ANNUAL REPORT

for fiscal year 1972

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New Jersey State Department of Environmental Protection

ANNUAL REPORT

FY 1972

DEPARTMENT OF ENVIRONMENTAL PROTECTION

RICHARD J. SULLIVAN

COMMISSIONER

November 30, 1972

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INTRODUCTION

The Department of Environmental Protection was created on Earth Day 1970 when Governor William T. Cahill signed Chapter 33 of the Laws of 1970. The Department was formed by combining the former Division of Clean Air and Water with the conservation oriented programs of the former Department of Conservation and Economic Development.

This is the first annual report of the Department, and describes its activities during Fiscal Year 1972, the period July 1, 1971 - June 30, 1972.

The goals of the Department are to:

1. Achieve the highest air quality attainable.

2. Assure water supply of a quantity and quality sufficient to meet legitimate needs, and the achievement of the highest maximum multiple beneficial uses to the public.

3. Dispose of used natural resources and synthetic materials in such a way as to conserve non-renewable resources and avoid harmful environmental impact.

4. Match land use with available environmental resources by changing the pattern of land use management to make it reflect environmental considerations.

5. Reduce injury and property damage due to flooding and erosion on our flood plains and beachfronts.

6. Manage and protect the renewable resources of the State for the benefit of current and future generations.

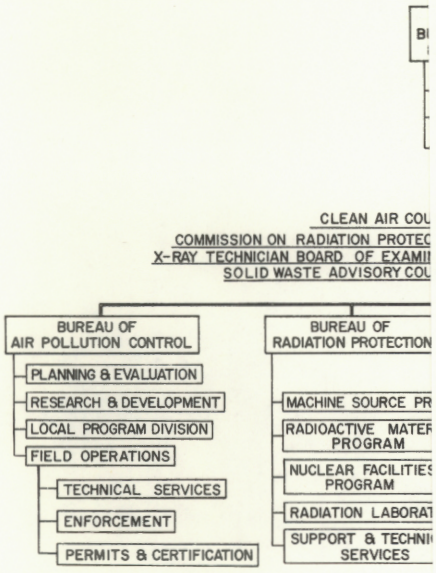
7. Achieve the public acquisition of lands most deserving of protection for conservation and recreation.

8. Expand outdoor recreational opportunities throughout the State, including the cities, for the enjoyment and welfare of the people.

The Department, in order to effectively realize these goals, is organized into five line divisions. These are:

Division of Environmental Quality
Division of Water Resources
Division of Marine Services
Division of Parks and Forests
Division of Fish, Game, and Shellfisheries.

The programs and policies of these Divisions are guided and supported by the Office of Management and Budget and the Office of the Commissioner. The organization chart reproduced as Figure 1 details the Department's makeup.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RESEARCH & DEVELOPMENT
LOCAL PROGRAM DIVISION
FIELD OPERATIONS
TECHNICAL SERVICES
ENFORCEMENT
PERMITS & CERTIFICATION
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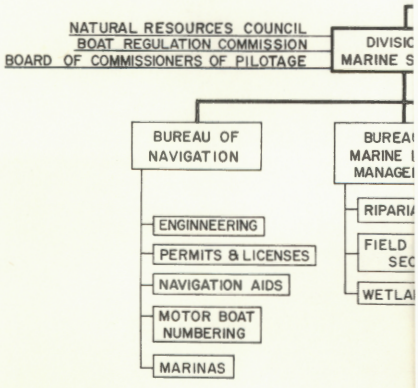
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This report consists of seven chapters, each of which deals with one of the major organizational units of the Department, and appendices which report in a statistical format, budget and performance data for some of the programs of the Department.

Chapter I

OFFICE OF THE COMMISSIONER

The OFFICE OF THE COMMISSIONER makes Department policy and oversees its implementation. Its activities include: (1) the development of new programs to extend and improve the Department's protection over the land, air and water and other resources of the State; (2) administration of the "Green Acres" land acquisition program to place significant parcels of land in the public domain for purposes of conservation of open space, recreation and urban park development; (3) assistance and guidance to official agencies of local government charged with matters of environmental stewardship; (4) administration and coordination of federal-local Land and Water Conservation Fund; (5) provision of public information concerning the state's efforts to protect the environment and on environmental problems in general. There are several operating units within the Office of the Commissioner.

Office of Environmental Services

The office of Environmental Services was created on May 3, 1971 by administrative order of the Commissioner. The State's environmental protection policies and programs are dependent to a large degree on local understanding, support and action. This support and action could be insured only by an effective relationship between the Department and local government.

The goals of the office are to extend the environmental movement by encouraging the creation of new local environmental agencies; to strengthen and assist existing local environmental protection organizations, and to provide these agencies with technical support in order to define the preventive and protective powers available to local and state government.

During fiscal year 1972, 24 new municipal environmental commissions were formed.

The office administers, and participated in the development of, a Ford Foundation project which has made available a sum of $385,000 to be drawn on by local environmental agencies for such activities as the preparation of open space plans, small-scale reclamation work, and the writing of ordinances and land-trust documents.

Under the program, local agencies may apply for grants of up to $5,000. Amounts over $750 must be matched by the municipalities on a dollar-for-dollar basis. During the year, 19 applications were reviewed, and 12 grants approved, totalling $19,250.

The grants will help to establish programs dealing with a broad range of environmental problems, with priority given to waste management, land use, and pollution control. Purchase of land is excluded. Activities that could be supported are the preparation of maps, aerial photographs and surveys, or the acquisition of technical publications. Funds could also be used to obtain the services of consultants including attorneys to

prepare land trust documents, easements, title searches, and local ordinances; contractors to provide equipment for reclamation work; and surveyors and planners to help prepare open-space plans.

The Office co-sponsored with the Association of New Jersey Conservation Commissions nine technical sessions open to conservation commissioners on a variety of environmental problems and subject materials.

It sponsored four technical seminars on federal, state and private grant programs for municipal open space acquisition among these sessions.

The Office provided a course of instruction designed to aid municipalities in securing matching grants to more than 225 conservation commissioners. In January, 1972 an interdisciplinary task force of citizens and state government representatives began a study of the total impact of regional sewer systems on the environment, with the goal of promulgating new construction standards to reduce the adverse environmental impact of sewerage construction.

In addition the Department sponsored through the Office of Environmental Services a 12-week training course on environmental problems in New Jersey for 120 trainees from municipal environmental agencies.

Office of Environmental Analysis

The primary mission of the Office of Environmental Analysis during FY 1972 was to develop and implement a method to identify and regulate the use of New Jersey's Wetlands.

The Wetlands Act was signed into law by Governor Cahill on Nov. 5, 1970. The Act recognizes the ecological importance of the coastal wetlands, and states that it is necessary to prevent the deterioration and destruction of these lands in order to preserve the ecological balance of the coastal area.

The Act defines what these lands are with words. But in order to devise a practical technique to delineate wetlands boundaries, it was necessary to develop new mapping techniques.

Wetlands implementation was at once a goal and an accomplishment of the activity during FY 1972. The office produced a mapping method, an inventory and sectional maps of the Wetlands of the state, the writing of a Basis document and the regulations necessary to enforce the Wetlands Act. The total cost of the project is estimated at $2.1 million.

With no set goals, this office has, however, involved itself in key areas of activity for the Department since its expertise is called upon for review and comment on specific environmental problems and activities having ecological impacts.

The Environmental Analysis program helps develop new programs and bring them to the point at which they are operative and ready for implementation; and initiates environmental design work such as statewide aerial mapping which can be useful in specific applications.

The office completed an air resource model for the Hackensack Meadowlands, and was instrumental in the initiation of the State's participation in the ERTS-1 NASA satellite project (the Earth Resources Technology Satellite project).

This national project involved the orbiting of a satellite (launched on July 23, 1972 in California) to send back scientific data including pictures of environmental, ecological and oceanographic conditions of the state's seaboard from Sandy Hook to Cape May. On each pass ERTA-NASA scans an area about 15 miles inland and 50 miles out to sea.

The overall purpose of New Jersey's involvement is to determine the extent to which remote sensing by satellite and aircraft can be of practical value in providing data for environmental management of the state's coastal zone. This project and evaluation of the results are funded by NASA.

Green Acres Program

Green Acres is not a new program for New Jersey. The first Green Acres program was created when the people voted a $60 million Green Acres bond issue in 1961. This money was used for a 10-year program of acquisition of land for parks and recreation, hunting and fishing and water reserves and wildlife conservation. $40 million was for state acquisition and $20 million to reimburse counties and municipalities for half the money they spent on their own acquisitions.

The new bond issue provides support in the amount of $80 million for a land acquisition program with the same two main objectives that marked the first Green Acres program: (1) state purchase of open space lands and (2) support for local level purchase of lands. Emphasis in the local level assistance was to provide recreational opportunities for urban populations -- recreation areas close to or in major urban centers for parks.

At the state level, emphasis was on acquiring lands of special environmental significance such as coastal wetlands, fresh water marshes, flood plains and fish and wildlife area. In all, it is estimated that the program will generate $150 million for the purchase of open space.

The Green Acres Local Matching Assistance Program issued a Procedural Guide in December, 1971. During this period 46 applications for Green Acres grants were received in the wake of passage of the $80 million bond issue at the November general election. (These 46 requests involved a total of more than 3,220 acres and $8,600,915.)

The guidelines established in the Procedural Guide insure that local use of Green Acres funds will meet legislative directives of "achieving a reasonable balance among all areas of the state in consideration of the relative adequacy of the area's recreation and conservation facilities." High priority needs were listed as: (1) lands necessary to meet urban stress and demands; (2) lands necessary for comprehensive environmental programs developed at community level by conservation commissions; (3) lands immediately threatened by development, considered unique or the last remaining area of their kind; and (4)

lands that would help shape urban development and provide continuity of open space corridors.

A series of bulletins was prepared concerning open space, park and land acquisition, and was made available to local governments in FY 1972. Instructions in making application both to state and federal governments for grants of money was given at a seminar held in Trenton on Dec. 15, 1971.

On Dec. 6, 1971, the Legislature adopted the enabling legislation implementing the Green Acres program and appropriating $20 million - $10 million State and $10 million Local. By the end of FY 1972, about 260 Green Acres applications had been submitted by 90 local government units.

