

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

40-00-00



## MISSION

To engage all stakeholders 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; lead energy policy and climate preparedness; and educate the public on historic, cultural and natural resource use, requirements and issues.

## KEY OBJECTIVES

- Promote health and safety by monitoring, maintaining and improving the quality of air, land and water resources, manage populations of mosquitoes and other pests and prevent and clean up spills involving hazardous substances to enhance the health and wellbeing of Delaware's residents, wildlife and plants.
- Conserve plant and animal resources through protection and management of species populations and their habitats. This effort involves maintenance of biodiversity, harvest allocation of species populations, protection and restoration of ecological functions and educational outreach.
- Promote and provide outdoor recreational opportunities, allowing Delaware residents to enjoy natural resources and open spaces through trails and other amenities that enhance the quality of life. The Department of Natural Resources and Environmental Control (DNREC) strives to provide safe and high quality recreational opportunities while ensuring resource protection with resource management and use.

- Broaden commitment to environmental protection and resource conservation by working to integrate economic development, environmental quality and public policy-making with broad public involvement. DNREC strives to create an ethic of stewardship that strongly encourages individuals, institutions, corporations and local governments to take responsibility for the economic, environmental and social consequences of their actions.
- Reduce the adverse impacts of energy use on our environment, health and economy. Educate, lead by example and build partnerships to increase energy efficiency and renewable energy, promote sustainable growth and prepare for a changing climate.

## PRIORITIES

**Transform DNREC into a model 21st century department** - This model better aligns functions by ensuring efficient service delivery and coordination (air, water, soil, waste and energy), integrating emerging priorities (climate) and modernizing public hearing and permitting processes, so they are transparent, consistent and efficient. It adapts to fiscal realities through realignment and cross-training and improves performance by implementing performance measurement systems that collect and track data on key performance and environmental indicators.

**Provide world-class parks and open-space, recreational opportunities and habitat and biodiversity protection** - DNREC will implement this priority through expanded land conservation efforts by completing key acquisition and preservation projects, enhancing recreational opportunities and coordinating habitat preservation and ecological restoration efforts. Key priorities include the Delaware Bayshore Initiative, the Governor's First State Trails and Pathways Plan, the

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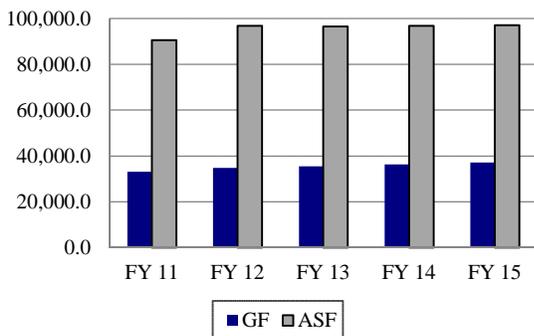
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Children in Nature Initiative and the redevelopment of strategic sites. These investments will improve the quality of life for residents, enhance the attractiveness of the State to potential residents and growing companies, spur tourism, improve resident health and provide educational opportunities for youth to become environmental stewards of the future.

**Ensure clean water, clean air and safe healthy communities** - DNREC will focus on high impact activities to enhance air quality, water quality and supply, soil quality and waste management, sustainable building and community design and habitat and biodiversity protection. These programs will create additional economic opportunity by encouraging investment and accelerate responsible economic development. This effort will initially focus on larger facilities to ensure every major facility and project is in regulatory compliance.

**Ensure cleaner, cheaper and more reliable energy and prepare to adapt to climate impacts** - DNREC will coordinate policies and programs designed to spur economic growth through the adoption of lower-emission sources and lead efforts to prepare the State to adapt to emerging climate impacts.

**Five-Year Appropriation History**



### FUNDING

	FY 2014 ACTUAL	FY 2015 BUDGET	FY 2016 GOV. REC.
GF	37,038.5	37,179.4	37,048.3
ASF	59,003.9	96,985.0	96,985.0
<b>TOTAL</b>	<b>96,042.4</b>	<b>134,164.4</b>	<b>134,033.3</b>

### POSITIONS

	FY 2014 ACTUAL	FY 2015 BUDGET	FY 2016 GOV. REC.
GF	328.2	328.2	323.2
ASF	306.8	306.4	293.9
NSF	160.0	159.4	157.9
<b>TOTAL</b>	<b>795.0</b>	<b>794.0</b>	<b>775.0</b>

## OFFICE OF THE SECRETARY

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### 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 programs, assist other agencies in the promotion of environmentally sound economic development and coordinate policy among the department's divisions.

### KEY OBJECTIVES

- Lead the transformation of DNREC into a 21st century department.
- Integrate clean energy programs, including energy efficiency, renewable energy and climate change mitigation and adaption efforts into Delaware policy and operations.
- Coordinate land use activities with other state agencies and county and municipal governments to preserve open space and minimize impacts to habitat, air and water quality.
- Implement Delaware's Coastal Zone Act and protect and enhance the natural attributes of Delaware's Coastal Zone to maintain and enhance fish and wildlife populations.
- Engage state, federal and local governments, universities, environmental and citizen groups, private landowners and agricultural and business communities to implement actions for biodiversity conservation and ecosystem protection.
- Increase trust and understanding within DNREC and with its customers.
- Continue the development and implementation of e-government initiatives and the Environmental Navigator to comply with 7 Del. C. § 6014(a).
- Continue to provide timely and appropriate response on a 24-hour basis to resident inquiries and environmental emergencies and enforce compliance for public health and safety objectives.

### BACKGROUND AND ACCOMPLISHMENTS

The Information Technology (IT) program unit is responsible for the management of the information

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resources to ensure investments are optimized to benefit the department and its constituents. The program unit oversees the relationship with the Department of Technology and Information, in accordance with Executive Order 20 signed by Governor Markell to More Effectively Utilize Information Technology Resources to Drive Cost Savings in State Government.

The Public Affairs unit issues press releases, manages the content of the website and sponsors and participates in Coastal Cleanup, the State Fair, Coast Day and other volunteer activities. It also organizes press events and coordinates responses to media inquiries to promote and explain departmental news, initiatives, events and special projects. Publications include *Outdoor Delaware*, press releases and marketing materials.

The Human Resources unit is increasing efforts in the areas of workforce development, quality and diversity. The unit is spearheading the development of a DNREC-specific leadership academy and succession planning program. The unit participates in resolving workplace issues by revising policies and procedures to meet DNREC's changing needs.

Energy and Climate is responsible for strategic energy and environmental planning and policy to protect the health, safety and welfare of the residents and economy of the State. The division manages policy activities and programs necessary to achieve the key objective for integration of clean energy programs and climate mitigation and adaptation.

The Coastal Programs unit serves as the key research, education and policy entity on matters relating to preservation, development and use of coastal, estuarine and ocean resources. Through the provisions of the Federal Coastal Zone Management Act, Delaware Coastal Programs also has a significant role in the coordination and permitting of federal activities within the State and off-shore development projects.

