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## A MESSAGE FROM THE DIRECTOR

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*Dear Governor Almond, Members of the General Assembly and Friends*

On behalf of the Department of Environmental Management, I am pleased to present the Department's 1997 Annual Report.

In 1997, DEM continued the process of effectively addressing environmental challenges that are vastly more complex and different in scope, number, kind, and impact from those that we faced just a few years ago. Under the leadership of Governor Almond, DEM is meeting these new realities and is expanding, refining, and improving the way we protect the environment for future generations.

Rather than a few hundred large smokestacks and waste water pipes concentrated in population centers, today small amounts of pollution seep from failing septic systems, run off from mall parking lots, and exhale from thousands of tail pipes scattered all across the state. Taken together, these seemingly small sources of pollution add up to big environmental problems that call for new solutions.

In addition, more Rhode Islanders are settling in suburban and rural areas of our state than ever before and are, thus, creating a series of formidable challenges for DEM and our role in enhancing efficient and prudent growth. The Department is working with many partners around the state to re-invest in urban Brownfields sites, to protect open space, and to encourage integrated watershed protection.

The solutions to these and other complicated issues lie in individual and corporate stewardship — the dozens of decisions that we all make each day at home, in transit, at work, and at play. And the answers will come only by working together to gather information and data, weigh options, and make wise choices.

For DEM and Governor Almond this means adding new approaches and tools to the current foundation of environmental statutes, regulations, policies and programs.

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Whatever the new approaches are called — place-based environmental protection, ecosystem or watershed protection, permit streamlining — they share certain principles.

These include:

**Service and Responsiveness.** Reaching out to citizens to seek input and participation, and regularly informing the public about environmental laws, regulations, and the complexities of environmental protection.

**Partnerships and Watersheds.** Creating collaborative partnerships with cities and towns, businesses, environmental advocates, and other stakeholders, and encouraging Rhode Islanders to share responsibility for watershed protection and to be stewards of the environment.

**Integration of Environmental and Economic Goals.** Providing the best environmental protection by recognizing and utilizing market forces, working with businesses, and giving individuals and firms incentives to be “clean.”

**Enforcement against environmental violators.** Carefully enforcing all state and federal laws and imposing appropriate criminal and civil penalties fairly and equitably.

The accomplishments outlined in this 1997 Annual Report are continuing steps in the application of these principles by the Almond Administration. We look forward to our future work with Rhode Islanders to make our communities healthier, cleaner and “greener” places to live.

Sincerely,

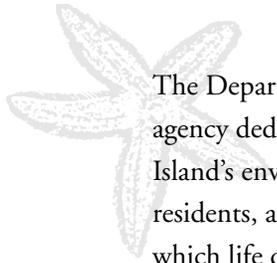


Andrew H. McLeod, Director

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## ABOUT THE DEPARTMENT

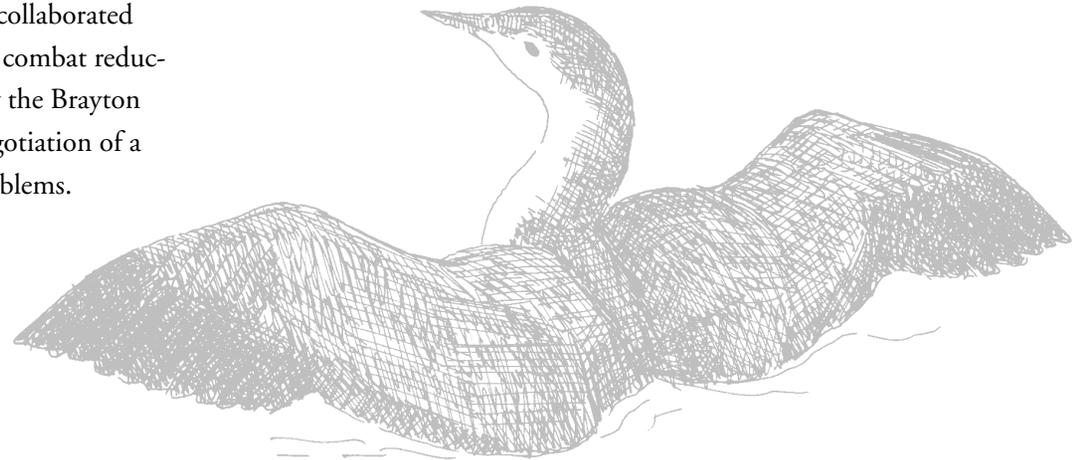
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The Department of Environmental Management is a diverse agency dedicated to the preservation of the quality of Rhode Island's environment, to the health and safety of the state's residents, and to the protection of the natural systems upon which life depends. The Department strives to solve problems through partnerships and by encouraging the appropriate use and management of our land, air, and water resources, by preventing pollution at the source and by implementing stewardship programs that preserve environmental resources and habitats for future generations.

The Department combines natural resources management and environmental protection in one agency. The advantages of integrating these functions is borne out by experience. In one recent case, the DEM pollution control sections collaborated with the marine fisheries sections to identify and combat reduction of fish stocks in Mount Hope Bay caused by the Brayton Point Power Plant, culminating in 1997 with negotiation of a new permit for the facility that addressed the problems.

Since its creation in 1977, the Department has built and improved state parks, hatcheries and management areas; assisted farmers and woodlot owners; received delegation of many environmental regulation programs from the EPA; established recycling and household hazardous waste management programs to serve the state; established a criminal investigation unit that now trains other public safety officers across the state; cleaned up numerous hazardous waste sites and returned them to economic use; preserved thousands of acres of open space and farmland; and built bikeways, greenways, and beaches and park facilities.



## WHAT DEM DOES IN A TYPICAL YEAR

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- Manages eight major parks, seven state beaches, the East Bay Bike Path, 100 fishing access sites, 75 boat ramps, and six historic sites, all of which together receive visits by approximately two million people.
- Oversees compliance of 29 major and 130 minor discharges to the state's waters and provides oversight of 14 approved local wastewater pretreatment programs.
- Conducts approximately 6,500 septic system inspections, and issues approximately 1,700 suitability assessments of septic systems.
- Reviews approximately 650 applications for the alteration of freshwater wetlands and 100 applications relating to verification of wetland edges and the modification of projects impacting wetlands, etc.
- Responds to more than 500 accidental or illegal releases of hazardous chemicals and oil spills.
- Answers 5,000 questions regarding commercial and residential recycling, monitors recycling activities at 26,000 businesses, and provides recycling technical assistance to 300 businesses.
- Issues 12,000 hunting licenses, 39,000 fishing licenses, and 15,000 deer hunting permits.
- Preserves more than 200 acres of prime farmland for continued agricultural use.
- Reviews 50-60 air emission applications, conducts approximately 600 air monitoring inspections, and monitors approximately 40 industrial stack tests.
- Receives approximately 200 complaints of possible criminal violations of the state's environmental laws, which, when investigated, often result in the collection of thousands of dollars in penalties.
- Conducts more than 2,500 investigations in response to citizen complaints of alleged violations of the state's environmental protection laws.
- Distributes approximately 100,000 tree and shrub seedlings at low cost to the public, fights more than 100 wildland fires, and assists approximately 70 urban communities and neighborhoods in developing and implementing urban forestry programs.



