MARYLAND DEPARTMENT OF THE ENVIRONMENT

MANAGING MARYLAND FOR RESULTS

FISCAL YEAR 2005 WORKPLAN

JUNE 2004

Kendl P. Philbrick
Secretary

MARYLAND DEPARTMENT OF THE ENVIRONMENT

MANAGING MARYLAND FOR RESULTS

FISCAL YEAR 2005
WORKPLAN

INTRODUCTION

This is the Maryland Department of the Environment's (MDE's) Fiscal Year 2005 Managing for Results (MFR) Workplan. This document reports on MDE's commitment to using results-based strategic planning and quality management approaches to achieve its public health, environmental, and management goals.

Please note that although this document highlights many priority areas, it is not comprehensive. Space limitations require that many important activities be mentioned only briefly, rather than covered in detail.

GOALS

MDE uses the following six broad goals to organize and measure its progress in achieving its mission, vision, and goals:

Goal 1: Promoting Land Redevelopment and Community Revitalization
Goal 2: Ensuring Safe and Adequate Drinking Water
Goal 3: Reducing Maryland Citizens' Exposure to Hazards
Goal 4: Improving and Protecting Maryland's Water Quality
Goal 5: Ensuring the Air is Safe to Breathe
Goal 6: Providing Excellent Customer Services to Achieve Environmental Protection.

REPORT ORGANIZATION

Within each of the goals, MDE's FY 2005 MFR workplan is organized into several objectives. The following information is presented for each objective:

1. description of the objective;
2. list of the strategies to achieve the objective;
3. chart of performance data; and
4. graphic indicator(s) of performance.

MISSION

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

VISION

MDE's vision is to ensure a clean environment and excellent quality of life for all Marylanders.

VALUES

MDE employees are:

- Credible and have the public's confidence;
- Supportive of teamwork, and empowered by management;
- Innovative and resourceful;
- Customer-service-oriented;
- Professional and proud of their work;
- Responsive to their stakeholders; and
- Supportive of environmental stewardship.

MDE CUSTOMERS AND STAKEHOLDERS

MDE's customers include Maryland citizens who expect protection and restoration of the environment; businesses, governments, and individuals who are applying for permits and receiving technical assistance; and technical personnel including well drillers, sanitarians, waste water operators, and asbestos contractors who require certification. Other key stakeholders include environmental and public health advocacy groups, citizen groups, educators, scientists, and natural resource users.

Services and Results: MDE's key results requirements for external customers and stakeholders fall generally into the following six categories:

- Timely and cost effective permitting;
- Quality and enforceable permitting;
- Timely and appropriate enforcement actions;
- Timely and appropriate complaint responses;
- Timely and effective clean ups; and
- Timely and quality environmental data.

IMPLEMENTING THE ENVIRONMENTAL ENTERPRISE MANAGEMENT SYSTEM

Achieving environmental and public health improvements requires long-term resource investments in program implementation. The Department continues to focus its limited resources on its critical environmental and public health protection priorities. In this context, implementation of the Environmental Enterprise Management System (EEMS), MDE's new data management system, will become even more critical as a means to improving multi-media data management and integration. EEMS will support all MDE programs and environmental goals. EEMS will be web-enabled to support e-business, which for MDE will include processing permits and registrations electronically. Electronic permitting will not only improve customer services; it will also reduce data entry and processing time, provide better access to data for public use, and increase data quality.

CONCLUSION

MDE's FY 2005 MFR Workplan is the result of extensive collaboration, input, and review by all organizational levels within MDE. It can also be found on the Department's web site at http://www.mde.state.md.us/AboutMDE/Reports/managingMDResults.asp

Through successful implementation of its policies and programs, MDE remains committed to achieving its mission of protecting Maryland's public health and environment.

MDE MFR FY 05 Workplan Contents

GOAL 1: PROMOTING LAND REDEVELOPMENT AND URBAN REVITALIZATION

1.1 Voluntary Cleanup Program
1.2 Environmental Justice
1.3 Base Realignment and Closure
1.4 Recycling
1.5 Scrap Tires

Encouraging environmentally-responsible economic development in existing communities is fundamental to Maryland's future environmental health and to the prosperity of its citizens. This workplan describes five ways that MDE is approaching this goal; other important MDE activities include helping local governments with water, sewer, and solid-waste management planning.

GOAL 2: ENSURING SAFE AND ADEQUATE DRINKING WATER

2.1 Public Drinking Water Compliance
2.2 Source Water Protection
2.3 Water Appropriation
2.4 Oil Pollution Remediation
2.5 Municipal Landfill Compliance with Groundwater Standards

Ensuring that Marylanders have safe and adequate drinking water is a critical priority for MDE. In addition to the activities listed above and described in this section, other MDE programs aimed at protecting drinking water address water conservation, drought monitoring, and other issues.

GOAL 3: REDUCING EXPOSURE TO HAZARDS

3.1 Lead Poisoning Prevention
3.2 Nuclear and Environmental Emergency Preparedness
3.3 Radiological Health Program
3.4 Environmental Restoration (Superfund)

MDE has a number of programs designed to protect Marylanders from environmentally-based hazards that might threaten health or safety. In addition to those activities described in this section, other programs include floodplain management, health and ecological risk assessment, noise control, Community and Worker Right to Know, hazardous waste management, mercury exposure reduction, and others.

GOAL 4: IMPROVING AND PROTECTING WATER QUALITY

4.1 Fish Tissue Sampling
4.2 Shellfish Compliance with FDA Sanitation Standards
4.3 Fish Kills
4.4 Discharge Permits
4.5 Sewage Overflows
4.6 Financial Assistance for Capital Programs
4.7 Total Maximum Daily Loads
4.8 Wetlands

MDE operates many programs critical to the protection and improvement of water quality in our state. In addition to those described under Goal 4, other important water-quality programs address stormwater management, sediment control, mine reclamation, quarry impacts, identification of impaired waters, ballast water, sewage sludge, dredging, water quality standards, and other issues.

GOAL 5: ENSURING AIR IS SAFE TO BREATHE

5.1 Reduce Ozone Transport from Upwind Areas
5.2 Attainment of Federal Ozone Standards
5.3 Asbestos

MDE operates a number of programs aimed at protecting air quality. In addition to those listed herein, significant MDE air-related programs address air toxics and mobile sources of air pollution.

GOAL 6: CUSTOMER SERVICE AND COMMUNITY OUTREACH

6.1 Applying Technology to Improve Customer Service
6.2 Customer Service and Stakeholder Involvement

In addition to these activities described Under Goal 6, MDE also operates programs designed to help small businesses and to provide media outreach and public education.

Voluntary Cleanup Program

Introduction: Maryland's rich industrial history has resulted in a significant number of properties where investigation and/or cleanup of contamination is necessary to ensure public health is protected. This program eliminates threats to public health from exposure to soils, groundwater, and surface water contaminated by hazardous waste and other substances, while encouraging the revitalization of industrial and commercial properties. Redevelopment requires environmental cleanup, may provide economic development benefits including new jobs and increased tax revenues, and promotes wise growth by using existing infrastructure and avoiding development in undeveloped "greenfields".

Objective 1.1: In FY 05, continue to increase the annual number of acres and properties of brownfields/voluntary cleanup program (VCP) sites remediated/completed over the previous year (acres by 100; properties by 10), as resources and economic conditions allow.

Strategy 1.1.1: Continue to market and encourage participation in the cleanup and redevelopment of brownfields through seminars, workshops, and other outreach activities; continue to reevaluate and discuss additional improvements to the VCP utilizing input from stakeholders, and consider recommendations from the Environmental Restoration and Development Task Force.

Strategy 1.1.2: Continue to oversee cleanups of eligible properties and provide technical assistance to private industry for assessments and cleanups of hazardous waste sites.

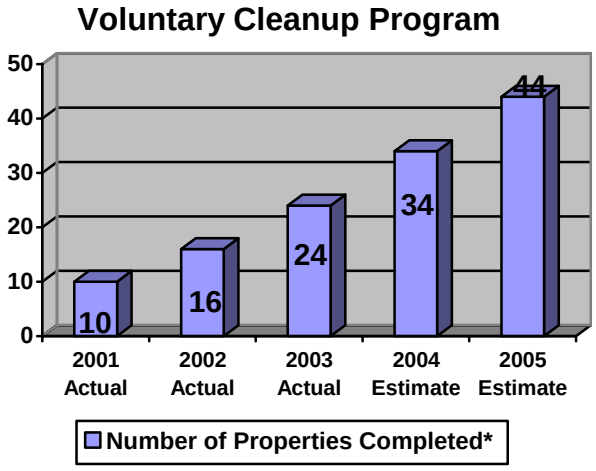
Strategy 1.1.3: MDE will continue to implement a Brownfields Site Assessments initiative, which is designed to help eligible property owners or prospective purchasers determine the extent of contamination on the property, at no cost to them. Owners and prospective purchasers of property that is planned for participation in the VCP may apply for Brownfields Site Assessments, which will reduce the costs associated with the application process.

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Brownfields Site Assessments				
Number of Brownfields Site Assessments (properties) completed during the fiscal year	13	13	16	16
Number of acres of Brownfields Site Assessments completed during the fiscal year	74.5	109	110	110
Percentage of brownfields sites assessed and approved for redevelopment	100%	100%	95%	95%
Voluntary Cleanup Program				
Total number of acres of property in the VCP completed and a No Further Requirements Determination or a Certificate of Completion issued	299	247	350	450
Total number of properties in the VCP completed and a No Further Requirements Determination or a Certificate of Completion issued	16	24	34	44
Number of additional jobs created each year as a result of Brownfields/VCP site development*	1,700	1,810	2,000	2,000
Amount of capital investment in redevelopment of Brownfields/VCP sites that have been cleaned up*	$200 million	$428 million	$450 million	$500 million
Estimated increase in tax base from job creation and/or capital investment resulting from cleanup of Brownfields/VCP sites	$25 million	$37 million	$50 million	$50 million
Percentage of VCP properties where streamlined deadlines were met in reviewing applications and Response Action Plans	100% (26/26)	97% (30/31)	100% (30/30)	100% (30/30)

*This information was obtained from applications or from responses to a survey of all VCP applicants who had received either a No Further Requirements Determination or a Certificate of Completion. Some applicants did not complete the survey.

Performance Indicator:



*** With a No Further Requirements Determination or a Certificate of Completion issued**

Environmental Justice, Environmental Benefits Districts, Community Revitalization and Outreach

Introduction:

Several studies document that marginalized low-income and minority communities are at much greater risk for environmental hazards and injustices. "Environmental justice" (EJ) refers to the pursuit of equal protection from environmental and public health hazards for all people regardless of race, income, culture, and social class. To address this, one of the main goals of the EPA's Performance Partnership Agreement with MDE is to increase the opportunities for public participation that are integrated in MDE's and EPA's programs and policy deliberations. Furthermore, as general rule, EPA encourages MDE to consider the issues of environmental justice and public involvement in its environmental deliberations. Additionally, MDE has begun an initiative to improve cooperation with local governments and communities.

When combined with the ongoing priority placed on stimulating business opportunities and community revitalization, these important goals can pull the agency in several directions. In an effort to better understand the confluence of concerns related to communities in Maryland, the General Assembly passed House Bill 1350 in 1997, establishing the Maryland Advisory Council on Environmental Justice to provide recommendations to the Governor and legislators on environmental justice matters. In fulfilling its charge, the Council established several forums for public discussion on environmental justice. These included undertaking more than 75 open meetings over two years and five major statewide workshops.

The statewide workshops raised several concerns about potential EJ issues including lead poisoning, increased respiratory concerns, communication, infrastructure needs, locally-unwanted land uses, living and working conditions, limited regulatory protection, public involvement and outreach, etc. It was clear from the statewide meetings that additional study was needed, and one of the Council's major recommendations was to establish a Commission to more fully consider EJ issues. In March 2001, Maryland's Commission on Environmental Justice and Sustainable Communities (the EJ Commission) was established by executive order. The EPA-managed Chesapeake Bay Program has also now established an EJ task force.

Objective 1.2: In FY 05, increase to 35 the number of people annually who are provided support, outreach, and other services in connection with MDE's efforts related to community economic revitalization and environmental justice. Also, identify at least two Environmental Benefits Districts (EBDs) and secure resources for, and participation in, activities within the EBDs. MDE will work with other state agencies to aid and optimize revitalization efforts in targeted EBDs. MDE also seeks to improve the public's understanding of MDE's goals, objectives and accomplishments, and to improve the Department's capacity to foster community revitalization opportunities.

> **Strategy 1.2.1:** Continue to institute an environmental justice and sustainable communities ethic within and external to MDE by providing services and partnering and/or collaborating with stakeholders to address concerns and develop projects that promote, institute, and sustain such an ethic. This ethic will assist in building relationships and collaborative partnerships, in extending support to stakeholders, and in informing policy decisions. This will include maintaining the compliance and community perception improvements accomplished by the completed Park Heights Compliance Assistance Project, which was reported under Goal Seven in MDE FY04 MFR Workplan.

Strategy 1.2.2: Continue to develop the Environmental Benefits District approach by targeting two EBDs. The Department will work with other State agencies such as DBED, DHCD, MDP, and MDOT to aid and optimize revitalization efforts in targeted EBDs.

Strategy 1.2.3: Continue to work closely with the EJ Commission and the Chesapeake Bay Program's EJ Task Force to address EJ issues and stakeholders' concerns. MDE will work with the Commission and Task Force to (1) build stakeholders' capacity to identify local environmental justice problems; and (2) involve the community and other stakeholders in design and implementation of activities to address these concerns and revitalize their communities.

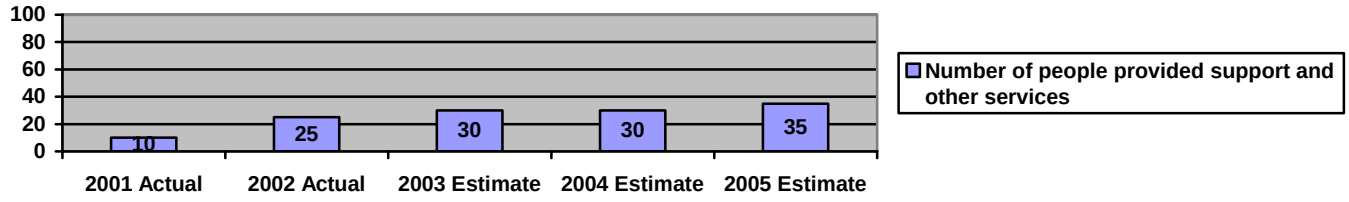
Strategy 1.2.4: Develop comprehensive analyses of communities using geographic information systems and other data gathering tools. This will allow MDE to better understand and help communities that may be environmentally stressed.

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate
Number of people attending E.J. related meetings and activities	220	248	300	300
Number of MOUs, partnerships, and/or special projects with academic, federal, state, local, non-profits, businesses, communities and other stakeholders, undertaken to encourage community revitalization communities and address environmental concerns	2	2	2	2
Number of EBDs created	new measure	new measure	2	2
Number of communities, small businesses, concerned residents and citizens concerned with environmental issues MDE meets with or speaks to, to provide support and outreach, offer services and address concerns	25	30	30	35
Number of community characterizations undertaken: *This includes - number of data gathering analyses undertaken to improve environmental decision making for businesses, communities, and government.*	1	1	1	1

Performance Indicators

Environmental Justice, Community Revitalization and Outreach:



Base Realignment and Closure Program

Introduction: Congress established the Base Realignment and Closure (BRAC) program in 1988 to facilitate the reduction of the number of facilities used by the military. Maryland has had seven military facilities or portions of military facilities placed in the BRAC program. These facilities are Fort Ritchie, Fort George G. Meade (partial closure), Naval Surface Warfare Center White Oak, David Taylor Research Center - Annapolis, Fort Holabird, US Army Reserve Center - Gaithersburg, and the former Aberdeen Proving Ground NIKE Site, which was withdrawn from the BRAC program in 1996. The total acreage covered by these BRAC sites, excluding the APG NIKE site, is 9,930 acres. Additionally, outside the BRAC program, the military has closed the Cheltenham Communication Center, the Bainbridge Naval Training Center, and the Naval Research Laboratory - Waldorf. The Army plans to close the Granite and Phoenix Nike sites once environmental assessments have been completed. These non-BRAC sites represent an additional 1,528 acres of closed military facilities that potentially will be economically reintegrated into the private sector economy.

Objective 1.3: Each year, until the Base Realignment and Closure (BRAC) Program funding is terminated, provide oversight to support property transfers at base realignment and closure facilities identified by the federal government for closure. Any remaining activity to be completed to restore the properties in future years will be managed through the Defense Environmental Restoration Account and will be tracked by MDE through its federal facility oversight activities.

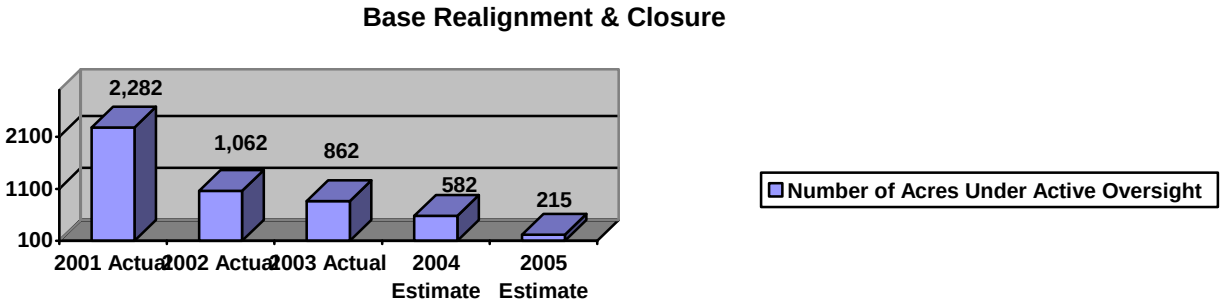
Strategy 1.3.1: Continue to provide technical oversight to federal facilities for assessments and cleanups of hazardous waste sites and to encourage productive relationships with the regulated community and the public through federal facility partnerships, Restoration Advisory Boards, and outreach to stakeholders.