The Environmental Finance unit is responsible for full administration of the Delaware Water Pollution Control Revolving Fund and the financial components of the Drinking Water State Revolving Fund. Funding opportunities are provided to municipal and private utilities for wastewater, stormwater and drinking water infrastructure projects. Support is provided to the Water Infrastructure Advisory Council and to communities for engineering and planning assistance for priority ecological and restoration projects. The division also provides underwriting for grants and low-interest loans to homeowners, communities and agricultural producers.

The Fiscal Management unit reflects a consolidation of the department's budget, accounting, payroll, auditing, cash management, fiscal policy, grants management and

financial reporting functions into a single program unit to improve efficiencies, reduce overhead costs and promote cross training to support a broad array of financial elements.

The Community Services unit coordinates department-wide activities and duties. The focus of this unit is to improve coordination and collaboration among the various program ombudsmen, community organizations, enforcement and other partners in environmental public health protection.

## FUNDING

	FY 2014 ACTUAL	FY 2015 BUDGET	FY 2016 GOV. REC.
GF	8,650.0	7,282.9	6,877.4
ASF	17,225.4	27,007.8	27,007.8
<b>TOTAL</b>	<b>25,875.4</b>	<b>34,290.7</b>	<b>33,885.2</b>

## POSITIONS

	FY 2014 ACTUAL	FY 2015 BUDGET	FY 2016 GOV. REC.
GF	59.2	58.2	60.7
ASF	72.2	72.2	62.7
NSF	35.6	35.6	35.6
<b>TOTAL</b>	<b>167.0</b>	<b>166.0</b>	<b>159.0</b>

## *OFFICE OF THE SECRETARY* **40-01-01**

### ACTIVITIES

- Assist the divisions in meeting their human resources, financial, legislative, policy and other needs promptly and accurately.
- Assess the department's workforce diversity and develop programs.
- Develop and distribute communication products that heighten awareness of environmental issues in communities and suggest opportunities to reduce environmental impacts.
- Sponsor and participate in special events designed to raise the public's environmental awareness, such as the State Fair, Coast Day, Earth Day, Coastal Cleanup and Christina River Cleanup.
- Work with community organizations, homeowner associations and other groups to help them participate in DNREC programs and address their environmental concerns.

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### *COASTAL PROGRAMS* 40-01-02

#### ACTIVITIES

- Administer National Oceanic and Atmospheric Administration grant awards to DNREC for the Coastal Management Program, Delaware National Estuarine Research Reserve (DNERR) and the Coastal and Estuarine Land Conservation programs.
- Provide grant funding to improve responsiveness to coastal management issues.
- Administer the federal consistency provisions of the Coastal Zone Management Act for Delaware.
- Serve as the key research, education and policy entity on coastal resiliency and other coastal issues.
- Coordinate the implementation of the State Sea Level Rise Adaptation plan.
- Support the creation of Coastal Storm Severity Index for the Mid-Atlantic Region.
- Evaluate possible protection measures for habitat in Wilmington Canyon.
- Implement coastal and estuarine applied research and monitoring program.
- Implement education and training programs for communities, schools, resource users and decision makers addressing coastal resource issues.
- Protect and conserve over 6,200 acres of coastal and estuarine habitat within the DNERR's designated boundaries and implement comprehensive ecological restoration plans for reserve properties.
- Coordinate development of an Ocean Plan for Delaware in collaboration with the Divisions of Fish and Wildlife and Watershed Stewardship.
- Serve as Delaware's lead on the Mid-Atlantic Regional Council on the Ocean and the Mid-Atlantic Regional Planning Body.

#### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of coastal decision maker workshops hosted by DNERR	11	6	6
# of school children attending DNERR education programs	1,881	2,000	2,000
# of federal consistency projects reviewed	152	150	150

### *COMMUNITY SERVICES* 40-01-03

#### ACTIVITIES

- Perform outreach to areas affected by environmental management issues to improve the division's ability to communicate with Delawareans.
- Promote communication and collaboration within DNREC and among environmental protection partners.
- Work with community organizations, homeowner associations and other groups to help them participate in DNREC programs and address their environmental concerns.
- Coordinate all departmental activities with federal and non-governmental organizations to achieve environmental objectives within the agricultural community.
- Provide timely and appropriate response on a 24-hour basis to resident inquiries and environmental emergencies and enforce compliance for other health and safety objectives.
- Protect public health and safety by maintaining 24-hour emergency response capabilities for weapons of mass destruction, hazardous materials and accidental releases.
- Assist the Department of Safety and Homeland Security in the prevention of acts of terrorism.
- Maintain the toll-free complaint line and investigate inquiries on a 24/7 basis.
- Maintain and deploy the unit's digital surveillance cameras in support of TrashStoppers, the department's initiative to deter illegal dumping.

#### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of proactive operations conducted	445	800	800
# of public outreach/training sessions conducted	89	150	150
# of Clean Air Act Ombudsman assistance efforts	173	150	180

### *ENERGY AND CLIMATE* 40-01-04

#### ACTIVITIES

- Promote energy conservation and efficiency as Delaware's first fuel and an energy generation resource.

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- Support new cleaner generation and energy upgrades that modernize Delaware’s generation transmission and distribution system.
- Promote clean energy sources, alternative energy and transportation fuels and innovative energy technologies to address demands and the economic development of the clean energy economy.
- Implement Delaware’s Energy Efficiency Resource Standard and evaluate, measure and verify all reported electricity consumption, electricity demand reduction and natural gas consumption from Delaware’s utility programs.
- Collaborate with various stakeholders on the development and delivery of cost-effective energy efficiency programs.
- Administer the Green Energy fund and associated energy efficiency and renewable energy programs.
- Administer the Energy Efficiency Investment Fund to help Delaware businesses make strategic investments in capital equipment and facility upgrades that will help reduce energy use, lower operating costs, support job creation and improve environmental performance.
- Conduct the federally required components of the State Energy Plan grant program awarded by the U.S. Department of Energy.
- Coordinate with state and federal agencies in the management of energy data, clean energy generation, energy efficiency and conservation efforts.
- Collaborate with the Office of Management and Budget in energy efficiency and deployment of renewable energy in state facilities as part of the implementation of Executive Order 18.
- Apply scientific information from the Delaware climate change impact assessment, working in cooperation with other DNREC divisions, state agencies and external stakeholders.
- Design, manage and support the development of adaptation recommendations and pilot projects in the State to prepare for, and become more resilient to, the impacts of climate change.
- Continue to support, provide outreach and resources and work in cooperation with other state agencies for the development and deployment of alternatively fueled vehicles, services and infrastructure, specifically electric vehicles.
- Conduct the statewide Weatherization Assistance Program, providing energy conservation services to low income Delawareans.

