MARYLAND

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Department of the Environment

Accomplishments Report 2002-2006

Protecting & Restoring Maryland's Land, Air & Water Resources

Maryland Department of the Environment Accomplishments January 2003 - June 2006

Historically, Maryland is an environmentally-conscious state due to the valuable location around our nationally-treasured Chesapeake Bay. The Ehrlich-Steele Administration has made it a priority to manage the delicate balance between environmental preservation and economic growth. The Maryland Department of the Environment (MDE) is pleased to present the accomplishments achieved during the Ehrlich-Steele Administration from January 2003 through June 2006.

The mission of MDE is to protect and restore the quality of Maryland's air, water, and land resources, while fostering smart growth in Maryland's Priority Places, economic development, healthy and safe communities, and quality environmental education for the benefit of the environment, public health, and future generations.

Governor Robert L. Ehrlich, Jr., encouraged and signed into law, some of the most ambitious environmental plans this state has known in more than 20 years. He has forged a path to successfully:

- ***Restore and protect Maryland's water quality through the historic Chesapeake Bay Restoration Act***
- ***Ensure the air is safe to breathe by initiating the landmark Maryland Clean Power Rule and signing into law the Healthy Air Act***
- ***Promote land redevelopment and community revitalization by reforming the Brownfields and Voluntary Cleanup Programs***
- ***Reduce Maryland citizens' exposure to hazards by strengthening the Lead Paint Program***
- ***Ensure safe and adequate drinking water with the Coastal Plain initiative***

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WATER QUALITY AND DRINKING WATER

The Chesapeake Bay Restoration Fund, signed into law by the Governor and administered by MDE, is the single most important piece of environmental legislation enacted in Maryland in the past quarter-century. A $2.50 monthly fee collected from homes on public sewerage pays for upgrading the 66 largest wastewater treatment plants to state of the art Enhanced Nutrient Removal (ENR) levels. A $30 annual fee, collected from onsite septic system homes, allocates 60 percent of these funds for septic system upgrades, and 40 percent for farmland cover crops to absorb nitrogen.
Through the Bay Restoration fund to date:

- 2 plants (Celanese and Hurlock) completed construction and are operating with proper ENR.
- 10 facilities are under construction and 11 are in the design phase for upgrades to ENR.
- 25 facilities have initiated the planning to be upgraded.
- 19 of the remaining facilities are in pre-planning.
- 10 jurisdictions submitted proposals requesting septic funding from the Bay Restoration Fund ranging from $250,000 to $4.1 million, and totaling more than $9 million. A review panel is in the process of reviewing the proposals.

Maryland's Bay Watershed Restoration Strategy, approved by EPA, is the largest interstate effort in the nation to control nutrient pollution to a major waterbody like the Chesapeake. The strategy includes new water quality standards that require specific nutrient loading limits in all new or renewed permits for Maryland's major wastewater treatment plants in the Chesapeake Bay watershed.

Total Maximum Daily Loads (TMDLs) have been completed for 33 watersheds. Water quality standards were attained for 40 of the watersheds that were previously not meeting them, and MDE submitted the 2006 Section 303(d) List of Impaired Waters to EPA pursuant to the Clean Water Act. Approximately 140 previously impaired waters were removed from the list. MDE completed and released to the public the TMDL Guidance for Local Government. The document is a planning aid to counties and municipalities throughout the state.

MDE is **tracking compliance** with three separate federal consent orders negotiated between the U.S. Department of Justice, the U.S. Environmental Protection Agency, and MDE to major Clean Water Act settlements. These actions were with Baltimore City, Baltimore County and the Washington Suburban Sanitary Commission (WSSC), to lead to almost $2 billion in sewer system improvements. MDE is also tracking compliance with combined sewer systems agreements entered through state actions with seven other jurisdictions to eliminate overflows that impact water quality. Recognized by EPA Region III as an innovative effort, MDE developed a new regulation for sewage discharges. The rule requires an owner or operator of a sewer system or treatment plant to report all overflows to MDE and the local health department within 24 hours and to submit a follow up report within five days and inform the public about any overflows.

