NATURAL RESOURCE MANAGEMENT: A STUDY OF THE ORGANIZATION AND PROGRAMS OF THE RESOURCE AGENCIES OF TEN STATES

Thesis for the Degree of M. S.

MICHIGAN STATE UNIVERSITY
BERNARD JOHN BUJNOWSKI

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ABSTRACT

by

Bernard John Bujnowski

The origins of this study are rooted in a project of the Michigan Senate Conservation Committee which attempted to collect data on various operational and organizational aspects of state natural resource agencies. Raw data from the senate study served as the basis of this thesis in which the major natural resource agencies of ten states were studied with respect to organizational patterns, executive decision making, and agency programs. Additionally, data summaries are presented for the various functional divisions of an agency, e.g., fish, forestry, game, information and education, law enforcement, and parks and recreation. The information summarized is generally limited to personnel (staff size and type), activities engaged in and budgetary information.

From this data generalizations can be made regarding organizational patterns among the various natural resource agencies. Of these patterns, two types were consistently recorded. In 23 states, for example, natural resource management is overseen by a single comprehensive department which houses most, if not all, natural resource functions. Within the department management responsibilities are delegated to separate divisions according to resource types or services rendered--forests, parks, wildlife, planning, etc. Programs and procedures are

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coordinated at a middle management level or by the agency's chief executive. In most cases natural resource policy is determined by a board or commission appointed by the governor. A significant number of these commissions are endowed with a legislative grant of authority which permits their promulgations to carry the weight of law.

The second major organizational pattern is exhibited in those states which are characterized by several separate, autonomous natural resource agencies existing in one state, each agency being responsible for the management and administration of a particular resource. Each individual agency is administered by a single executive or director; policy directories may come either from the director's level or from a board of lay citizenry. The prevailing characteristic is one of multiplicity and decentralization rather than consolidation and centralization.

The former type of organizational framework, a single comprehensive department, suggests improved efficiency and administration by virtue of established patterns of communication, centralized decision making, and comprehensive resource management. Recent state reorganizations indicate that this organizational format is gaining increased acceptance. Several factors, however, may limit its effectiveness or even prevent its consideration as a viable form of natural resource administration. Among these are a large and diverse population of resource users, a large and diverse variety of resource types, and the political climate of the state in consideration.

Having presented a structural framework for natural resource administration, efforts were made in the final chapter to flesh out this framework via a case study procedure. One segment of the State of

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Michigan's Department of Natural Resources' decision making process was observed in the analysis of a policy formulated and implemented to allow unrestricted snowmobiling in Michigan's state parks. Observed in this case study were information flows and processing, the role of the decision participants, and agency procedures. The results permitted conclusions to be drawn about the decision processes of the agency in the above areas.

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A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

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1972

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ACKNOWLEDGMENTS

As is the case with almost all graduate theses, the end product is not so much the result of the work of one individual as it is the collective efforts of a larger, supporting group. For their efforts on my behalf and their contributions to this project, I acknowledge my gratitude. I am especially grateful to the Michigan Senate Committee on Conservation and the Environment and its chairman, Senator Gordon Rockwell, for providing me with both the subject matter and financial assistance to complete the project.

Similarly, I wish to thank Professor Louis F. Twardzik and Dr. Lewis W. Moncrief, both of the Department of Park and Recreation Resources. Both members of my graduate committee, the latter served as my thesis advisor while the former provided significant contributions to the development of my graduate and professional careers.

For their work in helping to prepare the tables appearing in the appendices and text, I am appreciative for the services of Sharon Horner, Nancy Reinhold and Anne Mills, student aides with the Recreation Research and Planning Unit. A special note of thanks is extended to Vicki Selby, secretary, Recreation Research and Planning Unit, who typed the manuscript as well as contributed many practical insights to its preparation.

Finally, I owe a lasting debt of gratitude and appreciation to my wife, Lorraine, whose sacrifices, patience and understanding helped to overcome many obstacles.

ACKNOWLEDGMENTS . .

LIST OF TABLES . .

LIST OF FIGURES . .

Chapter

I. INTRODUCTION

Purpose of St
Collection of
Presentation

II. NATURAL RESOU

Introduction
Alaska . . .
Florida . .
Massachusetts
Minnesota .
Nebraska . .
New Mexico .
Pennsylvania
Tennessee .
Utah . . . .
Washington .

III. ORGANIZATION

Single Compr
Department
Functions Se
Commission F
Organizatior
Conclusion .

IV. SNOWMOBILING

The Case: S
Information
Extra-Depar
The Commiss
Policy Eval
Conclusions

TABLE OF CONTENTS

		Page
ACKNOWLEDGMENTS		ii
LIST OF TABLES		v
LIST OF FIGURES		vi
Chapter		
I.	INTRODUCTION	1
	Purpose of Study	1
	Collection of Data	1
	Presentation of Results	5
II.	NATURAL RESOURCE MANAGEMENT IN THE STATES	6
	Introduction	6
	Alaska	7
	Florida	15
	Massachusetts	21
	Minnesota	26
	Nebraska	32
	New Mexico	36
	Pennsylvania	41
	Tennessee	47
	Utah	51
	Washington	58
III.	ORGANIZATIONAL PATTERNS: STATE NATURAL RESOURCE AGENCIES.	65
	Single Comprehensive Natural Resource or Conservation Department - Type A	66
	Functions Separated by Departments - Type B	73
	Commission Form of Decision-Making	76
	Organizational Tendencies	79
	Conclusion	83
IV.	SNOWMOBILING IN MICHIGAN STATE PARKS: A POLICY ANALYSIS	88
	The Case: Snowmobiles in State Parks	89
	Information Systems in the Decision Process	93
	Extra-Departmental Inputs	95
	The Commission--Its Role in the Decision	97
	Policy Evaluation	100
	Conclusions and Discussion	103

BIBLIOGRAPHY . . .