Environmental Action Line

In its first full year of operation, the Department's Environmental Action Line received 1487 calls from a concerned public. Begun in October, 1971, the action line became popular with a public that enjoyed a 24 hour-a-day connection direct to the Office of the Commissioner.

Sixty percent of the calls (933 in number) were air pollution complaints. Instances of water pollution sparked 480 complaints. These two categories made up the bulk of the calls. Forty-nine complaints on solid waste problems were made. Other categories of calls dealt with dredging, wetlands, noise, recycling, and pesticides.

The "Environmental Action Line" bypasses the time-consuming "through channels" processing of the public's complaints. By phoning 609 - 292-7172, the citizen reports directly to the Commissioner's office which promptly contacts the proper bureau for follow-through. During nonworking hours, calls are taken by an answering service. If the caller reports an emergency situation, the answering service immediately reaches the appropriate Department official at his home. The goal of the program, which is met in most cases, is to provide a complainant with a response to his report within two weeks. The response details the action taken by the Department to correct the situation which gave rise to the complaint.

Planning Section

The Departmental Planning Section is responsible for comprehensive recreation planning grants administration and for liaison in several areas. Its assigned responsibilities include the coordination of reviews of environmental impact statements, liaison with the Department of Transportation and with utility companies to coordinate right-of-way alignments.

Major emphasis in recreation planning during FY 1972 wan on the updating of the Statewide Comprehensive Outdoor Recreation Plan. An additional study initiated by the recreation planners in FY 1972 was a comprehensive survey of the Mullica River System for possible inclusion as part of the National Wild & Scenic Rivers System.

The planning office also prepared applications for surplus property under the Federal Surplus Real Property Act. Application was made and the State received a 618 acre tract of surplus property at Barnegat, formerly known as the International Flight Receiver Station. The tract will be administered by the Division of Parks & Forestry as part of the preservation program in the critical Wading River ecosystem.

The Planning Section has the responsibility for the administration of the Federal Land & Water Conservation Fund Program. In FY-1972, the State received an allocation of $7,200,000 for the acquisition and development of outdoor recreation facilities. The administration of this grant program is divided into State acquisition and development and a local assistance program. Under the State Program, the planning section prepared applications and received Federal approval for the acquisition of over $15,800 acres with matching assistance of approximately $5,300,000. Grant assistance was also provided for the continued development of State Park Facilities. A grant was made for a three year Statewide Program to update sanitary facilities at all State park facilities.

Continued Federal participation through the Land & Water Conservation Fund enabled the State to complete the initial development of the Spruce Run Recreation Area. Over a five year period, grants from the Fund assisted with the completion of this $5 million recreational facility.

The local assistance program of the Land & Water Conservation Fund section resulted in 32 municipalities & counties receiving matching grants for the acquisition or development of outdoor recreation facilities. Total assistance to political subdivisions in the State during FY-1972 was over $4,400,000. The planning section was of assistance to municipalities with technical assistance, application preparation, and grant administration.

The other grant-in-aid program administered by the planning section is the State's Youth Conservation & Recreational Development Program. Under this program, over 70 full grants were made to agencies serving the State's disadvantaged youth. The $500,000 annual State allocation provided over 250,000 disadvantaged youth with an opportunity to visit State Parks and other recreation areas during the summer months. These busing grants have had positive social impact during the five year history of the program.

Public Information Office

The goals of this office are to: provide information concerning the department's programs, policies, and activities, and to stimulate volunteer groups to take action as organizations, and also to stimulate their members to take action as individuals to protect and preserve the environment.

During the last fiscal year approximately 200 press releases were sent to state house correspondents, weekly and daily New Jersey newspapers, periodicals, and daily newspapers in New York and Philadelphia. Six issues of the New Jersey Times were distributed to a readership of over 30.000.

Nine brochures explaining many phases of the work of the

department either came off the presses or were advanced toward the point of printing. These brochures, all of which are printed under the general title of "PLAIN FACTS, about New Jersey's Environment," include:

"Department of Environmental Protection"
"Conservation Commissions"
"Detergents"
"Flood Plains"
"Noise Pollution"
"Ocean Dumping"
"The Wetlands"
"Auto Exhaust Chapter 15 Air Pollution Code"
"Pesticides"

Fifty-two quarter-hour radio programs were produced by the public information office during fiscal year 1972. Broadcast under the general title "Environmental Times of the Air," these programs are carried each week by 27 radio stations in New Jersey and also by the New York City municipal radio station WNYC service feature. They are distributed without charge by the department. The content of the programs deals with the various aspects of the department's activities. The general format of the programs consists of interviews with department personnel conducted by a public information office staff member.

The Public Information Office planned and supervised the construction and display of 23 major exhibits during the last fiscal year.

The office liaison with state legislators involves cooperation in the release of information concerning federal outdoor recreation grants, and providing information for the legislators or their constituents.

The public information office also arranged for visits of groups of certain citizens organizations, students and out-of-state and foreign environmental officials. These visits involved setting up interviews, demonstrations of technical facilities provisions for entertainment for official guests and so forth. One of the notable groups during the year consisted of eight Polish governmental officals in various fields of environmental control.

Chapter 11

OFFICE OF MANAGEMENT AND BUDGET

The mission of the office is to assist the Department in accomplishing its overall objectives by planning and by providing and controlling the resources of money, people, systems and equipment.

To accomplish these goals, the Office of Management and Budget is organized into five distinct functions: (1) The Bureau of Budget, Accounting and Procurement which is responsible for all fiscal, printing, mail and office services; (2) the Bureau of Personnel and Training which is responsible for all personnel, payroll, training and safety; (3) the Bureau of Data Processing is responsible for all EDP application analysis and operations coordination with programming and processing being contracted to other agencies; the Office of Capital Improvement which plans and controls all capital maintenance and new construction, and the Office of the Executive Director which is responsible for coordination of long range planning, program evaluation, reporting, and other administrative tasks.

Major accomplishments for Budget Accounting and Procurement during FY'72 included conversion to a computerized accounting system with the addition of 145 programs; new procedures for registration and collection of fees for x-ray equipment and conversion to program budgeting which was initiated with training sessions for all managerial personnel. Budget preparation for FY'73 and '74 commenced under the new system.

In Personnel and Training, major steps forward included the beginning of a cooperative training program with the University of Massachusetts in which four students in a two-year water pollution technician program spent their last semester working on a variety of assignments for the Division of Water Resources; training programs initiated for the indoctrination of new employees and cross training of enforcement officers; and a defensive driving course begun for all Department employees driving state vehicles; hiring of over 130 people as part of the Federal Employment Act and establishment of a centralized training office to coordinate all training within the Department.

The Bureau of Data Processing's accomplishments included organization of a centralized computer staff for the Department, initiation of a projects to improve both the registration and look-up capabilities of the motor boat numbering activity and execution of plans to combine Department's data processing requirements with the Department of Transportation for a new joint computer facility.

In the area of Capital Improvements, the following projects were begun or completed:

a. Engineering design was initiated for a new day use recreation area at Atsion Lake in the Wharton State Park Forest.
b. Construction was initiated for the upgrading of sanitary facilities in the camping areas of Lebanon, Bass River and Parvin State Park and design initiated for Cheesequake, Stokes, Belleplain, Swartswood and Wharton.

c. Work was started on the Master Development Plan for Washington Crossing State park.
d. Engineering design was initaited for Monmouth Battlefield State Park.
e. The entrance road to Shepard Lake was improved and reconstructed.
f. Conceptual plans were developed for the requirements of Liberty State Park.
g. First Stage construction at Spruce Run Recreation Area was completed.
h. Stage 11 design completed for Spruce Run.
i. New Fish & Game facilities constructed at Spruce Run.
j. Design completed for new boat ramp at Round Valley.
k. Engineering design initiated for new office and maintenance facilities for Spruce Run and Allaire.
1. Engineering design initiated for development of Wawayanda and Round Valley recreation areas.
m. Architectural design completed for historic restoration of Marshall House, Craig House, Rockingham and Wallace House.

Other goals achieved by the office included: a study of stenographic and typing services which resulted in the establishment of a centralized, automated transcription center containing tape controlled typewriters, and recording equipment for telephone dictction; and initiation of a program of long range planning to determine Department and Division goals and priorities. A planning conference was held and with the aid of consultants, and statements of goals alternatives and impacts were generated for each Division.

In other activities, applications were filed with the federal government for funding of repairs to damage from tropical storm Doria; contingency work plans were developed specifying how the Department would operate in case of job actions by employees; a program was initiated to review and evaluate the financial and administrative activities if the Division of Parks and Forestry, and a new contract was established to provide a complete radio network for the Department.

Chapter III

DIVISION OF ENVIRONMENTAL QUALITY

GOALS

During Fiscal Year 1972, the long range goals of the Division of Environmental Quality were to:

Proceed with reductions in air pollution levels required to meet national air quality standards.

Maintain the relatively high quality of air in those portions of the State wherein national air quality standards are met or exceeded.

Eliminate or reduce to an acceptable level odorous and other air contaminants for which no air quality standards have been established.

Reduce genetically or environmentally significant dosages by eliminating exposure to unnecessary radiation.

Implement an orderly system of solid waste management which will minimize the deleterious effects on the environment of the disposal of solid waste.

Minimize the harmful effects of pesticides on the environment.

Prepare for the establishment of a noise control activity and the drafting of noise control regulations.

ORGANIZATION

To fulfill its goals, the Division functions through four major elements: the Bureau of Air Pollution Control, the Bureau of Radiation Protection, the Bureau of Solid Waste Management and the Office of Pesticide Control. It is organized as follows:

OFFICE OF DIRECTOR

BUREAU OF AIR POLLUTION CONTROL	BUREAU OF RADIATION PROTECTION	BUREAU OF SOLID WASTE MANAGEMENT	OFFICE OF PESTICIDE CONTROL

MAJOR ACCOMPLISHMENTS - BUREAU OF AIR POLLUTION CONTROL

Of major importance during FY72 was the continued decline in ambient air concentrations of sulfur dioxide, a pollutant which causes breathing difficulty, heart complications, plant injury and corrosion of metals. Most of the reduction can be credited to limi-

tations placed by the State on the sulfur content of fuels.

