following another storm or other disaster.

- The MDEQ Asbestos Projects Section has been very active in ensuring that demolition and renovation activities being performed as a result of the damage created by Hurricane Katrina are conducted in a manner resulting in a safe environment and in compliance with asbestos regulatory requirements. Efforts have included assistance with inquiries into regulatory requirements, regulation compliance inspections, complaint investigations, and compliance outreach. MDEQ worked hard to continue the No Action Assurance Agreement with EPA. This agreement has expedited the process of removing thousands of damaged houses. A March 9, 2007,continuance of this agreement was achieved by demonstrating to the EPA, through the submittal of air monitoring data that these demolition practices had not resulted in unsafe conditions due to asbestos emissions. The MDEQ Asbestos Projects Section is currently monitoring demolition projects on a weekly basis. MDEQ is working to ensure that safe work practices are occurring, that sites are being left as clean as possible, and that the procedures outlined in the agreement are being followed.

- Treatment of municipal wastewater is a crucial element in the reconstruction of the Coast and in protection of the environment. MDEQ continues to work with the coastal communities to repair and upgrade their wastewater treatment facilities.
    1. The Cities of Waveland and Bay St. Louis have begun the reconstruction of utility infrastructure in the most devastated areas. This work will replace all water and sewer lines in the area between the railroad tracks and the beach.
    2. Temporary bladder tanks are being provided to residents in Waveland until construction is complete.
    3. The City of Long Beach is nearing completion of sewer line replacement along Beach Boulevard. Portions of the beachfront have been opened for redevelopment.
    4. The City of Pass Christian has begun replacement of sewer lines along Scenic Drive. The east end near the beach remains on temporary service pending FEMA approval of reconstruction bids.
    5. The Cities of Gulfport, Biloxi and D'Iberville are planning major replacement projects at their wastewater treatment plants (WWTP); however, their existing systems are fully operational with some temporary measures still in place.
    6. All municipal WWTP are operational; although, some are still working with FEMA on funding final permanent repairs.

- Federal funding for the National Coastal Assessment Program ended in 2006. This water quality monitoring program is key to evaluating the quality of Mississippi's coastal waters as communities rebuild and grow following Hurricane Katrina, and implementation of the Governor's Gulf Region Water and Wastewater Plan. MDEQ is partnering with the Gulf Coast Research Laboratory and the Department of Marine Resources to continue this important program.

- MDEQ has taken an active role in supporting the Gulf of Mexico Alliance, and its Governors' Action Plan for Healthy and Resilient Coasts. This plan is aimed at protecting and restoring water quality and habitat in the Gulf of Mexico and its estuaries, and improving public awareness of the Gulf through environmental education. The Alliance is devoted to accomplishing these goals through regional collaboration.

- MDEQ is reestablishing its ambient monitoring program for the state. A component of this program is to restore monitoring at long term historical sites at the major freshwater inflows into coastal waters. This monitoring which was suspended in 2000 due to resource constraints, will build upon years of historical data to help MDEQ track long term trends in water quality in our coastal streams.

- MDEQ has also been active in strengthening its ability to respond in the event of another natural disaster or security event.
    1. MDEQ has revised its Response Plan to improve coordination and communication with local MEMA, FEMA, sister agencies and local governments.
    2. Trained additional staff to be prepared to respond in a time of disaster. This training included National Incident Management Systems so that efforts can be better coordinated with other agencies, and proper documentation of expenditures to ensure that state funds expended are eligible for reimbursement by FEMA.
    3. MDEQ participated in the Hurricane Zora Disaster drill to test preparedness in May 2007.
    4. Acquired additional FEMA trailers and equipment to serve has temporary housing and office space for staff when responding to incidents.

Water Pollution Control Revolving Loan Fund

The Water Pollution Control Revolving Loan Fund (WPCRLF) administered by the Construction Branch within MDEQ's Office of Pollution Control, provides low interest loans to cities, counties, sewer districts, regional wastewater authorities, and other governmental entities for wastewater projects, sludge disposal facilities, storm water pollution control projects, non-point source pollution control projects, and estuary management projects. Over the two years since Hurricane Katrina, MDEQ's Construction Branch staff has worked closely with the existing WPCRLF loan recipients to provide much needed financial relief in the form of loan forbearances to allow time for rebuilding/recovery and return of their sewer customers. Also, recently passed state legislation (SB 3201), provided $3.9 million in state match funding required to secure $19.5 million in U.S. Environmental Protection Agency funds available to the WPCRLF Program through Federal Fiscal Year 2008. These funds will be made available as low interest loans which can further assist the coastal communities as means of financing needed wastewater infrastructure projects for which grant funding may not be available.

Debris Removal

Hurricane Katrina generated almost 46 million cubic yards of storm debris across the state of Mississippi with approximately 24 million cubic yards of that in the three coastal counties. The majority of this debris has now been removed and either disposed or recycled. FEMA has continued to provide assistance to communities in the southernmost counties of the state in the removal and disposal of dead trees as well as with the demolition and disposal of numerous damaged residential structures. The state of Mississippi is also working with FEMA to follow up at the more than 320 emergency debris management sites in the state to ensure that the sites have been properly closed and where possible restored to natural conditions.

The State of Mississippi, with support from the Federal government, is also continuing work with an engineering firm on an initiative to develop a long range plan addressing solid waste needs in the 6 lower counties of Mississippi. This initiative will help the counties address solid waste needs created by the impact of debris disposal from Hurricane Katrina but will also help the counties plan for the management of debris for future disaster events.

Hurricane Katrina Debris Management and Disposal

In 2007, MDEQ's solid waste programs continued work with Federal, State and Local partners to complete and close out various issues related to the clean up of the massive amount of debris generated by Hurricane Katrina. According to the Federal Emergency Management Agency (FEMA), Hurricane Katrina generated over 46 million cubic yards of storm debris across the state of Mississippi. In the three coastal counties, some 27 million cubic yards of debris was collected. In 2007, MDEQ worked in partnership with FEMA to assure the proper closure and restoration of the 340+ emergency debris management sites in the state that MDEQ had authorized to manage the tremendous amount of debris cleaned up in the aftermath of Katrina. These debris management sites included emergency disposal sites, mulching sites, staging and separation sites, and controlled burning sites for clean, vegetative debris. To resolve some closure issues, MDEQ worked with local governments and other responsible parties on remaining environmental issues at the sites and visited and inspected a number of the sites.

MDEQ also worked in 2007 with the U.S. EPA and FEMA on securing additional resources for continued groundwater monitoring around the emergency debris sites on the Gulf Coast that received much of the mixed building and structural debris for disposal. In addition, MDEQ worked with EPA to provide additional funding to the three coastal counties to help support Household Hazardous Waste (HHW) collection efforts. The three coastal counties have experienced a tremendous increase in the amount of HHW that has been generated in the cleanup, recovery and reconstruction of the Gulf Coast communities.

In addition, as the debris clean up has been completed, MDEQ continued its work in 2007 with local governments impacted by the storm to assess and determine local waste management needs in the aftermath of Hurricane Katrina. The Department worked with state engineering firms on the development of a "Gulf Coast Solid Waste Initiative" to address the waste disposal capacity needs and long term waste management needs on the Gulf Coast. This initiative will address the needs and future plans of local governments on vegetative disposal needs, white goods, household hazardous wastes, electronics wastes and other waste problems that have been created or magnified by Hurricane Katrina.

Underground Storage Tanks

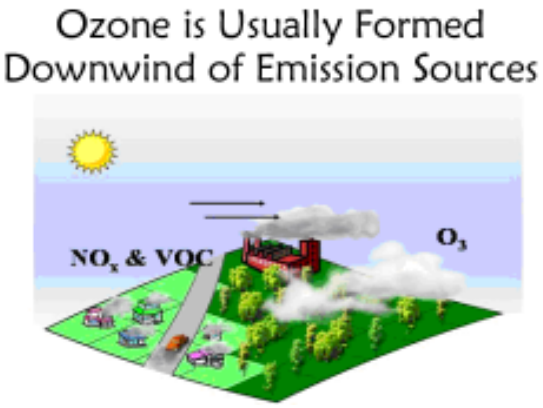
Hurricane Katrina impacted may of the UST facilities located in southern counties and a number of those in close proximity to the Gulf Coast were completely destroyed. The UST Branch inspected many of the Katrina impacted facilities following the storm in order to determine if a significant release of motor fuel occurred as a result of the storm devastation and to evaluate any other hazard potentials that may exist.

Two years after Hurricane Katrina, the UST Branch has assessed approximately 150 UST sites that were inundated by the water of Hurricane Katrina. Of those sites that were assessed 31 of them need further assessment and/or cleanup. The UST Branch will continue to assess and cleanup these sites until they no longer pose a threat to human health or the environment.

Air Quality

Air Quality Standards and Planning

Mississippi, blessed with an abundant supply of clean air, has historically attained all federal ambient air quality standards. However, new, more stringent federal standards for ground-level ozone, fine particulate matter, and visibility recently promulgated by the U.S. Environmental Protection Agency (EPA) are jeopardizing the track record. Increased planning and monitoring efforts will continue for several years because of these changes.



Six years ago ambient air quality for ground-level ozone exceeded the new standards in as many as six counties statewide (Hancock, Harrison, Jackson, Adams, Lee, and DeSoto). However, emissions reductions in Mississippi and adjoining states, as well as favorable meteorological conditions, have resulted in a recent downward trend culminating with all Mississippi counties being designated by EPA as attainment with the ozone standards in 2004.

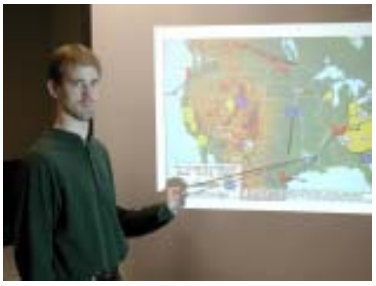
Although the Mississippi Gulf Coast counties were designated attainment for ground-level ozone by EPA in 2004, the Coast counties are showing data very close to the ozone standard. MDEQ continued a voluntary ozone precursor air pollution control program in partnership with governmental and business leaders on the Coast in efforts to prevent future nonattainment.

DeSoto County is also showing data close to the ozone standard. Therefore, MDEQ is also continuing a voluntary ozone precursor air pollution control program in partnership with governmental and business leaders in DeSoto County. MDEQ is also working with local governments to develop an anti-idling policy for county vehicles.

EPA has designated all Mississippi counties as attaining the annual and 24-hour fine particulate matter standards.

Using mostly funds from the federal Coastal Impact Assistance Program, MDEQ issues daily air quality forecasts for the Mississippi Gulf Coast from April through October each year. Also, MDEQ, in association with the Memphis-Shelby County Health Department, issues air quality forecasts for DeSoto County. These forecasts are made available through e-mail as well as the MDEQ web site http://opc.deq.state.ms.us/aqi/default.htm. The purposes of these forecasts are to keep the public informed about the status of air quality, to issue health advisories when needed, and to notify the members of the respective ozone precursor reduction programs when they should implement their emissions reduction plans. Air quality index information for the Mississippi Gulf Coast, DeSoto County, and the Jackson Metro Area is also available at the above web site.

Regional Haze Rule



In 1999, EPA promulgated the Regional Haze Rule (RHR) to improve visibility in designated national parks, wildlife refuges and wilderness areas referred to as Class 1 areas. While there are no Class 1 areas in Mississippi, there are three in surrounding states that emissions sources in Mississippi could impact. They are the Breton Wildlife Refuge in Louisiana, which includes the Chandeleur Islands, the Sipsey Wilderness Area in North Alabama, and Caney Creek Wilderness Area in

Arkansas. Mississippi and nine other Southeastern states have been working together in a collaborative effort since 2001 to determine the sources and potential solutions to improve visibility in these areas. This effort required the development of new modeling and analytical techniques that in addition to addressing visibility will be beneficial to future air quality planning efforts. In 2007, most of the analytical work was completed and the State Implementation Plans (SIPs) were being developed. Mississippi will submit the final SIP to address Regional Haze in the spring of 2008. This is an ongoing process and the states will need to review the progress and submit a SIP every ten years until 2064.

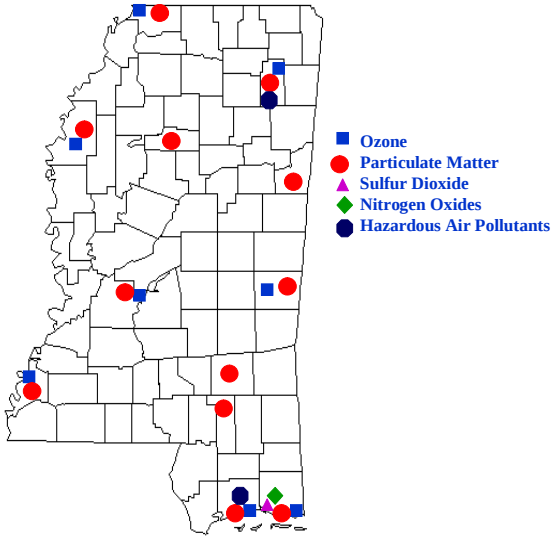
Air Monitoring

During FY2007, MDEQ operated a network of sophisticated continuous air analyzers and 24-hour samplers for the purpose of measuring ambient air levels of ozone, particulate matter, sulfur dioxide, carbon monoxide, nitrogen oxides, and hazardous air pollutants.