APPENDICES . . . .

I. TABULAR ANALY

II. QUESTIONNAIRE

Page

BIBLIOGRAPHY 109

APPENDICES 114

I. TABULAR ANALYSES 114

II. QUESTIONNAIRES USED IN FACT FINDING SURVEY 172

Table

1. Nonresponse R

2. Major Charact

LIST OF TABLES

Table Page

1. Nonresponse Rates 4

2. Major Characteristics of State Natural Resource Agencies . . 81

LIST OF FIGURES

Figure		Page
A.	Type "A" Organizational Pattern - Single Comprehensive Agency	71
B.	Type "B" Organizational Pattern - Autonomous Units	74

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CHAPTER I

INTRODUCTION

Purpose of Study

The intent of this study was to collect data regarding natural resource agencies at the state level for purposes of comparison. The results will produce a compendium of facts about state natural resource agencies in a number of areas including executive and policy levels as well as operational and field levels. The analysis of this data will also enable one to make distinctions between the principle organizational patterns found among the various states. These distinctions will be based upon the internal relationships of the sub-units within a major natural resource department, the interaction between a state's individual resource department (should more than one exist), and the manner in which policy and decisions are formulated by the different agency types.

Finally, a case study is presented which attempts to operationalize the concepts of organizational decision-making and dynamics in an actual policy situation.

Collection of Data

The data used in the study was obtained from a series of questionnaires fielded by the Michigan Senate Committee on Conservation and the Environment in January, 1970. The questionnaires were distributed to the natural resource or conservation departments of all fifty states, each department receiving eleven different questionnaires addressed to the following offices: chief executive, natural resource/conservation commission, fish division, forestry division, game division, information

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Each questionnaire was intended to elicit various types of information depending on the nature of the agency or bureau studied. Subject matter in which information was sought included scope of operations, finance, personnel, and decision-making authority. Yet it should be noted that the natural resource functions to which questionnaires were sent are limited largely to agencies or offices which managed for a consumptive use of the resource under its jurisdiction, e.g., fish, forestry, game, etc. The resulting implications are that any additional resource responsibilities which an agency had beyond the eleven areas listed earlier were not included in this study. This would include any environmental management responsibilities (with the exception of water pollution control) with which a department might be charged.

Furthermore, the manner in which the questionnaires were distributed at times precluded an effective assessment of organizational patterns. Since each state received only one copy of each of the eleven questionnaire types listed previously, the implicit assumption is that the state has only one major natural resource agency which manages all resource areas. As Table 2 indicates, this is not always the case. Who, for example, should respond to the questionnaire addressed to Kentucky's "Chief executive - natural resource/conservation department" when the state has three major resource departments? Unless supplementary information was provided by all separate resource departments, it was often difficult to determine the relationships between individual departments existing under one state governmental structure.

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Although responses were received from at least some agencies or divisions of all fifty states, response rates of the eleven questionnaire types varied. Table 1 presents the appropriate response rates for the various questionnaire types. A follow-up procedure was used to update the data of a particular state when it was learned that the state's natural resource agencies had undergone or had planned to undergo reorganization. Those states contacted in the follow-up procedure include New York, Delaware, Maryland, California, Colorado, Maine and North Carolina.

The data compiled for the case study presented in the last chapter was based upon a number of personal interviews with staff members of the Parks Division, Michigan Department of Natural Resources, as well as a number of departmental executive officers. Appropriate information was also collected through attendance at monthly meetings of the Natural Resource Commission; minutes of Natural Resource Commission meetings were also provided by the department. A review of literature on policy formulation and organizational theory contributed the necessary background material.

The case study itself dissects the development of a particular policy which allows unrestricted snowmobiling in Michigan's state parks. In presenting the case an explanatory or verbal model is used to theorize on the policy process. The use of this model is to provide an abstraction of a process characterized by many disparate elements. The resulting simplification allows an overview of decision-making which will hopefully provide insights into the process.

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Table 1. Nonresponse Rates

Questionnaire Type	Questionnaires Fielded	Not Returned	% Non-Response
Chief Executive	50	9	18%
Conservation Commission	50	12	24%
Forestry	50	9	18%
Information & Education	50	6	12%
Lands Management	50	30	60%
Fish	50	9	18%
Game	50	4	8%
Law Enforcement	50	2	4%
Parks	50	17	34%
Recreation	50	21	42%
Water Pollution Control Agency	50	6	12%

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Presentation of Results

All data uncovered through the study is presented in a tabular format found in Appendix I and, as such, all fifty states are represented. Only ten states, however, are included in the summaries presented in Chapter II, which were considered representative from a number of points of view. Each state described in Chapter II represents one of two major organizational patterns which characterize natural resource management at the state level - (a) a single comprehensive department, or (b) a series of autonomous departments. The states presented in the second chapter are equally divided between the two organizational types with Utah, Nebraska, Minnesota, Florida and Massachusetts reflecting the former organizational framework and Alaska, Washington, New Mexico, Tennessee and Pennsylvania characterized by the latter pattern. The states also represent the major regions of the country including the following areas - New England, mid-Atlantic, the southeast and south central regions, the Great Lakes, the plains area, the southwest, inter-mountain west, the Pacific northwest, and Alaska. Other variables considered in the selection of states included in Chapter II were territorial mass and population density. The selection process can not be considered a sample in the statistician's sense of the word since there was no randomization involved. The states presented are merely a representative group about which no conclusions are drawn.