Strategy 1.3.2: Continue working with EPA and the Department of Defense to inform and involve local communities in close proximity to these sites.

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Total number of acres of Operable Units/Areas of concern at military facilities scheduled for closure and transfer (BRAC sites) under active oversight	1,062	862	582	215
Total number of acres covered by Records of Decision, Action Memoranda, Engineering Evaluation/Cost Analysis, and Construction Complete Reports	76	21	125	100
Total number of acres at BRAC facilities covered by No Further Action Records of Decision and Construction Complete Reports	315	4	248	115

Performance Indicator:



Recycling

Introduction:

Solid waste recycling and source reduction activities conserve natural resources and preserve landfill capacity by diverting waste from disposal or eliminating materials from the waste stream. MDE's Recycling Program promotes recycling and source reduction across the State by providing technical, education, and outreach assistance, working with other State agencies to increase the volume of materials they recycle, and partnering with the Department of Business and Economic Development, Maryland Environmental Service, and Northeast Maryland Waste Disposal Authority to develop markets for recyclable materials.

In this workplan, MDE reports two statewide diversion rates: (1) the statewide voluntary waste diversion rate; and (2) the percentage of all solid waste diverted annually from disposal. Both of these measures build on the Maryland Recycling Act recycling rate (the MRA rate). The MRA rate measures the percentage of municipal solid waste recycled. The statewide voluntary waste diversion rate is the MRA rate plus a source reduction credit, earned by the Counties, for activities like reuse and backyard composting. The percentage of all solid waste diverted annually from disposal, includes the statewide voluntary waste diversion rate and the recycling of other, non-MRA materials, such as construction and demolition debris.

Objective 1.4: Increase the statewide voluntary waste diversion rate to 40% by the end of calendar year 2005.

Strategy 1.4.1: MDE will continue to provide technical, education, and outreach assistance to the counties and Baltimore City on recycling and source reduction opportunities. As the Program's legislatively-mandated reporting requirements continue to grow, available staff resources will be directed to these activities as well as to new market development initiatives.

Strategy 1.4.2: More focus will be placed on identifying regional solutions for hard-to-recycle materials such as construction and demolition debris and electronic equipment. To recognize the effort counties and businesses are making to recycle other materials such as construction and demolition debris, the Program will also report an overall solid waste recycling rate, in addition to the Maryland Recycling Act recycling rate. Enhanced partnerships with the private sector and with other State agencies to encourage market development activities will be sought. MDE will continue to encourage electronics and mercury thermometer recycling, partnering with EPA, industry, local governments, and the public to increase awareness of, and participation in, these activities.

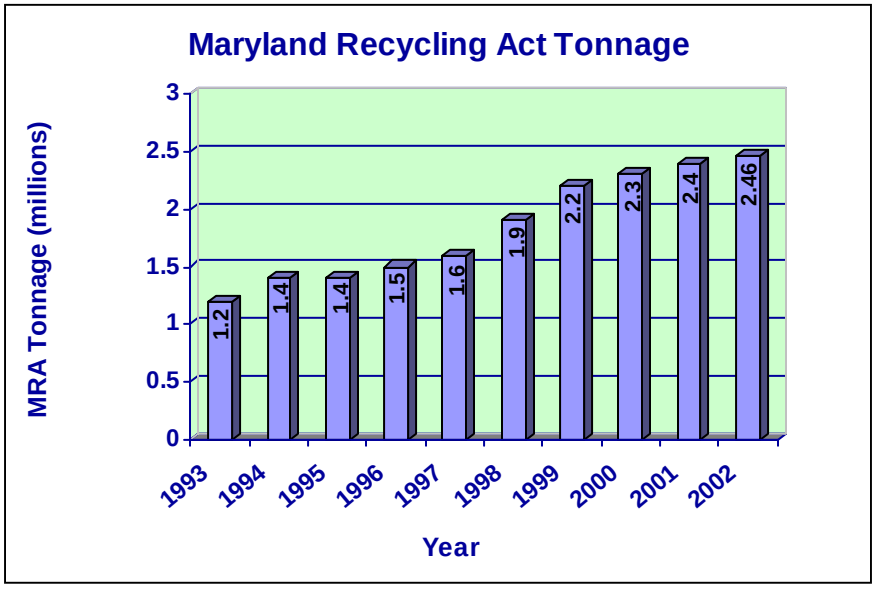
Strategy 1.4.3: MDE will continue to devote staff to assist State agency recycling coordinators in their efforts to establish successful collection and waste minimization programs. Outreach efforts include providing technical assistance to State agency coordinators to help improve site-specific recycling programs and publishing a quarterly newsletter to highlight the benefits of State government recycling and source reduction efforts.

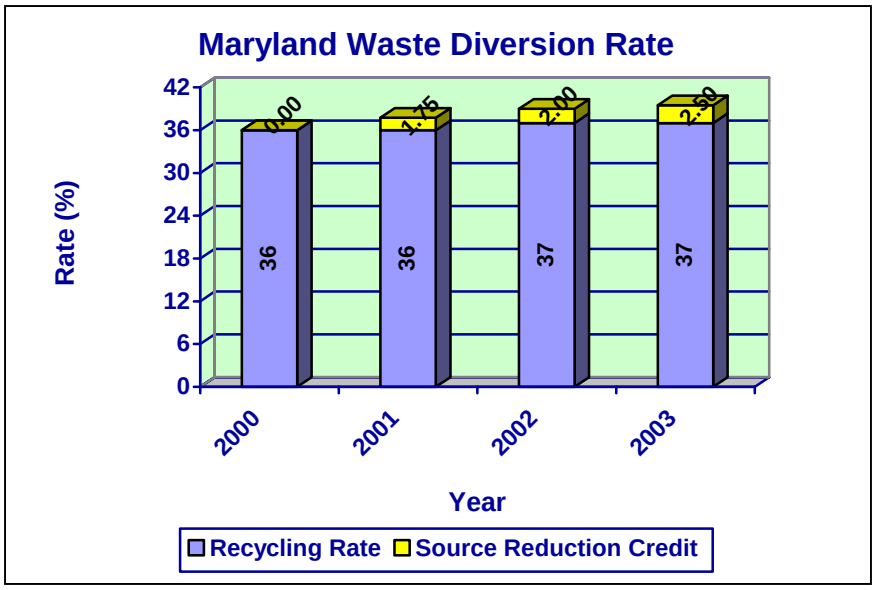
Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Percentage of MRA solid waste that is diverted annually (MRA materials recycled + source reduction credit = waste diversion rate) from disposal*	39%	39.5%	39.5%	39.5%
Percentage of all solid waste (MRA and non-MRA) that is diverted annually from disposal*	39.7%	42.1%	41%	41%
Number of outreach and education events participated in/conducted regarding recycling	43	23	25	25
Percentage of all solid waste (MRA plus non-MRA) that is diverted annually from disposal by state agency offices*	41%	70%	41%	41%
Number of state agency offices participating in All State Agencies Recycle (All-STAR) Program*	258	260	260	260
Number of Maryland Recycling Act tons of material recycled*	2,405,033	2,455,843	2,400,000	2,400,000

*Data collected on a calendar year basis. For example, FY2003 reflects calendar year 2002 data.

Performance Indicators:




Maryland Waste Diversion Rate
Rate (%)
42
36
30
24
18
12
6
0
0.00
1.75
2.00
2.50
36
36
37
37
2000
2001
2002
2003
Year
Recycling Rate
Source Reduction Credit

Scrap Tires

Introduction: Cleaning up stockpiles of tires protects and maintains the natural resource land base and the public health. MDE implements the Scrap Tire Recycling Act to clean up stockpiled tires and issue licenses for scrap tire collection, hauling, recycling, and processing to ensure proper disposal and prevent illegal scrap tire stockpiles. The program actively seeks opportunities for recycling scrap tires, such as energy recovery, scrap tire playgrounds, and landfill construction. MDE implements controls through an active permitting and enforcement program.

Objective 1.5: In FY 05, initiate the planning and cleanup process within 30 days of discovery for 100% of illegal scrap tire stockpile sites identified each year.

Strategy 1.5.1: Maintain inspections, compliance assistance, and enforcement actions of scrap tire licensees to discourage illegal scrap tire dumps and to reduce or eliminate the potential for the accumulation of massive new scrap tire stockpiles. Continue coordinating with the State Fire Marshal's Office to ensure that plans for tire recycling and storage facilities meet applicable fire prevention standards and have adequate provision for fighting fires should they occur.

Strategy 1.5.2: Continue the identification and cleanup of stockpiled scrap tires.

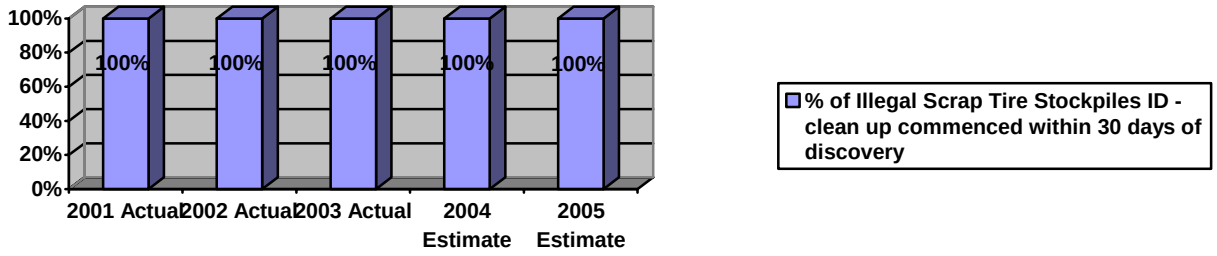
Strategy 1.5.3: Encourage more recycling or reuse of scrap tires by conducting projects that reduce, recover, or recycle scrap tires. These projects may include constructing scrap tire playgrounds, sponsoring scrap tire amnesty day events and the Scrap Tire Youth Employment Program, promoting the use of products made from recycled scrap tires such as footing material in horse stalls and equestrian arenas, and encouraging civil engineering applications for scrap tires as in landfill closure cap design and new cell closure.

Performance Measures:

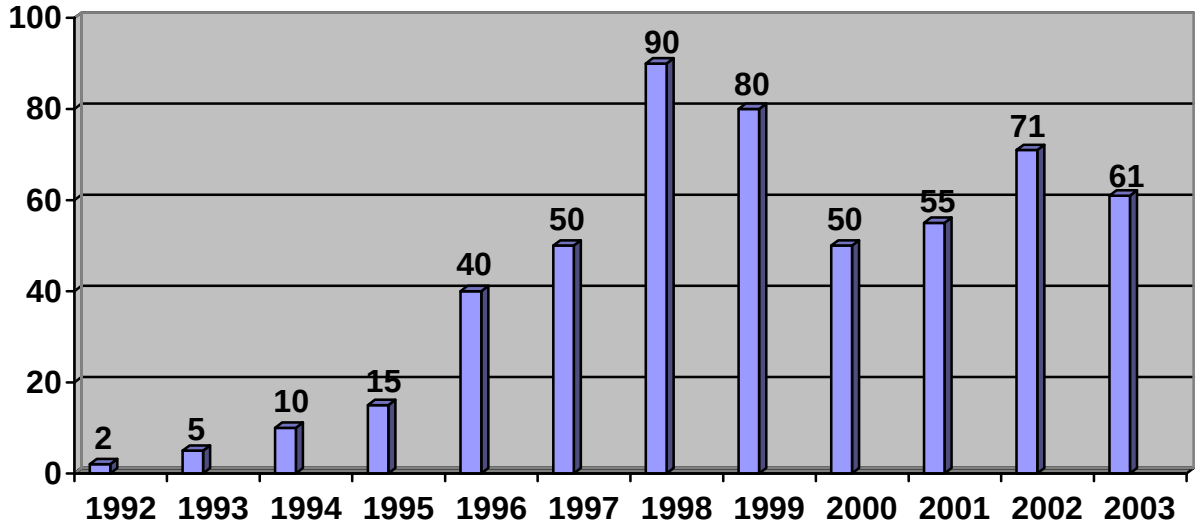
Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Percentage of illegal scrap tire stockpiles identified where the planning and cleanup process commenced within 30 days of discovery	100%	100%	100%	100%
Percentage of inspected scrap tire hauling, collection, storage, and processing facilities in significant compliance	93%	98%	98%	98%
Number of scrap tires removed since the inception of the program in 1992 (cumulative)	7,215,836	7,822,752	7,900,000	8,000,000
Total number of scrap tires identified at the end of the fiscal year which remain to be cleaned up	2,161,700	1,663,025	1,500,000	1,400,000

Performance Indicators:

Scrap Tire Management - Initiation of Clean Up Process within 30 Days of Discovery



Number of Scrap Tire Stockpile Cleanups Completed Each Fiscal Year



Public Drinking Water Compliance

Introduction:

The Water Supply Program's activities help to ensure that community water systems provide safe drinking water to their customers. The greatest challenges for all public water systems are managing and protecting water systems with limited resources, and complying with the ever-increasing number of State and federal requirements and standards.

Water system compliance is assured through a variety of activities, including:

- Training and guidance materials for water system owners and operators;
- Continuing to perform sanitary surveys to identify shortfalls and compliance issues at drinking water sources and community systems; and
- Support of operator training programs.

Objective 2.1: To ensure compliance of community and non-transient non-community public water systems with all federal and State drinking water regulations. In FY 05, at least 97% of the population served by public water systems (community and non-transient non-community) will be in compliance with the State regulations adopted as of 2002.

Strategy 2.1.1: Adopt federal regulations that were finalized by EPA in 2002. Implement the recent regulation changes for: the Interim Enhanced Surface Water Treatment Rule, Disinfection Byproduct Rule, revised Public Notification Rule, Arsenic Rule, Radionuclide Rule, and the Filter Backwash Recycling Rule.

Strategy 2.1.2: Continue providing on-site technical assistance such as the Comprehensive Performance Evaluation Comprehensive Performance Evaluations (CPEs), which is a technical assistance tool, used to identify areas that affect the performance of drinking water filtration plants. A team of three or four staff experienced in water filtration design and operation conducts CPEs. The final report can be used by water systems to prioritize improvements that will improve the drinking water quality, and the reliability of the water treatment plant.

Strategy 2.1.3: Continue providing financial assistance to communities under the Drinking Water State Revolving Loan Fund (DWSRF) and grants programs to assist communities in upgrading water supply systems. Finance $13.5M in Water Supply/Safe Drinking Water Projects with state capital dollars in FY2005**.** This amount is based on $11 million in capital loans and $2.5 in capital grants funds in FY2005. Capital funding will be targeted to projects with the highest public health needs and where funding is provided. For eligible "growth-related" projects, funding will be targeted toward Priority Funding Areas consistent with the law. Funds appropriated by the Legislature for FY2005 will be utilized in a timely manner by encumbering not less than 90% of funds by the end of FY2005. Capital Programs for Safe Drinking Water projects will be monitored and tracked for schedule slippage. Major schedule slippage will be flagged for management review and action. Opportunities to accelerate projects and/or reprogram funding to other projects ready to proceed will be routinely evaluated.

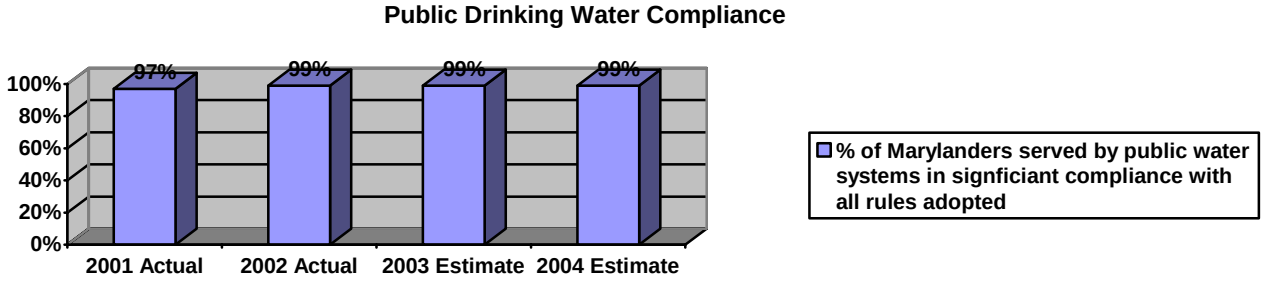
Strategy 2.1.4: Promote compliance assistance and when necessary take enforcement actions against water systems that are not in compliance with State and federal drinking water regulations.