This monitoring network serves many purposes including:

- Determine attainment and nonattainment areas for ground-level ozone and particulate matter.
- Generate data to assist in determining methods to reduce visibility obscuration.
- Support ozone reduction programs and hazardous air pollutant programs.
- Determine general air quality trends.

2007 Mississippi Ambient Air Quality Monitoring Sites



Annual ambient air quality data summaries are available on the MDEQ web site at http://www.deq.state.ms.us/MDEQ.nsf/page/Air_CriteriaandHazardousAirPollutantMonitoring?OpenDocument.

Asbestos and Hazardous Air Pollutants

Asbestos is a mineral that was widely used in the past to strengthen many building products and materials. As a result, it is present in many buildings and structures and it can become a hazard when damage or disturbance causes asbestos fibers to be released. MDEQ is very active preventing and minimizing asbestos air emissions with the implementation of regulations that affect building demolition and renovation operations. MDEQ also insures proper training of individuals and contractors who perform asbestos abatement activity and MDEQ contracts with EPA to review asbestos management plans that are required of schools for the protection of children.

During FY 2007, MDEQ inspected 576 of 868 regulated demolition and renovation operations and investigated 49 complaints. MDEQ also reviewed the training credentials and issued 1504 certifications to individuals for asbestos abatement activity and performed building inspections and reviewed asbestos management plans for 43 schools. MDEQ's work in these areas has increased significantly over previous years as a result of clean-up and rebuilding of the Coast.

MDEQ Regulates Asbestos
- **Abatement**
- **Removal**
- **Disposal**

MDEQ is also very active addressing other hazardous air pollutant (HAP) chemicals and compounds that may cause acute and chronic health conditions as well as increased risk for cancer. Industrial and business facilities throughout the state are affected by emission standards know as maximum available control technology (MACT) standards. These standards often require facilities to install additional control equipment, change process equipment, or change the materials being used in a process. The MACT standards being implemented provide for reductions of HAP emissions from facilities identified in one of the 174 source categories.

Many facilities are also affected by chemical accident prevention regulations. Various compound types and quantities used by facilities must be reviewed for the possibility of public risk in the event of a chemical accident or uncontrolled release. Regulated facilities are required to have a risk management program and to submit a risk management plan (RMP) for review.

In 2007, Mississippi's inventory of sources affected by the HAP regulations included 296 facilities. There were also 171 facilities subject to the RMP regulations and 71 RMP facility inspections performed.

Lead-Based Paint Program

The Lead-Based Paint Program's scope establishes procedures and requirements for the accreditation of lead-based paint activities training programs, procedures and requirements for certification of inspectors, risk assessors, project designers, supervisors, workers and firms engaged in lead-based paint activities and work practice standards for performing such activities. These regulations are applicable to all persons engaged in lead-based paint activities in target housing and child-occupied facilities.

The problem with Lead-Based Paint:
Lead is a heavy metal which is believed to have been a serious public health problem for centuries. This problem is especially serious for the children that are six years of age and under. This problem is also serious for the developing fetus.

- Lead from paint, dust and soil can be dangerous if not managed properly.
- Even children that seem healthy can have high levels of lead in their bodies.
- People can get lead in their bodies by breathing or swallowing lead dust, or by eating soil or paint chips with lead in them.

Gwen Braddy sharing information about lead poisoning.

General Requirements:

Lead-Based Paint Regulations **do not:**
- Require the performance of lead-based paint activities.
- Require mandatory abatement of lead-based paint.

Lead-Based Paint Regulations **do:**
Establish requirements and procedures to follow when lead-based activities are performed. Persons who perform lead-based paint activities within target housing where they reside may be exempt from the regulations.

Certification:

• No person may engage in lead-based activities unless they hold a valid certificate from the Commission on Environmental Quality. No firm shall employ any person on lead-based paint activity who does not possess a current certificate issued by the Commission.

During FY2007 MDEQ Lead-Based Paint Section performed 23 inspections and certified 132 individuals and firms involved in lead-based paint activities.

Water Resources

Water Quality Standards

2006 Triennial Review

During 2007, MDEQ completed the 2006 triennial review of the state's water quality standards. Significant comments were received from the public during the public notice period which were incorporated into the revised water quality standards document. Final revisions to the document included:

- removal of the dissolved oxygen variance on Tallahala Creek,
- adoption of the enterococci standard for coastal recreational waters,
- modification of the toxicity standard for total dissolved cadmium,
- modification of the toxicity standard for total dissolved silver,
- addition of six water bodies to the public water supply designated use, and
- addition of one water body to the recreation designated use.

On August 23, 2007, the Mississippi Commission on Environmental Quality adopted the revised *Mississippi Water Quality Criteria, for Intrastate, Interstate, and Coastal Waters*. The letter of certification from the Mississippi Attorney General was received November 28, 2007, and MDEQ submitted the newly adopted standards along with supporting documentation to EPA Region 4 in December 2007.

Total Maximum Daily Loads

Total Maximum Daily Loads (TMDLs) are a requirement of the Federal Clean Water Act to provide direction for restoring the nation's waters. TMDL reports provide an analysis of the ability of a water body to assimilate pollutants from point sources, such as industry and communities, and nonpoint sources, such as storm water runoff from urban areas or agriculture.

The Clean Water Act requires TMDLs for every impaired water body in the state. Every two years MDEQ creates a list of these impaired waters called the Section 303(d) List of Impaired Waters. EPA approved MDEQ's 2006 Section 303(d) List on August 23, 2007.

A federal consent decree requires EPA to complete the 2,700 TMDLs shown on the 1996 Section 303(d) Impaired Waters List by 2009. MDEQ is taking the lead in addressing these TMDL requirements. MDEQ has sampled the biological community in over 1,000 streams since 2001 to provide an indicator of long term water body health. By utilizing the biological sampling effort and completion of TMDL reports (167 in SFY 2007, 867 in total), MDEQ has addressed approximately 2,350 of the TMDLs on the 1996 list. Less than 350 TMDLs are remaining from the consent decree requirements.

MDEQ continues identifying the stressors associated with the biological monitoring effort prior to completing the TMDLs for impaired waters. MDEQ completed 57 stressor identification reports in the Yazoo River Basin in 2007. MDEQ completed the consent decree requirements in the Big Black River Basin, Tombigbee River Basin, Pascagoula River Basin, the North Independent Streams Basin, and the Tennessee River Basin. Work was interrupted on the development of TMDLs in the Coastal Streams Basin two years as a result of Hurricane Katrina. However, MDEQ completed that work in 2007. MDEQ also worked on development of TMDLs in the Yazoo River Basin in 2007. This effort in the Yazoo River Basin will continue into 2008.

Wetlands

The goal at MDEQ is to prevent a new loss of wetlands in Mississippi. To meet this goal, MDEQ reviews projects that would impact wetlands or streams to insure that efforts have been made to avoid or minimize impacts. Mitigation of unavoidable impacts may be required in this process.

During FY 2007, MDEQ reviewed 147 applications for Water Quality Certification. This is up from approximately 128 applications reviewed in FY2006 and approximately 100 in FY2005. Also, it is important to note that each year a large number of projects are covered under Nationwide or General Permits and do not require an individual certification.

In order to facilitate the permitting process, MDEQ strongly recommends pre-application meetings, particularly for large or complex projects involving the wetlands issues and the associated water quality implications.

Storm Water Regulations

Implementation of Mississippi's Storm Water General Permits and regulations continues in FY2007.

The Environmental Permits Division (EPD) issued coverage for 578 large construction projects (5 acres or greater). The Small Construction General Permit (1 acre to less than 5 acres) is scheduled to be reissued in December of 2007. The basic Small Construction General Permit requirements are:

- Complete the Small Construction Notice of Intent (SCNOI) application form and keep the form on the project site or locally available.
- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP).
- Inspect the site weekly to make sure best management practices are still functioning as designed.

EPD issued general permit coverages and recoverages for 244 regulated industrial facilities. In addition, EPD received 126 No Exposure Certifications from industry (facilities that certify "no exposure" to storm water are not required to get permit coverage). EPD also sent approximately 100 outreach letters to industrial facilities for informational purposes.

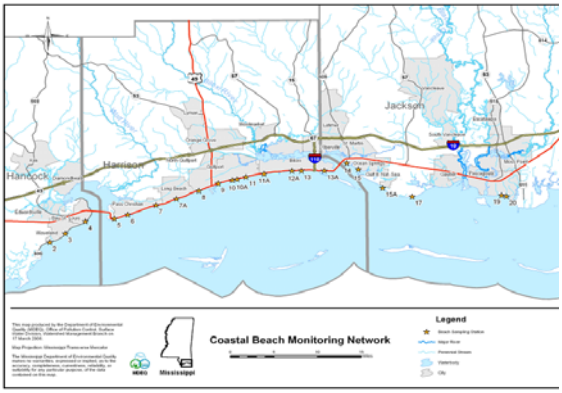
Storm Water Management Plan for Mississippi's 37 MS4s (consisting of 24 cities, nine counties, two military bases, one university and MDOT) continues into the fifth year of a five-year implementation schedule. EPD is working on permit reissuance for another 5-year period and has been in contact with the regulated community as well as their consultants.

MDEQ continued the policy to follow the federal storm water regulations as they apply to oil and gas-related construction activities. Construction activities associated with oil and gas exploration, production, processing and treatment, and transmission facilities that are defined in the following North American Industrial Classification System (NAICS) codes and titles: 211-Oil and Gas Extraction, 213111-Drilling Oil and Gas Wells, 213112-Support Activities for Oil and Gas Operations, 48611-Pipeline Transportation of Crude Oil and 48621-Pipeline Transportation of Natural Gas, are generally exempt from State NPDES construction requirements. However, MDEQ strongly encourages voluntary application of construction best management practices in order to minimize the discharge of pollutants in storm water runoff.

The Mining Storm Water General Permit is on schedule to be issued in the latter half of 2007. The new permit will have reduced administrative burden for the regulated community as well as MDEQ. There are approximately 900 mining facilities that will be covered by the new permit.

Coastal Beach Monitoring Network

MDEQ's Coastal Beach Monitoring Program, operated in conjunction with the University of Southern Mississippi's Gulf Coast Research Laboratory (GCRL), conducts routine bacteria and water chemistry sampling at 22 beach stations located along Mississippi's Gulf Coast. MDEQ is just one partner within a multi-agency Beach Monitoring Task Force composed of the USEPA Gulf of Mexico Program, Mississippi Department of Marine Resources, GCRL, and the Mississippi Department of Health. This Beach Monitoring Task Force oversees the program and issues beach advisories when needed.



This website contains beach advisory status, location of monitored sites, data associated with those monitored locations, and a history of beach advisories. There are sixteen core stations that are sampled approximately ten times a month during the recreational season. Non-core stations are sampled weekly during the recreational season (May – October). Any station is re- sampled if *Enterococcus* sp. bacteria levels exceed 104 colonies/100ml

MDEQ and the Beach Monitoring Task Force rely on data collected under this program to assess health and safety issues for users of Mississippi's recreational beaches. When *Enterococcus* sp. bacteria concentrations reach unsafe levels, beach advisories are issued. In addition, the monitoring data provide information concerning the seasonal water quality conditions of the immediately accessible waters along the public bathing beaches. Beach water quality conditions are made available to the public via a Beach Monitoring webpage developed by GCRL that can be accessed on the MDEQ homepage.

Development of Mississippi's Benthic Index of Stream Quality (M-BISQ)

In 2000, MDEQ began to develop a biological assessment tool for wadeable streams and rivers in Missis sippi. A statewide biological monitoring project was implemented with two main objectives: to obtain monitoring data from §303(d) listed wadeable streams and rivers and to assess these data using an Index of Biological Integrity (IBI).

With input from state and federal biological experts, MDEQ re-designed its biological monitoring program, incorporating the IBI to produce high quality, scientifically defensible data. This new monitoring program included the adoption of new biological field and laboratory methods, and a new index period (December - February) was selected for benthic sampling. Rigorous QA/QC protocols were also employed including development of a comprehensive Quality Assurance Project Plan (QAPP) with detailed standard operating procedures, revisions to data entry and biological database management procedures, and documentation of data quality characteristics throughout the entire data collection and assessment process.

