

New Jersey Department of Environmental Protection



1 9 8 7 ANNUAL REPORT





The Honorable Thomas H. Kean, Governor Members of the New Jersey Legislature, and Residents of New Jersey:

I present to you the 1987 Annual Report of the New Jersey Department of Environmental Protection. Since the inception of the department on Earth Day 1970, we have experienced 18 years of continued progress in environmental protection and conservation of natural resources.

This Annual Report contains highlights of DEP's 1987 accomplishments and features the innovative environmental programs that have gained New Jersey the recognition as a national leader in environmental management. DEP could never have realized these accomplishments without the personal support of the Governor, the commitment from the bi-partisan Legislature as well as the dedication of all the employees of the department.

As the department continues its mission to enhance and protect New Jersey's environment and natural resources, we look forward to the diverse challenges of the years ahead. Your continued support will help make efforts to protect public health and the environment for all the people of New Jersey a success.

Richard T. Dewling Commissioner



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1987
was a year dedicated to improving public service while dealing with environmental legacies from the past and present and challenges of the future.

While New Jersey continued to experience economic and population growth, significant progress was made in the areas of air and water quality standards, hazardous waste cleanup and reform, solid waste disposal, open space acquisition and recreational development, coastal restoration, community safety, freshwater wetlands preservation and public participation.

A concentrated effort was made to reduce reviewing time for permit applications, bring polluters to court and assist communities dealing with local environmental issues directly.

The Fund for Renewable Energy and Environment (FREE), a Washington, D.C., based organization, ranked New Jersey as the national leader in solid waste planning and hazardous waste management and third in air pollution reduction. FREE recognized New Jersey as third in the nation in overall environmental management.

With the passage of landmark legislation, New Jersey became the first to institute comprehensive statewide mandatory recycling. Recycling, which began as a grassroots movement, was soon aided by an aggressive state program and is now becoming a part of our every day lives — a clear demonstration of New Jersey's continuing commitment to environmental protection.

Resolving environmental issues today requires making difficult choices. Whether it is remediating hazardous waste, closing old landfills or guaranteeing clean water, these operations usually create a disposal dilemma. While many resources and manufactured products may be recycled or reused, our throw away society is learning that there is no real "away."

Conflicts over land use and siting or expanding environmental infrastructure continued to arise in communities across the state. To address concerns of the public, government officials. environmentalists and commerce, an Environmental Outreach Program was established in the department. An initiative of Governor Thomas H. Kean and Commissioner Richard T. Dewling, DEP's Environmental Outreach Program includes the offices of Community and Intergovernmental Affairs, Communications and Public Education and Public Participation.

1987 will be remembered as a year of continued communication with the public and significant strides toward protecting and enhancing the Garden State.

Following are highlights of the 1987 accomplishments of the New Jersey Department of Environmental Protection.

ENVIRONMENTAL MANAGEMENT & CONTROL

DIVISION OF ENVIRONMENTAL QUALITY

Air Pollution Control

In 1987, this division focused on the concerns of pollutants in the air including ozone and toxic air pollutants. Significant accomplishments:

Studies of the ambient ozone data throughout the northeastern United States were initiated to

develop a better understanding between the amount of ozone entering New Jersey versus the amount leaving the state.

■ In compliance with a court ruling, DEP adopted a rule requiring controls at gasoline pumps to reduce gasoline emissions during refueling of motor vehicles.

■ A three-year interstate study of toxic air pollutants in the vicinity of the Arthur Kill, Staten Island and Union and Middlesex counties has begun. This study is conducted in cooperation with several other agencies and academic institutions.

Air Quality Engineering and Technology, working with the regulated community, has restructured its permit process to reduce waiting time for a pending permit to less than 90 days.

Radon Communications Program

In September, the Radiation Protection Program released the initial testing results for naturally occurring radon in approximately 5.300 homes statewide. About 35 percent of these homes had radon levels (under worst case conditions) at or above the 4 picocuries per liter guidance level recommended by the Environmental Protection Agency (EPA). At this level, radon can, and should be, remediated. Based on these results. DEP divided the state into three tiers for recommendations of indoor radon testing by New Jersey residents.

