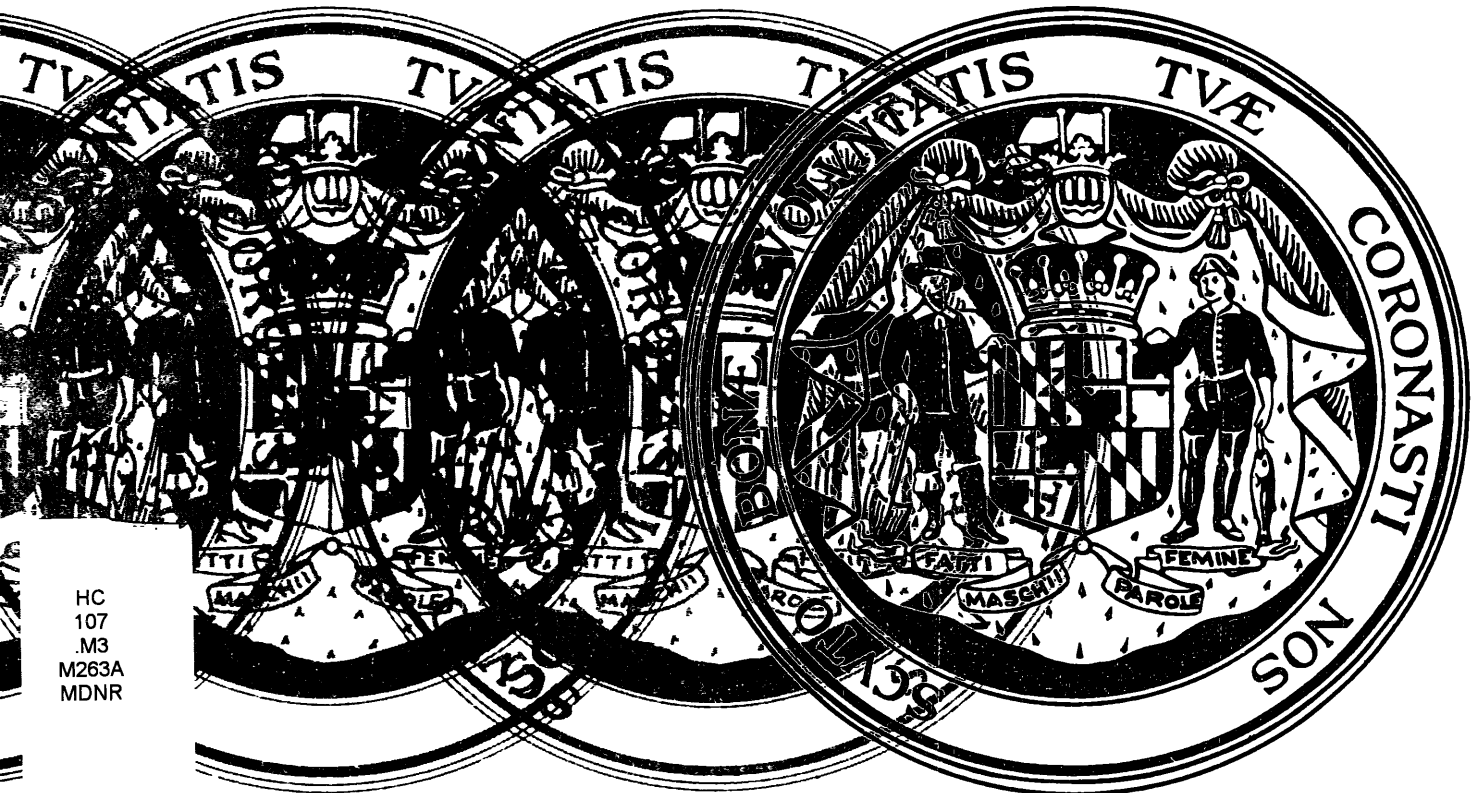


State of Maryland
DEPARTMENT OF NATURAL RESOURCES
Annual Activities Report

1972

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STATE OF MARYLAND

Department of Natural Resources

1972

ANNUAL ACTIVITIES REPORT

Marvin Mandel, Governor

James B. Coulter, Secretary

Joseph H. Manning, Deputy Secretary

FOREWORD

The purpose of this report is to catalogue the activities conducted by the 1,115 men and women of the Department of Natural Resources during 1972.

These achievements reflect a rewarding benefit of reorganization, an aim of which has been the creation of a work atmosphere that permits each person to perform to the limit of his capabilities.

The activities listed in this small booklet represent direct and indirect service to the public. During the year, more than 11 million persons were served in some direct fashion by one or more of some 188 activities of the department.

These activities were accomplished with an expenditure amounting to 1.2 per cent of the total State budget, or \$20.9 million.

OFFICE OF THE SECRETARY

Increased managerial efficiency by combining internal units and programs.

Combined formerly separate law enforcement functions into one 185-man Natural Resources Police Force.

Centralized all administrative, planning, fiscal and supportive services into the Office of the Secretary.

Reduced burden of middle management personnel strength in headquarters and field offices to provide direct line of communication between Secretariat and operational personnel.

Brought all Natural Resources land acquisition and construction functions into one unit under the Office of the Secretary.

Created an extension service to bring educational functions of the department and many services more readily available to the public.

Implemented new environmental legislative programs such as Maryland Environmental Service, sediment control, power plant siting, acid mine drainage control, and wetlands regulations.

FISHERIES ADMINISTRATION

Through its Fisheries program, the Department of Natural Resources is responsible for maintaining abundant populations of shell and finfish through biologically sound management practices; and provide commercial and recreational opportunities through controlled harvest of commercial and game species.

Supervised commercial harvesting \$20,965,465 worth of seafood products in Maryland tidal waters. These consist of:

2.9 million bushels of oysters with a dockside value of \$13.1 million; 26,077,799 pounds of hard crabs valued at \$2,470,114; 1,531,083 pounds of soft crabs at \$731,349; 424,561 bushels of soft-shell clams at \$2,971,927 and 15,431,975 pounds of finfish valued at \$1,692,075.

Issued 17,400 commercial licenses to 15,100 watermen.

Issued 430,000 sport licenses and stamps to hunters and sport fishermen.

Issued 750 licenses to seafood dealers.

