

OBSERVATIONS AND RECOMMENDATIONS OF  
THE WILDLIFE MANAGEMENT INSTITUTE,  
WASHINGTON, D. C.

Re: Pennsylvania Fish Commission  
and  
Pennsylvania Game Commission

Submitted to the  
JOINT STATE GOVERNMENT COMMISSION  
July 1962



## LETTER OF TRANSMITTAL

*To the Members of the General Assembly of the Commonwealth of Pennsylvania:*

Pursuant to the provisions of Senate Resolution No. 10a and the action of the Executive Committee of the Joint State Government Commission under date of October 13, 1961, the Task Force on Conservation has been actively engaged in "a comprehensive study of the natural resource policies of the Commonwealth." Among other surveys, the task force has undertaken an extensive review of the policies and administrative practices of the Pennsylvania Fish and Game Commissions. In order for the Commonwealth to benefit from the technical knowledge and broad judgment of nationally recognized authorities in the fish and game management fields, the Commission, at the suggestion of Representative William B. Curwood, Chairman of the Conservation Task Force, under date of December 14, 1961, requested the Wildlife Management Institute, Washington, D. C., to appraise Pennsylvania policies and practices and to make such recommendations as the Institute deemed appropriate. This Institute has previously made similar wildlife surveys in some 30 states and several Canadian provinces.

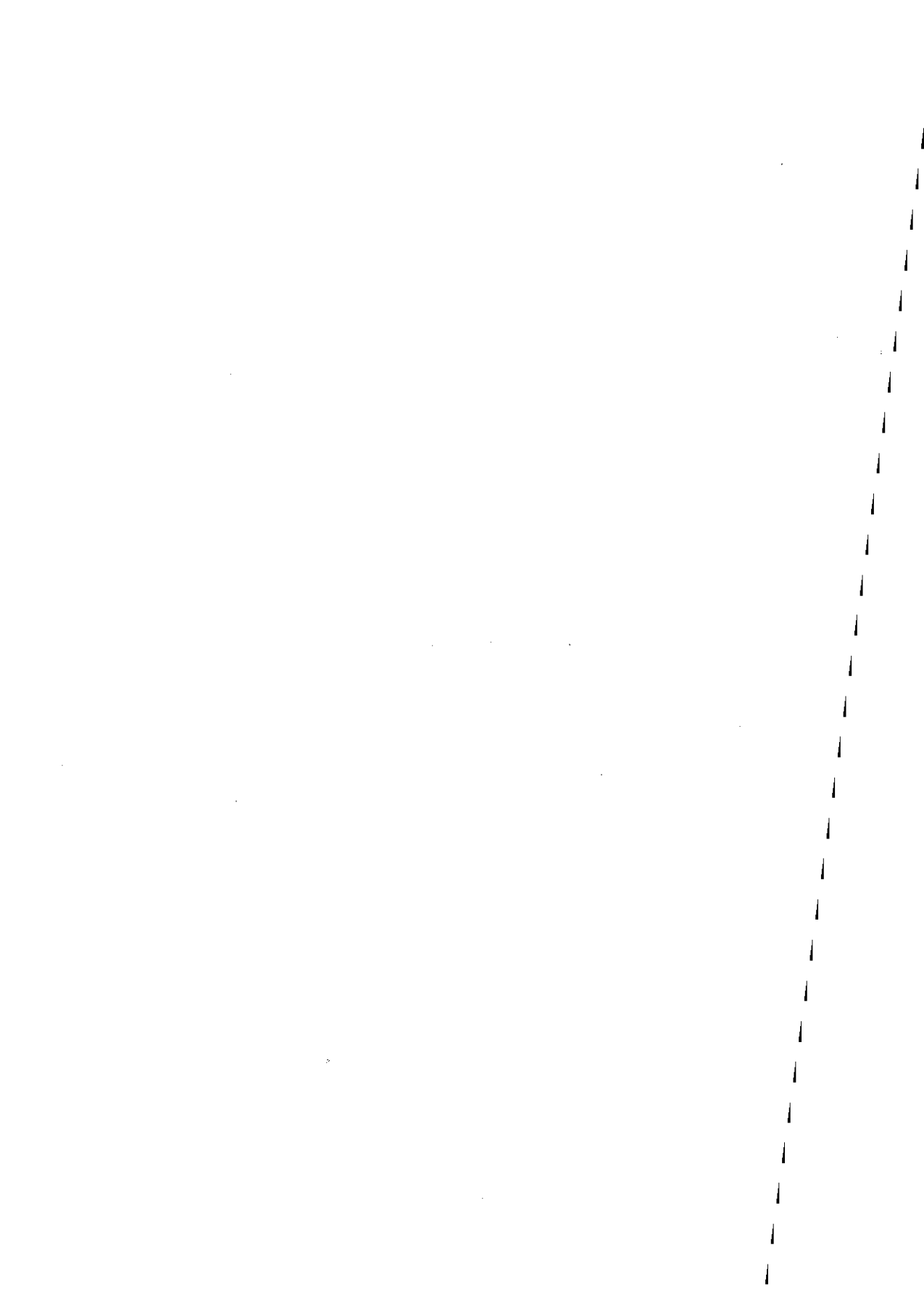
Under date of July 12, 1962, the Institute submitted its report, together with far-reaching recommendations. The report of the Institute is handed you herewith.

The report of the Institute is being circulated among organized groups and individuals concerned with conservation, resource development, hunting, fishing and boating, together with a Joint State Government Commission request to advise the Commission not later than the end of September 1962, with respect to their reactions to all of the Institute's individual proposals. Needless to say, circulation of the Institute's report among interested groups does not in any way constitute endorsement of the proposals by the Joint State Government Commission or the Task Force on Conservation.

It is planned to tabulate the responses of the parties among whom the report is circulated as soon as they are received in the Commission's offices.

HARRIS G. BRETH, *Chairman*

*Joint State Government Commission  
Capitol Building  
Harrisburg, Pennsylvania*



# JOINT STATE GOVERNMENT COMMISSION

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GUY W. DAVIS, *Counsel and Director*

PAUL H. WUELLER, *Associate Director in Charge of Research and Statistics*

ANTOINETTE S. GIDDINGS, *Administrative Assistant*

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\* Succeeded Willard F. Agnew, Jr., deceased.

## TASK FORCE ON CONSERVATION

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REPORT OF THE WILDLIFE  
MANAGEMENT INSTITUTE  
WASHINGTON, D. C.

Submitted to the  
JOINT STATE GOVERNMENT COMMISSION  
1962



REPORT TO THE  
PENNSYLVANIA JOINT  
STATE GOVERNMENT COMMISSION  
BY THE  
WILDLIFE MANAGEMENT INSTITUTE  
WASHINGTON, D.C.  
1962

INTRODUCTION

At the request of the Joint State Government Commission, the Wildlife Management Institute has conducted a study of the Fish Commission and Game Commission, including an examination of the advisability of combining the two into one organization.

Separate reports are made on the two agencies, followed by a discussion of the feasibility of combining them. This procedure simplifies the report, since practically all recommendations for both organizations are valid regardless of the issue of consolidation.

In drafting this report, the Wildlife Management Institute has followed procedures found useful in making similar surveys. For obvious reasons, no attempt has been made to evaluate personnel. The study covers basic fish and game laws and general laws insofar as they affect the operation of the two Commissions, their organization and programs.

An effort has been made to anticipate present and future needs and to shape the recommendations to meet these needs. Obviously, some recommendations, if accepted, can only be carried out gradually—others can be made effective whenever it seems desirable.

Members of the Commission and staff were most helpful and cooperative during the survey study period. They answered questions, made information available, compiled data, conducted field trips and were cooperative in many ways.

## PENNSYLVANIA FISH COMMISSION

Since the end of World War II, there has been a phenomenal growth in the public's interest in the out-of-doors. Fishing license sales soared in Pennsylvania until about 1960, and then a definite drop-off occurred. The reasons for this change are not clear, but a somewhat similar pattern has developed in some other states. In Pennsylvania, the level-off or decline in license sales can be considered temporary, and future plans must anticipate ever-increased fishing pressure. Available forecasts of fishing use of ponds, lakes, and reservoirs in Pennsylvania give a definite indication of the magnitude of fishing, boating, and general water recreation demands and potentials.\* There is no magic formula by which the fishing demands can be accurately forecast or by which an infallible program can be developed. It is possible, however, to anticipate probable demands and to build a fundamentally sound resource base so that fishing may be enjoyed to its fullest extent by all future citizens of the Commonwealth.

### BASIC LAW

The Pennsylvania Fish Commission is composed of eight members, each appointed for an eight-year term by the Governor with the advice and consent of two-thirds of the Senate. The Commission members are presumed to be well informed on the subject of conservation and restoration, are appointed on a staggered-term basis, and are each selected from one of eight districts specified in the basic law.

The Commission is required to hold regular meetings at Harrisburg in January and July, and may hold meetings at other times and places as required.

The Commission selects and appoints an Executive Director and sets his salary with the approval of the Governor.

The Commission is empowered to administer and enforce the fisheries law and to make rules and regulations, not inconsistent with the law, for the protection, propagation, and distribution of fish, and the improvement of fishing.

The Commission approves budgets (with the Governor's Budget Committee having final approval), establishes policy for general operations, makes appointments of executive personnel, and serves as an employment board for all supervisory, technical, and law enforcement personnel. Office staff employees must come from and have approval of the Governor's Employee Service before they are hired within the department.

\* Delaware River Project; Proposed Project "70"; Potomac and Susquehanna River Projects; Public Law 566 Projects, etc.

The Commission controls and manages all fish culture establishments and related activities.

Moneys to operate the fisheries program come entirely from the Fish Fund, which arises from all license receipts and other fees, fines and penalties received in connection with the fish and boating laws. The Fish Fund is maintained by the State Treasurer as a separate account to be used by the Commission after approval by the Governor. However, one dollar from each fishing license is earmarked for the purchase of fishing water, access sites, the construction and development of new fishing waters, and related activities.

The Commission has the power to acquire title by purchase, gift, or lease to lands suitable for propagation and management of fish, for public fishing, and for administrative purposes.

In 1961, under the General Service Act, the Commission was authorized to borrow \$3 million to purchase sites for future water developments.

The Executive Director, employed by the Commission, is in direct charge of all employees and their activities. The Executive Director, with the approval of the Commission, may promulgate such rules and regulations for the angling, catching, or removal of fish in or from any of the inland waters, artificial or otherwise, and the boundary lakes and boundary rivers of the Commonwealth, as he may deem necessary. Under the regulatory authority given the Commission, seasons and creel limits may be changed by Commission rule or regulation.

The 1959 fisheries law provides that, in case any of the provisions of the act be held unconstitutional, those provisions of the act would be severable, and the decision of the court will not affect the validity of the remaining provisions of this act.

In addition to making rules and regulations, the Commission is authorized to investigate and ascertain the facts in order to develop a sound fishery program; and to collect and disseminate scientific data and other information. It also can make cooperative agreements with any educational institution, or state, federal, and private agency to promote fisheries research. It is authorized to capture, propagate, transport, buy, sell, exchange or purchase any species of fish needed for fisheries management. It also may control undesirable species.

The Commission has the authority to require persons, associations or corporations to erect any needed fishways and bar racks along river courses. It also has a limited degree of authority for water pollution control, and it may levy fines of from \$100 to \$1000 or assess the polluter a sum equal to the Commission-assigned value of game and forage fish that may be killed.

Employees of the Commission may search, without warrant, any

boat, conveyance, vehicle, fish box, bag, or other receptacle for fish and, generally, have full police authority except that they are not authorized to search dwellings without a warrant.

A person guilty of any violation of the fish law, other than a misdemeanor, may make field settlement and pay the full penalty prescribed by law to the arresting fish warden.

### MOTOR BOAT LAWS

Since 1931, the Fish Commission has been responsible for the administration of the motor boat laws (Act 121, 1931 as amended) which provide for the licensing and regulation of boats operated upon any stream or body of water.

All motor boat license fees, fines and penalties collected by or credited to the Commission are allocated to the Commission's Fish Fund and used in its general program.

Beginning April 1, 1960, the Federal Boating Act of 1958 went into effect on all navigable waters in Pennsylvania, resulting in a dual jurisdiction over operators using motors larger than 10 horsepower. Two licenses or permits are required, and two sets of regulations govern outboard and inboard boat operators in Pennsylvania.

### RECOMMENDATIONS—BASIC LAW

Studies by many agencies have indicated that fish and/or game management departments must have certain basic characteristics if they are to be maintained effectively and are to manage the resources for which they are responsible. These are:

- a. Freedom to use funds and personnel efficiently for sound management rather than for the payment of partisan or personal political debts;
- b. Authority to fix seasons, creel limits, and means and methods of taking fish and/or game in order to keep the annual harvest in proper relation to the annual production of the crop, which can and does vary from year to year;
- c. Ability to provide continuity of employment and continuity of program over a period long enough and on a scale large enough to produce the desired effect on fish and/or game populations;
- d. Adequate funds with sufficient flexibility in basic pay scales to enable the organization to secure and hire the best men possible;
- e. Authority to establish qualifications for employment for various grades of service needed and to establish salary scales for the personnel.

The commission form of administration, which is in effect in a majority of states, can offer the following fundamental opportunities for good resources administration:

- a. The elimination of partisan politics from the management of the resource;
- b. The provision of stability to policies and programs.

The commission form of fish and/or game administration has had a long period of time to prove itself in Pennsylvania, and certain factors have proven to be advantageous. It is suggested, however, that the following changes be considered:

1. *It is recommended that a six man, bipartisan Commission be appointed for six years with staggered terms.*

Experience in other states has shown that bipartisan boards are better able to refrain from political motivation than are nonpartisan ones. Boards of four to six, with equal representation of the two major parties, appointed on a staggered-term basis, have given consistent, efficient administration.

2. *It is recommended that Commissioners be appointed on a statewide, appointment-at-large basis, rather than as representatives of specified geographical districts.*

It has been generally noted that a man appointed to represent a district often feels obligated to get something for that district and, correspondingly, to overlook broader statewide considerations. From attendance at Commission meetings, reading of correspondence and minutes, and general interpretation, it is apparent that the district point of view often is prevalent in the Fish Commission program. The Commission has improved noticeably in this respect recently, but the incentive to favor a local or district point of view should be removed.

3. *It is recommended that a clear-cut distinction be drawn between policy and budget-making matters and administration.*

By law, (Section 2072 of the Fish Code) the basic relationship between policy and administration is indefinite. For an efficient working operation, the law must define the Commission's policy-making responsibility and the administrative responsibility of the Executive Director. This is a most important phase of the fishery program and, in the past, there has been considerable breakdown at this point.

4. *It is recommended that the Commission select the Executive Director and set his salary.*

The Commission already has the authority to select the Executive Director, and it should be able to set his salary without obtaining the approval of the Governor. This would assist the Commission in meeting the competition from states and private organizations for well-qualified men.

5. *It is recommended that the opportunity for a public hearing be given to any Commissioner before he is removed from office.*

This is to protect any individual from removal for purely political or personal reasons.

6. *It is recommended that all policies and statements of the Commission be made on the basis of actions taken in official meetings.*

No individual Commissioner should act upon any matter before bringing the subject before the entire Commission for consideration. Commissioners who frequently must listen to public grievances or to problems presented by field employees should never give a commitment until the Commission has a clearly established policy on the subject.

7. *It is recommended that the Fish Commission initiate a merit system or provide that the state civil service program be instituted.*

The development of a merit system will gradually provide for a better staff, longer tenure, and a better personnel relationship.

## ORGANIZATION

### EXECUTIVE DIRECTOR

The Executive Director, appointed by the Commission to serve at its pleasure, has supervision and control over all employees. He is, by virtue of his office, a member of the Water and Power Resources Board, the Sanitary Water Board, the Pennsylvania State Park Harbor Commission of Erie, and of the Atlantic States Marine Fisheries Commission.

### ASSISTANT EXECUTIVE DIRECTOR

The Assistant Executive Director, appointed by the Commission, is directly responsible for the propagation and distribution of fish, fisheries research and management, land and water leasing and acquisition, the building of lakes, development and maintenance of public access to waters, and for the physical improvement of streams and bodies of water.

### ASSISTANT TO EXECUTIVE DIRECTOR

The Assistant to the Executive Director is appointed by the Fish Commission. His duties include close contact with the boating agencies

and the entire boating program. He also assists the Director in other work.

#### COMPTROLLER

The Comptroller's Office is a joint organization serving both the Fish and the Game Commission. The present staff is composed of six Fish Commission and 14 Game Commission employees. This office handles all financial operations of both Commissions, and its executive officer and full staff are directly responsible to the Governor's office.

#### LEGAL COUNSEL

Legal matters are handled by a Deputy Attorney General who serves both Commissions.

#### ADMINISTRATION AND SERVICE

This division is a service unit and performs duties that apply chiefly to internal affairs, including personnel, records, reports, and minutes of meetings. It prepares and issues commercial fishery permits. Drafts of fishery and motor boat laws and regulations also are prepared for the Department of Revenue. The unit acts as a liaison among the different divisions, and between the Fish Commission and other state natural resource agencies.

#### FISH RESEARCH AND FISH MANAGEMENT

The Fish Research and Fish Management Division is administered by a chief and maintains offices at the Benner Springs Research Station. It has the responsibility, among other duties, for the management of public waters, including the determination of which waters to stock, the species and number to be stocked, and of coordinating state activities with the federal cooperative fish stocking program.

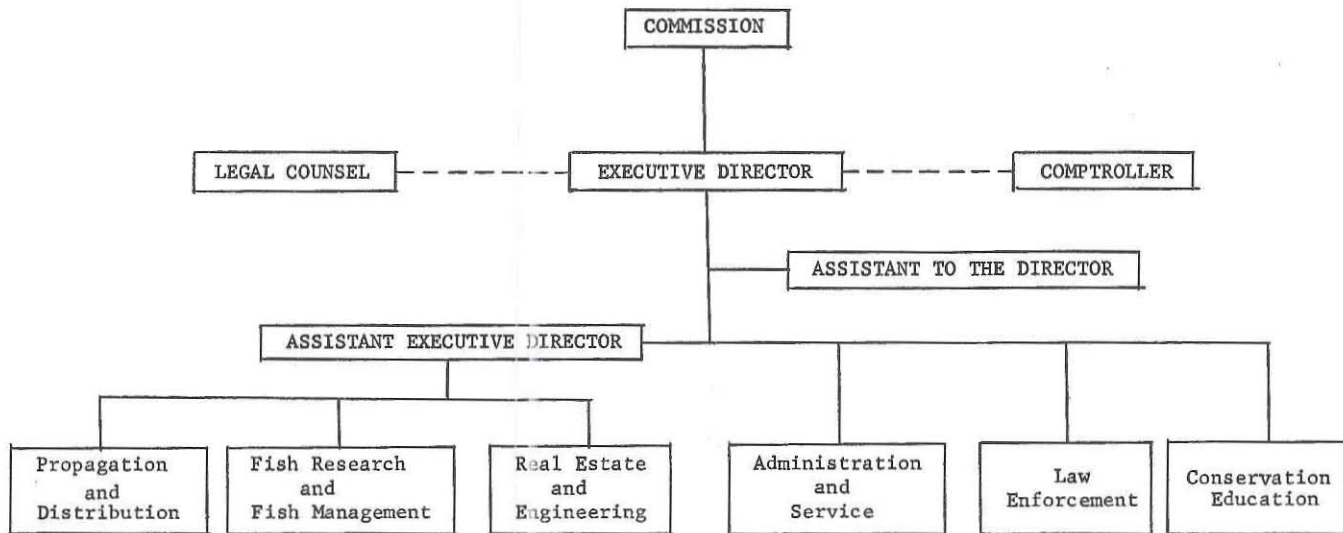
The fisheries research program has been expanded in recent years, and significant contributions have been made by the small research unit. Cooperative studies have been entered into with the Pennsylvania State University. Fish culture investigations at Benner Springs have been directed toward improving hatchery stock, techniques, and mechanization.

A regional fishery management activity was set up in 1960, but dropped in late 1961, because a general retrenchment program caused the reduction of available funds.

#### PROPAGATION AND DISTRIBUTION

This division handles the maintenance and operation of ten fish

PENNSYLVANIA FISH COMMISSION ORGANIZATION CHART  
May 1962





hatcheries and the distribution of warm-water game fish taken from Lake Erie and certain closed waters or purchased from commercial netters. The fish generally are used to stock new ponds or lakes created under Commission programs.

#### LAW ENFORCEMENT

This division enforces the fishing laws and regulations. One chief warden, six regional supervisors, and a field force of 50 men comprise the staff. In addition, this division is responsible for the enforcement of motor boat laws and investigations of pollution and the altering of the state's watercourses.

#### REAL ESTATE AND ENGINEERING

This division acquires by purchase or otherwise lands and waters needed for public fishing and develops and maintains fishing and related facilities. When funds are available, it also handles the stream improvement program.

#### CONSERVATION EDUCATION

Information about the program of the Commission and on fishing and fishing activities is handled by this division. News stories are transmitted by wire and mail to newspapers and radio and television stations. A monthly magazine, *THE PENNSYLVANIA ANGLER*, is issued. Exhibits and slide lectures are made available to organized groups, and miscellaneous educational materials are issued intermittently.