The radon staff received more than 37,000 calls on its toll free information line (800-648-0394), mailed out more than 18,000 radon information packets and participated in more than 80 informational meetings on radon.

In cooperation with local health officials, the radon staff provided confirmatory testing for radon in more than 3,200 homes in New Jersey which tested at or above the 4 picocuries per liter guidance level.

Other Accomplishments

The Bureau of Nuclear Engineering and the federal Nuclear Regulatory Commission have entered into an agreement regarding the surveillance of the four nuclear power plants operating in New Jersey.

The Bureau of Pesticide Control has completed a statewide survey on pesticides used by private agricultural applicators, created a gypsy moth task force and continued to concentrate its efforts in implementing and enforcing farm worker safety regulations. Also, an aggressive enforcement program performed 3,262 inspections, handled 1,208 complaints, issued 1,573 enforcement actions and levied \$137,650 in penalties in 1987 – a 32 percent increase from 1986.

In April 1987, the Bureau of Air Quality Laboratories was established as part of the Laboratories and Pesticides element. It consists of two sections, a Source Compliance Laboratory and an Air Monitoring Laboratory.

Community Safety Program

Operating within the Division of Environmental Quality, the Community Safety Program is the only program in the country that comprehensively addresses chemical emergency planning, preparedness, response and prevention by consolidating the emergency response activities of the newly-created Toxic Catastrophe Prevention Act program, the Emergency Response program and the Right to Know program.

The Toxic Catastrophe Prevention Act is a new law and supporting program that places emphasis on the prevention of chemical accidents by requiring any facility storing, handling or producing extraordinarily hazardous substances to prepare a risk

management program, train workers, perform drills, develop an emergency response plan and perform scheduled maintenance of equipment. More than 800 facilities are registered under this act.

All hazardous material emergencies are now addressed by the Bureau of Emergency Response. The bureau is composed of a headquarters staff in Trenton and two regional field offices. All calls for emergency response and notification of spills and releases of hazardous materials into the environment are reported to 609-292-7172. The environmental "hot line" is managed by the Bureau of Communication and Support Services. Emergency response personnel are highly trained and equipped to respond to all forms of hazardous materials emergencies on a 24 hour, 7 days a week basis. The emergency response team and the communication bureau handled 729 emergencies in 1987. In addition, the Emergency Response and Preparedness Program works with state and county agencies to train and drill local emergency response organizations in all aspects of hazardous material disasters. Approximately 1,500 fire, rescue and civil defense workers were trained in 1987.

Under the management of the Bureau of Hazardous Substance Information, the Right to Know program gives citizens and workers information about chemical substances in their work place and community. During 1987, the Right to Know Survey was developed which requires facilities to complete a mass balance of incoming and outgoing select chemicals. The survey was mailed to 9,200 newlyregulated facilities. In addition, this bureau is responsible for implementing the community Right to Know requirements under Superfund Amendments

Reauthorization Act (SARA) and is working to combine the new federal requirements with the existing state program.

DIVISION OF SOLID WASTE MANAGEMENT

1987 was a year of progress for the Division of Solid Waste
Management. Working toward the goal of self-sufficiency by 1992, the division, in cooperation with the counties, are implementing the state's solid waste plan.
Accomplishments in the year include:

- Constructing initial phase of the Warren County resource recovery facility (the first in the state);
- Permitting four resource recovery facilities in Bergen, Camden, Gloucester and Essex counties:
- Permitting four new landfills in Sussex, Burlington, Salem and Warren counties and closing 10 landfills:
- Selecting 18 sites for resource recovery facilities;
 - Naming 14 sites for landfills;
- Selecting sites in 13 counties for both a resource recovery facility and a landfill.

Mandatory Recycling

In 1987, New Jersey gained the distinction of having the most comprehensive recycling program in the country. On April 20, 1987, Governor Kean signed landmark legislation requiring mandatory recycling in all 567 municipalities. This law mandates the recycling of at least three materials by each municipality and bans the future landfilling of leaves. Each town must achieve at least 15 percent recycling by the end of the first year and 25 percent by the end of the second year.