Planted 6,852,405 bushels of oyster shells as part of oyster repletion program.

Completed 13 surveys for oyster ground lease applications.

Resurveyed 148 corners of leased oyster ground.

Surveyed 62 shell planting areas, and 102 seed planting areas.

Planted 45 areas of dredged shells on 2,079 acres of bars.

Planted 17 areas of fresh oyster shells on 406 acres of oyster bars.

Planted or transplanted 102 areas of seed oysters on 2,109 acres of oyster bars.

Located 1,021 areas for sampling oyster bars.

Located 60 shore control survey stations and fixed navigational aids.

Established 4 triangulation stations.

Measured 52 pound nets.

Established 893 and recovered buoys.

Conducted 58 days of ice-breaking activity.

Completed 3 surveys of clamming areas and 19 surveys for clam samples for State Department of Health and Mental Hygiene.

Made 2,500 acres of bottom available for clamming.

Contracted for study of Blue Crab to determine fluctuations in annual harvest.

Administered a saltwater sportfishery resource valued at an estimated \$1.117 billion.

Stocked Maryland waters with 766,978 finfish.

Investigated and analyzed 77 instances of fish mortalities.

Inventoried 106 1-mile stream sections after investigating 110 streams in anadromous fish study which also included seining of 153 sites, 1,200 fish investigations and 1,800 plankton collections.

Checked 75 ponds in all geographic locations of the State.

Conducted creel census on two State owned ponds.

Placed 46 tons of fish pond fertilizer in State owned or controlled impoundments.

Completed 10 reservoir reproduction checks.

Continued Marsh Study.

Tagged 601 striped bass over 15 pounds in weight to determine harvest information for trophy fish.

Monitored striped bass, reproduction, recruitment and harvest.

WILDLIFE ADMINISTRATION

This program is responsible for providing public recreational opportunities for both consumptive and non consumptive users of the State's game and wildlife resources. The administration evaluates public demands, wildlife population and harvest parameters, environmental factors and applies management techniques to insure sustained production for use.

During 1972 the administration developed and maintained:

- 30 acres of dams, dikes and levees
- 225 linear feet of canals and channels
- 133 miles of roads and trails
- 197 miles of signs and boundaries
- 23,640 plants, trees and shrubs
- 3,693 acres of herbaceous seeding and mowing
- 97 acres thinned or cleared
- 30 pot holes blasted
- 789 acres custom farmed
- 78 tree release cuttings.

Thirty five wildlife acres, encompassing 102,587 acres are being managed.

Recreational activities on state-owned and cooperative lands included:

- 161,104 days of hunting
- 83,390 days of fishing and crabbing
- 3,470 days of trapping
- 15,176 days of birdwatchings
- 2,402 days of field trials
- 7,600 days of dog training
- 65,441 days of hiking, nature study and appreciation, etc.

Twenty-six private and public cooperative hunting areas totaling 145,861 acres are supervised.

The Wildlife Management Administration provides extensive technical and advisory services. During 1972 the staff of the administration made:

- 700 visits to provide assistance and environmental data review
- 35,090 telephone and mail requests were answered
- 126 REAP farms were assisted
- 162 information and education programs were presented
- 29 professional meetings were attended.

The 1972 deer harvest totaled 11,956 animals, taken in all twenty-three counties.

- 228 were taken with bow and arrow
- 4854 were antlered
- 5131 were antlerless
- 729 deer were taken on military reservations and during special seasons

1014 deer were killed in auto accidents and by other causes.

The wild turkey harvest was limited to six counties, with a spring harvest of 89 birds and a fall harvest of 394.

The fur harvest consisted principally of muskrats, with a total of 114,971 pelts valued at \$2.00 per brown pelt and \$3.40 for each black. 5,290 otter pelts valued at \$42.00 each were taken.

Other pelts included 181 beaver

362 red, silver and cross fox

182 grey fox

120 mink

339 nutria

131 opossum

29 racoon

21 weasel.

PARK SERVICE

Maryland's State Park system presently comprises forty-seven scenic, historic, and natural environment areas located in all topographic regions of the State. Acreage presently owned by the State in these designated park areas totals 56,000, and plans call for acquisition of about 70,000 additional acres to enlarge these State-wide public recreation tracts.

Thirty-three State Parks are operational, most of them serving a wide variety of interests from such day-use activities as picnicking, hiking, swimming, fishing, nature study and sightseeing, to camping and cabin occupancy, permitting more extended enjoyment of these unique areas.

During the fiscal year about 9 million people were recorded as having visited the thirty State Parks which maintain such records, extensive construction activities are under way at many of these areas where new facilities are being installed to improve recreational opportunities.

An estimated \$3 million loss in property damage resulted from "Agnes", the devastating storm that hit Maryland and the other States of the Atlantic seaboard in June 1972. It should also be noted that high commendation is due the many individuals in the agency who performed so effectively in this storm emergency.

Interpretive programs underway at 21 of the State Parks are on the upswing. When the programs began in 1963 there were only eight such at two parks serving 400 people. Each year since has seen sizeable increases in both types of programs offered and attendance, with 900 programs serving a total of 158,000 people during the 1972 fiscal year.

The following State Parks are presently operational:

Assateague - Worcester County - on the Atlantic Seashore

Big Run - Garrett County - on the Savage River Reservoir

Calvert Cliffs - Calvert County - on the Chesapeake Bay

Casselman - Garrett County at the historic bridge
over Casselman River

Cedarville - Charles and Prince George's Counties
near Washington

Cunningham Falls - Frederick County on Hunting Creek,
adjacent to Catoctin Mountain National
Park

Dan's Mountain - Allegany County

Deep Creek - Garrett County on Deep Creek Lake

Deer Creek - Harford County - containing the famous
Rock Formations

Elk Neck - Cecil County - on the Elk and North East Rivers
and Chesapeake Bay

Fort Frederick - Washington County - a valuable historic
site on the Potomac River

