Fiscal Year 2003 Annual Report

MDEQ strives to preserve and protect Mississippi’s air, land, and water through fair and responsible regulation.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Letter from the Executive Director</td>
<td></td>
</tr>
<tr>
<td>II. Mission Statement</td>
<td></td>
</tr>
<tr>
<td>III. Protecting Our Environment</td>
<td></td>
</tr>
<tr>
<td>A. Air Quality</td>
<td></td>
</tr>
<tr>
<td>B. Water Quality</td>
<td></td>
</tr>
<tr>
<td>C. Water Quantity</td>
<td></td>
</tr>
<tr>
<td>D. Land Preservation</td>
<td></td>
</tr>
<tr>
<td>E. Permitting</td>
<td></td>
</tr>
<tr>
<td>F. Compliance</td>
<td></td>
</tr>
<tr>
<td>G. Cleanup of Contamination</td>
<td></td>
</tr>
<tr>
<td>H. State and Federal Pass-Through Grant and Loan Programs</td>
<td></td>
</tr>
<tr>
<td>I. Citizen Safety/Action/Outreach Programs</td>
<td></td>
</tr>
<tr>
<td>J. Environmental Assistance</td>
<td></td>
</tr>
<tr>
<td>K. Awards/Honors</td>
<td></td>
</tr>
</tbody>
</table>
January 31, 2004

Governor Haley Barbour
State of Mississippi
Members of the Mississippi Legislature

Ladies and Gentlemen:

I hereby submit to you the Mississippi Department of Environmental Quality’s report for the state fiscal year ending June 30, 2003. This report represents an overview of Departmental activities completed by the hard working and dedicated employees of this agency.

I hope that you find this report useful and informative. Your support has assisted us in our work to protect and preserve the air, water, and land of our wonderful state. We continue to welcome your comments and suggestions.

Sincerely,

Charles Chisolm
Executive Director
Mississippi Department of Environmental Quality

MDEQ strives to protect and preserve the air, water, and land through responsible regulation.
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
A. Truth is the foundation of everything we do.
B. We vigilantly resist bias and prejudice.
C. We respond promptly, courteously, and as completely as possible to every question, complaint, or request for assistance.
D. 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.
E. We strive for a secure, stimulating, rewarding work environment in which all members of the MDEQ family are empowered and encouraged to reach their full potential.
F. We are committed to the highest standards of performance in every aspect of our jobs.
G. We are accountable, individually and collectively, for effective, efficient management and use of the resources provided to accomplish our mission.

MDEQ strives to protect and preserve the air, water, and land through responsible regulation.
During the year, significant progress was made on a number of important activities including Total Maximum Daily Load (TMDL) reports required by the Clean Water Act to determine the ability of streams to assimilate pollution from point and nonpoint sources.

MDEQ continued comprehensive water resource studies throughout the state that are intended to become the basis for the development of an integrated, coordinated plan for the proper use and development of the state’s water resources. Special attention was paid to the study of water availability in the Mississippi Delta, where demand has resulted in declining water levels.

Inspections of surface mines and surface mine land reclamation continued at a steady pace, while amendments to state mining laws brought significant changes to the way mining is done in the state. Geologic research and data collection focused on the areas of environmental and ground-water geology, drilling and sampling throughout the state, and assisting with archaeological excavations.

Environmental permitting showed performance improvements in many areas, including an increase in permitting productivity and enhancements to the enSite and enSearch computerized data programs.

MDEQ continued to clean up contaminated sites throughout the state. There was an increase in brownfield site applications, and underground storage tank remediation sites increased as the program struggled with obligations that exceeded the cash balance in its fund. The department responded to nearly 2,000 emergency calls in FY2003 and recovered nearly 50 percent of the remediation expenses. In addition, the department inspected 315 asbestos projects and certified 1,008 asbestos abatement professionals.

State and federal pass-through grant and loan programs assisted state, regional, and local governments and organizations with a variety of projects in FY2003 including solid waste assistance grants, waste tire grants, grants to clean up household hazardous waste, and wastewater system loans. Grants from the Clean Water Act provided money for assessment and monitoring of the state’s waters, education and outreach of best management practices, and for watershed restoration and preservation. The Coastal Impact Assistance Program partnered with state agencies, led by MDEQ, and the three coastal zone counties in planning 81 projects that will cover a wide range of environmental studies.
Citizen safety, action, and outreach programs continued to perform dam safety inspections, respond to hazardous releases, and monitor beach water safety. Outreach programs taught the public about pollution prevention, the hazards of lead paint, and the importance of recycling. Programs aimed at teaching children about respecting the environment and good stewardship of the state’s resources continued to draw participants from around the state. MDEQ led a program that recycled over 50 percent of the state’s agricultural pesticide containers. MDEQ’s Emergency Services Division became a leader in the state’s fight against terrorism. Businesses throughout the state benefited from small business technical assistance programs. Underground storage tank compliance assistance programs helped underground tank owners establish and maintain compliance with the many rules and regulations covering tanks. Over 700 operators, utility managers, and engineers attended wastewater operator training classes conduct by MDEQ.

MDEQ continued to emphasize, as a priority, statewide environmental assistance in the form of workshops, seminars, training sessions, and on-site technical assistance. MDEQ established “Environmental Assistance – A Priority” as an agency vision and theme.

MDEQ and staff were recognized and awarded many honors during FY2003. New legislation gave MDEQ a major role in developing a statewide geographic information system (GIS) that will aid local governments and planning boards with vital data that will play a major role in future management, development, and disaster preparation plans.

These pages are a summary of MDEQ’s projects and activities in FY2003. We invite you to read the entire report and learn how MDEQ continues to conserve and improve our state’s environment for today and the future.

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Ozone Attainment/Non Attainment & Air Quality 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, particulate matter, and visibility recently promulgated by the U.S. Environmental Protection Agency (EPA) are jeopardizing that track record. Increased planning and monitoring efforts will continue for several years because of these changes. Formal designations of attainment/nonattainment for ozone and fine particulate matter are expected from EPA in 2004.

Two 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 82 counties measuring ozone within standards for FY2003.

Although indications are that the Coast counties will be designated attainment for ground-level ozone by EPA in 2004, MDEQ initiated a voluntary ozone precursor air pollution control program in partnership with governmental and business leaders on the Coast in efforts to prevent future nonattainment.

Ground-level ozone also continued a downward trend in FY2003 in DeSoto County.

In spite of improvements, EPA may designate DeSoto County nonattainment as part of a larger nonattainment area centered around Memphis, Tennessee. DeSoto County is a part of the Memphis Metropolitan Statistical Area. MDEQ has resisted the inclusion of DeSoto County in the Memphis nonattainment area. In case it is included in the Memphis area, MDEQ, during FY2003, entered into an agreement called an Early Action Compact (EAC) with DeSoto County; the states of Arkansas and Tennessee; the city of Memphis; Shelby County, Tennessee and its adjoining counties in Tennessee and Arkansas; and EPA. The EAC is a project to delay or avoid the severe effects of nonattainment designation by developing and implementing a plan to meet standards early. Developing this plan consumed half of FY2003 and continues into FY2004. An integral part of this project was the Arkansas-Tennessee-Mississippi Ozone Study (ATMOS), a collaboration between MDEQ and its sister agencies in Arkansas and Tennessee begun several years ago to study ozone formation and develop models of these phenomena. (See map above.)