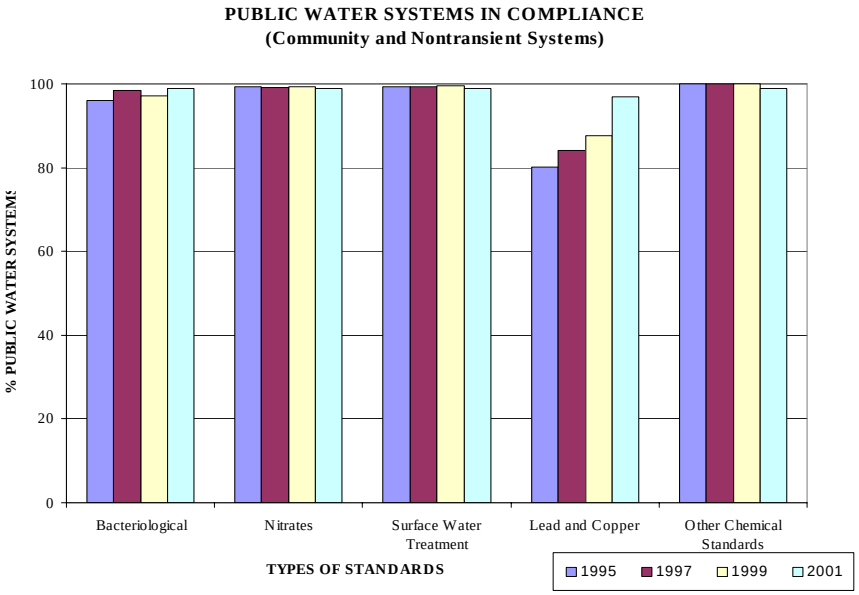
Strategy 2.1.5: Utilize the DWSRF loan program to make land or easement purchases as a way to control/prevent water supply pollution. The deeds for the purchased land include conditions that protect the surrounding water supplies. Examples of land conditions include: restrictions on the storing of hazardous materials on the land or easement, development of wetlands on the land or easement, and restrictions on further construction on the land or easement.

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Percentage of Marylanders served by public water systems in significant compliance with all rules adopted as of 2002	99%	99%	97%	97%
Percentage of community water systems in compliance with health-based standards	94%	98%	95%	95%
Percentage of community and non-transient water systems in compliance with State regulations	84%	80%	87%	87%
Number of public water system enforcement actions Initiated	251	322	Unable to estimate	Unable to estimate
Number of compliance assistance actions provided	1,076	1,099	1,100	1,100
Capital projects financed from Drinking Water SRF	$12.5M	$3.8M	$11M	$11M
Capital grant funds encumbered for capital improvement projects by Water Supply Financial Assistance Program	$1.99M	$1.6M	$2.5M	$2.5M

Performance Indicators:





The quality of water provided by public drinking water systems - which serve approximately 84% of Maryland residents - is very good.

Compliance rates are at >97% for all standards (see graph). New regulations were adopted each year from 2000 through 2003.

Source Water Protection

Introduction:

Three related areas of the Department's Water Supply Program's work are addressed here: (1) source water assessments; (2) watershed protection programs; and (3) wellhead protection programs.

Source Water Assessments

The Program has developed an EPA-approved Source Water Assessment Plan. The plan describes how Maryland will delineate source water assessment areas, identify potential contaminant sources and conduct a susceptibility analysis for all sources used by public water systems in Maryland.

Wellhead Protection Programs

There are distinct geographic differences among Maryland's water sources. Areas away from Maryland's major population centers are more likely to rely on groundwater, particularly in Southern Maryland and on the Eastern Shore where groundwater aquifers are very productive (see map below). In these regions of Maryland, layers of clay called confining layers generally protect groundwater supplies. Approximately 500,000 residents relying on groundwater from public systems receive their water from these deep, naturally-protected, confined aquifers.

In the central and western areas of Maryland and the Columbia aquifer on the Eastern Shore, groundwater aquifers are not protected by confining layers, and are more susceptible to contamination from activities at the land surface. Groundwater sources other than wells in deep confined aquifers are considered vulnerable to contamination. Currently about 310,000 Marylanders are supplied by vulnerable groundwater sources from community water systems. By 2006 an estimated 320,000 Marylanders will be served by vulnerable groundwater systems.

Local governments use voluntary wellhead protection programs to reduce the risk of contamination and protect the recharge area of their groundwater supply. About 36 communities are implementing wellhead protection programs, which include education and public outreach, reviewing new construction, adopting local ordinances prohibiting certain land uses that would jeopardize the water supply, and investigating potential contamination sources.

Watershed Protection Programs

All surface water sources are considered potentially vulnerable to contamination. Currently about 3.61 million Marylanders are served by surface water sources. By 2006 this number is expected to increase to around 3.65 million Marylanders.

Public water systems use voluntary watershed protection programs to reduce the risk of contamination and to protect the recharge area of their surface water supply. Formal watershed protection programs are in place for three large public drinking water systems that receive water from vulnerable sources: Baltimore City, Cumberland, and the

Washington Suburban Sanitary Commission's Patuxent Supply. Significant local participation has been key to program successes. Coordination with other agencies and states has begun for many water system watersheds. MDE Water Supply staff provide technical assistance to inter-agency and inter-jurisdictional reservoir protection and management programs. MDE is assisting in coordination of protection efforts across jurisdictional boundaries.

Objective 2.2: In FY 05, assist water systems and local governments in establishing source water protection programs benefiting more than 75% of Maryland residents that obtain drinking water from vulnerable community water systems.

Strategy 2.2.1: Conduct source water assessments for any new sources.

Strategy 2.2.2: Provide guidance to water suppliers and local governments to develop watershed management and protection programs to protect drinking water sources. Seek sources of funding to assist these efforts.

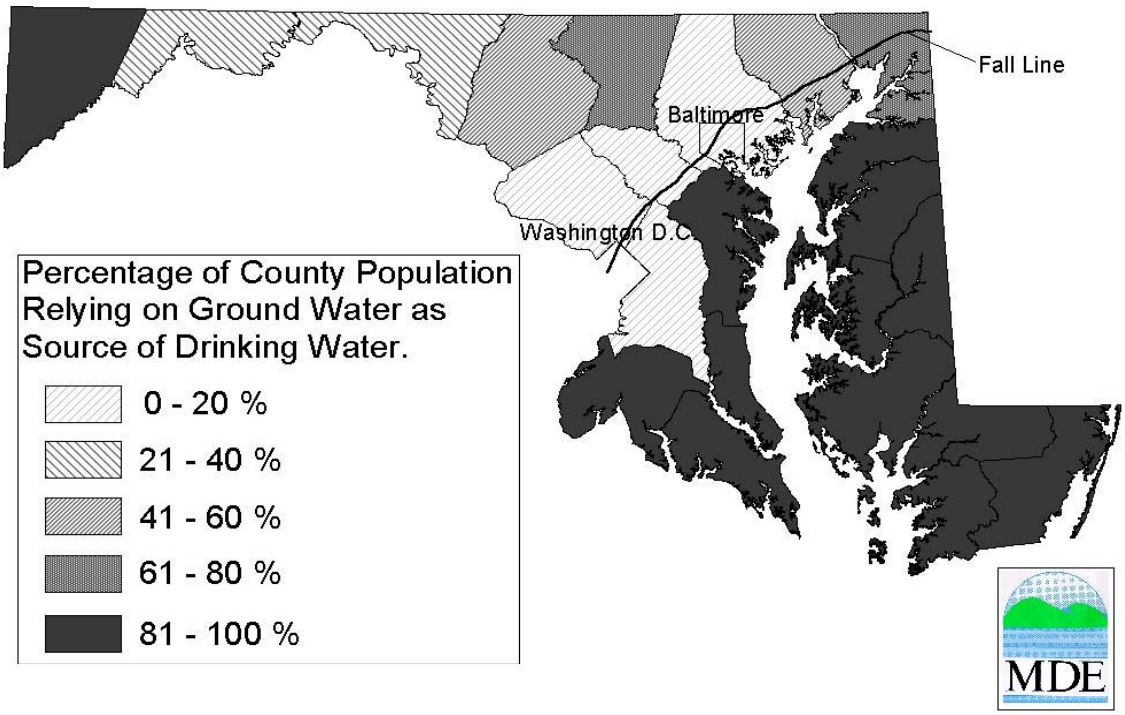
Strategy 2.2.3: Utilize the DWSRF set-aside program to provide wellhead protection grants to develop practical and efficient locally-based active wellhead protection programs.

Strategy 2.2.4: Utilize the DWSRF loan program to make land or easement purchases as a way to control/prevent water supply pollution. The deeds for the purchased land include conditions that protect the surrounding water supplies. Examples of land conditions include: restrictions on the storing of hazardous materials on the land or easement, development of wetlands on the land or easement, and restriction on further construction on the land or easement.

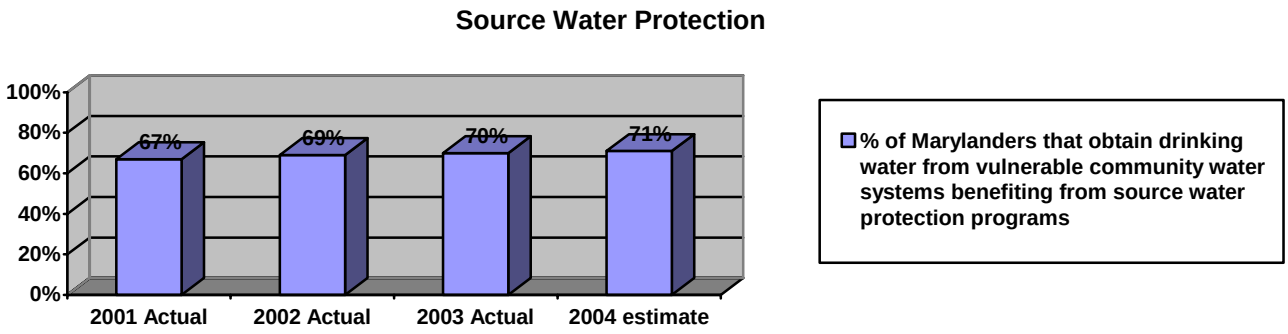
Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Percent of Maryland residents that obtain drinking water from vulnerable community water systems benefiting from source protection programs	69%	70%	71%	75%
Marylanders served by community water systems relying on surface water sources with watershed protection programs[1]	2.55 million	2.60 million	2.63 million	2.75 million
Marylanders served by community water systems relying on vulnerable groundwater source with active wellhead protection efforts[2]	130,308	136,800	160,000	220,000
Percent of Source water assessments completed for community water systems as of the end of the fiscal year (cumulative)	28%	57%	100%	100%

[1] Currently about 3.61 million Marylanders are served by surface water sources. By 2006 this number is expected to increase to around 3.65 million Marylanders.

[2] Currently about 310,000 Marylanders are supplied by vulnerable groundwater sources from community water systems. By 2006 an estimated 320,000 Marylanders will be served by vulnerable groundwater systems.



Performance Indicators:



Water Appropriation

Introduction:

Maryland has a program for evaluating water use and the adequacy of water resources to meet the demand of specific users. Any person who wishes to appropriate water for agricultural, municipal, commercial, industrial, or other non-domestic uses must obtain a Water Appropriation Permit from MDE. There are currently more that 13,000 active Water Appropriation and Use Permits. Review of the permit application involves evaluating the potential needs of the user and the probable impact of the withdrawal on neighboring users. The goal of the permit program is to maximize beneficial uses of the waters of the State, while minimizing conflicts between water users. A secondary aim is to ensure that water resources are not overused and that the environmental impacts of each water use are acceptable.

By Executive Order in March 2003, Governor Ehrlich established an Advisory Committee to provide guidance to the State on managing Maryland's water resources. The Committee's final report provides important advice to the State on implementing programs and policies relating to the management, development, conservation, and protection of the State's water resources.

Objective 2.3: In FY 05, ensure that ground water permits do not cause regional groundwater levels in confined aquifers to decline below the 80% water management level by, for all groundwater permits, either evaluating the application with respect to the 80% requirement or conducting a water balance analysis. Also, ensure that future surface withdrawals do not exceed available supplies by requiring that 100% of surface water permits allow for adequate minimum flows for downstream users and in-stream living resources, by incorporating flow-by requirements and/or other appropriate requirements.

Strategy 2.3.1: Continue to regulate surface and ground water withdrawals through permits, and use the permit system to promote the greatest feasible use of the water resources while avoiding water use conflicts and shortages. Through permits, MDE will assure that ground water withdrawals do not exceed the sustained yield of Maryland's aquifers, and that ground water withdrawals from unconfined aquifers do not exceed drought-year, ground water recharge rates within each watershed. Compliance of permittees with flow-by requirements will be addressed. Surface water withdrawals will be managed to assure adequate downstream flow for other users and environmental needs. Compliance with permitted withdrawal limits will also be enforced.

Strategy 2.3.2: Improve information management and data collection. By comparing existing water-related databases, MDE will identify community public water systems with inadequate or marginal supply sources, and will assist them in securing adequate supplies. MDE will also bring permittees into compliance with water use reporting requirements in order to ensure the integrity of the permit system, of MDE's water-use information, and MDE's ability to measure the adequacy of available water supplies. MDE will continue to work cooperatively with agencies such as the U.S. Geological Survey and Maryland Geological Survey to assure that their study efforts and monitoring programs are aligned with the information needs of MDE that will allow the measurement and achievement of the State's resource management goals.

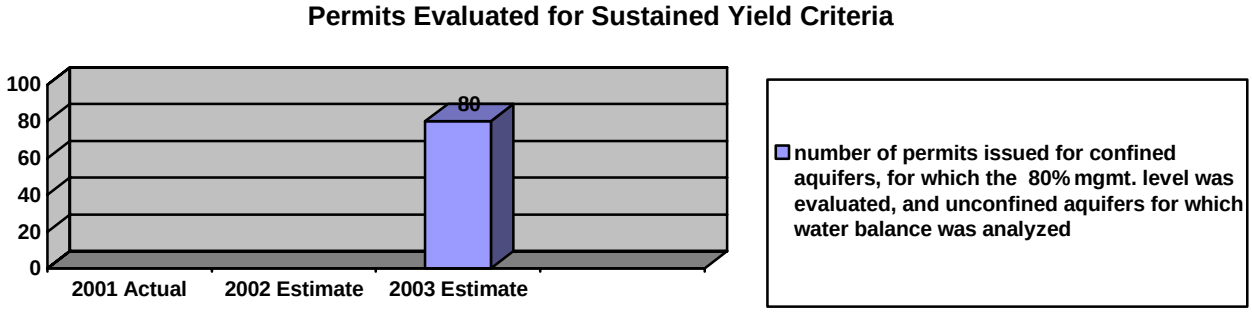
Strategy 2.3.3: For the Potomac River, proposed changes in the environmental flow-by resulting from the Department of Natural Resources' current study will be reviewed for implications to water supply needs. The recent studies on water supply and demand from the Potomac will also be considered in setting policy for future appropriations.

Strategy 2.3.4: Continue to work with interstate water commissions on water-related issues that have impacts that cross state boundaries and provide advice and guidance to local planning agencies, to ensure that their growth plans adequately consider water availability. Also, local Water Management Strategy Areas will be developed, where appropriate, to address specific ground water supply issues. For each permit issued that allows withdrawals from a confined aquifer, MDE will assess the regional ground water level relative to the 80% water management levels defined in state regulations.

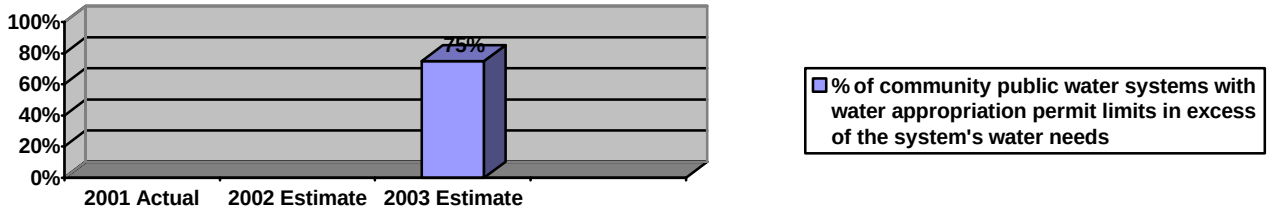
Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Number of groundwater appropriation permits issued	1,626	1,630	1,600	1,600
Percentage of large groundwater appropriation permits issued for which the 80% water management level was evaluated, or a water balance analysis performed	N/A	100%	100%	100%
Number of surface water appropriation permits issued	111	128	110	110
Number of surface water permits issued with a flow-by requirement	N/A	70	70	70
Percentage of permittees in compliance with permit limits	N/A	80%	85%	90%
Number of renewal notices sent for expiring permits	N/A	1,571	1,300	1,300

Performance Indicators:



Water Appropriation Permits for Community Public Water Systems



Oil Pollution Remediation

Introduction:

Releases of petroleum that require a response and cleanup can originate from above or underground storage tank systems, all forms of transportation, and any commercial or pleasure uses of petroleum products. These releases can render drinking water unfit for consumption, endanger wildlife, and create flammable and explosive conditions. The prevention of oil releases reduces the public's exposure to contaminated drinking water supplies and reduces the need for costly site cleanups. The risk of contamination of waters of the State posed by the improper management of above ground and underground petroleum storage tanks continues to drive the need for a preventive inspection program.

MDE staff oversees the investigation and cleanup of petroleum releases to ensure the waters of the State and the public are adequately safeguarded. The time it takes from discovery of a petroleum release to MDE's determination that a cleanup has been successfully completed, varies significantly from case to case and depends upon a variety of factors. Some sites require active removal of petroleum product from the ground for over ten years while minor surface spills may be resolved within hours. The discovery of the gasoline additive methyl tertiary butyl ether (MTBE) in groundwater associated with releases of gasoline, as well as other petroleum products, including heating oil, has complicated the investigation and cleanup process. MTBE is very soluble in water and has the potential to migrate in groundwater much farther from the site of the release than other constituents of gasoline, often beyond adjacent properties. Since EPA continues to provide the majority of the funding supporting the State's Leaking Underground Storage Tank Program and the State must meet certain commitments under EPA grant agreements, the State must provide its own funding support for cleanups of all other sources of petroleum releases, including aboveground storage tanks and all heating oil tanks, the most numerous of which arise from small businesses and residences.