#### RECOMMENDATIONS—ORGANIZATION

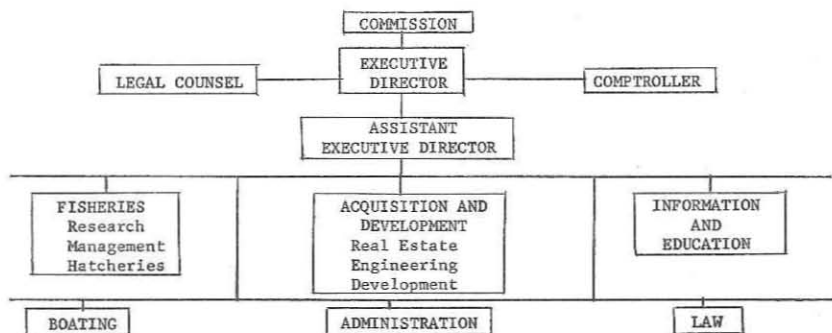
The present organization of the Fish Commission has been evaluated by several methods: studies of the Commission program, interviews with supervisory personnel, and rather intensive studies of field operations. The following organization chart is recommended for realigning the staff assignments.

#### SUGGESTED REORGANIZATION PLAN

The present organization is basically sound, and relatively few changes will be suggested.

1. *It is recommended that propagation and distribution and fish research and management be combined into a Division of Fisheries.*

This recommended change should gradually develop a more closely integrated fishery program. Observation and study in several states show this to be possible.



2. *It is recommended that the position of Assistant to the Executive Director be abolished and that a Division of Boating be established to assume the functions of the existing office.*

Although the position is authorized by law, it is not needed from an organizational standpoint. Boating problems are increasing rapidly, and it appears necessary to have a division staffed with qualified men to work in this field.

#### RECOMMENDATIONS—EXECUTIVE DIRECTOR

The position of Executive Director, or Chief Fish Warden, is established by law, and the Director remains in office at the pleasure of the Commission. The Executive Director's powers and duties are vague and are poorly defined in the basic law. This can lead and, in the past, has led to serious conflicts between the Commission and the Executive Director.

1. *It is recommended that the law be amended to provide a clear distinction between the policy-making functions of the Commission and the administrative duties of the Executive Director.*

The Director should be given clear responsibility, by law, as the administrative head of the organization. He should be responsible to the Commission for keeping expenditures within the approved budget, and for appointing staff members within budgetary limits, salary scales, and standards established by the Commission. He should have the duty of making assignments of personnel, purchasing under the appropriate general laws such equipment and supplies as are approved in the budget; and directing the operations of the staff. All employees should report to him through their immediate supervisors.

He should not have authority to exceed budgetary limitations, to change budget items without prior approval of the Commission, or to make regulations.

It should be his responsibility to gather all possible information, to analyze it, and to present it to the Commissioners in an organized manner for their use in fixing seasons and establishing regulations. He should formulate tentative regulations based upon this information, but the actual responsibility for making regulations should be reserved for the Commission. Such a clear-cut separation of policy making and administration functions minimizes confusion and promotes efficiency.

2. *It is recommended that the Executive Director should select the Assistant Executive Director with the approval of the Commission.*

If a staff is to function efficiently, the Director must be able to select its members, and the Assistant Director, who must act for the Director at times, especially should be acceptable to him.

3. *It is recommended that the Executive Director should have authority to employ, transfer, promote, and dismiss personnel in accordance with the basic laws. Personnel should have the opportunity of a hearing before final action is taken.*

The Executive Director should be given the authority to select needed personnel to fill supervisory, technical, law enforcement and other positions within the standards for personnel established by the Commission.

## ADDITIONAL ORGANIZATIONAL CONSIDERATIONS

### PERSONNEL

Employment of personnel is controlled directly by the Commission. Stenographers and other office workers are obtained from the Governor's Personnel Office and are not under any merit system. They must meet the specifications required by the State Office Administration before they are hired by the Fish Commission. The chief and the stenographic help of the Comptroller's Office are recruited from and appointed by the Governor's Personnel Office.

Applicants for technical positions are screened by direct interview and administrative staff review of qualifications subject to Commission approval.

All employees appointed to a full-time position, salaried or non-salaried, are required to join the State Employees Retirement System. Employees also are covered by the Social Security Act and are eligible for participation in group medical and hospitalization programs.

Wardens are required to retire at the age of 62, other employees at 65 years of age or after 25 years as contributing members of the State Retirement System.

**ALLIED AGENCIES**

The Fish Commission works closely with a number of state, federal and interstate agencies. In general, the relationships are good, and the proposed expanded natural resource programs will require continued interagency cooperation.

The Fish Commission and the Department of Forests and Waters have many points of contact and work cooperatively in many projects. Several new ponds and lakes have been developed jointly by the two agencies, and the Fish Commission regulates and manages the fishing and boating on lakes and ponds developed by the Forests and Waters Department as well as those developed by its own resources. The Commission has close working relations with the Sanitary Water Board, which serves as the water pollution enforcement agency of the Department of Health. The Commission relies heavily on the Board to help maintain and improve the conditions of fishable waters.

With the expanded small watershed program under Public Law 566, the U. S. Soil Conservation Service and the Commission have initiated several cooperative programs that will result in increased public fishing, boating and general recreational opportunities.

The Federal Aid (Dingell-Johnson) program has been an active part of the Commission program since 1951. Approximately \$130,000 of the federal-aid money, matched by one-fourth of state money, is used annually by the Commission for acquisition and development projects.

An additional cooperative program is with the U. S. Fish and Wildlife Service's Hatchery Division, which distributes approximately 462,000 trout to the Commonwealth's public waters.

**FINANCES**

The financial operations are handled by the combined Comptroller's Office, and a very close check is maintained on funds. The use of all moneys from the Fish Fund must be approved by the Budget Secretary and the Governor. The Auditor General is required to audit the Commission accounts at least once each year.

It is mandatory, also, that all invoices, payrolls, and other operating expenses be audited by the Auditor General and the State Treasury Department before payment. All financial transactions of the Commission must be forwarded daily to the Governor's Bureau of Accounts and Controls.

Major Commission purchases are made through the Department of Properties and Supplies on a bid basis. Items contracted on a yearly

basis may be purchased when needed. Direct field or emergency purchases up to \$10 may be made and similar purchases up to \$50 may be made in the field if two bids are obtained.

All moneys received from the sale of fish and boating licenses, from fines, confiscations, and sales of products are deposited by the State Treasurer in the Fish Fund. Annual allocations of money also are received from the Federal Aid in Fish Restoration Act, known as the Dingell-Johnson Act.

No general tax funds are appropriated to the Fish Fund, and the Commission operates entirely on income derived from the above-named sources.

In 1962, the Legislature authorized the Commission to borrow \$3 million from the General State Authority for the purpose of making capital purchases of land and water areas for future pond and lake sites. This loan is to be repaid over a thirty-year period.

The principal source of income of the Fish Fund is the sale of licenses and permits. The present fees for the various types of licenses are as follows:

1. Resident license	Adults over 16 years of age	\$3.25
2. Non-resident	Age 12 years and over—regular fishing. Trout stamps are required of any non-resident whose state has a similar type of license.	\$3.25 for five days
3. Alien non-resident	Regular fishing—age 12 years and over. A trout stamp is required if the non-resident comes from a state that requires the same.	\$7.50 for five days

No free licenses are provided except for disabled veterans or convalescent persons in the Armed Forces. Resident children under 16 may fish without a license.

The Fish Commission's second largest source of revenue is from licensing motor boats. License fees are \$1 for each cylinder of the motor or \$2 for an electrically propelled craft. In the fiscal years 1960-61, \$117,781 was received from the boat license fee.

The total receipts from all sources from June 1, 1960, to May 31, 1961, was \$2,800,815.45 of which \$2,185,388.38 came from resident fishing licenses.

All Fish Commission licenses, except the limited commercial licenses, are issued by the State Department of Revenue. The Revenue Depart-

ment handles the distribution of licenses to about 2000 county treasurers and other license agents. The charges for handling license sales for the past fiscal year, 1961-62, was 2.9% of the total Commission budget, or \$86,576.

A summation of the fiscal features of the Commission is presented on the following pages. These charts illustrate the sources of revenue, the level of license sales, annual income, and annual expenditures for the past several years.

SOURCES OF REVENUE AND INCOME TO THE FISH FUND  
Receipts For The Fiscal Year 1960-61

	INCOME	PERCENTAGE
Resident Fishing Licenses	\$2,185,388.38	78.03%
Dingell-Johnson Federal Aid	195,678.41	6.99%
Motor Boat Licenses	117,781.35	4.20%
Non-Resident Licenses	105,855.24	3.78%
Miscellaneous Revenue	103,188.72	3.68%
Interest on Deposits		
Rental of Commission Property		
Sale of Unserviceable Property		
Contribution for Restocking Streams		
Sale of Publications		
Miscellaneous Receipts		
Fines		
Fish Law	33,822.50	1.21%
Motor Boat Law	7,080.00	0.25%
Miscellaneous Licenses		
Special Eel	6.00	
Lake Erie Commercial	1,633.00	0.06%
Commercial Hatchery	8,620.00	0.31%
Fee Fishing Lakes	4,465.00	0.16%
Tourist Fishing Licenses	37,296.85	
	<hr/>	
TOTAL	\$2,800,815.45	

In 1961-62, the income dropped 11.2%

For the past several years the total income to the Fish Commission has been as follows:

CALENDAR YEAR	INCOME
1950 .....	\$1,432,827.50
1951 .....	1,502,478.35
1952 .....	1,616,432.45
1953 .....	1,743,266.00
1954 .....	2,037,820.00
1955 (changeover period) .....	1,208,481.74
1955-56 .....	2,122,104.71
1956-57 .....	2,186,220.08
1957-58 .....	2,251,223.57
1958-59 .....	2,567,418.97
1959-60 .....	2,283,600.04
1960-61 .....	2,800,815.45
1961-62 .....	2,324,006.00

EXPENDITURE OF FISH FUNDS—  
% OF TOTAL DEVOTED TO EACH PROGRAM

EXPENDITURES	ESTIMATED % BASED		1960-61	1959-60	1958-59	1957-58	1956-57
	EXPENDI- TURE 1961-62	ON ESTIMATE 1961-62					
Propagation and Distribution	\$1,181,600	40.80%	36.88%	42.23%	40.43%	42.49%	46.18%
Law Enforcement	481,645	16.63	15.41	16.32	15.57	17.07	16.15
Engineering and Development	325,795	11.25	12.12	12.54	....	....	14.17
Land & Waters Management	127,570	4.40	12.02	3.58	14.47	10.79	5.46
Fisheries Mgt. & Res.	245,575	8.47	8.11	8.37	10.37	11.54	8.60
Exec. & General Admin.	200,685	6.92	5.86	5.52	{ 4.03	3.67	3.38
					2.74	3.42	2.71
Conservation Education	98,693	3.41	3.48	4.55	3.44	3.32	2.67
Dept. of Revenue	86,576	2.99	2.47	2.28	4.67	3.35	3.24
Dept. of State	90,297	3.12	(Listed formerly—Employment Retire. Fund)				
Dept. of Labor & Ind.	43,740	1.51	(Listed formerly—Social Security Tax)				
Auditor General's Audit Costs	14,312	0.50	0.36	0.42	....	....	....
	<u>\$2,896,488</u>	<u>100.00%</u>					
Employment Retirement Fund			1.96	2.62	3.01	1.86	2.71
Social Security Tax			1.33	1.03	1.27	1.98	....

Budget 1962-63

The proposed budget for the Fish Commission for 1962-63 reflects the current financial program of the Commission after reductions have been made in services, operations, and personnel.

PROPOSED ESTIMATED FUNCTIONAL EXPENDITURES  
BASED ON APPROVED BUDGETED AMOUNTS 1962-63

	ESTIMATED EXPENDITURE 1962-1963	% BASED ON ESTIMATE 1962-1963
Propagation and Distribution	\$ 920,487.00	38.31%
Law Enforcement	381,499.00	15.88
Engineering and Development	277,959.00	11.57
Land and Waters Management	139,530.00	5.81
Fisheries Management and Research	173,813.00	7.23
Executive and General Administration	161,343.00	6.71
Conservation Education	114,660.00	4.78
Department of Revenue	94,205.00	3.92
Department of State	73,651.00	3.06
Department of Labor and Industry	50,570.00	2.10
Auditor General's Audit Costs	15,083.00	0.63
	<hr/>	<hr/>
TOTAL	\$2,402,800.00	100.00%

Combining the items generally classed as overhead (Executive and General Administration, Department of Revenue, and Audit Costs), more than 10% of available funds go for this purpose. This is one of the highest ratios found in similar studies.

#### COMMISSION FINANCIAL RETRENCHMENT PROPOSALS

Faced with a reduced budget, the Fish Commission has instituted the following economy program:

##### EXECUTIVE AND GENERAL ADMINISTRATION

A twelve-month figure, \$161,343, shows an actual reduction in expenditures of \$23,905 over that of the previous fiscal year. This reduction has been made by reassigning duties upon the retirement of the Chief Administrative Officer and the purchasing agent, and by abandoning a projected rental of IBM equipment for use of the miscellaneous license bureau. An austerity program has been decreed in all expenditures, including travel, attendance at meetings, and employment of part-time help.

##### PROPAGATION AND DISTRIBUTION

The 1962-63 budget of \$920,487 is an actual reduction of \$171,606 from the 1961-62 fiscal period. The Commission has eliminated all existing vacant positions at the nine hatcheries and reallocated the duties



of those positions. Funds have been deleted for temporary summer help, except that needed in absolute emergency. Purchases of all kinds are being held to a minimum, and no new equipment is being purchased.

This reduction will require the discontinuation of the Fisherman's Paradise on Spring Creek in Center County, and the Upper Spring Creek hatchery will be closed. This decision was influenced by the fact that pollution from the University's sewage plant has made hatchery operations marginal.

Economy in the production of muskellunge at the Tionesta and Union City hatcheries will be realized by eliminating tank culture and raising the fish in ponds.

The old fish hatchery in the City of Erie will be abandoned and its operations transferred to the new Walnut Creek site, eight miles distant. Plans are being made for the city to use the hatchery building as a boating headquarters, although the Commission may continue to maintain the aquarium there.

#### FISH RESEARCH AND FISH MANAGEMENT

The research and management budget has been reduced by \$52,872. Since most of the expenditures are for personnel, this has meant a reduction of staff from 14 to 10 biologists. Two clerk-stenographer positions have been discontinued.

The six regional offices maintained jointly by research and law enforcement have been discontinued. The biologists paid under Research now have their offices in their homes rather than in rented space with clerical help.

#### LAW ENFORCEMENT

For the Law Enforcement Division, \$381,499 has been budgeted, a reduction of \$63,097. The savings created in this reduction include a part of the former cost of the regional offices. All seasonal help and warden trainees have been eliminated, and four warden vacancies will not be filled. Since the wardens' work is considered hazardous, the Commission reduced the retirement age for this group from 65 to 62 years, and six wardens are due to retire during the next fiscal year. Their districts will be reapportioned among the remaining staff.

#### CONSERVATION EDUCATION

The budget for the Conservation Education Division has been increased by \$23,559 to \$114,660. The Commission believes that this particular activity requires more emphasis than it has received in the past.

The subscription price of 'THE PENNSYLVANIA ANGLER, the Commission's magazine, was increased from \$1.00 to \$2.00 a year.

#### REAL ESTATE AND ENGINEERING

The Commission did not feel that it should reduce its expenditure for the management of areas now under its administration. These consist largely of access sites, fishing lakes, and other Commission properties which must be maintained in the best interest of the public. A \$20,000 capital improvement item is included as the annual installment on the purchase of the Walnut Creek site and area.

The budget for the Real Estate and Engineering Division shows a decrease of \$22,775. The reduction is being made by abolishing certain engineering vacancies and eliminating a stream improvement crew. This decrease in appropriations applies only to the fisheries management program.

Payments to other departments have increased due to higher costs for social security, retirement benefits, and other charges, which amount to \$16,662. This reduced the planned \$288,923 savings in the Commission program to a net figure of \$272,261.

#### RECOMMENDATIONS—FISCAL CONSIDERATIONS

Higher costs and decreasing income make it imperative for the Commission to secure additional income in order to maintain a progressive program. It is suggested that the following be considered:

1. *It is recommended that the license fee be raised \$1.00.*

This recommendation should be given priority consideration.

2. *It is recommended that a trout stamp in lieu of a general license increase be established.*
3. *It is recommended that contributions from the General Fund be obtained.*

The Commission renders considerable public service in providing recreation other than fishing, and there is real justification for using some General Fund moneys, especially for capital expenditures.

4. *It is recommended that a small state tax on sporting goods be considered to help finance the state's natural resources programs.*
5. *It is recommended that any further reduction in expenditures should first be made in the propagation and production program.*

In some years, trout hatching and stocking have taken more than 50% of the total budget. This program may have some public-relation

value on a short-term basis, but if artificial propagation is maintained at the expense of the development of new waters or the improvement of existing shores, lakes and reservoirs, it is exceedingly unsound long-range programming.

## ALLIED FINANCING

### FEDERAL AID MONEY

The Federal Aid, or Dingell-Johnson, program money produces about \$130,000 annually. This is channeled directly into development work in the Division of Real Estate and Engineering, largely for lake construction projects.

### GENERAL STATE AUTHORITY PROGRAM

A new program to construct fishing and boating lakes is being undertaken under long-range financing. The authorization of \$3 million is being used to acquire sites and to construct needed boating and fishing facilities. Expected additional license income, Dingell-Johnson funds, and other moneys will be used to pay the 30-year amortization cost. To date, the General Services Administration program has provided fishing lakes in nine sections of the state and boat launching ramp sites on four principal boating waters. The law requires that an outside engineer be hired to do the design work on General Services Administration projects; this adds considerable cost to the completion of each lake unit.

### PROJECT SEVENTY

The proposed \$70 million bond issue, popularly known as Project Seventy, if activated, tentatively allots \$5 million for the *acquisition* of important land and water areas to include boating access sites on rivers and streams. A priority is assigned to those areas threatened by encroachment by commercial and residential development.

### RECOMMENDATION—ALLIED FINANCING

The funds borrowed from the General State Authority have been reduced by the initial loan charge, and they are further depleted by about 10% because of the requirement for hiring private engineers to design structures.

1. *It is recommended that the law be amended to allow staff engineers to plan construction on GSA-financed fish projects.*

## SALARY

The following brief resume indicates the various salary levels now established.

Administrative Staff:	Executive Director	\$14,657	
	Assistant Executive Director	12,000	
	Administrative Officer II	8,580	
	Administrative Officer I	7,772	
	Budget Examiner	6,390	
Propagation Staff:	Supervisor	\$ 8,163	
	Hatchery Superintendent I	5,529	to \$ 6,390
	Hatchery Superintendent II	7,772	
	Hatchery Fish Culturist II	4,551	to 5,529
Biologist:	Biologist I	\$ 5,268	to \$ 6,090
	Biologist II	6,390	to 6,716
	Biologist III	7,772	to 9,923
	Chief Biologist	9,923	
Fish Wardens:	Fish Warden	\$ 4,773	to \$ 5,803
	Supervisor I	5,803	to 6,716
	Chief Fish Warden	9,011	
Information & Education:	Information Specialist	\$ 8,580	
	Editor	6,090	
	Photographer—Specialist	6,716	
Real Estate:	Administrative Officer	\$ 9,011	
	Building Maintenance Super.	5,529	
	Real Estate Representatives	5,803	
Engineering:	Civil Engineer III	\$ 7,772	
	Civil Engineer I	6,090	
	Surveyor	6,090	
	Construction Foreman	5,529	

## RECOMMENDATION—SALARY

The salaries of the administrative and technical staff are about average. Salary levels should be raised if the Commission is to hire and keep good men.

1. *It is recommended that the warden force base pay start at \$5,000 as a minimum.*

In addition, a series of promotion steps, based on experience and service ratings, should be established. Law enforcement is an essential

part of the program and an improved base salary would enable the Commission to attract new men of the caliber needed.

## LAW ENFORCEMENT—FISHING AND BOATING

The Law Enforcement Division is staffed by 50 fish wardens under the direct supervision of six regional supervisors and the chief of enforcement.

In addition to enforcing fishing and boating laws, the wardens' duties include investigating water pollution and checking applications to draw-down lakes and ponds, to mine, and to widen, divert or otherwise alter a stream's natural course.

In recent years, the scope of a warden's field activities has nearly approached that of a conservation officer. In many states, our studies show that approximately 50% of the average warden's time is devoted to activities other than direct law enforcement. These duties include, in addition to those outlined above, attendance at sportsmen's meetings, fish research and management assistance, preliminary stream and pond access acquisition investigations, and a considerable amount of public relations work.

### SELECTION OF NEW WARDENS

A warden candidate must be between 21 and 29 years of age, at least 5'8" tall, and weigh a minimum of 150 pounds. A candidate also must be a high school graduate, or equivalent, before he is eligible to take the written examination; must have been a resident of Pennsylvania for at least two years; and must be willing to work anywhere in the state. If a candidate passes the written examination, he is interviewed by a board composed of the Fish Commission and staff members. Successful candidates are placed on an eligibility list from which the Commission selects appointees. All new appointments are made on a trainee basis for one year, and the candidate may be released for cause any time during this period. The warden trainee is assigned to a regional warden supervisor who acquaints him with Commission policies and teaches him the duties of a fish warden. After several weeks with a regional supervisor, the trainee works for a time with a regular warden for field experience, and later, with a regional fishery manager and at one or more hatcheries.