MDE has **restored** an additional eight miles of **stream** degraded by pre-regulatory abandoned **coal mining** in Allegany and Garrett counties, totaling 80 miles restored to date. This effort is the result of a variety of state and federal grants and partnerships between state, local, federal and private organizations. MDE also restored an additional 123 **acres** of abandoned pre-regulatory coal mines, bringing the total in excess of 2,000. Reclamation is funded via a federal tax on active coal mining operations.

MDE worked with county and local representatives, and with the Maryland Department of Planning, to create guidance documents on **Water Capacity Management and Wastewater Capacity Management** to help owners and operators of community water systems and wastewater systems to track the available capacity of their systems. The documents offer guidance on tracking the allocation of capacity, and determining when additional capacity is needed. These recommendations will also aid county officials in their decisions for pending plat approvals and building permits.

MDE collaborates on protection issues of major water supply sources with other states, county and municipal governments, and federal agencies. Source protection strategies are in the works for reservoirs serving the Baltimore and Washington Metropolitan areas and the Potomac River Basin. Long-term strategies are being implemented. More than three million Maryland's residents and the region's economy depend on these water sources.

Drinking water standards for arsenic were lowered to 10 parts per billion from 50 parts per billion to reduce the risk of drinking water-related cancer. Fifty-five public water systems in Maryland were impacted by the lower arsenic standard: 17 systems received extensions to the deadline, and with

Highlights and Important Dates

May 26, 2004 *– Chesapeake Bay Restoration Fund signed into law.*

September 1, 2005 *– EPA approves Maryland's Bay Watershed Restoration Strategy with new Bay water quality standards.*

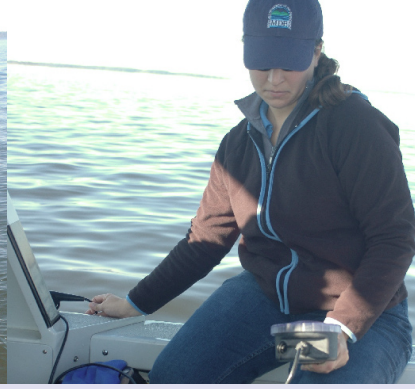
March 28, 2005 *– New regulation in effect for sewage discharges (COMAR 26.08.10, "Overflows or Bypasses").*

January 23, 2006 *– drinking water standard for arsenic lowered to one-fifth of previous tolerances.*

2004 *– MDE issues new guidelines about the safe striped bass consumption caught in Bay waters.*

September 2005 *– MDE hosted the National Forum on Contaminants in Fish.*

June 2006 *– MDE releases TMDL Guidance for Local Governments.*



MDE's assistance, 26 systems achieved compliance with the new arsenic standard. MDE continues to work with the remaining water systems that have elevated arsenic levels.

Water Management's Permit Program issued more than 50 permits with **more stringent** permit requirements than before. This represents approximately 10 percent of all individual permits issued with new requirements during that time.

MDE issued new **fish consumption guidelines**, including – for the first time – information about the safe consumption of striped bass (rockfish) caught in the Bay and its tributaries. High levels of PCBs (polychlorinated biphenyls) were measured in fish caught Baltimore Harbor. MDE developed an outreach campaign targeted at women and children to educate mothers and families on the effects of PCBs and mercury, recommending limited consumption.

Together with the Maryland Department of Agriculture, MDE signed a **Memorandum of Agreement with Maryland's poultry industry** that commits the largest poultry companies to educate and help their poultry growers to better protect water quality.

Under Governor Ehrlich's leadership, Maryland played an active role in the inter-jurisdictional Chesapeake Bay Program effort to create alternative financing for Bay restoration efforts. The **Chesapeake Bay Watershed Blue Ribbon Finance Panel** formally recommends that the Bay States and Federal government make a six-year, $15 billion investment to create a regional financing authority to prioritize and distribute funds throughout the Bay's 64,000 square-mile watershed.