Fort Tonoloway - Washington County - at Hancock
Gambrill - Frederick County - on Catoctin Mountain
Gathland - Washington County - on South Mountain and
the Appalachian Trail
Greenbrier - Washington County - featuring swimming
in a man-made mountain lake
Gunpowder - Harford and Baltimore Counties on the
Gunpowder River
Herrington Manor - Garrett County - part of Swallow
Falls State Forest
Janes Island - Somerset County - at Crisfield on
Tangier Sound and the Annapessex Canal
Martinak - Caroline County - on the Choptank River
Milburn Landing - Worcester County - on the Pocomoke
River
New Germany - Garrett County - in Savage River State
Forest
Patapsco - Baltimore, Anne Arundel, Howard and Carroll
Counties along the Patapsco River Valley
Point Lookout - St. Mary's County - on the Potomac
River at its confluence with the
Chesapeake Bay
St. Clements - St. Mary's County - on the Potomac River
Sandy Point - Anne Arundel County - on the Chesapeake
Bay
Seneca - Montgomery County - on Seneca Creek
Shad Landing - Worcester County - on the Pocomoke River
Smallwood - Charles County - on Mattawoman Creek
Susquehanna - Harford County - on the Susquehanna River
Swallow Falls - Garrett County - on Muddy Creek and the
Youghiogheny River
Washington Monument - Washington County - South Mountain
and Appalachian Trail
Wills Mountain - Allegany County - a scenic site
Wye Oak - Queen Anne's County - at site of world's
largest White Oak Tree.

FOREST SERVICE

The Forest Service is responsible for the overall direction, supervision and coordination of the activities in the State Forests. Programs involve the administration of:

1. forest fire prevention and control
2. forest management on private forest land including advisory services and assistance to county forest conservancy district boards
3. roadside tree protection including administration of the Tree Expert Law
4. forest improvement
5. State forest operation

The salvage of southern pine beetle damaged and dying timber on the Pocomoke State Forest is pretty well complete. Rehabilitation of 700 acres remains to be completed.

While timber sales, forest and wildlife habitat improvements, tree planting and other basic resource protection activities continue on all State Forests, three environmental (low density) recreation activities are worth mentioning. They are (1) establishment of Big Savage Trail - a 16 mile trail on top of Big Savage Mountain on Savage River State Forest. It eventually will be part of the Potomac Heritage National Trail. It provides a variety of scenic, geologic, and other attractions together with mountain top flora and fauna. (2) White Water Canoe-Kayak Races on Savage River below the Savage River Dam (Savage River State Forest). For the last several years Olympic Trials have been held here. The "dam" people provide the correct volume of water for the races (good water from the Savage River State Forest). The Forest Service cleaned up a small area for primitive camping and graded an area for parking, and the Tri-Towns Chamber of Commerce promotes the activity. (3) Snowmobile trails on Savage River, Swallow Falls and Potomac State Forests, have been opened.

1,726 permits were issued to persons and utility companies desiring to do tree care work. Forty-three candidates were examined for qualifications to do tree care work. Licensed tree experts are required to know their work and carry liability insurance as a protection to property owners. 1,763 property owners were advised on the care and planting of shade trees.

The Service published a mimeographed bulletin entitled, "Keep Maryland Green; Plant a Tree."

Approximately 6,500,000 trees were distributed for reforestation purposes throughout the State of Maryland from the Buckingham Forest Tree Nursery. The major species produced are loblolly pine, white pine, red pine, Scotch pine and the spruces.

Approximately 3,000 roadside trees were distributed throughout the State. These trees are distributed to municipalities and public agencies to be planted on public right-of-ways or land owned by the State of Maryland. A continuous production of approximately 3,000 to 4,000 trees is anticipated.

The Nursery operation also includes a loblolly seed orchard that is now in its sixth year and should be producing superior seeds for conservation planting within the next few years.

We are now in the process, in cooperation with the Natural Resources Institute, University of Maryland, of developing a clonal white pine seed orchard to be placed on the Nursery property. Seedlings are now in the beds and grafted and some planting will be done in 1973 with possibly a completion of the clonal orchard in 1974. These two special plantings are to provide seed to grow trees faster and of superior characteristics. Output of trees in the Nursery is generally on the increase with white pine and Scotch pine the major species that are being increased.

This year, work begun through a forest examination three years ago, culminated in intensive forest management on a 75 acre forest ownership in Calvert County. During fiscal year 1971, 41 acres had been marked and planned for a clearcut harvest. During 1972, the timber was sold to the highest bidder and was harvested under a timber sale agreement that was the most stringent ever used by the forester. The standard agreement contained an additional ten conditions to protect both the seller and the purchaser.

On the last day of the harvest operation, all debris and culverts were removed from the streams and the logger constructed water bars and diversion ditches to control erosion on log roads as directed by the forester. It was the first erosion control work done by any logger in the Calvert Project. The logging roads were subsequently limed, fertilized and seeded to grasses and wildlife cover plants. This was the beginning of total harvesting assistance to forest owners in the project. Cutting and post logging exams were made on the property.

Prior to the harvest, the 41 acres were prepared for reforestation. This past spring, the area was planted by hand to Yellow-Poplar, Ash, and Red Maple seedlings.

35 acres accessible for grazing was fenced to exclude livestock browsing.

One acre of black walnut seedlings was planted and fenced.

An epidemic population of southern pine beetle infested approximately 5,000 acres of loblolly pine forest land on the Eastern Shore of Maryland, Virginia and Delaware in the late fall and winter of 1970. The area was declared an "emergency area" by Governor Mandel on April 15, 1971. Two hundred twenty seven thousand acres were threatened.

The primary control method was to cut and salvage the dead and dying timber to save as much of the resource as possible. However, market conditions drastically declined and salvage operations were hindered. The Forest Service recommended to the Secretary that a log storage yard be established on the Pocomoke State Forest. Tree length logs were placed under a water spraying system in an attempt to control decay and stain degradation until markets improved. The log storage area has a capacity of approximately one million board feet of tree length logs and will be maintained for two years.

During this period the research program will be established and coordinated with the U. S. Forest Service and the wood using industry in order to determine the change in wood quality.

This program was financed by timber sale receipts from beetle damaged timber on the Pocomoke State Forest.

Fiscal 1972 did not present as severe a forest fire season as some in the past. 586 fires burned 1,667 acres. This comparison is higher than our 1971 season which had 513 fires and burned 1,041 acres. Actually, both seasons were approximately the same in severity, but we are now using the uniform forest fire statistic reporting system adopted by the twenty states in the Northeastern region. We now include some fires not previously counted and get a more accurate picture of the total suppression work.