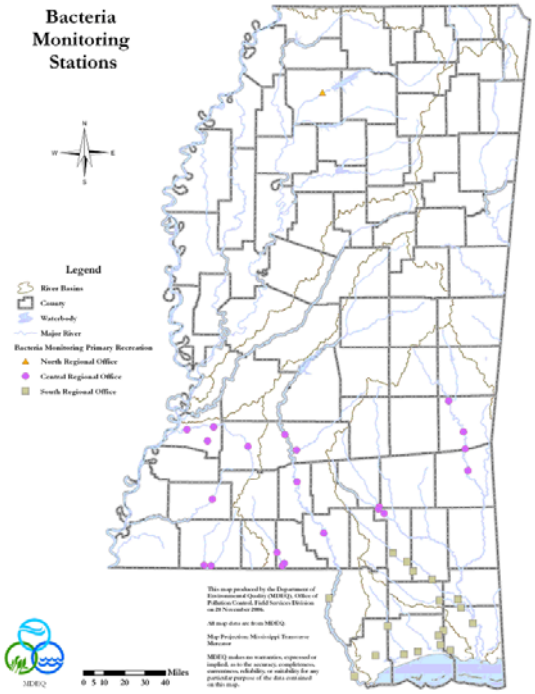
To date MDEQ has done seven phases of M-BISQ monitoring for a total 940 monitored sites. Our eighth phase consists of 100 more sites that will be used to not only monitor our waters but also recalibrate the M-BISQ tool.

Results from the M-BISQ effort are being used to assess the status of §303(d) listed water bodies and to steer future biological monitoring and assessment activities for wadeable streams and rivers. Much of the basis for Mississippi's §305(b) water quality assessment is from data collected and analyzed from all phases of the M-BISQ monitoring project.

Bacteria Monitoring and Assessment

Beginning in summer 2007, MDEQ implemented a new monitoring program that collects bacteria samples at approximately 42 sites on flowing waters statewide. These sites were selected for monitoring because the waters are designated as primary contact recreational waters in Mississippi's Water Quality Standards. Waters are designated for recreational use where the public enjoy water sports such as swimming and skiing. Specific water quality

sampling methods, field data collection activities and laboratory analyses are described in the *Mississippi Department of Environmental Quality Quality Assurance Project Plan for the §106 Monitoring Network in the State Surface Water Monitoring and Assessment Program* (MDEQ 2007). This QAPP was used to ensure that the data collected, compiled and/or generated for these projects were complete, accurate, and of the type, quantity, and quality required for its use.

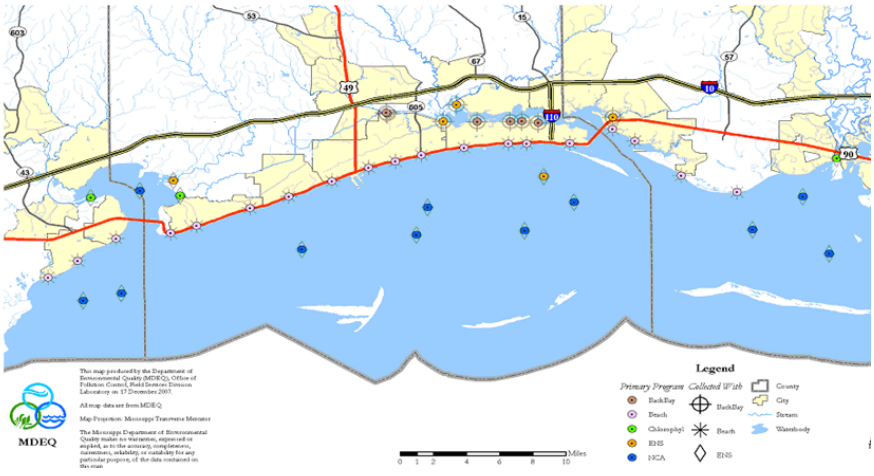


Bacteria Monitoring Sites

Coastal Monitoring

MDEQ has participated in the USEPA NCA Program from its inception in 2000. Although USEPA recently suspended funding for the NCA program, MDEQ is implementing a scaled-down version of the program to address ambient monitoring of Mississippi's coastal waters. As part of NCA sampling, approximately 50 sites were monitored annually from 2000 to 2006. MDEQ plans to continue collecting samples at 25 randomly selected sites annually for the coastal monitoring program. Coastal assessment monitoring will be conducted during the late summer index period (July-September). Sample sites will be selected using a probabilistic site selection methodology. Probabilistic sample design development will be dependent on available funding. At the end of a 5-year cycle, a total of 125 sites will be sampled for the coastal monitoring program.

Ambient Coastal Monitoring Sites 2007



Development of Index of Biological Integrity (IBI) for Large Rivers and Non-Wadeable Streams - Intensive Surveys and Special Project Monitoring

A pilot project was initiated to develop an assessment tool for monitoring the non-wadable streams and rivers of Mississippi. In 2005, three large river systems, the Big Black, Pascagoula and Tombigbee, were selected to be sampled. Forty sites, 10 in the Big Black, 20 in the Pascagoula, and 10 in the Tombigbee were scheduled to be sampled during the summer low flow index period of August and September. Teams documented stream characteristics during the field sampling effort and performed reach delineations, multi-probe deployments (dissolved oxygen, pH, temperature, specific conductance, total dissolved solids (calculated from specific conductance), turbidity, and total dissolved solids measurements), and visually conducted physical habitat assessments. They also determined substrate particle size distribution (sounding pole method), obtained global positioning system (GPS) coordinates, and acquired water surface elevation measurements for future use in calculation of flows; and site photographs. Additionally, biological and chemical samples were collected at each site.

Sample collection was completed for the Tombigbee and most of the Big Black River Basins before being interrupted by Hurricane Katrina. The study was repeated in 2006 and analyses are pending.

Escatawpa River Site Specific Dissolved Oxygen Criteria Development

Significant comments were received during the water quality standards public comment period. Many of these comments regarded the proposed site specific dissolved oxygen criterion for the Escatawpa River. The proposed site specific criterion was developed through a joint data collection and modeling effort between MDEQ and EPA Region 4. The primary concern was the proposed criteria did not include an analysis of the chronic impact made on wildlife. EPA Region 4 performed additional modeling to study the chronic effects of the proposed dissolved oxygen criterion. MDEQ and EPA Region 4 are reviewing the model results, and plan to propose the modified site specific criterion for dissolved oxygen in the Escatawpa River during the first quarter of 2008.

Antidegradation Implementation

The implementation of MDEQ's antidegradation policy was another issue that received significant comments during the triennial review public comment period. In 2007, MDEQ updated the antidegradation methodology in part in response to these comments, and made seeking approval of the methodology one of the Water Quality Standards Section's highest priorities.

Nutrient Criteria Development

In 2007, MDEQ continued to work towards developing scientifically defensible nutrient criteria for waters of the State of Mississippi. Mississippi's Nutrient Criteria Development Plan was revised, and EPA Region 4 issued a letter of mutual agreement for this plan. The revised criteria development plan states that nutrient criteria will be developed for each of the various water body types in the state. The criteria for each water body type will be coordinated with other water body types to ensure consistency across the state. Mississippi's Nutrient Criteria Development Plan separates criteria development based on various water body types within the state, including:

- lakes and reservoirs,
- wadeable streams (outside the MS Delta Region),
- non-wadeable streams (outside the MS Delta Region);
- Delta Region water bodies; and
- estuaries and coastal waters.

Nutrient Criteria Development – Lakes

The Lakes Subcommittee of the Mississippi Nutrient Criteria Task Force was established in 2001. Additional data collection for lakes was initiated in October 2002. Sampling was completed for the >500 acre site class in fall of 2004. The same monitoring of smaller lakes (100-500 acre) began in November 2004, and continued through the summer of 2005. During 2006, MDEQ continued monitoring efforts to gather information to be used in the development of nutrient criteria. In 2007, MDEQ participated in the National Lakes Survey which included data collection for 11 lakes. This survey included both biological and chemical measurements.

Data analyses were performed on lake data collected through 2005. This analysis provided MDEQ with preliminary nutrient criteria targets. Additional analyses are needed for all newly collected data to revise these targets.

Nutrient Criteria Development – Wadeable and Non-Wadeable Streams (outside the MS Delta)

The Streams and Rivers Subcommittee of the Nutrient Criteria Task Force was established in 2001. A major focus of nutrient criteria development for streams and rivers is placed on obtaining an understanding of the cause and effect relationship between nutrient and biological indicators, primarily benthic macroinvertebrates. The project is intended to benefit not only Mississippi, but also the National Nutrient Strategy by providing additional water quality data from Mississippi Level III Ecoregions. Approximately 100 M-BISQ sites (50 stressed and 50 reference) were sampled statewide in the spring of 2004. Another sampling round occurred in August and September (100 sites) in 2004. This sampling was repeated in its entirety in 2005. Due to the recently revised timeline for Mississippi's wadeable streams and rivers nutrient criteria development, more time is now available for further data review and collection. Data collection and data analyses efforts will continue to evaluate levels of nutrient enrichment in Mississippi waters and determine any significant cause-effect relationships that exist and the impacts of this relationship on the biologic integrity of the water bodies.

Nutrient Criteria Development – Delta Region Water Bodies

In 2007, MDEQ initiated nutrient criteria data collection efforts within the MS Delta Region of the state. Nutrient data were collected at 30 sites within the region. These sites represented only wadeable streams. Additional data are needed for both wadeable and non-wadeable streams in this region in order to determine appropriate nutrient criteria. MDEQ plans more data collection efforts in this region in 2008.

Nutrient Criteria Development – Estuaries and Coastal Waters

In December 2004, the President's U.S. Ocean Action Plan was released that highlighted the Gulf of Mexico Alliance, a partnership formed by the five Gulf State Governors. The President called for increased integration of resources, knowledge and expertise to make the collaboration of the Gulf Alliance a success. Thirteen federal agencies formed a Federal Workgroup, with EPA and the National Oceanic and Atmospheric Administration (NOAA) as co-leads, committed to supporting the Alliance. The Gulf of Mexico Program (GMPO) is the lead for EPA. The Gulf Alliance released an action plan in 2006 as a starting point for effective regional collaboration and addresses specific issues and projects which will result in a healthier Gulf of Mexico ecosystem and economy with a vision toward healthy and resilient coasts and communities in the Gulf of Mexico. An objective of the Gulf Alliance Action Plan is to reduce nutrient inputs to sustain productive Gulf aquatic ecosystems.
MDEQ was a very active participant in the Gulf of Mexico Alliance in 2007 and plans to continue to be very

involved and actively support the GMPO and the Gulf Alliance toward achieving the goals of the Action Plan. The Nutrient Criteria development work being performed by MDEQ will be coordinated with the Gulf Alliance Partnership to ensure that MDEQ's criteria development work is fully coordinated with the other coastal states.

Nutrient data collection within estuaries and coastal waters which began during the summer of 2004 and continued through 2007 provides information that can be used in determining causes, effects, and extent of water quality impairment from nutrient enrichment in Mississippi coastal waters. MDEQ believes that it is of utmost importance that criteria for these water bodies be related to a measurable impairment of a designated use. Criteria needed to protect these waters can be translated, or modeled, upland to determine allowable loadings from freshwater inputs. MDEQ plans to continue data collection and analyses in 2008.

Assessment and Study of Water Resources

While Mississippi is blessed with an abundant supply of surface water and groundwater resources, certain areas of the state have experienced changes in water-use trends that are often reflected by notable groundwater level declines. Such conditions are indications that the long-term viability of our valuable water supplies demands wise stewardship of the resources and development and implementation of long-range management strategies.

After completing a detailed investigation of the available water resources in Northeast Mississippi, MDEQ's Office of Land and Water Resources (OLWR) has focused its recent attention on four regions of the state recognized as areas of significant population growth, centers of notable groundwater pumpage, or areas without clearly defined hydrogeology. These designated study areas include the following: (1) the Memphis (Sparta) aquifer area including DeSoto and Marshall Counties as well as the counties southward along the Bluff Hills; (2) the Delta region; (3) the Jackson Metro area including the counties of Hinds, Madison, Rankin and Yazoo; and (4) the counties comprising roughly the southern one-third of the state that are underlain by the Miocene aquifer system.

Efforts continued this year as MDEQ's Office of Geology and OLWR coordinated activities to map the surficial geology of the state and construct corresponding geologic cross-sections of designated study areas. The objectives of this effort are to refine the delineation and mapping of available aquifers in the state and to identify and protect their corresponding recharge areas from contamination events. Providing safe reliable sources of groundwater is paramount to the maintenance of acceptable public health and to the pursuit of economic development.

Water Resource Issues in the Mississippi Delta

The economy of the Delta is dependent to a large extent on the availability of suitable water supplies for an estimated 16,000 large-capacity irrigation and aquaculture wells used throughout the region. Most of the water used for these beneficial purposes in the Delta is obtained from the shallow Mississippi River Valley alluvial aquifer (MRVA). With an average withdrawal of approximately 1.5 billion gallons of groundwater pumped per day, the pumpage demand has exceeded the recharge capabilities of the MRVA resulting in notable water-level declines in the aquifer. The impacts are more pronounced in the central portion of the Delta, but the trends indicate that a Delta-wide initiative to conserve water and to balance water use between surface water and groundwater is needed to reverse the trend. Progress continued to be made on the implementation of widespread water conservation efforts throughout the region, and the Yazoo-Mississippi Delta Joint Water Management District maintained a low-

flow augmentation project on the Sunflower River. The OLWR continued its efforts to determine the saturated thickness of the MRVA in the central portion of the Delta and to better define the recharge mechanism of the aquifer.