During FY72, the Bureau's greatest concern was the development of the New Jersey State Implementation Plan to Meet National Air Quality Standards. This Plan, which is targeted against six major pollutants, will serve to guide most Bureau operations for the next several years. The Plan was submitted to the Federal government in January 1972, after public hearing, and Federal approval for most parts of the Plan was received at the end of the fiscal year.

On May 15, a daily statewide air pollution index and forecast was initiated. Data from 19 monitoring sites are presented for smoke and particles, carbon monoxide, sulfur dioxide and photochemical oxidants. This is the first statewide daily index in the nation, and its air quality ratings are based on health and secondary effects.

Plans were completed and equipment was ordered to permit the inauguration of auto emissions testing in the New Jersey motor vehicle inspection lanes during the month of July, 1972. Autos going through the inspection lanes are tested for smoke, carbon monoxide and hydrocarbons. The system is designed to hold automotive pollutants to the minimum attainable by ensuring that engines and their pollution control systems are maintained in good condition.

The enforcement of the Air Pollution Control Code continued to be the major area of activity of the Bureau during the reporting period. Vigorous enforcement of strict regulations is the key to cleaning the air. Penalties collected for violations of the Air Pollution Control Code were almost three times higher in FY 1972 as in FY 1971. The number of violators of the code given notice that they would be prosecuted increased 33% over FY 1971. The number of court and consent orders establishing schedules for compliance with air pollution regulations for violators was five times higher in FY 1972 than in FY 1971.

FY72 also was the first full year of diesel smoke control. Smoke standards for diesels were established by the Department, but are enforced by State and local police, the Division of Motor Vehicles, and by the Public Utilities Commission. Roadside surveys completed in May 1972 documented a 56 percent reduction in the number of diesel-powered vehicles in violation compared to the number noted prior to the smoke regulation,* which became effective during June, 1971.

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*Comparative roadside tabulations of diesel vehicles were made prior and subsequent to the June 18, 1971 effective date of Air Pollution Code, Chapter 14. Of approximately 6,200 vehicles observed during the period of March 23 through April 3, 1970, 1217 were observed to be in violation of diesel smoke standards. During the period of February 8 through March 23, 1972, more than 21,000 were observed, with approximately 1,900 being in violation. The reduction in the percentage of "smokers" approximates 56 percent.

Planning for the Emission Inventory and Management Information System neared completion during FY72 with the development of proposed source registration forms and related computer programs. The system will provide for the recording of emissions data from air pollution sources located in the State and for the systematic scheduling of inspections and tests for such sources. A comprehensive and verified emissions inventory thus will become available for use in preparing such control strategies as are needed to achieve and maintain air quality standards.

MAJOR ACCOMPLISHMENTS - BUREAU OF RADIATION PROTECTION

Potentially serious damage to public health was precluded with the identification and recovery of four misplaced devices containing radioactive materials. Similar protection was provided in two transportation incidents also involving radioactive materials.

Effectiveness of Bureau operations was recognized when New Jersey was selected as the only state to participate in a Public Health Service-funded pilot study to project organ dose indices as related to medical radiological exposure.

MAJOR ACCOMPLISHMENTS - BUREAU OF SOLID WASTE MANAGEMENT

Much of the Bureau's resources have been devoted to replacing the long-practiced custom of depositing solid wastes on "dumps." The efficacy of this effort was recognized by the Federal government during FY72 when it indicated that new Jersey led the nation in the conversion of disposal sites to acceptable sanitary landfills.

The disposal of potentially-dangerous materials is an important aspect of Bureau responsibilities. During FY72, the Bureau arranged for the disposal of significant quantities of toxic household chemicals remaining from one fire and of pesticides remaining from another. The Bureau also recovered in south Jersey and arranged for the disposal of 65 abandoned cylinders which were charged with chlorine gas.

Methane gas is another potentially-dangerous problem with which the Bureau dealt. The explosive gas was detected as being generated in old landfills in Cinnaminson Township and in Bergen County. Since such escaping gas could endanger homes and other buildings constructed on or near the landfill sites plans were formulated for the containment of any possible emergency situation.

MAJOR ACCOMPLISHMENTS - OFFICE OF PESTICIDE CONTROL

The Office of Pesticide Control officially became a part of the Division on October 30, 1971 at which time an Office Chief was designated. Although the Office understandably was concerned with organizational and planning problems, it did assist the Bureau of Solid Waste Management with the handling of pesticides involved in a fire and arranged for the disposal of pesticides involved in another fire.

Sampling and analysis of products on the open market was initiated to determine whether the products conform with formulae printed on packaging. The Office also begun the drafting of pesticide control regulations to be proposed for the State.

OTHER ACCOMPLISHMENTS OF THE DIVISION

Air quality monitoring was expanded during the year, with a fourth comprehensive air monitoring mobile laboratory being placed on-line. This addition enlarged the continuous air monitoring network to a total of four comprehensive laboratories and 18 satellite stations. Also, amplers were purchased and installation was begun to expand the suspended particulated monitoring network from 40 to 80 sites.

Since industry is required to prepare standby plans for the reduction of emissions during air pollution episodes, a series of 12 workshops were held during the year to explain the air pollution emergency system and to provide instruction on the preparation of standby plans. Four air pollution watches were held during the year, but alert levels were not reached. A "watch" is an around-the-clock surveillance of pollution levels which is initiated when meteorologic conditions are such as to indicate a possible excessive accumulation of pollutants in the atmosphere.

Intensive monitoring was accomplished on the State's first nuclear electric generating station, at Oyster Creek, and provided evidence that plant operations are not endangering the public welfare. Professional guidance was given in the case of an industrial radiographer who was subjected to an excessive X-radiation exposure.

Chapter IV

DIVISION OF WATER RESOURCES

The Goals of the Division are to:

Preserve, enhance and restore water quality in the State's waterways to allow beneficial use of the State's water for water supply, recreation and shellfish harvesting.

Provide dependable and safe State water supply in adequate quantity to meet future demands.

Protect life and property from damage due to flooding.

These Divisional Goals are accomplished through the efforts of the three major program elements in the Division, namely Water Supply, Water Quality and Geology-Topography.

Water Supply, under the direction of the Assistant Director for Water Supply, plans for the development and protection of water resources in the State, regulates water use by the 460 public supply systems and 915,400 individual users, and constructs, manages, operates and maintains the State owned raw water transmission and storage systems. In addition, it minimizes flood hazards by controlling all construction and land forming operations within the primary flood plains of all natural streams, plans and coordinates the design and construction of flood control works, and regulates impoundments of water which present a potential flood hazard. There are three bureaus responsible for the attainment of the Divisions water supply goals: Bureau of Water Control, Bureau of Water Facilities Operation and Water Resources Planning and Management.

Water Quality, the second major program element in the Division of Water Resources, is responsible for controlling all aspects of water quality in the State from the prevention of pollutants entering the system, to the final treatment and distribution to users. It includes the review, approval and inspection of the design, construction, improvement and operation of all water pollution control, sewerage facilities and water distribution and supply systems, and control of land development in areas lacking approved sewerage facilities. It develops and enforces that portion of New Jersey Water Quality Standards having to do with the implementation of pollution abatement, and continually monitors ground and surface water quality through sampling programs to determine preventive or remedial actions. It regulates the development and operation of commercial water supply systems, and it samples final treated water for compliance with the standards. In addition, it preserves the 293,000 acres of approved shellfish growing areas and attempts to restore the 94,000 acres of condemned, polluted growing areas. Two Bureaus within the Division are responsible for the accomplishment of Divisional Goals directed towards Water Quality: Bureau of Water Pollution Control and Bureau of Potable Water.

Geology-Topograpy, the third and final major program element in the Division, provides technical resource information to other Department and State programs as well as other public and private individuals and organizations. It maintains a data bank of ground water resources, maintains current State Atlas Sheet series and related ground control stations and monuments, administers the well drilling law and prepares and sells publications related to water resources and the geology of New Jersey.

ORGANIZATION AND RESPONSIBILITIES

The Office of the Director coordinates and administers the activities, responsibilities and functions of the Bureaus of Water Pollution Control, Potable Water, Geology, Water Control, Water Facilities Operations and Water Resources Planning and Management which comprises the Division of Water Resources. This Office also coordinates the Department's water related activities with other governmental agencies including the Interstate Sanitation Commission, the Delaware River Basin Commission and the U.S. Army Corps of Engineers.

The functions of the Water Policy and Supply Council and the Clean Water Council are also included in the Division. The Water Policy and Supply Council consists of 12 members appointed by the Governor with the advice and consent of the Senate. The Council serves as a quasi-judicial body which renders decisions after conducting public hearings on: all applications for the diversion or allotment of natural water resources or water developed for sale by State-owned and operated water facilities, equity questions involved in the construction of structures along streams and the delineation and marking of flood plains.

The Bureau of Water Pollution Control functions include the establishment and revision of water quality standards, the administration of grant programs for sewerage facilities under the 1969 Water Conservation Bond Act, the monitoring of water quality, and the issuance of administrative orders for the abatement of water pollution. The Bureau also includes the Shellfish Control Section whose functions are to classify shellfish growing waters in relation to Federal and State growing water quality standards, to inspect and certify shellfish dealers in relation to Federal and State sanitation standards.

The Bureau of Potable Water is responsible for the approval of water supplies to be distributed for potable purposes, approval of plans for water purification plants, supervision of the operation of all water plants with respect to the purity of the potable water supplied, and approval of connections between an approved public potable water supply and an unapproved water supply.

The Bureau of Geology conducts and encourages research designed to further environmentally sound uses of natural resources; and to collect basic data on ground water, mineral resources and applied geology. The Bureau also maps the State's geology and topography and establishes a system of monument control data. The Bureau makes

the results of their inquiry available to the public in the form of maps and publications. Finally, the Bureau of Geology is responsible for the licensing of well drillers, for the underground storage of gas, oil, and chemicals, and for the maintenance of the State Boundary Marks.

The Bureau of Water Control exercises authority over the structural stability and safety of dams more than 5 feet high controlling watersheds larger than 1/2 square mile; serves as engineering staff to the Water Policy and Supply Council with respect to allocation of water resources for both public and private uses and to the approval of structures, including fill, within the primary floodplain of natural streams; for an accelerated program of delineation and marking of flood hazard areas in the State along with the coordination of the Federal Flood Insurance Program in New Jersey; and accumulates data and compiles statistics related to water diversions, stream channel improvements, stream profile information, and historic factual data from reported flood events.