Until the adoption of the austerity program in 1961, a training school was held at the Benner Springs Research Administration Building. A rather thorough course of study was presented by the technical staff and various visiting specialists during an 11-day period. Refresher

courses have been given, but this, too, has been eliminated for the most part.

The mounting problems involved in enforcing the boating regulations have made it necessary for the wardens to become more familiar with boat operation and boating laws. At least 85% of the wardens have taken either the U. S. Coast Guard or the U. S. Power Squadron course.

The state supervisor holds at least two regional meetings a year in each of the six field offices to keep the wardens informed about Commission matters, changes in policy and law, etc. He also visits each district office four times each year, or more when special need develops.

During the calendar year 1961, the fish wardens settled 88.4% of all cases under the field settlement procedure. Motor boat cases cannot be settled in the field and must go to a Magistrate or a Justice of the Peace. In 1961, 1372 arrests were made and \$41,902 in fines assessed. During the past five-year period, 1957-1961, 8927 convictions were secured, and of these, 2906, or 31%, were for violations of the boat laws.

The Commission field officers are responsible for checking the waterways and reporting and following up on pollution cases where fish kills occur. Under the law, the Commission is responsible for safeguarding fish life. The Sanitary Water Board, in the Department of Health, is responsible for preserving and improving purity of waters and for protecting public health, animal and aquatic life, recreation, and sources of industrial consumption. The two agencies work in close cooperation and endeavor to discover the cause and prevent the recurrence of pollutions and/or fish kills. The fish wardens are deputy agents of the Sanitary Water Board, and it is their duty to conduct investigations where pollution occurs; contact must be made with the regional engineer of the Department of Health, who will then carry out detailed investigations.

Until 1961, the law enforcement supervisors in six districts were provided with state office space, which for a time, was shared with the regional fishery biologist. Due to the economy program, the district offices were abolished and moved to the homes of the district supervisors where no rent is charged and no stenographic help is available. The district supervisor may spend as much as 50% of his time doing office work that could better be done by clerical help.

Close liaison is maintained with the Game Commission, and there is collaboration between the fish and game wardens in law enforcement work of the respective agencies. Where fishable waters are located on Game Commission lands, they often are under the jurisdiction of the Fish Commission for fish management purposes. The Fish Commission

also is responsible for fish management in lakes on state parks or forests administered by the Department of Forests and Waters.

#### RECOMMENDATIONS—ENFORCEMENT

The present law enforcement program is good to the extent that it can be carried out. The fish wardens are assigned numerous duties, and a study of their activities indicates that they are undertaking duties that fall into the scope of a modern conservation law enforcement officer. Therefore, the following recommendations are made.

1. *It is recommended that the title of the Fish Warden be changed to Conservation Officer.*
2. *It is recommended that the training program of the present fish warden should be continued and not allowed to lapse.*

Economy should be made elsewhere in the overall program.

3. *It is recommended that the entrance requirements and salaries for the enforcement staff be raised so that college-trained men will become interested in this essential field of work.*

Law enforcement is a phase of resource management that must keep up with the times.

4. *It is recommended that district offices be re-established as soon as economically feasible.*

#### RECOMMENDATION—POLLUTION LAWS

The problem of water pollution has received much publicity. Pollution has probably rendered useless more fishable waters than any other single factor over the past years. The existence of \$100 to \$1000 fines and a provision for voluntary contributions to compensate for fish kills have had only a limited effect in dealing with this serious problem.

1. *It is recommended that existing pollution laws be reassessed, strengthened, and rigidly enforced.*

#### BOATING ACTIVITIES

The Fish Commission is responsible for administering the boat safety and licensing program, for building docks and ramps, and for the purchase and development of access points for the fishing and boating public. Boating licenses in 1961 returned \$140,000 to the Fish Fund.

The Department of Forests and Waters has been building lakes and ponds used by boaters and developing boat access ways; Presque Island State Park in Erie is a case that illustrates the double agency

program where Forests and Waters is planning to build a marina for 3000 boats whose use is regulated by the Fish Commission. Within the next decade, literally hundreds of additional ponds and lakes will be built in Pennsylvania, and the problem of regulating boating use will expand considerably. Formerly, the fisherman was the principal user of boats on inland waters, but today, the rapidly increasing, non-fishing recreationist uses the same waters. A serious problem of administration and management of water as a multiple-use resource is on the horizon.

The law provides for a license rate of \$1 per cylinder, with the revenue going into the Fish Fund. It is used to provide service for boaters and fishermen. Conflicts in the use of various bodies of water are increasing administrative and management problems, and the question of boaters versus fishermen has created a difficult situation within the Fish Commission.

#### MOTOR BOAT LAWS

The basic Motor Boat Law provides for the public health and safety of persons or property and for the preservation of useful aquatic life. The tremendous growth of boating as a sport has raised numerous questions. At the present time there are several conflicts within the boating program. One state commission has a degree of regulatory authority on the Delaware River, and the Fish Commission has regulatory control in other state waters. Much concern centers on the question of the proper administration of the Boating Act. One organization is campaigning actively throughout the state to have the administration of the boat regulations developed as a separate program. Finances also create a problem that must be considered, because the needs and demands of boaters surely will become more acute during the next decade.

#### RECOMMENDATIONS—BOATING

1. *It has been previously recommended that a Division of Boating be established in the Commission with an experienced and knowledgeable administrator in charge.*

The financial problem will require that taxes on gasoline used in boats be directed to the boating program, and that a system of licensing be established to provide equitable taxation.

2. *It is recommended that boating licenses and fees be maintained in a separate fund.*
3. *It is recommended that the problem of dual use of waterways and facilities be approached through interdivision and interagency cooperation.*
4. *It is recommended that the considerable non-fishing public use of*



*waterways and facilities requires that general funds be applied to boating administration.*

5. *It is recommended that an advisory committee representing the non-fishing boating interests be appointed to meet with the Commission that administers the Boating Act.*

## REAL ESTATE AND ENGINEERING

The Divisions of Real Estate and Engineering were consolidated in 1961 into a single unit. The basic function of this Division is to acquire and develop fishery waters throughout the state. In the accelerated program of access and lake site acquisition, the Real Estate Section is responsible for negotiations to acquire or lease lands or waters.

With increased prospects of accelerating recreational land and water acquisition, the Real Estate and Engineering Division will become an increasingly active unit within the Commission.

### REAL ESTATE SECTION

With additions to Fish Commission properties, there is an ever-increasing problem of maintaining such installations. A four-region maintenance program is in operation. Local communities have assumed the maintenance of a few sites developed by the Commission. With the proposal of Project Seventy, the Real Estate Section has already made tentative plans for the utilization of the anticipated \$5 million that the Commission may receive from the program. Sites have been selected, and tentative surveys have been made on many potential public areas. When funds are available, it will be possible to launch into an immediate acquisition program.

### ACREAGE OWNED BY THE FISH COMMISSION—1962

a. Acres of lake under the Fish Commission control	15,011 acres
b. Number of lake sites: Number of lakes developed	28
Number of lakes undeveloped or in the process of being developed	6
Number of lake sites in process of being acquired	5
Number of lakes in process of development	3

### ENGINEERING SECTION

The Engineering Section is responsible for land and topographic surveys, engineering plans and specifications, and for structures on Commission-owned areas.

The engineering equipment is maintained in four sections of the state, and a new maintenance building, at Pleasant Gap Hatchery, has been equipped to do major repair work during the winter.

The Engineering Section is responsible for the stream improvement projects. No active projects have been undertaken since early 1962 but, prior to that time, from eight to ten miles of state-owned or leased streams had been improved during each year. Planning of stream work is done in consultation with the fishery biologist and the engineer.

#### RECOMMENDATIONS—REAL ESTATE AND ENGINEERING

The Real Estate and Engineering Division will become increasingly important in the activity of the Commission, especially if other state and federal agencies develop expanded water resource programs.

1. *It is recommended that the staff be enlarged as needed to meet the needs of the Division.*

The maintenance needs will increase, and additional trained and experienced personnel are essential for this section.

2. *It is recommended that consideration be made in the law for the full utilization of the General Services Administration funds.*

At present, private engineers must be hired to draw specifications for developments carried out under these funds. From figures examined, it appears that this requirement increases costs by at least 10%.

3. *It is recommended that the stream improvement program be reactivated as funds permit.*

4. *It is recommended that Federal Aid Funds be allocated to this department to carry out acquisition and development work as recommended by the Fish Management Section.*

#### FISH RESEARCH AND MANAGEMENT

The basic staff of trained and experienced fishery biologists carry out research at the Benner Springs Research Station that falls generally into the following categories: (1) Fisheries Research, (2) Fish Culture Research, and (3) General Research and Management projects. The hatchery research unit established in 1961 produced more than 271,455 legal trout for release.

#### FISHERIES RESEARCH PROGRAM

Fisheries research has been a fundamental program at Benner Springs, and a wealth of material of direct benefit to fish production and management has been developed.

A cooperative program has been developed with the Zoology Department, Pennsylvania State University, in the selective breeding of trout based on blood types. The objective of this research is to stimulate growth, increase survival, and develop disease-resistant trout. Work is carried out on the prevention, diagnosis, and treatment of various trout diseases, and good results have been obtained. Other important studies deal with the immunization of fish and the mortality of warm-water fish through handling and transportation.

Pollution is an ever-increasing problem in the state, and the Benner Springs Research Station exemplifies its deleterious effect on fish and fisheries installations. The hatcheries may have to be abandoned because of pollution in Spring Creek, which also has influenced the research procedures at the Benner Springs Research Station. Surveys are being carried out to determine the effects of pollution on fish and on stream-bottom organisms.

In the stepped-up program of lake and pond site development, the research unit is making preliminary studies of existing or potential pollution problems as well as basic studies needed to develop a fisheries management program for each site.

The effects of chemical pesticides on fish and other aquatic organisms also are receiving intensive study.

More attention also is being given to the warm-water fisheries, and basic studies are being made of reclamation, fertilization, water level manipulation, use of predator fish, and aquatic weed control. A major study of the potentials of fishways, which will provide migratory fish with access to the upper reaches of the Susquehanna River, is being carried on under a contract with a consulting firm. Initiated by legislative mandate, this project includes the development of plans for fishways along the entire river course. A Commission biologist is working full-time with the consulting firm.

#### FISHERIES CULTURE AND RELATED WORK

Some of the fish culture and research done at Benner Springs Research Station has yielded excellent techniques for improved hatchery production. Among the practical results achieved are the development of an inexpensive water filter system; the jar system of hatching eggs, which reduces space and manpower requirements; a better fungicide; and a mechanical feeder that saves manpower and more effectively presents food to the fish.

#### FISHERIES MANAGEMENT AND SERVICES

For a short period, the Commission had organized four management

districts, each supervised by a biologist who shared office space and stenographic help with the district warden. This program, planned to give greater public service and expedite field management activities, was dropped in the 1961 economy move. Management programs are still carried out by the remaining ten Commission biologists operating from the Benner Springs Research Station and from their homes in various parts of the state.

The first major financial cut-back in management was made in the stream improvement program. Originally, this work was done by the Section of Engineering, and biologists worked with the engineers to locate and design needed structures. Fish management plans for new impoundments are receiving a considerable amount of field and laboratory work time. Pre-impoundment surveys are made, and comprehensive plans are developed for each site. Development and management will be greatly accelerated in the near future, as proposed recreational programs are initiated. The cooperative program under Public Law 566 (Small Watershed Act) has already established many ponds in whose management the Commission cooperates with the Soil Conservation Service and the sponsoring agencies.

#### SURVEYS OF STREAMS AND LAKES

Sportsmen and legislators often request such surveys. Managers make surveys and report on value of the water for trout stocking and other management. In some years, up to 60% of a fish manager's time is spent on this work.

#### PLANNING FOR NEW IMPOUNDMENTS

This work is growing in importance each year. The U. S. Fish and Wildlife Service requires a full biological report on each proposed impoundment built under Federal Aid before the project can be approved. Similar planning for future fish management is done on all new public fishing impoundments regardless of the state or federal agencies involved. This is an important contribution of the fishery managers.

#### SYSTEMATIC SURVEYS OF IMPORTANT WATERS

One of the objectives of fishery management is to provide optimum fishing in all waters. To accomplish this, the fish populations and the factors affecting them must be known for each lake or stream. Lake surveys have resulted in advantageous changes in management procedures.

More recently, a plan for a systematic study of the Susquehanna

River was developed and stations established for collecting chemical, physical, and biological data. This study should receive additional emphasis because it fits in with the work of the consulting firm and with the planned five-year comprehensive survey of the Susquehanna by the Army Engineers and the Fish and Wildlife Service.

#### RECLAMATION OF WATERS

This practice has been used as a last resort after studies of a lake showed stunted fish or an imbalance of species. Reclamation and restocking of ponds and small lakes is an increasingly accepted practice which, where properly used, has improved fishing. Equally successful applications to streams are still to be developed.

#### INTERSTATE COOPERATIVE PROGRAMS

Reciprocal fish management programs and fishing regulations with neighboring states involve considerable time and staff activity, but relatively uniform regulations and fish management practices are being developed for interstate waters.

#### INFORMATION EDUCATIONAL ACTIVITIES OF FISH RESEARCH AND FISH MANAGEMENT DIVISION

Considerable time is devoted to information and education activities by the personnel of the Fish Research and Fish Management Division. Distinguished observers from all parts of the world visit Bellefonte. Citizens and many school groups visit the hatchery to see the research and propagation facilities. The staff also prepares and handles various in-service training programs that are held at the Administration Building. Staff personnel also travel to other parts of the state to participate in educational programs and instruct classes in the game warden school at Brockway. They write many popular articles for *THE PENNSYLVANIA ANGLER*.

#### COMMERCIAL FISHERIES

The commercial fishery program in the Lake Erie region has been dropped, apparently for reasons of economy. Although it has declined in recent years, the Lake Erie Fishery is still potentially good. It should be investigated further and management plans and programs developed. The limited commercial utilization of Lake Erie fisheries is indicated in a 1959 report showing that \$121,799 was realized from the sale of the 792,822 pounds of fish taken.

## STOCKING

Although fish culture is a function of the Division of Propagation and Distribution, the Division of Fish Research and Fish Management is responsible for the management of public waters, including a determination of where and what to stock. Commission figures indicate that 2,500,000 legal-sized trout were stocked during 1961. In 1962, the planned stocking was to be 2,274,885 state-produced fish and 462,605 federal fish. Approximately 4580 miles of streams and 3064 acres of lakes are included in the Commission's approved stocking list.

Master files of data on Pennsylvania waters are housed at the Benner Springs Research Station. These contain information on water quality, physical factors, aquatic life, and other pertinent data needed to evaluate a stream as trout waters. Studies made in the mid-forties are still the basic criteria for trout stocking.

Stocking is handled, under the general supervision of the Chief Aquatic Biologist, by a clerk who maintains the files, prepares stocking instructions, zones the state for stocking, and coordinates the federal contribution to the state stocking program.

## TROUT STOCKING POLICY

Criteria to determine whether or not a stream or pond will be stocked are as follows:

- a. Water must be open to public fishing.
- b. Water must be reasonably accessible to fish trucks and anglers.
- c. No stocking will be done in waters known to be polluted.
- d. A stream must have two continuous miles or one mile and four acres of water.
- e. A lake must have at least 15% of its total volume suitable for trout in the month of August.

In 1959, the Commission ruled that no radical changes could be made in the fish population of any water without prior approval of the respective district commissioner.

In the past few years, the policy has been to stock more heavily in areas with greater sales of licenses. If trout are still available in late June or early July, they may be stocked in waters that generally retain favorable conditions during the warm weather, as determined by individual district commissioners.

The majority of trout stocked are yearlings, but in 1961, the Commission requested that enough fish be held to provide that 20% of the 1962 stocking will be two-year-olds. Fingerlings that cannot be safely

or economically carried to another year are given to sportsmen's groups to rear and release in open waters.

#### COOPERATIVE TROUT PROGRAM

The federal hatcheries provide the state with a considerable number of yearling trout; in 1962, 462,000 were made available. Federal and state stocking activity has been carefully coordinated, and neither agency stocks waters that have been treated by the other. Up until 1961, the federal fish were available to individuals upon application, and many never reached public waters. Under the revised State-Federal Cooperative Program, the primary stocking emphasis is on public waters and Commission-approved streams. The federal service still provides fish for any private pond upon application by the individual owner.

#### SPECIAL TROUT STOCKING PROGRAM

A limited amount of experimental trout plantings are made by the Commission. Various lakes and ponds near population centers are stocked heavily in the early part of the season; a high degree of use and a large catch of these fish have been noted.

Hybrids, kokanee, steelheads and lake trout are being planted experimentally in various bodies of water.

#### WARM-WATER FISH

In 1956, the Commission adopted, in principle, the North American Fish Policy, which states that planting of young warm-water fish should be restricted to the introduction and establishment of new species. Generally, the warm-water fish program now recommends that species of game and forage fish be stocked (a) where the need for a new species has been demonstrated through study; (b) in newly made lakes and ponds, according to a management plan; (c) for restoration following reclamation or pollution abatement; and (d) experimentally in an attempt to balance fish populations.

Adult fish, primarily of game species, are stocked as available in suitable waters to supplement natural reproduction and in new and/or reclaimed ponds as initial plantings. Catchable-size panfish are stocked in many urban ponds and in a number of heavily fished lakes and streams in southwestern Pennsylvania.

#### SOURCE OF FISH

It has been shown repeatedly that the rearing of warm-water fish is costly and, therefore, to supplement the limited artificial production, the Commission obtains planting stock by netting closed areas, reservoirs,

and under-utilized areas, by purchase from commercial fishermen, and by exchange or gift.

The new Pennsylvania law, P.L. 466, requires the Commission to stock ponds for children and disabled veterans without reimbursement for fish, time, labor, or other services. Relatively few trout are used, and most of the stockings are with salvaged warm-water fish.

#### RECOMMENDATIONS—FISH RESEARCH AND FISH MANAGEMENT

The fisheries research program has made valuable contributions to the overall Commission program. The effectiveness of future management depends on the basic findings of the research staff. It is, therefore, recommended that the following be considered:

1. *It is recommended that the research staff continue its hatchery investigations and give greater emphasis to research needed to improve pond and stream management.*
2. *It is recommended that a closer working relationship be established between the Fish Commission Research Center and the Pennsylvania State College Fishery Department.*
3. *It is recommended that pollution along the Spring Creek, which is jeopardizing the fishery research station and hatchery installations, be abated.*

A vigorous stream clean-up program is essential to continue the research, fish culture, and recreational uses of this important stream.

4. *It is recommended that the research findings in fish culture be applied in the hatcheries without delay.*

Better and more economical management operations have been demonstrated and should be given immediate application.

5. *It is recommended that the position of district fisheries biologist be re-established as soon as finances permit.*
6. *It is recommended that the research and management personnel be relieved of considerable information and educational duties.*

Since this activity occupies much of the time of skilled biologists, this work should be assigned to the Information and Education Division as fully as possible.

7. *It is recommended that general funds be sought for the commercial fisheries program and a more intensive cooperative program be entered into with the U. S. Fish and Wildlife Service.*
8. *It is recommended that the trout stocking policy be rigidly adhered to and that trout be stocked on the basis of stream holding capacity.*



9. *It is recommended that in lieu of a general license fee increase, trout fishermen be required to purchase a trout stamp.*

Trout stocking has taken too large a share of the budget; the recent de-emphasis should continue until less than 35% of the Commission budget is devoted to the hatchery program.

10. *It is recommended that the trout stocking program devised by the management staff and approved by the Commission be followed and that no individual Commissioner should issue orders that require full Commission approval.*

11. *It is recommended that the Commission continue to adhere to the North American Warm-Water Fish Policy.*

The basic philosophy is good and should be followed.

12. *It is recommended that the artificial warm-water fish propagation be reduced to a minimum needed to assure an adequate fisheries program.*

#### RECOMMENDATION—RESEARCH AND MANAGEMENT GENERALITIES

The development of flood control, reservoir, storage and fishing lakes will be accelerated in Pennsylvania in the near future.

1. *It is recommended that the Fish Commission enter into each new reservoir or other water storage project at the very earliest stage to investigate enhancement possibilities and to advocate additional features or suggest modifications in plans in order to improve fishing.*

Maintenance of public fishing waters will demand considerable manpower and money. These new waters will be used for many purposes other than fishing and the use of general funds for capital improvements on them is amply justified.

#### HATCHERY PROGRAM

The hatchery program involves a considerable portion of the Commission's finances, manpower and physical plant and, therefore, the operation will be described in some detail.

In 1961-62, the cost of the hatchery and propagation program amounted to 40.8% of the Fish Commission budget. In fiscal 1962-63, the budget for this program was reduced to 38.3% of the operating budget, the lowest percentage of expenditure that has occurred in the program. In earlier years, well over 50% of the budget was devoted to hatchery and related operations.

Hatchery production in Pennsylvania began at a pioneer hatchery

built at Corry in 1875. It was not until 1939 that a trained aquatic biologist was hired by the Commission.