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Air Monitoring

Ambient Air Quality Monitoring Site

During FY2003, 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. (See map at bottom of the page.)

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.

MDEQ: FY03 - 10

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Water Quality Standards

During FY2003, MDEQ revised and re-adopted water quality standards to reflect the latest science and recommendations from EPA. Following a 30-day public comment period and hearing, the water quality standards were adopted by the Commission in October 2002, approved by EPA in June 2003, and were implemented in permits, TMDLs, and water quality assessments.

MDEQ is working to develop nutrient criteria for the state’s surface waters. To assist with this effort, MDEQ has formed a multi-agency Nutrient Criteria Task Force (NCTF) to provide technical advice and guidance. During FY2003, under the guidance of the task force, MDEQ collected and analyzed numerous nutrient samples, chlorophyll samples, and hydrographic profiles on 50 state lakes. In addition, numerous sites in coastal estuaries were sampled. Both sampling efforts provided data to support the development of nutrient criteria protective of water quality.

To collect background data for criteria development on lakes, MDEQ sampled all public lakes and reservoirs in the state greater than 500 acres in size. These 40 lakes were sampled six times during the year to account for seasonal variability. In addition, ten lakes that are fertilized for fishery management purposes were included in the study.

During FY2003, MDEQ collected and analyzed approximately 1,000 nutrient samples and 400 chlorophyll \(a\) samples, and conducted 400 hydrographic profiles as part of this project. These data will be used to develop nutrient criteria for Mississippi that will help protect the state’s waters.

FY2003 was the third year that the Surface Water and Field Services divisions were involved in the sampling of wadeable streams (see map) for Aquatic Life Use.
Support determinations, Waste Load Allocations, Total Maximum Daily Load (TMDL) development, and other agency needs. A total of 141 sites were sampled during FY2003, bringing the total to nearly 750 sites sampled over a three-year period. At each site, a biological assessment was conducted. In addition, during each site visit, physical and chemical measurements were made, water samples were collected for laboratory analysis, sediment/particle size distributions were measured, and a physical assessment of habitat quality was conducted.

MDEQ has partnered with the Gulf Coast Research Lab (GCRL) to monitor the Mississippi Sound and associated estuaries as a part of the National Coastal Assessment Program. The sampling results will allow EPA to make comparisons of coastal water quality across the country for the first time. Together MDEQ and GCRL sample 50 randomly selected sites each year. The FY2003 sites are shown on the map to the right.

**TMDLs - Impaired Waters**

TMDLs are a requirement of the Federal Clean Water Act (CWA) passed in the early 1970s to provide direction for restoring the nation’s waters. TMDLs are water body pollution reports that determine the ability of a stream to assimilate pollution from point sources such as industry and communities, and nonpoint sources such as storm water runoff from urban areas or agriculture. TMDLs are developed for impaired water bodies as listed on the state’s CWA Section 303(d) List. MDEQ completed 185 TMDLs for the Yazoo River Basin during FY2003. Over the past four years MDEQ has completed a total of 360 TMDLs. In FY2003 MDEQ submitted the 2002 Section 303(d) List to EPA for approval.

MDEQ continues to make significant progress on completing the TMDLs shown on the 1996 Section 303(d) list. A federal consent decree requires EPA to complete the 2,700 TMDLs shown on the 1996 list within ten years. Utilizing the Biological Sampling effort and completion of TMDL Reports, MDEQ has addressed 1,300 of the TMDLs on the 1996 Section 303(d) list. Nine-hundred TMDLs remain on the 2002 list. The 2004 list will be similar to the 2002 list.

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Wetlands

Our goal at MDEQ is to prevent a new loss of wetlands in Mississippi. To meet this goal MDEQ requires projects that would impact wetlands or streams to submit a 401 Water Quality Certification application that explains any proposed impacts. Mitigation may be involved in the application process.

During FY2003, MDEQ reviewed 111 Water Quality Certification Applications, which is down from a high of 302 in FY2001. The decrease is thought to be directly related to the temporary downswing in the state economy. While the numbers have declined the complexity and controversial nature of some of these projects has increased.

Stormwater Regulations

Significant changes in the federal storm water program were implemented in FY2003. Specifically the state was required to develop general permits to implement new federal requirements for small to medium urbanized areas and small construction projects. Thirty-seven urbanized areas became subject to mandatory storm water requirements. Additionally, small construction activities disturbing one to five acres were subjected to storm water management rules for the first time. MDEQ issued the general permits for the urbanized areas and small construction activities on time. Facilities subject to the new requirements were required to begin complying by March 10, 2003.

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 (SWPP).
- Inspect the site weekly and after rainfall events of a half-inch or more to make sure the sediment and erosion controls are still working. This information must be recorded and kept with the SCNOI.

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Surface Water and Groundwater Use Regulations

While Mississippi is blessed with an abundant supply of surface water and groundwater resources, certain areas of the state where water use trends change and groundwater levels decline remind us that the long term viability of any water supply demands wise stewardship of the resource and a long-range management strategy.

Proposed Changes in Water Use Regulations

To ensure that adequate regulatory tools are available to safeguard and manage Mississippi’s surface water and groundwater resources, MDEQ continued working on updating and rewriting the Surface Water and Groundwater Use and Protection Regulations during FY2003. When this work is finalized, the existing regulations, which also includes rules for the licensing of water well contractors and regulations related to dam safety in the state, will be replaced by three separate sets of regulations governing the regulatory programs administered by MDEQ’s Office of Land and Water Resources. Staff will present a final version of the regulations to the Commission on Environmental Quality for adoption in FY2004.

Comprehensive Water Management Plan

State statute mandates the development of a comprehensive statewide water management plan. This statute also requires detailed studies on a host of water-related issues that are intended to become the basis for development of an integrated, coordinated plan for the use and development of the waters of the state.

Many of the various activities currently underway at MDEQ will become integral parts of a comprehensive water management plan. During FY2003, water quantity components were included in MDEQ’s Basin Management Approach to watershed planning that is currently underway for every watershed in the state. MDEQ has continued efforts to characterize and quantify the groundwater resources of the state, as well as project the needs and uses of the resource. As evidenced by the ongoing collaborative effort to develop a plan addressing the water supply issue in the Delta, some elements of a comprehensive water management plan are well underway even though no additional resources have been made available for its development. Future funding will determine the schedule for completion of the statutorily mandated plan.