Governor Ehrlich established the **Advisory Committee on the Management and Protection of the State's Water Resources** to review available information, research, and applicable regulations, and assess the adequacy of existing resources to manage and protect the State's ground and surface water resources. The committee's final report found that Maryland's quality of life and continued economic well-being depend on an adequate water supply and is affected by factors such as drought, pollution of water sources, inadequate planning and infrastructure, incomplete information about water sources and population growth.

Improving planning at state and local levels is important to manage and protect water resources as Maryland's economy and population grow. MDE developed an action plan for seven key recommendations in the report and additional future regulatory and legislative measures. The State is also implementing a historic hydrological study of the Coastal Plain aquifer system with the U.S. and Maryland Geological Survey to provide critical data on groundwater issues. The project will culminate in developing a computer model with GIS capabilities to help state and local governments make water capacity and allocation decisions to accommodate growth in Maryland.

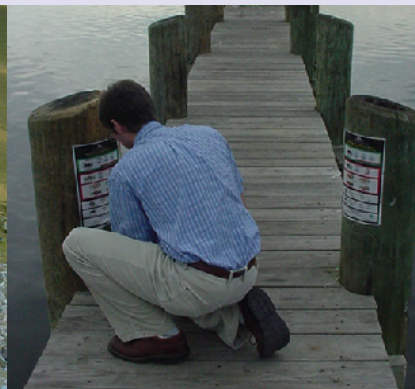
Highlights and Important Dates

May 28, 2004 – Advisory committee releases final report with recommendations to protect the state's ground and surface water resources.

May 2005 – Governor establishes successor Advisory Committee on the Management and Protection of the State's Water Resources.

August 26, 2005 – Governor and MDE Secretary announce project to study water resources of the Coastal Plain.

The spirit and dedication of MDE employees has yielded the "in the field" photos presented in this report.
We are proud to acknowledge the photographic talents of the following employees:
John Backus, Joe Beaman, William Beatty, James Chilcote, Brian Hug, Nick Kaltenbach, Dave Krask, Rich Eskin, John Hill, Greg Lewis, Chris Smith, Anna Soehl, Jonathan Stewart, Susan Tiffany, Jeff Wenck, Mike Woodman



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Brownfields' Reform

Designed to revitalize industrial and commercial land, Maryland's brownfields program has been one of the most effective actions against urban sprawl ever initiated. Governor Ehrlich created administrative reforms that simplified the **Voluntary Cleanup Program (VCP)** application process. MDE improved communication with applicants by creating a comprehensive website for VCP customers.

Governor Ehrlich made the statutory reforms to the voluntary cleanup program a cornerstone of his legislative agenda in 2004. The Brownfields Redevelopment Reform Act of 2004 made improvements to the program that include:

- Streamlining of the application requirements
- Empowering the State Superfund Program to seek treble damages from previous potentially responsible parties
- Expanding opportunities for public participation
- Allowing sites under active enforcement and oil contaminated sites to be eligible for participation in the Voluntary Cleanup Program.

MDE has received applications for 296 sites with 159 of these sites receiving final cleanup decisions, covering 2,475 acres statewide. Successful Brownfield Redevelopment Projects, completed and underway are:

- **Silverton Condominiums, Silver Spring, Montgomery County.** This project is a 220-unit condominium redevelopment, featuring 28 moderately priced units, all of which are sold. The historic, art deco bottling plant became the Sovereign Row project in Silver Spring. Historic preservation, brownfield redevelopment, and economic growth of a neighborhood make for successful urban revitalization.
- **Carr Lowry/Anchor Glass – Westport, Baltimore City**. This project will transform Westport and its waterfront into a thriving mixed-use community that superbly demonstrates the principles of Smart Growth. Located near the light rail line, it will feature residential town homes on the Middle Branch of the Patapsco River.
- **General Motors (GM) Plant – Broening Highway, Baltimore City.** Once the symbol of manufacturing might, the GM plant is currently being torn down in preparation for redevelopment as office/warehouse/distribution space to support operations and maritime industrial activity in the Port of Baltimore.