*Protecting, Managing and Restoring*

*The Quality of Rhode Island's Environment.*

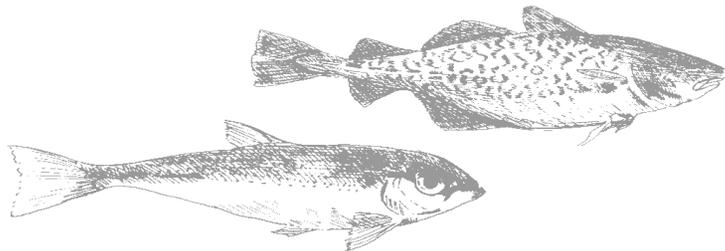
## MAKING OUR COMMUNITIES CLEAN, GREEN AND HEALTHY

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**DEM is responsible for numerous water, air and waste programs to ensure Rhode Island citizens are protected from significant risk to human health and the environment where they live, learn and work.**

### **Ensuring Safe Water for Drinking and Recreation**

Thanks to regulatory efforts and public action, many of Rhode Island's waters are cleaner than they were twenty years ago. The dramatic increase in the Bay's oyster population and the restoration of the Blackstone River for sportfishing are two examples of the results of clean water regulation and cooperative efforts by the states of Rhode Island and Massachusetts and riverfront communities to protect our regional water systems. The Department is joining with many partners to combat the nonpoint pollution that threatens the water bodies that we need for drinking water, swimming, boating, fishing, shell fishing, and water-based commerce and agriculture, and our tourism industry, which is largely based on water recreation.



**In 1997, DEM protected the quality of Rhode Island's waters and wetlands by initiating or continuing the following activities:**

- First state in nation to propose banning all discharges of sewage from vessels' marine toilets into any coastal waters.
- Provided funds and assistance to install sewage pump out stations at seven more marinas, bringing the total number of such stations to 44.
- Awarded more than \$700,000 in AquaFund grants to 11 projects to remedy nonpoint source pollution problems to Narragansett Bay and its major tributaries. The projects include treating stormwater, evaluating innovative septic systems, managing farm waste from livestock and seeding scallops.
- Awarded more than \$700,000 in 21 pollution abatement grants to farms, restaurants, manufacturing facilities and other private entities from state bond funds. Projects range from helping a restaurant with septic system problems tie into a sewer system to solve a long-standing sewage problem in Newport, to helping dairy farms store manure properly to prevent it from contaminating ground and surface waters in West Bay.



## MAKING OUR COMMUNITIES CLEAN, GREEN AND HEALTHY

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- Took initial steps, to develop runoff management system for a dairy farm operation contributing to pond pollution at Stafford Pond, Tiverton, which provides drinking water to major portions of Tiverton and Portsmouth. Committed \$100,000 to help cover costs of restoring and protecting the pond.
- Completed an assessment of groundwater contamination in the Hunt River Aquifer, which supplies community wells serving North Kingstown, Kent County and Quonset Point. DEM will continue to help the towns develop and implement wellhead protection plans and review data from this crucial area.
- Opened a laboratory on Prudence Island to be used by visiting scientists studying the Narragansett Bay Estuary and surrounding areas. The facility also includes an interpretive Learning Center with a diorama of Narragansett Bay life.
- Held public workshops to get feedback on DEM regulations.
- Adopted new regulations to license the designers of septic systems and assign clear responsibility for oversight of septic system installations. The changes will make everyday permitting easier and quicker while freeing DEM staff to focus on problem areas.
- Partnered with URI to install and monitor innovative septic systems in areas where conventional septic systems fail. This research demonstrates cutting-edge technology to reduce pollution in places such as Island Park, Common Fence Point and the salt ponds to abate public health dangers and damage to water bodies from failing systems.
- Revised water quality regulations with input from stakeholders to provide flexibility for handling new discharges while maintaining appropriate controls.
- Issued approvals for Advanced Wastewater Facility Plans for Warwick and West Warwick, culminating seven years of planning. Design work for major upgrades will now begin which will improve water quality in the lower Pawtuxet River.
- Worked with the City of Cranston on review and approval of the first Privatization Agreement in the nation for a wastewater treatment facility.
- Updated regulations to allow using sewage sludge as fertilizer once it has been composted and treated to remove metals and dangerous bacteria.
- Hosted a regional training conference for wastewater treatment personnel.
- Worked with several partners to reduce nonpoint pollution into Greenwich Bay to make possible the reopening of more than 275 acres of Greenwich Bay to shell fishing, reversing the trend of the last few years to close shellfishing beds.

## ASSURING GOOD AIR QUALITY

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Rhode Island has been regulating air quality for just over thirty years, and the effects are visible. While not yet pristine, the air is cleaner than it was in the 1960s. Of the six air pollutants the EPA regards as priority items, five are now well under National Air Quality Standards. Ozone continues to be a problem, however. Each summer, when weather conditions cause extra-high concentrations of ground-level ozone, public health warnings are issued advising the frail, the elderly and those with respiratory problems to stay indoors and avoid exertion.

As with many other pollution problems, this one is in large part caused by small sources of pollution such as automobiles and exacerbated by urban and suburban sprawl. Although some motor vehicles now run cleaner, we are driving more miles each year. New regulations governing inspection and maintenance of automobiles should reduce local generation of ground-level ozone. However, ozone and other air pollutants are also brought into the state as air moves across the country. DEM is working with other eastern seaboard states in the Ozone Transport Commission to find regional solutions to these problems.

We are also beginning to recognize the public health dangers of tiny particles in the air. The EPA is developing new regulations to cover this pollutant, which will require additional monitoring of Rhode Island's air to determine if Rhode Islanders are at risk. To protect the public health, DEM regulates the operation of large sources of air pollution, emissions of toxic air pollutants and new and modified sources of air pollution.



