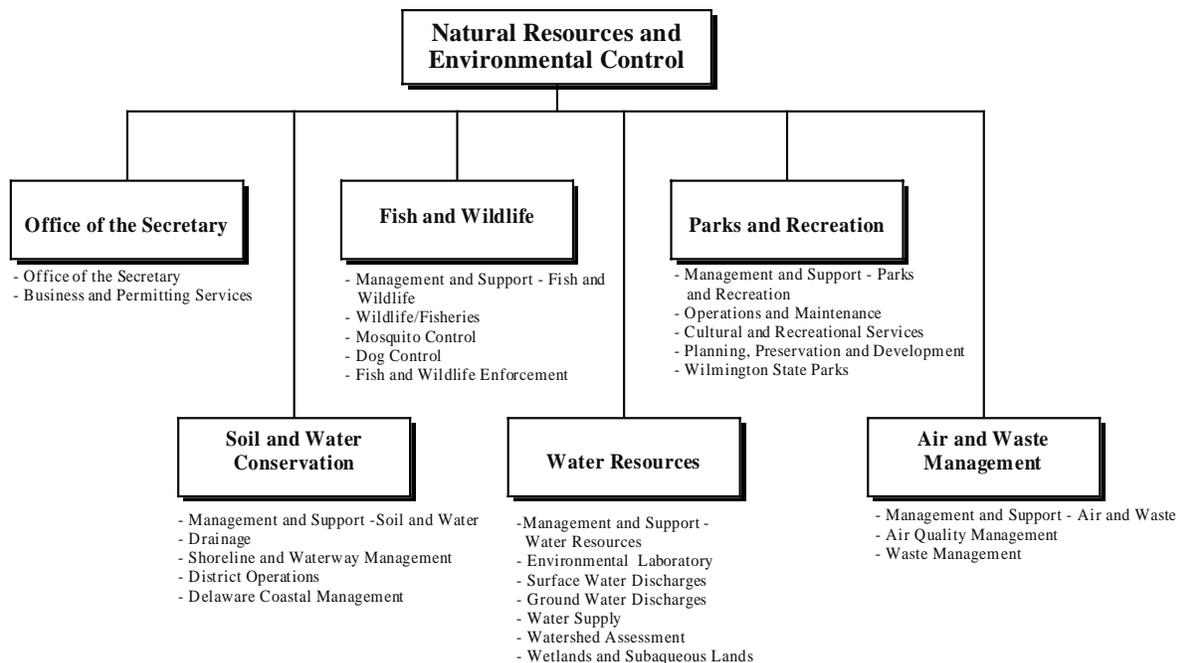


# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

40-00-00



## MISSION

The mission of the Department of Natural Resources and Environmental Control is to ensure the wise management, conservation, and enhancement of the state's natural resources, protect public health and the environment, provide quality outdoor recreation, improve the quality of life, and educate the public on historic, cultural, and natural resource use, requirements, and issues.

## KEY OBJECTIVES

- **Promote Health and Safety**

By maintaining and improving the quality of air, land, and water resources, by managing populations of mosquitoes and other pests, and by cleaning up spills involving hazardous chemicals, the department significantly enhances the health and well being of Delaware's people, wildlife, and plants. The department recognizes that the health of Delaware's economy is very much dependent on the health of its natural resources. Without a clean and adequate supply of air, land, and water resources, many of Delaware's existing businesses cannot thrive nor can certain new businesses be accommodated. The department promotes public health and safety and helps to ensure a healthy environment through education, outreach, planning, and regulatory programs.

- **Conserve Plant and Animal Resources**

This goal is to conserve and enhance plant and animal communities, through protection and management of species populations and their habitats. This effort involves maintenance of biodiversity, harvest allocation of species populations, protection of ecological functions and processes, and performing educational outreach.

- **Promote and Provide Recreational Opportunities**

Recreational opportunities that allow Delawareans to enjoy natural resources and open spaces, contribute to and enhance mental and physical health and quality of life. The department strives to provide recreational opportunities while balancing resource protection with resource use. A diverse system of state parks, wildlife areas and greenways that protects natural resources and provides recreational and environmental educational opportunities is crucial.

- **Broaden the Commitment to Environmental Protection and Resource Conservation**

Economic, environmental, and social problems cannot be addressed in isolation. The department works in partnership with others to develop strategies that integrate economic development, environmental quality, and social policy making with broad public involvement. This involves a systematic approach that reflects shared goals and takes into account the linkages of the

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

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environment, both internally (cross media) and externally with society. The department strives to create a widely held ethic of stewardship that strongly encourages individuals, institutions, corporations and local governments to take full responsibility for the economic, environmental, and social consequences of their actions. Creating this ethic will depend in part on DNREC's ability to enhance public awareness of environmental issues and people's personal responsibility in affecting environmental change through public information and educational efforts targeting adults and student populations.

## PRIORITIES

**Enforcement and Community Right-To-Know** – Taking enforcement actions against environmental violators in a timely and efficient manner, providing information to the public about those actions and enhancing communications and relationships with communities are top priorities for DNREC. The department has begun publishing administrative and criminal enforcement actions on its Internet website along with notices of violations. The department is also working on a system to publish unpermitted releases to the environment on its Internet site. This information will eventually be part of a larger electronic environmental information system that is currently under development and will include a broad range of data on permitted facilities, hazardous waste sites, state parks and other natural resources.

**Responding to Harmful Biological Risks** – Protecting public health through monitoring, surveillance and controls of mosquito or water-borne biological threats remains a high priority for DNREC. The recent discovery of threats such as West Nile Encephalitis and harmful algal blooms in ocean and bay waters are prompting the department to enhance its efforts to monitor and respond to these types of potential biological threats through public information and use of controls.

**Enhancing Water Quality** – Restoring streams, rivers and bays to standards that support healthy populations of diverse aquatic life and are safe for swimming and drinking is among Delaware's most difficult environmental challenges. DNREC is implementing a ten-year program to set limits on the amount of pollution that waterways can sustain and still meet water quality standards. The process of setting Total Maximum Daily Loads (TMDLs) will set the targets for reducing nutrients, bacteria and other pollutants entering streams. Achieving these reductions will first require development

of watershed restoration action strategies followed by implementation of additional pollution control measures. Successful management of nutrients and stormwater are key to meeting TMDLs. Poor operation and maintenance of septic systems contribute nutrients to ground and surface waters. To ensure excess nutrients from systems are minimized, a statewide compliance inspection system is necessary to ensure that systems are inspected every three years. Likewise, DNREC will be implementing phase two of the National Pollution Discharge Elimination System Stormwater Management Program to reduce environmental impacts from runoff of developed areas and continue to work closely with the Nutrient Management Commission.

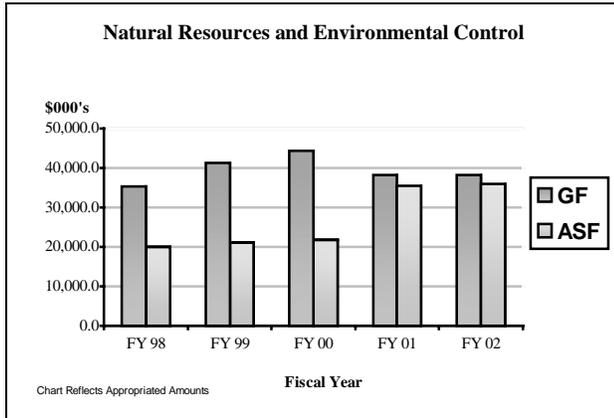
**Recycling** – As a result of Executive Order No. 60, Delaware has established a goal of achieving a residential recycling rate of 30 percent by 2003. DNREC, working with the Recycling Public Advisory Council, will implement the program as outlined under the Executive Order. In order to help achieve this goal, DNREC will be working with interested communities to provide start-up grants to initiate recycling efforts.

**Dam Safety** – Delaware is one of two states in the nation that does not have a dam safety program. DNREC, working with a contractor, is beginning preliminary inspections of the state's high hazard dams. In addition, the department is working with an advisory committee consisting of state and federal officials and private dam owners in Delaware to develop legislation establishing a dam safety program and the regulatory framework that would assure the safe operation, construction and maintenance of dams in Delaware.

**Protecting Delaware's Coastal Zone** – The wetlands, beaches, rivers, fields and forests that comprise Delaware's Coastal Zone provide habitat of international significance for migratory waterfowl and shorebirds, fish and shellfish and great economic importance to Delaware. DNREC is now administering regulations designed to enhance the Coastal Zone. The regulations allow industry located in the zone the flexibility to expand and change processes in order to stay competitive while assuring environmental improvements (through mitigation) to more than offset any negative environmental impacts which might result from industry activity. The department has successfully processed and issued several permits under the new regulations and will have a compendium of possible offset projects available by early 2001. Environmental indicators and an associated integrated information management system are being developed as part of DNREC's larger environmental information system.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

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## BUDGET

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	44,478.8	38,228.7	38,296.2
ASF	21,747.9	35,504.3	36,048.9
<b>TOTAL</b>	<b>66,226.7</b>	<b>73,733.0</b>	<b>74,345.1</b>

## POSITIONS

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	373.2	378.7	379.7
ASF	275.4	276.1	276.8
NSF	138.4	137.2	135.5
<b>TOTAL</b>	<b>787.0</b>	<b>792.0</b>	<b>792.0</b>

## FY 2002 BUDGET HIGHLIGHTS

### OPERATING BUDGET:

- ◆ Recommend enhancement of \$522.1 for the fourth year of funding for the Total Maximum Daily Load program. Funds are appropriated for water quality assessment, stormwater modeling, and biological monitoring. Recommend additional \$62.6, 1.0 FTE, and (1.0) NSF FTE to convert Senior Resource Planner from Non-appropriated Special Funds to support this program.
- ◆ Recommend \$150.0 in the Budget Office's contingency for the West Nile Encephalitis Virus mosquito spraying initiative.
- ◆ Recommend enhancement of \$25.0 for Spraying and Insecticides in Mosquito Control Section.
- ◆ Recommend an enhancement of \$68.0 ASF in Contractual Services for phases III and IV of the Lab Information Management System.