Fiscal 1972 saw increased use of our spotter plane for detection work, especially in the marshes of Dorchester County. We also put into service two forest fire simulators which are receiving good use in our training program.

In fiscal 1972, an agreement between the State of Maryland and the Federal Government through the Office of Emergency Preparedness was signed. This will provide Federal Funds to Maryland if the state is faced with a disastrous fire situation.

This thank you letter from a landowner who paid the Forest Service for fire suppression costs speaks well . . . "This is the best bargain I've had this year. Your people know what they are doing and had it not been for their prompt arrival and help, I would have been in real trouble." "Thanks, H.B."

1972 was the 100th Anniversary of Arbor Day in the United States. The Maryland Forest Service in cooperation with many other public and private groups celebrated this anniversary.

The number of operational PL 566 Watersheds in which the Forest Service participated by making technical assistance available for forest land treatment was five.

Approximately 211 woodland owners were assisted with 108 man days of assistance resulting in 314 acres put under adequate treatment and 26 forest management plans being prepared for 1,400 acres.

The Potomac Flood Control Project under PL 534 provided in excess of 460 man days of assistance in servicing approximately 375 requests.

120 forest management plans were prepared for 3,200 acres and in excess of 1,700 acres received cultural treatment.

Installation and maintenance of an acceptable timber harvest removal system utilizing properly located and drained road systems and filtration strips resulted in no sedimentation even though the operation straddled the surface water source of the City water supply.

NATURAL RESOURCES POLICE FORCE

This program is responsible for overall direction, supervision and coordination of the activities of the Inland and Marine police divisions. Specific activities include the operation of the Natural Resources Police Academy at Matapeake, operation of a central maintenance and supply facility, operation of an aviation unit to provide airborne surveillance and rescue services to the enforcement programs and other agencies of the Department of Natural Resources.

The Inland Division of the Natural Resources Police Force is charged with the responsibility of enforcing all laws and regulations relative to the protection and preservation of wildlife, and with the welfare and safety of the citizenry.

Apprehended 1473 persons for violations of the fish, game, boating and litter laws and regulations.

Issued warnings to 420 of those persons apprehended and 1280 were prosecuted. Total fines paid amounted to \$36,003.05. (See Table I)

A survey conducted during the period November, 1971 through June, 1972 revealed that the Wildlife Officers logged 26,508 business related telephone calls at their homes.

During this same period of time, 4,498 telephone calls or complaints were recorded at the four regional offices and the Johnson sub-station near Salisbury.

During the year Wildlife Officers performed the following non-enforcement duties:

Rendered assistance to Wildlife Law Enforcement officials in contiguous states in the apprehension of game and fish violators.

Assisted state and local police in the apprehension of felons.

Searched for persons reported as lost or missing.

Searched for and recovered drowning victims.

Relayed emergency information to hunters and fisherman.

Rendered assistance to boaters.

Recovered drifting un-manned boats.

Patrolled boat regattas and boat races.

Assisted stranded motorists and at the scenes of automobile accidents.

Assisted in the rescue and salvage operations conducted during the recent flood disaster caused by tropical storm Agnes.

Recent re-organization within the Department of Natural Resources has, through re-assignment of duties, reduced the number of non-law enforcement activities performed by the officers. The officers did however assist with various wildlife and fisheries management projects and conducted surveys. In addition, Wildlife Officers investigated numerous predator and nuisance animal complaints, issued control permits and provided various services to landowners.

The Inland Law Enforcement Division has the responsibility for issuing eleven different types of permits.

Investigation of applicants for permits is conducted by the officers and when necessitated by the type of permit requested, an inspection of the facilities designated in the permit must be conducted by the Wildlife Officers.

Issued 1404 permits of the various types during the year. (See Table II)

Expanded duties of the Natural Resources Police Force has posed many new problems in enforcement of laws pertaining to pollution, litter, environmental control, etc.

Expansion of assigned duties necessitated extension of the basic recruit training program for Natural Resources Police Officer candidates to a full sixteen weeks.

519 man-days were spent training Wildlife Officers in the following:

Basic Police Training Courses

Police Pistol Qualifications

In-Service Training (Natural Resources Laws and Regulations)

Public Speaking

Driver Improvement

Narcotics and Dangerous Drugs

Criminal Justice Seminars

Law Enforcement Seminar

Investigation

Search and Seizure

First Aid

Firearms and Hunter Safety

Community Relations

Training Directors Seminar

Captains and Sergeants of the Inland Law Enforcement Division used sixteen man-days conducting courses of instruction on the fish and wildlife laws and regulations for other enforcement agencies throughout the State.

Two new Inland Division Officers successfully completed the basic sixteen weeks Police Recruit Training and were graduated from the Maryland Natural Resources Police Academy.

Continued participation in Project Transition with U. S. Department of Defense to give military personnel returning to civilian life an opportunity to receive on the job training. Seven trainees have completed a six weeks course in law enforcement, fish management or wildlife management.

The communications section is responsible for the installation maintainance, repairs, operation, and necessary checks and calibration as required by the Federal Communications Commission, of the statewide communications system.

The existing system is composed of ten automatic mobile relay stations, four control stations, one hundred thirty mobile units and fifteen portables.

Replacement stations were purchased for Gambrills, Cheltenham, and Annapolis. A new station (Mobile Relay) for Town Hill, was purchased to give more and better coverage to Allegany County.

The Radio Technician attended 22 meetings with suppliers, departments and agencies connected with communications. The national FCCA meeting in Oklahoma City, Oklahoma, and the regional FCCA meeting in Cacapon, West Virginia were attended.

Repairs on radio units performed include, Mobile installations - 37; Base repairs - 34; Mobile repairs - (field) - 47; and Mobile repairs - (shop) - 104.

Other duties performed include installation of emergency equipment on enforcement vehicles, trailer hook-up, and any other equipment necessary on patrol vehicles.

A record 12,757 people received firearms and hunter safety instruction during the year. Six thousand eight hundred sixty seven persons successfully completed the full training course and were awarded Certificates of Competency, and the Maryland Safe Hunter shoulder patch. An additional 5,890 persons attended firearms safety lecture-demonstrations.

A continuing effort was made to promote firearms and hunter safety training during the year. The Program Coordinator attended meetings of sportsmen's clubs, conservation clubs, church and civic groups, youth organizations, schools and industrial groups.