Transfer Stations

Until long-term goals can be fully realized, alternative disposal solutions must be sought for those counties that do not have sufficient landfill capacity. The division has established several transfer stations in those areas that have little or no landfill space. This method of trash disposal is not reliable nor is it economical for any prolonged periods of time. However, as an interim method of solid waste disposal, it is this state's only alternative.

New Jersey is well on its way to the goal of self-sufficiency. Many of the most difficult obstacles have been overcome. As new facilities are brought on line over the next two years, they will serve as examples for other communities and will establish New Jersey's solid waste management program as a model for the rest of the nation.

DIVISION OF WATER RESOURCES

In 1987, the Division of Water Resources continued to pursue an aggressive program to control and monitor all discharges of pollutants to both surface and ground waters of the state. Significant accomplishments for the year:

Water Quality Management

A new Underground Storage Tank Program was created requiring registration, construction standards and monitoring. Approximately 18,000 facilities, with 60,000 underground tanks, were registered.

The ground water program issued 215 New Jersey Pollutant Discharge Elimination System (NJPDES) permits to restrict and monitor discharges to ground water from landfills, industrial septic systems and lagoons. Permit fees were increased to provide the

resources necessary to address potential ground water contamination from the many operating and closed state landfills.

The Statewide Sludge
Management Plan was completed, a
result of many years of work. The
plan is a blueprint for managing
sludge (the solid by-product of
wastewater treatment) in New Jersey
and provides guidance for
comprehensive sludge planning by
districts, sludge generators and water
quality planning agencies.

Water Supply and Watershed Management

- The 1987 "Update" and "Response Document" were developed as required by the Statewide Water Supply Master Plan. This process involved public input through meetings and hearings statewide.
- The New Jersey Drinking Water Quality Institute, a 15-member advisory body, adopted standards for 16 drinking water contaminants, creating the most advanced and stringent drinking water regulatory program in the country.
- Two major reservoir projects, assuring adequate drinking water into the 21st century, were funded, in part, by the Water Supply Bond Act. The Wanague South Project, including the 7 billion gallon Monksville reservoir, is a \$150 million water supply system capable of delivering an additional 79 million gallons per day to the northeast, thus minimizing impacts of droughts. In Monmouth and Ocean Counties, ground has been broken for the Manasquan Reservoir – a 4 billion gallon, \$72 million reservoir and treatment system capable of supplying 31 million gallons of water per day.
- The Water Supply Bond Loan Program entered into 31 new loan

agreements for the rehabilitation of existing publicly owned facilities for a total amount of \$19.3 million in loan awards.

■ The "Camden Metropolitan Water Supply Feasibility Study," involving the regional areas of Burlington, Camden and Gloucester counties, was completed.

Enforcement

Administrative Consent Orders (ACOs) were executed with:

- Khubani Enterprises, Inc., in violation of the Flood Hazard Area Control Act for constructing a subdivision in the Township of Fairfield without a permit. Khubani Enterprises must pay a penalty of \$200,000, obtain the necessary permit and obtain permanent deed restrictions on at least 15 acres of wetlands.
- The City of Hoboken was fined \$250,000 after failing to repair its sewage treatment facility and must begin construction of a plant to treat sewage at the secondary level.
- Matlack, Inc., Woolwich Township was ordered to perform ground-water cleanup and post \$2 million in an irrevocable letter of credit to ensure compliance.

Construction Grants and Loans

- Over \$110 million in construction grants were awarded to municipalities and utility authorities for wastewater treatment facilities to meet goals for improved water quality. This represents the last cycle of federally funded grants.
- The Wastewater Treatment Financing Program was initiated to provide low-interest loans to local government units for construction of wastewater treatment facilities.
- The New Jersey Pinelands Infrastructure Trust Funding Program was established.

Monitoring & Planning

- Mew ocean and back-bay monitoring projects were initiated for the safety of coastal waters, including a study of floatables in the New York Harbor region, monitoring for the presence of green tide, assisting in the Coastal Cooperative Monitoring Project and the epidemiological study of ocean waters.
- DEP's Environmental
 Monitoring Laboratory, located at
 Artic Parkway in Trenton, was
 completed. The facility contributes
 to program efforts involving
 aquaculture, general purpose
 chemistry, aquatic toxicology and
 biomonitoring and equipment
 preparation.
- The Navesink River Non-Point Source Management Project was featured in a New Jersey Network television documentary.
- The annual reclassification of shellfish harvesting areas along the coastline resulted in the reclassification of approximately 8,600 acres a net gain of nearly 1,000 acres from 1986.
- Under the National Estuary
 Program, the New York/New Jersey
 Harbor has been nominated for a
 five-year study of water quality
 standards, combined sewer
 overflows, industrial pretreatment,
 and point and non-point source
 controls.