The Bureau of Water Facility Operations manages, operates and maintains the Delaware and Raritan Canal System and the Spruce Run and Round Valley Reservoirs along with the South Branch Pumping Station as sources of public and industrial water supplies.

The Bureau of Water Resources Planning and Management is responsible for immediate and long-range planning for the protection and optimum development of the water resources of the State; the preparation of water quality plans for drainage basins, and the preparation and implementation of water and land related resources programs; and for the supervision and direction of the surface and ground water programs conducted on a cooperative basis with the U.S. Geological Survey.

The major accomplishments of the Division include:

Bureau of Water Pollution Control

Promulgation and implementation of regulations governing the installation of sewerage facilities in so-called critical areas along the low lying portion of the four county New Jersey shore area.

Approval of New Jersey's water quality standards by the U.S. Environmental Protection Agency.

Amendment to the "Realty Improvement Sewerage and Facilities Act (1954)" and implementation of the provisions of these amendments to major subdivisions involving individual sewerage and water facilities.

Enactment of law giving the Department the power to establish industrial pre-treatment standards for wastewaters entering public sewers systems and treatment plants.

Bureau of Potable Water

The establishment of a program, in cooperation with the U.S. Environmental Protection Agency and major water surveyors, to

study the quality characteristics of raw and delivered water relating to the impact upon the public health of consumers.

Water Resources Planning and Management

Completion of a special study of the Northeastern Metropolitan Area by geographical sub-divisions to develop a preliminary plan for meeting water demands in 5 year increments to the year 2000 from intra and interstate sources, including reuse of treated waters.

Taking lines for reservoir sites were established, meetings were held with the public officials and property owners and advice was provided to the Office of Legal Services and Real Estate in the land acquisition program. The two Manasquan River Reservoir sites have been totally acquired or are under condemnation and acquisition of the Six Mile Run site is underway.

Two hundred and nine municipalities in New Jersey are now eligible for Federal Flood Insurance under the program administered by the Bureau during FY 1972.

Forty-five special ground water investigations were completed and referred to the Water Policy and Supply Council for their guidance concerning applications for ground water.

Major flooding was experienced during August and September of 1971. Floods reached record height in many areas of Central and North Jersey. During the storms the Bureau staff assisted the U. S. Geological Survey in 61 high water discharge measurements at various gaging stations and at 30 additional sites by field surveys and hydraulic computations. Field crews also marked high water marks on approximately 400 miles of river channels.

A digital computer model was developed and verified for the Englishtown aquifer in Monmouth and Ocean Counties. Two reports on the development and use of the model are in final stage of preparation.

On June 22, 1972, the most damaging flood ever experienced in many of our neighboring states caused damaged estimated at $10,000,000 in the Passaic River Basin. The Bureau assisted affected communities in the survey of damages.

Review of plans, profiles and written format developed by the Division's consultants continued during the year under Water Resources Contract No. 22. Rules and regulations for the delineation of flood hazards areas were adopted by the Water Policy and Supply Council on September 20, 1971. Flood Hazard Report No. 2 on the Raritan River was released during March of 1972 and public hearings were held in May. Flood Hazard Report No. 3 on Green Brook was released in June of 1972 and a public hearing was scheduled for July.

Contracts were signed on the S-298 Program, the clearing and desnagging project on the Passaic River Basin. Consultants began to study eligible projects in the basin

and to estimate costs and establish priorities of projects. Aerial photography of the basin was completed, and photographic mosiacs of the basin were developed for use in delineating flood hazard areas and in locating desnagging and clearing projects.

Bureau of Geology

During fiscal year 1972 the Bureau of Geology continued the program of mechanizing clerical and computable tasks by putting the entire geodetic monument description series on MicroFiche. This required reorganization of the files, and gave the first clear indication of the status of the geodetic network in many years. There are 13,000 monuments in the system, and 26% of these have been destroyed.

Investigation of aerial photo coverage, preparatory for issuing the purchase order for annual flight segments, indicated that recent coverage by another agency could be used for Atlas Sheet revision; thus, saving the State $7,000.

The Bureau is charged with making geologic information available to the public through the publication of maps and reports. A drainage basin overlay map, on a scale of 1:25,000, was prepared and finished. The last such maps was published in 1890. The new contains additional information so that it is useful to a maximum number of agencies within the Department.

Also published was the revision of Atlas Sheet 21. Copy was prepared for the revision and reprinting of Atlas Sheets 29 and 23. The program for providing large scale, mile-to-the-inch, geologic maps was advanced with the publication of six of the required 16 maps. An additional 5 maps had to await availability of funds. One additional County Geology in Brief publication was put on sale, and two others were brought close to completion.

Assistance was rendered to the Division of Fish and Game and Shellfisheries for water supply needs at the Pequest Fish Hatchery. This program continued into the 1973 fiscal year. Assistance was also provided to the State Department of Defense, the Department of Transportation, and numerous municipalities with respect to water supply problems. Assistance was provided Civil Defense, Health, and the Public Utilities Commission in determining the extent of an underground pool of gasoline, resulting from leakage from refinery pipelines in the Sewaren area. A removal method was developed and the procedure was supervised by Bureau staff. The several million gallons of gasoline in the pool were a serious fire hazard for a number of weeks.

In November the State Geologist was made Chairman of a Solid Waste Coordinating Committee to secure Departmental approvals of the various disposal sites. Bureau staff has provided the manpower necessary to map, field check, and otherwise provide the basic geologic information needed to determine whether a specific landfill site would pollute the environment.

Bureau of Water Control

Water Allocation Section

On public potable water supplies 353 quarterly diversion reports and 44 applications were processed; with reports thereon, 33 public hearings were held; 47 inspections and reports were made and 15 conferences held. The Council rendered 41 decisions.

On private subsurfaces supplies, some 700 quarterly or annual reports and 41 applications were processed, with reports on 15 thereof; 15 public hearings were held; 93 inspections and reports were made and 40 conferences were held. The Council rendered 27 decisions.

On private surface supplies, 65 quarterly reports and 5 applications were processed; 2 public hearings were held; 34 inspections and reports were made. The Council rendered 2 decisions.

On special well drilling applications, a total of 168 were processed: 94 for production, 35 for observations and 39 for testing.

Stream Encroachment Section

The stream encroachment section of the Bureau of Water Control received 337 applications for approval of projects in and along streams, 200 of which were finalized and permits issued. There were 92 complaints of stream encroachment violations that were processed and investigated, 60 of which were corrected and 8 referred to the Attorney General's office for legal action. There were 110 field inspections made, 525 office conferences were held, 9 court appearances were made and 8 public hearings were held before the Water Policy and Supply Council.

Reservoirs' Operations

Completion of surface drainage improvement projects at Round Valley Reservoir Dike. Implementation of the Revised Raritan Basin System (Spruce Run-Round Valley Reservoir Complex) Demand Charge Schedule.

Delaware and Raritan Canal

Completion of construction of the new Little Shabakunk Creek Culvert under the Canal, Lawrence Township, Mercer County. Completion of repairs to the Canal waterways and embankments damaged by Hurricane Doria, August 28, 1971.

Chapter V

DIVISION OF MARINE SERVICES

GOALS

During Fiscal Year 1972 the goals of the Division of Marine Services were to:

Develop and maintain a comprehensive and expeditious management and inspection program to preserve the environmental integrity of Riparian Lands and wetlands.

Preserve the ecological integrity of tidal waterways and State-controlled lakes.

Administer laws regulating power vessels, commercial fishing, and shellfish harvesting on all waterways and lakes to advance the welfare and safety of the public.

Minimize personal and property damage on all tidal waters and contigious land areas.

Develop a comprehensive regional program for the protection, preservation and use of ocean front and bayfront property.

Develop a comprehensive regional program to locate off-shore sources of sand replenishment to offset deficit of coastal littoral material.

Maintain and improve the State Marinas.

ORGANIZATION OF THE DIVISION

Natural Resources Council
Boat Regulation Commission
Board of Commissioners of Pilotage

DIRECTOR

BUREAU OF NAVIGATION	BUREAU OF MARINE LANDS MANAGEMENT	BUREAU OF MARINE LAW ENFORCEMENT
Engineering	Riparian Section	Marine Police Trenton Hq.
Permits & Licenses	Field Survey Section	Marine Police 3 Area Hq.
Navigation Aids	Wetlands Section	Marine Police Training Station
Motor boat Numbering		Marine Police Repair & Supply Station
Marinas		

Bureau of Navigation:

The Engineering Section; provides the engineering, supervision, inspection and administration of State Contracts for shore protection work, navigation aids, and the dredging of navigation channels on inland waterways and state controlled lakes. The management, site development, maintenance and operation of State Marinas is supervised by the Engineering Section. Hydrographic surveys in support of the administration of riparian law is also a function of this section.

Permit and License Section; administers, supervises, inspects and reviews applications for all types of construction on the tidal waters of the state.

Navigation Aids; Channel Marking crews install and maintain navigation aids on over 200 miles of inland waterway channels providing for the welfare and safety of the boating public.

Motor Boat Numbering Section; administers and supervises applications for; boat registration and operators licenses, also provides quick record information that can be used in the event of; accidents, theft, vandalism, etc.

Marinas; this section provides for the operation and maintenance of four (4) State Marinas, having a total of 760 boat berths.

Bureau of Marine Lands Management:

Riparian Section; administers, supervises, inspects and reviews applications for the issuance of a riparian grant or lease conveying the State's title to lands now or formerly flowed by the tides.

Field Survey Section; Site inspection and report by field personnel, provides the Bureau with environmental information essential to support the enforcement of laws controlling the use of lands defined as riparian lands or wetlands.

Wetland Section; administers, supervises, analyzes and reviews applications for permits for all types of proposed use by owners of property defined as wetlands. Prepares and issues maps defining the extent of the State's wetlands interest.

Bureau of Marine Law Enforcement:

Marine Police Trenton Headquarters; administers and supervises the complete operation of personnel and equipment of Marine Police covering the enforcement of; boat regulations, shellfish and coastal patrol.