### Specific highlights of 1997 included the following:

- Submitted to the legislature regulations for automobile inspection and maintenance (I&M) to reduce the state's hydrocarbon emissions by 13 tons per day in the summer. This will help the state attain federal emission reduction targets and stop the clock that is now ticking for final imposition of EPA sanctions. If the EPA sanctions were to go into effect, Rhode Island would lose \$90 million a year in federal transportation funds.
- Set up a stakeholder advisory committee including garage owners and auto dealers, motorists, environmental and public health advocates, the RI Department of Transportation, the RI Department of Health, the Federal Highway Administration and EPA. The committee solicited public input and developed draft regulations for the statewide vehicle emission reduction program.

Waste management facilities are not the only businesses that represent pollution hazards, but they are often the ones the public is most aware of. People are understandably concerned that waste management facilities in their neighborhoods be managed properly and are often vehemently opposed to the siting of new facilities.

DEM regulates waste handling and monitors contaminated sites and their cleanups. DEM also offers assistance to communities in improving solid waste programs and promotes waste prevention and cleanups.

**Selected 1997 highlights include:**

- Completed the first phase of cleanup at the Davis tire pile and liquid hazardous waste site in Smithfield. Removed, in cooperation with the federal EPA and the Rhode Island Superior Court, two million tires from the site and built two 50-foot wide fire lanes.
- Worked with the private sector to clean up eleven commercial and industrial parcels for reuse through the brownfields program. Since 1995, the brownfields program has led to cleanup and reuse of 22 properties totaling over 300 acres, returning over ten million dollars worth of property to productivity, creating jobs and increasing municipal property tax collections.

- Collected 158,440 gallons of used motor oil, 31,400 used oil filters and 43,150 gallons of hazardous waste oil for recycling or safe disposal.
- Helped municipalities, including North Kingstown, Westerly, West Warwick, Coventry, Warwick and Burrillville, plan more efficient systems to handle solid waste and helped Providence develop its new “Drop and Dump” transfer station at the Port of Providence and helped Providence develop a vacant lot cleanup.
- Awarded 33 grants to communities for Youth Litter Corps Clean Teams which employed more than 200 young adults in the summer who picked up 5,648 bags of refuse, 1,923 bags of recyclables and 876 tires.
- Coordinated and provided supplies for 67 community litter cleanups.
- Planned a workshop to help small businesses and offices find cost-effective ways to recycle.
- Established stakeholder groups to solicit public input on brownfields, UST/LUST and facilities regulations programs.
- Developed new recycling regulations for communities to collect more recyclables from residences.

## SAFEGUARDING OUR PROGRESS

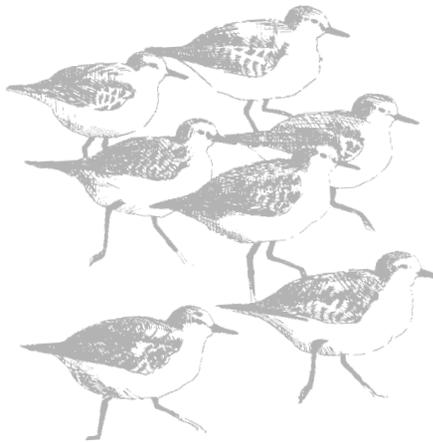
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Enforcement will always be necessary: to resolve disagreements about interpretations and solutions that can only be settled through legal action, to provide incentives to cooperation, to deter those who intentionally ignore the law for profit, and to provide a level playing field where the law is applied evenly to all. Regulation and enforcement of environmental regulations is vital to preserve the environment for future generations and to protect the public health.

DEM conducts compliance inspections and investigates criminal violations of environmental laws.

### **The following are highlights of the enforcement and compliance issues addressed by DEM in 1997:**

- Investigated the North Cape oil spill which resulted in the award of \$3.5 million in criminal fines from Eklof Marine.
  - Following the success of cooperative efforts to investigate the North Cape oil spill, the FBI has assigned a Rhode Island agent to work full time on environmental crimes.
  - For the first time in Rhode Island, DEM used a search warrant to dig up underground storage tanks from a gas station. The leaking tanks had



allowed over a thousand gallons of gasoline to contaminate the groundwater. DEM's ongoing investigation of the tanks may lead to new legislation to govern licensing of the companies that certify underground storage tanks.

- From July 1, 1997 through March 12, 1998, DEM's Office of Compliance and Inspection received 2,045 complaints relating to air quality, septic systems, releases of hazardous material, solid waste violations, water quality and wetlands. Of these, 1,111 were investigated, with 409 determined to be unfounded.
- In that period, DEM's Office of Compliance and Inspection completed 2,112 inspections in the areas of air and water quality, septic systems, wetlands, hazardous materials and solid waste.
- In that period, DEM's Office of Compliance and Inspection initiated 343 warning letters, and 18 Notices of Violation. Over 150 thousand dollars in penalties were assessed and nearly 165 thousand dollars in penalties collected (some of which had been assessed the year before), 36 consent agreements were entered, 10 consent agreements were resolved, and 11 cases were referred to Superior Court.
- DEM's K-9 unit, Conservation Officer Donald Andrews and Lux the German Shepherd, represented the US in the K-9 world games in Germany. Andrews, who won a major US award with his previous canine partner, Peri, went at his own expense.

## PROTECTING AND PRESERVING OUR NATURAL RESOURCES

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Today, more than ever, Rhode Island's economic stability and growth depend on our natural resources. DEM assists the farming and forestry-related industries to protect agricultural resources and manages and monitors thousands of acres of land, and recreational and fishing areas.

### Outdoor Recreation and Greenways

Public demand for outdoor recreation includes many kinds of areas. DEM's Management Areas are suitable for many uses, including hunting, fishing and hiking. DEM also maintains more developed areas for public recreation, including parks, beaches and bike paths. State parks and beaches are located across the state to make access convenient for all residents and to offer a variety of environments, including fresh and salt water, urban and rural, picnic and hiking areas, horse trails and athletic fields. These facilities attract two million visitors each year, including 500,000 out-of-staters bringing money into Rhode Island, many of them Connecticut residents using our coastal beaches.

During the year, RIDEM continued the following activities to ensure that Rhode Island residents and visitors have the opportunity to enjoy well-maintained, scenic and accessible facilities and outdoor recreation opportunities:

- Continued to upgrade facilities at the state's salt water beaches. New facilities were constructed, at Roger Wheeler State Beach in Narragansett (Sand Hill Cove). Two and a half million dollars were spent to build a new, four-building pavilion, improve the parking area and relocate utilities, resulting in a 34 percent increase in use of the beach. Planning is underway for similar renovations to be done at Misquamicut State Beach in 1998.
- Hosted Jazz, Folk and R&B Festivals at Fort Adams State Park in Newport which attracted more than 50,000 attendees.