The New Jersey Geological Survey

- The Survey opened its new equipment calibration, rock and soil laboratories at Artic Parkway.
- A map and listing, indexed by municipality, of aeroradiometric uranium/radon anomalies in New Jersey was completed. The results were used to prioritize areas for indoor radon testing.
- Plans were finalized for the installation of 24 new monitoring wells in northern New Jersey. When

completed, the new wells will be incorporated into a cooperative state and federal monitoring well network.

LOCAL ENVIRONMENTAL MANAGEMENT

In 1987, the Office of Local Environmental Management expanded its role as liaison between DEP and local health agencies when the legislature approved \$2 million to fund the program, doubling its 1986 funding. This increase allowed DEP to complete interagency agreements with most counties and provide funding for environmental health services for the control of air and water pollution, solid waste and hazardous materials.

HAZARDOUS WASTE MANAGEMENT

Substantial progress within the Hazardous Waste Management Program was marked by special recognition in February 1987. The Fund for Renewable Energy and the Environment, based in Washington, D.C., conducted a nationwide review of all state waste management programs and reported that "the best working model for hazardous waste programs and policies is New Jersey."

DIVISION OF HAZARDOUS WASTE MANAGEMENT

DEP released its Comprehensive Hazardous Waste Management Plan (1988-1992) and Status Report of hazardous waste activities in late October. The plan defines DEP's program to remediate past mismanagement of hazardous waste, to control wastes presently generated, to prevent future hazardous waste problems and to define the role of the individual as an integral part of the management process.

New Jersey, in cooperation with EPA, completed more than 1,200 Preliminary Site Assessments for all known or suspected hazardous waste sites in the state and did so in advance of the deadline imposed by SARA.

The Environmental Cleanup Responsibility Act (ECRA), established in 1983, is a regulatory program which involves responsible party cleanups. ECRA accomplishments in 1987 include:

Winning the 1987 Innovations Award presented by the Council of State Governments in recognition of the outstanding administration of the innovative ECRA program.

procedures has strengthened the foundation of the program and ensured that no unnecessary delays occur. In 1987, the output of the program has significantly increased, reflecting the improved efficiency due to these procedural revisions.

■ In November, revisions to ECRA regulations were adopted to provide greater precision and clarity of the obligations and responsibilities of the regulated community.

Enforcement Activities

DEP has continued to develop its baseline compliance monitoring program and expanded its Enforcement Responsible Party Cleanup Program. In 1987, the Bureau of Field Operations issued 669 enforcement documents, assessed \$2.6 million in penalties through these enforcement actions and collected \$783,000 for 213 of these documents. The cost to responsible parties for major cleanup activities initiated in 1987 was estimated at \$44 million. These efforts would have otherwise resulted in expenditure of public funds.

In 1987, responsible parties signed 16 Administrative Consent Orders

(ACOs), 14 of which secure financial assurance of \$34 million in the event the responsible party does not comply with the terms of the ACO and DEP is forced to conduct the cleanup.

DIVISION OF HAZARDOUS SITE MITIGATION

Superfund

For the third consecutive year, New Jersey has maintained its position as the top recipient among states receiving federal funds for the remediation of Superfund sites, totaling more than \$68 million in 1987.

By the end of 1987, New Jersey had 100 hazardous waste sites proposed or finalized on the National Priorities List (NPL). Action for NPL or Superfund projects, which include both publicly and privately funded sites, has progressed significantly. Remedial Investigation/Feasibility Studies (RI/FSs) have been completed at 28 sites. Sixty-seven RI/FSs are underway and five are yet to be initiated. Remedial designs have been completed for nine sites, 21 other remedial designs are underway, with 70 yet to be initiated. Construction phases are underway or completed at 12 sites.