Promotional material on firearms and hunter safety, and assistance, when requested, was provided to instructors and organizations for hunter safety displays, booths at fairs, and other public affairs and meetings.

Newspaper, radio and television were utilized to promote firearms and hunter safety training. News releases, radio spot announcements, and television contributed toward publicizing and promoting firearms and hunter safety education.

The incidence of hunting accidents increased slightly during fiscal 1972 in comparison with the previous fiscal year.

51 hunting accidents reported for the year. Six of the accidents were fatals. Sixteen of the accidents were self-inflicted. There were no fatalities in the self-inflicted group.

Shotguns were involved in 36 accidents, eight of which were using rifled slugs. 13 accidents involved rifles, eight of the 13 were .22 caliber rimfire rifles. Two accidents involved handguns.

In eight accidents the victim was wearing correct attire. In 24 accidents victims were not correctly attired, and in three accidents the mode of attire was unknown.

MARINE POLICE

The 125 man force of the Maryland Marine Police Division includes Headquarters, Communications, Maintenance and Supply, Marine Police Academy, and Field Force Sections.

Units manned by this division include 44 patrol boats (28' to 45'), 45 runabouts, 21 vehicles, and one twin-engine Amphibian aircraft. This aircraft was purchased October, 1971 replacing the helicopter. All patrol boats and vehicles and most runabouts are equipped with two-way radios. 15 patrol boats have radar; 30 have portable emergency pumps and most are equipped with depth finders.

134,587 inspections of boats were made for conservation and boating violations.

37,266 inspections were made at seafood processing houses and of trucks carrying seafood cargo.

1,448 arrests and 1,678 warnings were made for violations of boating laws.

1,378 arrests, 391 warnings, and 1669 confiscations were made for violations of the conservation laws.

606 trips to collect water and shellfish samples for the Seafood Program were made in conjunction with the State Department of Health and Mental Hygiene.

181 boat accident investigations were conducted.

Recovered or assisted in recovery of 35 drowning victims.

Recovered 60 stolen or lost boats and 26 stolen outboard motors.

Rendered 1018 other water-oriented assists to the boating public, including delivery of emergency messages, regatta patrols, tow into port disabled vessels, removal of persons from water, first aid administration, ice breaking, search for missing boats, fire fighting on boats, engine repairs, refloating of boats from grounding on shoals.

Other Departments or Agencies were assisted on 202 specific occasions.

Radiological Monitoring by trained personnel throughout the State is conducted in conjunction with Civil Defense Emergency Action.

Steel hull patrol boats keep the harbors free of ice, aiding the watermen to operate.

Scuba Diving Section, consisting of 6 skilled officers, trained at the U. S. Navy Deep Sea Diving School, made 22 dives to make underwater repairs to disabled boats, aided in refloating sunken boats and recovery of lost items.

To insure pleasure boating safety, weather and sea conditions were reported twice daily from all parts of the Chesapeake Bay during the season when boating was at its heaviest.

Reports from the field to Headquarters were made twice weekly for publication to the sport fishermen, keeping them informed on the best fishing grounds.

Daily patrols of seafood areas closed due to pollution and monthly reports of same were made to insure safe and healthy seafood to the public.

Inspections of cargo spaces were made on boats and trucks transporting seafood to comply with Sanitary Regulations set forth by State Department of Health.

Commercial Fishery Management were assisted with Marine Police reports submitted weekly. Crab and Oyster Catch Reports show the average catch and quality in all areas.

Oyster taxes were collected and permits to export oysters were issued by the Marine Police.

The Marine Police Academy meets all requirements set forth by the Maryland Police Training Commission. Two classes of Recruits consisting of 13 Marine Police Officers and 2 Wildlife Officers completed 616 hours of classroom and field training. More than 600 man-days were spent in refresher courses:

- U. S. Coast Guard Boarding Schools
- Cross-Training (Classes on Wildlife Laws)
- Advanced First Aid
- Fire Arms Qualification and Maintenance
- Training Directors' Seminar
- Abnormal Sex Offense Seminar
- Police Supervisors' Course
- Urban Crime
- Safe Boating Seminar
- Emergency Driving Course

1047 Store Requisitions, made 760 repairs to Marine Police equipment, hauled and repaired 56 patrol boats.

WATER RESOURCES ADMINISTRATION

Is concerned with matters relating to the protection, enhancement and management of the water resources of the State.

Program activities are divided into three basic categories, Enforcement, Permits and Certification, and Technical Services.

ENFORCEMENT:

This program is responsible for the inspection, investigation and enforcement activities of the WRA, and encompasses two primary projects: watershed control, which applies prevention oriented enforcement procedures to those activities directly related to geologic and hydrologic processes occurring in watershed areas. The water quality control activity is responsible for enforcement of the provisions of Article 96A of the code, relating to industries and other point-source discharges.

PERMITS AND CERTIFICATION:

The general permits section is responsible for issuing wetlands permits for the regulation of dredging and filling in tidal wetlands, certification to federal agencies of impact of proposed projects and issuing of permits involving surface water use, including appropriations, dams and reservoir construction and construction in waterways and floodplains, and issuing permits involving groundwater use including appropriations and construction of water wells. The water quality permits activity is responsible for issuing waste discharge permits for 1500 industrial discharges and several thousand discharges from active mines and agricultural sources and licensing of all persons engaged in storage, transfer, treatment or disposition of oil.

TECHNICAL SERVICES

Provides technical support to the enforcement, and permits and certification sections.

Activities of the Water Resources Administration during 1972 include:

- 1,000 inspections for Sediment Control Plans
- 200 complaints received and responded to
- 100 enforcement actions taken
- 40 sites evaluated with Drill Rig

Approximately 1,200 point sources of discharge (Industrial, Mining, Agricultural) place under surveillance by staff engineers and technicians

Approximately 350 spills of oil and other hazardous substances investigated.

160 administrative enforcement actions instituted for violation of Water Quality Laws and Regulations

8 criminal prosecutions instituted for Water Quality Violations.

11 Civil injunctive proceedings instituted as a result of activities in Water Pollution Control.

Wetland Management Activities included work on 150 Board of Public Works licenses, and 40 advisory service projects.