## PROTECTING AND PRESERVING OUR NATURAL RESOURCES

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- Began construction of the first 3.3 mile segment of the Blackstone Valley Bike Path in Lincoln, expected to open in fall of 1998. This is part of the planned 17 mile bike path/greenway that will run between Pawtucket and the Massachusetts border in North Smithfield. The Massachusetts section of the bikepath will continue from there to Worcester.
- Began development of a bikepath/greenway along the railroad right of way and the Trestle Trail in Cranston, Warwick, West Warwick and Coventry.
- Marked the seventh anniversary of the Americans with Disabilities Act in 1997 by adding nine new surf chairs (specially-designed all-terrain wheelchairs) for use at state parks and beaches. There are now 22 surf chairs available free of charge at 15 swimming sites operated by DEM, including four new sites.
- Provided public access to Black Point, north of Scarborough Beach, by developing a new 30-space parking area for anglers and hikers.
- Established a website for state parks and beaches (<http://www.riparks.com> or through the DEM website <http://www.state.ri.us/dem>) to provide the public with detailed information about state recreational facilities.

Encompassing 1,100 square miles, Rhode Island is the smallest state in the union, and the second most densely populated (after New Jersey). As more people move to the suburbs, and as more rural areas become suburbs, there is less and less green space for passive and active recreation and for plant and wildlife habitat. Sprawl also contributes significantly to small source air pollution and nonpoint pollution of water bodies, and undermines community by weakening the sense of place that helps people bond and work together for the common good. DEM's programs to preserve land through acquisition and easements help protect this shrinking area and prevent suburban sprawl which is bad for the environment and bad for the economy.

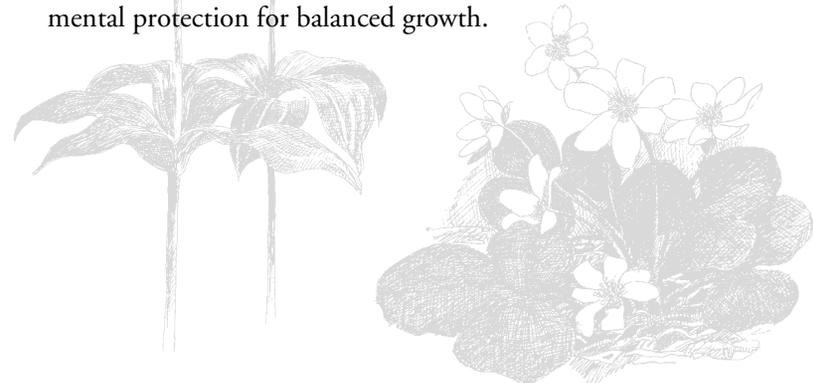
**In 1997, the Department oversaw numerous land acquisition and preservation efforts, and efforts to promote sustainable development, including:**

- Participated in over 50 land acquisition projects, protecting over 1,000 acres of open space, farmland and watershed. These projects involved the cooperation of numerous federal, state, and local government and nonprofit agencies to achieve the optimum land protection possible with a finite pool of dollars through partnership. This year's land acquisitions include several that will increase access for hunters and anglers.

**Among the acquisitions were:**

- 15 acres of fragile and valuable wetlands along the Blackstone River in a highly developed section of Lincoln, part of the 250-acre Valley (or Lonsdale) marshes.

- 34 acres in Little Compton to be incorporated into the 400-acre Simmons Mill Pond Management Area used by the public for fishing, hunting, and hiking.
- 42 acres in Tiverton adjacent to the 269-acre Sapowet Marsh Management Area.
- Seven acres in Richmond along the Pawcatuck River which will be used by the public for canoe portage and fishing, with funding from fishing license sales.
- Completed a report and design manual on cutting-edge zoning techniques to help Scituate Reservoir Watershed municipalities preserve rural character and quality of life, and protect the water shed by guiding development in a more environmentally sound manner.
- Joined with state, municipal and federal agencies, higher education institutions, and nonprofit and activist organizations in the RI Rural Lands Coalition, which is dedicated to preserving farms, forests and open space, as well as property values, through wise land use planning to strike a balance between economic development and environmental protection for balanced growth.



## PRESERVING OUR LAND AND GROWING GREENER

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- DEM, on behalf of the Rural Lands coalition, was awarded \$100,000 in grants from the EPA in a national competition. The money will be used to promote sustainable development through alternative growth management techniques in the Wood/Pawcatuck Watershed. The project will develop creative zoning techniques in the Wood-Pawcatuck Watershed which can serve as a model for other areas in Rhode Island.
- Funded a masters thesis project at Brown University on Transfer of Development Rights to provide another creative tool to allow communities to encourage wise development.
- Participated in Grow Smart Rhode Island, an initiative sponsored by the Rhode Island Public Expenditures Council and composed of members of the business, environmental, academic and nonprofit communities. Dedicated to balanced growth, promoting the economy, while protecting the environment and community character, Grow Smart has been awarded a \$237,250 sustainable development grant from the US EPA.
- Established a Watersheds Committee within the Department to develop strategies to protect the environment in a more comprehensive way that will cross municipal boundaries and traditional program areas.
- Began an urban environment project to revitalize urban areas to help retain residents and attract new residents by providing a greatly improved quality of life in urban areas.
- Began a project to transform the Youth Litter Corps of 165 youths into a Youth Conservation Corps that will help to prevent pollution, conserve natural areas, restore degraded habitat and build a community environmental ethic through peer education.

Farming is an important industry, contributing about \$140 million a year to the state's economy with an additional \$48 million in value added by secondary industries. Because of development pressure in this densely populated state, combined with the high cost of property taxes, land under cultivation is in decline. In 1850, over 80% of Rhode Island was farmland; by the late 1800s that dropped to two thirds, and today less than 10% of the state is farmed.

This change is part of a nationwide reorganization of the agriculture industry, with greater centralization of the industry in massive factory farms in other parts of the country. However, Rhode Islanders appreciate the availability of fresh, locally-grown products, and feel it is an important part of quality of life to be able to see or visit local farms. Farms provide green space and offer habitat for many songbirds and other species that have been native to Rhode Island for two centuries.