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CHAPTER II

NATURAL RESOURCE MANAGEMENT IN THE STATES

Introduction

The following pages contain summaries of data obtained from the study. As indicated in Chapter I, the target or subject areas to which questionnaires were sent included eleven functions: chief executive, natural resource/conservation commission, fisheries management, etc. These areas will serve as subject headings under which the data will be presented. The initial data presented for states will be information about the executive level of the natural resource agency. The remaining data is presented according to an operations breakdown in the areas of fish, forestry, information and education, law enforcement, and park and recreation programs. The final heading will be that for the state's water pollution control agency. Data from states having a lands management division was not included in Chapter II but is presented in the tables of Appendix I. No data is presented, of course, from those divisions or bureaus having responsibilities in the above areas which did not respond to the study.

Within each subject heading, the data has been summarized to include statements regarding personnel, fiscal information, programs, and scope of authority of each division or bureau handling the above management functions. This data is supplemented by additional information contained in the tables of Appendix I.

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Alaska

The diversity and scope of Alaska's natural resource base is suggested by its sheer bulk, 586,400 square miles - a territorial mass two and one-half times as large as Texas. Its population of 300,000 distributed over the area results in a population density of only .51 persons per square mile.

Alaska, which became the 49th state on January 3, 1959, is a state of extremes. Characterized in folklore as a frozen land of perpetual night and polar bears, there are a number of regions in the continental United States which consistently receive greater annual snow accumulations. A substantial portion of the state, however, does fall within the Arctic Circle. Alaska's topography ranges from Mt. McKinley's 20,320 foot peak to the Aleutian Islands which extend 1,200 miles west and southwest into the Pacific Ocean. The state is also studded with various national phenomenon ranging from volcanoes to fjords and glaciers. Alaska's natural resources run the gamut from its fabled fish and big game animals to numerous oil and mineral deposits.

Management of these resources is the function of two agencies, the Department of Fish and Game and the Department of Natural Resources which is primarily a parks, forestry and mining agency. The latter, along with the Department of Public Health, also provides services for water pollution control.

The Department of Fish and Game is under the direction of a ten man board appointed by the governor with the approval of both houses of the state legislature. Fish and Game Board members serve staggered four year terms and while it performs no administrative duties, the board formulates policy for fish and game resources as well as conservation

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law enforcement. In matters of natural resource policy the board operates with a considerable degree of independence from the state legislature except in some fiscal matters. The board establishes fish and game seasons and regulations, for example, while the legislature sets the license fees.

The chief administrative officer of the department is the director's post, a gubernatorial appointee selected from a list of names provided by the Fish and Game Board. Legislative approval is also required before the director can assume the duties of his five year term.

In 1969-70 the department's budget was $9.9 million, an increase of 415 per cent over the last ten years. Of the current budget, $4.7 million was provided by a general fund appropriation and $2.7 million from the federal government. The remainder was derived from self-generated revenue resulting primarily from the sale of hunting and fishing licenses.

Fish

Alaskan fish resources fall under two classifications - commercial and game species. These resources are managed by two different sub-units of the Fish and Game Department, the Division of (a) Commercial Fish and (b) Sport Fish and Game.

The Commercial Fish Division operates under two program segments - (a) management and research and (b) stream rehabilitation. The management section has the responsibility for attaining a maximum sustained fisheries yield while stream rehabilitation efforts are centered in Prince William Sound for the purpose of restoring earthquake damaged streams. The division employs a staff of nine administrative personnel, 52 researchers, 47 field technicians, and 58 part time workers.

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Commercial fish species are harvested from both the state's marine coastal waters and anadromous fisheries. The salt water fishery produces both salmon and shellfish while five species of Pacific salmon and char are harvested from the anadromous fishery.

Salmon plantings in 1968 consisted of 3.5 million eyed eggs, 350,000 fry and 100 smolt. The stock was produced by the state's two anadromous hatcheries.

Approximately 12,600 resident and 6,300 non-resident commercial fish licenses, distributed by the State Revenue Department, were sold in 1969. The revenue generated from the sale of these licenses is deposited in the state general fund.

The commercial fishing industry had for many years ranked as the state's top income producer. In 1969, however, it fell to second place behind crude oil and natural gas production as a result of cyclic flucuation and protective closures. It is expected that as oil and gas production develop, fisheries will fall behind on a more permanent basis.

The Game Fish Section of the Fish and Game Division operates programs independent of Commercial Fisheries; these include (a) management services and (b) investigations, a research-oriented segment for solving management needs and meeting federal aid requirements. Applied research is directed to the areas of fish population studies, environmental impact studies, water inventories and specific species studies.

The Game Fish Section employs a staff comprised of six administrative personnel, 31 research/field employees, and 42 part time workers. It operates on an annual budget of $1.2 million (1969-70), all of which represents self-generated revenues. Budget allocations within the section include ten per cent for administration, 45 per cent for research,

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The hatchery program serves to produce stock for state waters. It consists of one cold water hatchery which resulted in the following fish plants in 1969-70: trout 1.1 million, salmon 1.3 million, grayling 969,000 and 247,000 sheefish.

Licenses are distributed by the State Revenue Department through authorized private vendors; sales in 1969 totaled 63,000 resident and 37,000 non-resident licenses. License sale revenues are deposited in the Fish and Game Fund which in turn is appropriated to the divison by the legislature.