Lead Poisoning Prevention

In 2006, MDE achieved full authorization from U.S. EPA to administer the Lead Accreditation & Oversight program under the Toxic Substances Control Act (TSCA). Maryland is one of two states in Region III to achieve authorization.

MDE continues to register pre-1950 residential rental properties while approving accreditation and overseeing lead contractors, maintains a registry of rental properties and blood surveillance and ensures effective inspector and enforcement oversight. As of April 2006, nearly 90,000 (67 percent) of the State's approximately 134,000 pre-1950 rental properties are currently registered. MDE works with local governments to identify non-compliant property owners and conduct enforcement actions to effectively decrease lead paint risks.

In 2005, Governor Ehrlich signed into law a bill that lowered the blood lead level associated with the qualified offer program from 20 to 15 micrograms per deciliter (µg/dL). In 2005, 0.1 percent of children tested had levels of 20 µg/dL or higher. The percentage of Maryland children with elevated blood lead levels has decreased from 1.7 to 1.3 percent in 2005. Blood lead testing remains relatively consistent (more than 99,000 children were tested in 2005). Blood lead levels are continuing to decrease statewide.

MDE increases outreach by communicating to property owner associations and housing code officials though workshops, contractor forums, and the MDE Lead Leader newsletter.

Recycling

The Ehrlich Administration is working to increase recycling in cooperation with private industry and local, state, and federal agencies to encourage citizens to recycle. MDE's Recycling Program continues to focus additional efforts on recycling mercury and electronics, such as computers and televisions.

During Fall 2006, MDE launched an aggressive radio and television campaign to encourage citizens to **eCycle**. Since the beginning of eCycling programs in Maryland, nearly 5,600 tons of electronics have been collected from residents for reuse and recycling. As a result of MDE's promotional efforts 12 counties have established permanent eCycling facilities and four more are planned in 2006.

Highlights and Important Dates

November 2003 *– Governor Ehrlich announced administrative reforms to make the Voluntary Cleanup Program more user-friendly.*

October 1, 2004 *– Brownfields Redevelopment Reform Act of 2004 in effect.*

2006 *– MDE achieves EPA approval to administer the Lead Accreditation & Oversight program under the Toxic Substances Control Act.*

2005 *– Governor Ehrlich signed into law a bill to further protect Maryland children from lead poisoning.*

April 2006 *– 67 percent of the State's approximately 134,000 pre-1950 rental properties are registered by MDE's lead program.*

MDE Efforts Produce Air Quality Benefits

Maryland's air quality has improved dramatically. Over the past two years, air quality is better than it has been in the past 20 years.

Ground-level ozone, an air pollutant that can adversely impact public health, has been a problem in Maryland for several decades. Air ozone levels, at times, exceed the level deemed by the U.S. Environmental Protection Agency (EPA) to be protective of public health. A significant effort on the part of government, the business community, environmental groups, and private citizens has improved the situation. Nearly 100 pollution control programs impacting industries, small businesses, mobile sources, and the general public have been implemented since 1990 under the modern-day Clean Air Act. These programs prevent nearly 800 tons of ozone-forming pollutants from entering the air daily.

Maryland has one of the nation's most aggressive sets of air pollution control regulations. More than one hundred regulations are in place since 1990. These controls reduce pollutant emissions from ozone by 40 percent since 1990, while the national average is only about 20 percent.

Maryland's efforts to date include:

Vehicle Emissions Inspection Program (VEIP) combined with federal vehicle control programs has reduced mobile source emissions in Maryland by 40 percent for volatile organic compounds (VOCs) and 35 percent for nitrogen oxides (NO_x) since 1990. By the year 2030, mobile source emissions are projected to be about 11 percent of what they were in 1990. These reductions occurred in spite of a projected growth of 40 percent in travel between 1990 and 2020.

Point Source Control Regulations to control area sources include the portable fuel container regulation, open burning bans, and commercial and consumer product regulations. These programs reduced Maryland's statewide VOC emissions by over 18 percent and statewide NOx emissions by over 50 percent in the last decade. Point source controls include installing scrubbers on major smoke stacks and that major sources install all available and cost-effective control technologies. This has reduced statewide VOC emissions by more than 60 percent and statewide NO_x emissions by over 35 percent in the past decade.