Objective 2.4: Complete cleanup of 85% of underground storage tank (UST) releases by the end of State FY2005.

Strategy 2.4.1: Continue inspections, compliance assistance actions, and appropriate enforcement actions at oil pollution remediation sites to ensure protection of groundwater and reduce impacts to drinking water wells.

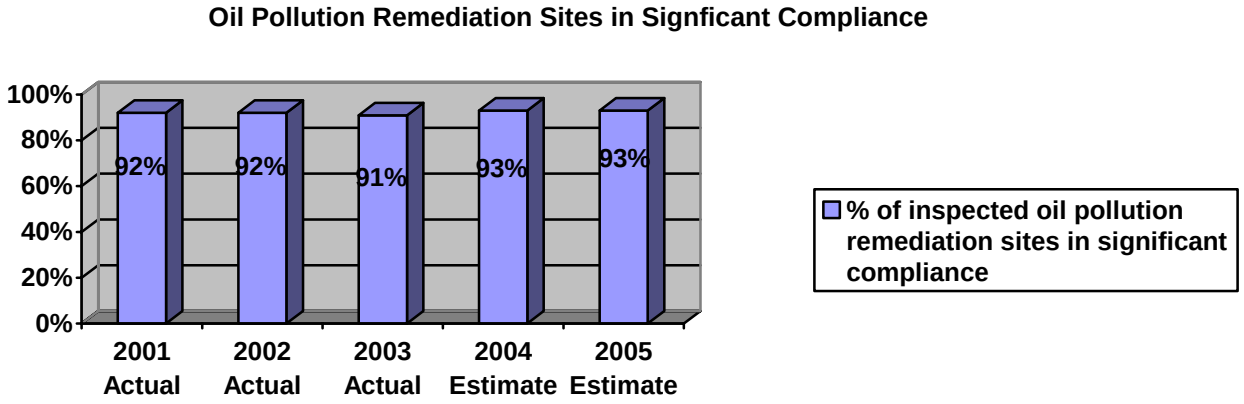
Strategy 2.4.2: Continue implementation of the clean-up reimbursement program for costs associated with cleanups of releases from commercial and residential heating fuel tanks.

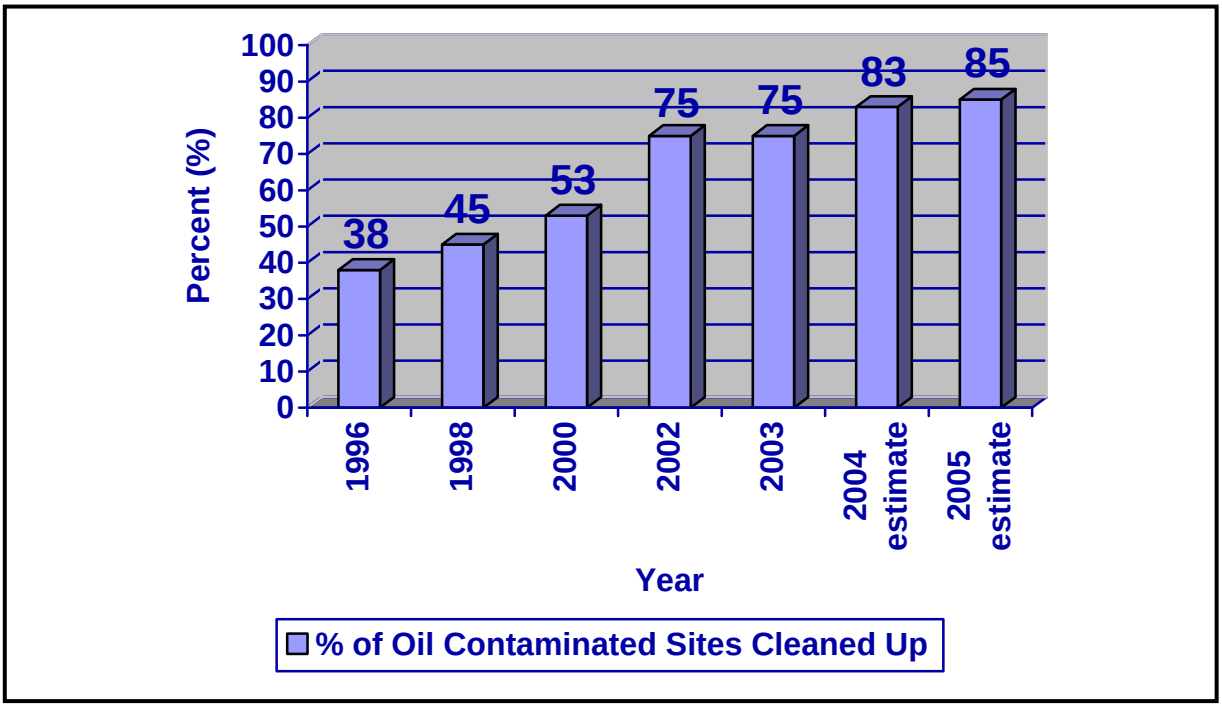
Strategy 2.4.3: Continue to work cooperatively with the petroleum industry and tank owners and operators to raise the awareness of the importance of the proper management of above ground and underground storage tanks systems, with specific emphasis on training of new tank owners and operators with no prior experience in the operation or maintenance of petroleum storage tank systems.

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Percentage of inspected oil pollution remediation sites in significant compliance	92%	91%	93%	93%
Percentage of oil-contaminated sites cleaned up	75%	75%	83%	85%
Number of oil pollution remediation site compliance assistance actions rendered	5,555	4,385	unable to estimate	unable to estimate

Performance Indicators:





Municipal Landfill Compliance with Groundwater Standards

Introduction: MDE's solid waste management activities include issuing permits for the State's 96 permitted solid waste acceptance facilities, performing approximately 800 inspections annually to ensure that solid wastes are managed properly, and ensuring that closed municipal landfills are properly capped and monitored for a 30-year post-closure period. MDE's solid waste management strategies have been consistently applied over many years, and have demonstrated major improvements that are obvious when contrasting the waste disposal in Maryland in 1980, and even 1990, with the situation today. For example, there are fewer active municipal landfills, but more active rubble landfills and other types of facilities, than there were 10 or 20 years ago. Also, modern landfills are constructed with liners, leachate collection systems, and other systems designed to contain pollutants and protect groundwater. However, the older, inactive facilities still exist, and require monitoring and inspection to ensure the State's drinking water supplies are protected. As communities expand to include areas that were previously largely undeveloped, homes and businesses are being sited much nearer to these older landfills. Program responsibility for monitoring and ensuring proper groundwater remediation at these facilities will continue for many years.

Objective 2.5: In FY 05, maintain 80% significant compliance with groundwater standards for all active municipal solid waste landfills.

Strategy 2.5.1: Require that permitted solid waste facilities are designed and operated in compliance with all applicable water pollution control requirements and have at least the minimum requirements for pollution prevention and control. Ensure that closed municipal landfills, active from 1991 to closure and regulated under the Code of Federal Regulations, are properly capped and monitored for a 30-year post closure period.

Strategy 2.5.2: Act to prevent and control the release of pollutants through the review of proposed disposal site locations, preventive engineering, pollution control technologies, review of construction, and remedial activities.

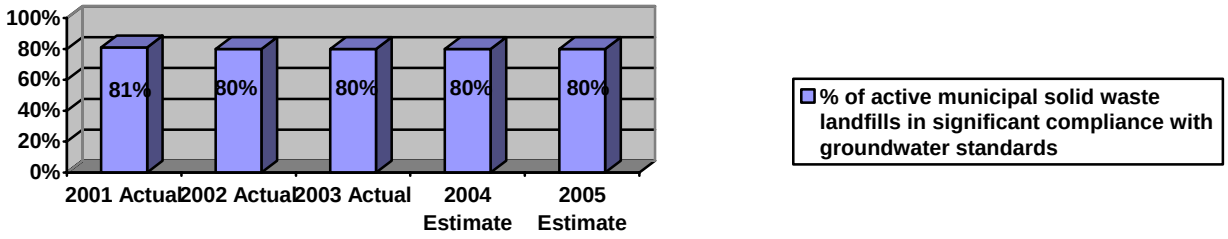
Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Percentage of active municipal solid waste landfills in significant compliance with groundwater standards	80%	80%	80%	80%
Percentage of inspected refuse disposal facilities (includes other solid waste facilities) in significant compliance*	88%	83%	90%	90%
Percentage of all Landfill (active and closed) Water Quality Reports reviewed.	48%	35%	50%	45%

* Due to staff shortages, prioritized inspections of poor performers, and increased enforcement actions, rates of significant compliance have been decreasing in recent years. The Program anticipates that with increased attention, the poor performers will come into compliance.

Performance Indicators:

Municipal Solid Waste Landfill Groundwater Standards Compliance



Lead Poisoning Prevention

Introduction: Childhood lead poisoning is a critical environmental challenge in Maryland. There are major initiatives at both the State and federal levels to reduce the incidence of lead poisoning in children. Since 1984, Maryland has developed a strong, diverse infrastructure to respond to this complex issue. MDE's components focus on activities involving accreditation and oversight of lead abatement services contractors, maintaining a registry of rental properties, maintaining a registry of lead-poisoned children, and inspection and enforcement.

Objective 3.1: Reduce the percentage of occurrences of lead poisoning statewide (with an emphasis in Baltimore City) by 10% per year for each year through the end of 2006.

Strategy 3.1.1: Continue to increase awareness and prevention efforts through enhancing MDE outreach activities and meetings, negotiating Memoranda of Understanding (MOUs) with all 24 local jurisdictions to enhance lead education/outreach work, and adding registration and inspection information to the MDE website.

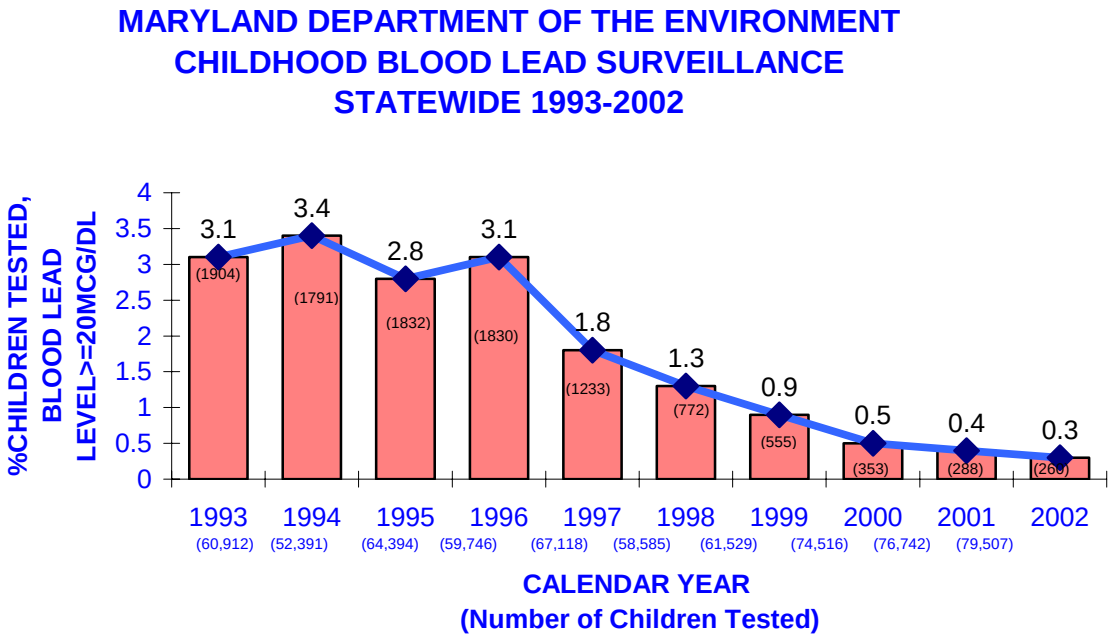
Strategy 3.1.2: Continue to maintain the level of inspection and compliance activities related to lead paint violations through the use of the Lead Rental Property Registry, inspections conducted by MDE and certified abatement inspectors, oversight of accredited lead paint abatement contractors, supervisors, and inspectors, and accreditation issuance within the 30-day standard time. Partner with local governments and utilize enforcement options as necessary to ensure compliance.

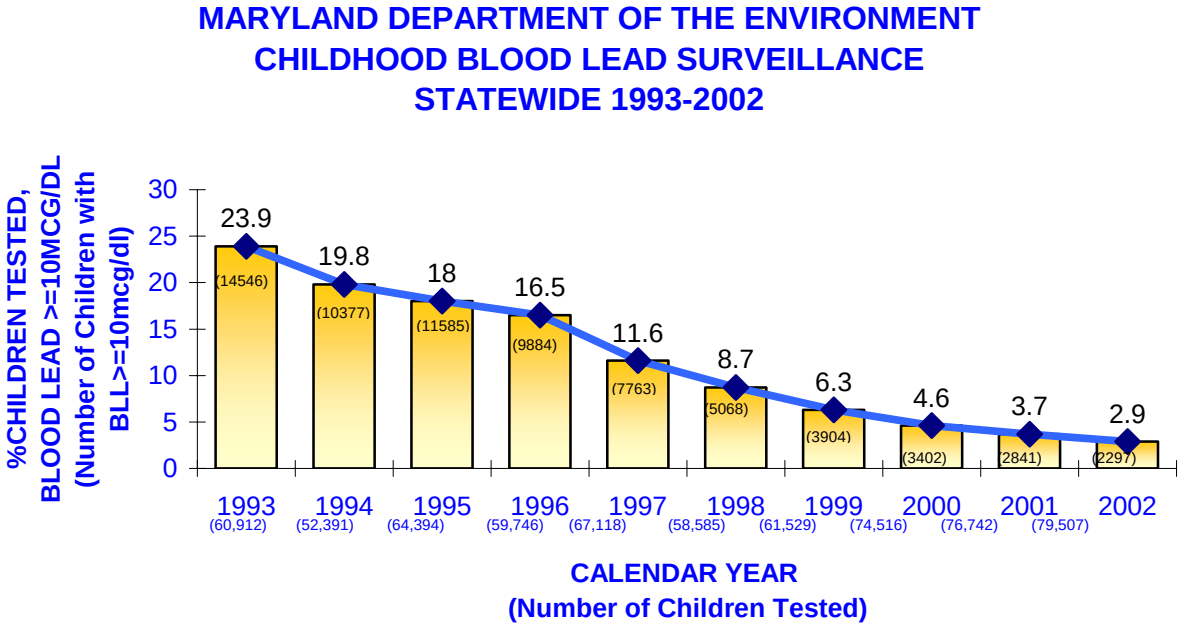
Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Number of children tested for blood lead*	76,742	79,510	85,000	85,000
Number of MDE inspections of residential properties with lead paint	2,266	1,605	1,800	1,800
Number of reported exceedences of the lead poisoning standard (20 micrograms per deciliter or more)*	288	260	230	204
Percentage of children tested for blood lead with the result of 20 micrograms per deciliter or more, the level of "poisoned"*	0.4%	0.3%	0.27%	0.24%
Number of reported exceedences of elevated blood lead standard (10 micrograms per deciliter or more)*	2,841	2,297	2,210	2,040
Percentage of children tested for blood lead with the result of 10 micrograms per deciliter or more (elevated blood lead)*	3.7%	2.9%	2.6%	2.4%
Number of lead-paint-in-housing compliance assistance actions rendered	528**	65***	100	100

* Blood lead information is collected on a calendar-year basis, so FY2003 entry reflects CY2002 data.
** This number reflects particular dedication of resources in FY2002 that were not available in other years.
*** Numbers of compliance assistance actions rendered decreased in FY2003 due to severe winter weather, the loss of two inspectors, and the activation of one inspector for military duty.

Data Indicators:





Environmental Emergency Response and Preparedness

Introduction: MDE, in cooperation with local hazardous materials units, has the capacity to respond to emergencies to minimize risks to human health and the environment resulting from accidents and/or deliberate actions causing the release of hazardous substances to the air, water, or land from fixed facilities, rail, waterway, and truck transportation routes.

Objective 3.2: In FY 05, respond to 100% of environmental and nuclear emergencies within three hours anywhere in Maryland.

Strategy 3.2.1: Participate in emergency exercises with local governments, allied state agencies, federal agencies and industry (including chemical industry and fixed nuclear power plants). Emergency exercises provide invaluable opportunities to validate response protocols, ensure equipment effectiveness and facilitate pre-event coordination among different layers of government and the private sector.

Strategy 3.2.2: Respond to or address 100% of all reports received of petroleum, radiological and hazardous material releases. By its very nature, emergency response is unpredictable, and more than one incident can be happening at the same time, which may be at opposite ends of the State, thereby placing competing demands on MDE's emergency response capabilities.