Assessment and Study of Water Resources

MDEQ staff is continuing comprehensive studies in four areas of the state, which were selected based on site-specific hydrology and/or recognition as centers of significant population growth potential. The designated study areas outlined on the map on the next page include: (1) the Memphis Aquifer area including DeSoto and Marshall Counties as well as the counties southward along the Bluff Hills; (2) the Delta Region; (3) the three Jackson Metro counties along with Yazoo County; and (4) the counties comprising the southern one-third of the state underlain by the Miocene aquifer system.
During the past year, MDEQ’s Office of Geology and Office of Land and Water Resources continued mapping the surface geology and constructing subsurface geologic cross-sections in the study areas. The objectives of this effort are to refine the delineation and mapping of available aquifers and to identify and protect their corresponding recharge areas.

**Water Resource Issues in the Mississippi Delta**

The economy of the Delta region is dependent to a large extent on the availability of water for irrigation and aquaculture use. At present in the Delta, approximately 95% of the water used for irrigation and 100% of the water used for aquaculture is pumped from the shallow Mississippi River Valley alluvial aquifer (MRVA). The estimated 15,000 large-diameter wells pump an average of approximately 1.3 to 1.5 billion gallons of groundwater per day from the MRVA. This demand has resulted in declining water levels in the aquifer and reduced base flows in some Delta streams. 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.

MDEQ continued efforts in FY2003 to educate stakeholders and to secure commitments from other interested agencies that administer programs and have funding that could be brought to bear on finding solutions to the water-related issues in the Delta. This effort has been very successful. The coalition of agencies making this a priority in their program management include the Natural Resource Conservation Service (NRCS), the Vicksburg District Corps of Engineers Regulatory Branch, the Yazoo-Mississippi Delta Joint Water Management District (YMD), the Mississippi Association of Soil and Water Conservation Districts, the Extension Service, and MDEQ. Other organizations collaborating in the effort include the Delta Council, the Catfish Growers Association, and the Rice Growers Association.

The groundwork for implementation of widespread water conservation efforts has been performed, and YMD has taken the lead in development of a low-flow augmentation project for the Sunflower River utilizing funds allocated for the work by NRCS. MDEQ anticipates widespread implementation of water conservation measures throughout the Delta in FY2004.

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Surface Mining and Reclamation of Surface-Mined Lands

MDEQ continued to regulate all surface mines in the state through the Office of Geology’s Mining and Reclamation Division as provided for in the Mississippi Surface Mining and Reclamation Law of 1977 and the Mississippi Surface Coal Mining and Reclamation Law of 1979.

During FY2003, 1,021 inspections were performed, 61 permits were issued, and 121 notices of exempt operations were issued. A total of 1,047 exempts are on file, covering approximately 4,000 acres, and 813 acres were completely reclaimed as a result of the division’s efforts to oversee reclamation. The state currently has 849 permits covering over 23,000 acres.

The Mississippi Lignite Mining Company is mining lignite at their Choctaw County mine to supply fuel for the mine-mouth power plant that went on-line last year. The mine will produce approximately three million tons of lignite per year and will eventually cover some 16,000 acres. The power plant generates 440 mW of power.

The amendments to the Surface Mining and Reclamation Law, approved by the Mississippi Legislature in 2002, have brought significant changes to the way mining is done in the state. The law now states that mining cannot be started until a permit is approved; no mining can take place in rivers, streams, lakes, or other water bodies without the proper permits; exempt (less than four acres) mining sites have to be reclaimed if proper notification is not given; and the new law sets up significant fines and penalties for mining without a permit. New regulations are being drafted at this time.

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 eight-hour refresher training course be taught to all miners who work at a mine.

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Lignite sample from MS Lignite Mining Company mine in Choctaw County.
Mineral Leasing on State-Owned Lands

The mineral lease program exists to manage the state’s roughly 600,000 acres of mineral rights. Mississippi is ranked tenth in oil production and eighteenth in natural gas production among the producing states. Oil and gas provide the state’s largest mineral-related income. The gross revenue generated by Mississippi’s oil and gas production in FY2003 was approximately $725,000,000. Severance tax income was $43,498,481 in FY2003. This severance is shared with the 42 producing county governments. Many thousands of private mineral owners also benefit from this resource development.

Three new leases were issued in FY2003. The income from state mineral royalties and new leases was $77,233. Income received from federal revenue sharing programs was $422,218. The total mineral lease program income for FY2003 was $499,451. Interest is growing in areas where the state has substantial holdings, and revived production in adjacent federal waters should help increase the federal shared income next year.

Revenues that flow through the state mineral lease program are distributed as follows: 97.5% goes to the Education Trust Fund, 2% to wildlife and spill response funds, and 0.5% to the program administration.

Oil and gas resources will continue to play a significant role in the economy of Mississippi for years to come. If significant discoveries are found on state-owned minerals, there could be a substantial effect on the program’s income.

Duties Include:

- Leasing state-owned minerals
- Permitting of seismic exploration
- Collecting royalties, bonuses, & rentals

Drilling rig in Pike County.

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Geologic Research and Data Collection

MDEQ’s Environmental Geology Division continued to collect and archive geological and geophysical data pertinent to its ongoing projects and other projects within the agency in FY2003. Ongoing, focused research is continually conducted in the areas of environmental and groundwater geology. This division also provides project and geological support to other state and federal agencies and academia.

The Surface Geology Division’s geologic mapping program for FY2003 was funded in part by a federal geologic mapping program (STATEMAP) grant of $113,305 and a National Coal Resources Data System grant of $13,000. These grants enabled the division to map the Coldwater, Independence, Wyatte, Senatobia, Looxahoma, and Tyro quadrangles in parts of DeSoto, Tate, Marshall, Panola, and Lafayette counties in northwestern Mississippi, and the Utica West, Utica East, Dentville NW, and Dentville quadrangles in Hinds, Claiborne, and Copiah counties in southwestern Mississippi.

Thirteen scientific articles were published in journals, including a chapter in From Greenhouse to Icehouse. The Marine Eocene-Oligocene Transition by Columbia University Press (2003).

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The division’s research into the geological occurrence of springs continued. Emphasis is given to those springs currently being used as a bottled water supply or those with large discharges.

The Energy and Coastal Geology Division’s new emphasis is statewide geographic information systems (GIS) and remote sensing coordination. The Coastal Geology Section conducted extensive research and published reports covering a wide range of areas that provide coastal governments and planning boards with data that will play a major role in future management, development, and disaster preparation plans.

MDEQ Drilling Rig

Workers construct a plaster jacket around the skull of the whale, which rests above the rib cage.
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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) function includes 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. Other MDEQ offices that work with permitting matters are the Office of Geology and the Office of Land and Water Resources.

EPD was formed as a result of a comprehensive re-engineering effort that was completed in the summer of 1997. EPD was formed to allow the Office of Pollution Control to focus on improving the business process of environmental permitting. Phased implementation began in February of 1998 and was completed in February of 2000. EPD is responsible for most environmental permitting for the Office of Pollution Control, including:

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

Performance Improvements

EPD has reached a national EPA milestone of less than a ten percent Major NPDES permit backlog. Currently the backlog is less than five percent.

Over 99 percent of the original Title V universe have been issued permits.

Permitting productivity has continued to increase (see graph on the right) due primarily to effective training and e-business improvements.

The Storm Water Phase II Small Construction Storm Water permit was issued on March 10, 2003.