### CAPITAL BUDGET:

- ◆ Recommend \$2,345.0 for the conservation cost-sharing program, which provides incentives to landowners or users to support the design and installation of Best Management Practices. This will protect the state's natural resources and water supplies as well as save valuable farmland from excessive erosion while providing for wildlife habitat.
- ◆ Recommend \$800.0 to continue the tax/public ditch program.
- ◆ Recommend \$1,000.0 to continue the beach preservation program.
- ◆ Recommend \$1,000.0 to continue to eliminate a backlog of deferred park rehabilitation projects.
- ◆ Recommend \$500.0 to address critical restorations and repairs at Fort Delaware State Park and for those parks located within the City of Wilmington that are managed by the Division of Parks and Recreation.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

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## OFFICE OF THE SECRETARY

40-01-00

### MISSION

To oversee the development and implementation of state environmental, natural resource and recreational policies and programs; promote employee productivity through technology and training; manage the department's financial and human resources; promote quality and continuous improvement of the programs; assist other agencies in the promotion of environmentally sound, economic development; and coordinate policy among the department's divisions.

### KEY OBJECTIVES

- Publish information regarding administrative and criminal enforcement actions, notices of violations and unpermitted releases to the environment in a timely manner on DNREC's Internet website.
- Protect and enhance the natural attributes of Delaware's Coastal Zone in order to maintain and enhance fish and wildlife populations and provide recreational opportunities.
- By 2002, DNREC will develop an integrated environmental information system containing facility, permitting, ambient monitoring, natural resource and enforcement data. Public information in this system will be accessible through the Internet.
- Complete the first full rotation of the management cycle for all basins within the State by the year 2004.
- Implement a means to effectively collect and manage the information that its partners require in order to manage for environmental results by 2005.
- Increase the public's understanding of the agency and its activities by 25 percent (over results from 1997 survey) by 2002.
- By 2002, obtain commitments to incorporating specific pollution prevention and environmental strategies from industry and businesses, government, citizens, environmental organizations, and the communications media.
- Coordinate land use activities with other agencies and county and municipal governments to preserve open space, and minimize impacts to habitat, air and water quality.

- Establish baseline data to increase communication efforts by targeting communities that are subject to disparate environmental impacts which may affect those populations.

### BACKGROUND AND ACCOMPLISHMENTS

#### **Information Management and Data Integration --**

This year the department continues to work on a three-year project to build an integrated environmental information system that will include facility, permitting, natural resource, enforcement and ambient environmental data. The system will improve the ability to take the comprehensive approach to managing the environment that is required to support department initiatives such as Coastal Zone Indicators, TMDLs and Whole Basin Management. It will also allow DNREC, other agencies, county and municipal governments to more effectively use the information collected to make both speedier and better informed decisions. Finally the system will make it possible to make the public data collected accessible over the Internet. The department has laid out a three-step process to build an environmental information system that includes: 1) improving the computer communication backbone, 2) defining requirements, standards, and design options for the system, and 3) incrementally building and deploying the system. Steps one and two are completed and step three is underway.

**The Whole Basin Management** continues to serve as a priority initiative for the department. Since the inception of Whole Basin Management in 1995, the department has created and developed multi-disciplinary teams focusing their collective expertise on specific geographic areas in Delaware. Whole Basin Management team members have assisted Tributary Action Teams with the development of Pollution Control Strategies to achieve TMDLs established for the Rehoboth and Indian River bays. A process is being developed that will engage the basin teams with assisting the public in developing TMDL Pollution Control Strategies along with the Clean Water Action Plan Watershed Restoration Action Strategies for the entire state. Other Whole Basin initiatives currently being implemented or targeted for completion include: Watershed Education curriculum being taught at the 7th grade level through a cooperative effort between DNREC and the Department of Education; contaminant sources site-listing database for the entire state and Geographic Information System (GIS) data layers; conservation management plans developed for state and federal lands; watershed signs along major roadways;

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

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wetlands status and trends report; watershed education poster and brochure; Chesapeake Basin Assessment Report and public outreach document; Inland Bays Assessment Report and public outreach document; land use strategy and recommendations to address sprawl; mapping of old growth forests in the Piedmont basin; PCB (polychlorinated biphenyl) Assessment report and focus environment study for the tidal Brandywine and Christina; and riparian corridor/greenway stream inventory.

**The Business and Permitting Services Office (BPS)** provides non-regulatory assistance functions for businesses and permittees within Delaware. The office supports three basic program areas: pollution prevention, permitting assistance and the Clean Air Act Ombudsman. The office also coordinates the department's community involvement efforts. Through the Clean Air Act Ombudsman, a closer working relationship has been developed between the regulated community and DNREC by increasing the quality and quantity of outreach and compliance assistance programs. BPS staff has completed the second year of a five-year department-wide Pollution Prevention Strategy to further integrate pollution prevention into all DNREC programs, industry, commercial businesses, government, and general public.

**The Human Resources Office (HRO)** has implemented a department-wide Human Resources Workforce Plan, incorporating a Recruitment Plan. In March 2000, the Secretary distributed a departmental policy and procedure manual to all employees, providing them with guidance in conduct, human resource and program issues. HRO continues to provide on-going training in personnel-related topics for managers and supervisors, new hire orientations and mandatory training in diversity and sexual harassment.

**The Office of Information and Education** is responsible for coordinating many of DNREC's outreach and education efforts. The department initiated a weekly newsletter for citizens, elected officials, business and environmental leaders and the media. "DNREC News" provides information on DNREC activities and issues and tracks the status of regulations under development. "Outdoor Delaware" magazine continues to expand its subscription base with nearly 6,000 subscribers currently. Examples of DNREC's continued success with volunteers include the Christina River Cleanup and Coastal Cleanup in which more than 1,600 people participated and collected more than 21,000 pounds of debris.

## BUDGET

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	3,953.3	4,680.6	5,165.1
ASF	935.6	1,371.3	1,389.8
TOTAL	4,888.9	6,051.9	6,554.9

## POSITIONS

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	31.7	31.7	31.7
ASF	19.3	20.3	20.3
NSF	2.0	1.0	1.0
TOTAL	53.0	53.0	53.0

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## OFFICE OF THE SECRETARY 40-01-01

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### ACTIVITIES

- Assist the divisions to meet their human resource, financial, legislative, policy and other needs promptly and accurately.
- Provide for rational, accurate and responsive budgeting and financial management processes.
- Administer the Coastal Zone statute and provide timely, efficient services to industries seeking status decisions.
- Coordinate database and GIS operations for the department.
- Guide Information Resource Management (IRM) planning and decision making through the policy level Executive Steering Committee for IRM and Strategic Plan for Information Resource Management.
- Assess the department's workforce diversity and target/develop programs to address needs.
- Ensure employees are educated regarding benefits and their rights.
- Coordinate the preparation of site-specific environmental assessments and recommendations to communities, jurisdictions, and agencies in a form that is usable for land use decision makers for comprehensive plans, ordinance revisions, zoning changes, site reviews and policy development.
- Develop department-wide communications strategies using information gathered in surveys and focus groups. This effort includes evaluation of current department-wide outreach efforts and identification of opportunities to integrate key department issues/themes and messages into those efforts.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

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- Develop and distribute communications products that heighten people's awareness of environmental issues in their communities and suggest opportunities for them to reduce environmental impacts. These products include a state of the environment report, citizen guide to watersheds and TMDLs, natural heritage guides on species and habitats and various fact sheets and brochures.
- Sponsor and participate in special events designed to raise people's awareness such as the State Fair, Coast Day, Earth Day, the Coastal Cleanup and Christina River Cleanup.
- Sponsor training for educators on environmental issues and supplemental environmental education materials and curriculum including the new Watershed Education unit.

- Operate and market the Development Advisory Service (DAS).
- Serve as the Department Registrar and point of contact on Climate Change issues.

### PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Assist potential permittees through Development Advisory Service	6	8	12

### ENSURE EFFECTIVE PUBLIC PARTICIPATION IN AGENCY DECISION-MAKING PROCESSES.

#### PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
# projects reported on for local land use decision makers	233	165	256
CZA status decisions	2	4	3

### ***BUSINESS AND PERMITTING SERVICES***

***40-01-02***

#### ACTIVITIES

- Provide pollution prevention assistance to industry, local governments and citizens.
- Work with the regulatory programs on incorporating pollution prevention into permitting processes and compliance activities.
- Facilitate quarterly Pollution Prevention Industry Roundtable meetings.
- Ensure effective public participation in agency permitting processes.
- Be a first point of contact for small businesses on Clean Air Act issues and assist them with permitting and compliance issues.
- Reach out to small businesses when upcoming regulations have a small business impact and educate them on the regulations and how to cost-effectively comply.
- Provide general assistance and information on DNREC permitting programs and provide a central point of contact and coordination service for customer issues and problems.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

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## FISH AND WILDLIFE

40-05-00

### MISSION

To conserve and manage the fish and wildlife resources of the State; to provide safe and enjoyable fishing, hunting, and boating opportunities to the citizens of Delaware and its visitors; to manage and make available for public use and enjoyment the lands with which it has been entrusted; and to improve the public's understanding and interest in the state's fish and wildlife resources through information and outreach programs.