**During the year, DEM assisted farming-related industries and preserved agricultural resources by implementing or continuing the following initiatives:**

- Invited applications for the Purchase of Farmland Development Rights Program. More than 2700 acres of farmland on 32 Rhode Island farms have already been preserved through this program, which makes it feasible for farmers to keep their land in production.
- Developed a plan to handle animal issues in a disaster which was accepted by the Federal Emergency Management Agency. DEM and other animal health agencies are now developing a plan to mobilize volunteers to deal with animals in a disaster. This effort has received funding from the Rhode Island Foundation.
- Awarded \$80,000 in grants to minimize the use of pesticides in RI, which will reduce the risk of exposure to toxic chemicals for people and wildlife.
- Awarded over \$130,000 in water pollution control grants (see also under Water) to help abate nonpoint source pollution from farms.
- Designated 26 farms as RI Certified Organic Farms and two farms as transitional, more than doubling the acreage devoted to organic farming, which avoids use of toxic chemicals.

## ASSISTING OUR FARMERS

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- Awarded \$150,000 to communities for mosquito abatement and prevention of eastern equine encephalitis.
- US Department of Agriculture determined Rhode Island to be free of swine pseudorabies. This means RI-raised pigs can be shipped out of state without extensive paperwork and quarantine.
- Promulgated Agricultural Compost regulations allowing area farmers to compost on their farms in a less stringent regulatory environment.
- Assisted over 35 local growers with various regulatory and agricultural improvement projects.
- Distributed over 85,000 brochures and other printed materials promoting local agriculture.
- Sponsored 12th annual harvest festival at Warwick Mall.
- The division hosted the Annual meeting of the American Association of Control Officials, the national organization of agricultural regulators, which was attended by over 500 people over seven days.



Managed forestlands face the same development pressures as agriculture. Over half of the state is fragmented forest land, about 88% of it privately owned. Most of that (about 80%) is comprised of small holdings of from one to nine acres. This fragmentation discourages development of large wood-related businesses such as harvesting for paper mills.

Instead Rhode Island has developed a mosaic of small forest and wood-related businesses which contribute over 120 million dollars a year to the RI economy including 30 million dollars for primary industries (woodcutting and the state's 23 sawmills) and over 90 million dollars a year from the use of forest products in secondary wood industries such as furniture and pallet manufacture. There are 72 wood mills dealing in such secondary products. Another 48 businesses, which rely less on native wood, deal in wood pulp and paper products, and contribute another 283 million dollars to the state's economy.

Rhode Island's woodlands are important for green space and wildlife habitat. Although the bulk of the state's population lives in highly developed urban or suburban areas, Rhode Islanders appreciate being able to reach upland forests with a drive of 30 minutes or less from most parts of the state.

**In 1997, DEM assisted forestry-related industries and preserved woodland resources in the following ways:**

- Assisted over 400 landowners by providing technical assistance on 15,000 acres.
- Planted 75,000 trees.
- Provided assistance to loggers at 37 sites ensuring the use of best management practices on 1,000 acres that produced 2,225,000 board feet of timber, 2,019 cords and 500 tons of wood chips.
- Distributed \$90,000 in urban forestry grants to communities and nonprofit organizations to plan, maintain and plant urban trees.

**In addition, the Division contributed to statewide environmental education in the following ways:**

- Organized and held educational conferences:
  - Annual Urban Forestry Conference
  - Two Estate Planning Workshops
  - Four Arborist Workshops
  - Two Urban Tree Stewards Workshops
  - Two Forest Stewardship Workshops
- Assisted the federal government in collecting forest health monitoring data on 375,000 acres of forestland.

## MANAGING OUR FORESTLANDS

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- Finalized purchase and sales agreements for acquisition of conservation easements on three private parcels of forestland utilizing the Federal Forest Legacy Program.
- Assisted communities in fighting 102 forest fires that burned 140-acres, achieving our target of limiting the average forest fire size to less than 1.5 acres.
- Licensed 450 arborists.
- Provided workshops for hundreds of local educators.
- Provided information on environmental curricula and resources for teachers.
- Served as judge or supervisor in Future Foresters of America, Science Olympia and Envirothon.
- Served in environmental education organizations at state, regional and national levels.
- Escorted hundreds of students on field trips.
- Smokey Bear gave presentations for several thousand children and adults.

Marine fisheries are an important part of the Rhode Island economy, with 130,115,000 pounds of fish and shellfish with a value of \$69,433,000 landed in 1996. Although the catch was up in 1997, with preliminary, incomplete figures showing a catch of 135,560,000 pounds worth \$75,824,000, Rhode Island's commercial fisheries face difficult times due to drastic declines in finfish species. In addition, although the strides that have been made in fighting pollution have led to the reopening of many shellfish beds, many others are still unsafe to harvest.

DEM monitors marine fisheries, assists the fishing industry, maintains state fishing ports and enforces fishing laws.

### **1997 highlights include:**

- Worked with local shell fishermen to increase the potential catch by seeding scallops and transplanting shellfish from polluted beds into clean areas where they can be cleansed of pollutants and then harvested. This year over 200,000 pounds of quahogs were transplanted to spawning areas with funds from the World Prodigy oil spill damage settlement.
- Removed oysters from the Goddard Park State Beach and transplanted them elsewhere for the safety of swimmers who were cutting their feet on the sharp-edged shells of the shellfish.
- Completed design and began construction of a triple-size replacement pier at the Galilee Port entrance as part of a construction project that will include new pilings and replacement of four piers that berth commercial fishing boats.
- Negotiated permit conditions for voluntary reductions of discharges from the Brayton Point Power Plant in Massachusetts to help recovery of fisheries in Mount Hope Bay. Permit conditions for the voluntary reductions were based on DEM research which showed that the Brayton plant was causing diminished stocks of fish. DEM demonstrated that an increase in the power company's operations led to an 87 percent decline in Mount Hope Bay's fish population and nearly wiped out winter flounder stocks.



## FISHING, HUNTING AND BOATING

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Recreation is important to Rhode Island's quality of life and to the state's economy. Besides the millions of dollars spent each year by sports people, the availability of these pursuits supports the state's billion and a half dollar a year tourist industry as well

as making the state attractive to entrepreneurs and executives looking for places to locate job-creating businesses.