Source Water Assessment/Protection Program

MDEQ sustained efforts to work with the 1300 plus public water systems operating in the state and the Mississippi State Department of Health to provide safe sources of drinking water. The first phase of this effort involves performing assessments of the relative susceptibility of public water systems to contamination and assisting in the proper siting of new wells. The final phase includes the development and implementation of Source Water Protection plans that are designed to enhance the protection of drinking water supplies by addressing potential contaminant sources in designated areas around public water supply wells and surface water intakes.

Agricultural Chemical Groundwater Monitoring Program

The Mississippi "AgChem" Monitoring Program is an on-going program initiated in March 1989, for the purpose of determining if the use of agricultural chemicals is adversely impacting groundwater quality in Mississippi. Sampling initially was conducted on shallow drinking water wells located in the areas of highest pesticide usage before expanding into other regions of the state. Later, program sampling was increased to include other types of wells such as high-capacity irrigation and fish culture wells in the Mississippi Delta.

Through December 31, 2007, a total of 1369 wells have been sampled in this program with all 82 counties of the state being represented. Of this total, 664 have been drinking water wells and 705 are high-capacity irrigation & fish culture wells located in the Delta. Based on results to date of these sampling activities, there is no evidence that agricultural chemicals are significantly impacting the quality of groundwater in Mississippi.

Basin Management Approach

The mission of the Basin Management Approach is to foster stewardship of Mississippi's waterresources through collaborative watershedplanning, education, protection, and restoration initiatives. To accomplish this, nine of Mississippi's major river basins have been organized into five basin groups (see map inset). Each basin group has a basin team of state and federal agencies and local organizations. This team provides the opportunity for multiple levels of government and local stakeholders to coordinate their efforts. Together, basin team members help assess water quality, determine causes and sources of problems, and prioritize watersheds for water quality restoration and protection activities. The Basin Management Approach also encourages and provides the opportunity for basin team members to pool both technical and financial resources to address priority watersheds.

Basin Groups

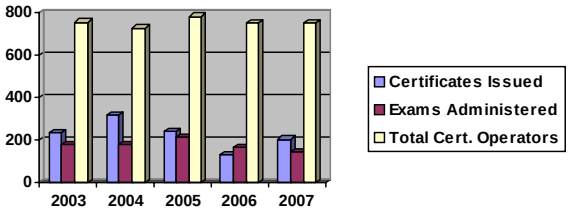
Group	Basin
I	Big Black ,Tombigbee, and Tennessee River Basins
II	Yazoo River and North Independent Streams Basins, and adjacent tributaries of the Mississippi River
III	Pearl River and South Independent Streams Basins, and adjacent tributaries of the Mississippi River
IV	Pascagoula River Basin
V	Coastal Streams Basin

Activities of the first basin management cycle for all basins are nearing completion. Priority watersheds have been selected by all basin teams. Within many of these watersheds, collaborative efforts on the part of state and federal resource agencies working with local stakeholders are resulting in the formation of local watershed implementation teams and the development of watershed implementation plans. The agencies have also worked together to make available funding resources to support implementation activities.

In 2007 Basin Group III selected priority watersheds for the second management cycle. The team used the MS Watershed Characterization and Ranking Tool to help in the selection process. This tool uses watershed data to assess the relative value of watershed resources and potential threats to water quality of small (12-digit HUC) watersheds within the basin. Work continues in the priority watersheds from the first cycle—many sediment and poultry litter BMPs have already been put in place and education campaigns are underway.

Wastewater Operator Training

The Operator Training program began in 1969 to provide instruction and technical assistance to municipal and domestic wastewater personnel and facilities. The training, provided at no cost to the operator, was initially associated with a voluntary certification program offered by the Mississippi Water & Pollution Control Operator's Association. Administration of the certification program was transferred to the agency in 1987 when the legislature mandated certification of all municipal and domestic wastewater operators. The certification regulations include a requirement for continuing education during each three year certification period.



The 2007 training calendar included 43 days of agency sponsored training classes. The agency continued its relationship with the three wastewater related associations in the state (Mississippi Water and Pollution Control Operator's Association, Mississippi Water Environment Association and Mississippi Rural Water Association) by cosponsoring and participating in 24 days of training activities. Attendance at Agency sponsored sessions totaled 728 operators, utility managers and engineers. Certification exams were administered to 144 prospective operators with 50 new and 154 renewal certificates issued. There are currently 750 certified pollution control operators in the state.

The training staff also provides on-site technical assistance to small municipal systems through the EPA 104(g) grant program. This assistance program is aimed at providing small communities with no cost assistance in returning to or maintaining compliance with their wastewater permit. In 2007, the staff assisted 25 publicly owned wastewater treatment facilities with compliance issues and made 17 additional community outreach visits.

The Wastewater System Security training and assistance program completed its final year under a small supplemental grant from EPA. This program, supported by Homeland Security measures, included operator workshops conducted in three locations. The staff, which has been qualified by FEMA, provided instruction to wastewater facility staff on Basic Incident Command System and National Incident Management System. Thirty one operators attended these training sessions.

Office of Geology

Surface Mining and Reclamation of Surface-Mined Lands

MDEQ continued to regulate all non-coal surface mines in the state as provided for in the Mississippi Surface Mining and Reclamation Act of 1977. This includes: (1) issuing surface mining permits and notices of exempt operations; (2) inspecting permitted areas and inspecting complaints; (3) overseeing the reclamation done by operators; and (4) enforcing the law as per the promulgated Rules and Regulations and Commission orders. Coal and lignite mines are regulated under the Mississippi Surface Coal Mining and Reclamation Law of 1979, with oversight of the program by the federal Office of Surface Mining.

During FY2007, some 883 inspections were performed, 37 permits were issued, and 86 Notices of Exempt Operations (operations less than 4 acres in size) were issued. A total of 1,328 exempts are on file, covering approximately 5,200 acres, and 782 acres were completely reclaimed as a result of the Mining and Reclamation Division's efforts to oversee reclamation. The state currently has 779 permits covering almost 31,000 acres.

The Mining and Reclamation Division completed the initial phase of modernizing the mining database to provide data to the MDEM program. This entailed converting paper maps to GIS format so that mining sites can be located and viewed by anyone on the internet. More work will be done during the coming fiscal year to add new data to the database.

The Mining and Reclamation Division continued to provide the required Mine Safety and Health Administration (MSHA) training for mining operations in the state. MSHA regulations require an 8-hour refresher training course be taught to all mine workers. In FY2007, division staff provided training to 246 miners and 89 contractors working in the mining industry.

The Coal Mining Division was established during FY2007 to focus on the complexities of coal mine regulation. The Mississippi Lignite Mining Company is mining lignite at their Choctaw County mine to supply fuel for the mine-mouth power plant. The mine produces over 3.5 million tons of lignite per year and will eventually cover some 6,000 acres. The power plant generates 440 MW of power. Staff are preparing for the possibility of an application for a second lignite mine; there has been some activity this year in the lignite belt in the east-central part of the state. Mississippi joined the ranks of the coal-producing states in 2002.

Geological Data Collection Activities

The Department's geologic mapping program for FY2007 was funded in part by a federal STATEMAP 2006 grant of $113,904 and an NCRDS grant of $13,000. Deliverables for the STATEMAP grant included the Murdock Lake and Peachahala Creek quadrangles in Carroll and Holmes counties in west-central Mississippi and the Yokena, Big Black, Cayuga, and Grand Gulf quadrangles in Warren, Hinds, and Claiborne counties in southwestern

Mississippi. These maps were published in color at a scale of 1:24,000 as Open File reports OF 214-219. Work on the FY2007 mapping program was cut back to only four quadrangles due to the departure of veteran field geologist David Thompson. FY2008 proposed work for federal STATEMAP 2007 grant was awarded funding of $116,160 and an NCRDS grant of $13,000. This work included the Denham, Buckatunna, and Knobtown geologic quadrangles in Wayne and Greene counties in southeastern Mississippi and the Ruth geologic quadrangle in south-central Mississippi. The 2007 STATEMAP deliverables are due at the end of April 2008. Geologic units mapped in north-central Mississippi in FY2007 and 2008 included the Tuscahoma, Hatchetigbee, Tallahatta, Winona, and Kosciusko formations of Eocene age and Holocene alluvium. Geologic units mapped in southern Mississippi in FY2007 and 2008 included the Vicksburg Group of Early Oligocene age, the Chickasawhay Limestone and Paynes Hammock Formation of Late Oligocene age, the Catahoula and Hattiesburg formations of Miocene age, and Holocene alluvium.

Four test holes were drilled in FY2007, including the #1 Buford Partners in Warren County to a total depth of 280 feet, the #1 Vicksburg Sand and Gravel in Warren County to a total depth of 280 feet, the #1 Grand Gulf in Claiborne County to a total depth of 420 feet, and the #1 Mark Teague in Hinds County to a total depth of 370 feet. Nine papers were published, including five articles in the *Mississippi Geological Society Bulletin,* two abstracts in the *37th Annual Mississippi Water Resources Conference Program and Abstracts,* and two abstracts in the *Journal of the Mississippi Academy of Sciences.* Work is nearly finished on the "Geology of Mississippi," a volume of about half a million words and hundreds of color illustrations.

Proposed work for the STATEMAP 2008 grant was expanded to eight geologic quadrangle maps with the return of David Thompson to the staff. These maps include the Browning, North Carrollton, Gravel Hill, and Coila quadrangles in Leflore and Carroll counties in west-central Mississippi and the Moselle, Ellisville, Eastabuchie, and Barrontown quadrangles in Jones, Forrest, and Perry counties in southeastern Mississippi.

The Environmental Geology Division gathers, studies, and archives geological and geophysical data pertinent to its ongoing projects and other projects within the Department. Ongoing, focused research is being done with regard to environmental and ground-water geology. During the report period, the division answered scores of requests for geological and ground-water data. These requests were primarily from water-well contractors, but numerous requests were made by engineering firms, educational institutions, and citizens. Typically, these requests are for the depth to water, yield, and chemical quality. The division's environmental scientists continued outreach activities at schools and science fairs.

The Environmental Geology Division's geologists and technicians worked on numerous geological projects throughout the state. Drilling, sampling, and well construction activities were performed for the Surface Geology Division's STATEMAP program and for the Office of Land and Water Resources. Four test holes were drilled in support of the STATEMAP program in southwestern Mississippi. Cumulative footage drilled and/or cored and wireline logged totaled 1350 feet. Samples were saved and archived in the Office's core and sample library. Four test holes and two monitor wells were completed for the Office of Land and Water Resources; this drilling activity was carried out in Sunflower County. Average depth of the test holes was 300 feet. The monitor wells were

completed at approximately 150 feet. Two other test holes and one monitor well were completed in support of the Moody's Branch Formation investigation.

Environmental Geology's technicians and geologists wireline logged a total of 122 test holes in 39 counties throughout the state. Total footage logged was 61,205 feet or 11.6 miles of subsurface data. Clients included 17 water well contractors, two engineering firms, and two state agencies. The shallowest water well logged during the report period was 60 feet deep in Smith County, drilled by Pickering Engineering from Jackson, Mississippi. The deepest test hole logged was for the Macedonia Water Association in Calhoun County, drilled by Donald Smith Water Well Service from Shannon, Mississippi; total depth was 2,025 feet.

The staff pulled samples and cores for numerous oil and gas exploration companies and consultants. Cores and samples were made available for research and observation in our in-house laboratory facilities on a number of exploratory wells. A total of 245 boxes of cores and samples were pulled from storage. These samples were made available to researchers to observe, describe and analyze. Total footage of samples observed was 36,750 feet. Sample splits were made on several wells for advanced tests by outside laboratories. These wells were located in almost all of Mississippi's oil and gas producing areas. In addition to those visitors to our facility, staff shipped sample splits on numerous wells to out-of-state labs for further testing and evaluation. Interest in our archived cores and samples remains strong and is a direct result of higher petroleum prices, new oil and gas plays being extended into the state, and re-evaluation of older areas of interest.

Geospatial Resources

The Geospatial Resources Division focused its emphasis on remote sensing (RS) and geographic information systems (GIS) activities. The division manages the Mississippi Flood Map Modernization Initiative (MFMMI). This program is creating new county-wide digital flood insurance rate maps (DFIRMs) for 80 of Mississippi's 82 counties, pending continued funding by the Federal Emergency Management Agency (FEMA). These resulting DFIRMs and supporting digital data will be available on the Web. The new digital format, using modern technology including RS and GIS, promises to make a new map that will convey more information in an easy-to-use format. As of September 2007, current FEMA funding of MFMMI county-wide DFIRM flood mapping projects is $14.9 million.

Another assignment for this division is to act as staff for the Mississippi Coordinating Council for Remote Sensing and Geographic Information Systems. The Council exists to set policies and standards that will promote the sharing of information, as well as facilitate the cost-sharing potential. The Council is also charged with oversight of the development of the Mississippi Digital Earth Model (MDEM). The Office of Geology is responsible for MDEM's development, and it is the Geospatial Resources Division that handles the assignment. MDEM consists of developing digital geographic information that will serve as the state base map. MDEM consists of seven layers of digital information that will be available on the Web: (1) geodetic control, (2) elevation and bathymetry, (3) orthoimagery, (4) hydrography, (5) transportation, (6) government boundaries, and (7) cadastral.