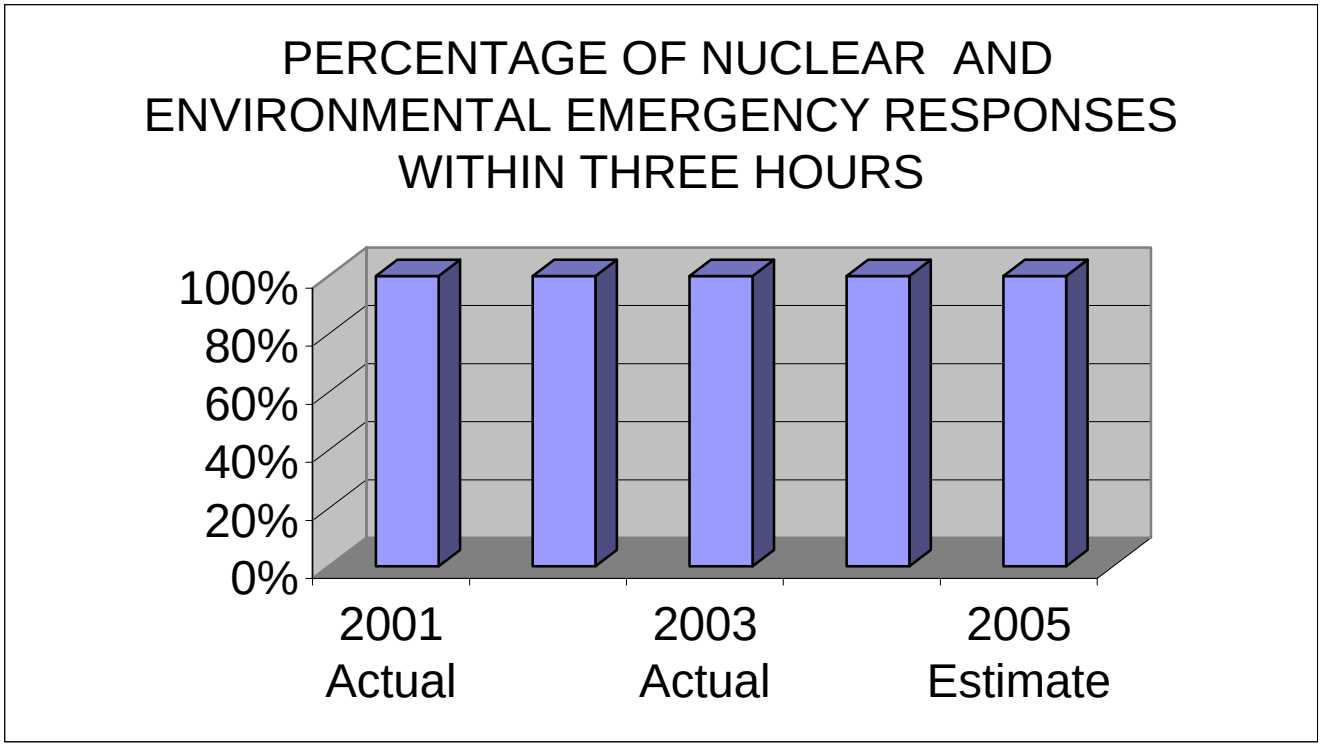
Strategy 3.2.3: MDE will be conducting planning and training to respond to different types of incidents including nuclear, biological, chemical and flood. The Community Right to Know Program gives MDE and communities information about hazards in local facilities.

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Percentage of nuclear and environmental emergency responses within three hours	100%	100%	100%	100%
Number of radiological, hazardous material, oil spill and alleged bio-terrorism emergency responses	1,039	1,031	1,300*	1,250*
Number of nuclear power plant emergency exercises, which are essential to ensuring an adequate response capability	8	15**	10	10
Number of staff hours providing training in emergency response	New metric	480	480	480

* The 2004 and 2005 estimates reflect increased risk of bioterrorism emergencies.
** Special Ingestion Pathway Drill occurs every six years and requires more exercises. This happened in 2003.

Performance Indicators:



Radiological Health Program

Introduction:

Under both federal and state law, Maryland is charged with ensuring that the public is protected from unnecessary exposure to radiation. The Department of the Environment works toward this goal by controlling sources and users of ionizing radiation through licensing, registration, and inspection activities.

The majority of uses of radiation are beneficial. Radiation, however, is a carcinogen that may also cause other adverse health effects. The more radiation dose a person receives the greater the chance of developing cancer and the greater the chance for other ill effects. Since there is no definitive threshold for the onset of adverse effects, regulators must ensure that users of radiation limit occupational and public exposure to as low as reasonably achievable (ALARA). Since the long-term effects of exposure to radiation even at low levels is not conclusively known, minimizing exposure is the most prudent approach.

Minimizing exposure to x-ray equipment is accomplished through several means. X-ray equipment is required to be registered and inspected. The radiation machine regulated community consists of industrial companies, veterinary and dental clinics, mammography facilities, hospitals, and other medical establishments. The dental community comprises approximately 65% of the regulated community and has had the poorest historical compliance performance of any specific area. Dental, veterinary, and mammography facilities are inspected by MDE. Privately licensed inspectors inspect all other facilities, which are then certified by MDE.MDE and the Maryland State Dental Association have been working together to increase awareness RMD educational presentations, development and distribution of develop "Regulatory Guidelines for Dental Radiation Machine Facilities" which was a booklet designed to explain the regulatory expectations for dental radiation machine facilities and two educational flyers. These items have also been posted on the RHP website.

As an Agreement State under the Atomic Energy Act, MDE must license and inspect any person who uses, possesses, or stores radioactive materials or devices containing such materials. During inspections, devices containing radioactive materials and their qualified users are checked against specifications and requirements readily available to the regulated community. Operator practices are also checked to ensure that safe operating procedures are being followed to ensure worker safety and to prevent the public from being exposed to any radiation. MDE conducts pre-licensing visits to ensure that new licensees understand compliance requirements before they receive radioactive material.

Objective 3.3: In FY 05, improve the initial compliance rate at radiation machine facilities to 75% and the after-45-days rate to 96%. Also, minimize licensing and inspection backlogs at radioactive materials facilities and meet standard review times on all new license applications.

> **Strategy 3.3.1:** Meet regularly with private inspectors licensed by MDE to develop means to improve communication and increase efficiency.
>
> **Strategy 3.3.2:** Conduct education seminars, speak at exhibitions, and meet with representatives of the dental community to increase dentists' awareness of the potential danger of radiation to their patients and to inform the regulated community of their obligations under the regulations so that compliance rates can improve.

Strategy 3.3.3: Provide compliance assistance to individual members of the regulated community in cases where such assistance is warranted. Take timely and appropriate enforcement action when egregious violations of regulatory requirements are encountered.

Strategy 3.3.4: Continue to use tracking tools to assess progress in the inspection and licensing areas. Continue to cross-train staff and shift resources to the extent possible to focus on priority issues.

Performance Measures:

Performance Measure (data are annual, not cumulative, unless otherwise noted)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY2006 Estimate
Radiation Machine Facilities				
Percentage of inspected radiation machines facilities in significant compliance upon inspection	49%	50%	55%	60%
Percentage of inspected radiation machines facilities in significant compliance after 45 days	92%	92%	92%	92%
Number of inspections of radiation machine tubes	4,367	4,000	4,200	4,200
Number of inspections of medical, industrial and academic x-ray machines facilities performed by state-licensed inspectors	1,379	1,700	1,800	1,800
Number of enforcement actions initiated for radiation machines facilities	8	12	Unable to estimate	Unable to estimate
Number of compliance assistance actions taken for radiation machines facilities	1,288	1,500	1,600	1,600
Number of presentations, seminars, etc.	2	6	6	6
Radioactive Materials Facilities				
Percentage of inspected radioactive materials facilities in significant compliance	86%	85%	85%	85%
Number of inspections of radioactive materials facilities	309	350	350	350
Number of licenses issued for radioactive materials*	740	700	700	700
Number of enforcement actions initiated for radioactive materials	7	4	Unable to estimate	Unable to estimate
Number of radioactive materials facilities	895	900	900	900
Percentage of new facilities that receive a pre-licensing visit	100%	100%	100%	100%
Percentage of licenses issued within the established standard turn around times**	97%	97%	97%	97%
Number of licenses/inspections that are backlogged	10/2	1/2	1/2	½
• *Includes reciprocity sites • **Inclusive of all licensing actions issued: new, renewal, and amendments				

Environmental Restoration (Superfund)

(This applies to NPL, State Superfund and federal facility sites that are not subject to the Base Realignment and Closure Act (BRAC). BRAC and Voluntary Cleanup Program sites are covered under Goal # 1.)

Introduction: The Environmental Restoration and Redevelopment Program seeks to eliminate threats to public health from exposure to soils, groundwater, and surface waters contaminated by hazardous waste and other Controlled Hazardous Substances. Maryland's rich industrial history has resulted in a significant number of properties where investigation and/or cleanup of contamination are necessary to ensure public health is protected. Consistent with federal guidelines under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the State Environment Article, MDE initiates and oversees the assessment and cleanup of hazardous waste sites where releases have occurred. MDE participates as a partner with EPA in decision-making at all phases of environmental investigations and in overseeing hazardous waste cleanups at National Priorities List (NPL) sites and federal facilities. MDE also oversees cleanups at State Superfund sites.

Objective 3.4: In FY 05, maintain the number of completed State Superfund site cleanups and/or "No Further Action Required" site letters issued at eight.

Strategy 3.4.1: Continue to conduct environmental site investigations to identify sites through FY2005 as limited funding allows.

Strategy 3.4.2: Provide oversight for cleanups at 39 State Superfund sites.

Strategy 3.4.3: Participate in decision-making with EPA, DOD, and responsible parties at all phases of environmental investigations and overseeing cleanups at NPL sites and federal facilities.

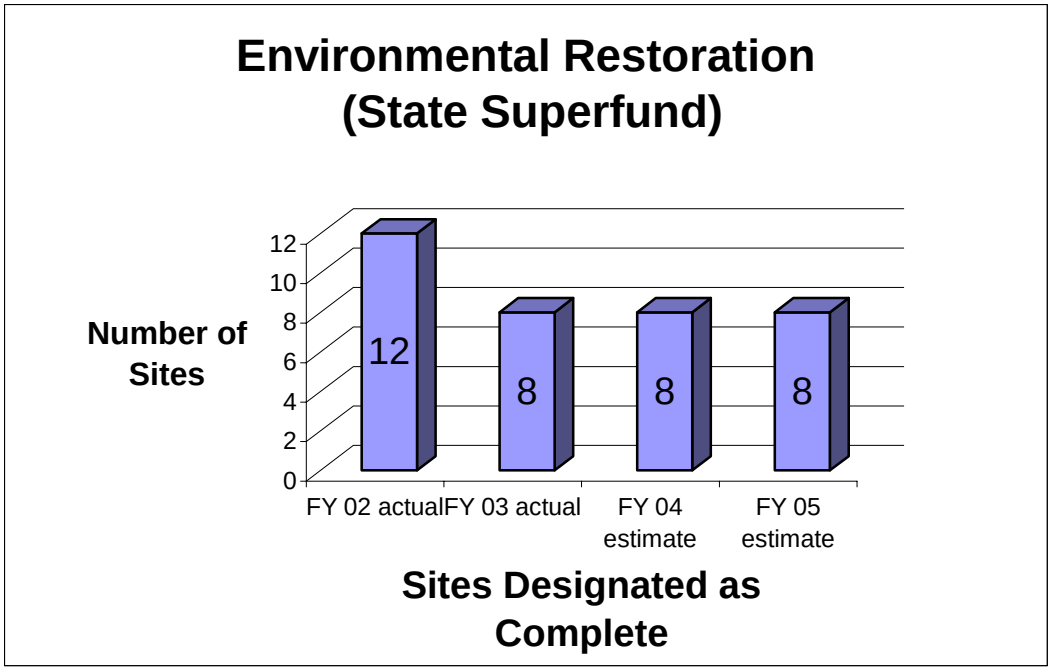
Strategy 3.4.4: Use State capital funds for the planned remediation of up to two sites where no viable responsible party has been identified.

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
State Superfund				
Total number of remedial actions at all State Superfund sites that are designated as completed	12	8	8	8
Percentage of sites under investigation during the fiscal year (including sites from the State and Non-State Master Lists) where cleanups were designated as completed	8%	10%	11%	11%
Total number of sites on the State Master List and Non-State Master List during the current fiscal year	415	408	400	385
Number of active State Superfund investigations and the number of Site Assessments conducted	78	77	72	72

Federal Superfund/DOD				
Total number of acres of Operable Units/Areas of Concern at military facilities and NPL sites under active oversight	2,171	2,257	2,600	1,800
Total number of acres covered by Records of Decision, Action Memoranda, Engineering Evaluation/Cost Analyses, and Construction Reports, etc. at military facilities and NPL sites	483	0	350	90
Total number of acres covered by No Further Action Records of Decision and Construction Completion Reports at military facilities and NPL sites under active oversight	5	2	15	40
Percentage of acres of Operable Units/Areas of Concern at military facilities and NPL sites under active oversight that were covered by No Further Action Records of Decision and Construction Complete Reports	22%	<0.1%	14%	7%

Performance Indicator:



Fish Tissue Sampling

Introduction:

Maryland's commercial and recreational fishing industries both depend on public confidence that the State's fish and shellfish are safe for human consumption. Maryland's Fish Tissue Monitoring and Assessment Program emphasizes a comprehensive sampling approach to certify the safety of recreationally-caught fish for consumption from waters of the State. Chemical contaminants from various sources make their way into water and sediments, which may then accumulate in their tissues The contaminant levels of some fish species may become sufficiently elevated, that, when consumed regularly over long time periods, may increase a consumer's risk of adverse health effects.

MDE is responsible for monitoring contaminant levels in fish tissue, and issues fish consumption guidelines for a waterbody when fish there are found to have unacceptable levels of contamination. Currently, fish consumption guidelines in Maryland are issued only for PCB and mercury, because only those contaminants have been found at unacceptable levels. PCB is legacy contaminant found in some of the Bay's tributaries' sediments, and also continues to come off the land. Mercury comes from air deposition from coal-fired power plants nationwide and from waste incineration plants locally.

Recently EPA changed the national standard for fish consumption from one based on one meal per month to one based on two meals per month. This reduced the allowable contamination in fish by assuming people eat more fish per month (two meals rather than one). This resulted in numerous guidelines issued for freshwater and tidal systems in Maryland. The Department now uses the two-meals-per-month standard as a yardstick to measure trends in contaminant levels statewide. Currently the average sampled concentration for mercury is slightly below the standard, while the average PCB concentration is well above the standard. Note, however, that this elevated PCB level reflects only limited sampling targeted at problem areas and should decrease as more regions are sampled.

Objective 4.1: By 2012, the fish tissue concentrations of PCBs and mercury in all sampled areas will allow at least two meals per month to be safely eaten.

> **Strategy 4.1.1:** Conduct the environmental sampling and scientific analyses necessary to characterize the toxic organic and inorganic contaminants affecting water quality and harvestable fish, shellfish and crabs in at least one third of the State's waters each year.
>
> **Strategy 4.1.2:** Identify methods to reduce contaminants and implement where possible.

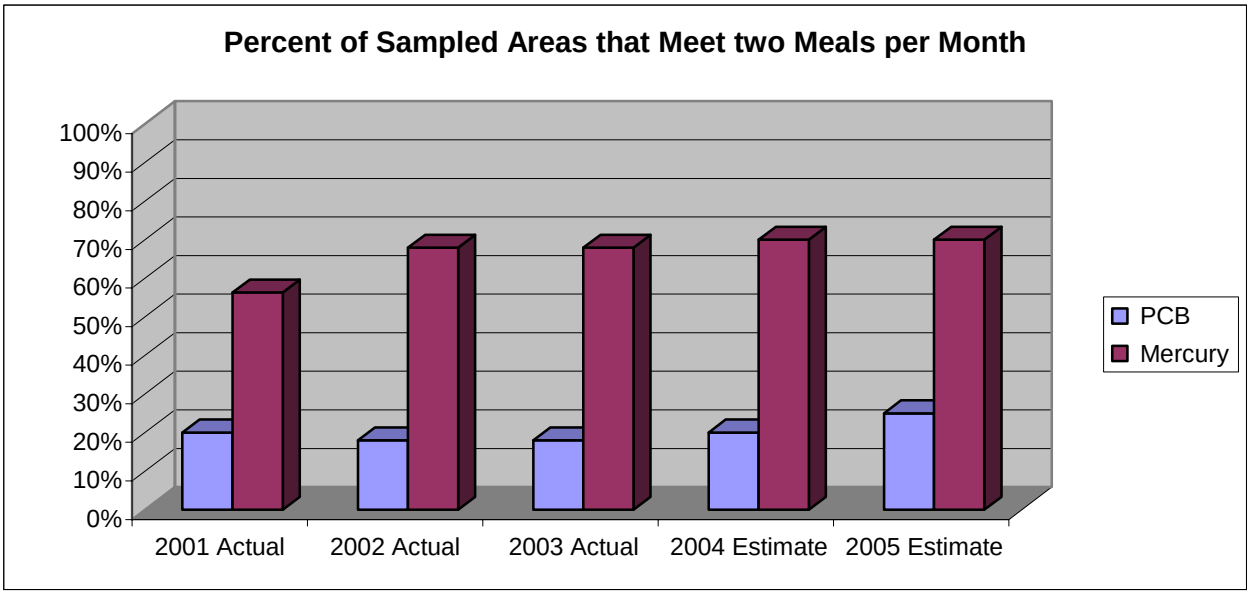
Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	**FY 2002 Actual**	**FY 2003 Actual**	**FY 2004 Estimate**	**FY 2005 Estimate**
Percent of sampled areas that meet two-meal-per-month standard for PCB	18%	18%	20%	25%
Percent above allowable average concentration found in sampled common recreational fish for PCB	+343%*	+343%*	+250%*	+220%*
Percent of sampled areas that meet two-meal-per-month standard for mercury	68%	68%	70%	70%
Percent below allowable average concentration found in sampled common recreational fish for mercury	-3%	-3%	-5%	-5%
Toxicity inquiries from other administrations, agencies and public	236**	88	250**	100

* This elevated PCB level reflects only limited sampling targeted at problem areas, and should decrease as more regions are sampled.

** When new fish consumption guidelines come out, as in 2002 and 2004, MDE receives more inquires.

Performance Indicator:



Shellfish Compliance with FDA Sanitation Standards

Introduction:

Maryland's seafood industry depends on public confidence that the State's shellfish are safe for human consumption. Maryland's shellfish program has been in place for decades and emphasizes both keeping pollutants out of harvesting waters and monitoring the quality of those waters to certify their safety. This workplan relates to three activities: shoreline surveys, water sampling, and shellfish harvesting approvals.