The Storm Water Phase II Small to Medium MS4 General permit was issued in December of 2002, and coverages were granted to facilities by the fall of 2003.

E-Business

EPD partnered with the Data Integration Division in the development of new functionality for the Agency’s enterprise-wide data management system – enSite. FY2003 saw the addition of water permitting and compliance plug-ins to enSite and the enhancement of the internal report and management tool enSearch and the public access tool enSearch Online.

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Compliance

MDEQ’s Environmental Compliance & Enforcement Division (ECED) implements and oversees the majority of the compliance and enforcement programs. 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. ECED’s goal is for everyone to be in compliance with all appropriate environmental laws, regulations, and standards. Staff spends hundreds of hours every year assisting Mississippi businesses, industries, and farms. When a site fails to comply with the permit(s) or regulation(s), 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 FY2003, the Office of Pollution Control received 1,326 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 left, 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. Increasing responsibilities with no increase in staffing have resulted in an increase in the time it takes for MDEQ to address citizen complaints.

During FY2003, the following on-site inspections were performed by ECED and the Field Services Division:

- 255 for compliance with air pollution regulations/permits
- 106 for compliance with hazardous waste regulations/permits
- 716 for compliance with solid waste regulations/permits
- 1,047 for compliance with water pollution regulations/permits

During FY2003, ECED actions resulted in 63 orders issued for non-compliance with air, water, solid waste, and/or hazardous waste regulations/permits. When appropriate, MDEQ 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.

Of the 63 orders issued during FY2003, 35 contained provisions for a penalty with a total assessed cash penalty amount of $1,773,020. Sixteen of the orders allowed the use of a SEP.

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Brownfields

The Mississippi Brownfields Program offers liability protection, risk-based remediation, economic development, and a better quality of life for present and future generations of Mississippians. The Program encourages the redevelopment of old industrial sites. MDEQ’s approach to evaluating cleanup options at contaminated “brownfield” sites is straightforward, reasonable, and based upon realistic cleanup goals. The Mississippi Brownfields Program began accepting sites in August 1999.

During FY2003, MDEQ has seen more interest expressed in the Brownfields Program than in previous years. 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 FY2003, MDEQ reached Brownfield Agreements for the Intex Plastics East Tank Farm, the Nashville Ferry Road Site, and the National Picture and Frame Site. The total number of Brownfield Agreements reached to date is six. MDEQ continues work on three existing Brownfield sites, the NCBC Gulfport Off-Base Area of Contamination, West Manufacturers’ Blvd. Site in Brookhaven, and the OCEDA Redevelopment Project in Starkville. Two new brownfield sites, the Copiah County MECO Property and the Emerson Appliance Motors Site, applied in 2003, bringing the total number of brownfields that have applied to the Program since its inception to 11.

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Underground Storage Tanks

In 1988, the Mississippi Legislature enacted the laws necessary for Mississippi to establish an underground storage tank program and seek delegation from EPA to administer the program. Pursuant to this legislation, the Mississippi Commission on Environmental Quality promulgated underground storage tank regulations on March 22, 1989.

Since 1989, a total of 802 sites have been found contaminated by leaking tanks and eligible for cleanup using the Groundwater Protection Trust Fund (Trust Fund), a fund established to clean up sites contaminated by leaking underground storage tanks. The Trust Fund is in its poorest fiscal condition since its inception in 1988. The obligations have exceeded the cash balance in the fund by $1,600,000. To meet the mandates of House Bill 1667, $832,595 was transferred from the Trust Fund to the state budget contingency fund and it is anticipated that an additional $1,667,405 will be transferred in early 2004. In order for the Trust Fund to remain a viable source of cleanup funds and a financial assurance mechanism for tank owners, the income must increase or the expenditures must decrease.

During FY2003, 43 counties in the state had remediation systems designed to remove contamination from the ground as a result of leaking underground storage tanks, and ten counties had ongoing remediation that included vacuuming and excavation. (See map to the right.)

Summary of UST Remediation:

- 280 Sites Currently under Remediation
- FY2003: $11,290,275 Expended from Mississippi Groundwater Protection Trust Fund

Legend
- Counties w/ Remediation Systems
- Counties w/ Vacuuming & Excavation
Emergency Response Sites

MDEQ’s Emergency Services Branch answered nearly 2,000 emergency response calls during FY2003. These calls were from areas all across Mississippi.

Cleanups from truck accidents, oil spills, etc. resulted in fund expenditures of $402,000. At a nearly 50% recovery rate, $201,000 was recovered. This is a 40% increase in recovery costs over the last five years.

Summary of Emergency Responses FY2003

- 1,870 emergency response calls
- Response area is statewide
- $402,000 funds expended
- $201,000 funds recovered

Uncontrolled Sites

MDEQ’s Uncontrolled Sites Section (USS) is responsible for the protection of human health and the environment by evaluating assessment and remediation activities at sites contaminated with hazardous substances. MDEQ maintains a list of approximately 1,292 sites. In FY2003, staff provided oversight for the assessment and remediation of 69 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. 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 strives to protect and preserve the air, water, and land through responsible regulation.
CERCLA

Oversight of site assessment and restoration of hazardous waste sites at federal facilities continue to be a large portion of MDEQ’s Comprehensive Environmental Response Compensation and Liability Act (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 (FUDs). MDEQ is funded for this oversight work through agreements with the Department of Defense, Department of Energy, and NASA. Through grants from the EPA, CERCLA staff performed preliminary assessments (PAs) and site inspections (SIs) at potential National Priorities List (NPL) sites and were responsible for the oversight and assessment of three sites listed or currently proposed for on the NPL. The staff is currently working with EPA on two NPL (Superfund) sites in the State, Davis Timber in Hattiesburg and American Creosote in Louisville, and expects that a third site, Wood Treating in Picayune, will be added.

While final remedies and costs have not been determined for the two existing NPL sites, the estimated cost of remediation at Davis Timber will be between $5,000,000 and $15,000,000 and at American Creosote between $25,000,000 and $50,000,000. Additionally, staff answered hundreds of questions on contaminant remediation levels and environmental assessment criteria and investigated complaints of improper disposal of hazardous substances.

Voluntary Sites

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 FY2003, the Uncontrolled Sites Section staff provided oversight for the assessment and remediation of 89 VEP sites in addition to over 100 mercury meter station investigations. MDEQ issued “State No Further Action” (SNFA) letters for ten of these sites that were evaluated and remediated to levels protective of human health and the environment.
Asbestos and Hazardous Air Pollutants

MDEQ inspects and oversees asbestos removal and abatement projects and certifies individuals performing asbestos identification, management, and abatement.

Asbestos, a mineral with excellent insulation and fire-retardant properties which has been used extensively in building materials, causes adverse health effects including asbestosis and cancer when inhaled. MDEQ regulates the abatement, removal, and disposal of asbestos-containing materials to prevent the release of asbestos fibers into the atmosphere.

During FY2003, MDEQ inspected 315 asbestos projects out of a total of 627 projects in Mississippi and certified 1,008 asbestos abatement workers, contractors, and professionals.