Fish propagation and distribution are still a large part of Commission operations, but more balance is being achieved by modernization and building up other phases of fishery management. Hatcheries, fish rearing, and stocking are valuable tools of management, provided that they are used as tools. In line with the economy move, the various hatcheries are being reassessed. Some of the smaller high-cost units will be closed and operations in a few changed from tank to pond culture for warm-water fish. Production and personnel will be reduced in others.

The existing trout hatcheries and allied installations are fairly well distributed geographically. The original warm-water hatcheries are concentrated in northwestern Pennsylvania. A brief description of the various hatcheries and installations follows:

#### BELLEFONTE HATCHERY SYSTEM

The Bellefonte Hatchery consists of three separate propagation units, for both trout and warm-water species. Approximately 52 full-time employees man its 159 fish-holding tanks and troughs and 294 ponds and raceways. The oldest unit is the Pleasant Gap Hatchery established in 1903. All the trout for the Bellefonte system are hatched and held here until they are large enough to place in ponds. It is here also that the first practical application of the jar method of hatching trout, developed at the Benner Springs Research Station, was made in the fall of 1957. Several thousand lake trout are hatched and reared to advanced fingerling size at this station annually. The water used comes entirely from adjacent springs.

The second unit is the Lower Spring Creek Hatchery, established in 1933, the site of the famed "Fishermen's Paradise." It is at this unit that most of the Bellefonte breeding trout are held. Water is supplied by springs on the site and by Spring Creek. The ponds, old-fashioned dirt pools, are very inefficient for trout production.

The third unit is the Upper Spring Creek Station, established in 1936, approximately one mile upstream from the Lower Spring Creek unit. It is mainly a rearing station for trout, although several thousand bass are propagated there each year. This is an inefficient unit because of the physical layout and pollution of Spring Creek. It is scheduled to be closed in the near future.

#### CORRY HATCHERY

The Corry Hatchery, a combination station where trout and minnows are hatched and reared, was established in 1876 and is the

Commission's oldest hatchery. Its water source is a number of springs and wells on its grounds. The physical plant, manned by 11 persons, incorporates 110 tanks and 131 ponds and raceways. Considered a part of the Corry Hatchery is Brown's Pond, which produces bluegills, bullheads, and bass.

#### TIONESTA HATCHERY

Established in 1928, this station is used to hold trout, started at other hatcheries, over the winter. Formerly, it was a bass hatchery, but with the acceleration of the muskellunge program in 1956, it became an important unit in the rearing of these large game fish. The plant incorporates 45 fish-holding tanks and 61 ponds and raceways. Its normal staff is seven. In line with the economy program, muskellunge will be raised only in ponds, and the hatching troughs will be eliminated.

#### HUNTSDALE HATCHERY

The Huntsdale Hatchery was constructed in 1932 and developed to its present size in 1942. Its water source consists of eight major springs and a spring-fed mountain stream. It is mainly a trout production station, though it produces some bluegills and other warm-water fish. There are 70 fish-holding tanks and troughs and 240 ponds and raceways. The normal complement of employees is 29 men. This unit houses a public aquarium.

#### ERIE STATION

This station is located on Lake Erie in the City of Erie. It was established in 1885, but it no longer functions actively as a hatchery. At one time, it was the headquarters of the Commission's fish transfer program on Lake Erie, and the base for the Lake Erie fisheries studies. Most of the nets used by the Commission throughout the state are made and repaired here. It holds a large aquarium devoted exclusively to fish common to Lake Erie. It is planned to transfer the station to the city for a boating headquarters, although the Commission may continue to operate the aquarium.

The activities and the facilities at Erie Station are to be transferred to a nearby site, known as Walnut Creek.

#### REYNOLDS DALE STATION

This hatchery was established in 1928 and is fed by a large on-site limestone spring having a capacity of from 1200 to 1400 gallons per minute. It is devoted mainly to rearing trout with a limited propaga-

tion of largemouth bass. The plant has 76 fish-holding tanks and troughs and 127 ponds and raceways, and a normal complement of 15 employees. An aquarium there is open to the public.

#### LINESVILLE STATION

The Linesville Hatchery is located on the sanctuary area of Pymatuning Reservoir. Established in 1939, it is exclusively a warm-water facility devoted mainly to the propagation of bass and muskellunge and to collecting fish from the reservoir sanctuary area for distribution elsewhere. Many thousands of bass, crappies, bluegills, bullheads, and yellow perch are collected for release in waters open to public fishing. The plant itself incorporates 24 fish-holding tanks and 58 ponds and raceways and has a normal complement of 15 employees.

#### UNION CITY STATION

The Union City Station, established in 1905 is devoted exclusively to the propagation of warm-water species, mainly muskellunge and northern pike, and minnows which are used to feed game fish. It incorporates 85 fish-holding tanks and 33 ponds. A normal complement of employees is 15 men.

#### PLEASANT MOUNT STATION

Pleasant Mount Hatchery is a combination hatchery devoted to rearing trout and to the culture of warm-water fishes, including walleye, pickerel, large- and smallmouth bass, muskellunge, yellow perch, brown bullheads, bluegills and minnows. The plant has 122 fish-holding tanks and troughs and 119 ponds and raceways. From 67-acre Hankins Pond, adult pickerel, bass, and other warm-water fish are removed at intervals for stocking nearby public waters. A public aquarium is a part of the plant. The normal staff is 24.

The hatchery is old, and its facilities range from fairly modern units to many that are antiquated. Pollution makes its water systems inadequate and dangerous.

#### Costs

Although the emphasis is on the production of legal-sized trout (2,274,885 produced in 1962) only a few hatcheries are producing trout that reach legal size in one year. Cost-wise, the production of a pound of trout varies considerably from hatchery to hatchery as follows:

HATCHERY	COST PER POUND OF TROUT*		
	Brook trout	Brown trout	Rainbow trout
Bellefonte Hatchery (3 units)	\$1.10	\$1.12	\$1.11
Corry Hatchery	.93	.99	.98
Huntsdale Hatchery	.71	.73	.71
Reynolds Dale Hatchery	.92	.90	.90
Benner Springs Research Station---	78.7 cents per pound of fish produced		

\* Cost figures are given for the main hatchery and rearing units to derive the cost per pound of stocked fish of legal size. Other units are generally rearing stations and the entire cost per pound of fish is not comparable to the hatchery bearing unit.

As indicated, the cost per pound of trout varies and is directly attributable to the condition of the hatchery unit, the location and quality of water, the degree of modernization, the incidence of disease, and other factors.

Research work at Benner Springs Research Station has been directed toward improving hatchery stock, techniques, and routine mechanization. The original intent of this research work was to produce a better hatchery product and to cut the cost in trout production. The work at Benner Springs has been excellent and, if the recommendations are carried out, the trout hatchery program would benefit tremendously.

#### WARM-WATER FISH

The general policy on warm-water fish has been mentioned in the section on "Management." The hatcheries are still producing considerable quantities of warm-water species for stocking new and reclaimed waters. Considerable numbers of warm-water fish still are being stocked directly for the hook, however.

Some warm-water fish are being raised in the least productive trout stations, and many warm-water fish are obtained from salvage operations or by netting closed areas or large lakes.

During 1961, a total of 233,955 adult warm-water fish were stocked, and Commission reports show that 7,191,350 fingerlings of pike, walleye, muskellunge, bluegill, small- and largemouth bass, plus an estimated 2,200,000 elvers secured on an exchange basis from Maryland, were released in public waters.

On the basis of pound production, the following figures indicate the estimated cost of some species of fish produced at the two major warm-water hatcheries.

PENNSYLVANIA FISH COMMISSION  
WARM-WATER HATCHERIES  
COST OF PRODUCING ONE POUND OF WARM-WATER FISH

Species	Bellefonte Hatching and Rearing Station	Linesville Hatching and Rearing Station
Largemouth Bass	\$6.57	\$3.04
Smallmouth Bass	5.26	2.88
Muskellunge	4.48	2.45
Walleye	8.39	6.79
Bluegill	6.41	3.05
Catfish	6.55	...

The stations that obtain naturally produced fry and rear them to stocking size, do so at considerably less cost. However, for bass, the pond area must be maintained and the fry removed from the beds to hatch.

#### RECOMMENDATIONS—HATCHERY PROGRAM

1. *It is recommended that modern techniques developed at the Benner Springs Station be applied more widely to the hatchery program.*
2. *It is recommended that a modernization plan be initiated at all hatchery installations.*
3. *It is recommended that inferior units, with inferior physical plants, poor location, or polluted water supplies cease to be used for trout production.*
4. *It is recommended that rigid pollution control be initiated at all hatcheries.*

Pollution control basically involves the water that supplies the hatchery—from streams, springs, or other sources which may or may not be on Commission property.

5. *It is recommended that the hatchery program be included as a Section of the Fisheries Division and managed as an integral part of an overall fisheries program.*

Hatcheries should be used to produce only the species and sizes of fish which are best suited to the fishable waters. This concept should be followed whether it means maintenance of present volume or an increase or reduction of volume. Hatchery operations should be regarded as only one means to an end and used only as results justify.

6. *It is recommended that a trained fishery biologist be assigned to work with the hatchery units on a full-time basis.*

7. *It is recommended that warm-water fish not be raised solely for hook and line fishing.*

Costs involved in producing a pound of warm-water fish are excessive. Propagation and rearing of warm-water fish should be done only in agreement with the adopted warm-water policy.

### CONSERVATION EDUCATION

Currently, the information and education program includes the Commission's monthly publication, THE PENNSYLVANIA ANGLER, which is now sold at \$2.00 per year to approximately 13,000 paid subscribers. More than 6000 complimentary copies are mailed monthly.

The preparation of books and pamphlets, the issuance for sale of large-scale county maps showing roads and fishable waters, and the preparation and showing of color-slide lectures on various aspects of the Commission's work are important phases of the program. The construction and maintenance of displays for use at fairs, sportsmen's shows and elsewhere, and the preparation of articles, TV and radio scripts and newspaper releases are regular and continuous activities.

Education efforts to inform the public on what the Commission is doing and why are an integral part of an information program. The agency's activities may be summarized as follows:

- a. To provide information within the organization to keep field men informed on current activities, policy decisions, on new regulations, and of other items that will help them inform residents of the communities in which they are stationed.
- b. To inform the general public regarding the condition of fish and wildlife resources, of projects that are under way to improve these conditions, and on new policies that must be based on current conditions.
- c. To develop conservation education in the schools of the Commonwealth.

An accelerated teachers' workshop program is being carried out, and wardens and field biologists are being equipped with color slides and packets of visual-aid materials to help present the Commission's program in their respective districts.

To meet the increased demand for information about Commission activities and programs, the Conservation Education Division chief attends many public meetings. These activities consume much of his time, often keeping him away from other essential duties at headquarters.

A live-fish exhibit is shown at the several large exhibits and fairs

that are held each year. Add-a-matic slide machines are used at various shows and exhibits, as are art panels describing the Commission's publications. A model sequence illustrating stream improvement projects is shown at many of the fairs.

The preparation of slide-lecture material is being carried on, and eventually all wardens and field staff will be equipped with up-to-date material on the Commission's program. A small film library is maintained at Benner Springs, where films are available on a public loan basis.

With the steady increase of boating activities, the Division is devoting more time to this popular sport. A recent leaflet, "Public Fishing Waters and Boating Properties and Facilities," lists facilities owned or under lease or easement by the Commission. It describes available fishing waters and the launching docking, parking, and sanitary facilities available along Pennsylvania waterways.

The Commission considers information and education to be essential phases of its fisheries program. In the 1962-63 budget allotment, Conservation Education was the only Division to receive a slight budget increase, which amounted to \$19,219, or 4.78% of the total Commission budget. The staff has been active in providing popular material for THE PENNSYLVANIA ANGLER. Many of that publication's fine research and management papers are offered as reprints for public distribution.

The fairs and exhibits throughout the state are numerous. Each district warden has a portable exhibit that can be used at the larger local fairs where Commission participation is desirable. The Harrisburg office handles the large exhibits used at the Harrisburg, Philadelphia, Pittsburgh, and Allentown fairs. The increasing public demand for information has placed a heavy load upon the limited force of this Division.

#### RECOMMENDATIONS—CONSERVATION EDUCATION

1. *It is recommended that additional technical personnel be secured to help carry on the work of this Division.*

A specialist assigned to group, school, and conservation workshop programs should be given high priority.

2. *It is recommended that exhibits and displays be used only at a few of the larger expositions.*
3. *It is recommended that basic slide presentations be prepared in consultation with the technical staff and that all field men be trained to use projection equipment.*
4. *It is recommended that the Division be organized into audio-visual and publication units.*



The audio-visual unit should handle radio and television broadcasts, build a suitable film library, and show films to organized groups, conduct displays at shows and fairs, and participate in 4-H and similar programs. This unit should furnish, insofar as practical, speakers from the staff to present various phases of the Commission's program to group meetings. The publications unit should be responsible for the preparation and distribution of news releases, and of a Commission newsletter to keep employees informed of changes of policy program or personnel and other items of organizational interest. It should edit reports for publication and should prepare printed educational material for use in the schools and by conservation organizations.

## FISH COMMISSION SUMMARY OF RECOMMENDATIONS

### BASIC LAW

1. It is recommended that a six man, bipartisan Commission be appointed for six years with staggered terms.
2. It is recommended that Commissioners be appointed on a statewide, appointment-at-large basis, rather than as representatives of specified geographical districts.
3. It is recommended that a clear-cut distinction be drawn between policy and budget-making matters and administration.
4. It is recommended that the Commission select the Executive Director and set his salary.
5. It is recommended that the opportunity for a public hearing be given to any Commissioner before he is removed from office.
6. It is recommended that all policies and statements of the Commission be made on the basis of actions taken in official meetings.
7. It is recommended that the Fish Commission initiate a merit system or provide that the state civil service program be instituted.

### ORGANIZATION

1. It is recommended that propagation and distribution and fish research and management be combined into a Division of Fisheries.
2. It is recommended that the position of Assistant to the Executive Director be abolished and that a Division of Boating be established to assume the functions of the existing office.

### EXECUTIVE DIRECTOR

1. It is recommended that the law be amended to provide a clear dis-

inction between the policy-making functions of the Commission and the administrative duties of the Executive Director.

2. It is recommended that the Executive Director should select the Assistant Executive Director with the approval of the Commission.
3. It is recommended that the Executive Director should have authority to employ, transfer, promote, and dismiss personnel in accordance with the basic laws. Personnel should have the opportunity of a hearing before final action is taken.

#### FISCAL CONSIDERATIONS

1. It is recommended that the license fee be raised \$1.00.
2. It is recommended that a trout stamp in lieu of a general license increase be established.
3. It is recommended that contributions from the General Fund be obtained.
4. It is recommended that a small state tax on sporting goods be considered to help finance the state's natural resources programs.
5. It is recommended that any further reduction in expenditures should first be made in the propagation and production program.

#### ALLIED FINANCING

1. It is recommended that the law be amended to allow staff engineers to plan construction of GSA-financed fish projects.

#### SALARY

1. It is recommended that the warden force base pay start at \$5,000 as a minimum.

#### ENFORCEMENT

1. It is recommended that the title of the Fish Warden be changed to Conservation Officer.
2. It is recommended that the training program of the present fish warden should be continued and not allowed to lapse.
3. It is recommended that the entrance requirements and salaries for the enforcement staff be raised so that college-trained men will become interested in this essential field of work.
4. It is recommended that district offices be re-established as soon as economically feasible.

#### POLLUTION LAWS

1. It is recommended that existing pollution laws be reassessed, strengthened, and rigidly enforced.

BOATING

1. It has been previously recommended that a Division of Boating be established in the Commission with an experienced and knowledgeable administrator in charge.
2. It is recommended that boating licenses and fees be maintained in a separate fund.
3. It is recommended that the problem of dual use of waterways and facilities be approached through interdivision and interagency cooperation.
4. It is recommended that the considerable non-fishing public use of waterways and facilities requires that general funds be applied to boating administration.
5. It is recommended that an advisory committee representing the non-fishing boating interests be appointed to meet with the Commission that administers the Boating Act.

REAL ESTATE AND ENGINEERING

1. It is recommended that the staff be enlarged as needed to meet the needs of the Division.
2. It is recommended that consideration be made in the law for the full utilization of the General Services Administration funds.
3. It is recommended that the stream improvement program be reactivated as funds permit.
4. It is recommended that Federal Aid Funds be allocated to this department to carry out acquisition and development work as recommended by the Fish Management Section.

FISH RESEARCH AND FISH MANAGEMENT

1. It is recommended that the research staff continue its hatchery investigations and give greater emphasis to research needed to improve pond and stream management.
2. It is recommended that a closer working relationship be established between the Fish Commission Research Center and the Pennsylvania State College Fishery Department.
3. It is recommended that pollution along the Spring Creek, which is jeopardizing the fishery research station and hatchery installations, be abated.
4. It is recommended that the research findings in fish culture be applied in the hatcheries without delay.
5. It is recommended that the position of district fisheries biologist be re-established as soon as finances permit.

6. It is recommended that the research and management personnel be relieved of considerable information and educational duties.
7. It is recommended that general funds be sought for the commercial fisheries program and a more intensive cooperative program be entered into with the U. S. Fish and Wildlife Service.
8. It is recommended that the trout stocking policy be rigidly adhered to and that trout be stocked on the basis of stream holding capacity.
9. It is recommended that in lieu of a general license fee increase, trout fishermen be required to purchase a trout stamp.
10. It is recommended that the trout stocking program devised by the management staff and approved by the Commission be followed and that no individual Commissioner should issue orders that require full Commission approval.
11. It is recommended that the Commission continue to adhere to the North American Warm-Water Fish Policy.
12. It is recommended that the artificial warm-water fish propagation be reduced to a minimum needed to assure an adequate fisheries program.

#### RESEARCH AND MANAGEMENT GENERALITIES

1. It is recommended that the Fish Commission enter into each new reservoir or other water storage project at the very earliest stage to investigate enhancement possibilities and to advocate additional features or suggest modifications in plans in order to improve fishing.

#### HATCHERY PROGRAM

1. It is recommended that modern techniques developed at the Benner Springs Station be applied more widely to the hatchery program.
2. It is recommended that a modernization plan be initiated at all hatchery installations.
3. It is recommended that inferior units, with inferior physical plants, poor location, or polluted water supplies cease to be used for trout production.
4. It is recommended that rigid pollution control be initiated at all hatcheries.
5. It is recommended that the hatchery program be included as a Section of the Fisheries Division and managed as an integral part of an overall fisheries program.
6. It is recommended that a trained fishery biologist be assigned to work with the hatchery units on a full-time basis.
7. It is recommended that warm-water fish not be raised solely for hook and line fishing.

CONSERVATION EDUCATION

1. It is recommended that additional technical personnel be secured to help carry on the work of this Division.
2. It is recommended that exhibits and displays be used only at a few of the larger expositions.
3. It is recommended that basic slide presentations be prepared in consultation with the technical staff and that all field men be trained to use projection equipment.
4. It is recommended that the Division be organized into audio-visual and publication units.



## PENNSYLVANIA GAME COMMISSION

In compliance with the request of the Joint State Government Commission, the Wildlife Management Institute has prepared a survey report of the Pennsylvania Game Commission. The same procedures were followed as are outlined in the report on the study of the Fish Commission.

Members of the Commission and staff were most helpful and cooperative during the survey period. They answered questions, made information available, and compiled much information not available in the forms required by the Institute.

### BASIC LAWS

The Game Commission is composed of eight nonsalaried members, appointed by the Governor and with the consent of two-thirds of the Senate. One appointment must be made from each of the eight districts designated by the Game Law. Under current law, the Commissioners hold office for eight-year terms. According to the statutes, the individuals selected for appointment to the Commission "shall be well informed on the subject of wildlife, conservation and restoration." However, this provision of the statute is not mandatory.

The Commission is required to hold meetings in January and June or July and at such other times and places as the Commission deems necessary. Each January the Commission must elect one member as President for a one-year term.

Except as otherwise provided, the Commission possesses all the powers generally imposed upon independent administrative boards and commissions as authorized by the Administrative Code of 1929 and its amendments.

The Legislature has prescribed a closed season for all birds and animals. The Commission may, by resolution, remove any animal from the list of fur-bearing animals or add any birds to the list of unprotected birds. It is the duty of the Commission to protect, propagate, manage, and preserve game, fur-bearing animals and certain birds.

The Commission has the authority to fix hunting seasons and bag limits; to acquire lands and waters by various methods, including condemnation; to limit the number of hunters in any given area; and to prescribe the methods of hunting.

Any person violating any of the game laws or rules and regulations of the Commission shall, upon conviction, be sentenced to pay a prescribed fine and cost for the prosecution of each offense. Violations of

lesser laws may be settled by "field settlement" with the arresting officer signing a statement that a specified violation has occurred and that the fine has been paid. The violator must state in writing that he willingly paid the stipulated fine. Any person convicted for a second offense is liable to the stipulated fine and court costs and, in addition, may be sentenced to prison for one day for each dollar fine imposed.

The members of the Commission, the Director, and the Game Protectors are empowered to enter upon property; execute warrants; serve subpoenas; make arrests; search vehicles; call for assistance; carry firearms; search out-buildings; and search dwellings with warrants. The seizure of guns, hunting paraphernalia, vehicles, and other equipment used illegally also is authorized. Moneys from fines and sales of confiscated goods go to the Commission's fund.