The Maryland Clean Power Rule, the most sweeping air pollution control measure proposed in Maryland history, was built into State legislation called the Healthy Air Act. Governor Ehrlich's plan cuts power plant airborne pollutant emission by 250,000 tons annually. Year-round emission controls will cut the annual emission of nitrogen oxide by 75 percent, sulfur dioxide by 85 percent and mercury by 90 percent. Nitrogen oxide reductions will benefit both air quality and the Chesapeake Bay. This rule is stronger than current federal plans and will supplement the federal Clean Air Interstate Rule (CAIR) to reduce regional air pollution "transport". The Maryland rule guarantees sufficient local reductions to ensure Maryland meets new federal ozone and fine particle standards by the 2010 deadline.

MDE now implements new regulations on local sources of air pollution such as paints, gas cans, and other consumer products like hair spray and perfumes.

Highlights and Important Dates

November 17, 2005 *– Governor Ehrlich proposes the Maryland Clean Power Rule.*

Between 2003 and 2005 *– only six code red days measured in Maryland, down from 28 code red days between 2000 and 2002.*

2005 *– Washington D.C. metro region and Cecil County, MD achieve federal one-hour ozone standard.*

Pollution Transport

Pollution transport from upwind states, at times, produces about 70 percent of Maryland's total pollution burden and is a major contributor to Maryland's continued non-attainment of the federal air quality standards for ozone and particulate matter. Maryland takes a key leadership role in spurring the 13 states of the Ozone Transport Commission (OTC) to push for aggressive new controls at power plants to reduce their nitrogen oxides, sulfur dioxide and mercury emissions. The proposed OTC controls will strengthen and accelerate the federal Clean Air Interstate Rule and are designed to deliver emission reductions in time to meet our deadlines to attain the new 8-hour ozone and fine particulate standards. MDE has been one of the lead states in a 22 state collaborative to further reduce air pollution transport across the East, and press for stronger national controls.

Additional control measures are being considered by the OTC for future implementation to achieve the federal air quality standards.

Positive Trends

Data from Maryland's statewide network of monitors shows a clear trend in improving air quality. Indicators point to lower levels of ozone air pollution. The recognizable indicator used most often is the number of code red days. Between 2003 and 2005, Maryland measured only six state code red days. The three-year average in the 1980s and 1990s was between 20 and 40 code red days.

In 2005, the Washington D.C. metropolitan region, a "severe" one-hour ozone non-attainment area, achieved the federal one-hour ozone standard. Cecil County, another "severe" ozone non-attainment area (part of the broader Philadelphia region), also achieved the one-hour ozone standard in 2005. The Baltimore metropolitan region, the last of Maryland's "severe" ozone non-attainment areas, missed the one-hour standard by the narrowest of margins – one monitor exceeded the acceptable standard by one hour.

On 2005, EPA replaced the one-hour ozone standard with a new eight-hour standard to better protect public health. The new standard is stricter and Maryland is taking more aggressive measures to attain (meet) this standard by 2010. Under the old one-hour ozone standard much of Maryland was considered a severe non-attainment area. Statewide air quality improvements over last decade designated Maryland as a moderate 8-hour non-attainment area. In 2004, EPA declared Kent and Queen Anne's Counties "in attainment" of the one-hour ozone standard, the first time a non-attainment area for ozone came into attainment.

New Source Review (NRS) Reform

Maryland has maintained a litigating position challenging the NSR reforms proposed by EPA. Maryland believes that implementation of the proposed NSR reforms will severely hamper our efforts to address pollution transport, especially from upwind power plants. Maryland continues to participate with other states in selected NSR challenges and possible litigation directed at specific upwind power plants.

Giving Back to the Community

MDE has directed a number of funding sources to communities to address unserved or underserved sources and deliver air quality benefits directly to Maryland citizens. MDE is awarding approximately $600,000 to Anne Arundel, Montgomery and Prince George's Counties and Baltimore City to reduce diesel emissions from school buses.