Hazardous air pollutants are the air pollutants identified in the Federal Clean Air Act as hazardous due to the acute and chronic health effects associated with their inhalation including possible increased risk of cancer. MDEQ oversees the implementation of technology based air pollution controls for hazardous air pollutants.

MDEQ identifies facilities affected by new Maximum Achievable Control Technology Standards (MACT) for hazardous air pollutants, and provides outreach and assistance to facilities required to comply with MACT standards. During FY2003, the department implemented 20 new MACT standards impacting 33 facilities.

In FY2003, MDEQ began planning for determining residual risks from the remaining hazardous air pollutants in the atmosphere after implementation of MACT standards. This planning will continue into FY2004.
MDEQ strives to protect and preserve the air, water, and land through responsible regulation.
Coastal Impact Assistance Program

The Mississippi Coastal Impact Assistance Program (CIAP) began with the prevailing goals of bringing together the talents and resources of as many people and entities as possible, conserving, protecting, enhancing and restoring the health of the coastal ecology, doing no harm in the process, and being good stewards of public funds. CIAP was created by Congress in October 2000, appropriating Mississippi $24,300,000. The state, through MDEQ as lead agency, and the three coastal zone counties have worked in close partnership to develop a program that will use the CIAP funds to do the most long term good. Long term good is measured by implementing projects, use of applied collaboration, education and public outreach, avoiding duplication of efforts, using best practices for all environmental impacts, and sustaining each project beyond CIAP.

The state’s plan includes 81 projects that cover a wide range: wastewater infrastructure; wastewater planning and development; sustainable development; education; air quality; land acquisition; fisheries; stormwater; water quality; watershed restoration/ protection; wetlands/coastline restoration; native/invasive species; eco-tourism; technology/GIS; and forestry.

Since CIAP was created three years ago, these 81 projects have benefited the coastal ecology in many ways.

Household Hazardous Waste Grants

For the past eight years, MDEQ’s Household Hazardous Waste Program – or “Right-Way-To-Throw-Away Program” – has helped households dispose of paint, antifreeze, batteries, pesticides, motor oils, cleaning chemicals, and other assorted household wastes. By collecting these wastes separately, we keep these often toxic and hazardous wastes from entering our landfills and further eliminate the risk of groundwater contamination.

For FY2003 MDEQ awarded nine grants totaling $180,643.27 to counties, municipalities, and planning and development agencies for one-day household hazardous waste collections. From 2,653 households, the awardees collected more than 95 tons of hazardous and toxic wastes. The paint collected during these events is recycled or reused in one of three ways: (1) the latex paints are reformulated for reuse on bridges, (2) the oil base paints are blended with other high heating value wastes as fuel for cement kilns, and (3) the useable paint collected is donated to nonprofit or governmental agencies for community use.
MDEQ strives to protect and preserve the air, water, and land through responsible regulation.

MDEQ staff worked with 12 schools in FY2003 to dispose of old laboratory chemicals.

<table>
<thead>
<tr>
<th>School</th>
<th>City</th>
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<tr>
<td>Cathedral School</td>
<td>Natchez</td>
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<tr>
<td>Heritage Academy</td>
<td>Columbus</td>
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<tr>
<td>Corinth High School</td>
<td>Corinth</td>
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<tr>
<td>East Side High School</td>
<td>Cleveland</td>
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<tr>
<td>Carrol Academy</td>
<td>Carrolton</td>
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<tr>
<td>Yazoo County High School</td>
<td>Yazoo City</td>
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<td>Cleveland</td>
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<td>Hillcrest Christian School</td>
<td>Jackson</td>
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<td>Macon Central Academy</td>
<td>Macon</td>
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<tr>
<td>Morton High School</td>
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<tr>
<td>Brandon High School</td>
<td>Brandon</td>
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<tr>
<td>Shelby High School</td>
<td>Shelby</td>
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</tbody>
</table>

Counties Where MDEQ Disposed of Chemicals from School Laboratories

Section 319 Grants

The 319 grants are a section of the Clean Water Act where the federal government awards yearly grant funds to states with approved Nonpoint Source Management programs. The funds are administered by the EPA, and states must apply for the funds every year.

Since its inception in 1989, a total of $36,500,000 in grant funds were secured and spent to implement 123 Nonpoint Source pollution control projects. These projects consisted of five types: water quality demonstration, monitoring and assessment, water quality education, watershed protection, and watershed restoration projects.

In FY2003, MDEQ received approximately $4,400,000 in Section 319 grant funds. Of this amount, seven percent is allocated for administrative work, 20 percent for assessment and monitoring, 28 percent to implement statewide education and public outreach projects, and 45 percent is allocated for watershed restoration and protection projects in the Yazoo River Basin.
Solid Waste Assistance Grants

MDEQ’s Solid Waste Policy Planning and Grants Branch awarded or paid out close to $3,000,000 in FY2003 on solid waste projects and programs across the state. Of that total, more than $1,400,000 was awarded in Solid Waste Assistance Grants to local governments. These grants were used by local governments to clean up illegal dumps, establish collection programs for bulky wastes and recyclables, fund the hiring of local solid waste enforcement officers, and conduct a variety of other solid waste management activities on the local level.

The Branch oversaw solid waste planning efforts across the state, working with local communities to develop local long-range plans and goals for solid waste management. Almost $40,000 was awarded to three local governments (Jackson, Panola, and Quitman counties) to develop local comprehensive solid waste management plans.

Overview of Solid Waste Grants Issued in FY2003:

- **$840,100** - Total $ of NonCompetitive Grants
- **71** - Counties Received NonCompetitive Grants
- **$595,181** - Total $ of Competitive Grants
- **24** - Municipalities & Counties Received Competitive Grants

MDEQ strives to protect and preserve the air, water, and land through responsible regulation.
Waste Tire Grants

The agency’s Solid Waste Policy, Planning and Grants Branch worked to develop a strategy to achieve statewide recycling of waste tires. Almost $700,000 in waste tire grants was awarded to local governments to fund local waste tire collection and cleanup programs. Over 200,000 waste tires were collected through this program. MDEQ awarded $750,000 in waste tire incentive recycling grants to companies that will manufacture products from waste tires. One of the primary goals of the waste tire program was met with the permitting and construction of a waste tire recycling facility on the Mississippi Gulf Coast. The program finalized standards for utilizing waste tire chips in leachate drainage layers and worked with the Mississippi State Department of Health on new standards for using waste tire chips as septic tank drainage media. The program partnered with the health department to provide outreach and information on West Nile Virus issues for the state.

The Branch worked on abatement projects regarding waste tires and closed landfills, spending almost $100,000 on cleanup or monitoring efforts. The Branch worked through the waste tire abatement program to clean up abandoned tire piles and to investigate and monitor problems at old landfills.

MDEQ strives to protect and preserve the air, water, and land through responsible regulation.
**Water Pollution Control Revolving Fund**

During FY2003 MDEQ funded 18 projects for a total of $72,968,675 from the Water Pollution Control Revolving Loan Fund 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 from these projects comes from federal grants, state match, repayments, and interest on deposits.