Water Quality Certification included work on 150 Wetland Projects, and 520 projects involving Department of the Army permits (Corps of Engineers).

Surface Water Management projects included work on 180 small ponds, 8 dams and reservoirs, 7 permits for Surface Water appropriations, 57 projects involving construction in a waterway and 50 projects requiring the review and advisory service of the Administration.

Groundwater Management projects included the issuance of approximately 8,500 Well Permits, and approximately 200 permits for the Appropriation of Groundwater.

Review and revision made to 500 existing Groundwater Appropriation Permits.

The Laboratory Services of the Administration performed 73,669 analyses.

Found that 706 significant industrial sources with discharge to State waters were in compliance with water quality laws and regulations.

Determined that 169 significant industrial sources with discharge to State waters were not in compliance with water quality laws and regulations.

Referred 12 industrial operations to the Attorney General for legal action.

Found that 178 industrial operations that were previously in violation, have come into compliance since November 1, 1970.

MARYLAND ENVIRONMENTAL SERVICE

The scope of Maryland Environmental Service was expanded by the General Assembly during the 1972 session to include water supply in the general powers and duties and in both the planning and implementation functions of the service. MES now operates five state owned water treatment plants.

The Maryland Environmental Service operates and maintains 17 state owned institutional wastewater treatment plants and has contracted to operate other public and privately owned liquid waste management facilities. MES provides supervisory services for 5 or more additional sewage treatment plants.

Wastewater treatment plant personnel are enrolled in both in-house and formal educational programs in preparation for official state board certification as required by law.

The service has assisted Baltimore City in its investigation of a pyrolysis method of managing 1,000 tons of garbage and trash daily. The new pyrolysis system of solid waste handling reduces air pollution through a clean high temperature baking process, recycles waste into steam energy which can be sold to reduce operating costs and eliminates the need to burn significant amounts of fossil fuels thus conserving valuable resources. The City is now proceeding with the contracts for the pyrolysis plant.

The Environmental Service is cooperating with water resource planning agencies in Virginia and the District of Columbia in a joint effort to produce an action program that will solve the water supply, wastewater treatment and water quality problems of the Washington Metropolitan area.

Approximately 700 tons per day of excess sludge, generated by expansion of Blue Plains Wastewater Treatment Plant will be managed by the Environmental Service under contract with eight governmental jurisdictions in the District of Columbia area. Organic materials will be processed and returned to the soil where they originated.

The Service is participating in a scientific study to improve the agricultural capabilities of land by conditioning with sludge. Recycling of this high organic content material into the land also makes reclamation of unusable land possible.

A \$142,000 grant from the U. S. EPA has enabled the Environmental Service to undertake development of a preliminary design for a system of collection, transportation and processing of more than 13 million gallons of waste oils. These waste oils are presently being dis-

carded in Maryland. The processing system will be designed so that the end product can be used as oils and lubricants in state owned vehicles and for heating fuels for state owned institutions and facilities.

The service is actively involved in water and wastewater treatment facility design and construction in five specific areas at this time:

Patuxent River - a regional facility to serve portions of Anne Arundel and Prince Georges counties. Negotiations with local jurisdictions are in progress.

Swan Point - in cooperation with U. S. Steel Corporation, the MES has agreed to construct and operate water and waste water treatment facilities in Charles County, to serve a housing development at Swan Point.

Dickerson - MES has initiated an investigation into the use of treated municipal waste water from a planned Montgomery County treatment facility, to make up consumptive water losses from a proposed closed cooling system power generating plant of PEPCO at Dickerson, Maryland.

Freedom District -the service will construct and operate a 1,000,000 gallon per day wastewater treatment plant in Carroll County. The facility will service private homes in the district as well as Springfield and Henryton State Hospitals.

Hagerstown: Following study, the MES has recommended a regional wastewater treatment facility to serve the city of Hagerstown and Washington County suburban areas.

POWER PLANT SITING PROGRAM

Is responsible for the administration of a long range electric power plant environmental research program, monitoring existing and proposed power plants, evaluation of proposed sites and acquisition of land for sufficient standby sites.

Environmental Trust Fund

The Environmental Trust Fund became effective January 1, 1972 when a surcharge of .1 mil per kilowatt hour of electrical energy generated in Maryland was imposed.

During the first six months of operation, the Environmental Trust Fund accrued \$974,727.28.

Effective July 1, 1972 the surcharge was increased to .147 mil per kilowatt hour. The first quarter of fiscal 1973 has produced \$771,545.93 for the Environmental Trust Fund.

Through the 1972 Ten-Year Plan, nine sites for the possible construction of new generating facilities were identified:

<u>Site</u>	<u>County</u>	<u>Company</u>	<u>Status</u>	<u>New Generation</u>
Black Oak	Allegany	Potomac Edison	New Site	2500 MW
Point of Rocks	Frederick	Potomac Edison	New Site	2500
Sandy Point	Charles	PEPCO	New Site	Undetermined
Brandon Shores	Anne Arundel	BG&E	Adjacent to existing	1200
Perryman	Harford	BG&E	New Site	1800
Canal Site	Cecil	Conowingo Power	New Site	2320
Easton	Talbot	Easton Utility	New Site	12
Dickerson	Montgomery	PEPCO	Expansion of existing	1700
Douglas Point	Charles	PEPCO	New Site	2200

The Secretary of Natural Resources with the advice of the Secretary of Health and Mental Hygiene is required to prepare and submit to the Public Service Commission a Preliminary Environmental Statement on each site identified in the plan.

As a consequence of program start up and the 1972 Ten-Year Plan being the first, the number of sites requiring Preliminary Environmental Statements was large. In addition to the nine sites identified, there is one site for possible State acquisition that requires investigation. Seven sites have undergone preliminary investigation.

Three sites (Brandon Shores, Perryman, and Dickerson) are currently undergoing Detailed Site Investigation by contract with the Applied Physics Laboratory involving the Chesapeake Bay Institute and the Department of Geography and Environmental Engineering of the Johns Hopkins University.

The objective of the monitoring program is to assess the environmental impact of existing electric generating units to permit future siting decisions to be based upon a broader baseline of understanding. Work is being performed under contract with the Research Institute for Advanced Studies (Martin Marietta Corporation), Environmental Measurements Incorporated, and Natural Resources Institute (working in conjunction with the Benedict Laboratory of Philadelphia Academy of Natural Sciences). Once the prototypes have been adjusted and verified they will be applied over the State.