Forestry

The Forestry Division is an agency under the Natural Resources Department and has jurisdiction over 3.4 million acres of state forest lands. In addition to state acreage, federal forest lands cover 24.4 million acres.

Utilizing a budget (1969-70) of $162,000 for forest management and $200,000 for fire fighting, the division employs a staff of eleven foresters for forest management, but contracts for the services of the Bureau of Land Management for forest fire protection. Prison labor is also used for fire fighting and forest maintenance.

Game

The Game Section of the Sport Fish and Game Division operates a program composed of six major segments: lands section, laboratory section, research, survey and inventory, administration, and management. Its current budget, $1.97 million (1969-70), is derived from the receipts of license sales and federal grants. Besides operationalizing the division's programs, budget funds also provide a staff of eleven

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administrators, twelve researchers, 30 field workers, and occasional part time help. The budget monies are allocated to three categories within the division according to the following classifications: federal aid activities (research, survey and inventory, coordination of activities), divisional management activities (I & E, regulation proposals, control of nuisance animals) and an animal transplant program in which sea otters, musk oxen, and bison are distributed to various areas of the state. The amounts allocated are $1.5 million, $261,000 and $59,000 respectively.

Alaska's legendary big game populations accounted for the sale of 49,000 resident and 11,000 non-resident hunting licenses. Additionally, non-residents are required to purchase big game tags for the species they wish to hunt. The division reports that Alaska's big game population consist of 20,000 black bear, 10-12,000 brown and grizzly bear and an indeterminate number of polar bear. The number of elk roaming Alaska's mountain ranges is about 1200 while caribou number over a half million. Other big game animals include 120,000 moose, 35,400 sheep and 15,000 mountain goat. Herds of approximately 375 musk oxen and bison are also managed by the division. The wolf, numbering some 5000 animals, is far more populous than anywhere in the continental United States where even reported sightings are rare. Blacktail deer, unofficially classified as a small game animal by Alaskan hunters, number 200,000 and are considered to be underharvested.

Information and Education

The I & E Division of the Fish and Game Department expends an annual budget (1969-70) of $54,700 and utilizes a staff of five to provide educational and information services for the Fish and Game

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Department. It prepares press releases and educational material for school conservation education programs. About three-quarters of the materials processed are directed to the resident sportsmen population. Similarly, considerable contact is maintained with the commercial fisheries since it is the state's leading industry.

Another area of the I & E program which receives considerable attention is the division's motion picture production and loan service. This program, accounting for 35 per cent of the division's budget, produces and distributes a variety of films dealing with wildlife and conservation subjects.

Law Enforcement

Thirty-six law enforcement officers and eight administrators provide law enforcement services for the Fish and Game Department. In addition department employees from other divisions are used to supplement the regular enforcement staff. The enforcement section operates on a $1.5 million annual budget (1969-70) and is responsible for the enforcement of all conservation laws, marine safety regulations, and patrolling state parks. Officers are also required to remove road killed big game animals which averages ten bison, 150 moose and 20 deer annually.

New officers are assigned to a six month training program before assuming regular field duties; an in-service, week long training program is provided for veteran officers. The state is divided into 28 enforcement regions which has assigned to them one enforcement officer per region. The officer is responsible for the entire district in addition to whatever commercial fisheries may exist in his assigned area. Officers are rotated to a different district approximately

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All officers drive marked, state-owned vehicles and accumulate an average annual mileage of 20,000 miles. Eight light aircraft are also available for patrol duty, enforcement and survey work. Each officer issues an average of thirty citations yearly resulting in a conviction rate of 96 per cent.

Parks

Alaska's park system consists of sixty state parks covering a total area of 40,000 acres. Numbering 588 total campsites, each park averages ten sites with each site being 5,625 square feet in size. Sixty-one per cent of the parks are located more than 150 miles from urban areas and ninety per cent are intended for vacation or extended usage.

While the parks open all year, weather conditions limit the season to about 105 good camping days yearly. During that period, annual visitation reaches 300,000 persons. There are no fees or charges levied on state park users.

The Parks and Recreation Section of the Department of Natural Resources employs a staff of four seasonal rangers, six administrative personnel, three planners and seven maintenance workers. It operates on a $325,000 annual budget (1969-70) appropriated from the state legislature. From this appropriation 16 per cent is used for administration, 28 per cent for maintenance, 6 per cent for land acquisition, and the remainder is expended on park development.

As its name suggests, there is neither a separate park division or recreation division, both functions are combined in one agency.

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Water Pollution Control

Responsibility for protecting Alaska's water resources is assumed by the Department of Health and Welfare via the authority given it through the state's water pollution control act. This responsibility is shared with the Department of Natural Resources in the area of water use.

The Department of Health and Welfare employs three engineers and the part time services of fifteen sanitarians to staff its water pollution control program. These personnel are attached to the department's Division of Environmental Health and are supported by an annual budget of $57,000. The sources of this budget are a department appropriation and Federal Water Pollution Control Act grants.

Information on the land management agency can be found in the tabular analyses section of this study.

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Florida

Having a land area of 54,130 square miles, Florida boasts a natural resource base which ranges from 7,700 miles of ocean shoreline to the dark, lush swamps of the Everglades. Florida's population of 6.78 million people is distributed over the state's land area at a rate of 125.7 people per square mile.

The management responsibility for the state's natural resources is installed in one comprehensive agency, the Department of Natural Resources. Within the department are four functional divisions charged with the administration, development and supervision of the particular resource with their purview: Marine Resources, Interior Resources, Game and Fresh Water Fish, and Recreation and Parks. A fifth division, Administrative Services, provides support services in the chief executive's office as well as for the remaining divisions.