The division maintains three Web sites. For an information-rich site for oil and gas related information: library.geology.deq.state.ms.us. Another Web site has a wealth of coastal data as a result of our twelve years of active research: geology.deq.state.ms.us/coastal. The division has added a Web site for the Mississippi Flood Map Modernization Initiative (MFMMI): geology.deq.ms.gov/floodmaps. By visiting this site the public and local government officials will be able to learn the current status of their county's DFIRM mapping project. Also, when a county's new preliminary flood maps are available, the public and local government officials will be able to download and review individual DFIRM map panels.

In FY2007 the Geospatial Resources Division dealt with MDEM, the GIS Council, the Mississippi Flood Map Modernization Initiative, and took delivery of approximately 3,300 square miles of new LIDAR elevation data covering all or parts of seven counties with grants/funding from FEMA, the USGS and the City of Hattiesburg, in association with the flood mapping program. The division continues to work closely with the GIS Council in development of statewide orthoimagery. During the 2005-2006 leaf-off season, 85% of the state's land area was flown and collected. The remaining 15% was collected during the early part of the 2006-2007 leaf-off flying season. In June 2007, the division delivered countywide data sets of 2-foot true color orthophotography to 32 counties. The remaining counties are expected to have their orthophotography delivered in September 2007.

Working with FEMA, the division updated the state's flood mapping business plan and work continued on 39 county-wide flood mapping projects. As of September 2007, new preliminary DFIRM flood maps for nine county-wide DFIRM projects have been delivered. Four additional counties are expected to have their preliminary DFIRMs delivered before yearend, including the three coastal counties, Hancock, Jackson and Harrison, which will have new coastal surge and wave analysis included. These new maps will aid with safe development and reconstruction during the post-Katrina recovery period along the Mississippi Gulf Coast. Additionally, the FY2007 Mapping Activity Statement No. 6 was submitted to FEMA; it summarizes the work to be started this FY2007 on 20 new DFIRM projects. The division also hosted three GIS Council meetings. During the past year the division continued work with the Mississippi Department of Information Technology Services (ITS), supporting the design and development of the Mississippi GIS Clearinghouse / Portal Project. The Portal will house and distribute all digital MDEM data for the state. The division will continue this work activity into the foreseeable future.

Permitting

The professional staff of MDEQ spends thousands of hours each year developing various types of environmental permits, which are then presented to the Environmental Quality Permit Board for issuance. The Permit Board issues, reissues, modifies, denies, transfers, and revokes Mississippi permits and certifications administered under the Clean Water Act, the Clean Air Act, the Resource Conservation and Recovery Act, the Surface Mining Control and Reclamation Act, state mining laws, and state water resource control laws.

MDEQ's Environmental Permits Division's (EPD) functions include reviewing the majority of the permit related issues including permit applications, meeting with the permit applicant, reviewing permit renewal applications, and making recommendations to the Permit Board. Currently there are over 15,000 sites in the permitting realm. Many of these sites have permits that by state and federal regulation expire every 5 years and have to be re-issued. As new companies come into the state and existing companies have changes or modifications these activities also require permitting actions. The Environmental Permits Divisions (EPD) works closely with Mississippi Development Authority (MDA) in helping site these new industries to Mississippi. EPD believes that a key element in effectively addressing environmental issues surrounding greenfield projects is early interaction between the company and the Mississippi Department of Environmental Quality (MDEQ). EPD offers and encourages pre-application meetings. We have found that time spent in refining the information needed for applications at the front end of a project typically reduces the overall time to bring a project to a decision point. Other MDEQ offices that work with permitting matters are the Office of Geology and the Office of Land and Water Resources. EPD is responsible for most environmental permitting done for the Office of Pollution Control, including:

- Air
- Air Title V
- Wastewater-State No Discharge
- Wastewater-Federal National Pollutant Discharge Elimination System
- Wastewater Pretreatment
- Storm Water
- Solid Waste
- Hazardous Waste
- Tire Programs
- Wetland 401 Water Quality Certifications

Performance Improvements

In 2007 EPD maintained the permit backlog for NPDES major permits at approximately 3%. This percentage remains well below the National EPA milestone of less than a 10% Major NPDES permit backlog. Over 99 percent of the original Title V universe has been issued air operating permits.

EPD continued to partner with the Data Integration Division of MDEQ in the development of new functionality for the Agency's enterprise-wide data management system – *e*nSite. *e*nSite has become the agencies primary electronic storage database for information. This has made it possible for the department to provide much more information over the internet to the regulated community, other state agencies, EPA and citizens. *e*nSite also allows supervisors and upper management to be more knowledgeable about sites and more easily track and retrieve information. This is due primarily to effective training and e-business improvements.

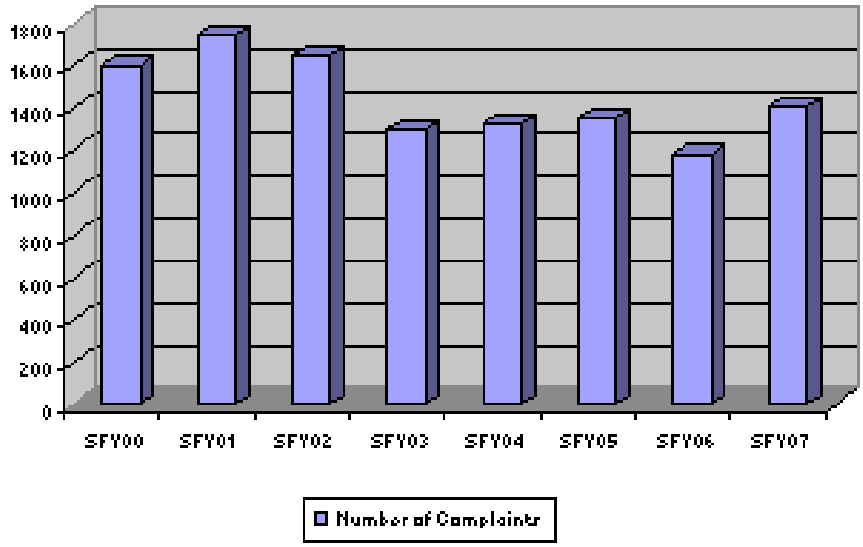
Recently, EPD instituted the issuance and reissuance of Air Synthetic Minor Operating Permits using enSite functionality and format. This will help to insure consistency in format and in permitting requirements for this regulated universe of air operating permittees. It also allows for electronic tracking of required submittals such as compliance certifications, stack testing submittals, and other required permitting elements. Again in 2007, EPD devoted a significant amount of its resources to Katrina related projects, especially new housing developments in the six coastal counties. EPD remains committed to focus resources to help the citizens, the industries and the environment with collaborative environmental assistance with their reconstruction efforts.

Environmental Assistance

EPD continues to provide environmental assistance when requested. In the past year, the focus of the Assistance initiative was expanded to include citizens, cities, counties, businesses and industries who are not only entering the environmental arena, but those who are involved in the development and re-development of areas in Mississippi. To further promote this focus, additional resources and MDEQ staff were assigned to the initiative to increase the knowledge base from which assistance could be provided. MDEQ staff exhibited at several conferences this year to introduce the expanded focus. For each conference attended a specific electronic survey was developed to gain useful information regarding the Assistance initiative and environmental concerns. The data obtained from these surveys will be used to enhance this program and help direct the initiative in the following year.

COMPLIANCE

The Environmental Compliance & Enforcement Division (ECED) implements and oversees the majority of the compliance and enforcement programs for MDEQ. ECED is responsible for the regulation of over 15,000 sites for compliance with applicable air, water, hazardous waste, and non-hazardous waste permits and regulations. The goal is for everyone to be in continuous compliance with all the appropriate environmental laws, regulations and standards. Staff assist Mississippi businesses, industries and farms with this activity. When a site fails to comply with the permit(s) or regulations, appropriate enforcement action is taken to promptly return the site to compliance. ECED, in conjunction with the Field Services Division, is also responsible for responding to citizen complaints regarding air pollution, water pollution, solid waste issues, and hazardous waste issues.



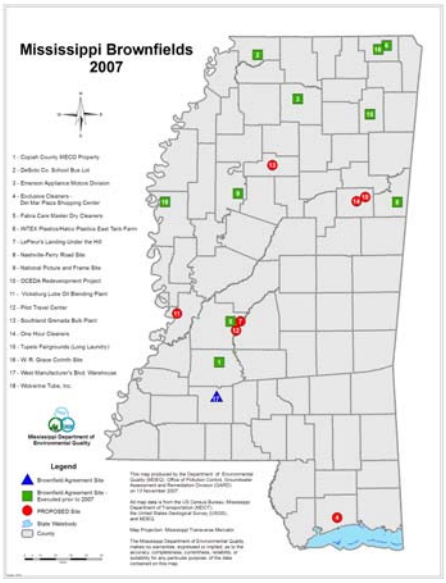
During State FY2007, the Office of Pollution Control received 1404 complaints related to air pollution, water pollution, solid waste issues, and/or hazardous waste issues. When citizens report an environmental problem, they are asked to explain the nature of the problem and give the location of the problem, including directions to the site. A name is not required; however, if a name and contact information is provided, MDEQ either contacts the complainant during the investigation or provides the results of the investigation after the investigation is complete. OPC staff endeavor to investigate every complaint. (See Chart)

During State FY2007, the following numbers of on-site inspections were performed by ECED and the Field Services Division:

- 225 for compliance with air pollution regulations/permits
- 978 for compliance with water pollution regulations/permits
- 230 for compliance with hazardous waste regulations/permits
- 694 for compliance with solid waste regulations/permits

During state FY2007, ECED actions resulted in 43 Orders being issued for non-compliance with air, water, solid waste, and/or hazardous waste regulations/permits. Of the 43 Orders issued during SFY07, 21 contained provisions for a penalty with a total assessed penalty amount of $2,124,818. When appropriate, DEQ allows the use of Supplemental Environmental Projects (SEP), which are projects that go beyond what is required to comply, to offset a portion of the cash penalty. Four (4) of the Orders allowed the use of a SEP.

Clean Up Of Contamination



Brownfields

During 2007, the Mississippi Department of Environmental Quality (MDEQ) experienced continued interest in the Brownfields Program. This interest is attributed to the efforts to educate interested parties about risk-based remediation and liability protection, as well as effective outreach efforts. In 2007, MDEQ reached one Brownfield Agreement with the City of Brookhaven for the West Manufacturers Blvd. Spec Building Site located in the Brookhaven Industrial Park. The total number of Brownfield Agreements obtained is eleven . MDEQ received applications from four new sites in 2007. They are Delmar Plaza/Exclusive Cleaners, Pennzoil-Quaker State, Statewide Federal Credit Union (One Hour Cleaners), and Pilot Travel Center sites.

Underground Storage Tanks

Hurricane Katrina impacted may of the UST facilities located in southern counties and a number of those in close proximity to the Gulf Coast were completely destroyed. The UST Branch inspected many of the Katrina impacted facilities following the storm in order to determine if a significant release of motor fuel occurred as a result of the storm devastation and to evaluate any other hazard potentials that may exist.

Two years after Hurricane Katrina, the UST Branch has assessed approximately 150 UST sites that were inundated by the water of Hurricane Katrina. Of those sites that were assessed 31 of them need further assessment and/or cleanup. The UST Branch will continue to assess and cleanup these sites until they no longer pose a threat to human health or the environment.

Since the conception of the UST program in 1987, $121 million has been made available for clean up and 729 sites have been closed.

During FY2007, the UST Branch made available $7.6 million for clean up, regulated approximately 8000 tanks which represent 3000 facilities and 1000 owners. Tank owners were reimbursed $7.3 million from the Mississippi Groundwater Protection Trust Fund. This fund was established for eligible tank owners to clean up sites contaminated by leaking underground storage tanks. Also in 2007, a total of 47 new sites were assessed for leaking or contamination and 114 sites were closed.

Uncontrolled Sites

The Groundwater Assessment and Remediation Division's (GARD) is responsible for the protection of human health and the environment by overseeing, evaluating, and assessing and remediation activities at sites contaminated with hazardous substances. The site list maintained by MDEQ continues to grow each year. The number of sites increased from approximately 1557 sites to 1581 sites for FY2007. For FY2007, staff provided oversight for the assessment and remediation of 66 sites. MDEQ issued "State No Further Action" (SNFA) letters for seven of these sites that were evaluated and remediated to levels protective of human health and the environment. MDEQ issued restrictive use agreed orders for four sites which place restrictions on the use of the property. The staff continues to respond expeditiously to requests from other governmental agencies for the review of environmental assessments and remediation of contaminated sites and those sites with economic development potential. MDEQ has also responded to inquires from both State Legislators and Congressional Offices for information pertaining to the clean up of sites within their respective districts.

Voluntary Evaluation Program

The Voluntary Evaluation Program (VEP) offers participants an opportunity to receive an expedited review of site characterization and remediation plans and reports. The VEP is funded entirely by these participants who pay for MDEQ's oversight costs. Typically, individuals involved in property transfers find the VEP attractive because of the expedited review process. For FY2007, the Assessment Remediation Branch staff provided oversight for the assessment and remediation of 77 VEP sites . MDEQ issued "State No Further Action" (SNFA) letters for 5 of these VEP sites that were evaluated and remediated to levels protective of human health and the environment. MDEQ issue restrictive use agreed orders for 6 sites which placed restrictions on the use of the property.