Shoreline surveys are conducted to identify actual and potential pollution sources to the shellfish waters on a five-year cycle (each region surveyed every five years). The percent of required properties, i.e. those with septic systems, surveyed has declined over time due to expanding housing stock in the Chesapeake Bay watershed and declining staff.

With regard to water quality monitoring, Maryland has over 700 monitoring stations, and the goal is to collect samples from each station twice per month, which is the minimum required under State statute. However, due to resource constraints and loss of staff over the years, MDE has not been able to take all water samples required by FDA.

Finally, based on monitoring information and other factors, MDE determines whether areas are approved for shellfish harvesting.

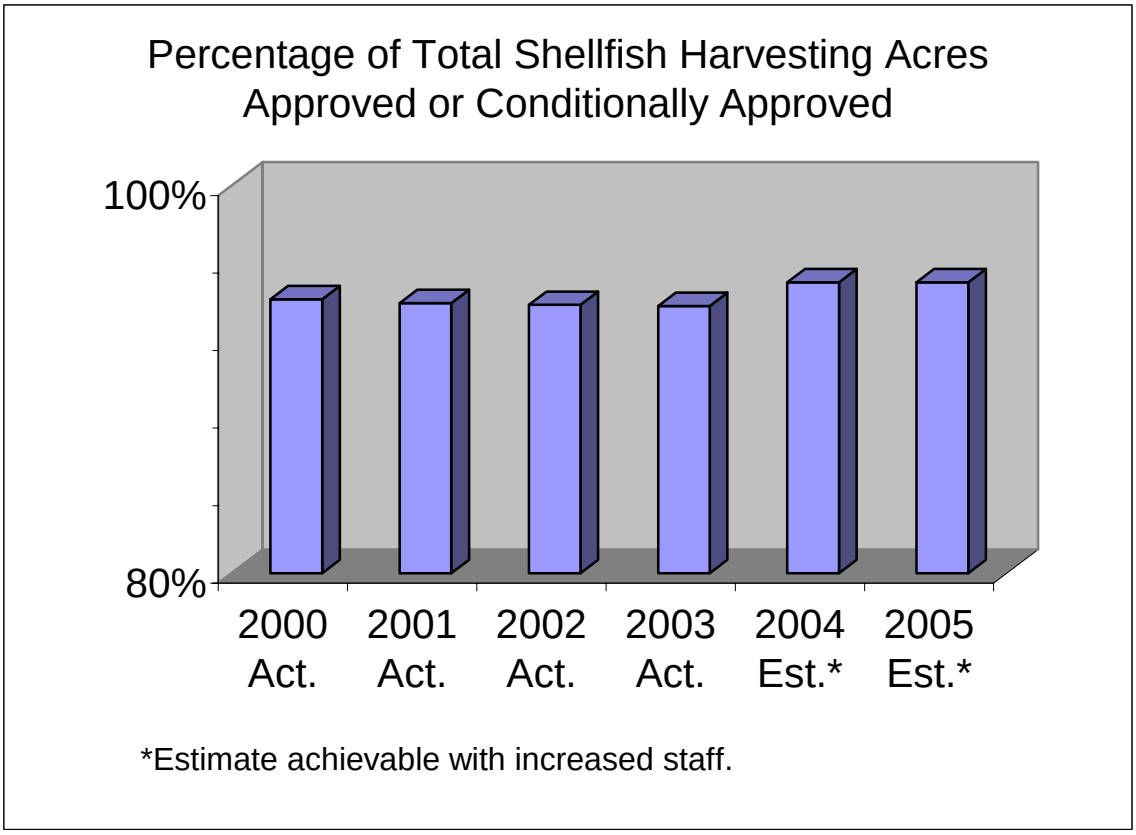
Objective 4.2: Ensure that the State's shellfish are safe to eat by achieving and maintaining compliance with FDA Shellfish Sanitation Standards in FY 2005.

> **Strategy 4.2.1:** Perform legally-required water sampling and sanitary survey inspections to discover pollution sources and thereby protect the shellfish beds. Maintain sampling requirements to address the emerging aquaculture industry.
>
> **Strategy 4.2.2:** Secure sufficent resources to meet deficiency in monitoring coverage.

Performance Measures:

Performance Measure (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Percent of required sampling achieved	48.5%	46.4%	46.7%	47.0%
Estimated number of properties that require sanitary surveys (roughly one fifth of total number of properties, due to five-year cycle)	18,285	16,354	16,866	10,487
Number of properties included in sanitary surveys	2,436	2,722	2,698	2,698
Percentage of total shellfish harvesting acres approved or conditionally approved	93.84%	93.78%	95%	95%

Performance Indicators:



Fish Kills

Introduction: The Environmental Article, in Section 4-405C, requires management and control agencies to investigate the occurrence of damage to aquatic resources, including but not limited to, mortality of fish and other aquatic life. Fish and other aquatic organisms are indicators of potential pollution impairment to the States' waterways. The presence of dead fish may indicate that a toxic substance has entered the waterway. MDE manages and coordinates Maryland's interagency program to investigate fish kills in all waters of the State. MDE works with the Department of Natural Resources Police who are responsible for posting areas closed to harvesting, and for patrolling these areas to prevent illegal harvesting. The Department also receives, responds to, and interprets all reports of damaged fish. The investigative findings are acted on to enforce the water pollution laws of Maryland, protect public health, aid in resource management, and contribute to public outreach.

Objective 4.3: In FY 05, determine the cause of 90% of all fish kills reported in a timely manner.

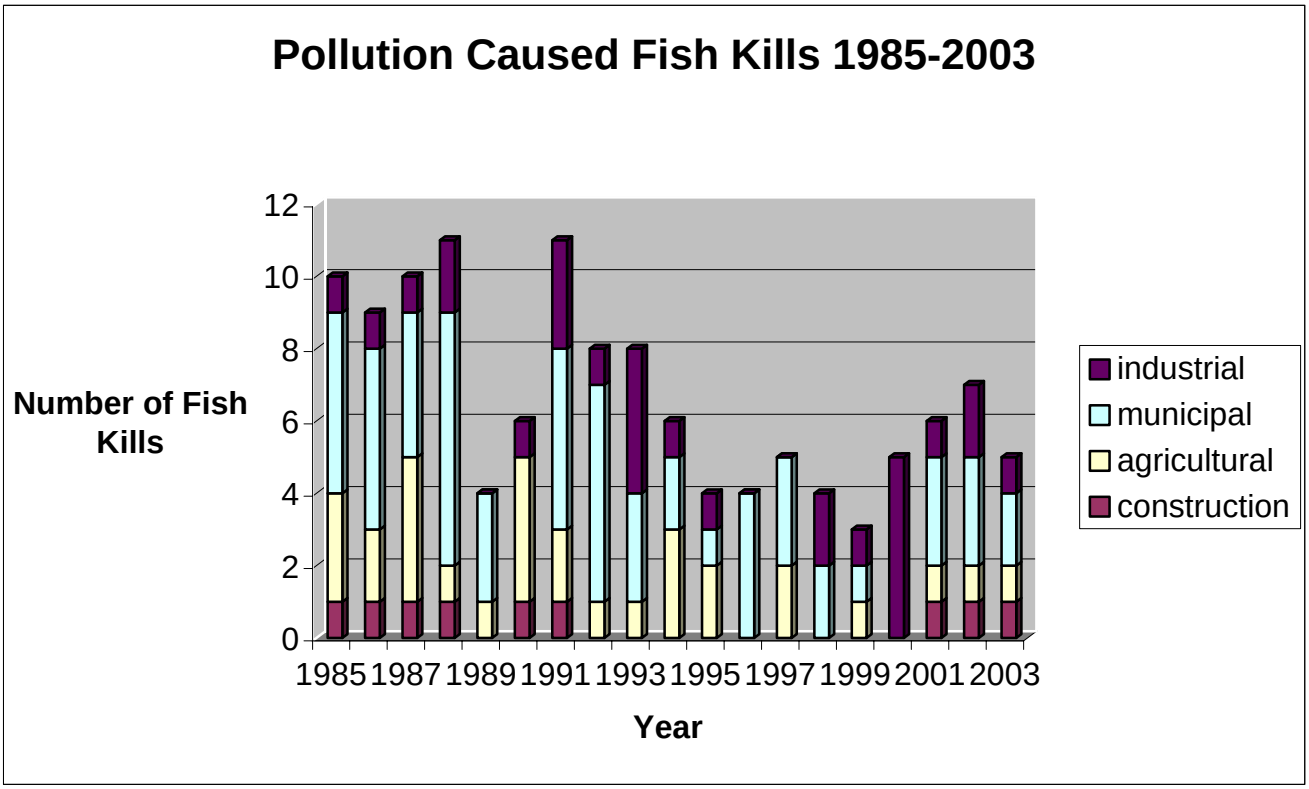
Strategy 4.3.1: Continue to improve performance by streamlining the fish kill investigation process, which includes improving working relationship with sister agencies, qualified volunteers, and technical and laboratory support.

Strategy 4.3.1: Ensure that 100% of all pollution-related fish kills are referred to the appropriate agency for enforcement or corrective action: county officials, DNR's Natural Resource Police, MDE's Water Management's Industrial Compliance Group, MDE's Emergency Response/Hazmat group, or MDA's Pesticide Regulation Section.

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Number of fish kill investigations Performed	84	96	80	85
Percentage of fish kill reports investigated for which a causal factor can be identified	92%	87%	90%	90%
Number of investigated fish kills where the cause is pollution	6	7	5	5
Percent of investigated fish kills where the cause is pollution	7%	7%	6%	6%

Performance Indicator:



Discharge Permits

Objective 4.4: Protect water quality by issuing discharge permits and inspecting permitted facilities, and implement watershed-based permitting to provide coordinated watershed protection. In FY 05, achieve 99% significant compliance with discharge permit effluent limitations for all inspected surface water state and NPDES permitted sites/facilities.

Strategy 4.4.1: Inspect all major permitted industrial and wastewater treatment plants annually and targeted minors identified in the Section 106 Water Pollution Control Grant every year.

Strategy 4.4.2: Continue to provide on-site compliance assistance to ground water discharge permittees to help resolve minor compliance issues.

Strategy 4.4.3: Continue to provide on-site compliance assistance to surface water discharge permittees to help resolve minor compliance issues.

Strategy 4.4.4: Take appropriate and measured enforcement action against those facilities that fail to comply with permit requirements.

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Number of surface water sites/facilities (state and NPDES) in effect at the end of the fiscal year	2,298	2,812	2,900	3,000
Number of surface water (state and NPDES) inspections conducted	9,546	9,969	8,800	8,800
Number of surface water sites inspected	1,416	1,699	1,400	1,400
Percentage of inspected surface water sites/facilities (state and NPDES) in significant compliance	98%	99.8%	Unable to estimate	Unable to estimate
Total number of surface water compliance assistance actions rendered	168	170	Unable to estimate	Unable to estimate

Sewage Overflows

Objective 4.5: Reduce the quantity in gallons of sewage overflows [total for Combined Sewer System Overflows (CSO) and Separate Sewer System Overflows (SSO)] equivalent to a 50% reduction of 2001 amounts (50, 821,102 gallons) by the year 2010 through implementation of EPA's minimum control strategies, long term control plans (LTCP), and collection system improvements in capacity, inflow and infiltration reduction, operation and maintenance.

Strategy 4.5.1: MDE will implement regulations adopted in FY 2004 to ensure that all jurisdictions are reporting all sewage overflows to the Department, notifying the public about significant overflows, and are taking appropriate steps to address the cause(s) of the overflows.

Strategy 4.5.2: MDE will inspect and take enforcement actions against those CSO jurisdictions that have not developed long-term control plans with schedules for completion and require that enforceable schedules are incorporated in consent decrees or judicial orders.

Strategy 4.5.3: MDE will take enforcement actions to require that jurisdictions experiencing significant or repeated SSOs take appropriate steps to eliminate overflows, and will fulfill the commitment in the EPA 106 grant for NPDES enforcement regarding the initiation of formal enforcement actions against 20% of jurisdictions in Maryland with CSOs and significant SSO problems annually.

Performance Measures:

Performance Measure (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Number of collection systems with significant SSOs	15	29	10	10
Number of collection systems with CSOs	8	8	8	8
Total number of overflows (SSOs +CSOs)	1,462	1,774	1,000	1,000
Total number of gallons (SSOs + CSOs)	82,213,291	339,386,753	80,000,000	75,000,000
Number of CSOs meeting 9 minimum controls	8	8	8	8
Number of CSOs with LTCP with completion dates	3	4	8	8
Number of CSO formal enforcement actions completed this year	4	0	0	0
Number of SSO formal enforcement actions completed this year	1	0	3	3
Net change in the number of gallons of sewage overflows (+/-) compared to 2001 level	+31,392,189	+288,565,651	+29,178,898	+24,178,898
Percentage reduction in gallons of sewage overflow from 2001 level	62% increase	568% increase*	57% increase	48% increase

* Increase attributed largely to the historic rainfall in Maryland this year.

Financial Assistance for Capital Programs

Introduction:

There is a critical need for capital grants and loans for water and wastewater infrastructure in Maryland: current estimates are $4.3 billion in wastewater and $1.7 in water supply systems. The Nutrient Reduction Cost-Share Program, first funded by the Maryland General Assembly during the 1984 legislative session, is a State/Local cost share grant program that provides financial assistance to local governments to implement nutrient-removal technology at the largest publicly-owned sewage treatment plants in Maryland. Specifically, the Program is geared towards 66 major treatment facilities that are designed to treat 500,000 gallons per day or greater.

The rationale for targeting these major facilities is that their combined flow comprises more than 95% of the total sewage flow generated in Maryland; also, nutrient-removal technology is more cost effective at larger plants. The goal of the Program is to fulfill Maryland's commitments under the multi-state Chesapeake Bay Clean Up Agreement for major reductions of nutrients – nitrogen and phosphorus – being discharged from sewage treatment plants into the Chesapeake Bay. Reducing nutrients discharged from sewage treatment plants into the Chesapeake Bay is essential to meeting the overall goals of the federal Clean Water Act and for improving and protecting water quality, aquatic life and habitat, and the quality of life and economic activities associated with a healthy Chesapeake Bay.

To meet nutrient reduction goals set forth in the Chesapeake Bay Agreement, Maryland's 1994 Chesapeake Bay Tributary Strategies outlined specific nutrient reductions required from all sources. Full implementation of the Tributary Strategies requires the retrofit of the 66 major sewage treatment plants in Maryland by installing the first level of nutrient removal commonly referred to as Biological Nutrient Removal (BNR). The 2000 Chesapeake Bay Agreement called for Maryland to reaffirm the 1994 Tributary Strategies as a minimum commitment, and further commits all bay states to remove all nutrient impairments to the Bay by 2010. To meet these new commitments, additional reductions of nutrient pollutants from all sources including sewage treatment plants are necessary.

Nutrient removal goals for major sewage treatment plants have been established at 3 mg/l for nitrogen and 0.3mg/l for phosphorus. To meet these nutrient performance goals necessary for the Chesapeake Bay cleanup, major sewage treatments will have to provide a highly advanced level of nutrient removal - Enhanced Nutrient Removal (ENR). 66 WWTPs have signed cost-share agreements and 41 of the 66 are operating in BNR/ENR (5 are in construction and 20 are in design). BNR efforts have already reduced nitrogen by 16 million pounds per year and ENR will achieve another 7.5 million pounds per year reduction to meet the Chesapeake Bay goals. Federal funding is needed to complete BNR/ENR at Back River, Patapsco and Blue Plains.

BNR/ENR is one of Governor Ehrlich's top initiatives. During the 2004 legislative session, the Bay Restoration Fund (HB555/SB320) was passed. The purpose of this bill is to reduce nutrient water pollution in waters of the State, particularly the Chesapeake Bay and the Atlantic Coastal Bays. Through this bill, revenue will be generated to provide financial assistance to the State's wastewater facilities (WWTPs) to achieve ENR and for upgrades to onsite sewage disposal systems.

Objective 4.6: By 2010, correct the point-source nutrient-related problems in the Chesapeake Bay and its tidal tributaries in order to achieve the Chesapeake 2000 (C2K) Agreement goal.

Strategy 4.6.1: Secure $97.2M in capital funding for Water Quality Improvement Projects for FY 2005. Capital funding will be targeted to projects with the greatest water quality improvement benefit and, for eligible "growth-related" projects, toward Priority Funding Areas consistent with the law. Funds appropriated by the Legislature for FY2005 will be utilized in a timely manner by encumbering not less than 90% of funds by the end of FY2005.

Strategy 4.6.2: Capital funding for eligible "growth-related" projects will be targeted towards Priority Funding Areas consistent with the law.

Strategy 4.6.3: Develop options for implementing Enhanced Nutrient Removal technology in existing wastewater treatment plants that have or will have BNR technology in place consistent with C2K commitments.

Strategy 4.6.4: Take necessary steps in conjunction with the Maryland Department of Planning, to identify and obtain increased federal funding to help support BNR and ENR upgrades at wastewater treatment plants.

Strategy 4.6.5: Take necessary steps to implement the Bay Restoration Fund including hiring staff, prioritizing ENR projects and septic upgrades, performing engineering and construction management for ENR projects, working with selected vendors to install nitrogen reduction technologies, etc.