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of kW new renewable energy funded	1,766	1,000	700
# of GWh new energy saved	36	40	40
# of climate preparedness recommendations provided to customers/stakeholders	36	40	40

### INFORMATION TECHNOLOGY

#### 40-01-05

### ACTIVITIES

- Manage the delivery of information technology services by the Department of Technology and Information under the IT Consolidation Service Level Agreement.
- Develop and manage business cases for new technology investments.
- Oversee the transition to Enterprise Content Management, providing a central system for document capture, storage and access and incorporating tools for automating work processes based on captured documents.
- Oversee the continued integration of information into the Environmental Navigator, including availability to department staff and the public.
- Oversee the continued development of e-government initiatives to allow the public to do business online with the department.

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of online transactions by the public with the department - using licensing/reporting/permitting systems	112,000	90,000	110,000
# of pages of documents converted to electronic format	625,000	600,000	900,000

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### ENVIRONMENTAL FINANCE

#### 40-01-06

#### ACTIVITIES

- Administer loans and grants to Water Pollution Control Revolving Fund (WPCRF) recipients to make projects affordable as defined by the Clean Water Advisory Council.
- Administer the financial components of the Drinking Water State Revolving Fund.
- Provide staff support to the Water Infrastructure Advisory Council and provide wastewater and stormwater engineering and financial planning assistance to communities.
- Provide low interest water pollution control loans to communities, homeowners and agricultural producers.
- Provide funding for priority ecological restoration projects and land acquisition that improves water quality.

#### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
\$ of low interest loans and grants for wastewater projects (millions)	0.8	59.2	23.0
\$ of low interest loans for eligible non-point source expanded use activities (millions)	0.4	1.0	1.0
\$ of uncommitted loan capacity based on year-end cash flow (millions)	71.0	22.2	10.7
\$ of grants provided for planning and design projects (millions)	0.1	0.5	0.5
\$ of principal loan forgiveness to help make projects affordable (millions)	0.6	1.5	1.0

### FISCAL MANAGEMENT

#### 40-01-07

#### ACTIVITIES

- Provide accounting, payroll, grants management, fiscal reporting and audit services to divisions.
- Develop and manage operating and capital budgets, including federal grants that support department strategic objectives and division programs.
- Provide cash management, financial planning and fiscal policy development.

#### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of payable/receivable transactions processed	414,262	415,000	415,000
# of funding proposals reviewed/submitted	116	120	120
# of internal control and audit reviews completed	59	65	65

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## OFFICE OF NATURAL RESOURCES

40-03-00

### MISSION

To conserve and manage the natural resources of the State, provide safe and enjoyable recreational opportunities to Delawareans and visitors, manage and make available for public use and enjoyment the lands with which it has been entrusted, provide technical, financial and planning assistance to the public for conservation areas and improve the public's understanding and interest in the State's natural resources through information and outreach programs.

### KEY OBJECTIVES

- Protect and restore an interconnected system of undeveloped lands.
- Maintain tidal fisheries management.
- Protect, restore and enhance fisheries and wildlife habitats.
- Foster partnerships with private landowners.
- Conserve biodiversity and the integrity of biological function.
- Provide fish and wildlife-related recreational opportunities statewide.
- Conserve and restore habitat and provide wildlife-oriented recreational opportunities in the Delaware Bayshore.
- Provide educational opportunities for the public including hunter education, boater education and aquatic education.
- Expand youth recreational opportunities and implement the Governor's First State Trails and Pathways Plan.
- Restore natural functions of streams degraded by development.
- Provide water management technical assistance through the construction of drainage, flood control and water management systems.
- Achieve no-net-loss of recreational and protective beaches and dunes along the publicly accessible, developed portions of the Delaware Bayshore and Atlantic Ocean coast as measured on a three to seven-year renourishment cycle.

- Assist the Nutrient Management Commission in managing and regulating the generation and application of nutrients to meet load reduction targets established by approved Total Maximum Daily Load (TMDL) and meet or exceed surface water quality standards for nutrients.
- Increase the percentage of waterways meeting water quality standards for swimming and healthy aquatic life.
- Improve the function and value of coastal and freshwater streams and wetlands for habitat, flood control and water quality enhancements.
- Identify and assess the causes and factors contributing to the sudden dieback of tidal wetland habitats.
- Implement the Delaware Wetlands Conservation Strategy.
- Maintain a system for determining the existence and location of state resource areas, degree of endangerment, an evaluation of importance and information related to natural, historic or open space values.
- Improve the effectiveness of the State's stewardship of plants, animals and their habitats on public lands.
- Undertake special programs, in conjunction with other public and private land management organizations, to acquire or otherwise permanently protect lands within established state resource areas and other lands identified as having significance according to the procedures of the Delaware Land Protection Act.
- Assist in the addition of park land and outdoor recreation facilities at municipal and county levels through grant assistance.
- Increase preventive maintenance to reduce major rehabilitation expenditures and curb facility deterioration.
- Locate and identify important natural resources on DNREC landholdings and develop resource management plans for parks, nature preserves and wildlife areas.
- Continue creative partnerships with for-profit and nonprofit organizations to provide services and raise funds.
- Integrate recommendations developed by the Children in Nature Task Force to increase children's access to nature through family outdoor programs, development of new nature centers, guided field experiences and community events.

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## BACKGROUND AND ACCOMPLISHMENTS

The Office of Natural Resources contains three divisions: Parks and Recreation, Fish and Wildlife and Watershed Stewardship.

Parks and Recreation has 11 field offices statewide that oversee the operation of 20,411 acres in 16 state parks, the Brandywine Zoo and Baynard Stadium. Parks and Recreation also manages 10 nature preserves (3,292 acres), 12 other sites (2,368 acres) outside of the parks and monitors 109 conservation easements, which protect an additional 4,743 acres.

Parks and Recreation operates units containing a variety of landscape and natural resource features from rolling terrain in the uppermost regions of New Castle County to coastal beaches in Sussex County. Cultural and historic resources are protected, while a wide variety of recreational facilities are provided for Delaware residents and out-of-state visitors.

Fish and Wildlife manages a variety of programs including: fish and wildlife management and research; land and habitat management; fishing, hunting and boating access lands and facilities; mosquito control; fish, wildlife and boating enforcement; education and volunteer involvement; and licensing and boat registration. Wildlife and fisheries research and management programs ensure sustainable fish and wildlife populations for now and the future, while land management and habitat restoration efforts enhance fish and wildlife populations on public and private lands. Fish and Wildlife owns and manages approximately 61,000 acres of public lands and 47 boat ramp access areas that provide quality outdoor hunting, fishing, nature observation and boating recreation opportunities.