**Water Pollution Control Emergency Loan Fund**

No loans were awarded from the Water Pollution Control Emergency Loan Fund (WPCELF) program in FY2003. This program provides loans to communities for the emergency construction, repair, or replacement of wastewater collection and treatment facilities. This fund has $2,800,000 available through MDEQ for such emergency projects. MDEQ encourages communities throughout the state to utilize this program whenever emergency wastewater projects are needed.

*Construction grant project in Desoto County.*
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Dam Safety

During FY2003, MDEQ continued to update and revise the Dam Safety Regulations. The proposed regulations will provide a better regulatory framework for addressing all aspects of dam safety from pre-construction planning and design through the operation and maintenance requirements that will arise during the life of the project. As part of its continuing efforts to educate the owners of high-hazard and significant-hazard dams, MDEQ conducted several free workshops that dealt with preparation of Emergency Action Plans during FY2003. This training was offered to explain the increased responsibilities that accompany ownership of dams with those hazard designations. The workshops also focused on the proper maintenance and inspection of dams and how to identify and correct problems before they become a threat to the structural integrity of the dam. The workshops were conducted at various locations across the state to minimize the time and travel expense required for dam owners to attend the training.

MDEQ staff continued to provide annual updates of the Mississippi portion of the National Dam Inventory database maintained by the U. S. Army Corps of Engineers. During FY2003, staff performed over 200 dam inspections to verify the continuing safety of existing dams in the state and processed 56 applications for new dam construction. A number of enforcement actions were taken against dam owners who failed to take remedial actions required to correct deficiencies identified during the inspections. Staff also responded to five emergencies related to dam safety during the year. All of the situations were rectified without any significant dam failures.

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Emergency Response to Hazardous Releases

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 (601)352-9100 or 800-222-6362. They in turn contact MDEQ personnel who provide on-site response and technical assistance. In FY2003 MDEQ responded to nearly 2,000 calls. The team was given special recognition by the Mississippi State Legislature for their work.

Terrorism Task Force

MDEQ’s role as protector of the health and safety of the citizens and the environment continues to expand. MDEQ has become a major partner in Mississippi’s defense of potential biological and/or chemical acts of terrorism. Since the September 11 terrorist attacks, Emergency Services has responded to an additional 500 calls regarding potential terrorist activities including anthrax attacks. With the current war in Iraq, MDEQ is prepared to deploy any of its highly trained scientists on a 24/7 basis to respond to any incident that threatens the citizens or the environment.

As the lead agency for the State Response Team to deal with weapons of mass destruction, MDEQ depends on cooperative efforts with state agencies and local responders. In partnership with the U.S. Department of Justice, MDEQ participated in Preventative Anti-Terrorism Recognition and Interdiction Operations or (Patriot) seminars across the state to help law enforcement, fire, EMS, hospital, and 911 organizations prevent future attacks; worked with the Mississippi Emergency Management Agency (MEMA) and the Mississippi State Department of Health in providing bioterrorism training to local responders; and will be working with other federal, state, and local agencies to offer future counter-terrorism training and planning.

Part of MDEQ’s work in this area involves working with the five active Regional Response Teams (RRT) that have been established across the state. The host counties of these teams are Hinds, DeSoto, Lee, Forrest, and Harrison. These teams are comprised of local responders from fire service, MEMA, Emergency Medical Services (EMS), and law enforcement. They will act with local agencies during terrorist events and plan to take an “all hazards” approach by protecting communities during other emergencies such as train derailments, truck accidents, and industrial fires. RRTs, along with the State Response Team (SRT) and a Capitol Response Team (CRT), will form a closely-knit multi-level response unit to better protect the citizens of Mississippi.

Mississippi Beach Monitoring Program

Mississippi’s current beach monitoring program, begun in 1998, monitors the quality of water at 21 sites across the Mississippi Coast. The monitoring includes all recreational areas along the Coast. Water samples from the sites are tested for bacteria. If the bacteria levels are too high, a “no swimming” advisory is posted on the beach section. Additional water samples are tested from the site and the “no swimming” advisory is removed when bacteria levels return to safe levels. MDEQ provides public notification of beach water quality conditions through public notices and by posting near real time information on the Beach Monitoring Web Site, http://www.usm.edu/gcrl/msbeach/index.cgi.

MDEQ has a standing advisory on the Beach Monitoring Website advising bathers not to swim within 24 hours of a significant rainfall event. MDEQ also advises swimmers to not swim near the stormwater drainpipes located along the beaches.

MDEQ strives to protect and preserve the air, water, and land through responsible regulation.
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 Incentives for States Grant (PPIS).

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

The pollution prevention program received a Certificate of Excellence in June 2003, from the Department of Defense for the work with the military installations in Mississippi and Region 4 through MS/Region 4/DoD Pollution Prevention Partnership to strengthen the pollution prevention program throughout the region and expand communication across organizational lines on matters focused on the environment.

Lead-Based Paint Program

In 1998 MDEQ began an environmental program dealing with hazards from lead-based paint which continued into FY2003. The program was multifaceted:

- Certify individuals and businesses involved in lead-based paint identification, abatement, removal, and disposal.

- Accredite businesses and educational institutions providing training to the individuals and businesses in the proper methods of lead-based paint identification, abatement, removal, and disposal.

- Regulate and enforce regulations for the proper abatement, removal, and disposal of lead-based paint.

- Provide outreach to schools, realtors, contractors, municipalities, and government entities on the regulations concerning lead-based paint in housing, schools, and child-care facilities and the associated health concerns.

In the first half of FY2003, EPA revoked MDEQ’s delegation of the lead-based paint program and revoked all federal grants for administering this program because of EPA concerns with environmental self-audit privileges in state law in effect at the time. Early in the 2003 session, the legislature revised this law, the governor signed it, and EPA restored the delegation.

Because of the loss of the federal grants, which have since been restored, MDEQ reduced its staff involved in the lead-based paint programs substantially. Corresponding outputs in the program were reduced substantially except for compliance inspections and complaint investigations. During FY2003, 97 inspections and a minimum amount of outreach were performed. With the restoration of delegation and federal grants, the program is gearing back up to full speed.
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 FY2003 the Recycling and Solid Waste Reduction Program gave presentations to over 110 organizations and schools across the state, and provided solid waste information via exhibits at eight events. In late FY2003, the program developed a recycling education display that was made available to libraries and other organizations in the Jackson metro area for public display.

Nonpoint Source Pollution Education

Polluted runoff, or Nonpoint Source Pollution (NPS), is rainwater runoff that picks up pollutants as it flows across streets, parking lots, construction sites, or farm land and carries them into rivers, oceans, and groundwater aquifers. Polluted runoff can contain car droppings, litter, eroded soil, chemicals, and sewage from failing septic tanks. Since everyone contributes to polluted runoff, everyone can make a difference in reducing it. 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.