Performance Measures:

Performance Measures **(data are annual, not cumulative, unless otherwise noted)**	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Annual amount of state dollars financed for Nutrient Removal	$16.3M	$17.8M	$11.5M	$17.5M
Total amount of state dollars financed for capital improvement projects by the Water Quality Revolving Loan Program	$44M	$109.6M	$70M	$70M
Total amount of state dollars encumbered for other water quality capital improvement projects (SCERP, Supp Assist, SWM)	$4.89M	$6.32M	$7.25M	7.25M
Percent reduction in point-source nitrogen loading since 1985	50%	50%	51%	51%
Total million pounds of point source nitrogen reduced since 1985	15.9	16.1	16.4	16.5

Total Maximum Daily Loads

Introduction: MDE develops Total Maximum Daily Loads (TMDLs) in accordance with Section 303(d) of the federal Clean Water Act (CWA). A TMDL is an estimate of the maximum amount of an impairing substance or stressor that a water body can assimilate without violating water quality standards. TMDLs are required to be developed for each water body and associated impairment(s) listed on the State's "303(d) list" of impaired waters. The estimated loads are allocated to point sources (e.g., industries or sewage treatment plants), and nonpoint sources (e.g., stormwater or agriculture runoff) within the watershed, as well as a margin of safety. Each year, MDE strives to achieve ambitious submittal goals based upon a Memorandum of Understanding between MDE and the U.S. Environmental Protection Agency, which leaves MDE open to potential litigation should the goals not be met.

Objective 4.7: In FY 05, complete 100% of TMDLs in accordance with EPA submission schedule (i.e. within 8-13 years after water body is listed as impaired), and incorporate approved TMDLs into the permits in the targeted impaired watershed.

Strategy 4.7.1: Conduct intensive field operations to verify the impairment and to support the development of a computer model that simulates the water body.

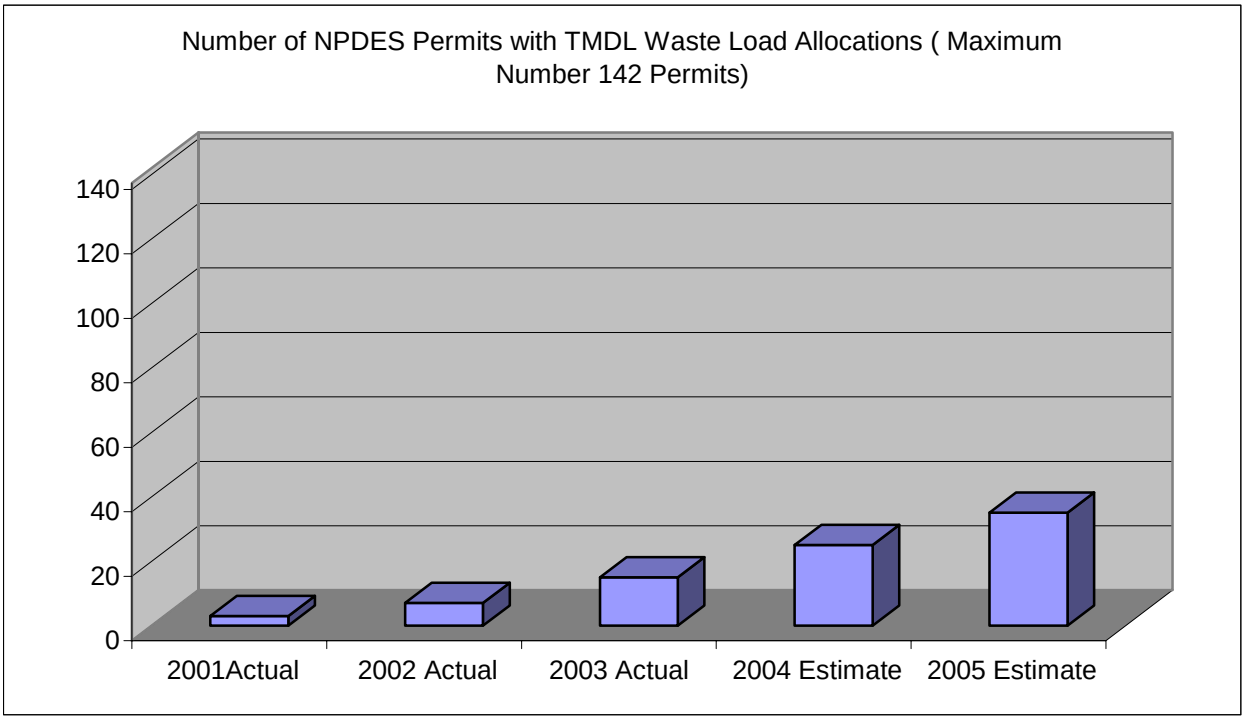
Strategy 4.7.2: Use the model to conduct the TMDL analysis, which is made available for public comment. All comments received are addressed in a formal Comment Response Document, the TMDL is revised accordingly, and the TMDL with accompanying comment response document is submitted to EPA for review.

Strategy 4.7.3. Once EPA approves the TMDLs they are incorporated as either limits or goals into new and renewed NPDES discharge permits. Permits are renewed every five years and there will be a approximately 142 permits affected.

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Percent of TMDLs submitted in accordance with agreed-upon TMDL submittal schedule (calendar year total)	105%	96%	85%	100%
Percent of total TMDLs required - that are completed this fiscal year (recorded as a cumulative percentage of 10 year required total)	14%	21%	38%	56%
Number of new or renewed NPDES permits issued that incorporate approved TMDL wasteload allocations	4	8	10	10
Number of water bodies impaired (based on 303(d) List (8-digit)) (of 138 total)	133	133	133	133

Performance Indicators:



Wetlands

Introduction:

Under State law, the Maryland Department of the Environment is charged with ensuring that Maryland's valuable wetland resources are adequately protected. In addition, the State has recently adopted a voluntary goal of restoring 60,000 acres of wetlands based on the acreage of wetlands lost since the late 1940s.

Wetlands play important roles in the preservation and protection of the Chesapeake Bay, the Coastal Bays, and other waters of the State. The roles cover a wide range of functions that include the reduction of pollutant loadings including excess nutrients, sediment and toxics; the attenuation of floodwaters and storm waters; shoreline stabilization and erosion control; waterfowl breeding; habitat for many species of fish, game and non-game birds, and mammals (including rare and endangered species); food chain support; and timber production. Many wetlands have already been lost or degraded due to the combined effects of population growth and land use. Further degradation and losses of wetlands will contribute to the decline of the Chesapeake Bay, the Coastal Bays, and other waters of the State.

Objective 4.8: In FY 05, improve wetland regulatory and non-regulatory management of wetlands by the establishment and maintenance of partnerships with local, federal, and other State government agencies. Continue to achieve a net gain in wetland resources by applying the "no net loss" statutory criteria to project approval in an efficient regulatory process and in combination with voluntary wetland restoration. Achieve 99% significant compliance with all inspected permitted wetland projects. Achieve 95% of Bay 2000 Agreement goal of restoring 15,000 acres of wetlands in Maryland's Chesapeake Bay watershed by FY 05, ahead of 2010 deadline. After the 15,000 acres of wetlands are restored, continue voluntary wetland restoration programs to meet a goal of restoring 60,000 acres of wetlands.

Strategy 4.8.1: Administer Maryland's wetland protection program, which includes permitting, inspection and compliance under the Tidal Wetland Act, Nontidal Wetland Protection Act, Water Quality Certification as required by Section 401 of the federal Clean Water Act, and Coastal Zone Consistency as required by Section 307 of the federal Coastal Zone Management Act. Conduct interagency reviews with federal and local governments.

Strategy 4.8.2: Conduct outreach and support volunteer initiatives to create, restore, and enhance 60,000 acres of wetlands. Conduct meetings with partners in voluntary wetland restoration to exchange information on funding opportunities and technical practices.

Strategy 4.8.3: Maintain the number of compliance inspections for tidal and nontidal wetlands at FY03 levels.

Strategy 4.8.4: Assess effectiveness of the mitigation program and update existing guidance for management and mitigation of waterways and nontidal wetlands.

Strategy 4.8.5: Complete update of databases for tracking voluntary wetland restoration and regulatory gains and losses, and continue development of an improved screening database for preliminary review of applications.

Strategy 4.8.6: Continue development of an inventory or priority areas suitable for wetland creation, restoration, enhancement, and mitigation, and for stream restoration. Integrate implementation of identified projects with watershed planning efforts, local government plans, Tributary Strategies, and coordinated regulatory activities.

Strategy 4.8.7: Update existing regulations for tidal and nontidal wetlands and waterways.

Strategy 4.8.8: Promote and assist in the development of watershed and special area plans with local governments and stakeholders to improve wetland management.

Strategy 4.8.9: Develop two projects that achieve the restoration goals of other partners using the Nontidal Wetland Compensation Fund or the Tidal Wetland Compensation Fund, while providing appropriate mitigation and maintaining the integrity of the fund.

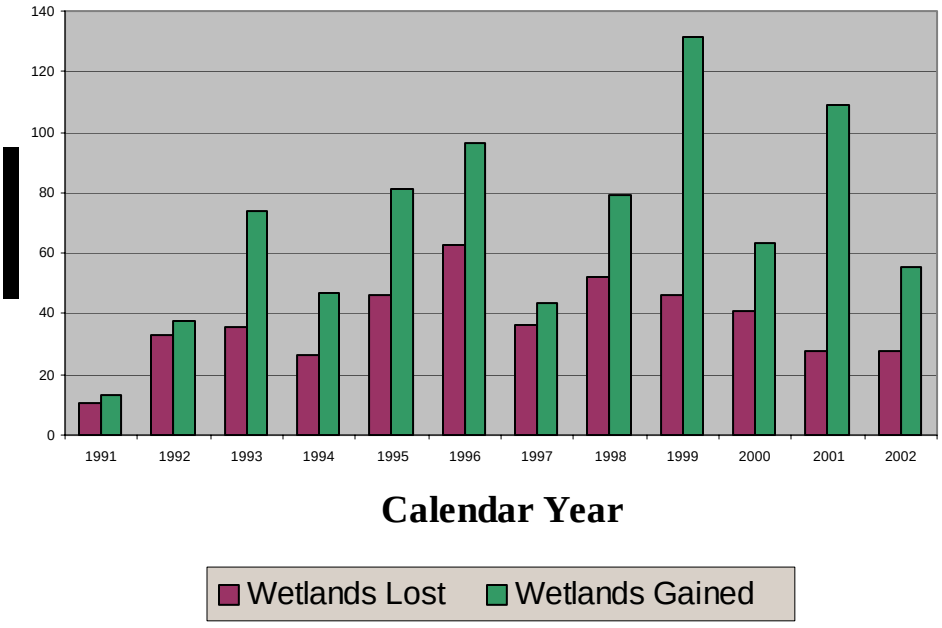
Strategy 4.8.10: Continue assessment of the effectiveness of the regulatory and compliance programs in the Coastal Bays.

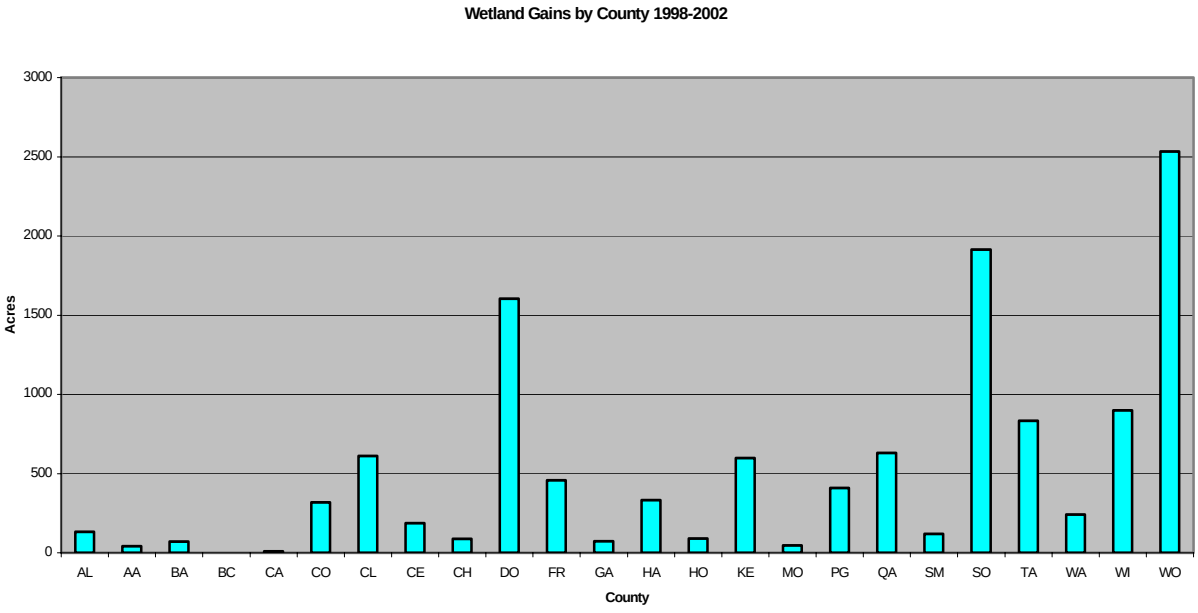
Strategy 4.8.11: Implement recommendations in the Maryland Wetland Conservation Plan to improve comprehensive, effective, and efficient wetland management.

Performance Measures:

Performance Measure (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Number of tidal wetland sites/facilities	5,683	6,467	7,500	7,500
Number of non-tidal wetland sites/facilities	3,347	3,802	3,500	3,500
Number of tidal wetland inspections conducted	1,231	981	981	981
Number of non-tidal wetland inspections conducted	3,676	3,928	3,928	3,928
Number of tidal wetland sites/facilities with significant violations	13	16	N/A	N/A
Number of tidal wetland enforcement actions initiated	15	69	N/A	N/A
No. of non-tidal wetland sites/facilities with significant violations	32	22	N/A	N/A
Number of non-tidal wetland enforcement actions initiated	20	190	N/A	N/A
Percent of inspected tidal sites in significant compliance	98%	97%	N/A	N/A
Percent of inspected non-tidal sites in significant compliance	99%	99%	N/A	N/A
Wetland acreage established through mitigation required by regulatory program	21.12	56.54	34	35
Wetland acreage lost through activities authorized by regulatory program (volume of permits)	21.80	36.07	28	30
Acres of Maryland's total wetland resource base (tidal and non-tidal) gained/lost through regulatory program	-0.68	20.46	5	6
Permits processed within applicable standard turnaround times	1,837	1,994	2,295	2,195
Percentage of permits processed within the applicable standard turnaround times	64%	65%	90%	90%
Cumulative acres of wetlands created, restored, or enhanced in Maryland's Chesapeake Bay watershed (calendar year)	11,171	12,671	14,171	14,250
Cumulative statewide acreage of wetlands created, restored, or enhanced other than those required for mitigation under the regulatory program (calendar year)	12,422	14,422	16,422	17,922
Number of meetings with local governments, federal government agencies, environmental organizations and community groups regarding wetland conservation, protection, and restoration, as well as implementation of the wetland conservation plan	13	22	15	18
Total number of pre-application meetings conducted with regulated public	639	600	1,000	800

Nontidal Wetland Gains and Losses





Attainment of Federal Ozone Standards

Introduction:

Under federal and state law and regulations, the Department is charged with ensuring that Maryland's air is safe to breathe. Air pollution contributes to illnesses, including cancer, and detrimentally affects respiratory and reproductive systems. Air pollution can also reduce visibility; damage crops, forests and buildings; and acidify lakes and streams.

The federal government has established public-health-based ambient air quality standards for six pollutants: ozone (ground level), Carbon Monoxide (CO), Sulfur Dioxide (SO_2), Nitrogen Dioxide (NO_2), lead and particulate matter. Maryland's air quality complies with all standards except ozone and fine particulate matter: the air quality in parts of Maryland, generally the Baltimore and Washington metropolitan areas and Cecil County, fail to meet both the one-hour and the eight-hour ozone standards at times between May and September of each year. More than 89% of the population of Maryland resides in these areas. Monitoring data show that portions of these same areas have air quality that does not meet the new federal standard for fine particulate matter. Development and implementation of a plan to bring the State into compliance with the eight-hour standard will begin in FY05. A plan for bringing Maryland into compliance with the fine particulate matter standard will be in the early stages of development within the timeframe of this MFR workplan.

Objective 5.1: Work to reduce transported ozone through legal action and through requests to EPA, either alone or in concert with similarly affected states, for stricter controls on sources upwind of Maryland.

> **Strategy 5.1.1:** Work with the University of MD and regional air pollution organizations to develop the necessary scientific information to demonstrate the degree to which transported pollution needs to be addressed so that Maryland's air quality needs are met.
>
> **Strategy 5.1.2:** Work with regional and national organizations, such as the Ozone Transport Commission, STAPPA/ALAPCO and NESCAUM, to evaluate the effect that proposed national legislation may have on Maryland's air quality and to develop and promote reasonable alternatives where they are warranted.

Objective 5.2: By November 2005, achieve attainment with the one-hour ozone standard in the Baltimore and Washington metropolitan areas and Cecil County.