MANAGEMENT & BUDGET

DIVISION OF FINANCIAL MANAGEMENT, PLANNING AND GENERAL SERVICES

Departmental efforts to provide necessary programs while reducing dependence on increased state appropriations or program subsidies continue. Methods being employed to support environmental programs include substitution of state appropriations with user fees and

user taxes, replacement of grant programs with revolving long-term loan programs and maximization of federal funding.

In 1987, DEP continued to employ user fees to process, administer, monitor and enforce environmental programs. Fee-supported programs include the Toxic Catastrophe Prevention Act, Underground Storage Tanks and expansion of the New Jersey Pollutant Discharge Elimination System programs. Taxsupported programs include the Clean Communities litter control program and expansion of the Recycling and Spill Fund programs. Increased user tax rates on solid waste disposed in landfills were used to provide additional local aid through the Solid Waste Services and Resource Recovery Investment programs.

For a number of bond-funded programs, DEP received "pay as you go" capital funding. Due to the lack of a permanent fee-supported source for shore protection and natural resources capital funding, DEP received a \$42 million increase for its natural resources programs. Those to be funded include park development, state land acquisition, shore protection, flood control and dredging. DEP continues to support the establishment of a permanent fund for natural resources restoration and preservation.

The division closed on a \$63.6 million loan to the New Jersey Water Supply Authority for construction of the Manasquan Reservoir and a \$48 million loan to Essex County for its resource recovery facility. The division manages and maintains a \$375 million loan portfolio providing revolving loans for water supply rehabilitation, resource recovery, wastewater treatment and the Green Trust. In addition, the New Jersey Wastewater Treatment Trust provided \$130 million as

matching funds to the department's loans for wastewater treatment.

At a time when federal support for many state programs is being reduced, DEP has been successful in obtaining major federal commitments, especially in relation to SARA.

DIVISION OF PERSONNEL & DATA SERVICES

The move of 350 employees to 5 Station Plaza (501 East State Street) completed a two-year program which established DEP's headquarters complex. The move included the divisions of Parks and Forestry, Coastal Resources and Fish, Game and Wildlife. The Recruitment Program succeeded in hiring 110 high-caliber college graduates for environmental engineering and specialist positions, including 18 women and 11 minorities.

AFFIRMATIVE ACTION

The Office of Equal Opportunity and Public Contract Assistance is responsible for overseeing DEP's Affirmative Action Plan and the Small, Minority and Women's Business Program. DEP has developed a voluntary purchasing plan for these designated groups with year-end purchasing data reflecting a small business utilization of 24 percent, a women's business utilization of 6.8 percent and a minority business utilization of 8.5 percent.

NATURAL RESOURCES

DIVISION OF COASTAL RESOURCES

In 1987, the Division of Coastal Resources continued to implement and improve New Jersey's Coastal Zone Management Program. With a \$2 million grant from the federal government, the division has continued to review permit applications, perform coastal planning tasks, inspect and enforce coastal regulations and implement shore protection projects.

On July 1, 1987, Governor Kean signed the landmark Freshwater Wetlands Protection Act. Aimed at protecting freshwater wetlands from activities which have a detrimental impact, the law will go into effect on July 1, 1988. Under this act, the division's added responsibilities include assuming the functions of the Bureau of Floodplain Management from the Division of Water Resources and examining the possibility of consolidating the freshwater wetlands permitting process with other regulatory programs. Other significant accomplishments:

- The division received its first grant award, \$50,000, from EPA to improve and further develop the wetlands program. The funds will be dedicated to preparing a model wetlands restoration consent order for wetlands violations, protecting man-made wetlands by mapping them onto existing maps, producing a public participation pamphlet concerning wetlands protection and training staff in wetlands identification and delineation.
- A public review was conducted of waterfront development along the 18-mile stretch of the Hudson River between the George Washington Bridge and Bayonne. As a result, a new Special Area policy was proposed that defines specific open space, pedestrian access and building height requirements.
- A \$2 million grant was provided from the federal government for Emergency Beach and Dune Restoration projects and passed onto local coastal municipalities to install fences, plant beachgrass, and construct dunes and dune walkovers.