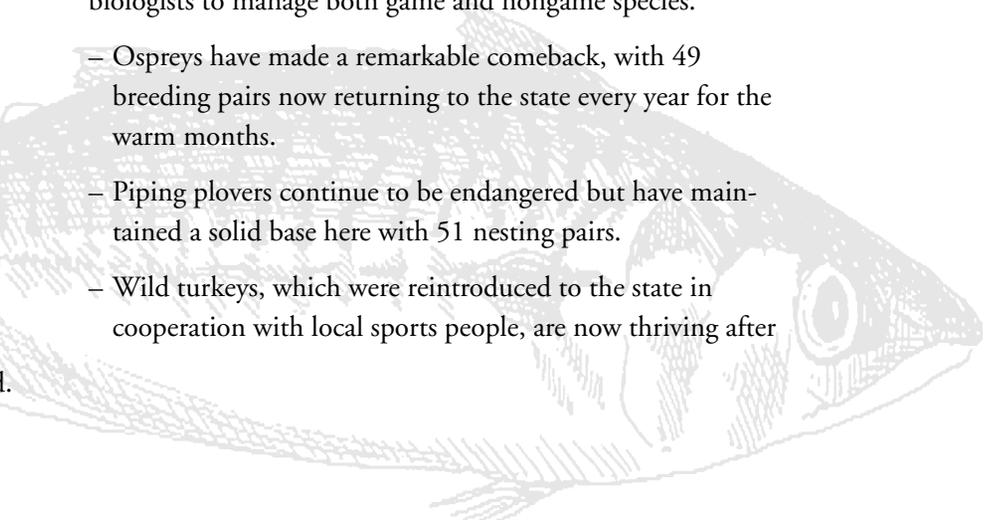
Fishing and boating, both on Narragansett Bay and on upland ponds and streams, as well as hunting in the state's upland forests are amenities treasured by thousands of Rhode Islanders and thousands of out-of-state visitors who use them each year. A survey made by the U.S. Fish and Wildlife Service in 1996 indicated that 163,000 Rhode Islanders participated in fishing and 26,000 Rhode Islanders in hunting, while 211,000 Rhode Islanders and 139,000 out-of-staters participated in some form of wildlife watching. Expenditures by state residents for these activities totalled over 312 million dollars.

There are an estimated 54,000 boats using Rhode Island waters each year including 35,000 boats registered in Rhode Island, along with out-of-state boats and boats too small to be registered. Sales of boats and boating equipment alone contribute about 15 million dollars a year to the state's economy.

DEM monitors fish and wildlife populations, develops hunting and fishing regulations to maintain stocks of harvestable species, maintains wildlife management areas and fishing access sites for public recreation and enforces hunting, fishing and safe boating laws.

### **During the year, RIDEM undertook the following:**

- Completed the Galilee Salt Marsh Restoration Project. Installation of culverts, tide gates and tidal channels by the US Army Corps of Engineers provides sea water flow that will restore a highly productive fish and wildlife habitat at the 128-acre Marsh and Bird Sanctuary. Funding for the 1.8 million dollar project came from the Army Corps of Engineers, DOT and Ducks Unlimited as well as from DEM.
- Achieved several ongoing successes in efforts by DEM wildlife biologists to manage both game and nongame species.
  - Ospreys have made a remarkable comeback, with 49 breeding pairs now returning to the state every year for the warm months.
  - Piping plovers continue to be endangered but have maintained a solid base here with 51 nesting pairs.
  - Wild turkeys, which were reintroduced to the state in cooperation with local sports people, are now thriving after



## FISHING, HUNTING AND BOATING

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- Restored a wildlife habitat to what had been a seven-acre gravel bank in the Nicholas Farm Management Area in Coventry with the help of local sports people who planted shrubs.
- Provided educational workshops for hundreds of local educators.
- Provided information on environmental curricula and resources for teachers.
- Conducted youth and school programs including hands-on field work for over a thousand students.
- Provided recreational fishing training for 2,400 children and adults.
- Rebuilt Weaver Cove Boat Ramp in Portsmouth to make courtesy dock barrier-free and handicapped-accessible to allow handicapped access to boats.
- Developed plans for similar rebuilding to be done at boat ramps in Colt State Park in Bristol, Bold Point in East Providence, Oakland Beach in Warwick and in Westerly.
- Developed plans to make Olney Pond Dam in Lincoln Woods handicapped-accessible for shore fishing when the dam is repaired in the fall of 1998, and to develop a handicapped-accessible fishing dock or platform at Little Round Top Pond in Burrillville.
- Developed a brochure listing all fishing access areas and identifying those that are handicapped-accessible or appropriate for children. It will be available in spring of 1998 by calling the Division (222-3075).
- Began offering on-site boat registration at the annual Boat Shows in Providence in 1997 and 1998. 800 boats were registered at the 1998 Boat Show.
- Developed a plan to set up an online registration system on the internet to include hunting and fishing licenses as well as boat registrations by spring of 1999.



## IMPROVING CUSTOMER SERVICE

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Beginning in 1986 with free voluntary technical assistance to prevent pollution, the Department launched an ongoing effort to help companies and individuals protect the environment and comply with environmental laws.

### Specific highlights for 1997 include:

- Created a DEM website to make department programs and services more accessible to the public. (<http://www.state.ri.us/dem>)
- Published DEM regulations on the Web Page.
- Evaluated deicing alternatives to prevent pollutant runoff from runways at Green Airport.
- Received \$87,000 in federal grants to study whether evaporation technology can be used in the metal plating industry and how Rhode Island businesses can meet internationally-accepted environmental standards.
- Provided technical assistance to reduce pollution in the textile, autobody and seafood processing industries.
- Helped a manufacturer eliminate use of 30 drums of a toxic solvent a year, eliminate sewer discharge fluid from a cleaning process, reduce soap usage by two thirds, recycle and reuse about ten drums of lubricating oils a year and recycle metal chips for scrap.



- Provided technical assistance to help businesses comply with new air regulations.
- Trained employees in improved customer-service techniques. Several sessions have been held and participants are calling for more, welcoming the classes as a chance to collaborate to solve problems for constituents.
- Secured funding to upgrade and coordinate the Department's computer systems for better efficiency and effectiveness.

DEM, through its new Strategic Planning and Policy Office, has embarked on a strategic planning effort that will guide the agency to preserve and protect our environment as we move to the 21st century, placing new emphasis on community-based approaches to environmental problems. The Department is working with Rhode Islanders on dozens of projects that bring diverse resources together to solve a range of environmental problems in special places. These include water quality and quantity in watersheds such as Greenwich Bay, the Pawtuxet River Basin and the Wood-Pawcatuck, and toxic pollution and solid waste dumping in urban areas like Providence and Central Falls.

The Department assists communities with planning to preserve the environment and provides technical assistance with such environmentally-sensitive issues as solid waste handling. Even household waste can be a major environmental problem. Landfilling trash wastes space and usable material, annoys those who live near the landfill, and presents enormous problems when new landfills must be sited. Household trash can include hazardous and hard-to-dispose-of materials that contribute to nonpoint source pollution and create hazards for sanitation workers. Litter left by the roadside hurts our quality of life and impedes economic progress. Strategies to promote waste reduction, recycling, litter prevention and safe disposal of problematic materials are a critical part of environmental protection in the new century.