The department's chief executive, the director, is selected by the governor and his cabinet and serves at the pleasure of that selection body. Implementing the policies and programs established in consultation with the governor, the director is responsible for a full-time staff of 821 employees and an annual departmental budget of 22.9 million (1969-70).

Although there is no board or commission which generates department-wide policy, the Game and Fresh Water Fisheries Commission (attached to the division of the same name), functions independently of the head of the Department of Natural Resources. The commission consists of five members appointed to staggered five-year terms of office by the governor and has the authority to fix bag limits, seasons and other hunting and fishing regulations.

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The Fresh Water Fish Section of the Game and Fresh Water Fish Division conducts its activities under three programs: Management, Research, and Aquatic Weed Control. Although the state's salt water fishery is managed by another division of the Natural Resources Department, Marine Resources, Florida's anadromous fishery (largely a sport and limited commercial shad fishing in the St. Johns River) is managed by the Fresh Water Fish Section. An annual budget of $1.2 million (1969-70) supports these programs and provides allocations for administrative purposes (7 per cent), research (24 per cent), hatcheries (9 per cent), and management activities (60 per cent).

Although complete data about this agency's staff was not available, twelve biologists, two administrators, and six clerical personnel are employed to conduct fish research activities. This program includes a limited pesticide monitoring program on six lakes, as well as water quality, habitat, and fish population/stocking studies.

The section's hatchery facilities, operated under the management program, consists of two warm water hatcheries with an annual capacity of 4 million fish. In 1969-70 fish were planted in Florida waters at the following levels: bass-150,000, bluegill-1.5 million, channel catfish/sunfish-200,000.

Fishing seasons and limits are established by the Game and Fresh Water Fish Commission while fees are set by the state legislature.

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*Information in this section applies only to the Fresh Water Fish Section of the Game and Fresh Water Fish Division. Data from the Marine Resources Division (salt water fisheries) was not available.

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Licenses, distributed by county judges and their agents, were sold in 1969 to 481,000 resident and 28,000 non-resident fishermen. An additional 3,700 commercial fishermen are licensed by the state.

Forestry

Of the 19.4 million acres of forest lands in Florida, the largest amount is held in private ownership, 17.3 million acres. The federal and state governments manage 1.6 million and 540,000 acres respectively. The timber harvest from the combined sources was 325 million board feet in 1967.

The state's holdings, 307,000 acres, are under the jurisdiction of the Forestry Division, Department of Agriculture and Consumer Services. Employing a staff of approximately 800 employees, this agency expends an annual budget of 9.4 million (1969-70) to conduct its management/production and protection programs, the former being a self-supporting operation. In lieu of taxes for lands held by the Forestry Division, the agency returns $274,900 to local units of government annually.

Soil testing activities, conducted through a cooperative program with the University of Florida, are provided for private landowners. Seedlings are also furnished to landowners and surveying operations are conducted for these groups during outbreak conditions of various insect pests.

Game

Employing a staff of 45, the Game Section of the Game and Fresh Water Fish Division conducts its activities under six program segments including: Research, River Basin Studies, Public Hunts, General Game Management, Administration and Coordination, and Management Area Development. These programs are funded by an annual budget of $1 million

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(1969-70) which has as its sources monies from the Pittman-Robertson Act Fund (50 per cent) and a departmental budget appropriation (50 per cent).

Game populations are determined through the utilization of various methodologies including survey flights for waterfowl and the use of harvest data for deer. Based on population studies, the numbers of the following big game species have been determined: white tail deer-450,000, black bear-1,000, turkey-80,000, and wild hog-100,000.

Seasons and hunting limits are established by the Game and Fresh Water Fish Commission in consultation with the Game Section. Licenses, distributed through county judges or county tax collectors and their agents, were sold to 223,000 residents and 2,800 non-residents in 1969.

Law Enforcement

The Law Enforcement Section of the Game and Fresh Water Fish Division services with a staff of 125 enforcement officers, 24 administrative personnel, and expends an annual budget of $1.6 million (1969-70). Department employees from other divisions as well as citizens commissioned to make arrests are used to supplement regular forces during hunting seasons.

New officers receive three weeks of in-house training in addition to 200 hours of "Police Standards Training". Upon completion of these programs, officers are assig ned to one of the state's 15 enforcement areas (eight officers per area). Within these regions, officers cover an area of 475 square miles and are responsible for enforcing fish/game laws and boating regulations in addition to the removal of road killed big game animals. Assistance is also provided in forest fire protection and the patrolling of state park areas.

All officers are uniformed and are issued state-owned, identified vehicles which are driven an average 25,000 miles annually by each

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officer. The agency also uses four light aircraft and two helicopters in various aspects of law enforcement and search/rescue operations.

Parks and Recreation

The Division of Recreation and Parks operates a system of 83 parks with a total area of 177,000 acres. With an average park size of 2,130 acres, the system also provides 2,826 campsites and 7,500 miles of hiking trails. Federally operated areas in Florida include one national park and five national monuments, three national forests and seven wildlife refuges.

To operate its system the division employs a staff of 343 rangers (includes all staff found at parks - superintendents, guides, clerks, etc.), eight administrators, 22 planning personnel, and 25-100 part-time/seasonal employees. Organizationally, the division is composed of four bureaus: Planning and Grants, Land Acquisition, Park Operation and Recreational Services.*

While all of the parks in the system have day use areas, 35 (42 per cent) offer camping facilities. Open throughout the year, the parks attract approximately 7.4 million visitors annually; both residents and non-residents are assessed a daily entrance fee of $.25 ($10 annual permit).