Adopt-A-Stream Program – Citizens attend a two-day water education workshop to learn about stream ecology, aquatic life, and water chemistry. They can choose to monitor a stream, conduct a stream cleanup, or mark storm drains. MDEQ conducts two or three workshops a year in different regions of the state.

Aqua Fair – An educational water festival for fifth grade students. MDEQ conducts one Aqua Fair event per year with about 2,000 students in attendance and moves the event to a different region of the state each year.

NEMO – Nonpoint Source Education for Municipal Officials – a program that trains municipal officials about ordinances and methods to create greener communities, improve water quality, reduce runoff water from urban areas, and improve quality of life for citizens.

Storm Drain Marking – Disks of either four inch or two inch size are placed on storm drains to remind citizens “Dump No Waste, Drains to River” or “Drains to Gulf.” A great project for scout troops, citizen groups, school groups, etc.
**Backyard Conservation** – Literature is available at MDEQ on backyard composting, mulching, tree planting, water and wetland gardening, terracing, pest and fertilizer management, water conservation, and attracting wildlife to your backyard. Demonstration projects are scattered around Mississippi and are posted on the MDEQ web site, [www.deq.state.ms.us](http://www.deq.state.ms.us).

**Enviroscape and Groundwater Model Distribution** – In order to increase polluted runoff awareness in students and adults throughout Mississippi, MDEQ has been distributing water models to environmental educators. Models have been placed with most county MSU Extension Service offices and district MS Department of Health offices. The Choctaw Indian Reservation and other organizations have also received models.

**Watershed Harmony Musical Puppet Theater** – A 35-minute musical production with eight songs, a multi-level stage, and ten puppet characters which teaches how each of us can be responsible environmental stewards of our waters and how Best Management Practices (BMPs) and planning can reduce the impact of development. Targeted for fourth grade students. Adults also enjoy the production.

**Basin Management Approach**

Mississippi’s Basin Management Approach (BMA) is an important non-regulatory process led by MDEQ designed to foster collaboration with state and federal agencies and stakeholder groups to identify, prioritize, and address water resource problems in the state. During FY2003, five teams of water resource professionals representing over 50 state and federal agencies and stakeholder organizations worked collaboratively throughout the state to implement the BMA process. These teams, organized into groups representing Mississippi’s major drainage basins, worked on the five successive phases of the Basin Management Cycle: (1) planning, (2) data collection, (3) data interpretation, (4) management plan development, and (5) implementation.

The Group I and Group II Basin Teams are nearing completion of their first complete cycle of the BMA process as both teams prepare watershed implementation plans with implementation of the plans scheduled for next fiscal year. Once implementation begins, the teams will begin a new cycle of the Basin Management Approach.

**Basin Management Cycle**

**Basin Groups**

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<thead>
<tr>
<th>Group</th>
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<tbody>
<tr>
<td>I</td>
<td>Big Black, Tombigbee, and Tennessee</td>
</tr>
<tr>
<td>II</td>
<td>Yazoo River, North Independent Streams Basins, and adjacent tributaries of the Mississippi River</td>
</tr>
<tr>
<td>III</td>
<td>Pearl River and South Independent Streams Basins, and adjacent tributaries of the Mississippi River</td>
</tr>
<tr>
<td>IV</td>
<td>Pascagoula River Basin</td>
</tr>
<tr>
<td>V</td>
<td>Coastal Streams Basin</td>
</tr>
</tbody>
</table>

MDEQ strives to protect and preserve the air, water, and land through responsible regulation.
Agricultural Chemical Pesticide Container Recycling Program

In Mississippi, it is conservatively estimated that more than 2,000,000 plastic pesticide containers are used annually for agricultural purposes. In the past, these containers were disposed of by landfilling or illegally burning, dumping, or burying. These disposal methods have resulted in situations with high potential for environmental degradation.

In an attempt to provide an alternative method of disposal, the Mississippi Pesticide Container Recycle Program was initiated in 1989. During the first year of this project’s existence, a total of 24,000 pounds of plastic pesticide containers were recycled from one county. The program has now grown to include almost half of the state’s 82 counties, with over 800,000 pounds recycled in FY2003. For the period from 1989 through 2003, more than 6,500,000 pounds of plastic representing approximately 10,000,000 containers have been collected and processed through this program. Based on the best estimates available at this time, it is calculated that Mississippi is currently recycling over 50% of all plastic pesticide containers used for agricultural purposes.

Small Business Technical Assistance

The Mississippi Small Business Technical Assistance Program began in 1995 within the Office of Pollution Control, Air Division. The program helps small businesses comply with Clean Air Act regulations. The program provides technical assistance with on–site visits, permit application assistance, and other compliance information. This assistance is free and confidential to the maximum extent allowed by law. This program is currently housed within the MDEQ Environmental Resource Center.

In February 2003, the Small Business Assistance Program featured a statewide tour of the Mobile Outreach for Pollution Prevention (MOPP). MOPP provided businesses with free, hands on equipment demonstrations using various waste reduction and recycling methods. The demonstrations were set up in a specially designed 34-foot motor home. This pollution prevention demonstration was developed by the Iowa Waste Reduction Center in cooperation with EPA.

The tour made stops in Olive Branch (February 20), Booneville (February 21), Grenada (February 24), Mayhew (February 25), Jackson (February 26), Hattiesburg (February 27) and Gulfport (February 28). Each stop was well attended. The Waste Reduction Center’s website is www.iwrc.org.
Underground Storage Tank Compliance Assistance Program

MDEQ’s Underground Storage Tanks (UST) Branch administers the voluntary Compliance Assistance Program (CAP) that is available to all UST owners. The CAP helps UST owners establish and maintain compliance with the rules and regulations by notifying them whenever testing or monitoring of their UST system is necessary. Six-hundred and five UST owners participated in the CAP during FY2003. These owners were found to be in compliance at a significantly higher rate than those owners who were not in the program.

The UST Branch administers compliance workshops quarterly that are designed to allow those owners who were found in violation to establish compliance in lieu of payment of a monetary penalty. In FY2003, 63 UST owners attended compliance workshops and avoided paying monetary penalties in settlement of certain violations of the UST rules and regulations.

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 MS 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 FY2003 training calendar included 38 days of agency sponsored training classes. Half of the schedule consists of co-sponsored sessions and conferences in which the agency participates with the three wastewater related associations in the state to both plan and conduct the training. Total attendance at these sessions exceeded 700 operators, utility managers, and engineers. Certification exams were administered to 180 prospective operators, and 317 new or renewal certificates were issued. A new voluntary certification program for collection system operators was initiated in May. Response has been slow but is increasing as promotional efforts continue.

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 FY2003, the staff conducted 58 site visits to assist 42 facilities with compliance issues.

A new training and assistance program in Wastewater System Security was initiated this year through a small supplemental grant from EPA. This program, supported by Homeland Security measures, included operator workshops conducted in four locations around the state to instruct wastewater facility staff on the importance and techniques for conducting vulnerability assessments at their respective sites. Eighty operators representing 50 facilities attended the training sessions. Follow-up site visits to provide one-on-one assistance were made at 12 facilities across the state.