Comprehensive Environmental Response, Compensation, and Liability Act

Oversight of the site assessment restoration of hazardous waste sites as federal facilities continue to be a large portion of the CERCLA Program. Oversight is conducted at seven Department of Defense Sites, a Department of Energy site (Salmon Test Site), a NASA facility (Stennis Space Center) and several formerly used defense sites. MDEQ is funded for this oversight work through agreements with the Department of Defense, Department of Energy, and NASA. Through the grants from the Environmental Protection Agency, CERCLA staff performed preliminary site assessments, site investigations, and site inspections at potential National Priority List (NPL) Sites, coordinated with EPA on emergency/removal projects and were responsible for the oversight and assessment of three NPL (Superfund) sites in the state – Davis Timber, in Hattiesburg, American Creosote, in Louisville, and Wood Treating, in Picayune. The estimated cost at this time for remediation of these three sites is between $65,000,000 and $70,000,000. The State will ultimately have to pay for 10% of these costs or $6,500,000 to $7,000,000. Additionally, a new NPL site, Sonford Products in Flowood was added in 2007. The costs to remediate the Sonford Products site is not known at this time. The staff continues to respond to complaints and questions concerning contaminated sites, remediation levels, and environmental assessment criteria.

Emergency Response

During FY07 the Emergency Services Branch continued to respond to Emergencies all across the state. Expenditures for cleanups exceeded $700,000.00, while the response staff dealt with approximately 1,400 calls for assistance or to report emergency releases. In dealing with Household Hazardous Waste, following Hurricane Katrina, the Emergency Services Staff continued collecting and disposing of HHW through June of 2007.

Hazardous Materials awareness training was given to the Cadets at the Mississippi Highway Safety Patrol, as well as participation in numerous exercises and drills with state, federal and local counterparts and companies such as pipelines and refineries that operate in the state.

Homeland security remains a top priority for training and planning. The Emergency Services staff continues to work with numerous agencies including fire and police at the local level, sister state agencies and U.S. EPA, U.S. Coast Guard, F.B.I. and others to conduct well coordinated responses, to protect Mississippi's citizens and environment.

MDEQ's four-man Emergency Response Team is on call statewide 24 hours a day, seven days a week. MDEQ and the Mississippi Emergency Management Agency (MEMA) work together to provide effective around-the- clock spill response for Mississippi. Normally MEMA is notified by calling 1(800)222-6362. They in turn contact MDEQ personnel who provide on-site response and technical assistance.

Waste Management

The Solid Waste programs at MDEQ work on numerous solid waste issues, projects and programs throughout 2007 to assure the proper management of solid wastes, to promote the recycling of solid wastes and solid waste reduction and to plan for the future solid wastes management needs of the state.

Solid Waste and Recycling Status Reports

MDEQ is charged with collecting information and data to measure the status of solid waste disposal, recycling and waste reduction in the state each year. MDEQ also develops reports that summarize this information for presentation to the Governor, Legislature and other interested stakeholders. Each year, MDEQ collects an annual report from the owners of permitted solid waste management facilities in Mississippi on solid waste disposal information for the preceding calendar year. Solid waste management facilities that report to MDEQ include commercial and non-commercial landfills, commercial and non-commercial rubbish disposal sites, composting facilities, and land application sites.

In 2007 MDEQ developed a report on Calendar Year 2006 disposal activities. This report indicated that over 10.7 million tons of wastes were disposed at landfills, rubbish sites and emergency debris disposal sites (those receiving Hurricane Katrina debris) in Mississippi during Calendar Year 2006. Approximately 34.72% (3,719,360 tons) of the total waste was disposed at commercial landfills, 23.69% (2,537,728 tons) at non-commercial landfills, 36.69% (3,931,156 tons) at commercial rubbish sites, and 4.90% (525,118 tons) at non-commercial rubbish sites (see Figure 1).

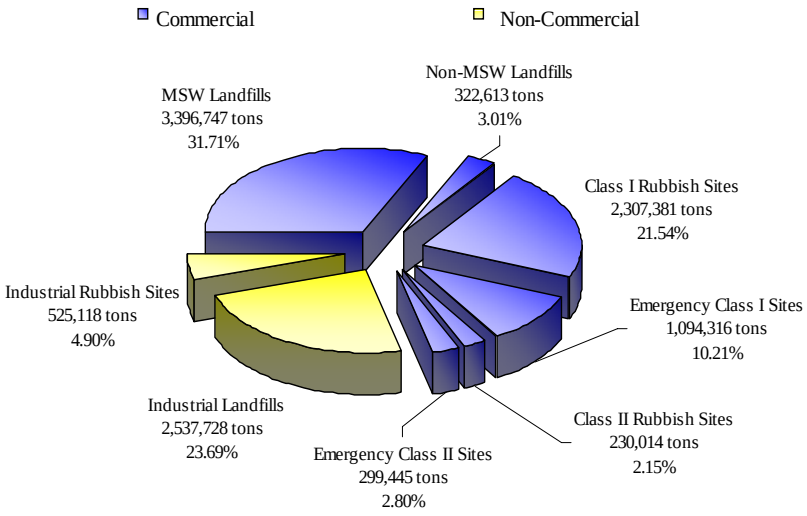


FIGURE 1

About 7.6 million tons of wastes were disposed at commercial disposal facilities and the remaining 3.1 million tons of wastes were disposed at noncommercial disposal facilities. Mississippi received a total of 811,760 tons of solid waste from out-of-state sources representing approximately 7.58% of the total solid waste that was disposed in the state during Calendar Year 2006. Also, about 1.4 million tons of wastes from hurricane Katrina cleanup efforts were disposed at the emergency disposal sites. In addition, over 29,000 dry tons of wastes were applied at the permitted land application sites during Calendar Year 2006.

In addition in the 2007 Legislative Session, MDEQ submitted two reports to legislators on recycling issues in the state. One report was developed and submitted by the MDEQ, on behalf of the State Task Force on Recycling. MDEQ in 2006, at the instruction of the Legislature, reconvened the State Task Force on Recycling. The Task Force is by state law comprised of 19 members, 13 from designated organizations and associations in the state and 6 gubernatorial appointees representing the different recycling material sectors. The Task Force with the assistance of MDEQ and the Mississippi Development Authority developed a report that was submitted to the State Legislature that reviewed the state's recycling industry and recyclable materials markets in the state of Mississippi. The report contained a review of the different recycling material sectors in the state, along with the economic impacts of the recycling industry in Mississippi and the recommendations from the Task Force on improvements to recycling business conditions in the state.

In addition, to the report of the Task Force, MDEQ developed and submitted the agency's annual report on the status of recycling and pollution prevention in Mississippi to the State Legislature. This study by the agency included a survey of local governments throughout the state on the recycling services currently offered to their citizens and presented these findings for the consideration of the state Legislature. The report indicated that approximately 46% of the state's population had access to municipal waste recycling services with about 15% of the population having access to curbside recycling programs and 29% having access to drop-off recycling programs. The report also reported recycling conditions for calendar year 2006 for white goods, yard wastes, waste tires and other large volume waste streams in the state. MDEQ will be compiling and submitting a supplemental status report on recycling and pollution prevention in early 2008 updating the information in the 2007 status report.

Hurricane Katrina Debris Management and Disposal

In 2007, MDEQ's solid waste programs continued work with Federal, State and Local partners to complete and close out various issues related to the clean up of the massive amount of debris generated by Hurricane Katrina. According to the Federal Emergency Management Agency (FEMA), Hurricane Katrina generated over 46 million cubic yards of storm debris across the state of Mississippi. In the three coastal counties, some 27 million cubic yards of debris was collected. In 2007, MDEQ worked in partnership with FEMA to assure the proper closure and restoration of the 340+ emergency debris management sites in the state that MDEQ had authorized to manage the tremendous amount of debris cleaned up in the aftermath of Katrina. These debris management sites included emergency disposal sites, mulching sites, staging and separation sites, and controlled burning sites for clean, vegetative debris. To resolve some closure issues, MDEQ worked with local governments and other responsible parties on remaining environmental issues at the sites and visited and inspected a number of the sites.

MDEQ also worked in 2007 with the U.S. EPA and FEMA on securing additional resources for continued groundwater monitoring around the emergency debris sites on the Gulf Coast that received much of the mixed building and structural debris for disposal. In addition, MDEQ worked with EPA to provide additional funding to the three coastal counties to help support Household Hazardous Waste (HHW) collection efforts. The three coastal counties have experienced a tremendous increase in the amount of HHW that has been generated in the cleanup, recovery and reconstruction of the Gulf Coast communities.

In addition, as the debris clean up has been completed, MDEQ continued its work in 2007 with local governments impacted by the storm to assess and determine local waste management needs in the aftermath of Hurricane Katrina. The Department worked with state engineering firms on the development of a "Gulf Coast Solid Waste Initiative" to address the waste disposal capacity needs and long term waste management needs on the Gulf Coast. This initiative will address the needs and future plans of local governments on vegetative disposal needs, white goods, household hazardous wastes, electronics wastes and other waste problems that have been created or magnified by Hurricane Katrina.

Solid Waste Planning

The Solid Waste Programs also work with local governments around the state to develop and implement long range solid waste planning. Each local government in Mississippi is required by state law to develop and implement a comprehensive local, solid waste management plan for a 20 year period. In 2007, MDEQ worked with several communities to complete the development of updated local solid waste plans. The communities for which these updated comprehensive plans were finalized included DeSoto, Forrest, Jackson, Panola, and Quitman Counties. For DeSoto, Jackson, Panola and Quitman counties, the plans also included the municipal governments located in those counties. In addition to the development of comprehensive updated plans, MDEQ also worked on amending existing plans to assure adequate capacity. These amendments were often conducted to add new disposal facilities locally or to make other changes to local solid waste plans in the manner that solid wastes were being managed. Communities that completed modifications to their local solid waste plans in 2007 include: Coahoma, Harrison, Jackson, Marion, Montgomery, Neshoba and Warren Counties, the City of Jackson and the Golden Triangle Regional Solid Waste Authority. These planning amendments were particularly important in communities that experienced diminished disposal capacity due to the massive amounts of debris disposed in the clean up of the damage from Hurricane Katrina.

As previously stated, MDEQ also continued work on the Gulf Coast Solid Waste Initiative with consulting firms and various local governments to evaluate the effects of Hurricane Katrina on solid waste disposal and recycling capacity in the 6 lower counties of southeast Mississippi. This initiative has spawned modifications to local solid waste plans in this coastal area as a result of identifying needs and implementing recommendations. MDEQ is in the midst of working with these south Mississippi communities on these long range solid waste planning issues that will foster proper solid waste management and waste recycling and reduction programs for the future.

Solid Waste and Waste Tire Assistance Programs

The Solid Waste Programs also continued the management and dispersal of various grant program funds. Through the Solid Waste Policy, Planning and Grants Branch, MDEQ awarded over $2,900,000 in Fiscal Year 2007 for solid waste projects, solid waste planning projects and waste tire projects across the state. Of that total, $1,752,698 was awarded in Solid Waste Assistance Grants to local governments. These grants are used by local governments to clean up illegal dumps, establish collection programs for bulky wastes and recyclables, fund the hiring of a local solid waste enforcement officer, for household hazardous collection days/programs, for public information efforts on solid waste and recycling programs and for other waste management activities at the local level.

Solid Waste Assistance Grants – FY 2007

$771,830 - Total Non-Competitive Grants
76 Counties Received Non Competitive Grants
$953,868 - Total Competitive Grants
37 Municipalities & Counties Received Competitive Grants

The Solid Waste Policy, Planning and Grants Branch also assisted in planning efforts across the state, working with local governments to assist in the development of long-range plans and goals for solid waste management and recycling. Planning grants totaling $46,827 were awarded to Panola County and the Pine Belt Regional Solid Waste Authority to develop and update comprehensive solid waste management plans for their communities.

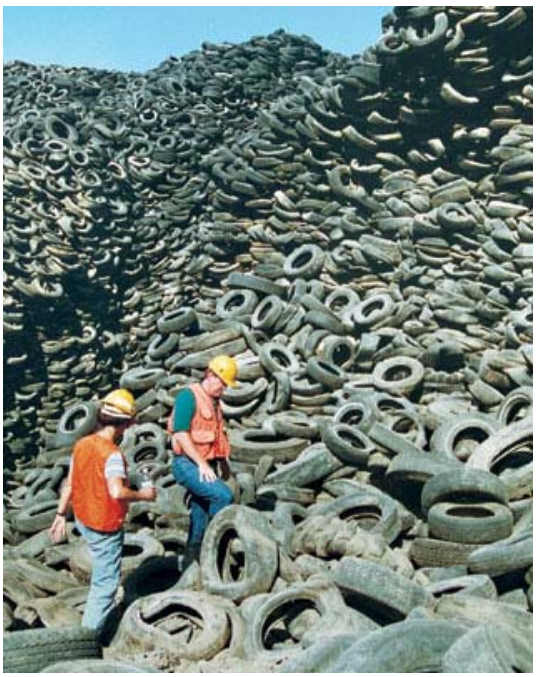
In addition, the Solid Waste Policy, Planning and Grants Branch continued in 2007 to develop and implement the state's strategy to achieve statewide recycling of waste tires. During FY 2007 the recycling rate for waste tires processed in the state was over 90% of the tires collected. In addition, 20 new waste tire grants totaling $1,170,890 were awarded to local governments to fund local waste tire collection and clean up programs during

Fiscal Year 2007. These new waste tire program grants along those tire grants previously awarded assisted local governments across the state in the proper collection and disposal of over 380,000 waste tires.