Water Pollution Control

The Department of Air and Water Pollution Control is charged with the administration of pollution abatement programs. Organizationally, the Department is divided into three sections: Director's Office,

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*As of July 1970, the Recreational Services Bureau (formed as the result of a 1969 state reorganization act) had not been funded and consequently was not operational.

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Operations Division, and Planning Division. The latter is charged with the development of air control regions throughout the state based on guidelines provided by federal clean air laws. The Planning Division also develops research projects in the areas of pollution control and water quality restoration. The duties of the Operations Division include the review of plans for industrial waste and air pollution control facilities submitted by applicants. Approval of these plans results in a permit being issued by the division for the construction and operation of the facility. The administration of federal grant monies is also provided through this division.

Employing a staff of 15 and having an annual budget of $1.0 million (1969-70), the Department of Air and Water Pollution Control is responsible for curtailing stream and air pollution from all sources. The Health Division, Department of Health, however, reviews all plans for domestic waste facilities and is responsible for monitoring the operation of these facilities.

Information about the Information and Education Agency, Division of Game and Fresh Water Fisheries, can be found in the tabular analysis section of this study.

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Massachusetts

Massachusetts' population of 5.8 million people is distributed over the state's 8095 square miles of land area at ranges of less than ten per square mile in its western and north central areas to approximately 20,000 per square mile along the state's eastern boundary. The state also has 255 square miles of total water area in addition to 2000 miles of ocean shoreline.

The agency charged with the greatest number of responsibilities in natural resource management is the Massachusetts Department of Natural Resources. Operating units of the department consist of the following divisions: Forests and Parks, Conservation Services, Law Enforcement, Marine Resources, and Mineral Resources. A Division of Water Resources and a Division of Water Pollution Control are responsible to a Water Resources Commission whose chairman is the Commissioner of Natural Resources.

A Board of Natural Resources, appointed by the governor, sets certain policies and regulations under which the department operates. While the board has this policy making function, many of the duties and responsibilities of the department and its divisions are articulated in the General Laws of the Commonwealth. The board consists of five members serving staggered five year terms.

The department's chief executive (commissioner) is selected by and is responsible to the Board.* The department operates on an annual

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*Recent legislation (1970) suggests that future commissioners will be gubernatorial appointees and will serve terms which run concurrently with that of the governor's.

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budget of approximately $7 million (1969-70) and employs a staff of 600 permanent and 1600 seasonal employees.

Fish

The Fisheries Section, Division of Fisheries and Game, operates four basic fishery programs including: cold water management (trout research, management, and propagation), warm water management; water quality investigation (fish kills, productivity, inventory); acquisition (developing access sites); pesticides (monitoring programs); and hatcheries. In addition the state has both an anadromous as well as a salt water fishery, the latter being managed by the Division of Marine Fisheries.

Operating on an annual budget of $600,000 (1969-70), the Fisheries Section employs a staff of three administrators, six researchers, twelve field personnel, and ten part time workers. The budget figure provides for allocations of 15 per cent for administration, 30 per cent for research and management, 35 per cent for hatcheries, and 20 per cent for construction and rebuilding projects.

The Fisheries Section operates five cold water hatcheries having a combined capacity of 1.2 million fish. One anadromous hatchery also began production in 1970. In 1969 fish planted in Massachusetts' waters amounted to more than 1 million trout and 325 salmon smolts. State fish productions are supplemented by a private hatchery program of four warm water, eleven cold water, and two bait hatcheries.

After fishing seasons and limits are jointly established by the department and the division, licenses are distributed to town clerks for public sale. License sales for 1969 included 163,000 resident and 5300 non-resident licenses.

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While there are no commercial fishing operations conducted on Massachusetts' inland waters, the Marine Fisheries Division regulates commercial salt water fisheries.

Game

The Game Section of the Fisheries and Game Division operates under three program segments including Game Propagation, Wildlife Research and Wildlife Development.

The agency expends an annual budget of $769,000 (1969-70) and employs a staff of two administrators, nine game biologists, four field personnel and 16 part time employees. The budget figure provides for allocations in the areas of administration (2 per cent), research (18 per cent), habitat development (60 per cent), and game propagation (60 per cent).

Major research efforts are directed at life cycle and habitat studies conducted on deer, turkey, rabbit, and waterfowl species. Population figures are determined either through hunter surveys or aerial inventories for small game and waterfowl while records of harvest numbers are used as the basis for determining the size of the deer herd. The deer herd contains 16,000 animals while bear exist in huntable, though unspecified, numbers.

Hunting licenses are distributed from the same source as fishing licenses, town clerks. The purchase of one general hunting license entitles the holder to hunt both small and big game animals. Both the hunting of bear and antlerless deer require special permits, available at no extra charge, which are distributed through drawings. License sales in 1969 amounted to 131,000 resident and 1600 non-resident sales.

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Information and Education

Information and education services are provided not on a department wide basis but by five man unit within the Division of Fisheries and Game. In much the same manner, the focus of I & E materials produced by this unit is primarily on game and fish activities.

The unit publishes a bi-monthly magazine, MASSACHUSETTS WILDLIFE, which is distributed without charge and has a circulation of 43,000.

Law Enforcement

Operating on an annual budget of $700,000 (1969-70), the Law Enforcement Division employs a staff of 68 enforcement officers and three administrators to provide for all areas of conservation law enforcement.

New officers are installed immediately upon hiring to a field position without prior formal training programs. New men are, however, assigned to a veteran officer who supervises the new officer until the latter is able to assume full field responsibilities.