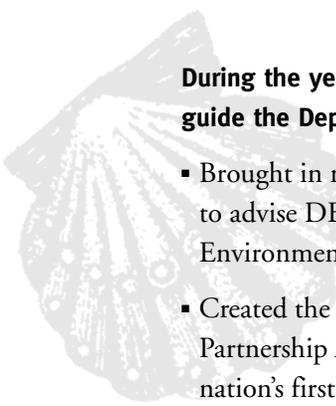
Increasingly the Department recognizes that it can't do the job on its own. The environment cannot be protected without the continued active support of well-informed citizens. Department staff are dedicated to reaching out to bring the best and latest



information on environmental issues to the state. DEM employees design and teach technical courses, develop and disseminate curriculum materials, help with local science fairs, work with local teachers, assist scouts earning badges and participate in many other environmental education endeavors.

## PREPARING FOR THE FUTURE

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**During the year, RIDEM embarked on the following initiatives to guide the Department into the next millennium:**

- Brought in members of the General Assembly and the public to advise DEM on new policies as the Advisory Council on the Environment (ACE), created by Governor Almond.
  - Created the Department's first comprehensive Performance Partnership Agreement (PPA) with the EPA, including the nation's first urban chapter in a PPA.
  - Solicited public input for the PPA by holding public meetings with the theme "Your State—Your Voice." More such meetings will be held in the future to encourage public participation in the Department's planning processes.
  - Created several stakeholder task forces so that members of the public with a direct interest could participate in this and future PPAs.
  - Coordinated and conducted activities to promote environmental education and awareness including Earth Day, Rhode Island Recycles Day celebrations, and school presentations on environmental issues to thousands of school students and residents across the state.
- Provided information on environmental curricula and resources for teachers.
  - Worked with partners to infuse environmental education into existing curricula.
  - Opened a new "front door" with which the Office of Technical and Customer Service offers many services to citizens and companies, such as pre-application guidance to those seeking permits, assistance to small businesses, and help from the Center for Pollution Prevention at URI.
  - Last year the General Assembly acted on the work of a gubernatorial task force by enacting reforms to State septic system laws. DEM is now pursuing a series of exemptions to current wetlands regulations and working on other legislative reforms. In addition, we are working to reduce the total number of DEM permit forms from 37 to 12 via regulatory streamlining.
  - Adopted a "Code of Public Service" to guide DEM employees in working with the public.
  - Dozens of DEM employees have received training in customer service, preparing to be a witness, ethics, reacting to a bomb threat, ergonomics for office computers, performing inspections, working with people, supervisory skills and working with the media.

## THANK YOU TO DEM'S PARTNERS IN ENVIRONMENTAL ACTION

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**Protecting the environment is a big job, and even a big department can't do it all. The Department of Environmental Management would like to acknowledge and thank the many agencies and organizations that have worked with DEM to help make the work possible. The Department offers heartfelt appreciation to the following partners for the environment:**

RI Department of Health  
RI Emergency Management Agency  
RI Water Resource Board  
RI Governor's Office  
RI Lt. Governor's Office  
RI Attorney-General's Office  
RI National Guard  
RI Department of Transportation  
RI Economic Development Corporation  
RI General Assembly  
RI Statewide Planning Program  
RI Greenways Council  
U.S. Environmental Protection Agency  
Federal Emergency Management Agency  
Natural Resource Conservation Service  
US Fish and Wildlife Service  
    Pittman-Robinson Program  
    Sportfish Restoration Program  
U.S. National Parks Service  
Federal Highway (ISTEA) funds  
U.S. Department of Agriculture  
    Farm Service Agency  
US Department of Commerce  
    Economic Development Administration  
National Oceanic and Atmospheric Administration  
U.S. Attorney's Office  
Federal Bureau of Investigation  
U.S. Coast Guard  
The Nature Conservancy  
Environment Council of RI - Education Fund  
Audubon Society of Rhode Island  
University of Rhode Island  
    Center for Pollution Prevention/  
    Chemical Engineering Dept.  
Textiles Department  
Food Science Department  
Civil & Environmental Engineering Dept.  
Urban Field Center/Project Discovery

Rhode Island College  
Providence College  
Community College of Rhode Island  
Davies Career and Technical High School  
Brown University  
Johnson & Wales University  
RI Trails Advisory Committee  
Audubon Society of Rhode Island.  
Champlin Foundations  
Rhode Island's public and private water suppliers  
Rhode Island's local land trusts  
Small Craft Access Trust (SCAT)  
Rhode Island's Conservation Districts  
RI RC&D  
RI Veterinary Medical Association  
RI's local animal control officers  
    & numerous humane organizations  
Rhode Island's municipalities  
Rhode Island's public and private schools and colleges  
Rhode Island's wastewater treatment authorities  
Warwick Sewer Authority  
State of Massachusetts  
Town of Seekonk  
The Runnins River Steering Committee  
Pokanoket Watershed Alliance  
William L. Burgin Architects

## THANK YOU TO DEM'S PARTNERS IN ENVIRONMENTAL ACTION

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### Earth Day, America Recycles Day, Youth Litter Corps Corporate Partners:

Hospital Trust Bank/A BankBoston Company	McQuade's Home Center
Harvard Pilgrim Health Care of New England	B101
Bell Atlantic	The BEAT
The Providence Journal Company	WLKW
Providence Gas Company	WPRO AM/FM
Narragansett Electric Company	LITE 105
Boliden Metech, Inc.	WERI AM/FM
Ocean State Power	WADK
PrintSource	Modern Galleries
Cookson America	Home Depot
Bread & Circus Whole Foods Market	Newport Jai Alai
The Fabric Gallery	Nathan Bishop Middle School
Bess Eaton Flour Donut Company	Esek Hopkins Middle School
Bugaboo Creek Steakhouse	Rhode Island Monthly
Capital Grille	South Street Cafe
Emblem & Badge	Fellini's Pizza
Foundry Associates	Snookers
McCaughey Standard, Inc.	Cafe Dolce Vita
NUWC Division/Newport	Trinity Rep
Pepsi Cola	Gatehouse Restaurant
Providence Biltmore Hotel	Rhode Island Audubon
RI Public Transit Authority	League of Women Voters of RI
RI Resource Recovery Corporation	Steel Recycling Institute
Ross-Simons Jewelers	Hasbro, Inc.
Starbucks	Little Earth Production
Stop & Shop	North Western Woolen Mills
WHJJ/WHJY/WSNE	Gary Plastic Packing Company
Coca-Cola	The Cloth Bag Company
Subway	Friends, Inc.
Ronzio Pizza	Direct Access International
The Edge	Science Applications International Corporation
Bob's Stores	Sakonnet Boathouse Sea Kayaking Touring Company
WBRU	Baer's River Workshop
Rhode Island Mall	
John Casablanca Studio	
Lincoln Mall	

## DEM STAKEHOLDER ADVISORY GROUPS

We also thank our many advisors—members of the public who give of their time to help us plan our activities and establish priorities. We thank all those who have taken the time to give us input, whether in phone calls, letters or in public meetings, and we are especially appreciative of those who have dedicated their time in organized advisory groups, whether on the Advisory Council on the Environment, appointed by the Governor, or by joining in our numerous stakeholder advisory groups.