Planning grants totaling \$200,000 for 17 projects in the coastal zone were provided from the local Coastal Planning Grant Program to municipalities and counties to stimulate local efforts for the provision of public access and recreational opportunities.

■ The division participated in the "New Jersey Shore-Keep It Perfect" campaign which was developed to increase public awareness of the importance of caring for the state's

beaches.

A pilot citizens Coastal Watch Program was initiated in the townships of Brick and Berkeley, and the division worked with the legislature and all municipalities fronting on Barnegat Bay to begin a cooperative land use planning program for the waterfront.

Seven shore protection projects were started and completed at the state cost of \$4.8 million. The biggest project was the Avalon beachfill/Townsends Inlet dredging project. At a cost of \$2.5 million, the Inlet was dredged and the sand pumped onto the northern oceanfront of the Borough of Avalon to enlarge the eroded beach area. Construction started on the Barnegat Light South Jetty Project. Assurance Agreements were signed by local, state and federal governments for construction with the state contributing \$5.5 million.

■ The first capital appropriation for shore protection since Fiscal Year 1976 was approved for \$12 million, with 10 projects planned to be completed with the funds.

DIVISION OF FISH, GAME AND WILDLIFE

In 1987, the division stocked public waters with more than 600,000 trout, while 50,000 Chinook salmon were released into the Raritan River and 965 tiger muskies were stocked in the Passaic River.

The run of 595,000 American shad in the Delaware River was the largest since 1975. Also, the new Monksville Reservoir has been added as a place to fish in New Jersey, stocking smallmouth and largemouth bass, rainbow trout and alewife herring.

Hunters harvested a record number of deer during the 1987 season, taking more than 37,000 deer.

In Sussex County, wild turkeys were live-trapped and relocated to the Naval Weapons Station Earle in Monmouth County. Turkeys were also sent to Ontario, Canada, to restore populations. Wild quail from Illinois were released in Sussex County to re-establish a quail population.

In the spring, personnel tagged 24 black bears. All the bears appeared in good condition with weights ranging from 65 to 520 pounds.

Biologists constructed a new eagle's nest to replace a natural nest that was in danger of collapsing. Eagles used the new nest to raise two eaglets and, overall, 12 eaglets from Manitoba were successfully hacked (reared and released) in 1987 as part of a program to restore New Jersey's eagle population.

The Marine Enforcement Unit received the Atlantic Offshore Fisherman's Association annual award for service to the fishing

industry.

Conservation Officers participated in a week-long enforcement effort with other agencies to stem illegal trawling activities in Raritan Bay. The operation resulted in 30

apprehensions.

The Pequest Trout Hatchery and Natural Resource Education Center hosted fishing clinics in cooperation with several fishing organizations, conducted programs on topics such as bird feeding and salmon fishing and completed the Natural Resource Trail.

In September, three ships were sunk in the Atlantic Ocean as part of the state's artificial reef program. This creates habitat for sea life, providing good fishing grounds for fishermen.

GREEN ACRES

In November, voters passed a "Quality of Life" bond issue which Green Acres shares with cultural centers and historic preservation.

The bond will provide \$35 million to the Green Trust in support of county and municipal open space acquisition and recreational development projects.

In 1987, the Green Acres Program preserved 11,363 acres — 9,446 state and 1,917 local — with acquisition projects taking precedence over development. This brought the Green Acres assisted total to 266,602 acres. Based on the Governor's Council in New Jersey Outdoors March '87 report, this still leaves the state 361,852 acres shy of its open space goal.

While there were 111 project requests totaling more than \$90 million for funding from the Green Acres program, only 38 projects were approved for a total of \$35.8 million, leaving 73 requests unanswered.

South Jersey benefited from several large acquisitions including the Great Egg Harbor greenway project which preserves more than 2,300 acres in Atlantic County. The year closed with the addition of 3,765 acres to protect the Manumuskin Watershed in Cumberland County.

The Bureau of State Acquisition administered a program for the Division of Water Resources in which buy out offers were made to 60 residents in the Passaic River basin floodplain. Funding comes from a \$5 million bill signed by Governor Kean. Acquisitions were

on a voluntary basis and limited to residential use. The state has closed on 22 properties.