Utilizing a regional law enforcement concept, the state is divided into 47 enforcement districts with at least one officer assigned to each district. Not coinciding with fish and game regions, each district is approximately 200 square miles in size. In addition to enforcing fish and game laws within these areas officers are also assigned patrol responsibilities for state parks.

All officers, with the exception of marine boat officers, are issued state-owned vehicles which are driven an average of 25,000 miles annually. Rented helicopters are also occasionally used for fire and marine patrol or law enforcement work.

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The average number of citations issued by each officer is 20 with a 95 per cent conviction rate.

Water Pollution

While the department's Division of Pollution Control has the primary responsibility for pollution abatement programs within the Department of Natural Resources, other state agencies charged with similar responsibilities include the Department of Public Health and the Water Resources Division, the latter's duties falling chiefly in the area of resource planning.

The Pollution Control Division employs six administrators, 35 engineers, and a clerical staff of 16. The division expends an annual budget of $626,000 (1969-70) which is composed both of a legislative budget appropriation and Water Pollution Control Act monies.

In addition to monies spent by the division on pollution control activities, the state has undertaken a $150 million bond program passed in 1967. The program provides up to 25 per cent of the cost of treatment plants as well as funds to make municipal program eligible for matching federal grants.

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Minnesota's population of 3.8 million residents is distributed over the state's 85,000 square miles of land area at the rate of 44.7 people per square mile. Characterized by an abundance of water resources, Minnesota has over 4,000 square miles of total inland water area and 180 miles of Great Lake shoreline.

The Department of Conservation, the state's major natural resource agency, is headed by a commissioner appointed by the governor to a six year term.

When the department was first established in 1931, it was administered by a five member commission. This system was abolished in 1937 when authority was vested in a commissioner. Under this system, the department is governed through programs and policies established by the commissioner.[1]

A large department, the agency employs 1160 full time employees and operates on a total annual conservation budget of $27.1 million (1969-70), a figure which has increased 45 per cent over the last ten years. The budget has as its sources a general fund appropriation ($8.9 million), self-generated revenues ($12.5 million), federal funds ($840,000), and an "other" category of $4.7 million.

The department houses all conservation functions and is composed of a number of agencies at the divisional level including Fish and Game, Lands and Forestry, Parks and Recreation, Enforcement and Field Services, and Soils, Waters, and Minerals.

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[1] "Minnesota Department of Conservation", p. 2, no date.

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The Fisheries Section, Division of Game and Fish, conducts its activities according to six program segments: habitat development, research, population assessment, lake rehabilitation, propagation and stocking, and the administration of licenses, commercial fishing, and private hatchery programs. The agency employs four administrators, 14 researchers, 197 field tehcnicians and operates on an annual budget of $3.0 million (1969-70).

The section's research activities include a pesticide monitoring program which involves the periodic collection of index species from strategic locations for analysis. The general focus of the research program is an orientation towards problems generated from the field. As such, it includes many life history studies, program evaluations, and pilot programs.

Hatchery programsare conducted with fish stock produced at the Fishery Section's ten warm water and four cold water facilities. These hatcheries have combined capacities of 500 million and two million fish respectively. A vigorous program, hatchery reared fish were planted by the Fisheries Section in 1969 at the following levels:

Trout - 2,000,000
Salmon - 225,000
Bass - 225,000
Walleye - 272,000,000
Northern Pike - 7,100,000
Muskellunge - 103,000

Ninety-five warm water hatcheries (largely bait producers) and twenty cold water plants supplement the state's fish rearing facilities.

Licenses are distributed to the public by general agents who in turn received licenses from county auditors. Under this system, auditors

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retain a two per cent and agents a six per cent commission on proceeds from license sales. Sales in 1969 totaled 1.1 million resident and 340,000 non-resident sales. The Fish Section also licenses 290 commercial fishermen.

Forestry

Minnesota's forest lands extend over 17 million acres and produce an annual timber harvest of 125 cubic feet. Private owners control 7.5 million acres while federal and county forests account for 2.8 and 3.3 million acres respectively. The state maintains and operates 3.3 million acres, most of which was received through federal land grants (69 per cent) or through tax reverted properties (28 per cent).

Responsibility for managing the state's forests is charged to the Lands and Forestry Division, an agency employing a full time staff of 394 and operating on an annual budget of $5.7 million. This figure includes the funding of fire protection as well as land management programs. The state returns $141,000 annually to local units of government in lieu of taxes received by lands operated by the division.

Additional responsibilities beyond timber management include conducting land appraisals, easement evaluations and providing trail and wilderness camping facilities. Private landowners are also assisted through programs which furnish seedlings and provide consultant services for spraying operations.

As the state's lands management agency the division is also charged with disposing of tax reverted lands as well as consolidating state holdings. An average of 5000 acres of land revert to the state each year, generally in 40 acre parcels.

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The Game Section of the Game and Fish Division conducts four major program segments focusing on research (upland, big game, and waterfowl), development (improves and maintains habitat on wildlife management areas and other public lands), deer management, and private land development (improvement of wildlife habitat on private lands). To operate its programs, the agency employs a staff of five administrators, 15 researchers, 79 field technicians, and a part time staff of 75 workers. An annual budget of $2.67 million (1969-70) provides allocations in the areas of administration (3 per cent), research (10 per cent), habitat development (20 per cent), and salaries/land acquisition (67 per cent).

Although the state legislature established a broad legal framework for licenses and seasons, the Conservation Department sets actual seasons and fee schedules. Licenses are sold by county auditors and their agents and in 1968 were distributed to 592,000 resident and 1400 non-resident hunters. Revenue from hunting license sales goes to the General Game and Fish Fund and is re-appropriated to the divisions.