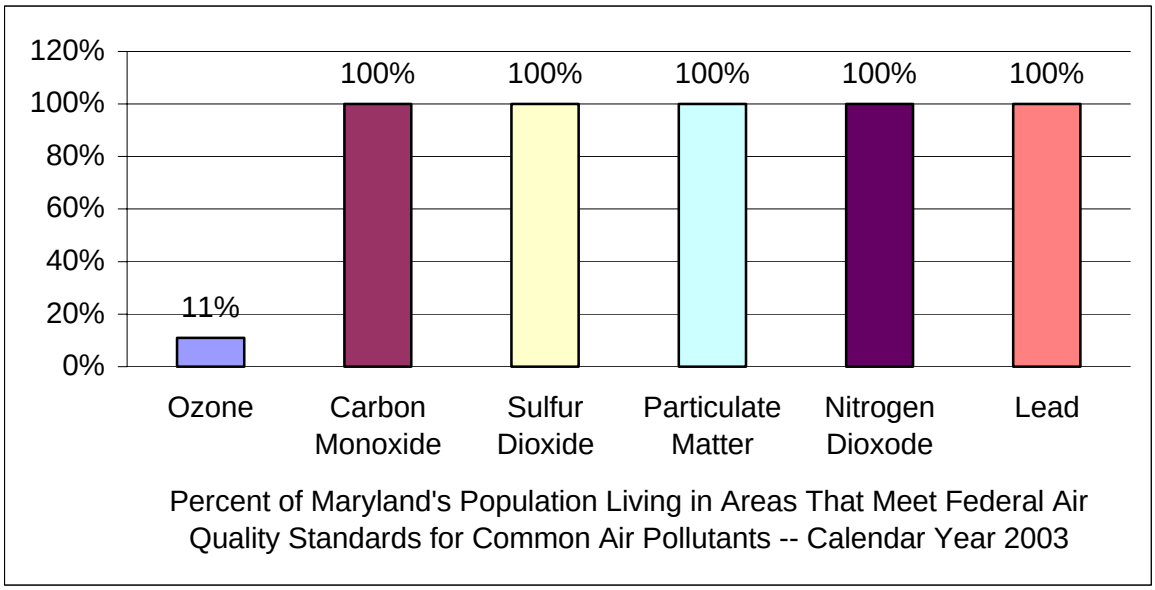
> **Strategy 5.2.1:** Reduce emissions from mobile, stationary and area sources by developing and administering emission reduction programs within each of these source sectors to levels adequate to allow Maryland to achieve attainment with the 1-hour ozone standard by 2005.
>
> **Strategy 5.1.3:** Issue permits to regulate the construction and operation of ozone precursor air emission stationary sources, conduct inspections and audits and review compliance-related documents to ensure that permit and regulatory requirements are being met within all source categories.

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	**FY 2002 Actual**	**FY 2003 Actual**	**FY 2004 Estimate**	**FY 2005 Estimate**
Number of exceedances of the 1-hour ozone standard*	14*	2*	1*	1*
Percentage of MD population living in areas not meeting air quality standards	89%	89%	89%	89%
Tons per year emissions reported for criteria pollutants at high-impact sources	525,705	525,494	525,500	525,500
Number of air pollution permits Issued	774	950	1200	1200
Number of air pollution sites inspected/ total number of sites	1,252/11,007	1,050/11,227	1,000/11,100	1,000/11,100
Number of VEIP inspection station/repair facility audits	3,340/1,294	3,521/1,075	3,000/1,500	3,000/1,500

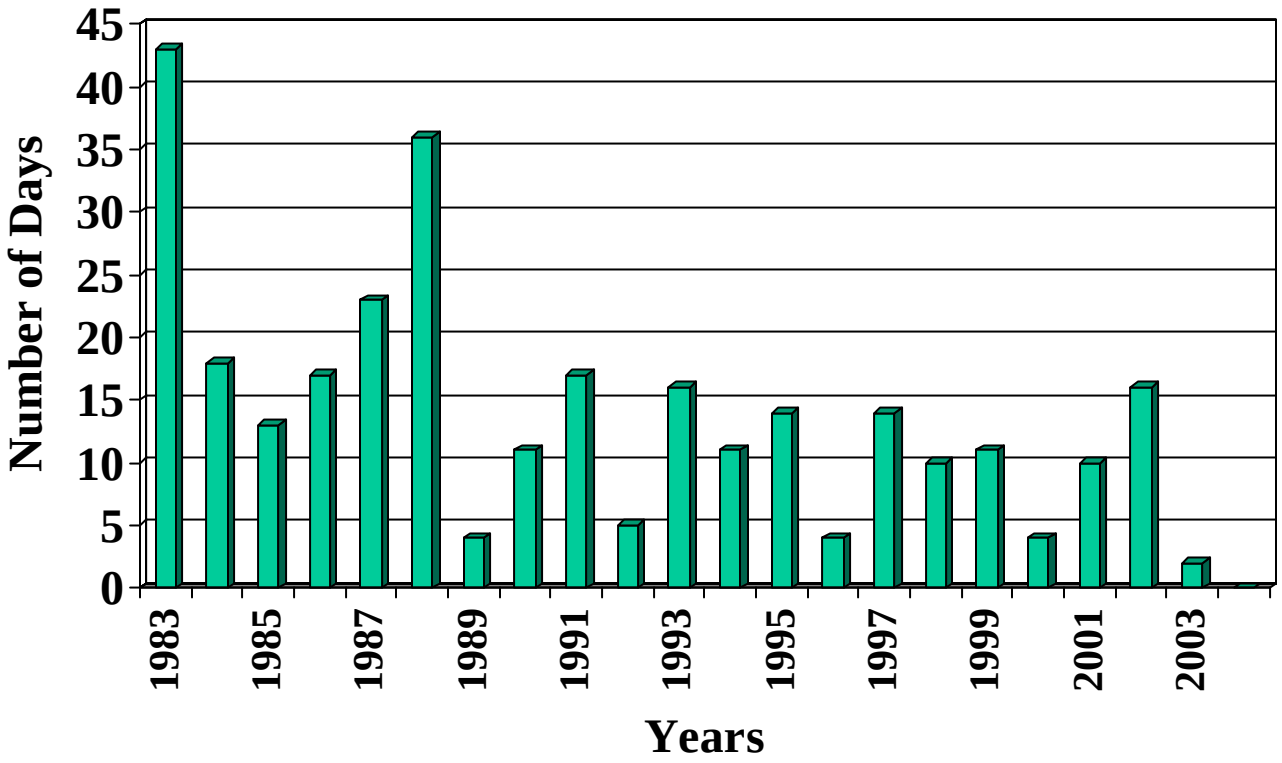
***** These are calendar-year data; e.g. Maryland experienced 14 exceedances in calendar 2002.

Performance Indicators:

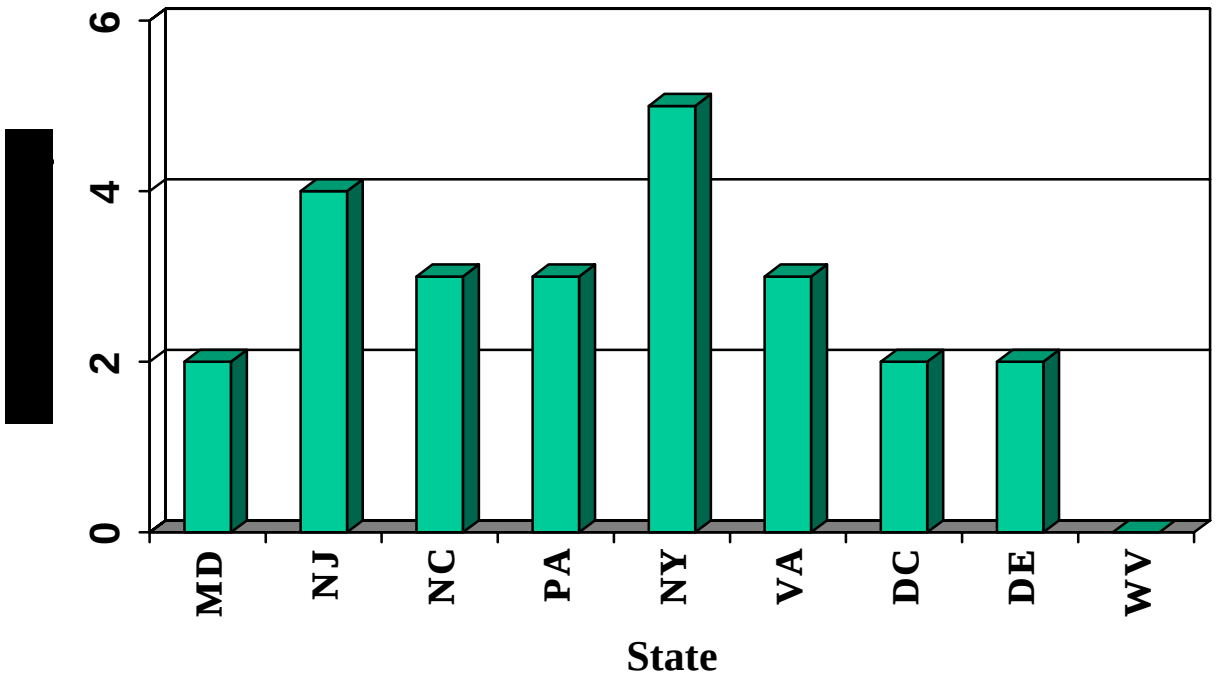


Percent of Maryland's Population Living in Areas That Meet Federal Air Quality Standards for Common Air Pollutants -- Calendar Year 2003

Days the One-Hour Ozone Standard Was Exceeded in Maryland By Calendar Year (1983 – 2003)



2003 Ozone Exceedance Days by State



Asbestos

Objective 5.3: Protect workers and the public from asbestos exposure. Maintain 95% of inspected asbestos projects in significant compliance.

Strategy 5.3.1: Conduct inspections, audits, and spot checks of asbestos projects that are notified to the Department or are the results of complaints received by the Department.

Strategy 5.3.2: Issue asbestos licenses and asbestos occupation accreditations to businesses, public units and individuals to ensure that companies meets the requirements to acquire asbestos licenses and individuals are properly trained to conduct various types of asbestos-related jobs.

Strategy 5.3.3: Train state employees who remove asbestos in the proper removal and safety techniques.

Strategy 5.3.4: Reduce hazards presented by asbestos in State-owned buildings, by addressing abatement projects that present an imminent health hazard and by working with the Asbestos Oversight Committee to establish priorities for asbestos abatement in State buildings.

Strategy 5.3.5: Undertake enforcement actions for improper removal of asbestos.

Strategy 5.3.6: Assist schools in implementing and following their asbestos management plans in accordance with the Asbestos Hazards Emergency Response Act (AHERA).

Strategy 5.3.7: Audit training courses provided by private contractors to ensure that all applicable standards are met.

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	**FY2002 Actual**	**FY 2003 Actual**	**FY 2004 Estimate**	**FY 2005 Estimate**
Percent of inspected asbestos projects in significant compliance	94%	97%	95%	95%
Number of inspections, audits and spot checks conducted	1,117	1,168	1,000	1,000
Number of asbestos licenses issued	171	175	175	175
Number of asbestos occupation accreditations issued	3,957	5,415	4,500	4,500
Percentage of Licenses and Training Provider Approvals issued within the established standard turnaround times	97%	97%	95%	95%
Number of State employees trained	431	401	450	450
Number of asbestos abatement projects in State buildings that presented an imminent health hazard that were addressed	74	71	50	50
Number of asbestos projects enforcement actions	1	4	6	6
Percentage of asbestos training courses provided by private contractors that meet all applicable standards	52%	78%	80%	80%

Applying Technology to Improve Customer Service

Introduction:

The effective delivery of the Agency's services to the public and to the entities it regulates relies heavily upon the prudent application of information technology. Currently, MDE's business systems are a series of stand-alone applications that were developed over time to typically serve a single business need. These diverse and dissimilar systems range from PC-based spreadsheets and databases to more complex server-based applications. In this type of operating environment, data standardization is inconsistent and there is a significant degree of data redundancy that makes it very difficult to compile a holistic view of MDE's activities and operational performance. To resolve these issues MDE is in the process of a multi-year initiative that will result in improved delivery of services to our customers and improved efficiencies and effectiveness of the Department's human and financial resources.

The Enterprise Environmental Management System (EEMS) addresses the realization within the environmental statutory, regulatory and oversight framework that although environmental media types (i.e. air, water, and waste) are different, the activities necessary to issue permits, monitor compliance, and conduct enforcement are basically the same. In addition, the EEMS is a shift from environmental media-focused systems to a system based on the regulated entity (i.e. facility, location, or person). This shift is key to providing the services that customers need to manage their regulatory obligations and that MDE needs to effectively execute its mission.

When fully implemented, regulated entities will benefit from on-line submission of permit applications and compliance data, on-line access to permit and process statuses, and a single point of reference for environmental information. The public will benefit from the same single point of reference for environmental information as well as detailed information relevant to their particular needs. MDE will benefit through the streamlining of processes, improved business decisions, a reduction in maintenance requirements necessary to support a unified system versus multiple systems, and reductions in the effort necessary to satisfy mandatory reporting obligations.

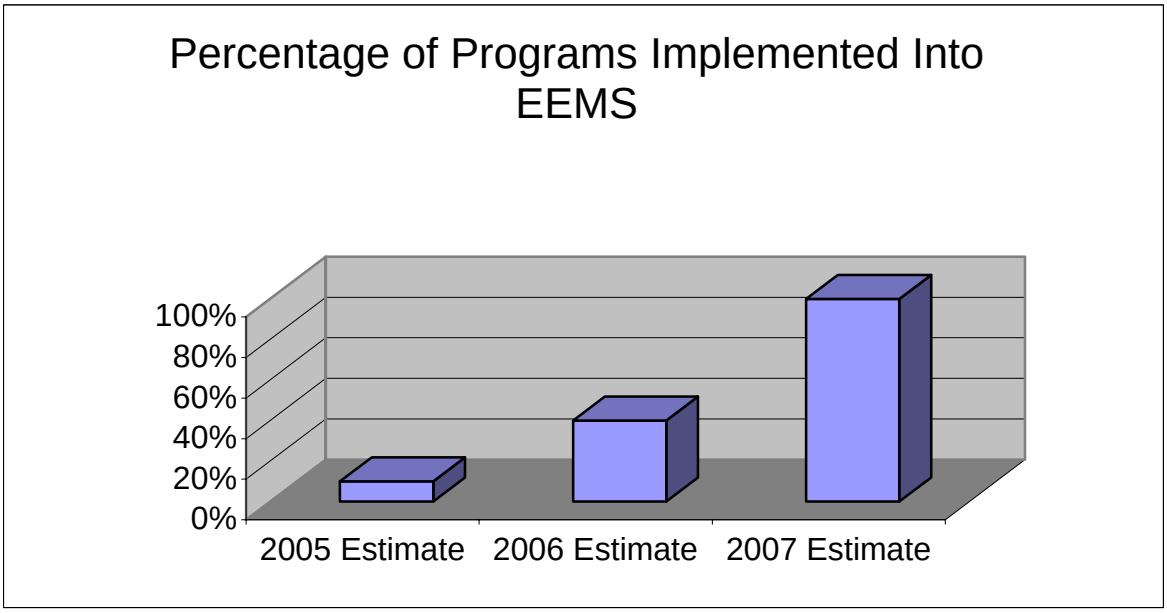
Objective 6.1: In FY 05, improve multimedia data management and integration, operational effectiveness and efficiencies and accessibility by achieving 10% MDE program implementation into EEMS.

> **Strategy 6.1.1:** Continue the phased implementation of the EEMS. Implementation schedule is based on the Project's Phase II – gap analysis of existing business processes to the EEMS, prioritization of the Department's business drivers and the availability of funding.

Performance Measures:

Performance Measures	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
EEMS Project Schedule	Planning & Requirements	Procurement Activities	Acquire, Commence Integration & Testing	Continue Integration & Testing
Percentage of programs implemented into EEMS	N/A	N/A	N/A	10%
Percentage of permit activities implemented into EEMS	N/A	N/A	N/A	25%
Annual cost benefit achieved via EEMS	N/A	N/A	N/A	$451K

Performance Indicators:



Customer Service and Stakeholder Involvement

Objective 6.2: Improve customer service, promote pollution prevention, and enhance stakeholder involvement. Specific FY 05 targets appear in the strategies below.

Strategy 6.2.1: In FY 05, all programs will meet the Department's goal of processing 90% of all permit applications within applicable standard permit application review times, which are established by the Department and reviewed annually with stakeholder review and input. Also, MDE will not be required to refund any permit application fees for inappropriately-delayed permits pursuant to §1-606 of the Environment Article (the Predictable Permitting Services Program, or PPSP).

Strategy 6.2.2: In FY 05, increase pounds of pollution prevented and costs savings achieved as voluntarily reported by both members of *Businesses for the Bay* and facilities receiving pollution prevention technical assistance through MDE's P2 program by 10% over FY 04.

Strategy 6.2.3: In FY 05, increase the number of companies receiving Environmental Management System implementation assistance and on-site pollution prevention technical assistance by 10% over FY 04.

Strategy 6.2.4: MDE is legally required to fulfill all PIA requests within 30 days, but resource constraints don't allow the agency to meet this mandate. MDE's 2005 target is 75%.

Strategy 6.2.5: Improve coordination among county health officials, MDE and DHMH on environmental health issues through the MDE-run Environmental Health Liaison Committee (EHLC).

Performance Measures:

Performance Measures (data are annual, not cumulative, unless otherwise noted)	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate
Percent of applications processed within standard review times	92%	92%	90%	90%
Number of refunds made under PPSP	0	0	0	0
Pounds of pollution prevented and costs savings achieved as voluntarily reported by both members of *Businesses for the Bay* and facilities receiving pollution prevention technical assistance through MDE's P2 program	6,673,464 (-49%)/ $363,165 (-96%)	22,652,284 (+239%)/ $553,318 (+52%)	10% above 03 numbers	10% above 04 numbers
Number of facilities receiving Environmental Management System implementation assistance and on-site pollution prevention technical assistance	12	19	13	13
Percent of timely PIA responses	78%	66%	75%	75%
Issues between MDE and counties resolved via EHLC (generally all issues that arise are resolved)	10	12	10	10