### KEY OBJECTIVES

#### Maintaining Tidal Fisheries Management

- Implement a sustained source of revenue to allow tidal fisheries management to meet public demand for better decisions to conserve marine fishes and their habitats.
- Increase investigations of events in the aquatic environments that result in the loss of natural habitat, fish population changes and fish kills.
- Implement and update interstate fishery management plans and regulations for 22 species of marine fishes.
- Expand marine fish monitoring and stock assessments to remain in compliance with interstate fishery management plans.
- Develop and expand artificial habitat (reefs) to colonize benthic organisms in support of marine fisheries on 11 sites in the Delaware Bay and Atlantic Ocean.
- Re-establish a viable commercial oyster fishery with direct harvest from natural oyster beds.
- Implement procedures to document essential fish habitats.
- Improve public participation in marine fisheries management and improve game fish populations in tidal fresh water.

#### Protecting, Restoring and Enhancing Fisheries and Wildlife Habitat.

- Implement the existing state-level responsibilities for achieving the goals and objectives of the North American Waterfowl Management Plan.

- Increase anadromous fish access in non-tidal waters.
- Achieve the impoundment restoration goals identified in the Northern Delaware Wetlands Rehabilitation Plan (seven site projects).
- Develop one comprehensive Wildlife Area Management Plan each year that provides a basis for habitat and species management, hunting, observation opportunities and that improves the quality of the environment.
- Work with the Riverfront Development Corporation to establish and manage the Russell W. Peterson Urban Wildlife Refuge and Wetlands Education Center in Wilmington

#### Fostering Partnerships with Private Landowners.

- Control aquatic weeds and algae in public ponds to maintain water quality, aesthetics and boating access.
- Reduce and control nuisance animal and plant species on public and private lands and waters/wetlands in order to improve wildlife and fisheries habitats.

#### Expanding and Enhancing the Non-Game Program for Biodiversity.

- Continue protection, recovery and management plans (federal or state) for endangered, threatened, or species of special concern on an annual basis to enhance the state's biodiversity.
- Conduct surveys and maintain information on the distribution and status of the state's flora, fauna, and natural communities, with an emphasis on rare species, and provide this information and expertise to public agencies and private organizations to enhance the state's biodiversity.

#### Prevent Mosquito-borne Diseases.

- Continue surveillance/monitoring and control or treatment activities to prevent or lessen outbreaks of West Nile Encephalitis or Eastern Equine Encephalitis.
- Control pestiferous mosquito populations at tolerable nuisance levels, for quality-of-life factors and to lessen possible outbreaks of mosquito-borne disease.

### BACKGROUND AND ACCOMPLISHMENTS

Division programs are developed and administered to serve the interests of all of the people of Delaware. The

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

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division works with all segments of the constituencies to identify their needs and interests in fish and wildlife resources. The division advocates the human use of fish and wildlife including observation, study, hunting, fishing and trapping, in a humane manner without threatening the continued existence of any species.

The division has developed five key operational priorities that support the department's Strategic Plan.

1. **Applied Habitat Research, Management and Restoration:** promotes the conservation of biological diversity by avoiding the unnecessary threat to or extinction of living species.

- Deer management continues to be a high priority for the division. Approximately 17,000 hunters harvested more than 11,000 deer in 1999. The economic activity associated with deer hunting generated a minimum of \$13.3 million dollars in Delaware. The division worked with the Advisory Council on Game and Fish to form a task force to join 21 stakeholder groups in order to develop an outline for a formal deer plan for Delaware. A draft plan will be developed by June 30, 2001. In a recent survey of approximately 200 landowners receiving assistance from the division, 90 percent indicated that they were satisfied with the services.
  - The harvest of horseshoe crabs was only 63 percent of the State's allowable quota in 2000. By closing state and federal lands to harvesting in May and June, migratory shorebirds were able to feed on horseshoe crab eggs with relatively few interruptions and regain their fat content to complete their migration to their Arctic nesting grounds.
  - The division continued to work with Soil and Water Conservation to establish freshwater wetland habitat on several wildlife areas. These projects were used to compensate for wetlands lost due to drainage project construction. The habitat created will benefit a wide variety of wetland plants and animals as well as providing increased public recreation opportunities for wildlife viewing and hunting.
2. **Species Research and Monitoring:** provides the basis for management of fish and wildlife stocks and populations.
- The weakfish and summer flounder fisheries are recovering according to schedule and Striped Bass in the Delaware Estuary has been declared recovered. The horseshoe crab harvest is strictly controlled in compliance with regional requirements.

- Delaware is in compliance with 22 fisheries management plans required under the Atlantic Coast Fisheries Cooperative Management Act.
  - The Department of Natural Resources and Environmental Control, Department of Health and Social Services and Department of Agriculture formed the West Nile Virus Working Group in order to develop and implement a statewide coordinated surveillance, monitoring and treatment program to prevent or lessen outbreaks of mosquito-borne West Nile Encephalitis.
  - The Natural Heritage Program completed and/or initiated surveys and evaluations of the plants, animals, and natural communities on four state-owned land management units (Division-owned Chesapeake properties, White Clay Creek State Park, Lums Pond State Park, Blackbird State Forest). This information will be used to ensure management of natural resources enhances biodiversity.
  - The Natural Heritage database of rare species and natural communities was used to conduct over 760 environmental reviews and information requests in 1999, a 31 percent increase over the level conducted in 1998.
3. **Enforcement:** offers public safety services in the areas of boating, hunting and fishing, as well as protecting the state's wildlife, finfish, shellfish, nongame and endangered species.
- The Enforcement Section increased the number of Boating Safety Education Certifications.
4. **Education and Training:** provides outreach opportunities that improve the awareness, appreciation and conservation of Delaware's natural resources by the users of this heritage.
- The division's Aquatic Resource Education Program, continues to expand programs for young people in an effort to increase awareness about the importance of Delaware's aquatic habitats.
5. **Infrastructure Maintenance and Development:** provides public hunting areas and boating/fishing access sites that are environmentally sensitive, modern, safe, clean and convenient so that the state's natural resources are available to all.
- The division completed the renovation of bulkheads, water control structures and dikes at the Assawoman Wildlife Area to repair damage caused by storms in 1997 and to improve the area's wetlands.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

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- The division completed a renovation of a boating access facility at Masseys Landing on Long Neck between Indian River Bay and Rehoboth Bay.

### BUDGET

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	5,844.9	5,740.5	5,839.8
ASF	2,385.8	5,434.5	5,623.6
<b>TOTAL</b>	<b>8,230.7</b>	<b>11,175.0</b>	<b>11,463.4</b>

### POSITIONS

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	64.0	65.0	65.0
ASF	32.8	32.8	32.8
NSF	28.2	28.2	28.2
<b>TOTAL</b>	<b>125.0</b>	<b>126.0</b>	<b>126.0</b>

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### ***MANAGEMENT AND SUPPORT - FISH AND WILDLIFE***

***40-05-01***

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### ACTIVITIES

- Direct, plan and coordinate the administration of total division program strategies and objectives.
- Direct, plan and coordinate the development of mosquito control, fisheries and wildlife resource initiatives.
- Coordinate, plan and develop state and federal budget funding strategies for division programs and initiatives.
- Represent the division on regional organizations such as the Atlantic States Marine Fisheries Commission, Atlantic Flyway Council, International Association of Fish and Wildlife Agencies, etc.

### PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Issue at least 2 editions of a division newsletter to hunters, anglers and boaters.	2	3	2

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### ***WILDLIFE/FISHERIES***

***40-05-02***

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### ACTIVITIES

Manage, protect and conserve fish, wildlife and their habitats by:

- conducting research surveys and inventories of fish, shellfish and wildlife populations;
- developing fish and wildlife management plans for: 13 state-owned wildlife management areas, and 45 freshwater pond and marine fishing access sites, and 22 species of marine fish;
- monitoring, maintaining and regulating harvestable fish and wildlife populations;
- conducting integrated fish and wildlife management programs to promote the health of biological communities;
- providing technical assistance to landowners and government agencies;
- monitoring the users of fish and wildlife resources;
- administering a non-game and endangered species program;
- providing hunter education training programs to promote safety;
- monitoring fisheries for diseases or lesions to indicate the presence of *Pfiesteria*; and
- investigating fish kills as to their extent and probable cause.

Provide safe, high-quality opportunities for public enjoyment of fish and wildlife by:

- acquiring lands and waters for recreation and conservation;
- developing and maintaining public facilities;
- controlling aquatic and non-indigenous plants;
- improving fish and wildlife habitat;
- developing and implementing wetland enhancement programs; and
- coordinating and conducting fish, wildlife, acquisition, hunter education and aquatic resource education activities.