The Commission, through its Game Protectors, has the authority to seize licenses and tags from any person violating any game law and from those under the influence of liquor or narcotics. All seized licenses must be reported within 24 hours, and the right to appeal is granted. Further, the Commission may revoke hunting licenses, and deny any person who has been convicted in the past the right to secure a license.

The Commission has the authority to select an Executive Director who shall be in charge of all activities under the jurisdiction of the Commission. The Executive Director shall serve at the pleasure of the Commission and shall have charge of, direct, supervise, and control all other Game Protectors and employees. The Commission also sets the salary of the Executive Director.

The Commission can appoint such personnel as needed to carry out its program; set compensation, and establish duties of such employees. Any Game Protector or other employee may be removed at the discretion of the Commission and may be suspended by the Director pending dismissal action by the Commission. Prior to removal, all employees have the right of a trial before the Commission Trial Board.

Political activity other than the right to vote is prohibited for all salaried employees. The Commission may appoint competent men throughout the State as Deputy Game Protectors. Such appointees are not entitled to compensation for either time or expenses unless specifically employed by written order of the Executive Director.

License fees are set by the Legislature for resident hunters over 16 years of age; resident fees are \$3.00, nonresident, \$20.00. All moneys collected from license sales are deposited in an earmarked Game Fund and used exclusively for Commission programs. Free licenses are available only to disabled veterans and a limited complimentary list. The



printing, distribution, and record-keeping for the sale of game licenses are handled by the State Bureau of Revenue, and the Game Commission pays about 2% of its budget for this service.

The Commission may grant special permits to qualified citizens for the establishment of shooting preserves, to scientific collectors of birds and mammals, to game propagators, and to citizens for the control of noxious animals. Where damages are incurred on private property by wild animals, the landowners are entitled to remove the offending animals.

The law authorizes an annual expenditure from the Game Fund of not more than \$10,000 to erect deer-proof fences, and up to \$5,000 may be paid annually for bear damage. Provisions are made for an impartial board of review to assess deer or bear damage when the Commission and the aggrieved person cannot agree on the extent of the damage.

The law provides for the forfeiture of the vehicle, trailer, spotlight, or other paraphernalia used in spotlighting activity.

The Commission may acquire title to or control of land or buildings or other rights on lands suitable for the protection, propagation and management of wildlife, or for public hunting, trapping, or administrative purposes by purchase, exchange, gift, or lease. The price paid for purchased lands must not exceed the market value.

The Commission may exchange timber, minerals, oil, or gas from its lands for suitable lands having an equal or greater wildlife habitat value. When approved by the Governor, the Commission also may sell these resources on a bid basis. Receipts go to the Game Fund.

The Commission may lease or acquire lands on which mineral, oil or gas rights have been reserved.

Lands owned by the Commission are taxed 10¢ per acre, returnable to the counties, school districts and townships where such lands are located.

The Commission may, with the consent of the proper authorities, locate and maintain game refuges on state forests, national forests, or other publicly owned lands. It also may establish and maintain refuges on privately owned lands leased for such purposes.

The Commission is empowered to formulate, adopt, and enforce such rules and regulations as the management of land acquired for its use may require. The Game Law provides basic rules and regulations to apply in any year when the Commission does not issue annual regulations.

The Commission is authorized to pay bounties when, in its opinion, it is desirable or necessary. The law establishes a ceiling on the amount

of bounty that may be paid on various species listed as predators. Employees are encouraged to destroy predators and are eligible to receive bounty fees from the Game Fund.

Except in cases where an offense is designated as a misdemeanor or a felony, each magistrate, alderman, or Justice of the Peace shall have the power of summary conviction in matters pertaining to violations of any provision of the Game Law. Law Enforcement Officers are required to enforce all laws relating to wild birds and wild animals. In so doing, they may execute all warrants for violations, serve subpoenas, carry firearms, purchase or sell game to secure evidence, and without warrant arrest any persons found violating the Game Law.

#### RECOMMENDATIONS—BASIC LAWS

The basic law establishing the Game Commission is generally good, and provisions for which no changes are recommended should be retained.

1. *It is recommended that a Civil Service unit be established.*

The selection of personnel on a nonpartisan basis is needed to attract high-caliber career employees.

2. *It is recommended that the section of the law establishing districts and requiring one Commissioner to be appointed from each district be repealed, and that Commissioners be appointed on a statewide basis.*

One of the principal causes of jealousy and rivalry in game commissions is a "log-rolling" attitude that sometimes develops when each Commissioner is trying to get more department activity for his district. The best fish and game commissioners throughout the country tend to look upon themselves as representing the entire state. They take a broad view of the problems brought before them, rather than a limited district view.

Under a system of statewide appointments, no Governor would appoint all of the Commissioners from one section of the State; the appointments would be scattered geographically to satisfy the diverse interests. The individual Commissioners, however, would consider themselves as representatives of the general public.

3. *It is recommended that the terms of the Commissioners be for six years on a staggered basis.*
4. *It is recommended that Commission members be selected on a bipartisan basis from the two major political parties.*
5. *It is recommended that the Commission's role be clearly defined as a policy-making and budgetary control organization.*

The greatest flaw in the Commission system in Pennsylvania is the lack of a clear-cut definition between policy making and administration. This deficiency is obvious to some degree, and a strengthening of the line of demarcation should be made. The Commission should function exactly as does the board of directors of a large corporation. It should be a policy-making and budgetary control board, with no administrative functions. The Director should be the administrator and responsible to the Commission for carrying out its policies. The Commission should have sole authority to establish hunting regulations, establish standards for employment and salary scales, approve definite management programs and policies, and budget the available funds. The lack of such definition in Pennsylvania has led individual Commissioners to assume many administrative functions, a practice which leads only to confusion, loss of morale among employees, and constant friction, both within and outside of the organization.

## ORGANIZATION

### EXECUTIVE DIRECTOR

The Executive Director, also known as the Chief Game Warden, is appointed by and remains in office at the pleasure of the Commission, and is the chief administrator of the Commission.

The Director is responsible to the Commission for the execution of its policies, rules, regulations, and programs. Under the present organization the Director has three activities reporting directly to him—Game Farm Superintendents, Field Division Supervisors, and Waterfowl Management Agent.

### DEPUTY EXECUTIVE DIRECTOR

The position of Deputy Executive Director was established to relieve the Director of routine administrative work and to give him assistance in other ways. The Deputy aids in supervising personnel. He helps the Director in field assignments and acts for the Director in the absence of his superior.

### LEGAL COUNSEL

The Legal Counsel is assigned by the Attorney General's office to advise the Commission on legal questions.

### COMPTROLLER

The Comptroller is assigned to the Commission from the State Office

of Administration. The Comptroller's Office is a joint organization working for both the Fish and Game Commissions.

The Comptroller's Office audits all bills and vouchers, expense accounts, labor payrolls and claims; submits bills to the Auditor General and State Treasurer; audits and transmits to the Department of Revenue all penalties, fees, receipts from state lands, and federal grants. The division maintains budget and cost-accounting records; prepares and maintains budget accounts and financial statements; and audits the accounts and records of the various Commission offices. It also assists in the preparation of the budget and of necessary financial statements and other statistical data.

### DIVISIONS OF THE GAME COMMISSION

The staff is organized into six Divisions: Administration; Research; Land Management; Law Enforcement; Minerals; and Propagation. At present these Divisions conduct their day-to-day functions under or directly with the Deputy Executive Director. The Game Farm Superintendents, Waterfowl Management Agent, and the six Field Division Supervisors report directly to the Director.

#### DIVISION OF ADMINISTRATION

This is a service headed by a Chief, who coordinates the activities of six units: Publicity, GAME NEWS, Purchases and Supplies, Personnel Management, Conservation Education, and Hunter Safety. It administers the Ross Leffler School of Conservation.

#### DIVISION OF RESEARCH

This Division plans, supervises, and conducts studies of wildlife conditions and environmental factors to obtain data needed to devise methods and procedures for increasing wildlife resources. It supervises the Federal Aid in Wildlife Restoration research projects; prepares reports and articles; and summarizes and interprets data from experiments. The Chief of the Division presents his findings to the Director and to the Commission. This Division cooperates with federal and other state agencies concerned with wildlife and related problems.

#### DIVISION OF LAW ENFORCEMENT

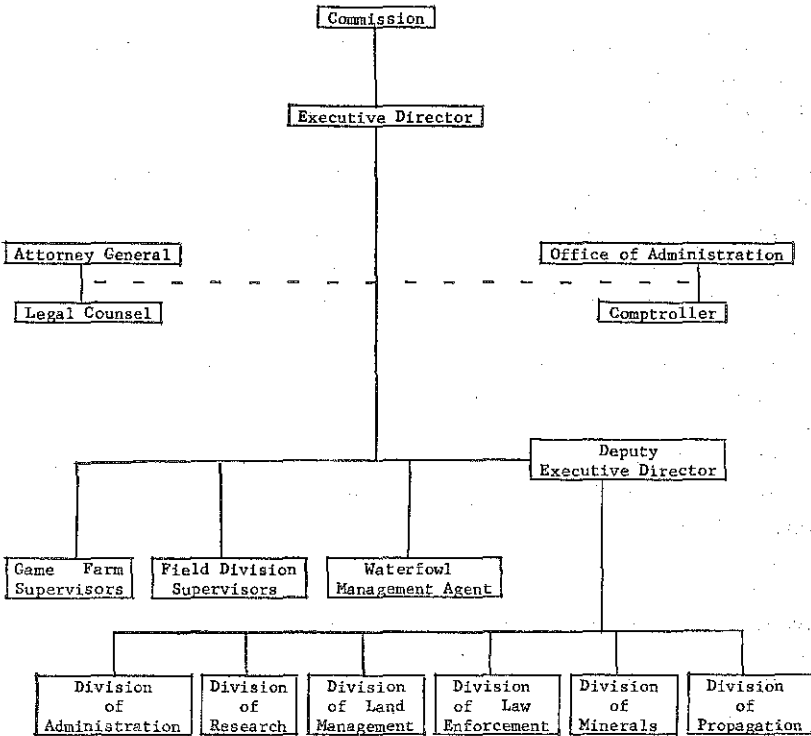
This Division supervises the statewide law enforcement program. It handles deputy game protector appointments, resignations from the law enforcement staff, and other records of the Division. It examines and processes hunting accident reports, prosecution reports, and hunting

license revocations. It contains the Predator Control and County Claim Sections. The Division issues all special permits, handles bear damage claims and applications for deer-proof fencing materials, and procures and allocates equipment for law enforcement.

DIVISION OF MINERALS

This Division coordinates and supervises matters dealing with oil, gas, coal, and other products and materials from lands owned or controlled by the Commission. It prepares leases and agreements, advises the Commission on suggested sales or other programs, and assists the Division of Land Management and other units in land acquisition.

CHART #1  
PRESENT ORGANIZATION  
June, 1962



DIVISION OF PROPAGATION

This Division supervises the game-farm program. It supervises the trapping and transfer programs, allocates all game raised at the game

farms or purchased from private breeders, and distributes pheasants under the "day-old chick" program.

#### DIVISION OF LAND MANAGEMENT

This Division directs and coordinates the activities of six units and their personnel, including:

*Food and Cover Section:* This unit is responsible for the planning, development and maintenance of state game lands and all special areas purchased or leased for wildlife management and public hunting.

*Farm Game Section:* This unit is responsible for the planning, development, and maintenance of the Cooperative Farm-Game Projects leased for wildlife management and public hunting.

*Federal Aid:* This unit is responsible for all plans and estimates to secure federal aid moneys for wildlife development on lands controlled by the Commission. It prepares the reports and supervises the field projects.

*Land Title and Record Section:* This unit has charge of land acquisition. It is responsible for legal matters and records relating to the Commission lands. It prepares right-of-way and other easement documents.

*Engineering Unit:* This unit conducts surveys of boundary lines and sites for dams; prepares maps, plans, and charts; and supervises the construction of all Commission projects.

*Nursery Section:* This unit supervises and directs all activities involving the planting, growing, and distribution of trees, shrubs, and vine seedlings to the Land Management Division and to the Commission's numerous cooperators.

As indicated on the existing table of organization, there are, attached directly to the Office of the Executive Director, three field divisions:

*Game Farm Superintendents:* These men report directly to the Executive Director. Their duties are to supervise and manage all operations of the game farms.

*Waterfowl Management Agent:* This individual coordinates the state-wide waterfowl program, improves established waterfowl areas, investigates and plans new waterfowl projects, and supervises the banding program.

*Field Division Supervisors:* The Field Division Supervisors head all activities in the field (other than game farms and research) including game law enforcement; issuance of special permits and licenses; management of state game lands and other Commission controlled lands; game trapping; stocking; winter feeding; public relations; investigation of hunting accidents; and game conditions. They submit recommenda-

tions for season and bag limits; investigate game damage claims; and supervise personnel assigned to each Division.

Each Field Division Supervisor has three assistants: Wildlife Protector Assistant, Land Utilization Assistant, and Conservation Education Assistant. A Federal Aid Leader is assigned to handle each two divisions.

Within the six field divisions there are 150 districts, each under the administration of a District Game Protector.

### PRESENT PROGRAM

The action program of the Commission is generally sound and directed toward close work with the land. Pennsylvania has a history of good administration, excellent staff, and a progressive field program. These features of the program are still apparent, although a few programs that are both costly and archaic still are retained by the Commission.

Pennsylvania pioneered in many fields of wildlife management, and the benefits of inspired leadership are bearing fruit today. The establishment of a training school has produced a well-trained staff of career employees. The early and far-sighted acquisition of game lands has made Pennsylvania's future public hunting a reality; emphasis on landowner cooperation has kept open nearly a million-and-a-quarter acres of productive game land. Practical management based on sound land use has further increased the productivity of state-owned lands.

A program of information and education has produced a public consciousness toward wildlife that is the envy of many state agencies. An excellent monthly publication and numerous information bulletins and booklets continue to flow from the Information and Education Section.

### COMMISSION PROGRAM

The Commission, established in 1896, has enjoyed a continuous existence with a high degree of stability and freedom from political interference. Members of the Commission elect one member as President to hold office for one year. In practice, the President of the Commission is apt to succeed himself for several years.

The basic duties of the Commissioners are carried out by the Executive Director or Chief Game Warden. The only qualification in the law for the Director is that he shall be a "competent person."

Basically, the Commission may be considered a policy-making body of the game organization, but there does not appear to be any clear-cut definition of this generally accepted and important role. Historically, and at the present time, the Commission formulates policy and program and



exercises a certain amount of administrative control; the Commission also has certain legal quasi-judicial powers such as the revocation of licenses.

The Commission authorizes expenditures, approves the employment and determines the compensation of all employees (except the Comptroller) within broad limits prescribed by the Governor.

In analyzing the program, from observation at meetings, reading reports and correspondence, and reviewing the Pennsylvania Game Commission Manual (1960), a general impression has been obtained of current interpretations of the existing law.

The Game Law empowers the Commission to appoint "such numbers of competent men as, in its opinion, may be needed to discharge the duties involved." Compensation of all employees is fixed by the Commission. All personnel are removable at the will of the Commission and can be suspended by the Director, without compensation, pending Commission action. Prior to removal, any regular employee is entitled to an impartial hearing before a trial board, whose findings and recommendations are considered by the Commission.

In preparing its 1958 "general statement of Commission policy," the Commission has presented certain policies and functions under which its program is supposed to operate. A formal policy statement is an excellent structure, and Commission policy should adhere to this guideline; although changes will be required as needs and new situations arise. Contained in the Game Commission policy are 19 paragraphs that should be mandatory reading for all personnel, and should be made known to the public. One paragraph (Number 3) entitled "To maintain an organization best designed to meet the changing needs of game conservation and in all its ramifications," should be thoroughly reviewed. One obvious shortcoming in the organization is the need for direct-line authority and a clear definition of responsibility—this need appears evident from the Commission level down to certain field positions. It is difficult to find any exact reference in the law that establishes the distinction between the Commission-Director-staff relations.

Within the Commission, each member functions as chairman of a division or of a staff program. Working with a few of the Commission members and the respective division chief, the committee chairman prepares a budget and program dealing with that respective division or function. These are presented in condensed form to the entire Commission for comments and decisions. The President of the Commission is empowered to act for the Commission between meetings of the body on any matters other than policy, but all such interim action must be confirmed at the following Commission meeting.



Further duties of the Commission are to review decisions rendered by the staff trial board in cases of dismissal, demotion, and punitive action against employees.

#### RECOMMENDATION—PRESENT PROGRAM

The basic law establishing the Commission and authorizing wide regulatory powers is excellent. There are certain weaknesses, however, that should be eliminated. Recommendations pertaining to the Commission have been presented under a review of the Basic Laws.

1. *It is recommended that the Game Commission Manual be kept up to date.*

This detailed report generally outlines Commission policies and practices on nearly all functional matters. It should contain the basic laws establishing and defining the Commission's responsibilities.

#### EXECUTIVE DIRECTOR

The Executive Director, or the Chief Game Warden as he is called, is appointed by the Commission and is the chief administrative officer in charge of all activities and employees of the Commission. He is responsible to the Commission for the efficient management of all Commission activities and for the execution of its policies, rules, regulations and programs, in accordance with the provisions of the law. The Director has a tremendous responsibility, and part of the load could be more effectively and efficiently carried out if a clear-cut definition and distinction were made between the policy-making function of the Commission and the administrative responsibilities of the Executive Director.

The present position of Director is established by law, and the Director is appointed by the Commission, although his duties and powers are somewhat vague. Departments work better when members of the commissions confine their activities to establishing policy and budgets, leaving administrative details to the administrative heads of the department. This distinction is best made by clear definition of the relative responsibilities of the Commission and the Director.

The Director should have complete authority to employ personnel under conditions and standards established by the Commission. He should have full control over the assignments and activities of the staff, whose members should be responsible directly to him. He should, in turn, be responsible to the Commission for the observance by the staff of Commission policies and budgetary limitations. He should also have a right to the same type of public hearing that is now provided for other employees.

## RECOMMENDATION—EXECUTIVE DIRECTOR

1. *It is recommended that all department employees should be selected by the Director from lists of eligibles established in the manner now provided for Game Protectors.*

The staff should be directly responsible to the Director.

## DEPUTY EXECUTIVE DIRECTOR

The position of Deputy Executive Director is established to assist the Director in supervising personnel, in handling field work, and in assigning problems and following up assignments. The Deputy must perform all duties of the Director in his absence and be specifically responsible for the operation of the office division, which includes the Divisions of Administration, Propagation, Research, Land Management, Law Enforcement, and Minerals.

Both the Executive Director and the Deputy Executive Director in the present organization are well-trained and highly competent men who have worked their way up through the ranks of the Commission.

## RECOMMENDATION—DEPUTY EXECUTIVE DIRECTOR

1. *It is recommended that the Deputy Executive Director should be selected by the Executive Director, with the approval of the Commission.*

## COMPTROLLER

The Comptroller's Division is comprised of personnel from the Game (14) and Fish (6) Commissions. This Division is held responsible for the maintenance and accounting, payroll and tax records, and keeping the agency expenditures within budget authorization. It assists in preparing the budget in line with the Commission's interest and provides necessary financial statements and other statistical data. The Comptroller's Office serves as a revenue-handling agent for the Commission and supervises internal and field audits of Commission accounts; audits all bills, vouchers, expense accounts, and payrolls; and submits them to the Auditor General and State Treasurer for payment.

From records and reports, general operation of the Comptroller's office appears to be quite satisfactory on all observed levels.

## FINANCES AND PROGRAM ASPECTS

The Pennsylvania Game Commission is financed mainly by the sale of licenses to resident and nonresident hunters. This basic revenue

is supplemented by income from other sources, such as penalties from game law violations, special permits, timber sales, leases and federal aid money.

**LICENSE SALES**

Receipts from the sale of licenses produce one-half of the Commission's annual income. The following table indicates the generally steady rise in the sale of hunting licenses, which include the sale of special deer licenses and the more recently adopted special archery licenses.

**TABLE I  
HUNTING LICENSE SALES**

Year	Resident Sales	Non-Resident Sales	Total Sales
1913	305,028	...	305,028
1918	311,290	478	311,728
1923	497,216	2,328	499,544
1928	437,727	1,190	438,917
1933	524,337	4,966	528,303
1938	654,146	7,584	661,730
1943	570,901	11,833	582,734
1948	851,070	28,085	879,155
1953	859,137	30,664	889,801
1954	868,577	30,827	899,404
1955	897,776	32,471	930,247
1956	901,775	35,524	937,299
1957	927,165	40,527	967,692
1958	943,340	41,730	985,070
1959	943,866	44,937	988,803
1960	944,000	46,000	990,000
1961	946,563	47,680	994,243
1965 (Projected Sales)	960,000	50,000	1,010,000
1975 (Projected Sales)	1,025,000	55,000	1,080,000

**ARCHERY SALES**

Year	Total Sales
1938	77
1943	46
1948	69
1953	10,691
1954	14,769
1955	17,318
1956	26,210
1957	55,559
1958	72,937
1959	76,767
1960	68,051
1975 (Projected Sales)	100,000

License sales reached nearly one million in 1961-62; future sales can be expected to go even higher. For 13 years, the resident license fee has been keyed at \$3.00. License fees have remained at a relatively low level while the cost of every phase of the Commission program has increased greatly.