MDE is allocating $270,000 to retrofit transit buses and trash haulers in Prince George's County, Howard County, and Baltimore City, and $100,000 to retrofit Baltimore City fire-trucks. Working with the Maryland Transit Administration (MTA) through an EPA grant, MDE successfully converted 165 MTA buses, which use 1.7 million gallons of fuel per year, to ultra low sulfur diesel fuel.

MDE completed a supplemental environmental project that offset portions of imposed financial penalties on a facility for air quality violations. The $54,000 project upgraded Baltimore City School boilers and employed the skills of six Baltimore City Polytechnic High School students.

Highlights and Important Dates

June 15, 2005 *– EPA rescinds the one-hour ozone standard for stricter 8-hour Ozone standard.*

2004 *– EPA declares Kent and Queen Anne's Counties "in attainment" of one-hour ozone standard for the first time.*

Since 1990 *– reduced mobile source pollution by about 40 percent for VOCs and about 35 percent for* NO_x

ADMINISTRATIVE

In 2005, MDE published an updated **Business Guide to Environmental Permits and Approvals**, which provides information on the various permits, approvals, licenses, and registrations issued by the agency to protect Maryland's environment and public health.

MDE's Public Participation Guide, launched in 2005, helps the general public understand how MDE as a regulatory agency works and encourages public involvement with protecting the environment. The guide gives a brief overview of environmental laws to empower public participation in government decision-making processes that impact their communities.

MDE continues to provide **compliance assistance** to auto body shops in the Park Heights neighborhood of Baltimore City, to teach environmentally sound practices and record keeping to operators and their employees.

ENVIRONMENTAL JUSTICE

Environmental Benefits Districts (EBDs) are places where State government and other stakeholders can focus their financial, technical, regulatory, administrative, policy and other appropriate resources to benefit targeted communities. The EBD initiative was developed by MDE to foster sound environmental practices, healthy and safe communities, and proactive economic development for all Marylanders.

In 2004, MDE designated its first EBDs in portions of central Prince George's County and eastern Baltimore City. Since then, MDE has infused a variety of program resources into those districts, including grant funding of nearly $1 million to improve conditions in those areas. These funds include $300,000 in EPA grants for diesel engine retrofits and drycleaner and auto body shop compliance and a $75,000 EPA grant to address toxic air emissions from gas stations, dry cleaners, auto body shops, and small printers. These areas have sensitive populations (e.g., children, elderly) and are at increased health risk from high levels of toxic air pollution.

In 2006, MDE established two additional EBDs: Easton and 10 neighborhoods in the Monroe-Fulton corridor of southwest Baltimore City, including Washington Village. To date, MDE has contributed $75,000 as part of a matching grant for stormwater management projects in Watershed 263. Additionally, MDE allocated $75,000 to rehabilitate an environmentally-friendly community playground with funds from the Maryland Used Tire Cleanup and Recycling Fund, which is generated through the collection of 80 cents per tire at purchase. MDE continues to seek additional financial and technical resources to support projects within each EBD.

Maryland was chosen as one of two states by EPA to participate as pilots for testing EPA's new national environmental justice screening tool, EJSEAT (**Environmental Justice Smart Enforce Assurance Tool**). This tool will help state and federal agencies to make informed, efficient, and fair decisions regarding the attention given to the most significant public health and environmental problems.

SECURITY

Pursuant to Maryland's **new Hazardous Material Security law**, enacted in 2004, MDE implemented a new program to minimize risk associated with the storage, disposal, use and handling of hazardous materials. MDE promulgated regulations for the program that require regulated facilities to notify the Department of their plans to address potential security threats and document any changes instituted to reduce potential risks. Internal audits and third-party verification of plan implementation is required by the law. MDE partnered with the State Police in this effort.

Highlights and Important Dates

2004 – Environmental Benefits District (EBD) concept initiated and first two EBDs are announced.

2005 – Two more EBDs announced for Easton and parts of southwest Baltimore City.

2004 – New Hazardous Material Security law enacted.

2005 – MDE promulgates regulations to notify MDE of potential security threats.

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