Provide coordination, fiscal and accounting services for the division.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

**40-00-00**

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Increase the number of acres of actively managed wildlife habitat on public lands by 5% annually.	6,150	6,458	6,780
Comply with Fisheries Management Plans (Number)	21	22	22
Increase the number of Hunter Education Certifications by a minimum of 5% per year to minimize hunter related accidents.	1,339	1,547	1,624

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### ***MOSQUITO CONTROL***

**40-05-04**

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#### ACTIVITIES

- Monitor mosquito populations and levels of nuisance or disease.
- Investigate and assess controls via Open Marsh Water Management (OMWM) / Integrated Marsh Management (IMM), impoundment management, mosquito fish stocking, woodland control and insecticides.
- Provide temporary controls in response to disease outbreaks or rising nuisance levels through the use of chemical controls.
- Conduct research surveys and inventories of mosquitoes, fish and wildlife populations.
- Continue with the implementation and installation of OMWM systems within Delaware's wetlands.
- Continue the implementation of wetland rehabilitation within the Christina/Delaware River Corridor.
- Administer education programs as they relate to wetland restoration mosquito control problems and Integrated Marsh Management needs.
- Develop a biological control program for woodland mosquito species.
- Coordinate with the Riverfront Development Authority to restore Dravo Marsh (Wilmington Wildlife Refuge).

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
On a statewide basis, continue to treat 300 acres of salt marsh mosquito breeding habitat per year using Open Marsh Water Management techniques.	325	300	300
On a statewide basis from June through August, continue to achieve a 75% or greater nuisance free nights.	86	75	75
Based on targets of opportunity and available resources, annually restore at least 100 acres of degraded wetlands under the Northern Delaware Wetlands Rehabilitation Program.	200	100	100

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### ***DOG CONTROL***

**40-05-05**

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#### ACTIVITIES

- Administer a statewide dog control program through contracts with the Delaware and Kent County SPCAs.
- Service complaints about dog law violations.
- Monitor dog law compliance.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Increase # animals to shelters statewide by 5%/year	9,458	9,930	10,427

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### ***FISH AND WILDLIFE ENFORCEMENT***

**40-05-06**

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#### ACTIVITIES

- Preventing, investigating, and prosecuting illegal natural resource activity within the State of Delaware.
- Provide environmental education opportunities through Boating Safety and Hunter Safety education programs.
- Conduct marine search and rescue operations and conduct statewide marine rescue training for coastal fire departments.
- Manage and administer the state vessel registration program.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

## 40-00-00

### PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Increase Boating Safety Certifications by a minimum of 5% per year in order to reduce boating related accidents.	1,539	1,615	1,696

## PARKS AND RECREATION

### 40-06-00

#### MISSION

To provide state parks, facilities and programs for outdoor recreational use; to protect natural resources in parks, nature preserves and greenways; to provide technical, financial and planning assistance to the public for park, recreation and conservation areas; and to make available natural and cultural interpretive and educational services.

#### KEY OBJECTIVES

- Reduce visitor and employee accidents in state parks by five percent annually.
- Annually protect 2,000 acres of land through the Open Space Program, through purchase, donation and conservation easements, for parks, wildlife areas, state forests, cultural sites and greenways.
- Increase the number of interpretive trails by five by 2002.
- Improve 100 miles of trails and add 20 miles of trails or paved pathways throughout the state by 2005.
- Assist in the addition of 100 acres of parkland and 70 outdoor recreation facilities at the municipal and county levels by 2005.
- Reduce major rehabilitation expenditure and curb facility deterioration by increasing preventive maintenance by five percent.
- Reduce the backlog of infrastructure needs and building rehabilitation by five percent annually.
- Annually, ensure effective, efficient and economical disposition of DNREC historic preservation responsibilities under state and federal laws.
- Locate and identify prehistoric and historic cultural resources on one percent of DNREC landholdings annually.
- Develop cultural resources management plans for two state parks, nature preserves or wildlife areas by 2004.
- Identify and fully document at least four significant folk life resources by 2003.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

**40-00-00**

- Develop one comprehensive Park Management plan annually through 2003 that improves the quality of the environment by emphasizing habitat analysis, improvement/compatibility of recreational uses, environmental education and infrastructure.

## BACKGROUND AND ACCOMPLISHMENTS

The division contains five administrative sections to carry out its mission:

- Management and Support
- Operation and Maintenance
- Cultural and Recreational Services
- Planning, Preservation and Development
- Wilmington State Parks

Eleven field offices statewide are responsible for overseeing the operation of 21,142 acres in 14 state parks, Brandywine Zoo, Baynard Stadium, eight nature preserves and three other sites. In addition, the division oversees 935 acres through six other nature preserves and 36 conservation easements protecting an additional 1,069 acres.

The division operates units containing a variety of landscape and natural resource features from rolling terrain in the uppermost regions of New Castle County to lands and inland ponds throughout the State to coastal beaches in Sussex County. Cultural and historic resources are protected and interpreted while a wide variety of recreational facilities are provided for Delawareans and out-of-state visitors.

### BUDGET

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	13,581.8	9,385.7	9,018.9
ASF	7,129.6	8,430.2	8,562.9
<b>TOTAL</b>	<b>20,711.4</b>	<b>17,815.9</b>	<b>17,581.8</b>

### POSITIONS

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	104.5	105.5	105.5
ASF	62.5	62.5	62.5
NSF	1.0	1.0	1.0
<b>TOTAL</b>	<b>168.0</b>	<b>169.0</b>	<b>169.0</b>

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## *MANAGEMENT AND SUPPORT - PARKS AND RECREATION*

### *40-06-01*

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### ACTIVITIES

- Policy implementation, coordination and fiscal control.
- Overall guidance in the development of the Capital Improvement Plan.
- Personnel recruitment, hiring and training.
- Volunteer recruitment and placement.
- Inter/intra agency coordination for the division.
- Coordination of services for five citizen advisory councils.
- Coordination of state park friends organizations.
- Mini/micro computer support for the division.
- Management of Twenty-First Century Park Endowment and all state park trust funds.

### PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Increase # of volunteer hours by 2%	29,633	30,225	30,830

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## *OPERATIONS AND MAINTENANCE*

### *40-06-02*

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### ACTIVITIES

- Manage daily operations of 14 state parks including special revenue generating facilities (Biden Environmental Center, Killen's Pond Water Park, Cauffiel Estate, Judge Morris, Bellevue Hall, Indian River Marina, etc.).
- Manage building and grounds maintenance.
- Enforce state park rules and regulations.
- Provide for site and visitor safety and security, including a water safety program.
- Provide visitor services and assistance.
- Administer revenue and concession programs.
- Establish and manage retail sales program including gift shops, vending and camping supplies.
- Coordinate scientific research requests, species protection efforts, and efforts to control exotic/invasive species.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

**40-00-00**

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Increase customer service rating of state park visitors by 2%	92	94	96

## ***CULTURAL AND RECREATIONAL SERVICES***

***40-06-03***

### ACTIVITIES

- Plan and administer programs and special events for the public.
- Provide environmental education programs.
- Provide natural and cultural resource interpretative programs and exhibits.
- Conduct historic and prehistoric archeological surveys and preservation management plans.
- Provide folk life conservation and interpretation.
- Curate archeological, historic and folk life collections.
- Update and customize wildlife management plans at each state park.
- Marketing and promotion of park system.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Increase # people participating in park programs by 2.5% *New calculation method for attendance.	93,368	95,702	98,094

## ***PLANNING, PRESERVATION AND***

***DEVELOPMENT***

***40-06-04***

### ACTIVITIES

- Plan, design, engineer and construct facilities and infrastructure within the state park system.
- Coordinate land protection activities, including acquisition, easements and donations, under the auspices of the Land Protection Act.
- Administer the natural areas program through the Land Preservation Office as defined by law.
- Administer state and federal grants and provide technical assistance to county and local governments for land acquisition, outdoor recreation facility and greenway development.

- Assess statewide outdoor recreation facility needs and issues.
- Coordinate and oversee the Council on Greenways and Trails, Natural Areas Council, and the Open Space Council.
- Provide staff and administrative support for the Open Space Council.
- Coordinate a GIS that supports the mission to protect resources and provide recreation opportunities.
- Plan and develop state park trail system.
- Develop and implement comprehensive management and nature preserve plans.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Protect 2,000 acres that meet the criteria of the Land Protection Act	9,584	2,000	2,000

## ***WILMINGTON STATE PARKS***

***40-06-05***

### ACTIVITIES

- Implement a comprehensive maintenance and capital improvement plan to upgrade standards.
- Manage the Brandywine Zoo and Baynard Stadium.
- Provide public interpretive programming.
- Coordinate special events and facilities.
- Provide pedestrian links between the various park units and acquire remaining land in holdings at Alapocas Parks.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Increase number of visitors to Brandywine Zoo by 5%.	67,599	70,978	74,527
Maintain number of stadium events at 35 per year.	36	35	35
Increase number of park programs.	15	34	39

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

40-00-00

## SOIL AND WATER CONSERVATION

40-07-00

### MISSION

To preserve and protect the state's soil, water and coastal resources by managing the state's shoreline, coastal zone and navigable waterways; regulate coastal and urban land use and construction activities; promote wise agricultural and urban land management practices; promote wise water management practices to preserve local agricultural interests; protect urban communities and provide for public safety; and ensure that federal activities, permits and licenses, Outer Continental Shelf plans and grants-in-aid are consistent with economic and environmental policies.

### KEY OBJECTIVES

- Assist the Nutrient Management Commission in: managing and regulating the generation and application of nutrients in order to meet load reduction targets established by approved TMDLs and meet or exceed surface water quality standards for nutrients by 2007; establishing a Nutrient Management Planning Program; and formulating a systematic and economically viable Nutrient Management Program that maintains profitability and improves water quality.
- Manage storm water runoff, as required by the Sediment and Storm Water Management regulations, from 100 percent of new development at the predevelopment rate for the two-year, ten-year, and (100-year in NCCo.)/24-hour rainfall event.
- Protect 10,000 additional acres of land through the construction of drainage, flood control and water management systems by the year 2003.
- Reduce wetland impacts by 25 percent during planning and construction of new tax/public ditch projects and by ten percent for maintenance of existing tax/public ditch projects through the year 2003.
- Achieve no net loss of recreational and protective beach area along the publicly accessible, developed portions of the Delaware Bayshore and Atlantic Ocean coast as measured on a three to seven year re-nourishment cycle.