Watershed Stewardship assists the conservation districts in tailoring programs to meet the needs of diverse constituents and coordinates statewide non-point source pollution control programs. Watershed Stewardship programs combine research and education, technical assistance, financial incentives and regulation with interagency and private partnerships. Initiatives, such as beach nourishment projects, public dune maintenance and emergency storm repair and cleanup, are carried out to improve protection to shorefront homes, businesses, roads and utilities and enhance the basis of the State's coastal recreation and tourism industry. Watershed Stewardship focuses on restoring the functions and values of streams, drainage ditches, wetlands and riparian corridors. These programs focus expertise and resources on restoration projects to re-establish biological diversity. Watershed Stewardship strives to implement a variety of restoration techniques that

accelerate the ecological processes, resulting in projects which replicate natural functioning ecosystems.

### FUNDING

	FY 2014 ACTUAL	FY 2015 BUDGET	FY 2016 GOV. REC.
GF	20,832.7	22,435.1	22,702.1
ASF	16,263.8	26,984.7	26,984.7
<b>TOTAL</b>	<b>37,096.5</b>	<b>49,419.8</b>	<b>49,686.8</b>

### POSITIONS

	FY 2014 ACTUAL	FY 2015 BUDGET	FY 2016 GOV. REC.
GF	197.3	199.3	192.8
ASF	97.9	96.5	99.5
NSF	55.8	55.2	55.7
<b>TOTAL</b>	<b>351.0</b>	<b>351.0</b>	<b>348.0</b>

## ***PARKS AND RECREATION*** **40-03-02**

### ACTIVITIES

#### Administration and Support

- Responsible for budget and fiscal management, legislation, volunteer and internships programs.
- Administer the Twenty-First Century Park Endowment and the private State Park Endowment funds through the Delaware Community Foundation and PNC Bank.
- Administer marketing, publication and information services, including research, digital design for all commercially and in-house printed state park publications, wayside exhibit development and Delaware State Parks website promotion.
- Manage the retail sales program, including gift shops, campground stores, vending and food concession operations and contracts.
- Administer the central reservation system for camping and other visitor services.
- Ensure contractual compliance for 19 concession operations, including food service, two golf courses (Deerfield and Garrisons Lake), two equestrian centers, tennis center, boat/kayak rentals and bait and tackle shops.

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
% increase in park and facility revenue	8.35	1.00	3.00
# of volunteer hours	108,000	98,000	98,000

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## Planning, Preservation and Development

- Implement the Governor’s First State Trails and Pathways Plan for Delaware’s residents and visitors, to promote biking, hiking, walking and active living.
- Maximize the use of funds and protection methods to permanently protect statewide priority projects, with particular focus on the Delaware Bayshore, Nanticoke Watershed and in holdings of existing state properties, through the use of open space criteria and the ranking system adopted by the department.
- Coordinate conservation easement protection efforts on private lands.
- Coordinate all real estate issues, including utility easements, use agreements and agriculture easements.
- Administer the Natural Areas program through the Land Preservation Office as defined by law.
- Plan, design, engineer and construct facilities and infrastructure within the park system.
- Administer state and federal grants and provide technical assistance to county and local governments for land acquisition, outdoor recreation facility and trail development, with particular focus on underserved populations.
- Redevelop strategic sites including National Vulcanized Fibre/Auburn Heights and Fort DuPont.
- Coordinate and oversee the Council on Greenways and Trails, Natural Areas Advisory Council and Open Space Council.

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of acres that meet the criteria of the Land Protection Act	1,729	1,000	1,000
# of new miles of multi-use trails in state parks	5.03	5.00	5.00
# of conservation easements that meet the criteria of the Land Protection Act	2	2	2

## Operations, Maintenance and Programming

- Coordinate the Governor’s Children in Nature Initiative focused on outdoor play, environmental education and greening schools.
- Manage day-to-day operation and maintenance of all state parks, preserves and facilities, including more than 598 state park buildings on nearly 26,000 acres.
- Enforcement of rules and regulations, park safety and security including an ocean rescue program, visitor assistance and revenue collection.
- Oversee interpretive, nature and art centers and programs on the natural and cultural resources of the parks, environmental education and special events.

- Develop and implement comprehensive natural resource management plans.
- Manage 600 family camping and other overnight facilities (cabins, cottages, yurts, youth camps, etc.).

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
% increase of people participating in park programs	2	2	2
# of teacher trainings to support Children in Nature Initiative	17	15	15

## Wilmington State Parks

- Manage the Brandywine Zoo, Rockford Park, H. Fletcher Brown Park, Brandywine Park, Baynard Stadium, Alapocas Run State Park and Blue Ball Barn, including upgrade of facilities.
- Provide public interpretive programming, concert series and coordinate special events.
- Continue to develop relationships and partnerships with surrounding neighborhood associations and City of Wilmington officials.

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
% increase of visitors to Brandywine Zoo	12.4	2.0	2.0
# of stadium field events	53	50	50
# of new park program offerings	3	3	2
# of historic monuments/statues restored	0	1	1

## Indian River Marina

- Manage and operate the Indian River Marina, including 274 wet slips, 24 transient slips, 156 unit dry stack storage building, full service marine fuel dock, ships store and winter storage services.
- Manage a 12-unit cottage complex. Each duplex offers 900-square feet of living space with full amenities overlooking the Indian River Inlet.
- Manage concession operations, including a full service bait and tackle shop, fish cleaning, head boat operations and restaurant/café.
- Develop special events such as Annual Seafood & Arts Festival and Kid’s Catch-All Fishing Tournament.

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
% occupancy of wet slips	78	85	85
% occupancy of dry storage	100	100	100

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### *FISH AND WILDLIFE* 40-03-03

#### ACTIVITIES

##### Wildlife/Fisheries

- Lead Delaware Bayshore Initiative to conserve and restore wildlife and fisheries habitat, provide low-impact recreational opportunities (hunting, fishing, birding, canoeing, kayaking, etc.) and spur tourism to strengthen local communities.
- Conduct research surveys and inventories of fish, shellfish and wildlife populations.
- Develop fish and wildlife management plans for 16 wildlife management areas with over 61,000 acres, manage 57 freshwater pond and marine fishing access sites and comply with management plans for 23 species or species groups of marine fish and shellfish.
- Monitor, maintain and regulate harvestable fish and wildlife populations.
- Provide technical assistance to landowners and government agencies.
- Administer wildlife management and research, including: non-game and endangered species, wildlife recreation and wildlife outreach programs.
- Provide fishing and hunting license services and monitor the users of fish and wildlife resources.
- Provide education and volunteer programs to educate and engage the public on natural resource issues to increase understanding and involvement in fish and wildlife conservation.
- Monitor fish for diseases and investigate the extent and probable cause of fish kills.
- Develop regulations needed to manage shellfish aquaculture in the Inland Bays, in accordance with House Bill 160.
- Monitor and enforce compliance with fisheries management plans.
- Acquire, develop and maintain lands and waters for recreation and conservation.
- Control aquatic and non-indigenous plants and improve fish and wildlife habitats.
- Develop wetland enhancement programs and coordinate fish, wildlife, hunter education and aquatic resource education activities.
- Pursue land protection measures through fee simple acquisition, easements and other processes to connect and enhance Delaware's wildlife habitat.
- Conduct a trout stocking program in all three counties.

#### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of acres of actively managed wildlife habitats on public lands	8,400	8,400	8,400
# of fisheries management plans complied with	21	21	22
# of hunter education certifications	1,298	1,200	1,000
# of acres protected through easements or acquisition	1,802	250	250

##### Mosquito Control

- Monitor mosquito populations and the extent of quality of life and nuisance problems or mosquito-borne diseases (focus on West Nile Virus and Eastern Equine Encephalitis) and undertake control actions in response to infestations, disease outbreaks or adverse economic impacts.
- Respond to resident complaints about excessive numbers of biting mosquitoes or concerns about mosquito breeding areas.
- Investigate and assess mosquito control efficacy and non-target impacts associated with Open Marsh Water Management, impoundment management, mosquito fish stocking and insecticide use (larvicides and adulticides).
- Conduct research surveys and inventories of mosquitoes, fish and wildlife populations.
- Continue implementation of wetland restoration and enhancement projects within the Christina/Delaware River Corridor (Northern Delaware Wetlands Rehabilitation program).
- Interact with the U.S. Fish and Wildlife Service to ensure effective and practicable mosquito control on Delaware's two national wildlife refuges.
- Conduct public education and outreach programs on mosquito control problems and wetlands restoration and management.
- Coordinate with the Riverfront Development Corporation to restore and manage wetlands at the Russell W. Peterson Urban Wildlife Refuge.
- Work with the American Mosquito Control Association to help resolve national mosquito control issues having local impacts.

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## PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of open marsh water management acres treated	50	100	100
% of nuisance-free nights (June-August)	78	75	75
# of acres of degraded wetlands under the Northern Delaware Wetlands Rehabilitation program restored	9	50	50

### Enforcement

- Prevent, investigate and prosecute illegal natural resource activity within the State.
- Provide environmental education opportunities through Boating Safety and Hunter Safety education programs.
- Conduct marine search and rescue operations and statewide marine rescue training for coastal fire departments.
- Manage and administer the state Vessel Registration program.
- Assist the Department of Safety and Homeland Security with activities in the prevention of terrorism.
- Manage the Recreational Boating Safety program by conducting safety equipment inspection boardings, investigating accidents and coordinating boating education volunteers.
- Enhance response capabilities during critical incidents, such as homeland security threats, maritime operations, woodland search and rescue and other incidents.

## PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of boating safety presentations delivered to the public	286	300	300
# of recreational boating accidents	24	0	0

### *WATERSHED STEWARDSHIP*

**40-03-04**

## ACTIVITIES

### Conservation Programs

- Conduct environmentally sensitive tax and public ditch planning and provide technical assistance to landowners on surface water management issues.

- Ensure implementation of the State's no-net-loss of wetlands policy in water management projects and develop wetland and stream restoration techniques.
- Provide technical assistance to local soil and water conservation districts.
- Provide education and 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 Conservation Reserve Enhancement program, the implementation of TMDLs, Pollution Control Strategies (PCS) and Watershed Implementation Plans (WIPs).
- Lead effort to develop common standards for local floodplain and drainage codes.
- Investigate private drainage concerns and recommend new Resource Conservation and Development projects to be funded through the Capital Improvement Act and Twenty-First Century Fund.
- Provide comprehensive Erosion and Sedimentation and Stormwater Management training to the land development community.
- Provide financial, technical and compliance assistance to delegated agencies for plan review, construction and maintenance review of land development projects.
- Provide sediment and stormwater management construction review on federal and state-funded, non-Department of Transportation projects.
- Complete the revisions and implement the new Sediment and Stormwater Regulations.
- Implement National Pollutant Discharge Elimination System (NPDES) Phase II requirements for stormwater management.
- Provide technical and administrative support to the Clean Water Advisory Council.
- Administer the Buried Wood Debris Remediation program.
- Represent the department on the Nutrient Management Commission.
- Administer the Conservation Cost Share program in coordination with federal Farm Bill programs.

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

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## PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of tax ditch organizations assisted	130	100	100
# of Resource Conservation and Development Twenty-First Century Fund projects completed	42	50	50
# of acres treated by wetland restoration, developed and constructed in marginal agricultural fields and/or adjacent to streams and tax ditches	75	75	75
# of feet of stream restoration projects developed and constructed	1,900	2,000	2,000
# of tons of sediment removed from storm water prior to discharge to waterways	392,589	300,000	300,000
# of residential parcels with buried wood debris remediated	27	40	40
# of acres of traditional cover crop planted in the Chesapeake Bay Watershed	31,500	36,500	36,500

### Shoreline and Waterway Management

- Develop and carry out beach preservation projects to enhance and preserve the recreational and storm protection values of Delaware's beaches.
- Serve as the non-federal sponsor on all federal ocean and bay beach nourishment projects.
- Sustain the primary dune and beach system through a regulatory control program that keeps construction off the dunes and beach.
- Improve coastal storm hazard preparedness and mitigation to maintain a resilient coastline.
- Reduce natural hazard losses through cooperation with the Federal Emergency Management Agency and the Delaware Emergency Management Agency in natural hazard mitigation programs.
- Implement dam safety regulations and dam inspection standards, provide emergency action plans and provide assistance to private dam owners.
- Provide technical assistance to local governments and homeowners to improve beach and dune management.
- Identify sufficient sand sources for beach nourishment work for a 10-year maintenance period.
- Provide understanding of 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 a sand bypass facility at Indian River Inlet.
- Conduct a repair and maintenance program of publicly-owned coastal dunes.

- Develop a steady and reliable source of funding for waterway management operations.
- Improve and maintain navigational channels statewide.
- Implement a regional sediment management strategy for Delaware Bayshore, Rehoboth and Indian River Bays.
- Establish and maintain aids to navigation in Delaware Bayshore waterways and Inland Bays to ensure channels are properly marked for safe navigation by the boating public.
- Restore the environmental integrity of state-owned lakes and ponds.
- Mechanically harvest nuisance marine macro algae in the Inland Bays to maintain water quality, aesthetics and boating access.
- Remove abandoned vessels and derelict structures from the State's navigable waterways.
- Restore ecologically important areas in the Inland Bays through beneficial use of dredged materials.

## PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of aids to navigation established and maintained in Inland Bays for boating public	187	187	187
# of feet in width that design beach is maintained on Atlantic facing public beaches present for summer recreational use seaward of the designed dunes	100	100	100
# of navigational improvement projects completed to restore public boating facilities at state owned lakes and ponds	2	3	3
% of completed investigations concerning nuisance accumulations of macro-algae in the Inland Bays	100	100	100
# of cubic yards of sand pumped by Sand Bypass Facility to maintain and protect ridge approach on north side of Indian River Inlet and to re-nourish public recreational beach area	30,000	120,000	120,000

### Watershed Assessment and Management

- Implement the water quality monitoring and assessment program.
- Implement the federal Beaches Environmental Assessment and Coastal Health Act by monitoring guarded beaches and notifying the public of swimming advisories due to unacceptable water quality conditions.
- Perform sanitary shoreline and marina surveys adjacent to recreational swimming areas to identify, evaluate and determine the existing and potential

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

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sources of pollution factors having a bearing on swimmer health.

- Implement the Watershed Approach to Toxics Assessment and Restoration with the goal of restoring Delaware watersheds impacted by toxic pollutants.
- Maintain a floatable and debris program to provide surveillance of the Delaware coastline all year round and advise coastal municipalities of impending debris wash-ups and respond to observed slicks that could impact swimming areas.
- Provide beach communities and state parks with permanent signage describing the monitoring and notification assurances for the State's residents and visitors regarding swimming water quality.
- Enhance PCSs and WIPs designed to meet pollutant load reduction goals, established by state and federal TMDLs, by identifying specific projects and funding sources.
- Work with partner programs and agencies to implement new and existing regulations and voluntary actions, including retrofits and restoration projects, to achieve load reduction goals set by TMDLs.
- Track progress toward achieving nutrient and sediment load reduction goals in the Chesapeake Bay Watershed using a two-year milestone approach.
- Participate in the implementation of the Delaware Wetlands Conservation strategy.
- Assist with the implementation of the Secretary's recommendations resulting from the Wetland Advisory Committee process.
- Determine the condition of wetlands, by watershed, through monitoring and assessment.
- Implement the Marine Biotxin Contingency plan when hazardous algae bloom-related events threaten commercial and recreational shellfish resources.
- Regulate state shellfish growing areas and certified shellfish dealers through cooperative agreements with the U.S. Food and Drug Administration and the National Shellfish Sanitation program.
- Investigate shellfish borne illnesses and outbreaks, conduct shellfish recall and develop and implement the annual Vibrio Control plan.
- Evaluate and establish classifications and boundaries for Delaware's shellfish harvesting areas to ensure that shellfish are fit for human consumption, even when consumed raw.
- Deploy and maintain shellfish growing area designation buoys and signs to inform commercial and recreational shellfish harvesters of classification boundaries in the Inland Bays.

- Implement an Aquaculture Shellfish Sanitation program that will provide public health protection standards to ensure that the shellfish harvested in Delaware waters meet the national requirements for the interstate shipment of bi-valve molluscan shellfish.
- Serve as lead for fish contamination assessments, recommend consumption advisories and coordinate at state and inter-state levels.
- Perform assessment and implementation of TMDL activities in the Piedmont, Chesapeake and Inland Bays and Delaware Bay basins.

## PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of acres of watersheds with PCSs in place	1,032,295	1,032,295	1,032,295
# of incidences of water-borne disease (swimmer illness)	0.0	1.0	1.0
# of wetland acres assessed	32,000	18,000	16,000
% reduction of nitrogen loadings in the Chesapeake, Delaware and Inland Bays watershed	6	6	6

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## OFFICE OF ENVIRONMENTAL PROTECTION 40-04-00

### MISSION

To protect and enhance the quality of Delaware's air and water resources and assure appropriate waste management practices within Delaware by verifying strict compliance with laws and regulations to protect Delaware's precious resources and by working cooperatively with residents and businesses to protect public health, welfare and the environment.

### KEY OBJECTIVES

- Increase percentage of facilities in compliance at time of inspection.
- Enhance the fairness, consistency, predictability, deterrence value and efficiency of the DNREC enforcement process.
- Monitor and control the occurrence of environmentally-related exposures and diseases.
- Provide the equitable and adequate allocation of safe surface and ground water supplies.
- Reduce nutrients, bacteria and toxic substances entering the State's waterways.
- Increase the percentage of waterways meeting water quality standards for swimming and healthy aquatic life.
- Reduce exposure to hazardous substances, including carcinogenic substances in the ambient environment.
- Prevent exceedances of air and water quality standards.
- Develop strategies to attain the new eight-hour ozone standard statewide by 2019 and re-designate New Castle County to attainment with respect to Fine Particle (PM2.5) Standards.
- Maintain monitoring networks to provide representative and accurate data for ambient concentrations of pollutants of concern.
- Promote effective and sustainable cleanup and reuse of brownfields in conjunction with community land use plans.
- Increase municipal solid waste recycling to 60 percent pursuant to 7 Del. C. § 6056.

- Protect public health and safety by conducting hazardous materials emergency planning and accidental release prevention and by maintaining an effective emergency response capability.

### BACKGROUND AND ACCOMPLISHMENTS

The division is comprised of three internal program units: Air Quality, Water and Waste and Hazardous Substances.

Air Quality monitors and regulates all emissions to the air, issues permits to construct and permits to operate air contaminant sources, maintains emission inventories from business and industry, develops the state implementation plan as required by the Clean Air Act, adopts new regulations, supports enforcement of existing regulations and permits and inspects asbestos removal sites. The unit continues to move forward with the Title V Operating Permit program that includes issuance of required permits, operating a compliance assurance program and issuing Title V permit renewals.

Water implements its various regulatory programs, provides technical skills to programs, laboratory services, inspections and educational services and performs applied research.

Waste and Hazardous Substances is responsible for ensuring Delaware's wastes are managed in a way that protects human health and the environment. The division ensures proper management through a permitting and compliance monitoring program and also through encouragement of waste reduction, reuse and recycling activities. Waste and Hazardous Substances has a major role in investigating and cleaning up hazardous substance release sites that pose a threat to public health, welfare and the environment. Waste and Hazardous Substances programs regulate the installation, operation, removal and remediation of tanks storing petroleum and hazardous substances. The primary objectives of the tank programs are the prevention of tank releases and early detection and expedited cleanup of releases that occur. Waste and Hazardous Substances also ensures all boilers and pressure vessels in the State are inspected to prevent catastrophic failures. Waste and Hazardous Substances provides comprehensive planning and prevention and 24-hour response to time-critical emergency and non-emergency environmental and hazardous materials incidents for the protection of human life, health, safety and the environment.