Area #1 Marine Police Hdqrs.; North Wildwood; administers boat regulation laws on waterways located in; Atlantic, Burlington, Cape May, Cumberland, Camden, Gloucester and Salem Counties.

Area #2 Marine Police Hdqrs.; Monmouth Beach; administers boat regulation laws on waterways located in; Hudson, Middlesex, Monmouth, Ocean and Union Counties.

Area #3 Marine Police Hdqrs.; Lake Hopatcong; administers boat regulation laws on the waterways located in; Bergen, Essex, Hunterdon, Mercer, Morris, Passaic, Somerset, Sussex and Warren Counties.

Marine Police Training Station; staff personnel provide 10 week course of instruction in marine law, criminal law, and other areas necessary to train law enforcement personnel.

Marine Police Repair and Supply Station; staff personnel provide preventive maintenance programs essential to the operation of Marine Police equipment.

MAJOR ACCOMPLISHMENTS DURING FISCAL YEAR 1972

Bureau of Navigation:

Riparian inspection teams were organized. This was accomplished by training eight (8) Bureau of Navigation field personnel in the requirements essential to a comprehensive riparian inspection and report. The information gathered by the inspection teams was used to begin the implementation and legal enforcement of Department environmental policy concerned with the adverse ecological impact being caused by all types of water oriented construction not covered by a State riparian permit or license. The inspection teams provided information on existing conditions at waterfront locations essential to evaluating riparian permit and license applications for approval. The inspection teams also provided the means of one-day response to complaints from all sources of illegal use of riparian lands.

Bureau of Marine Lands Management:

This Bureau was created by Administrative Order No. 5, January 1, 1971. At first the Bureau functioned through the Riparian Section, but in late November 1971 a Bureau Chief and two Biologists were assigned.

The aerial mapping of two (2) study sites, one located in the Tuckerton area of Ocean County, the other in the Mannington Meadows area of Salem County, was completed. Twenty-one Maps were produced and available by December 1971. Four Maps covered the Mannington Meadows area, 17 maps covered the Tuckerton area.

The first public hearings on the proposed Wetland Orders were held January 19 and 20, 1972, in Upper Penns Neck Township, Salem County, and January 23, 1972 in Dover Township, Ocean County. Over 300 people attended the Salem County hearings and appeared to be largely opposed to the Wetland Order and recommended elimination

of some provisions. Over 250 persons attended the Ocean County hearings. The testimony appeared to largely favor the Order to the extent that some in attendance recommended that the Order be made more strict. In April 1972, the Wetland Orders, in accordance with the Wetlands Act of 1970, were promulgated for portions of Salem and Ocean Counties.

Bureau of Marine Law Enforcement:

This Bureau was created by Administrative Order Number Five on January 1, 1971 under the name of Bureau of Marine Enforcement. Later, by authority of Administrative Order No. 12, the name was changed to Bureau of Marine Law Enforcement. The Bureau was organized with personnel of the Marine Police Section of the Bureau of Navigation, the enforcement section of the former Division of Shellfish, and the Coastal Patrol Section of the Division of Fish, Game and Shellfisheries, into a single marine law enforcement command, to provide more effective enforcement and broader oversight over all types of water oriented activity, by the uniform administration of marine and environmental laws, centralized direction of law enforcement, improved liaison with federal and local law enforcement agencies, more effective use of manpower, greater centralization and standardization of enforcement training programs, improvement of the investigation process, and improved communications system provides the control essential to effective administration and operation of marine law enforcement.

A major accomplishment was creation of the New Jersey Marine Police Training Academy at North Wildwood. All employees go through a ten week course in residence there. The degree of professionalism in marine police officers has increased substantially, esprit de corps has risen and letters of commendation from the public began to outweigh letters of criticism.

Another major accomplishment came as the fiscal year closed when legislation increasing boat registration fees became law. Since the marine police are financed through this dedicated fund, the new rate schedule now provides adequate funding for the program.

OTHER ACTIVITIES AND ACCOMPLISHMENTS

There are approximately 125 miles of coastal shorefront and approximately 1,800 miles of shorefront along the state's tidal rivers and bays subject to variable degrees of annual erosion. Shore Protection construction provides the following benefits; corrects the adverse effects of erosion, minimizes personal and property damage, creates outdoor recreational areas and provides economic benefits. A protective beach one (1) mile long, 100 feet wide will provide an outdoor recreational area for 29,000 persons. Policy changes in the administration of State funding of shore protection projects that would result in the improvement of the public's right of access to the beaches along the Atlantic

Ocean shorefront were discussed for adoption in Fiscal 1973. An increase in public beach recreational use can be expected from this administrative change.

Cooperative shore protection studies of coastal beaches and inlets with the Federal Government is providing information essential to planning for maximum use of coastal shorefront resources.

Changes have been proposed for the recreational use of State Marinas by constructing recreational islands, with benches, trees, etc., including a centrally located snack bar. This change in marina recreational use will increase visitor population and economic benefits to the State.

Changes in the number and of size of boats using the inland waterways of the State has increased the number of requests for maintenance dredging projects, but before any project is undertaken a complete assessment of the environmental impact is required to determine the proper method to complete the project.

The aerial mapping of all wetlands is moving forward and it appears will be completed by November 1972.

Field inspections of the wetlands by Bureau's Biologists have increased, and as they acquire knowledge and experience of ground conditions they will have the ability to provide the information essential to the enforcement of the Wetland Orders.

The Bureau is actively engaged in the management of riparian land and wetlands. By in depth inspection and review of all applications for riparian grants and leases the Bureau intends to minimize the negative ecological impact that could occur by the public or private use of these lands. By inspection and enforcement, it is the Bureau's intention to prevent further destruction of tide marshes.

Boating is now a year round activity, with the very active season extending from April to November. The remainder of the year, winter recreational fishermen, commercial fishermen, clammers and hunters require supervision and assistance.

Many instances of reckless operation or excessive speed are attributable to juveniles although they are by no means solely responsible. As part of a public education program the Bureau gives a basic boating safety education course in intermediate schools.

Marine Police patrols enforce fish and shell fish laws to help conserve these valuable resources and to prevent shell fish from being harvested from polluted waters.

The rapidly expanding popularity of snow mobiling in the northern part of the State has brought new responsibilities and problems in the winter months. The Marine Police are called upon to render assistance to snowmobiles which have gone through lake ice, patrol races of this new sport, and on occasion recover bodies of victims of snowmobile accidents.

Chapter VI

DIVISION OF PARKS AND FORESTRY

GOALS

The goals of the Division of Parks and Forestry are to:

Provide settings and facilities for the benefit, enjoyment, and enlightenment of the public in the fields of recreation, environmental education, and historic interpretation.

Preserve and protect the historic, cultural, and natural resources of the State.

ORGANIZATION

The Division exercises its responsibilities through the Bureau of Parks and the Bureau of Forestry.

Pinelands Environmental Council
Natural Lands Trust
Review Commission (H.P.P.)

Historic Sites Council
Historic Sites Trust
Natural Areas Council
Parks & Forestry Council

DIRECTOR

BUREAU OF PARKS

- Historic Sites
- Natural Areas
- Operations
- Maintenance
- Design & Construction
- Regions

BUREAU OF FORESTRY

- Forest Fire Section
- Forest Mgmt. Administration
- Reforestation
- Private Land
- Public Land

Bureau of Parks

The goals of the Bureau are to provide clean and safe recreational, historic, natural, and interpretive facilities to satisfy current public needs.

Develop additional facilities to meet future needs.

MAJOR ACCOMPLISHMENTS

At Spruce Run Recreation Area, construction of the day use bathing facility neared completion. This is a completely new bathing

and picnicking facility designed to accommodate approximately 2,000 persons per day.

Construction of facilities was started for the sanitary facilities program. This program is for the improvement and development of modern sanitary facilities in campsites and day use areas. Ten laundry and shower house and toilet buildings were started at three locations: Lebanon State Forest, Bass River State Forest, and Parvin State Park.

Twenty-five new campsites at the Godfrey Bridge Camping Area on Wharton State Forest were completed by Park personnel and were available to the public.

Two new shelters were erected and completed for Allaire State Park and Wharton State Forest for use by the public for picnicking and nature interpretaion.

A new boat rental concession building was constructed at Swartswood State Park.

Construction started on a new bathhouse facility at Stony Lake, Stokes State Forest, for use by the public in the day use recreation area.

A new equipment building was constructed at Swartswood State Park by Park personnel.

The cabins and shelters were renovated at Bass River State Forest.

Under the Green Acres Program, 1,060 acres were purchased and assigned to the Bureau of Parks during the past fiscal year as part of recreational lands that was placed under the administration of the Bureau.

Construction was almost completed for the new campsite facilities at the Round Valley Recreation Area. This is a completely new facility of 116 campsites designed for access by boat or back-pack. Development included campsites, trails, sanitary facilities, and potable water.

Through the Historic Sites Program, many significant privately-owned historic structures were placed on the National and State Register of Historic Places.

Over 600 seasonal employees were hired and trained for various parks to partially enable the permanent staff to meet the recreational demands of over 5,000,000 visitors.

Bureau personnel assisted Federal and other State agencies in recovery of over 300 drums of various dangerous substances which were washed into the Delaware River by Tropical Storm Agnes.

OTHER ACTIVITIES AND ACCOMPLISHMENTS

The following significant events occurred at the respective forest or park areas:

Washington Crossing State Park

Trenton Kennel Club Annual Dog Show, the largest dog show in the United States. Estimated attendance was 30,000. Outdoor Treatre.

Batsto, Wharton State Forest

Fourth Annual Early American Arts and Crafts Show. Estimated attendance was 6,000. The Fourth Annual Historic Art Festival.

Allaire State Park

Monmouth County Senior Citizens Day. League of Historic societies Antique Exchange and Flea Market. Estimated attendance was 3,500 persons.

Archeological excavations were conducted at: Hermitage Historic Site in Hohokus, New Jersey; Craig House, Monmouth Battlefield State Park; and the Proprietary House in Perth Amboy, New Jersey.

A relocation study was completed for the New Jersey Section of the Appalachian Trail particularly those sections of trail which are not now under State ownership. The preliminary study was presented to the New York-New Jersey Appalachian Trail Conference Committee.