DIVISION OF PARKS AND FORESTRY

In 1987, more than nine million people enjoyed New Jersey's State Parks, with over 480,000 using the

overnight facilities.

Under the Clean Communities
Act, the State Park Service initiated
an ocean beach clean-up at Island
Beach, Barnegat Lighthouse,
Corson's Inlet and Cape May Point
state parks and at North Brigantine
and Strathmere natural areas,
removing more than 600 cubic yards
of debris and trash from the ocean
beaches. At Wharton State Forest,
clean up crews removed
approximately 600 bags of trash
from along canoe trails.

At Liberty State Park, the seawall was nearly completed. The seawall, which stretches along 1.5 miles of the park shoreline, will provide flood protection for the park's future development. A pedestrian promenade will be constructed along the entire length of the seawall.

The Bureau of Forest
Management shipped 710,000
seedlings to public and private
landowners for reforestation of open
lands and, in addition, reforested 170
acres of understocked lands at
Lebanon State Forest.

The Bureau of Forest Fire Management reported a combination of prevention and education efforts by the Forest Fire Service, and a wet spring resulted in a minimum number of forest fires. Overall, 1,001 fires burned 2,268 acres.

The Office of New Jersey Heritage will receive its first major source of funding for historic preservation with the passage of the "Quality of Life" bond issue. Also, the office was recertified by the Natural Park Service and was able to undertake

outreach programs, including a training course for local building code officials, workshops for local historic district commissioners, seminars for historic site specialists in the Division of Parks and Forestry and a state-wide seminar entitled "Preservation Beyond Our Borders."

The Office of Natural Lands
Management responded to more
than 350 requests for information
from a variety of planning groups
and updated its rules governing the
Natural Areas System to allow for
more efficient and better coordinated
administration of the sensitive lands
that are in the system.

REGULATORY AND GOVERNMENTAL AFFAIRS

Outreach

In 1987, DEP's Environmental Outreach Program, an initiative of Governor Kean and Commissioner Dewling, was created to provide a proactive and comprehensive statewide communications network. The focus of Environmental Outreach is to identify issues that are imperative to both the public and DEP, promote a mutual understanding regarding environmental issues facing the community and establish a continuous feedback mechanism from DEP to the affected individuals and concerned public.

A component of Outreach, the Office of Community and Intergovernmental Affairs provides direct representation to municipalities to assist with local environmental issues. Each region, consisting of several counties, has a community liaison designated to serve the needs of the area.

Another component, the Office of Communications and Public Education, was established essentially from reorganized staff, expertise and facilities available within DEP. This office develops informational programs, services schools and produces numerous publications including New Jersey Outdoors and Environmental News.

In its first year, Outreach:

■ Conducted a series of regional environmental conferences involving DEP policy makers and local health.

political officials.

■ Launched the "New Jersey Shore - Keep it Perfect" campaign, coordinated by the Office of Communications and Public Education. This community pride and shore anti-litter campaign was joined by over 40 communities in a cooperative program which culminated on "New Jersey Coastal Day." Part of a national celebration, the day brought together environmental groups, communities, and government working towards coastal protection. The campaign garnered a "New Jersey Take Pride in America" award and is one of 200 programs selected for national recognition.

Claims

The Environmental Claims
Administration (ECA) was formally created by Administrative Order in July. ECA is responsible for administration of the New Jersey Spill Compensation Fund and for the claims processing aspects of the Sanitary Landfill Facility Contingency Fund.

ECA processed approximately 265 claims in calendar year 1987 which included final payments, denials and administrative closures. Payments totaled more than \$1.5 million.

Legislative Liaison

The Office of Legislation and Private Sector Liaison was established to maintain a continuous and informative liaison with local, state and federal officials. In addition, this office reviews all state and federal legislation for its impact upon DEP and coordinates responses to legislative representatives.