- Reduce imperviousness of new development by 20 percent by the year 2005.
- Restore two publicly accessible small boat navigation channels and associated facilities statewide to their authorized dimensions by removing undesirable accumulated sediment in response to legislative, inter/intra agency and constituent requests during Fiscal Year 2002.

### BACKGROUND AND ACCOMPLISHMENTS

**Drainage.** Establishing and maintaining public drainage facilities (tax/public ditches) provides public benefits including: stabilizing agricultural production; more efficient nutrient utilization; reducing excess nutrient transport; decreasing road maintenance; trapping erosion and sediment; storm water management for urban and rural flooding; establishing a future maintenance program funded by tax ditch landowners; and establishing a firm base for the installation of agricultural Best Management Practices (BMPs).

In the past six years, the division has administered 684 Rural Conservation and Development projects, including a variety of flood abatement and drainage projects that were funded with \$34.2 million from the Twenty-First Century Fund. Approximately 50 percent of the jobs in the first five fiscal years have been completed. During Fiscal Year 2000, the department received 371 requests for drainage assistance of which 72 percent have been resolved. The remainder have all been investigated and are pending due to rights-of-way, permits and/or funding.

**Shoreline and Waterway Management.** Rising sea levels, storms, and permanent construction interferes with the natural landward migration of beaches and dunes, and threatens Delaware's shoreline resources. These problems underscore the need to improve the state's management strategies regarding coastal storm hazards and beach erosion. Since 1994, over 2,600,000 cubic yards of sand were placed on Delaware beaches. The extensive damage to the dunes and beach from the severe northeasters in January and February of 1998 were repaired. The division conducted, in cooperation with local governments, an economic analysis of the value of beaches to the State that was called for by the Beach Replenishment Task Force. The analysis estimated severe economic losses over the next five years if the ocean beaches were no longer replenished.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

**40-00-00**

**District Operations.** District Operations assist the Conservation Districts in tailoring the programs to meet the needs of diverse constituents, oversees the statewide implementation of the state's sediment control and storm water management program, and coordinates statewide non-point source pollution control programs. District Operations programs combine research and education, technical assistance, financial incentives, and regulation with interagency and private partnerships. All programs target Delaware's top two non-point pollutants, excess sediment and nutrients.

The Storm Water Management program has successfully designed and coordinated training and implementation projects throughout the state. To date, 4,600 people have participated in the training. In efforts to better manage nutrients from animal operations, the division, in conjunction with the Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA), has applied for and received \$8.2 million in federal Conservation Reserve Enhancement Program (CREP) funding to create more than 6,000 acres of filter strips, buffers and wetlands. The division also coordinated with Maryland and a private contractor on a poultry litter composting and marketing demonstration project that is in its third and final year.

**Coastal Management Programs.** The Delaware National Estuarine Research Reserve (DNERR) completed construction of a 5,500 square-foot St. Jones Center for Estuarine Studies. The building has an auditorium, wet laboratory, classroom, research laboratory and office space. A geothermal heating and cooling system and tertiary wastewater treatment package were also constructed.

The Delaware Coastal Management Program (DCMP) developed "Environmental Goals and Indicators for Delaware's Coastal Zone" through the Environmental Indicators Technical Advisory Committee in accordance with the Memorandum of Agreement for Coastal Zone Regulations. An update to the DCMP program document was completed along with duly promulgated policies used in federal consistency. Implementation activities for Pea Patch Island included financing new mooring buoys for oil spill response and production and airing a PBS documentary. DCMP hosted an international team of migratory shorebird experts researching the relationship between the horseshoe crab spawning and shorebird spring migration in the Delaware Bay.

## BUDGET

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	8,310.8	5,040.8	5,035.0
ASF	450.9	4,695.5	4,696.8
<b>TOTAL</b>	<b>8,761.7</b>	<b>9,736.3</b>	<b>9,731.8</b>

## POSITIONS

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	46.7	47.7	47.7
ASF	1.0	2.0	2.0
NSF	15.3	15.3	15.3
<b>TOTAL</b>	<b>63.0</b>	<b>65.0</b>	<b>65.0</b>

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### *MANAGEMENT AND SUPPORT - SOIL AND WATER*

**40-07-01**

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#### ACTIVITIES

- Provide administrative direction and supportive professional and technical services to all divisional programs and projects.
- Provide program planning, coordination, engineering, fiscal support and clerical services.
- Provide liaison among local, county, state and federal governmental legislators, officials and agencies.

#### PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Meet 100% deadlines for official requests from the department's Office of the Secretary	100	100	100

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### *DRAINAGE*

**40-07-02**

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#### ACTIVITIES

- Conduct environmentally sensitive tax ditch planning and public ditch planning.
- Assist counties with legally mandated updates to tax ditch property owner files for all tax ditch properties.
- Provide technical assistance (surveying, engineering, environmental evaluations, permit applications) for tax ditch formation and construction, and provide tax ditch construction funding.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

**40-00-00**

- Provide technical assistance to all existing tax ditch organizations for operations and maintenance.
- Pursue and encourage the utilization of new and existing environmentally friendly tax ditch maintenance techniques, concepts, and practices.
- Assure the implementation of the State's "no-net-loss of wetlands" policy in water management projects, and continue the development and demonstration of new and innovative wetland restoration techniques and concepts.
- Maintain, implement and expand Best Management Practices (BMP) for tax ditch planning and construction that incorporate water management for water dependent resources within the watershed.
- Provide technical assistance to Conservation Districts.
- Install and protect highway culverts to expedite tax ditch construction.
- Cooperate and assist the Department of Transportation with emergency bridge replacement as needed.
- Investigate and resolve drainage complaints from landowners, public officials and agencies.
- Provide education outreach to agricultural and environmental communities to demonstrate the working relationship of drainage, agriculture and wetlands.
- Encourage the establishment of riparian corridors along tax ditch rights-of-way to support the Department's Whole Basin Initiative, Conservation Reserve Easement Program (CREP), and the implementation of TMDL Pollution Control Strategies.

### PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Increase acres of agricultural and residential land receiving drainage, flood protection and water management	431,000	435,000	439,000

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### *SHORELINE AND WATERWAY MANAGEMENT* **40-07-03**

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#### ACTIVITIES

- Develop and carry out beach preservation projects to protect and preserve Delaware's coastline.
- Administer coastal construction regulatory program.
- Improve storm hazard preparedness and mitigation.

- Reduce natural hazard losses through cooperation with FEMA and DEMA in state natural hazard mitigation programs.
- Provide technical assistance to local governments and homeowners to improve beach and dune management.
- Identify sufficient sand sources for beach nourishment work for a ten-year maintenance period.
- Provide assistance to property owners, elected officials at all levels, and the media in understanding the complex physical dynamics of beach erosion and storm impacts to aid in pre-and post-coastal storm impact reduction and recovery.
- Operate and maintain sand bypass facility at Indian River Inlet.
- Conduct repair and maintenance program of publicly owned coastal dunes.
- Improve and maintain navigational channels statewide.
- Restore the environmental integrity of state-owned lakes and ponds.
- Monitor erosion rates of beaches and dunes through a comprehensive surveying program.
- Mechanically harvest nuisance marine macroalgae in the Inland Bays to maintain water quality, aesthetics and boating access.
- Maintain and mark inland waterway navigational channels for the boating public.
- Cooperate with the federal government to initiate construction of a federal shore protection project at Dewey and Rehoboth beaches.

### PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
# of publicly accessible small boat navigation channels restored to authorized dimensions	2	5	2

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### *DISTRICT OPERATIONS* **40-07-04**

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#### ACTIVITIES

- Provide comprehensive Erosion and Sedimentation (E&S) and Storm Water Management Training to the land development community, in partnership with other agencies and members of the regulated community.
- Provide training programs for contractors, developers, and agency personnel.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

40-00-00

- Provide financial, technical and compliance assistance to delegated agencies for plan review and field inspection services on 6,000 acres of development and construction projects.
- Provide sediment and storm water management field inspection on federal and state funded, non-Department of Transportation construction activities.
- Implement National Pollutant Discharge Elimination System (NPDES) Phase II requirements for storm water management.
- Direct and administer Clean Water Act Section 319 grant funds for priority water quality assessment and implementation of best management projects.
- Provide technical assistance to other agencies, engineers and consultants, farmers and animal producers, contractors and developers and educators, college professors and university officials.
- Assist the Nutrient Management Commission with the development of Nutrient Management Regulations.
- Implement nutrient management plans and BMPs through the work of eight conservation district planners in the Delaware Bay, Chesapeake Bay and Inland Bays Watersheds.
- Provide staff support for DNREC's Whole Basin Total Maximum Daily Load effort by performing related assessment and implementation activities in the Piedmont, Chesapeake, Inland Bays and Delaware Bay Basins.
- Implement and assess environmental effectiveness of nonstructural sediment and storm water management practices as a pilot project in Kent County.
- Coordinate with state/federal agencies and the University of Delaware in implementing programs for animal feeding operations.
- Develop and support a statewide construction project database system and a District Operations-Conservation District based, geographic information system that allows for nutrient loading estimates at the sub-watershed level.
- Administer the Conservation Cost Share Program and agricultural component of the State Revolving Loan Fund Program in coordination with federal Farm Bill programs.
- Direct the state's efforts and funding for the U.S. Department of Agriculture (USDA) Conservation Reserve Enhancement Program.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
% soil saved on active construction sites through compliance with the Delaware Sediment & Stormwater Program	65	65	65
Maintain 3% reduction nitrogen loadings in the Chesapeake, Delaware Bay and Inland Bays watersheds	3	3	3