The D & R Canal property was placed on the State Register as a historic district.

The use of Sunfish Pond by hikers, campers, and picnickers had increased to the point where special emphasis was needed for controlling the activities at the area. Additional personnel were required to prevent indiscriminate camping and the like in order to preserve the environmental qualities of the area and also to maintain a meaningful recreational experience for the visitors.

A public hearing was held in Toms River, New Jersey, regarding the future expansion plans for Island Beach State Park.

The Senior Citizens Program was active and well received by the senior citizens. The Bureau issued 7,235 senior citizen passes to those senior citizens who desired them.

Bureau of Forestry

The primary goals of the Bureau are to improve the forest environment and protect the woodlands from damage due to wildfire,

insects and disease. The Bureau operations fall into two categories: Forest Fire Service and the Forest Management.

New Jersey experiences an average of 2,200 forest fires annually. During the last decade these fires have burned 20,000 acres annually, thus threatening the $5.5 billion resource represented by the State's woodlands.

The Department is charged by law with the maintenance of a Forest Fire Service for the protection of such forests, brushlands and salt marshes of the State, and property adjacent thereto.

The primary objective of the Forest Fire Service is to prevent loss of life and property due to wildfire and to hold wildfire losses to a level commensurate with values protected while doing this job safely. The prevention goal is to limit the number of fires to 1,230 annually (this goal has been achieved only four times in the past 15 years) and to hold the acreage burned to an area no more than .5% of the area protected (this goal has been achieved eight times in the past 15 years and five times within the last six years). Achievement of these goals would not only prevent loss of life and improved property but would allow management of our natural environment for the various amenities most urgently desired, as well as the protection of timber and wildlife. The values of the various resources protected have been estimated at 5-3/4 billion dollars.

An attempt is made to reach the above objectives through education of those utilizing the forest areas of the state and when this fails, the law enforcement provisions of Title 13 of the Revised Statutes are used to enforce compliance. The wildfire prevention and pre-suppression program is carried out by full time salaried employees of the Forest Fire Service (totalling 88 full time employees).

ORGANIZATION

The Forest Fire Service is administered by the State Firewarden, who is responsible to the State Forester. Administratively, the State Firewarden has a staff in Trenton and the State is divided into three divisions, each under the direction of a Division Forest Firewarden. He, in turn, has a staff at his headquarters and has divided his division into sections of approximately 10,000 acres each under direction of a Field Section Firewarden.

It is not economically feasible to organize in order to handle the peak fire loads, but the organization must be capable of rapid expansion when the need arises. An organization consisting of some 550 district wardens has been trained and they, in turn, have organized and trained crews to assist them in combating wildfires in their locality. All of these crewmen are provided State fire fighting equipment and many are assigned to fire trucks, fire line tractors and plows, or the air attach program. This organization consists of about 4,000 men. To handle peak loads employees of the Forest Management Section, Bureau of Parks and Division of Fish

Game and Shell Fisheries have been previously rated so that they may fill certain overhead positions in the forest fire organization.

One of the major problems encountered during the past 10 years has been the lack of manpower in the forested areas, particularly during the day. It has been necessary to substitute mechanized equipment for this lack of manpower. An expansion program has been set up to increase the number of air attack helicopters and fixed wing aircraft during high fire hazard periods to approximately ten and the number of air detection aircraft to six. It is planned to increase the number of 4-wheel drive fire trucks to 87 and the number of fire tractor-plow units to 29.

MAJOR ACCOMPLISHMENTS

During the fiscal year 1971-72 the number of wildfires was held to 92% of the goal and 19% of the acreage burned goal.

Forest Fire Service personnel cooperated with other agencies, such as Civil Defense and Disaster Control and State Police in search and rescue operations, and in providing communications during local disasters, particularly in the more rural areas of the State. Assistance was provided the Bureau of Parks in access road and bridge construction and improvement, as well as boundary clearing projects. Personnel in north Jersey (Division "A") and in north-central Jersey (Division "B") were active in the Gypsy Moth Control Program.

Performance Data -

Number of Fires Goal	Number of Fires 1971-72
1,230	1,090
Acreage Burned Goal	**Acres Burned 1971-72**
10,500	1,984
Average Number of Permits Issued 1967-71	**Permits Issued 1971-72**
27,710	30,112

In addition, the section carried on the following activities:

There were 880 educational presentations before such groups as schools, service clubs, granges, fire companies and conventions.

There were 30,334 law enforcement actions including investigations and prosecution of violations of the forest fire law and the issuance of forest fire burning permits.

There were 284 miles of fire access roads improved by removing brush, grading, roadways improving trench and widening shoulders. There were three bridges constructed and five culverts installed.

There were 160 miles of woods roads treated with herbicide to remove brush from the shoulders.

There were 8,785 acres treated with prescribed fire to reduce the hazard created by excessive fuel accumulation.

The regular forest fire detection program from 21 lookout towers is complemented by the use of three detection aircraft.

In order to more adequately train Forest Fire Service personnel, as well as coordinators, the following schools were conducted:

Air Attack Training School for pilots, dispatchers and ground crews.

Fire School for Section Wardens, Area Foresters, Park Superintendents and cooperators.

School in the use of and care of forest fire equipment for Area Foresters and Park Superintendents.

Wildfire Behavior Schools for fire chiefs coming from all areas throughout the State.

Communications School for fire officers coming from areas throughout the State, and

Forest Fire and Air Pollution Control Schools for firemen scattered throughout the State.

A research program in cooperation with the U.S. Forest Service was conducted on the subject of "Classification of Forest Fuel Types from Aerial Photography".

Cooperation with the U. S. Forest Service with respect to fire control provisions of the Clarke-McNary Act of 1924 resulted in periodic liaison on a financial reimbursement basis.

There was continued participation in the operations, planning, and organization of the Mid-Atlantic Interstate Forest Fire Protection Compact in order to provide assistance during a forest fire emergency and continued efforts to provide uniform training for the fire control organizations of member states.

Causes, locations and times started of forest fires were analyzed in order to prepare an effective risk reduction and hazard reduction program.

Forest Management Section

The goals of the Forest Management Section are to improve the forest environment to provide for recreation, water, wood products, wildlife, natural beauty and the amenities, through the establishment, maintenance and protection of those species of trees and associated vegetation which are best adapted to that particular ecological complex, and to protect the woodlands from damage due to insects and disease.

The major accomplishments of the section included:

A. Cooperative Forest Management (Private Lands). Total requests for assistance resulting in conservation practices of tree planting, woodland stand improvement, harvest cuttings, and prescribed burning all showed a marked increase in 1972 over 1971. This was due to greater landowner interest and additional help available to field foresters through Emergency Employment Act personnel. Requests for prescribed burning assistance also increased because of the new air pollution control code. Landowners are seeking professional advice for the planning and supervision of this practice.

A new computerized system was initiated in 1972 to report state forestry accomplishments to the U.S. Forest Service. This "Multiple Accomplishment Reporting System" (MARS) is a nationwide operation that compiles information for each participating state in the cooperatively financed State-Federal forestry programs. The many operational bugs are being worked out, and a final system with monthly print-outs to the states should prove more efficient and very valuable for planning future programs.

Regulations of the Farmland Assessment Act of 1964 were critically reviewed with recommendations made for changes so that tax assessors, landowners, and foresters can better understand and administer those portions of the Act that concern woodlands. A statistical summary showing forestry accomplishments for 1972 compared to 1971 is shown in the appendix.

State Land Management

Gypsy Moth Control - A field sampling program was conducted on 60,535 acres of state forest and park woodlands to determine the location and gypsy moth insect population buildup. From this survey, 2,760 acres were treated. A reduction in the number of acres needing control measures from 1970 to 1972 attests to the effectiveness in reducing tree defoliation and mortality caused by this insect.

Year	Acres Treated
1970	38,050
1971	19,880
1972	2,760

Prescribed Burning

8,920 acres of state forest land were treated with prescribed fire as a protection measure. Although not reaching our annual goal, this accomplishment was excellent in view of the unusually wet weather limiting the number of suitable days for this practice.

Woodland Cutting Operations

Wood products on 447 acres were sold during Fiscal Year 1972 for $17,039. These improvement, salvage, and harvest cuttings are carried out according to long-range management plans designed to salvage material killed by wildfire, and harvest cuttings made to improve the quality, composition, and growth of the entire forest.

Forest Nursery and Tree Improvement

The objective of the Forest Management Section nursery is to produce and sell high quality forest tree seedling stock for reforestation purposes in New Jersey. Seedlings are sold to private landowners who own five or more acres, a planting plan is prepared by a forester, with species recommended to fit the site.

Actual sale of seedlings in 1972 was $12,592.60. This figure was about $1,500 less than estimated return due to considerable loss to winter damage; both weather and rodents.

The long-range objective of the Section's tree improvement program is to develop seed orchards of superior individuals that will result in a continued supply of high quality seed from known parentage at a lower cost.

A two acre tract outplanted with White Pine seedlings from Maryland, to be dedicated as a tree orchard and breeding area.

A fifty-two acre block on Lebanon State Forest received site preparation to prepare for planting Pitch Pine seedlings in spring of 1973 and 1974. This is in cooperation with Dor. Thomas Ledig, Yale Forestry School, on the special Pitch Pine provenance study.

Cones were collected from Austrian Pine and Japanese Larch trees in the Seed Orchard, and seedlings were planted in the Nursery. The Nursery should produce cones in operational quantities in 1975.

Forest Utilization and Marketing

A cooperatively funded (80% Federal - 20% State) General Forestry Assistance Project was initiated in fiscal year 1972. This two-year project has three primary objectives; a plan to improve the forest resource base of New Jersey, a plan to conduct an effective rural development program, and an urban and community forestry program.

In the process of gathering information for the development of these plans, the following projects were accomplished.

Primary Wood Users Directory

Field contacts with all primary wood users were made. A

directory listing all known loggers, sawmills, veneer plants and pulpmills along with the tree species used and products made has been completed.

Tree Cutting Regulations

A model ordinance to regulate the cutting of trees has been developed. This ordinance along with a file of existing ordinances has aided other municipalities in regulating the removal of trees. Over fourteen municipalities have been assisted.