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### FUNDING

	FY 2014 ACTUAL	FY 2015 BUDGET	FY 2016 GOV. REC.
GF	7,555.8	7,461.4	7,468.8
ASF	25,514.7	42,992.5	42,992.5
<b>TOTAL</b>	<b>33,070.5</b>	<b>50,453.9</b>	<b>50,461.3</b>

### POSITIONS

	FY 2014 ACTUAL	FY 2015 BUDGET	FY 2016 GOV. REC.
GF	71.7	70.7	69.7
ASF	136.7	137.7	131.7
NSF	68.6	68.6	66.6
<b>TOTAL</b>	<b>277.0</b>	<b>277.0</b>	<b>268.0</b>

### **AIR QUALITY** **40-04-02**

#### ACTIVITIES

- Participate in Ozone Transport Commission (OTC), National Association of Clean Air Agencies and Mid-Atlantic Regional Air Management Association activities to take advantage of combined expertise and foster regional and national strategies to reduce transport and attain health-based air quality standards.
- Develop and pursue a strategy to improve Delaware's air quality particularly relative to the new ozone and fine particles standards.

#### Permitting and Compliance

- Continue to implement value stream mapping recommendations for minor source permitting program to maintain permit issuance time at 90 or fewer days.
- Implement new procedures and protocol to expedite major enforcement cases.
- Issue Title V permit revisions and renewals on a timely basis.
- Track facility submission and inspector review of Annual Compliance Certification reports and Semi-Annual Monitoring reports for all Title V facilities.
- Report all stack test results within 120 days of testing.
- Enter and track all enforcement data into the department's database and upload to the Environmental Protection Agency (EPA) compliance database.
- Conduct a full compliance evaluation of large facilities every two years, medium facilities every five years and full compliance evaluations of small facilities as needed.

- Evaluate facility compliance with regulatory and permit requirements and propose enforcement actions for non-compliance facilities.

#### Planning

- Develop state implementation plan revisions as required by the Clean Air Act Amendments of 1990 (CAAA).
- Monitor or track ambient air quality for all pollutants, especially ozone and fine particulate matter to assess attainment status with National Ambient Air Quality Standards.
- Provide air toxics monitoring at a minimum of two sites in Delaware.
- Continue planning and implementation efforts to address long-term ozone, fine particulates and regional haze problems.
- Work with public and private entities to develop or implement transportation and voluntary control programs, such as Ozone Action Day.
- Promulgate new air regulations required by the CAAA and through OTC agreements.
- Conduct an annual point source emission inventory and a comprehensive emission inventory every three years, consistent with the CAAA.
- Develop and implement a new, web-based emission inventory reporting system for annual submission of facility reports.

#### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of exceedances of Ozone, PM, CO, NO2 and SO2 standards	4	0	0
# of ambient air samples collected	1,108	1,235	1,235
# of air samples for air toxics	201	240	240
# of actions initiated to reduce emissions into Delaware due to transport	7	10	10

### **WATER** **40-04-03**

#### ACTIVITIES

#### Surface Water Discharges

- Use NPDES permits to implement PCSs for TMDLs.
- Issue NPDES permits that contain the necessary requirements and conditions (toxic controls, pre-treatment requirements, stormwater, Combined Sewer Overflow (CSO) and sludge requirements).

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- Implement the Municipal Separated Storm Sewer Systems program (MS4), including permitting several new Phase II MS4s.
- Regulate stormwater discharges from industrial facilities.
- Implement a NPDES program for aquatic pesticides pursuant to the Clean Water Act.
- Issue licenses for wastewater operators.
- Review plans and issue permits for the construction of wastewater collection and treatment facilities.
- Conduct compliance inspections for NPDES facilities and CSO systems.
- In partnership with the Department of Agriculture, implement a regulatory program for large and medium Concentrated Animal Feeding Operations.

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
% major individual NPDES permitted facilities inspected annually	100	100	100
% minor individual NPDES permitted facilities inspected annually	96	100	100

### Groundwater Discharges

- Encourage designers and applicants to incorporate land treatment systems into their wastewater management plans.
- Perform construction and compliance inspections on all large on-site wastewater systems and 70 percent of all small systems.
- Issue large septic and spray permits in compliance with all applicable regulations.
- Issue replacement and repair permits for all known malfunctioning subsurface systems.
- Issue Underground Injection Control (UIC) permits and authorizations in compliance with all applicable regulations.
- Locate and inventory all unauthorized UIC wells, perform inspections and prevent non-compliance.
- Perform statewide compliance inspections of holding tanks.
- Implement aspects of approved PCSs for TMDL watersheds.

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
% of alternative on-site treatment systems inspected for operational compliance	100	100	100
% of construction inspections for on-site wastewater systems that discharge:			
< 2,500 gallons/day	57	70	70
> 2,500 gallons/day	100	100	100
% of compliance inspections for on-site wastewater systems that discharge more than 2,500 gallons per day	95	100	100
% of statewide compliance inspections on holding tanks	93	100	100

### Water Supply

- Provide technical and policy support to the Water Supply Coordinating Council.
- Review and approve allocation and water well permits that meet public health and environmental protection requirements.
- Conduct research and monitor ground water resources. Included as a priority activity is possible implementation of the expanded ground water monitoring network in eastern Kent County by the Delaware Geological Survey.
- Provide assistance to New Castle, Kent and Sussex Counties and municipalities to meet requirements of their respective source water protection ordinances.
- Implement the 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), including long-term protection strategies for public drinking water supply sources.
- Promote water conservation, wellhead protection and source water protection with public education and cooperative agreements with stakeholders.
- Perform ground water reviews for non-hazardous waste sites.

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of water allocation permits issued to reduce backlog of unpermitted projects	57	55	55
% of well permit data entered within five days of receipt of information	100	100	100
% of public water systems with source water protection strategies substantially implemented	94	99	97

# NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

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## Wetlands and Subaqueous Lands

- Maintain an inventory of tidal wetlands, issue wetland and subaqueous lands permits and leases for docks, piers, shoreline stabilization and other projects in tidal and non-tidal waters.
- Review and issue permits for marina construction.
- Issue Water Quality certifications for federal permits.
- Provide customer service to landowners, contractors, consultants, realtors and developers regarding the location of regulated wetlands and waters.
- Promote wetland, stream channel and riparian restoration.
- Administer a cost-share program to assist waterfront landowners with shoreline stabilization projects using vegetation and other environmentally friendly techniques.
- Support efforts to re-establish fees for commercial and industrial docks and piers on public subaqueous lands.

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
% requests for new shoreline stabilized with soil bioengineering and rip-rap versus bulkheading	95	95	95
% of marinas with approved operations and maintenance plans	50	75	90
% of structures/projects authorized during a fiscal year that are field checked for compliance	50	75	75

## Environmental Laboratory

- Continue to perform biological and chemical analysis, monitoring and assessments to endure the wise management, conservation, restoration and enhancement of the State's natural resources, as well as to protect public health, welfare and safety and the environment.
- Provide leadership and management support for the Delaware Public Health Laboratory. Responsibilities include ensuring consistent and reliable laboratory analytical operations (infectious disease, viruses and bacteria, rabies, HIV, etc.) in compliance with federal (FDA, CDC, EPA, etc.) and state rules and regulations, effective diagnostic performance of laboratories in state health service centers and working with organizations, such as hospitals, clinics, prisons and the Office of Drinking Water, in support of public health efforts and maintaining safe public drinking water supplies.