#### ROYALTIES

Oil and gas royalties enriched the Game Fund by \$203,967.00 during the past year. This income has been earmarked by the Commission for purchasing additional game lands and facilities for field division headquarters. The Game Fund has derived \$1,598,942.23 from ground rentals and royalties from gas and oil since 1953.

Along with the gas and oil sales, the Commission is permitted to sell clay, stone, or other minerals where their removal will not interfere with the basic use of the land. The income from game land sub-surface resources may continue to be an important source of income.

#### WOOD PRODUCTS

The purchase of nearly one million acres of game lands, originally much of it poor, cut-over land, has begun to yield excellent returns. In 1961-62, the estimated revenue from the sale of wood products was \$220,000.00. As the trees continue to mature, the volume of salable timber should increase. These valuable forests will require additional management for timber-stand and game-habitat improvements.

#### FEDERAL AID

The Federal Aid program contributes approximately \$550,000.00 under terms of the federal law, and the Commission must put up \$1.00 for every \$3.00 it receives.

#### GAME LAW FINES

Game law prosecutions result in an annual income to the Commission of from \$125,000.00 to approximately \$170,000.00. During the last fiscal year, 1961-62, the revenue from fines amounted to \$153,703.00.

#### OTHER INCOME

Several minor sources of income combined to provide the self-sufficient Commission with additional operating funds.

Tables II and III indicate the estimates of revenue and functional expenditures for the 1961-62 period.

TABLE II  
ESTIMATES OF REVENUE  
1961-1962

	Estimated Revenue 1961-1962	% Based On Estimate 1961-1962
Resident Hunters Licenses	\$2,839,691.00	50.5
Non-Resident Hunters Licenses	953,615.00	17.0
Contributions From Federal Government	550,000.00	10.0
Ground Rentals and Royalties	203,907.00	3.5
Miscellaneous	303,186.00	5.0
Antlerless Deer Licenses	200,000.00	3.5
Game Law Fines	153,703.00	3.0
Other Licenses	184,911.00	3.5
Sale of Wood Products	220,000.00	4.0
Civil Defense Contribution to Radio System	.....	..
<b>TOTAL</b>	<b>\$5,609,013.00</b>	<b>100.0</b>

TABLE III  
FUNCTIONAL EXPENDITURES BASED ON  
APPROVED BUDGETED AMOUNTS  
1961-1962

	Estimated Expenditure 1961-1962	% Based On Estimate 1961-1962
Land Acquisition and Management	\$3,199,402.00	46.5
Propagation of Game	1,159,516.00	17.0
Protection of Wildlife	1,020,933.00	15.0
Division of Administration (Inc. Cons. Ed.)	506,747.00	7.5
Ross Leffler School of Conservation	99,410.00	1.0
Bounty Payments	125,000.00	2.0
Issuing Hunting Licenses	151,430.00	2.0
Radio System	54,830.00	.5
Retirement Contribution	177,973.00	2.5
Wildlife Research	113,837.00	2.0
Accounting	106,853.00	1.5
Social Security—Commission's Share	84,888.00	1.0
Auditor General's Department	18,160.00	.5
Executive Office	71,275.00	1.0
<b>TOTAL</b>	<b>\$6,890,254.00</b>	<b>100.0</b>

## UTILIZATION OF COMMISSION INCOME

The Commission fund is spent basically to enhance the game crop.

## EARMARKED FUNDS

Under the Game Law, not less than \$1.25 from each resident hunting license fee shall be used for the improvement and maintenance of natural wildlife habitat on land available for public hunting; for the purchase, maintenance, operation, rental and storage of equipment used in this work; for the purchase, distribution, planting, cultivating and harvesting of game foods; for the purchase, trapping and distribution of game; and for the protection of the properties of farmer-cooperators.

## FIXED CHARGES

Commonwealth-owned lands are exempt from taxation, but the Commission annually pays a fixed charge of five cents for each acre of game lands owned. Another five cents is paid counties for roads and schools. This fixed charge, in lieu of tax money, approximates \$96,000 a year.

A resumé of how the game dollar was spent during the past several years will indicate the annual percentages allocated to various Commission programs.

TABLE IV  
PERCENTAGE DISTRIBUTION OF COMMISSION FUNDS

	Proposed 1962-63	1961 -62	1960 -61	1959 -60	1958 -59	1957 -58	1956 -57
Propagation of Game	17.0	17.0	17.0	16.5	19.0	20.5	23.0
Management of Land for Wildlife	46.0	46.5	46.0	36.0	43.0	38.0	38.5
Executive Office	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Accounting Office	1.5	1.5	1.0	1.5	2.0	1.5	1.5
Wildlife Research	2.0	2.0	1.5	1.5	1.5	1.5	1.5
Instruction & Training	1.5	1.0	0.5	1.5	1.5	..	1.75
Hunting Licenses	2.0	2.0	2.0	2.0	2.0	2.5	2.0
Bounty Payments	1.5	2.0	2.0	2.0	2.5	2.5	3.0
Div. of Administration	7.5	7.5	7.0	7.0	7.0	8.5	8.0
Protection of Wildlife	15.0	15.0	17.0	18.0	17.0	20.5	19.7
State Retirement Fund	2.0	2.5	1.5	2.0	2.0	2.0	..
Social Security Contributions	1.5	1.0	1.0	1.0	1.5	..	..
Auditor General's Fee	0.5	0.5	0.5	0.5	..	..	..
Radio Installation	1.0	0.5	2.0	9.5	..	..	..

## LAND ACQUISITION

An indication of the wisdom and vision of past Commissioners is the policy of acquiring hunting lands for the sportsmen. Game management projects, including public lands, refuges and state forests, cooperative farm-game projects, auxiliary projects, dog training areas, and game

propagation areas amount to over two million acres. A summarization table indicates the number and acreage of various areas held by the Commission.

**TABLE V**  
**SUMMARIZATION OF ACREAGE IN GAME**  
**MANAGEMENT PROJECTS**

Classification	No. of Units	Total Acres	Acreage Open To Hunting
State Game Lands	215	960,653	949,615
Primary Refuges on State Forests	16	12,205	...
State Game Farms	6	3,188	...
Cooperative Farms—Game Projects (11,700 Farms)	163	1,245,513	1,057,587
Auxiliary Projects	13	22,548	19,181
Game Propagation Areas	101	25,464	...
Dog Training Preserves	6	4,643	Restricted
Special Areas	58	16,969	...
		2,290,911	2,010,209

As of May, 1962, over 215 units, comprising close to one million acres, have been acquired by the Commission at a total cost of \$4,473,091.49. The average cost was \$4.71 per acre for properties acquired from 1920 to 1959.

Game lands acquired since 1960 have averaged \$29.64 per acre. The higher cost reflects the general recent rise in value of all types of land and also an emphasis toward the purchase of better quality lands.

#### BOUNTY PAYMENTS

The cost and value of the bounty program should be evaluated. More money has been expended for this highly questionable program since its inception—\$4,797,047—than has been invested in land acquisition. Historically, bounties have been paid on many forms of wildlife, but for the past few years only weasels, foxes, and great-horned owls have been bountiable.

Recent indications are that more emphasis is being directed toward nuisance animal control and away from attempts of broad control through bounties.

#### RECOMMENDATIONS—BOUNTIES

1. *It is recommended that the program of general bounties be abolished.*

There is no evidence that bounties have improved game conditions. There is ample evidence, however, that the bounty system is an inefficient method of controlling undesirable species.

Only a portion of the money now spent on bounties, if devoted to the acquisition of land or directed toward research, would yield much higher public returns.

2. *It is recommended that the needed animal control be handled by state trappers.*

Some animal control will always be necessary on a local basis, and it is suggested that a trained staff be available for this service. Education of landowners in methods and means of controlling specific animal pests can do the major portion of the job.

#### GRANTS

The Commission for several years has been providing grants to the following institutions to assist in the development and promotion of wildlife and general conservation programs:

1. Future Farmers of America, \$1,000
2. Carnegie Museum, Pittsburgh, \$1,000
3. The Academy of Natural Sciences, Philadelphia, \$2,000
4. Pennsylvania Conservation Education Laboratory for Teachers, \$1,000

#### RECOMMENDATION—GRANTS

1. *It is recommended that the Commission seek general fund money to assist in promoting conservation education programs of the kind mentioned.*

The Commission has contributed to a worthwhile series of projects that should be continued and encouraged; however, this program is more in line with the activities that should be financed by general funds.

#### FINANCIAL OUTLOOK—1963-64

In order to continue operations and programs at a near-1960-61 level, the Commission income should be approximately \$7 million annually.

For many years, the Commission has had a substantial balance in unexpended or unobligated funds. At the end of the 1962-63 fiscal year, the Commission reserve will be at the lowest level for many years. The estimated surplus June 30, 1963, will be \$882,847. (See Table VI, "Status of the Game Fund June 1, 1957 to June 30, 1963," and Table VII, "Game Fund Comparative Financial Statement.")



TABLE VI  
STATUS OF THE GAME FUND JUNE 1, 1957 TO JUNE 30, 1963  
(Actual and Estimated)

Year	Balance in Game Fund	Total Receipts	Total Disbursements	Increase (+) or Decrease (-) in Fund
1957-58	\$4,443,239	\$ 5,324,411	\$ 4,657,807	\$ 666,604 (+)
1958-59	5,109,843	5,465,629	5,247,109	218,520 (+)
1959-60	5,328,363	5,853,276	5,836,224	17,052 (+)
1960-61	5,345,415	5,714,888	6,349,236	634,348 (-)
1961-62	4,711,067	5,611,513 *	6,888,129 *	1,276,616 * (-)
1962-63	3,434,451 *	5,841,905 *	6,956,082 *	1,114,177 * (-)
	\$2,320,274 (A)	\$33,811,622	\$35,934,587	\$2,122,965 (-)

(\*) Estimated  
(A) Estimated Balance in the Game Fund—June 30, 1963

SUMMARY

Plus:	\$ 4,443,239	Balance of Game Fund May 31, 1957
	33,811,622	Total Receipts 6/1/57 to 6/30/63 (Actual & Estimated)
	<u>38,254,861</u>	Total Funds Available
Less:	35,934,587	Total Disbursements 6/1/57 to 6/30/63 (Actual & Estimated)
	<u>2,320,274</u>	Estimated Cash Balance June 30, 1963
Less:	1,437,427	Encumbrances and Vouchers Payable as of June 1, 1961
	<u>\$ 882,847</u>	Estimated Surplus June 30, 1963

TABLE VII  
GAME FUND COMPARATIVE FINANCIAL STATEMENT

	1959-61 (24 months)	1961-62 (13 months)	1962-63 (12 months)
Beginning Balance, June 1	\$ 4,037,974	\$3,276,140	
Beginning Balance, July 1			\$1,997,024
Actual and Estimated Receipts	<u>11,563,295</u>	<u>5,611,513</u>	<u>5,841,905</u>
Total Estimated Funds Available	\$15,601,269	\$8,887,653	\$7,838,929
Actual & Estimated Expenditures	12,325,129	6,890,629	
Recommended Appropriations and Executive Authorization			6,956,082
Closing Balance, May 31	<u>\$ 3,276,140</u>		
Closing Balance, June 30		<u>\$1,997,024</u>	<u>\$ 882,847</u>

The reasons for the Commission Reserve Fund being at an all-time low and for the inability of the annual receipts to provide funds for the scale of activities carried on in the past are numerous. It is obvious that the purchase value of the dollar is at an all-time low. This, coupled with the past year's drop in license sales, has created a serious financial problem.

The 1961-62 approved budget is \$6,890,629.00; the balance at June 30, 1962 will be \$1,997,024.00. This will be carried over to the 1962-63

budget. The estimated receipts for 1962-63 are \$5,841,905.00, which will provide a total fund available of \$7,838,927.00. The tentative 1962-63 budget is \$6,956,082.00, leaving the Commission balance \$882,847.00.

The proposed estimates of revenue for the period of 1962-63 and the proposed functional expenditures for the same period may be reviewed in Tables VIII and IX on Page 67.

The status of the Commission's balance is somewhat precarious and the projected 1963-64 budget indicates the attempt to recoup some of the needed cash reserve by a retrenchment of all activities. It must be added that the 1962-63 budget carried some rather expensive items that drew heavily upon the budget. They are: (1) statewide, two-way radio installation, amounting to \$600,000.00 (one-half of the cost expected to be reimbursed from Civil Defense); (2) extensive marsh and goose area projects; (3) construction of three division office buildings; (4) construction of 18 metal storage buildings; (5) accelerated land acquisition, which utilized most of the cash reserve for the past three years; and (6) increased salary and payroll requirements.

To attempt to keep the 1963-64 budget from too severe a cut-back, economy procedures have been instituted in the operational program of 1962-63. A budget reduction of \$300,000.00 has been ordered.

### 1963-64 PROPOSED BUDGET

The projected budget indicates planning to keep the essential services of the Commission in operation. Reference to the following table resume shows the Commission's economy program for the 1963-64 operation period.

TABLE X  
EXPENDITURES AND COMMITMENTS FOR THE PERIOD OF  
JUNE, 1960-61 TO ESTIMATED BUDGET THROUGH JUNE, 1964

Program	1960-61	1961-62	1962-63	1963-64 Increase (+) or Decrease (-)
Executive and Administration	\$ 297,300.48	\$ 310,857.00	\$ 320,273.00	\$ 330,000.00 +
Conservation Education	211,632.39	246,352.00	231,727.00	230,000.00 —
Propagation	1,129,947.84	968,886.00	981,177.00	850,000.00 —
Research	102,499.53	113,837.00	130,117.00	130,000.00 —
Law Enforcement	320,187.79	311,445.00	325,184.00	265,000.00 —
Field Operations	3,604,332.82	3,472,981.00	3,403,445.00	3,050,000.00 —
Training	33,605.94	99,410.00	103,004.00	50,000.00 —
Audit General's				
Audit Costs		18,160.00	20,715.00	
Land Management	1,579,708.74	934,035.00	1,043,268.00	850,000.00 —
Total	\$7,279,215.53	\$6,475,963.00	\$6,558,910.00	\$5,755,000.00

TABLE VIII  
ESTIMATES OF REVENUE

	Estimated Revenue 1962-1963	% Based On Estimate 1962-1963
Resident Hunters Licenses	\$2,850,000.00	49.0
Non-Resident Hunters Licenses	937,305.00	16.0
Contributions from Federal Government	600,000.00	10.0
Ground Rentals and Royalties	250,000.00	4.5
Antlerless Deer Licenses	225,000.00	4.0
Miscellaneous Revenue	336,900.00	6.0
Game Law Fines	160,000.00	2.5
Sale of Wood Products	200,000.00	3.5
Other Licenses	132,700.00	2.0
Civil Defense Contribution to Radio System	150,000.00	2.5
	<hr/>	<hr/>
TOTAL	\$5,841,905.00	100.0

TABLE IX  
PROPOSED FUNCTIONAL EXPENDITURES

	Proposed Expenditure 1962-1963	% of Proposed Expenditure
Land Acquisition and Management	\$3,218,861.00	46.0
Propagation of Game	1,163,775.00	17.0
Protection of Wildlife	1,043,052.00	15.0
Division of Administration (Inc. Cons. Ed.)	522,746.00	7.5
Ross Leffler School of Conservation	103,004.00	1.5
Bounty Payments	120,000.00	1.5
Issuing Hunting Licenses	146,560.00	2.0
Radio System	60,000.00	1.0
Retirement Contribution	149,807.00	2.0
Wildlife Research	130,117.00	2.0
Accounting	107,502.00	1.5
Social Security (Commission Share)	100,430.00	1.5
Auditor General's Department	20,715.00	.5
Executive Office	69,513.00	.1
	<hr/>	<hr/>
TOTAL	\$6,956,082.00	100.0

## RECOMMENDATIONS—FINANCIAL

An analysis of programs, activities, and the financial outlook of the Commission indicate the need for either a retrenchment of normal programs or the essential alternative of obtaining additional funds to maintain, expand, and improve the program. Funds are needed, and it is suggested that the following be considered:

1. *It is recommended that a raise in resident license fees be instituted.*

The last license fee increase occurred in 1947, from \$2.00 to \$3.00. The value of the program and services purchased by the license fee obligate the consumer to pay a more equitable share. The necessary salary increases, office building rents, taxes on departmental land, and other payments are out of proportion to income.

2. *It is recommended that a change in the minimum licensing age be considered.*

Juveniles 12-16, capable and mature enough to hunt and capture game, should be assessed their full share of costs.

3. *It is recommended that the Commission seek some financial assistance from general state funds.*

Many services provided by the Commission are in the field of general wildlife conservation, and general funds should be provided to assist in this broad conservation program. Conservation education and general wildlife improvement and protection are two examples of public benefits carried on by the Game Commission.

4. *It is recommended that should Project Seventy funds be available, these funds be made available to the Commission with as few restrictions as possible.*
5. *It is recommended that a continuous program of land acquisition be carried on.*

This program, of which Pennsylvania is a leader, has set the pattern for the nation. Costs are higher now, but this is relative in regard to the general economy. Possibly, more emphasis should be put on the acquisition of the lands that offer a greater opportunity for more intensive wildlife management.

6. *It is recommended that the \$1.25 earmarked funds be removed.*

## PERSONNEL

The law provides that the Commission shall appoint Game Protec-

tors and as many employees as necessary to carry out the program of the Commission. There is, however, a Governor's complement control quota which no agency can exceed without special authorization.

Employees are not covered by the State Civil Service program, but by a merit system administered by the Commission and staff. They are eligible for Social Security and group medical and hospitalization plans. All permanent employees must join and contribute to the State Employees Retirement program.

Per diem employees, particularly in the field, are recruited locally and usually must be "approved" by the local county chairman. Within the Commission's Division of Administration, there is a personnel section, and employment records are maintained in an efficient manner.

A strict performance-rating system is maintained, and each salaried employee is rated annually by his supervisor. This rating is reviewed by the respective supervisor and employee, and an appeal may be made if disagreement arises. Employee ratings serve as guides to salary increment and promotion.

Any field officer or other salaried employee who remains without a meritorious increment by reason of his own negligence, disregard of duty, or conduct for two successive years, or who commits an indiscreet act, shall automatically be cited for a Trial Board hearing and may be dismissed on grounds of inefficiency, indiscretion, or insubordination.

#### RECOMMENDATIONS—PERSONNEL

1. *It is recommended that the Director be responsible for the selection and hiring of all Commission personnel.*
2. *It is recommended that the Commission consider placing the entire staff and personnel under the State Civil Service program.*
3. *It is recommended that the per diem employees be hired without the encumbrance of county chairmen approval.*

#### SALARY

The Commission establishes the salary level for all employees. Salary increments are generally made once each year on the basis of performance rating and available funds. The salary schedule of the Commission, when compared with other similar agencies, is about average.

A definite salary schedule has been adopted by the Commission and each classification of salaried employee is rated between a minimum and a maximum grade. Table XI on Page 70 describes the existing salary level.

## RECOMMENDATION—SALARY

1. *It is recommended that salary increases be established by the Commission for trained personnel (Game School) and an additional consideration be given to the professionally trained staff members.*

## PROGRAM ANALYSIS

Wildlife is one of Pennsylvania's major natural resources. It furnishes untold hours of outdoor recreation for nearly a million licensed residents and nonresidents and the many thousands of juveniles and landowners who hunt without licenses.

For years, the Game Commission has been used as a model by other states, and its commission form of administration; its far-reaching land acquisition program; its farm-game program; and its extensive program of land management have all been excellent. In conservation education it was a pioneer and is still a leader among state programs.

TABLE XI

## BASIC COMMISSION SALARY RANGES — FEBRUARY, 1961

Position	Salary Range	Present Salary
Executive Director	\$	\$14,657
Deputy Executive Director		10,432
<i>Law Enforcement:</i>		
Game Protector I	4,327-5,803	
Game Protector II	5,007-6,716	
Game Protector III	5,803-7,772	
Wildlife Protection Supervisor I	6,390-8,580	7,772
Wildlife Protection Supervisor II	7,407-9,923	9,001
Predator Control Agent	5,007-6,716	
Bounty Claim Agent	5,007-6,716	
<i>Engineering:</i>		
Civil Engineer I	5,007-6,716	
Civil Engineer II		
Civil Engineer III	7,055-9,454	
<i>Game Land Program:</i>		
Game Land Manager I	4,773-6,390	
Game Land Manager II	5,268-7,055	
Game Land Manager III	6,390-8,580	
Game Land Management Supervisor	7,407-9,923	9,011

*Propagation:*

Game Propagator II	3,925-5,268	
Game Propagation Supervisor	7,407-9,923	
Game Farm Superintendent I	4,551-6,090	
Game Farm Superintendent II	5,268-7,055	7,407

*Information and Education:*

Editor II	6,090-8,163
Information Specialist II	7,055-9,454
Photographic Specialist II	5,268-7,055

*Biology:*

Game Biologist I	4,773-6,390
Game Biologist II	6,090-8,163
Game Biologist III	7,407-9,923

*Miscellaneous:*

Purchasing Agent II	5,529-7,407
Budget Examiner II	5,803-7,772
Personnel Officer I	5,529-7,407
Mineral Economist	8,163-10,954
Nursery Superintendent	5,268-7,055
Waterfowl Management Agent	5,529-7,407

Startling changes have begun to appear on the scene—a rapid expansion of population and towns and a phenomenal trend toward outdoor recreation. Programs and organizations must be adaptable to new conditions. The organizational structure of the Commission is sound.