Wood Waste Inventory

An inventory of wood wastes at Liberty Park requiring disposal was completed. This unique study, to our knowledge, was a type not previously carried out in the Northeast. The wood residues of abandoned piers, pillings, barges and other assorted debris along this waterfront section of Jersey City amounts to more than 1.3 million cubic feet. Solutions for disposal are currently being investigated.

Other Activities and Accomplishments

A mail survey of secondary wood users has been initiated. When completed, the directory will aid in the marketing and utilization of wood. This survey will also give an indication of the amount and difficulty of disposal of wood wastes.

Preliminary planning and approval has been completed for a novel cooperative demonstration and educational harvest cutting and woodland improvement cutting area on Stokes State Forest. This is a cooperative project between the Bureau of Forestry, Bureau of Parks, Division of Fish and Game and the Stokes School of Conservation. A commercial woodland harvesting sale, together with improvement cuttings will embody approved woodland and game management practices. The areas in close proximity to the School of Conservation will be used as outdoor laboratories for teacher conservation education.

Assistance was provided in drafting an ordinance to require the reforestation of abandoned sand and gravel operations.

A report was prepared for the Producing Task Force describing some of the problems and suggested solutions affecting forest land in New Jersey.

Assistance was provided to over 150 firms and individuals in processing, marketing and utilizing wood products.

Chapter VII
Division of Fish, Game, and Shellfisheries

The long range goals of the Division are to:

Administer, protect and manage the State's fish and wildlife resources in the best interest of the citizens of the State.

Provide for maximum compatible recreational use of resident fisheries and wildlife resources.

Provide for commercial use of marine fish and shellfish on a sustained yield basis.

Provide for additional fish, wildlife, and wildlife lands and waters for present and future use and enjoyment and assure the preservation of quality wildlife habitat.

Inform and educate the public as to the goals and programs undertaken by the Division so that they may assist in the attainment of these goals to develop an understanding and appreciation of the State's fish and wildlife resources.

Organization

The Division is organized into three bureaus. The Bureau of Wildlife Management is concerned with the propagation, management, and research into New Jersey's wildlife resources. The Bureau of Fisheries Management has similar concerns for the aquatic resources of the State. The Bureau of Fish and Game Coordination and Law Enforcements enforces the State's laws and regulations governing hunting and fishing, and provides training and information for hunters.

Major Accomplishments

Inauguration of the New Jersey Firearm Safety Projects, amounting to $60,000 for the training of initial license buyers in firearm and archery safety procedures. Two full-time Hunter Safety Coordinators were employed to coordinate the 21 county programs. The present Firearm and Archery Safety Programs were reviewed and county volunteer instructors organized. Twenty-three slide projectors were acquired and new safety slide series prepared for both courses.

Coordination Project has supervised, assigned and reviewed approximately 600 riparian grants and permits forwarded to the Division by the Division of Marine Services.

Estuarine Inventory Project on Great Egg Harbor River and Bay completed. Data, besides providing economic information, also provided input toward riparian grant and permit reviews.

Fisheries and Wildlife Biologists were regionalized as an aide to the general public seeking assistance on a local level and for better management of the resource.

Production at the Charles O. Hayford State Fish Hatchery was the highest in the past 10 years with over 700,000 adult and fingerling trout stocked.

Under development, plans progressed for the Round Valley access site, three flood control impoundments were started or completed on the Assunpink Tract of 225, 52 and 38 acres all to be managed for fishing. An additional impoundment at Furnace Brook of 52 acres is completed and will be open to fishing in April 1973.

Other Activities

Bureau of Wildlife Management

Evaluation of open marsh management versus insecticides as a means of mosquito control and improving marsh productivities.

Propagating and liberation of 64,000 pheasants at two state farms and 11,300 quail from the state quail farm and 2,900 by youth cooperators.

Habitat improvement activities on the fish and wildlife management areas to provide desirable wildlife included 1,456 acres planted with a variety of food species along with 39,100 tree seedlings planted and 149,700 linear feet of shrub plantings.

Conducted waterfowl aerial surveys on a monthly basis along the coastal marshes from September to March.

During January, bureau conducted the Winter Waterfowl Inventory in cooperation with U.S. Bureau of Sport Fisheries and Wildlife.

Censuses were conducted using various techniques, on woodcock, clapper rail, pheasant, rabbit and deer.

Deer research program continued to collect data relative to a deer management plan with information related to population, sex and age ratios, harvest antler growth, reproduction, condition, weight and movements.

During the year, 720 acres were assigned to the Division under the Green Acres Program.

Bureau of Fisheries Management

Freshwater Research and Development Section

Information collected during the ecological surveys

of streams used to classify trout production and trout maintenance waters for the State's Surface Waters Classification program.

Studies continued on trout management practices in Spruce Run and Round Valley Reservoirs.

Major change in trout regulations was a five p.m. opening on closed waters to allow more anglers to partake in fishing after restocking.

Bureau of Geology continued investigations on available water supply for a new hatchery in the vicinity of Pequest.

Aquatic Vegetation Control was undertaken on portions of 14 lakes and ponds throughout the state.

Anadromous fish management and research was carried out, primarily on the Delaware River and directed toward the American shad, in conjunction with neighboring states and federal agencies.

Pollution unit reported 157 cases of pollution and 73 fishkills investigated along with routine inspections, studies and lab analysis reports.

Shell Fisheries Section

One-hundred and seventy-five thousand bushels of seed oysters from the Maurice River Cove Section of Delaware Bay were transplanted to leased grounds. Mullica River oyster beds allowed taking of 18,000 bushels of seed oysters to market beds in the Great Bay. An additional 1,500 bushels were taken to the Tuckahoe River in an attempt to revitalize production in that area.

Crabbers utilizing pots had a successful season with 77 licensees using 4,122 pots, taking 23,000 bushels of crabs and 42,000 soft or peeler crabs. Transplanting of clams from certain condemned areas to leased grounds in pure waters continued with 5 million clams transplanted with an estimated value of $400,000 at the consumer level.

Bureau of Law Enforcement

Officers conducted 44,717 inspections of licenses, creels, bags and equipment resulting in 2,400 violations and complaints filed. Hunting and fishing privileges were revoked for 49 individuals convicted of a second violation within a five-year period. Period of suspension is two years.

Deputy program revised for more efficient organization and utilization of these volunteers.

Officers provided technical assistance to general public concerning wildlife problems.

Attendance at a variety of meetings involving sportsmen, conservationists, service clubs, schools, etc., numbered 386.

Four new men given nine weeks of in-service training and then assigned to districts, filling vacancies.

Public Relations-Information and Education

Provided 157 lecture-talk programs utilizing slides, films, etc., to variety of clubs, organizations and schools.

Exhibits were prepared and utilized during the year at 23 sport and outdoor shows and fairs throughout the state.

Provided news release service and initiated a monthly newsletter of highlights, all for use by outdoor oriented writers.

Unit responsible for preparation and publication of Division magazine NEW JERSEY OUTDOORS, Fish and Game Compendiums, duck supplement, and annual report, along with other pamphlets.

During summer vacation season provided weekly up-to-date fishing reports, via telephone to radio stations. Also in conjunction with Department's Public Information Office prepared appropriate radio tapes.

Prepared program recognizing 60th anniversary of state fish hatchery whereby trout were marked with special tags and lucky anglers were recipients of prizes, donated by interested companies.

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Appendix 1 - Statistical Summary of Enforcement Actions FY 1972

FORMAL ACTIONS AGAINST POLLUTION

FISCAL YEAR 1972

	Air Pollution Control		Water Pollutions Control	Solid Waste Management
Administrative Orders Issued	906		37	90
Consent Orders	63	1213	NA	0
Court Orders, Adversary	2	total	NA	0
Court Orders, Consent	72	orders	NA	0
Notices of Prosecution	387		0	9
Administrative Hearings	6		NA	44
Referrals to A.G.	93		0	27
Court Actions	20		17	13
Penalties Collected	$419,800		$32,500	0

Appendix 2

Performance Data

Office of the Commissioner FY 1972

Performance Data - Office of the Commissioner

Youth Conservation and Recreational Projects

Transportation Grants	75
Groups Participating	75
Children Served	235,000
Cost per child	$2.00
Recreational Facility Grants	1
Budgeted Positions	61
Authorized Positions	109
Total Positions	170

Appendix 3

Performance Data

Division of Environmental Quality

BUREAU OF AIR POLLUTION CONTROL

ROUTINE ACTIONS:

Field investigations and inspections	13,086
Orders	1,213
Notices of prosecution	387
Referrals to Attorney General	93
Enforcement conferences and hearings	295
Court actions	20
Total fines collected	$419,800.00
Total fines rebated	42,047.50

TECHNICAL SERVICES:

Facilities tested	43
Samples taken	358
Laboratory analyses	2,572

PERMITS AND CERTIFICATES:

Permits approved with controls	1,749
Temporary certificates issued	2,133
Permanent certificates issued	1,933

BUREAU OF RADIATION PROTECTION

X-ray machines inspected	3,555
X-ray machines registered (new)	902
Electronic products inspected	148
Other radiation hazards inspected	220
Samples taken	1,212
Laboratory analyses	3,214

BUREAU OF SOLID WASTE MANAGEMENT

Sanitary landfills registered	25
Inspection of sanitary landfills	3,716
Solid waste collectors registered	2,588
Court actions	8
Inspections of incinerators	0
Landfill engineering plans reviewed	18
Orders	84
Enforcement Conferences and hearings	45

OFFICE OF PESTICIDE CONTROL

Companies registered	670
Products registered	4,425
Violations cited	23
Violations resolved	23

BUDGET SUMMARY - OFFICE OF DIRECTOR

Salaries	$152,397
Materials and supplies	3,700
Services other than personal	39,738
Maintenance of property	350
Extraordinary	35,000
Total	$231,185

BUDGET SUMMARY - BUREAU OF AIR POLLUTION CONTROL

Salaries	$1,580,101
Materials and supplies	153,500
Services other than personal	202,000
Maintenance of property	10,500
Extraordinary	36,000
Additions and improvements	155,000
Total*	$2,137,101

*Adjusted FY72 appropriation includes State and Federal funds

BUDGET SUMMARY - BUREAU OF RADIATION PROTECTION

Salaries	$311,983
Materials and supplies	9,500
Services other than personal	17,780
Maintenance of property	3,600
Additions and improvements	10,000
Total	$352,863