The research program is directed toward better understanding of the basic physical, chemical, and biological impacts of electric power plants on the environment. The Chesapeake Bay Cooling Water Studies Group is studying aquatic impact problems while the Human Health and Welfare Studies Group investigates the air quality, radioactivity, and socio-economic impact.

Section 769 (a) (2) requires acquisition by July 1, 1974, of one site reasonably suitable for each electric company generating more than 1000 mw of electric power. To this end, one site has been identified, has received a preliminary environmental investigation, and will require an option be purchased prior to initiating a detailed site investigation.

MARYLAND GEOLOGICAL SURVEY

The Maryland Geological Survey is the agency of the Department of Natural Resources which is responsible for conducting topographic geophysical surveys and application of the data obtained from this research to land use problems. In addition, the Survey regulates oil and gas well drilling, supervises the activities of the Bureau of Mines, Land Reclamation Committee and the Division of Archeology.

Operated 100 stream gaging stations to measure minimum, maximum and average flow of streams throughout the state, providing information for development of water supplies, sewage disposal projects, water power projects, industrial use and control of surface water use.

Operated 125 observation wells to determine the effect of ground water withdrawals on the ground water resource and to record natural fluctuations in the ground water table.

Published "Flow Characteristics of Maryland Streams," Report of Investigations No. 16, which contains detailed flow information on 112 long-term stream gaging stations.

Measured peak discharges at most of the gaging stations in Piedmont of Maryland during Hurricane Agnes.

Sold maps and publications amounting to \$26,362.

Published 10 new technical reports and 2 new topographic maps of Worcester and St. Mary's Counties.

Conducted field trips and published geologic guidebooks for the National meeting of the Geological Society of America.

Initiated topographic mapping program on Eastern Shore in cooperation with the U. S. Geological Survey.

Continued the aerial geophysical mapping program in cooperation with the U. S. Geological Survey and completed mapping of middle Eastern Shore counties.

Continued the Baltimore-Washington Urban Area Study which is developing data for wise land use planning in the counties surrounding the two metropolitan areas.

Initiated a program of microfilming old coal deep mines in cooperation with the U. S. Bureau of Mines.

Measured seasonal rates of shoreline erosion at 193 sites.

Continued offshore profiling to record shoreline changes at South Tilghman Island, Talbot County; Gunpowder State Park, Baltimore County; Westinghouse, Sandy Point, Anne Arundel County; and continued the study of the dunes at Assateague Island State Park.

The Land Reclamation Committee held 14 meetings at which they approved 27 original applications for mining operations, amended 56 applications, and reviewed 42 annual progress reports and 11 completion reports. Permits were issued by the Bureau of Mines for operations on 988 acres of land, of which 588 acres were stripped, 553 acres reclaimed and 337 acres planted. The Bureau of Mines let contracts totaling \$29,373 from Bituminous Coal Open Pit Mine Fund to reclaim 66.4 acres.

Division of Archeology activities included recording of 250 newly reported prehistoric Indian and early American historic sites, bringing the total recorded in Maryland to over 1200; excavation of a prehistoric site in Garrett County scheduled for destruction by highway construction; talks before amateur archeological groups, service organizations and professional societies; publication of a report on archeology of rock shelters in Maryland; a summary of the prehistoric archeology of Baltimore City.

Members of the Geological Survey gave over 50 speeches or talks and led a number of group field trips.

PROGRAM PLANNING AND EVALUATION

This program is responsible for assisting the Secretary in the coordination and direction of comprehensive planning in the area of natural resources management. Specific program activities include:

administration of the Clearinghouse (OMB Circular A-95) functions for the Department, coordinating comments and conducting additional investigations when warranted (approx. 300 projects in 1872).

development of environmental impact assessments on Department projects and evaluation of Environmental Impact Statements submitted to the Department for review by other agencies, federal, State and local, which presently total approximately 75 items.

coordination with federal, multi-state, state, multi-county, county, and local agencies and organizations such as: Corps of Engineers, Soil Conservation Service, Bureau of Outdoor Recreation, Forest Service, National Park Service, Housing and Urban Development; Appalachian Regional Commission, Chesapeake Bay Consortium, North Atlantic Regional Water Resources Study, Northeastern United States Water Supply Study, Ohio River Basin Commission, Potomac Basin Advisory Committee, Interstate Commission on the Potomac River, Delmarva; Department of Transportation, Department of State Planning, Department of Economic and Community Development, Department of Health and Mental Hygiene; Regional Planning Council, Maryland-National Capital Park and Planning Commission, Washington Suburban Sanitary Commission, Tri-County Councils (Western Maryland and Southern Maryland); and various city, county, watershed and district agencies;

coordination and evaluation of the management programs of Department units, development of programs requiring Department-wide coordination;

planning support for resource management programs of Department units

planning for the integration of resource management programs on a geographic basis such as, Scenic Rivers Program, Coastal Zone Planning, Wildlands Preservation System, and Land Use Planning for Department lands.

PROGRAM PLANNING AND EVALUATION
ACTIVITIES 1972

SUBJECT:

	PROGRAM	PROJECT	STUDY	GUIDELINES	REGULATIONS	LAWS	POLICIES	BILLS	REPORTS	COMMITTEES	CONFERENCES	HEARINGS	INFORMATION
PARTICIPATE		0	5							10	12	16	
		5	7							17	10	0	
EVALUATE	2	326	225	3	2	1	3	11	6	1	0	2	
	1	27	25	0	0	0	0	0	2	1	0	0	
ADMINISTER	0	2	3	0		1	1			1	0	2	
	2	3	5	1		0	0			1	0	0	
DEVELOP	0	2	12	4	3		1	3	3	1	0	1	
	3	3	8	8	2		0	0	1	1	0	0	

CURRENT STATUS KEY:



top line-project complete

bottom line-project ongoing

DNR INVOLVEMENT:

EXTENSION SERVICES

Is responsible for education of the general public on the use of natural resources, promotion of modern resources management practices, and generally assisting the public concerned with matters which pertain to activities of the Department.

The Seafood Extension Service provides information and assistance to the public concerned with fishing for both sport and commerce.