Waste Tire Grants – FY 2007

$1,170,890 - Total Waste Tire Grants Awarded
380,800 - Waste Tires Collected

Counties receiving waste tire grants during FY2007 included: Alcorn, Amite, Bolivar, Coahoma, Copiah, Harrison, Lauderdale, Leake, Leflore, Lincoln, Neshoba, Pike, Scott, Sharkey, Stone, Sunflower and Warren Counties and the Golden Triangle, Pine Belt and Three Rivers Regional Solid Waste Management Authorities.



Waste Tire Management Program

In 2007, the MDEQ Waste Tire Management Program experienced continued success in achieving significant recycling of waste tires in the state. This success was reflected in the annual report prepared and released in 2007 measuring the state's waste tire recycling rates for Calendar Year 2006. This report indicated that the overall waste tire recycling rate for Mississippi processors in 2006 was over 90% and the recycling rate for those tires generated in Mississippi was over 80%. Although the effects of Hurricane Katrina caused the closure of the only waste tire recycler in south Mississippi in 2006, it is anticipated that the state's waste tire recycling rates for 2007 will continue to exceed the current national average of 73%.

The past year was also an active year for the compliance and permitting activities in the MDEQ Waste Tire Management Program. MDEQ conducted compliance assurance activities at over 150 waste tire collection sites, 6 waste tire processing facilities, dozens of tire retail businesses and managed the permitting and reporting activities of approximately 100 registered waste tire haulers in 2007. Also, 57 complaints involving the mismanagement or unauthorized dumping of waste tires were reported to and investigated by the MDEQ at sites across the state of Mississippi. In addition, the Waste Tire Management Program reviewed or otherwise handled the processing of 10 applications for waste tire management permits and authorizations for waste tire processing facilities, collection sites and disposal facilities.

Finally, MDEQ began other waste tire program efforts in 2007 that are anticipated to be completed in the coming year. Some of these program changes or upgrades include continued work to attract new waste tire recycling businesses to south Mississippi, the development of electronic reporting and record keeping for waste tire processing and collection facilities, and potential regulatory changes requiring financial bonding of waste tire haulers in the state.

Solid Waste Training and Certification Programs

The MDEQ Solid Waste Programs also administer training and certification programs for solid waste professionals in the State of Mississippi. MDEQ partners with the state and national chapters of the Solid Waste Association of North

America (SWANA) to provide training and certification to municipal solid waste landfill operators in the state. There are currently 32 certified commercial landfill operators in the state. In 2007, MDEQ issued renewal certifications for numerous operators and provided continuing education training in partnership with the State SWANA Chapter at the chapter's Spring and Fall Conferences.

In addition, in 2007 MDEQ with assistance from a state advisory group and with contractual assistance from FTN Associates of Little Rock, Arkansas developed and implemented the state's training and certification program for class I rubbish site operators. MDEQ had previously issued an interim certification to one operator for each class I rubbish site in the state while the agency developed the training program for these operators. After delays due to the workload associated with recovery from Hurricane Katrina, MDEQ assembled a rubbish advisory group in late 2006 that met over several months to develop the guiding parameters and goals for the training and certification program. The advisory group consisted of representatives from the State SWANA chapter, private rubbish landfill owners, the Mississippi Independent Solid Waste Association, the Mississippi Association of Supervisors, the Mississippi Municipal League and the permitting, compliance and planning divisions of MDEQ. Based on the efforts of the advisory group, MDEQ developed and hosted training and examination sessions for class I rubbish operators in the fall of 2007 in Jackson, Tupelo and Hattiesburg. Over 120 persons attended the training events administered by MDEQ and took the certification examination. Many of these persons will proceed with obtaining a certificate of competency for rubbish operators. In addition, to these training activities, MDEQ also conducted technical presentations and training through meetings with the Mississippi Municipal League, the Mississippi Recycling Coalition, the Mississippi Association of Supervisors and other state and local organizations and agencies.

Landfill Methane Outreach Program

In 2007, MDEQ continued its partnership efforts with the U.S. EPA, the State's LMOP task force, and other stakeholders to promote the development of landfill gas energy projects in the state. Mississippi currently has one operational landfill gas project that was developed at the Pecan Grove Landfill located near Pass Christian. Through this project, gas from the Pecan Grove Landfill is captured and treated at the landfill property and then piped to a DuPont manufacturing plant located near DeLisle. In 2007, the use of this valuable energy resource continued with DuPont using 2,700 scfm of treated landfill gas to fire boilers at its DeLisle plant.

A direct benefit from this project is the removal of methane, a greenhouse gas (GHG), from the environment. Based on EPA's model, the estimated annual reduction of GHG from this project is equivalent to removing emissions from 6,500 vehicles on the road or planting 9,000 acres of forest. Also, the estimated annual energy benefit from this project is equivalent to reducing oil consumption by 79,000 barrels or reducing coal consumption by 160 railcars or heating 8,800 homes. In addition to these benefits, this landfill gas project has helped the DuPont facility save more than $1 million annually in energy costs. Through LMOP, MDEQ has also identified 12 other landfills in the state that appear to have good potential for future project development to generate about 45 MW of energy. In 2007, MDEQ has continued to work and meet with various landfill owners, landfill gas energy project developers and with local officials to promote the consideration of landfill gas energy projects in the state. In addition, the agency developed a state LMOP web page to profile information on the program and the benefits of using landfill gas as an alternate energy source.

Byproduct Beneficial Use Program

MDEQ renewed efforts in 2007 to inform and promote the agency's program for the beneficial use of nonhazardous byproduct materials that would otherwise be disposed in landfills. The state's beneficial use regulations allow for certain industrial byproduct materials to be evaluated for use in the place of products or raw materials. If the evaluation confirms that the material has suitable physical and chemical properties for the proposed use, then MDEQ issues a beneficial use determination on the material which means that the use of the material can be conducted in the state and will not be regulated as a solid waste. Beneficial use determinations that were considered and issued in 2007 included wood fired boiler ashes soil amendment uses, coal ash construction uses, and lime by-product soil amendment uses and various other material uses. In addition, evaluations continued on beneficial use demonstration projects involving poultry process residuals and flue gas desulfurization sludge.

Recycling Education

The Recycling and Solid Waste Reduction Program at MDEQ is charged with working with local and state governments, private sector organizations, non-profit organizations, and the general public to increase recycling and solid waste reduction activities across the state. The program provides both educational and technical assistance to all groups in the state to increase the awareness and the importance of recycling and solid waste reduction measures.

The program partners with numerous organizations in the state including the Mississippi Recycling Coalition, Keep Mississippi Beautiful and Affiliates, and the Mississippi Soft Drink Association. In FY2007 the Recycling and Solid Waste Reduction Program gave presentations to eight organizations and schools across the state, provided recycling and solid waste information via exhibits at eleven events. The program also conducted fourteen site assistance visits of recycling activities around the state.

* Five K-12 schools were visited.
* Two colleges and university programs were visited.
* Three state agency programs were visited.
* Five presentations or exhibits were conducted for government organizations.
* Five presentations or exhibits were conducted for community groups.
* One presentation was conducted for an industry group or association.
* Seven commercial recyclers were inspected.
* Five recycling programs for businesses other than Recycling were inspected.

The program also utilized a recycling education display that was made available to libraries and other organizations in the Jackson metro area for public display.

Along with Keep Mississippi Beautiful, MDOT, and the Department of Tourism, MDEQ finalized the placement of aluminum can recycling bins at all Welcome Centers in the state so that visitors can conveniently recycle aluminum cans as the travel through the state.

Pollution Prevention

The purpose of MDEQ's Pollution Prevention Program within the Environmental Permits Division is to:

- Provide pollution prevention information and technical assistance to local government officials, federal officials, industrial officials, consulting engineers, and system operators on hazardous and non-hazardous waste management and pollution prevention practices.

- Review, manage, and monitor the waste minimization plans, annual waste minimization certified reports, and the EPA/Mississippi Pollution Prevention (P2G) Grant.

- Coordinate/partner with both states and the federal government (e.g. DoD) and non-governmental entities to promote effective pollution prevention practices.

During FY2007, the MDEQ Pollution Prevention Program accomplished the following program elements:

- Reviewed and approved eight industry waste minimization plans
- Reviewed and monitored 198 annual waste minimization certified reports
- Met all conditions of the 2007 EPA/Mississippi Pollution Prevention (P2G) Grant
- Pollution Prevention on-site visits was provided to eight businesses or industries in six different SIC Codes
- Compliance assistance was provided to two small businesses
- Permitting/reporting compliance assistance activities was provided to three facilities in 3 different SIC Codes
- Update of all of the Pollution Prevention Program data bases

Key pollution prevention projects included expanding the efforts of the Mercury Reduction Initiative, promoting Hospitals for a Healthy Environment, and implementing HealthySEAT, an environmental management software for schools.

The objective of the Mercury Reduction Initiative is to reduce mercury releases to the environment through reduction of mercury use and related discharges. Targeted sources included automotive switches, dental offices, hospitals, and schools.

Mississippi merged the state automotive switch collection program with the National Vehicle Mercury Switch Recovery Program (NVMSRP). The NVMSRP was created in August of 2006 to coordinate recovery of mercury-containing switches in automobiles. Millions of these switches remain in cars resulting in mercury emissions to the environment when scrap metal from these vehicles is salvaged. The NVMSRP targets a reduction of 75 tons of mercury emissions over the next 15 years. The Automotive Switch Recovery Program has been marketed to all automotive salvage facilities in the state. There are currently 41 facilities collecting switches for mercury recovery. The P2 program is also working with scrap metal recyclers to promote further collection efforts. The final phase of this project will include additional training and implementation coordination in conjunction with the requirements of the Electric Arc Furnace rule, published in December of 2007.

The MDEQ Pollution Prevention Program has worked with the Mississippi Dental Association to assess mercury pollution from dental office amalgam waste. Dental amalgam is currently one of the largest uses of mercury in products. Over 800 practicing dentists were surveyed to assess current amalgam management techniques and identify opportunities for increased recovery of mercury from amalgam waste. It was found that while non-contact amalgam mixing scrap is currently recovered by approximately half of the respondents that other forms of amalgam

waste are generally not being recycled. Outreach materials on Best Management Practices for Amalgam Waste were developed, and MDEQ will continue to work with the association to train dentists on recovery options. Mercury reduction in labs at schools and hospitals is being coordinated through active environmental management programs currently being implemented.

The objective of Hospitals for a Healthy Environment (H2E) is to promote environmental sustainability in health care. The cornerstone of the H2E Initiative is the Memorandum of Understanding (MOU) between the American Hospital Association and the US Environmental Protection Agency. MDEQ is bringing this to the state level so that the more than 100 health care facilities in Mississippi can fully utilize the many pollution prevention tools developed though this effort. Opportunities for mercury elimination, reduction of solid, medical, and hazardous wastes, and increased utilization of energy efficient practices from health care facilities are being targeted. MDEQ is partnering with the national H2E program to address "Making Medicine Mercury Free." Training seminars, including P2 options for Health care Facilities and Reducing Regulated Medical Waste, have been held.

Another focus area of the P2 program is pollution prevention in schools. MDEQ is working with the Mississippi Department of Education and two local school districts to pilot implementation of an environmental management software tool, HealthySEAT, so that the software can be used by all school districts in the state. HeathySEAT is a tool that allows school districts to evaluate and manage their school facilities for key environmental, safety and health issues. Examples of school environmental hazards include chemical releases, pesticide exposures, flaking lead paint, mold and other indoor air quality problems, and damaged asbestos-containing building materials. Customization of the software provides district-level staff an efficient means to conduct completely voluntary self-assessments of their school facilities and to track and manage the findings on environmental conditions school by school. Critical elements of all environmental regulatory and voluntary programs for schools are included for reference, as well as web links to more detailed information. Over 160 teachers and staff have been trained in districts representing approximately 4000 students.

Toxic Release Inventory

The Toxic Release Inventory is required under Section 313 of the federal Emergency Planning and Community Right-To-Know Act of 1986. This report is required to be submitted every year by facilities that utilize toxic substances in their manufacturing processes if the facility has in excess of 10 full-time employees and falls into certain Standard Industrial Classification codes as designated by the EPA. These facilities report how toxic substances are utilized in their manufacturing processes and how and to what media they are emitted to the environment. Every year, over 250 facilities from across the state submit over 1,000 reports to MDEQ, as required by federal law.