- Perform microbial testing to identify bacteria, protozoa and other organisms in order to detect and prevent human disease initiation or spread in recreational and shellfish (food) harvesting waters.
- Provide laboratory and field analytical services to support key environmental programs such as Delaware's Ambient Surface Water Quality Monitoring program, the Delaware Estuary Boat Run Water Quality Monitoring, the Chesapeake Bay Nontidal Water Quality Monitoring Network, Delaware's Watershed Approach to Toxics Assessment and Restoration, Recreational Shellfish Monitoring, Delaware Beach Monitoring, Emergency Response program, permit compliance programs, Site Investigation and Remediation (SIRS), Tank Management program, as well as the EPA National Aquatic Resource Surveys and others.
- Provide support, guidance and recommendations for the development of monitoring strategies that include project plan design, development and implementation.
- Participate on Science and Technical Advisory Committees such as the Center for the Inland Bays, the Chesapeake Bay Nontidal Analytical Methods and Quality Assurance Workgroup and Watershed Study Workgroups.
- Operate the Laboratory Information Management System to support and enhance operational quality and productivity in a cost efficient manner while facilitating timely sharing of precise and accurate information throughout the department, federal agencies and the citizens of Delaware.

### PERFORMANCE MEASURE

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
Average turnaround time to complete for each test (days)	4.1	4.1	4.1

## WASTE AND HAZARDOUS SUBSTANCES 40-04-04

### ACTIVITIES

#### Site Investigation and Restoration

- Oversee remedial investigation, feasibility study, remedial design and action at Hazardous Substance Cleanup Act, enforcement, voluntary cleanup program and brownfield sites.
- Assist in facilitating grants and loans at brownfield sites to ensure sites are cleaned up and reused in a safe and productive manner.
- Implement a plan to integrate and coordinate Watershed and Site Investigation and Restoration

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program with the goal of restoring Delaware watersheds impacted by toxic pollutants.

- Promote field screening procedures to reduce the number of analytical samples sent to the laboratory for full analysis.
- Work with communities to enhance understanding of SIRS programs and the risks posed by SIRS sites.
- Perform brownfield assessments or inspections at sites targeted for redevelopment.
- Conduct natural resource damage assessments at sites where releases of hazardous substances have harmed the environment.
- Enhance and implement the brownfield inventory and ranking system to address redevelopment potential and the degree of contamination.
- Perform facility evaluations to determine whether a release of hazardous substances has occurred on a property and rank the potential risk of the property.
- Enforce upon potential responsible parties not willing to perform a remedy.
- Oversee long-term stewardship of regulated sites to ensure the completed remedial action remains protective to human health and the environment.

## PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of acres of brownfields remediated	173	80	85
% of SIRS sites remediated	43	40	40
# of long term stewardship inspections	156	135	140
# of proposed and final remediation plans issued	81	40	50
# of enforcement sites initiated	4	4	5

### Tank Management

- Conduct underground storage tank (UST) and aboveground storage tank (AST) facility compliance assessments, oversee removals and closures, approve design plans and supervise the installation of new systems.
- Administer contracts for sites using state funding to remove orphan USTs and complete site remediation at facilities that do not have a tank owner or a responsible party.
- Implement cost savings for sites through pay-for-performance contracting.
- Review Vapor Recovery (VR) permit applications and oversee testing of VR systems to ensure compliance with the gasoline VR regulations.
- Reduce the amount of time from identification to closure of Leaking Underground Storage Tank (LUST) sites.

- Continue implementation of risk-based corrective action closure procedures at LUST sites.
- Maintain three-year tank inspection frequency, partnering with Delaware Technical and Community College to implement a training program for tank owners and operators and establish a delivery prohibition program.
- Increase outreach and inspection activities to educate the UST regulated community, including tank owners, operators, contractors and consultants.
- Commission private insurance boiler inspectors operating within Delaware and monitor inspections.
- Conduct inspections of boiler and pressure vessels at facilities that do not have insurance.
- Investigate boiler and pressure vessel accidents.

## PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of LUST sites cleaned up:			
regulated USTs	71	50	50
unregulated USTs	39	45	45
% of LUST sites remediated:			
regulated USTs	96	91	91
unregulated USTs	98	96	96
# of new UST releases identified:			
regulated USTs	48	70	48
unregulated USTs	32	40	60
# of new AST releases identified:	23	20	30
% of UST facilities in compliance following inspection activities	81	80	80
# of inspections conducted at UST facilities	143	165	165
# of boiler and pressure vessel inspections at uninsured facilities	1,680	800	1,000

### Solid and Hazardous Waste Management

- Implement and regulate the Universal Recycling law.
- Regulate the disposal of waste generated in Delaware to prevent adverse impacts to the 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.
- Track the transport and disposal of solid and hazardous waste to ensure compliance with environmental regulations.

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- Communicate and encourage hazardous waste generators on the reduction of hazardous waste.
- Complete solid and hazardous waste compliance assessments and implement a multi-media approach where possible.
- Implement the hazardous waste corrective action process.
- Oversee the scrap tire cleanup program.

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of scrap tires cleaned up (tons)	824	1,250	400
% of municipal solid waste recycled	40.1	50.0	50.0
% of facilities assessed returning to compliance within 180 days	100	100	100
# of tons of waste properly managed under permits	1,100,000	1,150,000	1,150,000
# of participants in 3R's (reduce, reuse and recycle) educational opportunities	300,000	300,000	300,000

### Emergency Prevention and Response

- Respond to and investigate environmental incidents and emergencies on a 24/7 basis.
- Respond to hazardous material incidents as part of the State Emergency Response Team and the Delaware Emergency Operations plan.
- Participate in emergency planning and exercises with federal, state and local emergency management and response agencies.
- Provide emergency response and hazardous materials training to state and local response agencies.
- Ensure compliance with hazardous chemical inventory and Toxic Release Inventory (TRI) data reporting pursuant to the Emergency Planning and Community Right-to-Know Act (EPCRA).
- Support State Emergency Response Commission (SERC) operations and local emergency planning committees through electronic collection of EPCRA Tier II hazardous chemical reporting fees and data.
- Analyze TRI data and report data trends.
- Upgrade and maintain response capabilities and activities through SERC.
- Comply with the Accidental Release Prevention regulation by conducting inspections and incident investigations, reviewing risk management plans and participating in emergency planning activities.

### PERFORMANCE MEASURES

	FY 2014 Actual	FY 2015 Budget	FY 2016 Gov. Rec.
# of emergency responses to incidents	342	325	325
# of Accidental Release program inspections	20	35	30
% of EPCRA electronic reporting	100	100	100
# of Tier II facility reports submitted and processed	1,780	1,785	1,785
# of facilities reporting under TRI	61	63	61