## DELAWARE COASTAL MANAGEMENT 40-07-05

### ACTIVITIES

- Administer National Oceanic and Atmospheric Administration's (NOAA's) grant awards to DNREC for coastal management and Delaware National Estuarine Research Reserve (DNERR).
- Provide grant funding to improve responsiveness to coastal management issues including coastal storm related damage reduction, near-coastal water pollution abatement, habitat improvement, oil pollution prevention and response, coastal access and pollution prevention.
- Administer the federal consistency provisions of the Coastal Zone Management Act for Delaware.
- Provide conflict resolution between multi-users of coastal resources.
- Promote sustainable development in Delaware's Coastal Zone.
- Implement actions to protect and enhance the Pea Patch Island Region in accordance with the Special Area Management Plan.
- Implement enhancement plan approved by NOAA for cumulative and secondary impact avoidance and coastal wetland protection.
- Implement educational programs for the public, schools, resource users and decision-makers addressing coastal resource issues.
- Develop Environmental Indicators in accordance with Memorandum of Agreement for Coastal Zone Regulations.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
% tracked of nationwide permits issued by U.S. Army Corps of Engineers	100	100	100
# strategies implemented at Pea Patch Island	13	15	18

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

40-00-00

## WATER RESOURCES

40-08-00

### MISSION

To protect and enhance the quality and quantity of Delaware's waters and wetlands.

### KEY OBJECTIVES

- Assure a safe, reliable water supply for New Castle County by providing technical and policy support to the Water Supply Coordinating Council.
- Prevent increases and strive to reduce nutrients, sediments, and toxic substances in the Piedmont Basin, Chesapeake Basin, Inland Bays Basin, and Delaware River Basin by 2005.
- Assure that all ground waters and surface waters used for drinking water are protected by 2008 to meet the long-term goal of the Drinking Water Standards.
- Assure that all drinking water wells are constructed and sited such that public exposure to toxic contaminants is avoided.
- By the year 2003, fully implement a no net loss policy for the unavoidable losses of wetlands and for the unavoidable physical alteration of streams by requiring mitigation in wetlands and subaqueous lands permits.
- Maintain no net loss of approved waters for shellfish harvest and consumption.
- Maintain the percentage of waterways meeting fishable and swimmable goals at the levels reported in the 1998 Watershed Assessment Report.
- Complete source water susceptibility assessments and accompanying wellhead delineations for all targeted public water supply systems
- Assist communities by providing funding sources, such as the Twenty-First Century Fund for water and wastewater infrastructure.
- Expand the State Revolving Fund Expanded Use Program to include new non-point source opportunities, brown fields and stream bank protection.
- Implement a compliance inspection program for wastewater holding tanks in the Inland Bays using funding from the Sussex County Council and DNREC.

### BACKGROUND AND ACCOMPLISHMENTS

The division recognizes that protecting and enhancing the quality and quantity of Delaware's waters and wetlands is best achieved through the cooperative efforts between the division and its constituents. Such cooperation directly fulfills the division policy and responsibility of education and communication regarding environmental compliance, conservation, management, regulation and enforcement.

Among the responsibilities satisfied by the division are the implementation of various regulatory programs; providing technical skills to programs; laboratory services; educational services; performing applied research; and helping finance water pollution control and drinking water projects.

The division continues to protect the interests of Delaware's residents by following its operating motto of "clean water today and tomorrow."

#### Accomplishments

- Achieved "excellent" customer satisfaction rating from 90 percent of respondents.
- Expanded and administered water pollution control loans to communities, farmers (including dairy) and underground tank owners through the State Revolving Loan Fund (SRF).
- Performed educational/outreach efforts with numerous agricultural groups on water management and water allocation permitting program.
- Assisted the Nutrient Management Commission and the Department of Agriculture by establishing a Memorandum of Understanding for Confined Animal Feeding Operation (CAFOs).
- Improved the efficiency of the septic loan program.
- Assisted five communities seeking central wastewater infrastructure facilities.
- Coordinated and implemented the Comprehensive Conservation and Management Plan (CCMP) for the Delaware Estuary.
- Implemented the Comprehensive Conservation and Management Plan for the Inland Bays.
- Provided technical and financial support during development of the Christina River Sub-Basin watershed model and establishing the low flow TMDL.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

**40-00-00**

- Developed the Murderkill River receiving stream model.
- Developed water quality models and a TMDL technical document for tributaries and ponds of the Nanticoke River and Broad Creek.
- Coordinated TMDL development via participation on the Piedmont, Chesapeake, Inland Bays and Delaware Bay Drainage Whole Basin Management teams.
- Updated the state's Surface Water Quality Standards.
- Established Tributary Action Teams to establish Pollution Control Strategies for the Nanticoke River, Broad Creek and Appoquinimink River Watershed.

### BUDGET

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	9,092.7	9,464.1	9,162.9
ASF	2,714.1	3,711.8	3,794.5
<b>TOTAL</b>	<b>11,806.8</b>	<b>13,175.9</b>	<b>12,957.4</b>

### POSITIONS

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	73.3	73.3	74.3
ASF	64.0	62.7	63.4
NSF	32.7	33.0	31.3
<b>TOTAL</b>	<b>170.0</b>	<b>169.0</b>	<b>169.0</b>

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## **MANAGEMENT AND SUPPORT - WATER**

### **RESOURCES**

**40-08-01**

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### ACTIVITIES

- Improve the levels of technical support, education, and regulatory services to the citizens of the State to better protect the state's water resources.
- Actively support the Delaware Estuary Program and the Partnership for the Delaware Estuary by supporting implementation actions such as TMDL development.
- Support the Center for the Inland Bays by assisting in implementation of the Inland Bays Comprehensive Conservation and Management Plan.
- Implement a targeted water resource educational and constituent outreach plan.

- Provide technical support and strategic input to local governments that maintain projects that affect wetlands.
- Provide support to the Wastewater Facilities Advisory Council.
- Provide wastewater engineering/financial planning assistance to five communities to help them develop new wastewater pollution control projects.
- Provide low-interest water pollution control loans to communities, homeowners, and agricultural producers.
- Assist communities by providing funding sources such as the Twenty-First Century Fund and the Water Pollution Control Revolving Fund for wastewater infrastructure.

### PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Implement additional 5% of the Inland Bays CCMP action items.	5	5	5
Provide wastewater engineering/financing planning services to communities/facilities	5	4	5

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## **ENVIRONMENTAL LABORATORY**

**40-08-02**

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### ACTIVITIES

- Perform biological assessments and chemical analyses to ensure the wise management, conservation, and enhancement of the state's natural resources and protect public health and the environment. Analyses will support TMDL and Water Quality Standards programs, State Superfund and Brownfields Site Investigation and Remediation, Emergency Response (Fish Kills, Pfiesteria surveillance, Chemical Spills, Drought Emergency), National Pollution Discharge Elimination System (NPDES), Toxics in Fish, Air Surveillance, and Shellfish and Recreation Waters Programs.
  - Continue to develop the Laboratory Information Management System (LIMS) to enhance quality and productivity and to facilitate information sharing throughout the section, division, and department.
  - Provide educational initiatives for teachers and youth in schools, colleges, and universities and utilize skills of senior citizens through SEEDelaware, Science Alliance, job shadowing, internships, mentoring, tours, and volunteer programs.
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# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

40-00-00

- Identify new market opportunities, anticipate and satisfy clients' changing needs by expanding laboratory analytical capabilities to incorporate the best available technology.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Improve laboratory testing cycle times by decreasing average turnaround time per test	7.3 days	5 days	2 days

## SURFACE WATER DISCHARGES

40-08-04

### ACTIVITIES

- Equalize annual permit production and align permit issuance on a watershed basis to eliminate permit backlog by Fiscal Year 2002.
- Use National Pollutant Discharge Elimination System (NPDES) permits to implement Pollution Control Strategies for TMDLs.
- Issue NPDES permits that contain the necessary requirements and conditions i.e., toxic controls, pretreatment requirements, storm water, Combined Sewer Overflow (CSO), sludge requirements, etc.
- Issue licenses for wastewater treatment operators.
- Review plans and issue permits for construction of wastewater collection and treatment facilities.
- Issue permits for beneficial reuse of biosolids.
- Initiate timely and appropriate enforcement action.
- Conduct compliance inspections for NPDES facilities.
- Periodically review and update program regulations for point sources.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Decrease in number of NPDES permit violations (%)	7.1	10.0	10.0

## GROUND WATER DISCHARGES

40-08-05

### ACTIVITIES

- Encourage designers/applicants to incorporate land treatment systems into their wastewater management plans.