To meet these requests for assistance the Department of Natural Resources Extension Service expanded its services by assigning an extension agent to each Regional Service Center.

Represented the Department of Natural Resources throughout the state at public meetings, sportsmen groups, commercial fishermen, outdoor clubs, schools, and other interested citizen groups. Speakers, displays, movies, literature and other forms of educational media were used in this effort.

Produced two new motion pictures: "The Happy Crabber", explains how to catch and pick the meat from hard crabs. "Maryland Gobbler", tells the story of the Maryland wild turkey and explains how successful modern management techniques have brought this species back from the verge of extinction.

Three hundred films were loaned to the general public. In addition, Departmental films were distributed from regional offices to departmental personnel for an estimated 100 public showings.

Published 5,000 copies of "The Happy Crabber", a bulletin made to accompany and to explain in greater detail the "Happy Crabber" film.

Over 10,500 brochures entitled "Maryland Gobbler" were produced, to be used with the turkey motion picture and as an educational wild turkey management paper.

Prepared a directory of the Department of Natural Resources, to briefly describe the agencies, their functions, their locations and other pertinent information.

Prepared articles and photographs for the Maryland Conservationist and other publications.

Produced new color slide programs with sound narration for public meetings and general displays.

Prepared displays for fairs and other public gatherings.

Continued the Commercial Fisheries Extension effort through the publication of the bi-monthly Commercial Fisheries News. Circulation increased to 20,000 and is mailed to all persons holding a commercial fishing license.

Extension Service agents met with the commercial fishermen, especially the clammers and oystermen, to provide assistance and explain the reason for drastic fishing regulations, necessitated by and as a result of the effects of Tropical Storm Agnes.

Represented the Department of Natural Resources with the Federal Extension Service and the University of Maryland Cooperative Extension effort.

Also worked with representatives from other states concerning the saltwater angling license for the Atlantic Coast States.

Assisted in the establishment of two new Maryland commercial fishermen groups.

Continued to work with the landowners in Baltimore and Carroll Counties to support a new state-landowner-hunter program in this area.

The "Inland Fishing Reports", was released weekly to the local newspapers, and distributed on tapes to local radio stations.

Transferred nine small community fishing ponds to local governmental agencies, for better management for multiple use.

Represented the Department of Natural Resources on the Delmarva Advisory Council. Assisted in the development of a project to promote the natural resources of the Delmarva Peninsula.

Continued as official Department of Natural Resources representative to the Maryland Wildlife Federation.

PUBLIC INFORMATON

Published 50,000 copies of a Boating Handbook for Maryland Waters.

Published 105,000 booklets, papers and guides for sports fishing in tidal waters.

Awarded 2,300 citations for contestants in annual saltwater fishing tournament.

Published 20,000 copies of Fisherman's map for Loch Raven, and Tridelphia Lake Reservoirs and Deep Creek Lake.

Issued 25,000 copies of Maryland Wildlife Resources map.

Printed 20,000 copies of "Homes and Shelters for Wildlife" leaflet.

Published 5,000 copies of "Maryland Fishing" Pocket Summary, 1,500 copies of Management of Fish and Wildlife in Maryland, 20,000 copies of "A Guide to Maryland's Public Hunting Area."

Distributed 120,000 copies of Maryland Fish and Wildlife News.

Circulated 56,000 copies of "The Maryland Conservationist."

Sold at cost 23,000 copies of "Cruising Guide to Maryland Waters."

Issued 150,000 brochures describing the parks of Maryland.

Published 1,000 pamphlets describing the Chesapeake Bay.

Published 2,000 pamphlets describing the functions of the Maryland Environmental Service.

Distributed approximately 450 news releases informing the public of departmental activities, decisions and policies.

Made almost weekly public speaking appearances before schools, service clubs, professional societies and citizens groups.

BOATING ADMINISTRATION

Is responsible for the administration of the State Boating Act, pertaining to the registration and titling of boats, collection, deposit and recording of fees and taxes associated with registration and titling of boats.

Program activities include liaison with the boating public, U. S. Coast Guard and other individuals and organizations representing the interest of the boating public.

Publishes the "Guide to Cruising Maryland Waters". Approximately 10,000 copies are sold annually.

Vessels Registered

	<u>Number</u>	<u>%</u>
Runabouts	42092	58.4
Cruisers	16162	22.4
Work Boats	3003	4.2
Auxiliary Sail	2019	2.8
Sail	233	0.3
Other	8561	11.9
Total	<u>72070</u>	<u>100.0</u>

Uses of Registered Vessels

Pleasure	66934	93.0
Commercial	3328	4.5
Other	1808	2.5
Total	<u>72070</u>	<u>100.0</u>

CAPITAL PROGRAMS

This program is responsible for land planning, aquisition, design and construction activities of the Department of Natural Resources. The program encompasses three primary work responsibilities: 1) Waterways Improvement 2) Land and Property and 3) Planning.

Waterways Improvement

Projects involve dredging and marking of harbors and channels, clearing debris, aquatic vegetation and other obstructions; and construction of marine facilities. Projects have been completed in 18 counties including dredging operations, repair and construction of public boat ramps, piers, wharves and bulkheads. Nine fishing reefs have been created in bay waters. Other projects include parking areas, service roads, comfort stations, pilings, marine renovation and debris removal. The Department has established 157 aids to navigation such as channel markers, bouys and beacons.

Land and Property

Over the past fiscal year, the Capital Programs Administration has accelerated Program Open Space at both State and local levels. It has encumbered during the year a total of \$9,445,629 for purchase of lands for parks, wildlife areas, forests, natural environment areas and fish management regions.

The sum encumbered this year is \$2 million more than was encumbered during the first three years of the Open Space Program.

Planning

- 9 master plans have been completed and published.
- 6 master plans are complete, but are as yet unpublished.
- 9 master plans are being prepared
- 16 master plans have not been developed, in eight instances, no plans are required since the areas exist and are developed.
- 8 other sites will require plans prior to initial development or expansion.

DEPARTMENT OF NATURAL RESOURCES

TAWES STATE OFFICE BUILDING

580 TAYLOR AVENUE

ANNAPOLIS, MARYLAND 21401

During a natural resource emergency
or for assistance during a natural resource
emergency call Department of Natural Resources

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