Regulatory Services

1987 proved to be a year of significant legal victories. In a civil enforcement action brought by the department against an individual and his two corporations, the defendants were found to have dumped sewage and septage illegally. The court refused to require the defendants to finance a ground water study to determine the extent of environmental damage. In addition, the court failed to impose penalties for statutory violations on the basis that such penalties should only be awarded for intentional wrongdoing. The Appellate Division of Superior Court reversed the decision and declared that the legislative intent behind environmental laws requires those responsible for polluting should be responsible for conducting environmental impact studies of the affected area. The Appellate Court also upheld penalties for violations of the Solid Waste Management Act and the Water Pollution Control Act.

In a second case, the Appellate Division held that under ECRA an owner of an industrial property is responsible for cleanup regardless of fault, and an ECRA cleanup should not be delayed by investigation or litigation regarding the liability between owners and previous owners.

SCIENCE AND RESEARCH

The state-of-the-art Geographic Information System (GIS), which is unique to state government, was installed. The GIS, a new tool for decision making, will meet the diverse geographic analysis and

mapping needs within DEP. GIS develops a comprehensive data base consisting of important pollution and natural resource information, using sophisticated computerized techniques, to provide an understanding of environmental relationships not previously available. The Office of Science and Research (OSR) is coordinating the design of the data base and its implementation on a pilot basis before full-scale development begins.

A risk assessment was performed by the Risk Assessment Unit of OSR on the potential health effects of arsenic contamination in Union Lake, Cumberland County, due to the exposure of contaminated sediments during repair operations on the dam. The Risk Communication Unit of OSR had provided public education and risk communication on this assessment. The results of the risk communication process proved that involving the community as early as possible and implementing public outreach efforts as part of the overall management plan greatly enhanced the relationship between state agencies and communities.

The DEP Information Resource Center (IRC), located at 432 East State Street, opened its doors in March. Established to serve the informational needs of DEP scientists and policy makers, IRC also provides reference services to the general public and other agencies. Along with the growing text collection originally comprised of materials from OSR and the Division of Water Resources, IRC is expanding its collections to shelf all DEP informational materials as well. IRC provides more than 120 journals, various reference files, interlibrary loan services and on-line data base searching. IRC receives its technical foundation and guidance from OSR's professional library staff.

For several years, intense public attention has been focused on potential environmental impacts of industrial effluent discharged from the CIBA-GEIGY Corporation Toms River facility into the Atlantic Ocean off the coast of Ortley Beach. Beginning in May 1986, this office undertook one of the most extensive investigations of an industrial ocean discharger. The intent of the investigation was to provide a comprehensive assessment on the impact of the effluent after discharge to determine whether the discharge poses a potential public health risk. The research project included identifying the chemicals in the effluent, the distribution and concentration of the effluent along the coast after discharge and bioaccumulation effects of effluent

constituents on marine organisms. The results of the research investigations clearly indicate that the ocean discharge posed no measurable health risk to bathers in the vicinity of the outfall. The results of the study were used to revise an earlier risk assessment.

The State of New Jersey appropriated \$300,000 for graduate and post-graduate research fellowships in the area of environmental health sciences and other related fields. Fellowship recipients will conduct research on environmental health problems facing this state.

Beginning in 1988, through an Administrative Order, the Office of Science and Research officially will become the Division of Science and Research.

PUBLIC PARTICIPATION

In September, the Office of Public Participation was created within the Commissioner's Office, as the third component of the Environmental Outreach Program.

The mission of this office is to bring the public and environmental groups into DEP's decision-making process by facilitating two-way communication. This office is predicated on the idea that effective environmental regulation depends upon participation by the public.

In its role as an "ear" for environmental groups, this office evaluates existing DEP policies to ensure opportunity is provided for meaningful public participation.



1988 New Jersey Department of Environmental Protection: seated left to right, Deputy Commissioner Michael F. Catania, Commissioner Richard T. Dewling and Assistant Commissioner Helen C. Fenske of Natural Resources. Standing left to right, Assistant Commissioner John W. Gaston of Hazardous Waste Management, Assistant Commissioner William J. White of Management and Budget, Assistant Commissioner Arthur R. Kondrup of Regulatory and Governmental Affairs and Assistant Commissioner Donald A. Deieso of Environmental Management and Control.

In 1987, Assistant Commissioner Donald T. Graham of Regulatory and Governmental Affairs and Assistant Commissioner Sidney Ytkin of Management and Budget both retired.