- Perform construction and compliance inspections on 100 percent of all large on-site wastewater systems.
- Perform construction inspections on 75 percent of all small systems.
- Issue large septic permits and spray permits in compliance with all applicable regulations.
- Issue replacement/repair permits for all known malfunctioning subsurface systems.
- Issue Underground Injection Control (UIC) permits/authorizations in compliance with all applicable regulations.
- Locate and inventory all unauthorized UIC wells.
- Perform inspections on UIC wells.
- Prevent non-complying UIC systems from polluting ground water.
- Perform compliance inspections of holding tanks in the Inland Bays of Sussex County.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
% inspected systems constructed properly	77	75	80
% alternative on-site treatment systems inspected for operational compliance	0	70	75

## WATER SUPPLY

40-08-06

### ACTIVITIES

- Assist in Governor's mandate to assure a safe, reliable water supply for New Castle County by providing technical and policy support to the Water Supply Coordinating Council.
- Review and approve allocation permits for public and environmental protection.
- Review and approve water well permits for public and environmental protection.
- Conduct research and monitoring of ground water resources.
- Provide assistance to New Castle County for requirements of New Castle County Water Resource Protection Area Ordinance.
- Implement Source Water Assessment and Protection Program under the Federal 1996 Safe Drinking Water Act Amendments (joint cooperation with the Department of Health and Social Services and the Public Service Commission, including long-term protection strategies for public drinking water supply sources.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

**40-00-00**

- Promote water conservation, wellhead protection and source water protection via public education and cooperative agreements with stakeholders.
- Perform ground water reviews for non-hazardous waste sites.
- Maintain Water Well and Water Allocation Data Management (DWUDS) database.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
% 1-day turnaround time for domestic well applications	95	95	95
# water allocation permits issued to reduce backlog of unpermitted projects	15	20	40
% 2-day turnaround provided for drinking water wells located near contaminated sites	95	95	95
% well permit data entered within 5 days of receipt of information	90	90	90

## **WATERSHED ASSESSMENT**

**40-08-07**

### ACTIVITIES

- Monitor and accurately assess water quality and shellfish distribution and processing facilities relative to National Shellfish Sanitation Program (NSSP) specifications.
- Accurately assess the health risk associated with swimming in natural waters of the State, and maintain tenable bather-contact water quality criteria (standards) on the basis thereof.
- Complete bi-annual water quality inventory.
- Issue advisories as appropriate to ensure safety of water for swimmers.
- Develop Total Maximum Daily Loads (TMDLs) in accordance with the department's TMDL schedule for the Murderkill River, Nanticoke River, and Broad Creek and the Christina River Watersheds.
- Develop and implement Pollution Control Strategies (PCS) to meet pollutant load reduction goals established by TMDLs for the Inland Bays, Nanticoke River, and Broad Creek and Appoquinimink River Watersheds.
- Review and revise, as necessary, Delaware's Surface Water Quality Standards.
- Implement management actions that reduce fresh and tidal wetland loss.

- Develop wetland profiles to quantify and qualify their water quality and habitat functions in the Nanticoke River Watershed. These profiles will be transferable to other watersheds and to assist in future wetland restoration, siting, and development.
- Implement management actions that will protect the public from pfiesteria related toxic events.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
% waters attaining swimmable use goal	4	4	4
% waters attaining fishable use goal	29	29	29
% of impaired waterbodies with Pollution Control Strategies in place	0	30	35
Enhance swimmer protection at natural bathing beaches and maintain incidence of water-borne disease at no greater than current levels (# illnesses)	<10	<10	<10
Maintain incidence of shellfish-borne disease at no greater than current levels (# illnesses)	5	5	5

## **WETLANDS AND SUBAQUEOUS LANDS**

**40-08-08**

### ACTIVITIES

- Maintain an inventory of tidal wetlands.
- Determine wetland change (gain/loss) on a five-year basis.
- Issue wetlands permits.
- Issue subaqueous lands permits and subaqueous leases.
- Improve marina operations in state waters.
- Review and issue marina construction permits.
- Issue 401 Water Quality Certifications.
- Work with Soil and Water Conservation and others to promote "bio-engineering" as preferred method of shoreline stabilization.
- Promote stream channel and riparian restoration.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
% of shoreline stabilized with soil bioengineering and rip-rap vs. bulkheading	15	20	20
% of marinas with approved operations and maintenance plans	10	15	20

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

40-00-00

## AIR AND WASTE MANAGEMENT

40-09-00

### MISSION

To optimize the air resources and waste management practices within Delaware by working cooperatively with the citizens and businesses of Delaware to protect public health, welfare and the environment.

### KEY OBJECTIVES

- Reduce oxides of nitrogen (NOx) emissions by 32.0 tons/day from 1994 levels by 2003 via Ozone Transport Commission NOx MOU.
- Attain one-hour ozone standard by 2005 in New Castle, Kent and Sussex counties.
- Ensure that 75 percent of facilities inspected annually are generally compliant with air quality regulations at time of inspection.
- Prevent exceedences of air quality standards for particulate matter, sulfur dioxide, carbon monoxide and nitrogen dioxide.
- Reduce hazardous air pollutants by adopting EPA's "National Emission Standards for Hazardous Air Pollutants for Source Categories".
- Adopt Federal "New Source Performance Standards." Request delegation of authority for applicable New Source Performance Standards from EPA.
- Complete Delaware's portion of the 1996 and the 1999 Air Toxics Assessment in conjunction with EPA and National Urban Air Toxics Program.
- Ensure 100 percent compliance with permit requirements for contaminant discharges from solid waste transfer and disposal facilities.
- Reduce the percentage of active Leaking Underground Storage Tanks (LUST) sites impacting drinking water to less than 15 percent by 2005.
- Achieve an 80 percent compliance rate for operating USTs by 2005.
- Require improved management of above ground storage tank systems and the cleanup of any releases from above ground storage tank systems.

- Minimize impacts of salvage yards on water quality and public health by 2001.
- Reduce generation of Persistent Bioaccumulative Toxin (PBT) compounds by 50 percent over 1991 generation rates by 2005.
- Clean up and make available for reuse eight sites via the Voluntary Clean-Up Program during Fiscal Year 2002.
- Remediate sites currently listed as high priority sites on the inventory under the Hazardous Substance Cleanup Act during Fiscal Year 2002.
- Perform Brownfield Preliminary Assessments/Site Inspections at sites targeted for redevelopment during Fiscal Year 2002.
- Promote increased recycling of industrial solid waste and municipal solid waste and achieve a residential recycling rate of 30 percent by 2003.
- Provide timely and appropriate response to citizen complaints and hazardous materials incidents and enforce compliance for other Health and Safety Objectives.
- Maintain the ability to continue responding to environment complaints, citizen inquiries, and environmental emergencies on a 24-hour basis.

### BACKGROUND AND ACCOMPLISHMENTS

**Environmental Response.** Environmental Response Branch (ERB) staff provide a comprehensive response to time-critical emergency and non-emergency environmental incidents around-the-clock for the protection of human life, health, safety and the environment. In Fiscal Year 2000, the Emergency Response staff responded to 463 incidents; 60 percent of the total number of incidents occurred in New Castle County, 60 percent of the total number of incidents involved no other state emergency response agencies but DNREC, and 60 percent of the total number of incidents were petroleum-related.

**Enforcement.** The Office of Enforcement is responsible for the investigation and prosecution of violations of the laws and regulations of Air and Waste Management, Water Resources, and Soil and Water Conservation. Additionally, Enforcement Officers are first responders to environmental emergencies, and supplement the Emergency Response Branch as trained Hazardous Materials Technicians. The section maintains a 24-hour

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toll free telephone number to receive citizen's complaints and incident reports from local government and industry. In Fiscal Year 2000, the section investigated 6,373 incidents. Based on the growing number of citizen complaints and reportable incidents, the Enforcement Section developed a Community Policing Program. The program is designed to increase environmental awareness in local neighborhoods and assist those citizens with any environmental issues that are present. In Fiscal Year 2000 Environmental Officers are continuing the Community Policing Program. Enforcement Officers have also undertaken the responsibility of providing environmental training to local governmental agencies and police departments.

**Air Quality Management.** Since the passage of the 1990 Clean Air Act Amendments, the department has made unprecedented progress in its efforts toward providing clean air to all its citizens. Delaware has attained and maintained the Air Quality Standards for all pollutants except for Ozone. By fully adopting NOx and VOC reduction plans, the State has taken a major step in its efforts to attain the Ozone standard. During 2000, the department further enhanced its permitting program by issuing all but a handful of consolidated Title V Operating Permits. The Title V Program is designed to assure that major facilities come into compliance and stay in compliance by consolidating into a single document all of a facility's air permits, compliance schedule and monitoring and reporting requirements. The Small Business Technical Assistance Program continues to provide technical advice and assistance to small businesses to aid them in complying with regulations.

**Waste Management Site Investigation and Restoration.** The branch has identified approximately 435 hazardous substance release sites in Delaware, of which 20 are National Priority List (NPL) sites managed by the EPA. Three NPL sites have been cleaned up and removed from the list. With the passage of the Delaware Hazardous Substance Cleanup Act (HSCA) in 1990, the branch has assumed a major role in investigating and cleaning up over 120 of the non-NPL sites which pose a threat to public health, welfare and the environment. In 1993, the branch initiated the Voluntary Cleanup Program (VCP) under which a party can come forward and remediate a contaminated site and make it available for reuse. This program was formalized through amendments to HSCA in July 1995.

**Underground Storage Tank.** Delaware's Underground Storage Tank (UST) Program regulates petroleum and hazardous substance tanks through their life cycle. The program has two main goals. One goal is to identify and clean up leaks that have occurred. The second goal is to prevent future leaks that could lead to contamination of Delaware's water supplies or the accumulation of explosive vapors in residences, businesses or utility conduits. Currently, Delaware has 11,365 registered USTs and has identified over 2,900 leaking underground storage tank sites and remediated over 2,400 of those sites. A program milestone was achieved on September 27, 1996 when Delaware's UST program received program delegation from EPA Region III. Delaware's UST program is now authorized to operate in lieu of the Federal UST program. In 1997 the UST program in coordination with the Delaware Economic Development Office and the State Revolving Fund announced a new loan program for UST sites. The program named PLUS will assist owners with upgrading, removing and remediating UST sites. Another milestone was reached on December 22, 1998 when the final upgrade deadline for active underground storage tank systems passed. As of this date, all tanks must meet the corrosion protection standards as well as leak detection, spill and overflow protection requirements.