BUDGET SUMMARY - BUREAU OF SOLID WASTE MANAGEMENT

Salaries	$156,303
Materials and supplies	2,450
Services other than personal	17,300
Maintenance of property	100
Extraordinary	20,000
Additions and improvements	400
Total	$196,553

BUDGET SUMMARY - OFFICE OF PESTICIDE CONTROL

Extraordinary	*35,000

*Carried in budget of Office of Director

BUDGET SUMMARY - NOISE CONTROL ACTIVITY

Extraordinary.....$100,000

PERSONNEL BREAKDOWN

ELEMENT	BUDGET YEAR	
	FY71 Actual	FY72 Budgeted
Office of Director	13	13
Bureau of Air Pollution Control	156	155
Bureau of Radiation Protection	27	27
Bureau of Solid Waste Management	16	16
Office of Pesticide Control	0	2
Total	212	213

Appendix 4

Performance Data - Division of Marine Services

PERFORMANCE DATA DIVISION OF MARINE SERVICES

Bureau of Navigation:

Program:	Performance
State-Municipal Shore Protection Construction Projects	8
State-Municipal Inland Waterway Dredging Projects	4
Marking Coastal Inland Waterways (Miles)	200
Inspection of Riparian Permits and Licenses	231
Riparian Permits Issued	169
Riparian Licenses Issued	161
State Marinas Operated	4
Number of Marina Boat Berths in Service	760

Boat Registration

Motorboat Licenses Issued	107,381
Operators Licenses Issued	59,696
Duplicate Boat Licenses Issued	832
Duplicate Operator Licenses Issued	15
Dealers Licenses Issued	503
Tax Exemption Certificates	5,164
Annual Correspondence	300,000

Bureau of Marine Lands Management:

Program	Performance
Length of Riparian Shoreline (Miles)	1,800
Total Wetland Acreage	300,000
Acres of Wetlands Mapped	74,820
Wetland Maps Produced	194
Riparian Applications Received	184
Riparian Grants and Leases Issued	93

Bureau of Marine Lands Management - continued:

Program	
Riparian Applications Denied	18
Riparian Applications Cancelled	56
Riparian Property Inspections	150
Riparian Case Backlog	500

Bureau of Marine Law Enforcement:

Program	Performance
Complaints	6,060
Investigations	7,163
Special Activities	646
Stolen Boats, Motors	479
Value Stolen Boats, Motors	$342,027.
Recovered Boats, Motors	405
Value Recovered Boats, Motors	$309,802
Summonses Issued	1,635
Overdue Vessels	284
Aid to Boaters	1,711
Value of Vessels Assisted	$5,591,478.
Persons Assisted (Swimmers, etc.)	4,272
Accidents and Emergencies	445
Arrests	552
Boardings	3,864
Other	189

DIVISION OF MARINE SERVICES
FISCAL 1972 BUDGET SUMMARY

Director's Office	$ 101,929
Bureau of Navigation	532,531.
State Aid	2,526,896.
Boat Regulation	644,455.
Bureau of Marine Lands Management	759,603.
Bureau of Marine Law Enforcement	440,773.
Total	$5,006,187.

PERSONNEL BREAKDOWN

Bureau of Navigation

Section	Number
Administration	10
Engineering	38
Permits and Licenses	3
Navigation aids	6
Motor Boat Numbering	23
Marinas	20
TOTAL	100

Bureau of Marine Lands Management

Section	Number
Riparian	12
Field Survey	0
Wetlands	3
TOTAL	15

Bureau of Marine Law Enforcement

Section	Number
Trenton Headquarters	6
Area #1, Hdqrs.	31
Area #2, Hdqrs.	25
Area #3, Hdqrs.	7
Training Station	5
Repair and Supply	7
TOTAL	81
Seasonal Enforcement	179
Director's Office	5

Appendix 5

Performance Data - Division of Parks and Forests

PERFORMANCE DATA

Division of Parks and Forestry
Bureau of Parks

Total Attendance		5,010,909
Total Income		$1,463,977.52
Budgeted	$1,391,548.29	
Dedicated	$72,429.23	
Total Acres		235,582
# Parks	40	
# Forests	10	
# Historic Sites	26	
# Natural Areas	12	
# Recreation Areas	2	
# Miscellaneous	5	
# Burial Grounds	3	

GENERAL REVENUE AND ATTENDANCE DATA

Division of Parks and Forestry
Bureau of Parks

Ocean Front Parks	3
Area in Acres	3,520
Revenue	$548,815
# Visitors Admitted	1,094,389
Inland Parks and Forests	49
Area in Acres	227,997
# Day Use Visitors Admitted	2,692,926
# Overnight Visitors Admitted (Campers, Cabins, Leantos)	512,712
Revenue	$605,381
Leased Properties Maintained	285
Revenue from Leases	$105,201
Historic Sites	
# Sites and Areas	26
# Visitors	710,880
Revenue	$139,289
Natural Areas	
# Acres	4,065
# Interpretive Tour Visitors & Public Lectures	452,000
General	
# Acres/Permanent Employee	870
Revenue/Visitors	28¢
Expenditure/Acres	$18
# Picnickers	1,280,101
# Bathers	973,289
# Boaters	103,928
# Fishermen	375,181
# Hunters	28,684
# Hikers	548,851
# Snowmobiles	2,963
# Observation Points Viewers	354,534
# Senior Citizens	29,939
# Cyclists	17,451
# Monument Viewers	121,778

REVENUE DESCRIPTION

Division of Parks and Forestry
Bureau of Parks

	Budgeted	Dedicated
Permits	$57,838.15	
Fees--Admissions, etc.	742,594.67	
Fines--Violations	4,633.00	
Rents--Boats, cabins, dwellings	454,766.88	
Sales--Charcoal, wood, etc.	23,316.12	
Concessions under contract	52,864.83	
Other--Miscellaneous	2,754.89	
Total	$1,338,768.54	
Less Refunds	2,220.25	
Total	$1,336,548.29	
Morris Canal and Banking	55,000.00	$4,917.95
Revolving Fund--Sale of Merchandise		67,511.28
Total	$1,391,548.29	$72,429.23

BUDGET SUMMARY

Division of Parks and Forestry
Bureau of Parks

490-102-100	Salaries	$2,838,050
490-102-200	Materials and Supplies	328,100
490-102-300	Services Other Than Personal	234,900
490-102-401	Maintenance of Property--Recurring	224,500
490-102-451	Maintenance of Property--Non Recurring and Replacements	467,000
490-102-500	Extraordinary: Maintenance, Old Barracks--Trenton, State Share	26,000
490-102-513	Extraordinary: Compensation Awards	10,000
490-102-700	Additions and Improvements	
	TOTAL	$4,264.050
490-170-750	Capital Construction	$3,550,000

PERSONNEL

Division of Parks and Forestry
Bureau of Parks

Permanent Positions	262
Capital Improvement Program Employees	56
Seasonal Employees	624
EEA Employees	66

Bureau of Forestry
Performance Data

				Fiscal Year 1971	
		Owners	Acres	Owner	Acres
I	Request for Assistance	2,169		1,599	
	I & E	1,167		682	
	Forest Management	1,002		552	
	Reforestation Asst.			341	
	R X B			24	
II	Woodlands Reconned.	1,002	62,169	519	29,173
III	Planting sites inspected			207	4,761
IV	Woodland Management inspections			172	4,417
	Total II, III, IV	1,002	62,169	961	38,351
	Forest Management plans made	144	18,387	213	15,821
	Planting Plans made	175		116	851
	R X B plans made	19	2,935	8	365
	Sawtimber cruised	1	677		
V	Marked for cutting		1,886	134	1,433
	Sawtimber		743	44	469
	Pulpwood		254	9	264
	Timber Stand Improvement		889	81	700
VI	Woodland Management Accomplished			224	29,119
	Sawtimber cut	18	376	19	413
	Pulpwood cut	5	315	2	51
	Prescribed burning	12	10,079	12	7,590
	Reforestation	148	663	120	628
	TSI cut	79	674	70	564
	Aerial Spray-State Lands	1	3,050	1	19,873
VII	Inventory				
	Sawtimber	1	243 MBF	2	1,229 MBF
	Pulpwood			2	1,009Cords
	Insects and Disease	1	60,535 Acres	1	55,574Acres
II	Volume Marked				
	Board Feet Timber	1,670 MBF			1,466 MBF
	Pulpwood	10,295 Cords			3,812Cords
IX	Volume Cut				
	Board Feet Sawtimber	1,212 MBF			996 MBF
	Cords Pulpwood	3,115 Cords			396Cords
	Returns to owner	$69,072			$32,963

X	Prescribed Buring lines Plowed: miles		11.3
	owners		11
	Talks & Programs Presented	75	61

Appendix 6

Performance Data - Division of Fish Game and Shellfisheries

	Fiscal year 1970-71	Fiscal year 1971-72
Fish Propagated & Distributed (adults)	501,572	571,057
Fish Distributed from Federal Hatchery	115,845	96,865
Pheasants Reared at Game Farms	70,053	64,078
Quail Reared at Game Farms	8,890	11,300
Pheasants & Quail Reared under Youth Program	7,889	3,335
Seed Oysters Transplanted (bushels)	122,940	194,500
Clams Transplanted	3,000,000	5,000,000

Budget Summary

The Division of Fish, Game and Shellfisheries operates on funds derived from the sale of various hunting and fishing licenses and stamps. By law the money is proportioned into the Hunter's and Angler's Fund and The Public Shooting and Fishing Grounds Funds. The Shellfisheries Section became part of the Division when the Department was reorganized but continues to be funded through the general state budget.

	Expended Fiscal Year 1971-72
Shell Fisheries Section	121,895
Hunter's & Angler's License Fund	2,184,158
Public Shooting & Fishing Grounds Fund	954,274

Personnel Breakdown

There are at present 187 budgeted positions in the Division of Fish and Game and five in the Shellfisheries Section. In addition there are nine new positions authorized. These positions are broken down as follows:

Public Shooting and Fishing Grounds Fund
40 budgeted positions
5 new positions

Hunters and Anglers Fund
147 Budgeted positions
5 new positions

Shellfisheries Section
5 budgeted positions