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The Mississippi Department of Environmental Quality (MDEQ) 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 all environmental media (air, land, water).

During FY2003 MDEQ/ERC provided sixty-five (65) separate workshop, seminar, and training session assistance activities covering the following assistance topics and issues: Solid waste planning, solid waste enforcement officer training, nonpoint source education for municipal officials, surface mining laws and regulations, Air Title V permitting, high hazard dam regulations, dam safety, poultry operations permitting, swine operations permitting, solid and hazardous waste recycling, stream restoration, permit application training, small business technical assistance, dry cleaner assistance, toxic release inventory training, storm water regulations, pollution prevention, paint spray operations, plantwide limit applicability, compliance assistance, mobile outreach for pollution prevention, cotton gin operational permits, coating operations, and wastewater compliance.

MDEQ/ERC provided on-site technical assistance assessments for 23 individual Mississippi businesses and industries involved in the following operations: Auto collision repair, concrete supply, furniture construction, dry cleaning, painting operations, truck fleet maintenance, fiberglass fabrication, electronics manufacturing, furniture manufacturing, community college training, waste oil collection, cabinet fabrication and assembly, plastic bag manufacturing, prefabricated stairway construction, venetian blind manufacturing, and composting operations. 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.

MDEQ strives to protect and preserve the air, water, and land through responsible regulation.
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Barry Royals, a professional environmental engineer and Chief of the MDEQ Surface Water Division received the Elizabeth Jester Fellows Award from the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) at their annual meeting held in Whitefish, Montana in August 2003. The Elizabeth Jester Fellows Award is given by ASIWPCA to individuals who have demonstrated an outstanding commitment to public outreach, citizen and youth education, and intergovernmental partnerships.

**Association of State and Water Pollution Control Administrators’ Elizabeth Jester Fellows Award: Barry Royals**

Khairy Abu-Salah, P.E., an environmental engineer and State Pollution Prevention Coordinator, was honored in August 2003 at the 2003 Department of Defense/States/EPA Region 4 Environmental Conference in Atlanta, Georgia with a Certificate of Excellence for his outstanding leadership, commitment to the environmental program, and for the professional manner in which he worked with the military installations in Mississippi.

**2003 Department of Defense Certificate of Excellence: Khairy Abu-Salah**

Sarah Tracy, an environmental engineer in the construction branch of MDEQ’s Surface Water Division, was named the Mississippi Society of Engineer’s Young Engineer of the Year 2003 at the group’s winter meeting held in Natchez, Mississippi on March 6, 2003.

**Engineer of the Year - Sarah Tracy**

The Emergency Services Branch was commended in a joint resolution by the 2003 Mississippi State Legislature for its outstanding responsiveness during state environmental emergencies including its role in the state’s defense of any potential biological or chemical act of terrorism. The MDEQ Emergency Services Division staff recognized was Eric Dear, chief, responders Shannon Lowery, Ernie Shirley, and Barry McMasters, and support staff Ken Whitten and Terry Champion. Charles Chisolm, Executive Director of MDEQ, and Gloria Tatum, Director of MDEQ’s Field Services, were present for the award.

**Mississippi Senate Recognizes Emergency Services Division**
Laboratory Analyst Excellence Award: Phil Bass

Phil Bass, Director of MDEQ’s Office of Pollution Control, received the Laboratory Analyst Excellence Award from the Mississippi Water Environment Association, a group of environment professionals, engineers, and scientists that deals with drinking water and waste water systems. The June 2003 award cited his outstanding performance, professionalism, and contributions to the water quality analysis profession.

Gulf Guardian Award: Jayne Buttross

The Gulf of Mexico Program awarded Jayne Buttross a Gulf Guardian Award for 2002 in the Individual Category for her efforts with the Mississippi Coastal Impact Assistance Program (CIAP). The award was presented to Ms. Buttross at the Clean Gulf Conference in November 2003, in Galveston, Texas. Jayne is Director of CIAP.

Environmental Permit Division Permit Writer Training Recognized by State Personnel Board

EPD offers a series of training opportunities to the permitting staff each year, ranging from basic permit writing courses to advanced training in permitting specialties. EPD has developed comprehensive Environmental Permit Writer and Senior Environmental Permit Writer development programs which were approved by the State Personnel Board as recognized educational benchmark programs. The Environmental Permit Writer programs are designed to produce exceptional permit writers and to develop the technical competencies needed for outstanding performance by EPD staff.

Mississippi Landfill Methane Outreach Program Received National Recognition: Pradip Bhowal

MDEQ was recognized for completing its partnership tasks for the LMOP program in a record six-month period. Pradip Bhowal, LMOP Coordinator, was recognized at the National LMOP Conference in January 2003 and was invited to speak to the attendees.

Environmental Permit Division Staff Receive State and National Professional Recognition

State and national professional certifying agencies have recognized the professionalism of staff in the Environmental Permit Division. Of the 67 filled technical positions, 29 (43%) are Registered Professional Engineers and of these, 11 are Diplomates of the American Academy of Environmental Engineers. Additionally, the Division has one Registered Professional Geologist.
Mississippi Digital Earth/Model (MDEM)

A great beginning was made during FY2003 in the development of the Mississippi Digital Earth Model (MDEM).

For the first half of FY2003, the MDEQ’s Office of Geology served as the staff of the Governor’s Advisory Commission on Remote Sensing Technologies and its four work groups. The Advisory Commission was composed of state agency directors, legislators, and representatives of local and regional agencies. Its report to the governor led to a new law that created a Coordinating Council and gave the Council considerable power in the coordination of remote sensing and geographic information systems (GIS) activities in the state. The Mississippi Coordinating Council for Remote Sensing and Geographic Information Systems (MCCRSGIS) began its work at the end of this fiscal year, with MDEQ’s executive director serving as chairman and the Office of Geology providing the staff support.

The same legislation that established the Coordinating Council also charged the MDEQ’s Office of Geology with the development of MDEM. The MDEM is defined as a three-dimensional representation of natural and man-made features of Mississippi including the following seven framework data elements defined by the Federal Geographic Data Committee: geodetic control, digital orthophotography, digital elevation model and contours, property ownership, hydrography, transportation, and governmental boundaries. This will be the state’s version of the National Map being developed by the U.S. Geological Survey. Its development will be a large and complex project involving coordination and compilation of diverse databases and contracting for the collection of new high-resolution data at scales that will be useful to city, county, state, and federal agency users.

enSite - Improving Environmental Information Management

MDEQ has implemented an integrated environmental information management system, enSite (electronic Environmental Site Information System) to fully support its regulatory programs across media. In October 2000, MDEQ implemented the core functionality of its integrated system. The October 2000 release also included an air quality module to support MDEQ’s air program. MDEQ continues to expand the functionality of enSite to enhance environmental information management for MDEQ and its stakeholders.

MDEQ’s enSite system includes enSearch Online, a web-based interface for querying and viewing information about permitted facilities. Launched in 2002, MDEQ continued to make improvements and add reporting functionality during FY2003, including the ability to view public notices online.