In presenting the review of the Commission program, many allied facets must of necessity be considered. The program of the Commission and the resources for which it is responsible generate millions of dollars of business annually. Wildlife is a major tourist attraction. The responsibility for its welfare is tremendous. Increasingly, the management of resources is becoming an interrelated program; no one resource can develop properly without its integration with the others.

**ORGANIZATION**

The proposed organizational changes shown in Chart #2 (Page 73) are designed to accomplish the objectives of concentrating program, policy, and regulatory authority directly upon the Commission; to give full administrative authority to the Director; to decentralize operations in the field; and to bring a higher degree of uniformity and efficiency in the district programs.

## RECOMMENDATIONS—ORGANIZATION

1. *It is recommended that there be a direct line of command between the Harrisburg office and the districts.*

This is a fundamental principle of good organization structure. No individual should be responsible to more than one immediate superior. This is the typical line and staff organization.

2. *It is recommended that the Law Enforcement Division be made a direct responsibility of the Division Chief at Harrisburg and that the District Supervisors report directly to the Executive Director.*

The present division structure does not appear to carry a very direct line between the District Supervisors and the Chief of the Division of Law Enforcement.

3. *It is recommended that one man, in each of the six districts, or any number of established districts, be responsible for programs, laws, management, personnel, and overall administration within the scope of established policy and programs in the respective districts.*

The State is large and diversified and the establishment of a central headquarters in each division to direct work is long overdue. The present district setup provides part of this service, but it does not have a clear-cut line of authority, nor does it allow for a completely integrated program.

## ADMINISTRATION DIVISION

The Administration Division, being a service organization for all divisions, is involved in many diversified activities which require the services of six established sections:

*Publicity:* This section is charged with the federal aid programs of the Commission. It prepares news releases and radio and TV scripts. It assists in arranging the planning program for the district conservation information assistants and edits the PENNSYLVANIA GAME NEWS, bulletins, and miscellaneous publications.

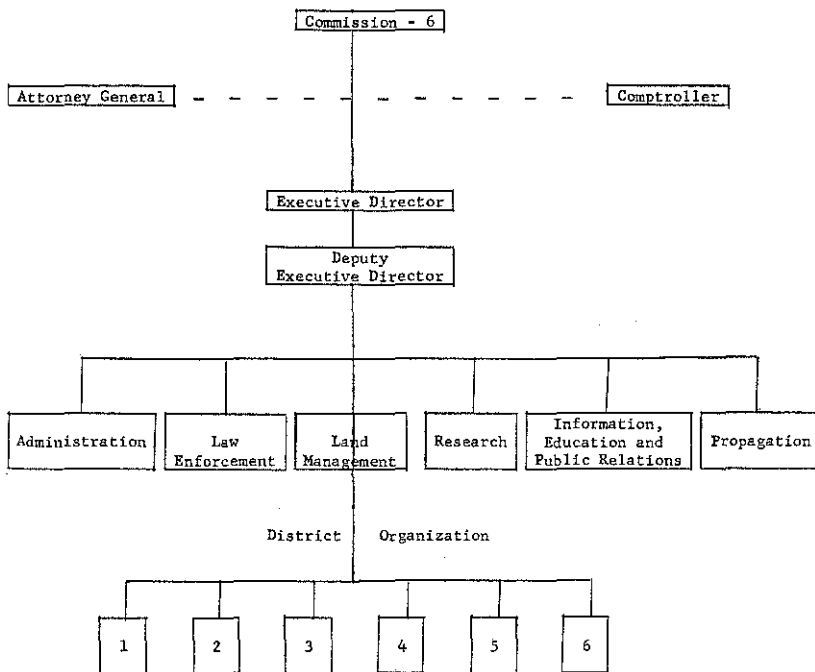
*Purchase and Supplies Section:* This section secures all equipment, material, and supplies, and performs office services, such as duplicating, mailing and message work. It supervises maintenance of Commission-owned buildings.

*Personnel Management Section:* This section has charge of personnel performance records, general records, and salary schedules.

*Conservation Education:* This section develops, organizes and conducts public education programs. It is responsible for motion and still pictures, educational exhibits, and posters. It operates and maintains a museum at Pymatuning Lake.



CHART #2  
SUGGESTED ORGANIZATION OF THE  
GAME COMMISSION



*Ross Leffler School of Conservation:* The staff of this school conducts examinations for law enforcement officer candidates, trains men to qualify as Game Protectors, and conducts various in-service training programs. It is responsible for the efficient management of the school and the proper maintenance of its grounds and buildings.

*Records and Licenses:* The section handles the Commission's statistical work. It prepares data, and sets specifications for printing license tags, game law books, and other materials.

In general, the activities and programs of the complex Division of Administration are commendable.

RECOMMENDATIONS—ADMINISTRATION DIVISION

1. *It is recommended that the information and education activities be concentrated in a separate Division of Information and Education.*
2. *It is recommended that the existing Division of Minerals be incorporated as a section of the Administration Division.*

## DIVISION OF LAND MANAGEMENT

The Division of Land Management is the largest operating division and has six major sections.

*Food and Cover:* This section is responsible for the development and maintenance of state game lands, refuges, and special areas purchased or leased for wildlife management or public hunting. It prepares plans for the development of lands owned or controlled by the State.

*Farm Game:* This section is responsible for developing and maintaining the cooperative farm-game projects leased for wildlife management and public hunting. The section supervisor is responsible for providing necessary assistance and effecting cooperation with land-owners in the improvement of wildlife habitat. He serves as a liaison officer in cooperating with other state, federal, and local agencies in habitat restoration work.

*Federal Aid:* This section formulates plans and makes cost estimates for wildlife development projects on lands controlled by the Commission. It handles funds, conducts inspections of projects, and prepares reports on all state federal-aid programs.

*Land Title and Record:* This section handles land procurement by purchase, lease or otherwise. It is responsible for legal matters and keeps records pertaining to land. It prepares right-of-way and other easements and maintains records of all farm-game projects, propagation areas, and other land units owned or controlled by the Commission.

*Engineering:* This section conducts surveys of boundary lines, sites for dams, forest roads, waterlines, etc. It supervises the construction of dams, roads and other installations. It also prepares maps, charts, plans, and cost estimates for projects developed and carried out by the Commission.

*Nursery:* This section handles the entire operations involved in producing the vines, shrubs, and trees used by the Commission and its cooperators in improving wildlife habitat.

The work of the Division of Land and Management is extremely broad and diversified. Along with the basic habitat development and management on state leased, owned, or controlled land, the Division's cooperative programs with several state and federal agencies provide many thousands of additional acres for hunting. Work is coordinated with the U. S. Forest Service on the Allegheny National Forest, and considerable acreage is operated on lands of the Department of Forests and Waters. Several cooperative programs are entered into with the Army Engineers for the management of reservoir lands. A long period of cooperative work with the U. S. Soil Conservation Service is underway,

and increased activity in the program will be evident as the federally sponsored small watershed program continues to expand.

The Fish and Game Commissions cooperate closely to provide dual use of each other's lands and waters.

#### RECOMMENDATIONS—LAND MANAGEMENT DIVISION

1. *It is recommended that the present separate Division of Waterfowl become a segment of the Division of Land Management.*

A separate division for waterfowl is superfluous and adds to the confusion of administration and authority.

2. *It is recommended that additional forestry-trained personnel be hired.*

Much of the Commission's land is forested. In the best interests of timber-game production and income, greater emphasis should be given to the forest-wildlife program. More Department of Forests and Waters land could be used cooperatively for game if necessary forest management work could be done.

3. *It is recommended that a closer liaison be developed between land management and research.*
4. *It is recommended that a program of districts be devised.*

This basic organizational setup is recommended in the section on organization. It is repeated here, because the broad field work of the Division of Land Management is handicapped by an apparent breakdown of direct-line authority.

5. *It is recommended that directives of the Division of Land Management be handled from the staff-line level.*

Interference by individual Commissioners and others can be seen in the land management field program. The giving of orders by individual Commissioners is the quickest way to destroy a program.

6. *It is recommended that the field program be staffed with technically trained men.*

The present field staff is made up generally of competent men; in fact, some are the best in their field. It would be helpful in this program if more men with greater technical knowledge were hired for the important land management programs.

7. *It is recommended that the Commission do away with the requirement that land managers produce a certain quota of prosecutions each year.*

All regular Commission employees are deputized as game protectors.

They can serve in this capacity, but it should not distract from their basic responsibility.

8. *It is recommended that the waterfowl wetland development work be continued and expanded.*

The claim of excessive cost of waterfowl developments must be viewed with long-term values in mind. Many thousands of acres of potential wetlands have been lost by inaction and lack of foresight. Potential wetlands must be obtained and preserved and developed as funds are available.

9. *It is recommended that deer management be tied closely to forest management.*

Pennsylvania's woodlands are reaching advanced growth stages and provide increased timber-harvest potentials. Sound forest management requires control of the deer herd.

10. *It is recommended that a long-range wildlife program be prepared.*

One of the advantages of the present line and staff organization is that it frees the staff for long-range planning. These plans should be written and brought up to date every two or three years as an aid in informing the public of things that must be done and to keep the field personnel informed of their tasks.

#### DIVISION OF RESEARCH

This Division plans, supervises, and conducts studies of wildlife conditions and environmental factors throughout the State. To obtain data helpful in devising methods for improving and increasing wildlife resources, it supervises Federal Aid in Wildlife Restoration research projects and cooperates with federal, state and other agencies concerned with wildlife. It prepares reports and articles; summarizes and analyzes observations derived from experiments and research; and presents management recommendations for the Director and Commission.

Personnel of the Research Division are all college-trained wildlife specialists. To obtain permanent Commission status, the biologists must take the basic training course given at the Ross Leffler Training School. Subjects covered are Commission history and policy, the game laws, and law enforcement policies. Basic studies in biology are excluded.

Working closely with the Research Division is the Pennsylvania Cooperative Wildlife Research Unit, in which the U. S. Fish and Wildlife Service, the Wildlife Management Institute, the Pennsylvania State University and the Game Commission cooperate. The Commission provides a grant of \$12,000 annually toward the Unit program. The

Cooperative Unit has worked on numerous wildlife problems and has served as a training center for students specializing in wildlife and related biology. Its contribution has been valuable to the Commission program.

Research and investigations carried out largely under the Federal Aid to Wildlife programs to evaluate game habitat, and experiments designed to investigate, evaluate and develop land management techniques will yield invaluable results for the Commission's program.

#### RECOMMENDATIONS—RESEARCH DIVISION

Wildlife research is not an exact science like chemistry and physics; it is still changing and developing as new facts are discovered. Time, money and effort will continue to be needed for this essential activity in order to develop the most practical game management program.

1. *It is recommended that the research program be expanded as funds and personnel permit.*

Savings from the recommended reduction of hatchery, bounty, and predator operations should be invested in basic game research.

2. *It is recommended that the game staff be allowed to develop programs with the Cooperative Wildlife Research Unit.*

In the Game Commission Manual there exists an odd statement of policy: "April 10, 1952, the Division of Research shall not submit any project to the Unit without first being directed to do so by the Commission."

The Commission's policy of initiating Unit and Game Commission projects is out of order.

3. *It is recommended that research findings be incorporated in various programs as soon as possible.*

Land management practices and the use of game-farm products can be improved by the application of findings based on research.

4. *It is recommended that waterfowl research and investigations be directed by the Division of Research.*

The present system of conducting waterfowl investigations as a separate unit is not good administration.

#### DIVISION OF MINERALS

The Division of Minerals coordinates and supervises matters dealing with all minerals, including gas, oil and other materials on lands owned or controlled by the Commission. This office prepares leases and agreements involving minerals and other products for Commission

action. The Division advises the Director on the use or disposal of these resources.

Moneys received from oil, gas, minerals and other products, including royalties, are earmarked for capital investments covering the purchase of game lands, for acquisition and construction of division headquarters, and for other necessary facilities. Conservatively projected, the oil and gas revenues are predicted to provide about \$200,000 annually in Game Commission revenue funds.

In the management of game lands for gas, oil, or limited coal striping, Commission regulations require that mineral operators build roads to Commission specifications. Timber is salvaged; disturbed areas must be seeded; and coal strippings must be leveled and revegetated.

#### RECOMMENDATION—MINERALS DIVISION

1. *It is recommended that the Division of Minerals be reassigned as a section of the Division of Administration.*

#### DIVISION OF PROPAGATION

The Division of Propagation supervises the six game farms: 3 pheasant, 1 bobwhite, 1 turkey, and 1 waterfowl; supervises the purchase of additional live-game obtained from the trapping and transfer program; and purchases and distributes game.

The Commission's table of organization indicates a corps of Game-Farm Superintendents, which are indicated on the Commission organizational chart to report directly to the Executive Director.

The Game-Farm Superintendents supervise and manage all operations of the game farms.

The Division of Propagation has utilized from 25.5% to 17% of the Game Commission's annual budget for the past ten years, which amounts to between \$950,000 to \$1 million annually of the total budget. The game-farm program has been somewhat reduced as a result of the Commission's economy program and also, because of the realization that it represents a costly and ineffective method of producing game for hunting.

The game farms have good facilities and equipment. Many of the superintendents possess considerable experience and skill.

*Pheasants:* Three pheasant farms are in operation and the general goal is to raise between 90,000 and 100,000 adult birds annually for release each October. During the hatching period when more chicks are hatched than can be carried at the brooders' rearing pens, day-old chicks are offered to sportsmen, farmers, and other interested individuals. These

people are required to provide satisfactory living conditions for the birds, raise them to at least 12 weeks of age, and release them in open covers. Other cooperators sell their birds back to the Commission for \$1.00 per bird. This program, in 1961, provided over 203,455 birds for release; 88% of the chicks that were provided to cooperators were raised to release age. Additional birds are obtained from commercial brooders.

TABLE XII  
PHEASANTS RELEASED—1961

*Spring Release*

Game Farm		Purchase		Total
Cocks	Hens	Cocks	Hens	
15,598	28,989	12,529	5,403	62,519

*Fall Release*

Game Farm		Purchase		Total
Cocks	Hens	Cocks	Hens	
36,608	16,628	19,221	13,092	85,549

*Chick Program (Fall)*

	<i>Total</i>
Farmers (\$1.00 per bird)	135,943
Sportsmen (free release)	50,817
Total	<u>334,828</u>

The pheasant stocking program is a major item in the Game Commission program and a big item in its budget.

Over a period of 40 years or more, the average annual estimated pheasant kill has amounted to 268,000 birds killed; compared to the stocking in 1961, of 334,828 birds. These figures create a certain amount of doubt as to the value of such a high stocking rate.

Recent changes in stocking policy provided for the release of cock birds only in the northern, non-pheasant section of the State. Another procedure is the in-season release in an attempt to get the birds closer to the guns.

*Turkeys:* The turkey program in Pennsylvania has been outstanding and the use of a game-farm product, coupled with sound game management, has proven that the judicious use of known management tools pays dividends.

Recent research by the Research Division has indicated that game-farm birds cannot stand up under hunting pressure and that wild-trapped birds must provide the basic stock to develop new flocks in the changing forest stands.

Turkey production is geared at raising about 6000-7000 birds annually. The present policy is to stock close to 3,000 birds in the spring as potential breeders with the remainder of the birds released in the fall, prior to the hunting season.

*Quail:* The quail has been an erratic bird in Pennsylvania. A resumé of the estimated annual kills for the past 40 years ranges from 191,000 during the period of 1925-1929 to 76,000 birds in the past few years.

The annual hatchery production of quail varies considerably; for the past ten years it has been around 10,000 birds, reaching a high of around 13,000 birds in each of the past few years. Some young quail are sent to cooperators to raise and release in open covers. The Commission releases some adult birds in the spring to reduce the numbers to be held at the game farm. Major stockings are made in late August through October.

Some wild-trapped birds have been imported from Michigan and stocked on a quail range in an effort to re-establish a local crop.

*Geese:* Geese were originally purchased to initiate breeding stock in various development projects. Fifty geese provided the nucleus of a flock at the Pymatuning development area; this stock is now producing eggs and a considerable number of young birds. Eggs are removed from the breeding pens for incubating at the hatchery. Young geese are being reared and released at various development projects.

The development of the major goose area at Pymatuning is an outstanding one, and the Commission and staff should be highly complimented on this project.

*Ducks:* For the past ten years from 5,000 to 10,000 mallard ducklings annually have been raised to five weeks of age and then released throughout the State. Most releases have been made on marshes and ponds developed on state game lands. All birds released are banded; over the ten-year period banding returns have ranged from 8 to 10 percent of the number of birds banded and released.

*Rabbits:* The Commission does not raise rabbits, but it has an active trapping and transfer program that removes rabbits from areas where they become nuisances or where they are overpopulated and cannot be hunted. The Commission furnishes rabbit traps to cooperators, who in turn are paid 75¢ for each healthy rabbit turned over to a Game Protector for release in open cover. For the past two years, over 52,000 cottontails have been trapped and transferred annually to open hunting territory under this program.



For a quick summation of the 10 year's production of the Commission's Game Farm, the following table is presented:

TABLE XIII  
SUMMARY OF GAME PRODUCED AND  
RELEASED FROM THE GAME FARMS  
1950-1961

Year	Cottontail	Pheasant	Quail	Duck	Turkey	Geese
1950-51	75,929*	188,654*	10,171	2,371	5,223	..
1951-52	57,991**	233,001	13,247	4,966	5,175	..
1952-53	52,779	239,004	11,098	5,303	5,087	..
1953-54	59,516	234,192	5,772	8,178	7,262	..
1954-55	67,426	225,723	6,264	2,902	6,818	..
1955-56	60,470	250,535	12,288	6,710	6,311	..
1956-57	59,642	238,566	12,428	7,569	5,809	104
1957-58	55,861	236,158	13,736	8,108	6,595	225
1958-59	43,921	132,101	12,215	6,627	6,855	193
1959-60	52,766	119,030	13,004	6,790	6,466	91
1960-61	52,769*	147,569	13,440	6,274	5,879	239

\* 18,140 purchased (no longer done)

\*\* Trapped and transplanted—purchased from trapper for 75¢ per animal

### *Cost of Game Farm Products*

Game farm-production records are kept closely, and a code of direct charges assigned each unit.

TABLE XIV  
GAME FARM PRODUCTION COSTS

Age of Bird	Pheasant	Quail	Turkey
Chick	\$ .35	\$ .35	\$ 3.00
15 weeks	1.80	1.00	7.50
Mature—Fall	2.25	1.25	10.00
Carry-over to Spring	3.00	2.00	15.00

In addition to the Commission-produced game, a quantity of game is purchased each year to supplement stocking or for experimental purposes. The summary on the following page indicates the number of game or animals purchased and the cost involved.

TABLE XV  
NUMBER AND COST OF BIRDS PURCHASED  
FOR RELEASE—1961

	Number Purchased	Cost Per Unit	Total Cost
Pheasant	54,054	\$ 1.78	\$96,029.96
*Pheasant—Korean	10	25.00	250.00
*Goslings	98	5.00	490.00
*Adult Geese	20	5.00	100.00
*Hare	496	3.96	1,944.32
			<hr/> \$98,814.28

\* Purchased for experimental and development projects

#### RECOMMENDATIONS—GAME FARMS

1. *It is recommended that the chief of the Division of Propagation have full authority over the game farms and game-farm supervisors.*

In actuality this program is now in effect. The table of organization (1962) indicates that the Chief of Propagation reports directly to the Deputy Executive Director.

2. *It is recommended that the game-farm program be carefully evaluated and put in proper perspective.*

The constant rise of game-farm production does not correlate with improved game conditions. Research data must be more efficiently utilized and the game-farm program based on more factual data. Comparison of costs per adult pheasant indicates it may be cheaper for the Commission to purchase birds from commercial breeders.

3. *It is recommended that the release of spring breeding stock be re-evaluated.*

The release of farm-game birds is an inefficient method of attempting to increase bird populations where wild stock does not survive.

4. *It is recommended that the purchase of commercially raised birds for spring release be re-evaluated.*
5. *It is recommended that all purchased birds be of much higher male ratio.*

As long as cocks only are legal game, it is largely a waste of birds and money to purchase almost a 50-50 sex ratio of birds for fall stocking.

6. *It is recommended that on marginal or non-pheasant areas stocking as close to the gun as possible be carried out.*

In poor habitat, birds released too far ahead of the gun never reach

the gunner's pocket. A few in-season stockings would provide more recovery of stocked birds.

7. *It is recommended that the turkey release program be based on research findings.*

Research has indicated the measures necessary to maintain a wild stock of these outstanding game birds.

8. *It is recommended that the quail program be thoroughly re-evaluated.*

Research to develop habitat programs or to study wild-trapped stock should be further carried out before the propagation and release program is expanded.

9. *It is recommended that the mallard hatching and release program be pegged at a level of not over 5,000 birds per year.*

Good water habitat will generally attract ducks. Releases may help local production and start nuclei of local populations. This program should not become so large that it actually becomes stocking for the bag.

#### DIVISION OF LAW ENFORCEMENT

The Commission's law enforcement program is nationally known for its excellence, and Pennsylvania was among the very first of the states to require specialized and broad training of game law enforcement officers. Its Game Protectors are respected symbols of the Commission's program.