Grants And Loan Programs

Coastal Impact Assistance Program (CIAP)

Mississippi's Coastal Impact Assistance Program was created by Congress in October 2000 appropriat- ing Mississippi $24,300,000 through NOAA to improve the health of the coastal ecology. MDEQ as the lead agency and the three coastal zone counties — Hancock, Harrison and Jackson — have collaborated to develop a program directed at coastal protection, enhancement, restoration and conservation.

CIAP funded a multi-year college credit environmental class at Bay High in Hancock County. **Photo is courtesy of the Bay Waveland School District.**

The state's plan continues to be implemented through 81 projects in the three coastal counties. The CIAP projects cover a wide range of approaches including wetlands and coastline restoration, watershed protection and restoration, waste water infrastructure and planning, ecotourism, invasive species control, technology/ GIS developments, coastal urban forestry, conservation education, sustainable development and smart growth, air quality, fisheries, wildlife and shellfish habitat, water quality, land acquisition and conservation easements. The funds to support these projects were awarded to non-profit organizations, city, county and state agencies and academia working in the three coastal counties.

Each award recipient is required to seek partnerships and other funding to implement and sustain their project past the CIAP funding. Approximately 85 percent of all CIAP projects have been completed and the remainder were finished by November, 2007 when the CIAP grants expired. The new 2007 - 2011 CIAP program will be administered by the Mississippi Department of Marine Resources. MDEQ staff are actively helping MDMR with the initiation of the new program.

A final progress report on the 2001-2007 CIAP program will be available on MDEQ's website in February, 2007.

Section 319 Nonpoint Source (NPS) Pollution Control Grants

MDEQ in cooperation with a number of federal, state, and local stakeholders has been successful in developing a comprehensive statewide NPS pollution control program to help protect and restore our valuable water resources. The state's NPS Program fulfills the requirements of Section 319 of the Clean Water Act (CWA) and section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA), two federal laws with NPS pollution control provisions.

Since its inception in 1990, a total of $49 million in grant funds have been secured and utilized to implement 146 NPS pollution control projects. These projects include: water quality best management practice demon- strations, monitoring and assessment, water quality education, and watershed protection and restoration projects.

In FY2007, MDEQ received approximately $3.7 million in Section 319 Grant funds. Of this amount, 4 percent is allocated for administrative work, 20 percent for assessment and monitoring, 29 percent for program operation and statewide education and public outreach projects, and 46 percent is allocated for priority watershed restoration and protection projects primarily in the Tennessee-Tombigbee and Big Black Rivers Basin.

Water Pollution Control Revolving Fund

During FY2007, MDEQ funded ten new projects for a total of $18,305,543 from the Water Pollution Control Revolving Loan Fund (WPCRLF) program. This program provides low interest loans to public entities in the state for construction, repair, or replacement of wastewater, storm water, and nonpoint source pollution projects. Funding for these projects comes from federal grants, state match, repayments, and interest on deposits. Since Hurricane Katrina, the department has been working with the loan recipients in the Coastal Counties to provide repayment forbearance periods when requested due to the impacts of the storm.

Water Pollution Control Emergency Loan Fund

This program provides loans to communities for the emergency construction, repair, or replacement of wastewater collection and treatment facilities. This fund has $1,900,000 available through MDEQ for such emergency projects. MDEQ encourages communities throughout the state to utilize this program whenever emergency wastewater projects are needed. Since Hurricane Katrina, the department has been working with the loan recipients in the coastal counties to provide repayment forbearance periods when requested due to the impacts of the storm.

Citizen Safety/ Action/ Outreach Programs

Dam Safety

The Commission on Environmental Quality adopted amended Dam Safety Regulations in 2004 requiring owners of High Hazard dams (dams that have the potential to cause loss of life or major property damage in the event of a failure) to have their dams inspected by a registered professional engineer and to develop an Emergency Action Plan (EAP) that would be implemented in the event of an impending failure of the dam. As a result of these engineering inspections and evaluations, dams that were placed on the inventory in the High Hazard class based on inaccurate or incomplete information have now been correctly classified and the number of High Hazard dams in the state inventory currently stands at 262. The information produced by these inspections has also resulted in dam owners beginning repairs or rehabilitation on 32 dams, removing two dams, and voluntarily lowering water levels behind four other High Hazard dams until repairs can be made. Shifting responsibility for inspections to the owners of dams has permitted staff to devote more time to review designs for new High Hazard and Significant hazard dams and to inspect new dams during critical stages of construction. There are currently18 new High Hazard dams and 10 new Significant Hazard dams authorized for, or under, construction and 76 low hazard dams approved for construction.

Breach analyses and inundation maps have been completed for 17 of the 20 state owned High Hazard dams, and the Natural Resource Conservation Service is on schedule to complete the analyses and mapping for all of the High Hazard watershed dams in the state by the end of 2008.

Approximately 90 percent of the private owners of High Hazard dams are in various stages of complying with the requirement for the inspection and the development of an EAP for their dams. There are now 65 EAPs approved and on file, and the number is growing weekly. The approval process includes review and approval at the county level by the local Emergency Management Agency and all first responders that would be required to implement the plan. This procedure has extended the anticipated schedule for completing the documents, but the involvement of local agencies in the plan development greatly enhances the value of the plans in safeguarding lives and property in the event of a dam failure.

MDEQ staff is continuing to work with dam owners in establishing acceptable schedules for compliance with the regulation provided the dams are structurally sound and well maintained. It is anticipated that additional owners may be required to lower the water levels in their lakes and maintain the lower levels until they comply with the regulation.

enSite - Improving Environmental Information Management

MDEQ expanded its implementation of its electronic Discharge Monitoring Report (eDMR) application during this fiscal year with a positive response from the regulated community. MDEQ continues to be a leading state in the National Environmental Information Exchange Network, improving data exchanges between environmental partners at the state and federal levels. MDEQ was awarded an Exchange Network Grant in 2007 for the development of a Toxic Release Inventory data flow that will reduce the burden on industries that utilize EPA's TRI-ME software. This grant will provide funds to download the TRI data submitted to EPA through TRI-ME to MDEQ. This will eliminate the need for industries to submit paper copies of their TRI reports to MDEQ.

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Electronic Discharge Monitoring Reports (*e*DMR)

The Mississippi Department of Environmental Quality continued to expand its Electronic Discharge Monitoring Reports (*e*DMR) program in 2007. In 2007, MDEQ announced eDMR eligibility for NPDES Majors that have permits generated by enSite. The software has been received positively by MDEQ's regulated community.

Nonpoint Source (NPS) Pollution Education

Polluted runoff or Nonpoint Source Pollution (NPS) is rainwater runoff that picks up and carries away a variety of pollutants as it flows over streets, parking lots, construction sites or farm lands and finally depos- its them into rivers, oceans, and even underground sources of drinking water. These pollutants include; excess fertilizer, sediment, nutrient, pesticides, oil and grease, and bacteria from faulty septic systems. Since every one of us contributes to polluted runoff, every one can make a difference in reducing it. Therefore, the NPS Program concentrates on many public outreach and education programs that will increase awareness and move citizens to actions to improve their quality of life.

Watershed Harmony Musical Puppet Theater - A 30 minute musical production with 7 songs, a multi-level stage, and 10 puppet characters. This entertaining puppet show teaches responsible environmental stewardship of our waters and how Best Management Practices (BMPs) and planning can reduce the impacts of polluted runoff. During 2007, the show toured Mississippi reaching a total of about 5,000 students and adults.

Enviroscape and Groundwater Model Distribution - During 2007, MDEQ staff reached over 4,900 students, teachers and the general public with water pollution prevention and water quality presentations. Over 85 water models have been distributed throughout Mississippi to county MSU Extension Service Offices, district Department of Health Offices, Soil and Water Conservation Districts, Environmental Learning Centers, the Choctaw Indian Reservations and other organizations.

Environmental Workshops for Teachers, Environmental Educators and Students- Over 370 educators attended 19 CEU-approved workshops conducted statewide during 2007. In addition, 3 student Ecology day camp sessions were conducted with over 35 students in attendance.

Community Growth Readiness- A program that teaches local officials about ordinances and methods to create greener communities and ways to improve water quality, reduce runoff water from urban areas, and improve quality of life for citizens. The program incorporates smart growth and low impact development principals as well as

providing erosion and sediment control training for contractors and inspectors. With Phase II Stormwater permit requirements, there is an urgent need for the training of local inspectors. In 2006 NPS staff made presentations at a coastal training workshop and to landscape architects statewide.

Storm Drain Marking – A program that promotes water quality awareness of the impact of polluted runoff in urbanized communities. Small plastic disks are placed by local volunteers on storm drains with the message "No Dumping, Drains to River". During 2007, students and scouts glued the markers to 500 storm drains and distributed door hanger markers to homes in several Mississippi communities.

Adopt-A-Stream Program – A program that promotes environmental stewardship by training volunteer citizens about stream ecology, aquatic life, and water chemistry. Volunteers attend a two-day water education workshop to learn how to monitor a stream, conduct a stream cleanup, or mark storm drains. In 2007, approximately 60 people attended AAS workshops. Also, during 2007, complimentary test kits for World Water Monitoring Day were distributed to interested individuals during several environmental education events in Mississippi. The distribution of these simple, inexpensive, but accurate test kits will allow more widespread monitoring activities and increase public awareness about stream stewardship.

Citizen's Guide to Water Quality in the Pearl River Basin—Nearly 600 manuals were distributed during 2007 to public officials, city engineers, and road maintenance staff at the state meetings for the Boards of Supervisors and at the Mississippi Municipal League State Conference. In addition the Natural Resources Conservation Service in Mississippi; the Mississippi Soil and Water Conservation Commission; and engineering schools at Mississippi Universities received manuals.

The *Pearl River Brochure* – Ten thousand brochures were distributed at the Pearl River Symposium during 2007. The brochure features the following; ecological value of the Pearl River system; the habitat needs of select riverine wildlife species; stresses to the Pearl River; special habitats in the basin; and nonpoint source pollution control strategies such as BMPs for resource extraction (sand and gravel mining), forestry, agriculture, development and septic systems.

Citizen's Guides to Water Quality are complete for the Pearl River Basin and the Yazoo River Basin These 32-page color documents were created to inform citizens about water resources and the effects of land use on water bodies in the River Basins of Mississippi. These guides are funded by MDEQ's 319 NPS program and are used to educate the public about the value of Mississippi's water resources and the concept of watershed management. They specifically include discussions of water quality conditions, land uses, and watershed management activities in the targeted basins. The guides also feature cultural and recreational resources, wildlife, and stewardship opportunities of the River Basins. Citizen's Guide booklets for the Pascagoula River and the Tennessee/Tombigbee Rivers are nearing completion.

Wendy Water Coloring Books were reprinted and 3000 out of 5000 were distributed during 2007.

Urban Forestry Manuals & Booklets- Four documents are now available to guide communities in planning and managing urban forests: *Introduction to Urban Community Forestry; Urban Forestry, Mississippi Urban and Community Forestry Management Manual(191 pages); The Community Forest Booklet (14 pages);* and *Preserving Trees in Construction Sites (12 pages.).* To order, contact the Mississippi Forestry Commission at phone 601-359-1386

Environmental Resource Center

Envrionmental Assistance - A Priority

The Mississippi Department of Environmental Quality is dedicated to providing statewide focused, collaborative, and coordinated environmental assistance, as a priority, to increase environmental awareness and compliance, and to protect the environment for all Mississippians. MDEQ's assistance vision and ethic incorporates and implements the theme "Environmental Assistance – A Priority." Assistance in the form of workshops, seminars, training sessions, and on-site technical assistance is provided to all MDEQ customers (business, industry, local government, federal government, and citizens of the state) through MDEQ's Environmental Resource Center (ERC). MDEQ assistance activities are developed and implemented in a holistic agency-wide perspective incorporating input from all MDEQ offices, divisions, programs, and across environmental media (air, land, water).

MDEQ and ERC has provided workshops, seminars, assistance, and training session activities including the following topics and issues: solid waste planning, solid waste enforcement officer training, surface mining laws and regulations, high hazard dam regulations, dam safety, solid and hazardous waste recycling, small business technical assistance, dry cleaner assistance, toxic release inventory training, storm water regulations, pollution prevention, paint spray operations, compliance assistance, coating operations, city and county seminars and conferences, wastewater compliance, basin management, watershed implementation, and water quality.

MDEQ/ERC provided on-site technical assistance assessments for 24 individual businesses and industries involved in the following operations: timber and wood products, meat processing, metal and metal fabricators, service and miscellaneous industries; example laundries, dry cleaners, and car washes, municipal and private facilities, and construction and building materials. These assessments involved a complete review and analysis of the business or industry's operation from an environmental compliance, pollution prevention, permitting, and waste generation standpoint.

AWARDS & HONORS

Barbara J. Viskup, the senior Regional Biologist in the Mississippi Department of Environmental Quality's Biloxi Office, was recently awarded a Gulf Guardian Award for third place in the individual category. This award is given each year by the EPA/Gulf of Mexico Program to honor personnel for their positive steps to keep the Gulf healthy, beautiful and productive. Ms. Viskup was honored not only for the work she has done in monitoring the waters of Mississippi, but also for all her work following Hurricane Katrina.

Barbara J. Viskup