**Solid and Hazardous Waste Management.** The Solid and Hazardous Waste Management program is responsible for ensuring Delaware's wastes are managed in a manner that is protective of human health and the environment. The program ensures proper management through a permitting and compliance monitoring program and also through encouragement of waste reduction, waste re-use and waste recycling activities. In the past year, the Solid and Hazardous Waste programs oversaw the completion of new landfill cells, and effectively monitored the permits for existing landfill's, transfer stations, and waste storage and treatment operations at a variety of Delaware businesses. In Fiscal Year 2000, the program continued its efforts to remediate mismanagement of hazardous and solid waste. In addition, 20 debris pit sites have been remediated. On the recycling front the program continued to work with a Scrap Tire Management group to facilitate a solution to recycling the over 2 million tires existing in piles throughout the State. Also, the program assisted in the development of recommendations to increase municipal solid waste recycling per Executive Order No. 60.

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## BUDGET

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	3,697.2	3,917.0	4,074.5
ASF	8,130.1	11,861.0	11,981.3
<b>TOTAL</b>	<b>11,827.3</b>	<b>15,778.0</b>	<b>16,055.8</b>

## POSITIONS

	FY 2000 ACTUAL	FY 2001 BUDGET	FY 2002 GOV. REC.
GF	53.0	55.5	55.5
ASF	95.8	95.8	95.8
NSF	59.2	58.7	58.7
<b>TOTAL</b>	<b>208.0</b>	<b>210.0</b>	<b>210.0</b>

### ***MANAGEMENT AND SUPPORT - AIR AND WASTE 40-09-01***

#### ACTIVITIES

- Develop and implement policies and procedures.
- Oversee administrative functions: grants, budget, personnel, legislation and fiscal control.
- Coordinate division efforts in teacher education and general educational activities to strive to promote citizen awareness and responsible citizen action.
- Coordinate division IRM needs and facilitate data integration within the division and between the division and the department to support comprehensive environmental protection and public access to environmental information.
- Provide enforcement support for Air and Waste Management, Water Resources and Soil and Water Conservation.
- Participate with federal, state and local emergency responders and planning agencies.
- Administer background investigations on corporations and individuals seeking environmental permits.
- Participate in and evaluate multi-media inspections and permitting.
- Oversee the response to Freedom of Information Act (FOIA) requests received by the division.
- Upgrade response capabilities through planning, training and conducting exercises.
- Coordinate and plan response activities through the State Emergency Response Commission (SERC).
- Maintain a database of complaint and incident history received from the division's 24-hour complaint line.
- Provide environmental enforcement awareness training to other police agencies within the State.

- Expand or modify use of current response resources and technologies, including increasing the utilization and capabilities of computer-related response support.
- Maintain and develop policies, practices and procedures to prevent responder injury rates and improve effectiveness.
- Implement the Compliance Enforcement Initiative to improve reporting of releases and environmental violations.
- Maintain a Community Policing Unit within the department.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
Maintain zero responder injury record	0	0	0
Number of emergency responses to incidents	463	504	515
# of notifications to dept. of spills etc.	1,480*	220	230
# of FOIA requests received & responded	910	1,077	1,100

\*Abnormally high numbers due to the Summer/Fall 1999 drought.

### ***AIR QUALITY MANAGEMENT 40-09-02***

#### ACTIVITIES

- Participate actively in Ozone Transport Commission (OTC), State and Territorial Air Pollution Control Administrators (STAPPA), and Mid-Atlantic Regional Air Management Association (MARAMA) activities to take advantage of efforts made by other states.
- Direct the State Implementation Plan (SIP) revisions as required by the Clean Air Act Amendments (CAAA) of 1990.
- Promulgate new air regulations required by the CAAA, the OTC and State needs.
- Develop and submit emission inventories consistent with the CAAA.
- Oversee existing motor vehicle exhaust emission pressure and anti-tampering tests.
- Track air quality status, especially ozone attainment status, and implement monitoring program for fine particulate matter.
- Continue effective compliance inspections and continue permitting air contaminant sources pursuant to the new and more complex Title V permitting program.

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- Minimize the backlog of construction and operation permits required to be issued to major and minor sources.
- Continue to expand the stack-testing program in support of the enhanced permitting program.
- Continue to implement the CAAA Section 112(r) Accidental Release Program.
- Continue implementation of the Emergency Planning and Community Right-to-Know (EPCRA) Program components.
- Continue to implement the Small Business Technical Assistance Program.
- Administer and update the asbestos abatement program.
- Work with other public and private entities to develop or implement transportation and voluntary control programs such as Ozone Action Day.
- Expand public education and outreach activities.
- Continue enforcement activities to identify and bring significant violators and non-notifiers into compliance.
- Continue entering data into the national Aerometric Information Retrieval System (AIRS) on most Delaware facilities, all enforcement activities, modifications of facilities, new major construction permits, continuous monitoring system inspections and compliance schedules.
- Initiate planning and implementation efforts to address longer term ozone, fine particulates and regional haze problems.
- Continue air toxics monitoring at the Wilmington air monitoring site, which commenced in 2000.
- Continue to implement audit procedures for the Inspection and Maintenance Program Two Speed Idle Test and evaluate data.
- Develop and implement audit procedures for the voluntary inspection and maintenance of 240 lane located at the new Wilmington Motor Vehicle Inspection lanes.

## PERFORMANCE MEASURES

	FY 2000 Actual	FY 2001 Budget	FY 2002 Gov. Rec.
By 12/03, reduce oxides of nitrogen (NOx) emissions by 32.0 tons/day via the OTC MOU	75%	75%	75%

## WASTE MANAGEMENT

40-09-03

### ACTIVITIES

#### Site Investigation and Restoration

- Identify sites and prioritize using the Delaware Hazard Ranking Model.
- Oversee Remedial Investigation, Feasibility Study, Remedial Design and Remedial Action at HSCA sites.
- Review applications of volunteers for acceptance into the Voluntary Cleanup Program (VCP).
- Provide oversight for the investigation, study, design and cleanup of VCP sites consistent with HSCA.
- Assist the volunteers in obtaining grants, loans and tax credits at brownfield sites so that such sites can be put to productive use.
- Promote field screening procedures to reduce the number of analytical samples sent to the laboratory for full analysis.
- Provide a Voluntary Cleanup option under the enforcement program to cut down the duration of negotiation of agreements.
- Work with communities so they better understand the program and the risks posed by SIRB sites.

#### Underground Storage Tank

- Identify unregistered Underground Storage Tanks (USTs).
- Identify the number of sites in compliance with financial responsibility, leak detection regulations and corrosion protection standards.
- Conduct UST facility, UST removal or abandonment, and new UST installation compliance inspections.
- Conduct new UST installation plan reviews.
- Identify unreported releases from USTs.
- Reduce the amount of time from identification to closure of Leaking Underground Storage Tanks (LUST) sites.
- Continue implementation of risk based corrective action closure procedures at LUST sites.
- Reach 100 percent compliance with the 1998 deadline requirements for all regulated petroleum underground storage tanks through enforcement.
- Continue permitting and enforcement of Stage II requirements in Sussex County.
- Continue implementation of an orphaned underground storage tank program.
- Develop an Above Ground Storage Tank Program for the State.

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## **Solid and Hazardous Waste Management**

- Regulate the disposal of waste generated in Delaware so as to prevent any significant adverse impacts to Delawareans or Delaware's environment.
- Monitor permitted solid and hazardous waste sites to identify any contaminant releases to the environment. Require, oversee and approve corrective actions to remedy any significant adverse impacts resulting from contaminant releases.
- Pursue closure and remediation of unauthorized, illegal or environmentally unacceptable solid and hazardous waste disposal sites.
- Implement Executive Order No. 82 regarding recycling.
- Track the transport and disposal of solid and hazardous waste to ensure compliance with environmental regulations.
- Communicate and encourage targeted hazardous waste generators on the reduction of hazardous waste.
- Complete solid and hazardous waste compliance assessments and permitting while implementing a multi-media approach where possible.
- Implement the hazardous waste corrective action process.
- Provide educational opportunities to the hazardous waste facility universe and public.
- Work with Water Resources on best management practices for salvage yards.
- Continue implementation of solid and hazardous waste compliance and enforcement strategy.
- Continue implementation of strategies to reduce persistent bioaccumulative and toxic (PBT) chemicals.

### **PERFORMANCE MEASURES**

	<b>FY 2000 Actual</b>	<b>FY 2001 Budget</b>	<b>FY 2002 Gov. Rec.</b>
Increase % of leaking underground storage tank sites that do not impact ground water/drinking water	79	82	80
Increase % of facilities in compliance with technical standards	92	75	95
Increase residential solid waste recycling to 30% by 12/2003	N/A	N/A	18
# of participants in educational opportunities	129	175	175
Remediate sites currently listed as high priority sites on the inventory under the Delaware Hazardous Substance Cleanup Act	1	7	7
Clean up and make available for reuse sites via the Voluntary Clean Up program	7	8	8
Perform Brownfield Preliminary Assessments at sites targeted for redevelopment	8	8	8