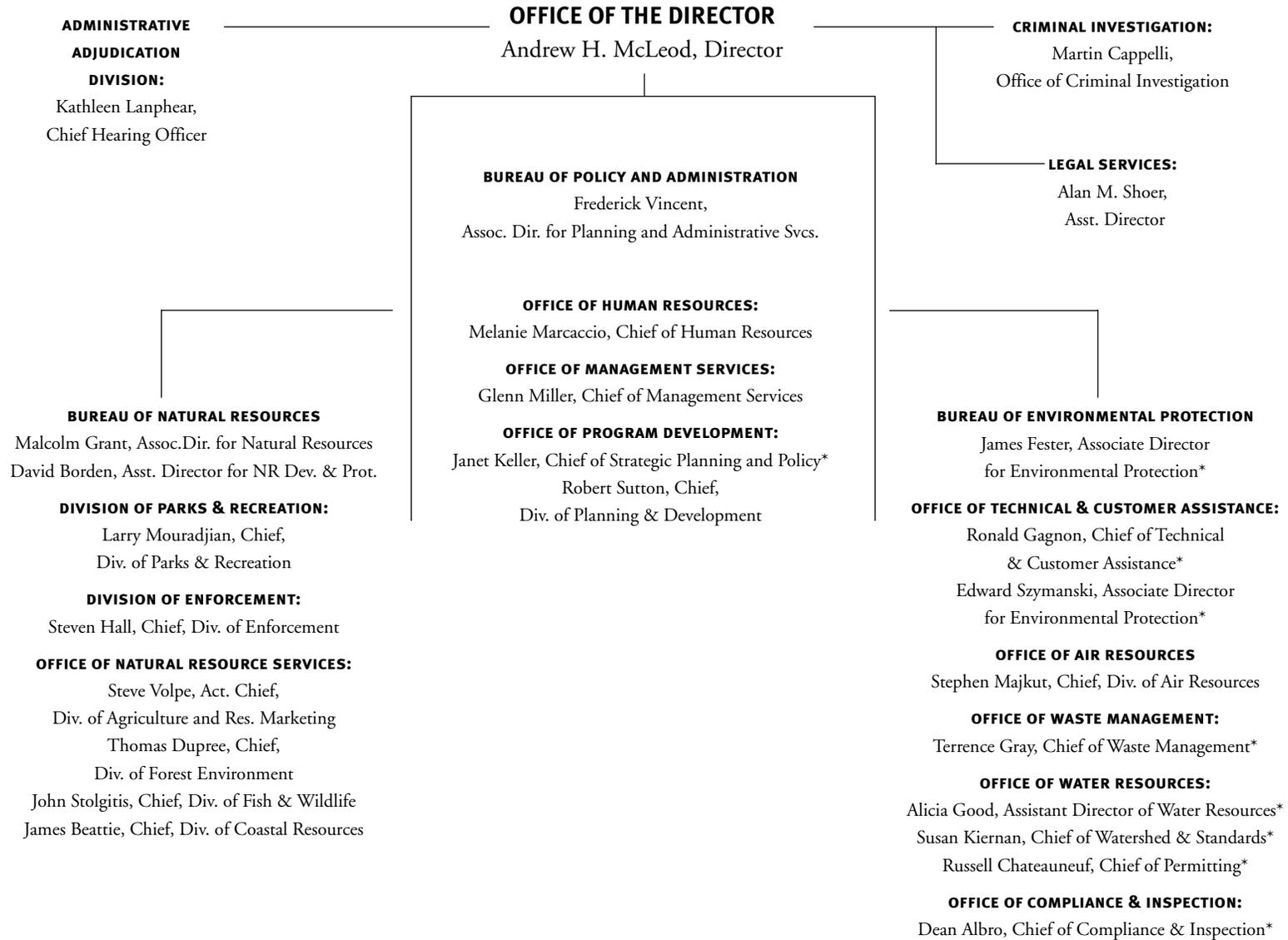
### Advisory Committee on the Environment

Stetson Eddy  
Scott Gibb  
Francis Golet  
George Johnson  
Keith Lang  
James McCauley  
Scott Nixon  
Nancy Nowak  
Beverly Scott  
Harold Ward  
Bruce Wilde  
Walter S. Combs, Ph.D. (Ex officio, Dept. Of Health)  
Rep. Paul W. Crowley  
Rep. Wayne L. Salisbury  
Sen. Charles J. Fogarty  
Sen. V. Susan Sosnowski.

### DEM Stakeholder Advisory Groups

Permit Streamlining Prioritization and Implementation  
Advisory Committee  
Urban Strategy Advisory Group  
Performance Partnership Advisory Group  
Environmental Education Advisory Group  
Earth Day Advisory Group  
Environment Council of Rhode Island  
Waste Management Programs Stakeholder Advisory  
Group  
Underground Storage Tank Program Technical  
Steering Committee  
Waste Facility Management Program Technical  
Steering Committee  
Site Remediation and Brownfields Program  
Technical Steering Committee  
Marine Fisheries Management  
Striped Bass Advisory Committee  
Scup Advisory Committee  
Sea Bass Advisory Committee  
Tautog Advisory Committee  
Lobster Management Advisory Committee  
Shellfish Management Advisory Committee  
Agriculture Programs  
Agriculture Advisory Committee  
Pesticide Relief Advisory Board  
Rabies Control Board  
Mosquito Abatement Board  
RI Organic Certification Committee  
New England Dairy Compact—RI Delegation  
Forest Programs  
Forest Fire Advisory Committee  
Urban Tree Council  
RI Forest Conservators Organization

# DEM TABLE OF ORGANIZATION



\*Working Titles