Within the Law Enforcement Division there are several smaller sections:

*Bounty Claims Section:* The personnel instruct the Commission staff, sportsmen, and the general public in the most efficient and up-to-date methods of controlling predatory birds, mammals, and other nuisance animals.

*Deputy Game Protectors:* The deputy game protector system allows about 1,500 deputies to be appointed. They are unsalaried unless specifically employed. Deputies are generally given four training sessions by the District Supervisors, and special training sessions are held before the hunting season. Deputies must work with, or under the supervision of the local Game Protector. Within the deputy system, there are approximately 150 deputies representing all districts who are invited annually to attend a one-week training session at a Commission school.

The organization of the Division of Law Enforcement appears to be in two distinct sections: *First, the headquarters section with the chief law enforcement officer in charge of the Harrisburg office activities and the generally related law enforcement program; Secondly, the Field*

*Division.* The field division program is a far-flung organization and comprises a staff of 139 Game Protectors under six district supervisors. The responsibilities of the district field divisions are:

#### FIELD DIVISION SUPERVISORS

The Field Division Supervisors have administrative supervision over all field activities other than game farms and research. Duties include game law enforcement; issuance of special licenses and permits; management of state game lands and other Commission controlled areas; game trapping; restocking game; winter feeding; conservation information; public relations; and other duties representing the Commission's program, such as the investigation of hunting accidents. The Division Supervisor and his staff investigate game conditions, submit recommendations for seasons and bag limits; investigate damages by game; and make recommendations for remedial measures.

#### FIELD DIVISIONS

Within the six Field Divisions, there are 150 districts, each under a District Game Protector who is responsible for all field work except game farms, research and land management work. Each District Game Protector patrols an area from 300 to 500 square miles, which may be a county or a division of a county.

Under the Field Division, the following staff is employed:

1. Field division office, supervisor—6
2. Law enforcement assistants—6
3. Land management assistants—6
4. Conservation information assistants—6
5. Special investigators—6
6. Federal-Aid area leaders—3
7. Game protectors—139
8. Land management officers—27

The staff of the Field Division Supervisors is made up of specialists in various fields. This is a most active program; actually, each Field Division becomes a game commission in miniature in its respective district. These men are:

*Law Enforcement Assistants*, who assist the Field Division Supervisor in law enforcement and related field activities (except research, game farms, and land management).

*Land Management Assistants*, who assist the Field Division Supervisors in managing state game lands and leased lands and supervise the activities of the Land Management Officer.

*Conservation Information Assistants*, who assist the Field Division Supervisor in public relations and conservation educational activities, handle publicity, and develop public relations and information programs within the Field Division.

*Special Investigators*, who are a small group of Game Protectors assigned to work on special law enforcement problems.

*Federal Aid Leaders*, who are responsible to the Field Division Supervisor through the Land Management Assistant for federal-aid work on state-owned and leased lands. There are three Federal Aid Leaders for the six Field Divisions.

*The Land Management Officer*, who is responsible for food and cover planting operations on a group of state game lands and other properties administered by the Commission. He supervises the Food and Cover Corps.

#### LAW ENFORCEMENT TRAINING PROGRAM

Since its inception in 1936, the Commission training school has graduated ten classes of men. The training school is not a continuous program, but is reactivated as personnel shortages are anticipated. All salaried employees in the technical and field branches are required to take the ten-month's course. College-trained men are partially excepted and take only the course work involving administration, Commission policies and history, and other subjects not dealing with biology.

The requirements of candidates are exacting in regard to physical fitness, personal background, and general intelligence. The minimum of a high school education or its equivalent is required; the first elimination is by written exam, which is followed by an interview. Men selected to take the course are paid a monthly stipend ranging from \$120 per month for single men to \$225 for married men with two or more dependents. After graduation, the men are assigned field positions for a one-year probationary period. The basic starting salary is \$4,329, and, with increments, reaches the maximum of \$5,803 for a grade I Protector.

A review of the training course indicates an extremely broad approach to conservation law enforcement.

#### GENERAL LAW ENFORCEMENT PROGRAM

The basic laws of the Commonwealth and the regulations superimposed under authority of the Commission have resulted in a compendium that has become extremely unwieldy.

To judge the field and general law enforcement programs, references to activities, statistics, and personal interpretation are required.

The Commission has the delegated authority to make "field settlements," and this procedure evidently works reasonably well and saves considerable time that otherwise would be required for legal involvement.

Over a period of years the number of prosecutions varies considerably, but generally between 4,000 and 5,000 prosecutions are made each year.

TABLE XVI  
TEN YEAR SUMMARY OF PROSECUTIONS  
AND PENALTIES

Fiscal Year	Number of Prosecutions	Penalties Collected
1952-53	5,041	\$161,735.01
1953-54	5,109	160,911.75
1954-55	3,955	113,445.00
1955-56	3,122	109,346.00
1956-57	3,448	123,771.55
1957-58	4,690	166,145.50
1958-59	4,787	166,179.50
1959-60	5,029	159,965.25
1960-61	4,561	149,616.05
1961-62	4,256	144,062.25

In recent years, most arrests have been made for the more flagrant violations, and there is an indication that the law enforcement staff has been concentrating on the willful type of violator. The complex rules and regulations of the Commission may, themselves, be a cause for some arrests since the numerous nuisance laws and regulations are often unintentionally violated. The intensification of law enforcement brings a degree of public resentment especially in border-line cases where an officer appears to be out to make an arrest. Over a period of years the number of license revocations has varied considerably and can be evaluated on the basis of intensified law enforcement.

The game law prescribes a fixed schedule of penalties for each infraction of the game law, and field settlement or action before a Justice of the Peace, an alderman or a magistrate, is simplified.

The statewide communication system is a great aid to law enforcement. This system, established with federal aid (Civil Defense) now permits the field force to communicate directly with other officers or with the central office.

On the Law Enforcement Division staff, there are 177 listed per-

sonnel with the title of Game Protector. The following table indicates the age grouping of the law enforcement personnel.

TABLE XVII  
AGE GROUPS OF 177 LAW ENFORCEMENT PERSONNEL

Age Group	Number of People
25-30	28
31-35	20
36-40	32
41-45	23
46-50	25
51-55	25
56-60	9
61-65	15

The numbers of personnel approaching retirement are closely watched by the Administration Division so that plans can be made to recruit candidates for the training school. Graduates selected for employment fill the positions vacated by the retirement group or any who voluntarily leave the service.

The law enforcement staff is one of the largest divisions of the Commission and, at the present time, requires about 15 percent of the available funds for its operation. The organization and distribution of work is sound, and the enforcement program is good, especially when one considers the varied assignments that the personnel are required to handle. While annual reports place considerable stress on the number of arrests and fines returned, there is relatively little evidence that the number of arrests has become the standard for judging a Game Protector's work. The field staff are interested in, and generally well informed, regarding the entire program and policy of the Commission, and most of the district officers are highly respected by the public.

An enforcement program is no stronger than its weakest link. Whether or not a service is respected depends to a large degree on what the public thinks of the individuals who enforce the law. Game law enforcement officers are, first of all, police officers; they must also be well informed in the field of wildlife management and have a considerable knowledge of human behavior; their pay scales and performance records should be based on all of these factors. A properly prepared law enforcement officer should be as well trained as a research or management biologist.

In studying the law enforcement program, it appears that a stage has been reached where the entire Field Division organization should be reoriented. There is a wide division of line and staff responsibility between the chief of the division and the superintendents of the six division districts. Also, the orientation of a district program should be evaluated from the viewpoint of modern and future needs and real consideration should be given to the direction of this program.

#### RECOMMENDATIONS—LAW ENFORCEMENT

1. *It is recommended that bounty, damage-payment, and predator-control programs be re-assessed.*

This has been covered in a previous section, but as long as the Law Enforcement Division is responsible for its administration, this recommendation is restated.

2. *It is recommended that the Predator Control Section confine its activities to needed control and to demonstration and the preparation of public information on methods of controlling noxious animals and abating damage to crops or property.*

The Commission Policy Manual, 1960, states: "Material is prepared for the press and other media to develop public support for the constant necessity of predatory control." This statement should be revised or deleted.

3. *It is recommended that the entire Field Division program be broadened.*

The Division of Law Enforcement appears to be a headquarter's administrative unit and the six Field Divisions to be separate entities in themselves.

In most modern conservation departments the trend is toward a district or regional management organization, but in Pennsylvania this program is presently dominated by law enforcement. Divisions should be set up with a general administrator, who is held responsible for all operations within every section of his Division. Line officers, in such a program, include director, deputy director and the recommended Division Supervisor; headquarters' employees become primarily staff officers in relation to the Divisions.

4. *It is recommended that district specialists be men trained specifically in their respective fields.*

Many excellent men occupy district specialist positions. The responsibility and importance of these positions should require special training for the job qualifications. At the present time, many of these specialists



are former Game Protectors who have shown an interest or aptitude for the particular speciality.

5. *It is recommended that the training school be utilized for additional conservation purposes.*

Training schools are held intermittently when new personnel are needed; this school could be used as a continuous conservation training center for youths, teachers, sportsmen, and others. The director of the school has proposed a correspondence course that could be developed and handled from the training school.

6. *It is strongly recommended that a recodification of the game laws be undertaken.*

The Game Commission enjoys an excellent degree of autonomy, and it has the basic regulatory authority needed to manage wildlife resources. The law books, however, have become top heavy, and numerous petty regulations have added to the confusion; therefore, in the interests of better wildlife management and of the public at large, a recodification of the entire game laws should be undertaken as soon as possible.

## GAME COMMISSION SUMMARY OF RECOMMENDATIONS

### BASIC LAWS

1. It is recommended that a Civil Service unit be established.
2. It is recommended that the section of the law establishing districts and requiring one Commissioner to be appointed from each district be repealed, and that Commissioners be appointed on a statewide basis.
3. It is recommended that the terms of the Commissioners be for six years on a staggered basis.
4. It is recommended that Commission members be selected on a bipartisan basis from the two major political parties.
5. It is recommended that the Commission's role be clearly defined as a policy-making and budgetary control organization.

### PRESENT PROGRAM

1. It is recommended that the Game Commission Manual be kept up to date.

### EXECUTIVE DIRECTOR

1. It is recommended that all department employees should be selected

by the Director from lists of eligibles established in the manner now provided for Game Protectors.

#### DEPUTY EXECUTIVE DIRECTOR

1. It is recommended that the Deputy Executive Director should be selected by the Executive Director, with the approval of the Commission.

#### BOUNTIES

1. It is recommended that the program of general bounties be abolished.
2. It is recommended that the needed animal control be handled by state trappers.

#### GRANTS

1. It is recommended that the Commission seek general fund money to assist in promoting conservation education programs of the kind mentioned.

#### FINANCIAL

1. It is recommended that a raise in resident license fees be instituted.
2. It is recommended that a change in the minimum licensing age be considered.
3. It is recommended that the Commission seek some financial assistance from general state funds.
4. It is recommended that should Project Seventy funds be available, these funds be made available to the Commission with as few restrictions as possible.
5. It is recommended that a continuous program of land acquisition be carried on.
6. It is recommended that the \$1.25 earmarked funds be removed.

#### PERSONNEL

1. It is recommended that the Director be responsible for the selection and hiring of all Commission personnel.
2. It is recommended that the Commission consider placing the entire staff and personnel under the State Civil Service program.
3. It is recommended that the per diem employees be hired without the encumbrance of county chairmen approval.

#### SALARY

1. It is recommended that salary increases be established by the Com-

mission for trained personnel (Game School) and an additional consideration be given to the professionally trained staff members.

## PROGRAM ANALYSIS

### ORGANIZATION

1. It is recommended that there be a direct line of command between the Harrisburg office and the districts.
2. It is recommended that the Law Enforcement Division be made a direct responsibility of the Division Chief at Harrisburg and that the District Supervisors report directly to the Executive Director.
3. It is recommended that one man, in each of the six districts, or any number of established districts, be responsible for programs, laws, management, personnel, and overall administration within the scope of established policy and programs in the respective districts.

### ADMINISTRATION DIVISION

1. It is recommended that the information and education activities be concentrated in a separate Division of Information and Education.
2. It is recommended that the existing Division of Minerals be incorporated as a section of the Administration Division.

### LAND MANAGEMENT DIVISION

1. It is recommended that the present separate Division of Waterfowl become a segment of the Division of Land Management.
2. It is recommended that additional forestry-trained personnel be hired.
3. It is recommended that a closer liaison be developed between land management and research.
4. It is recommended that a program of districts be devised.
5. It is recommended that directives of the Division of Land Management be handled from the staff-line level.
6. It is recommended that the field program be staffed with technically trained men.
7. It is recommended that the Commission do away with the requirement that land managers produce a certain quota of prosecutions each year.
8. It is recommended that the waterfowl wetland development work be continued and expanded.
9. It is recommended that deer management be tied closely to forest management.
10. It is recommended that a long-range wildlife program be prepared.

**RESEARCH DIVISION**

1. It is recommended that the research program be expanded as funds and personnel permit.
2. It is recommended that the game staff be allowed to develop programs with the Cooperative Wildlife Research Unit.
3. It is recommended that research findings be incorporated in various programs as soon as possible.
4. It is recommended that waterfowl research and investigations be directed by the Division of Research.

**MINERALS DIVISION**

1. It is recommended that the Division of Minerals be re-assigned as a section of the Division of Administration.

**GAME FARMS**

1. It is recommended that the chief of the Division of Propagation have full authority over the game farms and game-farm supervisors.
2. It is recommended that the game-farm program be carefully evaluated and put in proper perspective.
3. It is recommended that the release of spring breeding stock be re-evaluated.
4. It is recommended that the purchase of commercially raised birds for spring release be re-evaluated.
5. It is recommended that all purchased birds be of much higher male ratio.
6. It is recommended that on marginal or non-pheasant areas stocking as close to the gun as possible be carried out.
7. It is recommended that the turkey release program be based on research findings.
8. It is recommended that the quail program be thoroughly re-evaluated.
9. It is recommended that the mallard hatching and release program be pegged at a level of not over 5,000 birds per year.

**LAW ENFORCEMENT**

1. It is recommended that bounty, damage-payment, and predator-control programs be re-assessed.
2. It is recommended that the Predator Control Section confine its activities to needed control and to demonstration and the preparation of public information on methods of controlling noxious animals and abating damage to crops or property.
3. It is recommended that the entire Field Division program be broadened.

4. It is recommended that district specialists be men trained specifically in their respective fields.
5. It is recommended that the training school be utilized for additional conservation purposes.
6. It is strongly recommended that a recodification of the game laws be undertaken.



## CONSOLIDATION OF THE FISH AND GAME COMMISSIONS

During this study the Institute received many suggestions and comments for and against the consolidation of the Fish and Game Commissions. Since the Joint State Government Commission had asked us to consider this subject, we have reviewed carefully the available information obtained in our studies of both agencies and have some comments to make.

As background, it may be stated that all states except Pennsylvania and a number of the coastal states with extensive commercial fisheries administer all fish and game resources under one department; California, with a very large commercial fishery, handles the administration of both resources in one department. Consolidation has worked well elsewhere, and there is no logical reason why a similar consolidation, if properly established, would not work equally well in Pennsylvania. Unquestionably, there would be some friction and lack of efficiency in the beginning, no matter how carefully the two existing organizations, each with a long background of independent operation, were fitted together. Both organizations have partisans as well as critics, and some of these outside interests may be openly antagonistic to any change in the status quo.

There are two logical reasons for considering such a consolidation: to save money or to obtain greater efficiency.

In the judgment of the Institute, the consolidation of the Commissions would eliminate the following existing positions or services:

1. One executive director
2. One law enforcement chief
3. Six law enforcement division chiefs
4. One chief engineer
5. One chief of Information and Education
6. One position of assistant to the fisheries director
7. One publication
8. Ten commissioners if the suggested commission of six were approved

The savings, however, would not be significant, since, in some of the divisions, additional supervisory employees would be needed. For example, it would be necessary to have two assistant executive directors regardless of the form of administration.

The opportunities for immediate savings in most states are largely in service organizations, such as administrative units handling fiscal or

personnel matters. In some cases this has resulted in substantial savings; however, in Pennsylvania the fiscal matters are already handled jointly by the Comptroller's Office, and it is our conclusion that any savings that could be effected by consolidating the remaining functions of administrative divisions would be relatively minor.

Our studies do not reveal that there is any noticeable over-staffing in any unit, and some are obviously understaffed to do the job that should be done. Therefore, consolidation would not provide any immediate financial savings to help the financial impasse that affects both agencies.

We have found a number of instances in our field studies of close and friendly cooperation between the individual law enforcement agencies in the two departments, and this cooperation could be expanded and a more efficient law enforcement program eventually developed if all were working on one unit. This is the most obvious place where improved efficiency, which the added workload that boating law activities requires, could be obtained.

In both Commissions, the information and education service in our judgment is undermanned, and neither department is doing an adequate job of informing the public of the work of the Commission or the reasons for decisions reached. This is not to be construed as a criticism either of the present staff or of the material they prepare; rather it is due to a serious underfinancing when compared with states that have a better balanced educational and information program. There would be no chance for financial savings here, and there will be a chance for more comprehensive coverage only if more money is allocated to this type of work.

It is our judgment that only long-range benefits could accrue from a consolidation and then only if the consolidated organizations were based on the best elements to be found in both present organizations.

We strongly recommend that the consolidated operation, if established, should be managed by a Commission composed of six individuals equally divided between the two major political parties. Our observation is that this has been more effective in keeping partisan considerations out of commission decisions than is often the case with so-called "nonpartisan" commissions.

We recommend that such a Commission be composed of men appointed at large from the State and that the individuals nominated for these positions be men of outstanding caliber. The Game Commission in the past has enjoyed a very fine reputation and has had many outstanding citizens on the Commission since its organization; however, the chance of getting such men by district appointment is considerably



less than if statewide appointments are made. The chance of getting a broad-gauged group to examine overall policy considerations is also much greater when appointments are made on a statewide basis.

It is not important that the Commissioners be ardent hunters or fishermen; it is important that they have a broad interest in the natural resources and their public values, and it is equally necessary that they be men accustomed to dealing with important affairs. The work of either of the present Commissions is big business and, under consolidation, the new organization would represent a substantially larger and more complex business operation. Our observation over the years has been that the best commissioners have been men who have had administrative experience in managing businesses or other large-scale operations. They have had experience in selecting important matters of policy for attention at high administrative levels and in allocating routine administrative matters to subordinates.

We recommend that the Commissioners be appointed for six-year terms on a staggered basis so that a majority of experienced men will always be on the Commission. This makes for stability and continuity of programs, one of the vital elements in any effort for bettering fish and wildlife populations in the face of growing human pressures.

It is strongly recommended that in such a consolidated commission, there be a sharp line drawn by law between policy-making and administrative matters. We have found in the records of the Fish Commission many instances of commissioners handling routine administrative work and a few cases in the Game Commission records. These matters usually involve personnel or the distribution of fish and game birds. This is a common fault in commissions, but it can be prevented by carefully drafting the law establishing the Commission. Both Commissions have sound policies but frequently deviate from their established policies to make exceptions that favor some individual, group, or district. This is almost inevitable where commissioners are appointed on a district basis, and our review of the records indicates that Pennsylvania has been no exception to this rule.

For many years the Game Commission has had an energetic land acquisition program for public hunting and for wildlife protection, and the Fish Commission has more recently developed a fine program for acquiring or building water areas, providing access to them, and improving waters that are not now productive. Both programs should be continued and accelerated wherever possible under any organizational pattern.

The Game Commission has long had an intensive training program for new employees and has for many years maintained one of the out-

standing training schools in the United States. This school should be expanded and enlarged to take care of new employees in both fish and game work in the event that consolidation is effected.

In a consolidation of the law enforcement functions, special training should be given to the personnel so that they can effectively enforce both fish and game laws. This may result in some increased patrol for both fish and game. Although we have noted a number of fine cooperative arrangements between the field staffs of both present Commissions, we have not been able to determine how far this cooperation extends. If, as is practiced in numerous areas, the fish wardens help during the hunting season and the game officers wholeheartedly help during the fishing seasons, there would be little immediate gain in efficiency under consolidation.

As fish and game programs become increasingly complex, there will be a need for increased decentralization of administration. More routine decisions will need to be made on the ground. If the two Commissions remain separate entities this means duplication of two district administrative staffs, where one could do the job as efficiently. It is in this area that the greatest savings of funds and increased efficiency will be realized by consolidation.

The Institute believes that over the years a consolidated fish and game organization will produce better results for both resources, and it therefore recommends that such a consolidation be effected along the lines recommended in the previous paragraphs.

The Institute strongly recommends against a non-commission type of administration headed by a single appointee either for separate organizations or for a consolidated fish and game organization. In our numerous studies it has been observed that such a position quickly becomes a political one. This makes it difficult and often impossible to maintain the continuity of program so necessary to obtain results in managing a renewable resource.

The Institute strongly recommends against creating an overall natural resources department.

Theoretically, a strong case can be made for such a department. In theory it should eliminate controversy and provide for consideration of all resources in reaching decisions. In practice it frequently operates to prevent those handling fish, game, parks, and sometimes forestry from getting fair consideration for their views when they are in conflict with interests having a more immediate economic return.

In several states where this approach was tried, such overall natural resources departments resulted in more, not less, controversy, and in at least three cases the fish and game work has been taken out of the department and re-established as a separate entity.