Kill statistics and aerial surveys, the methods used to determine big game populations, have established big game populations at the following levels: white tail deer - 500,000, black bear - 600,000, elk - 25, moose - 7,000. Post season telephone and postcard surveys are used to determine the number of animals killed in a season.

Information and Education

The Department of Conservation's Bureau of Information and Education operates on an annual budget of $204,000 (1969-70) and employs a staff of fourteen including five information-education specialists.

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Statistics on some of the bureau's programs indicate that their motion picture loan service lent out a total of 2400 films in 1969. Additionally, over 50,000 pieces of literature produced by the bureau were mailed out to the public in the same time period. News releases and special feature columns are also produced within the agency for distribution to media sources. In 1970, the Departments of Conservation and Education began work on developing a conservation education cirriculum for Minnesota's school system.

The agency's official bimonthly publication, CONSERVATION VOLUNTEER, has a circulation of 65,000 and is distributed free of charge.

Parks and Recreation

The Division of Parks and Recreation administers state parks, memorials, parks, reserves, and wayside areas. The system consists of 90 units located in various areas throughout the state with 59 of these units being classified at state parks or recreation reserves. These areas vary in size from 1000 to 30,000 acres. Twelve of the 90 units are classified as scenic or historic monuments and range in size from 50 acres to one acre.

The division is responsible for park acquisition, development and maintenance, and the operation of revenue producers as refectories, boat services, tourist and group camps, and camp rentals. Other activities include park planning, investigation of potent ial park sites, and cooperating with local units in providing recreation services.[1]

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[1]"Minnesota Department of Conservation", p. 9, no date.

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Law Enforcement

The Division of Enforcement and Field Services operates on an annual budget of $2.4 million (1969-70) and employs a staff of 146 enforcement officers, 8 administrative personnel, and 9 clerical employees.

New officers are provided with a field internship lasting 2-6 months before being assigned full field responsibilities. An in-service week long training program is provided yearly for veteran officers.

Operating with eleven enforcement districts which coincide with fish and game regions, a range of 7-14 officers are assigned to each area. Within these districts, officers cover a 635 square mile area and are responsible for enforcing game, fish and marine safety regulations. In addition officers are required to remove road killed big game animals from highways.

All officers are uniformed and are issued state-owned vehicles which are driven an average of 24,000 miles annually. The division also uses four single engine aircraft for patrol work. An average of 38 citations are issued annually by each officer.

Information regarding the state's water pollution control agency can be found in the tabular analyses section of this study.

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Nebraska

Nebraska's population of 1.48 million people is distributed over the state's land area at an average rate of 19.4 persons per square mile. A more realistic picture, however, is suggested by the fact that 36 per cent of the state's population lives on 4.3 per cent of the land area. Douglas County (Omaha) has a population density of over 1,000 people per square mile of surface area. In addition the state has 728.7 square miles of water area.

The Game and Parks Commission, along with the Forestry Department, share the responsibility of managing the state's natural resources. The commission consists of a seven member board appointed by the governor with the advice and consent of the state's unicameral legislature. In its policy making role, the commission acts as an autonomous agency limited by certain legislative guidelines. Sub-units of the commission include the following divisions: Fisheries, Land Management, Parks, Game, Law Enforcement, Information and Education, Engineering, Federal Aid, Personnel, Research and Budget/Fiscal.

The commission also appoints a chief administrative officer, the director, who serves a six year term and is responsible for administering a total conservation budget of $9.8 million (1969-70) and a staff of 350 full time employees. The budget figure, 50 per cent of which is composed of self-generated monies, has increased 300 per cent over the last decade.

Fish

The Fish Division employs a staff of four administrators, 63 field technicians, 30 part time employees and expends an annual budget of $581,000 (1968). Not operating under specific program structures, the

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Although most fish research is conducted by a separate research division (including a pesticide monitoring program), the Fish Division does conduct its own limnological and development studies. Most of the division's resources are channelled into management and hatchery activities.

The division operates five hatchery stations, three warm water, and two cold water, with a combined capacity of 17.8 million fish. Of this total figure, approximately 4.9 million fish of various species are planted in state waters. The division's hatchery program is supplemented by 19 private hatcheries.

Fishing seasons are established by the Game and Parks Commission based on recommendations of the Fish Division. Licenses are distributed by 1200 private vendors who, in 1969, distributed fishing permits in the following numbers:

Resident - 140,720
Resident Hunting and Fishing - 56,581
Non-Resident - 11,062
Five Day Non-Resident - 14,157

The division also regulates the state's commercial fishing industry which consists of 173 licensed fishermen.

Game

The Game Division conducts three program segments in the areas of big game, upland game, and waterfowl management. It employs a staff of 13 field technicians, two administrators, and expends an annual budget of $254,000 (1968-69). The budget figure provides allocations for the areas of administration (10 per cent) and management activities (90 per cent).

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The division's research efforts consist of a pesticide monitoring program, life history and ecology studies of pheasant and grouse and quail habitat evaluations. Big game population studies using aerial surveys and hunter check stations have estimated the size of the following game herds: mule deer - 40,000, white tail deer - 35,800, antelope - 6500.

While small game licenses are distributed through private vendors, permits used for big game and turkey hunting are issued from the division's central office. The number of available permits is determined on a management unit basis with a specific number of permits allotted to each unit. In 1969 hunting licenses were sold in the following categories:

Resident Small Game - 149,173
Resident Turkey - 1,706
Resident Big Game - 28,033
Non-Resident Small Game - 20,003
Non-Resident Turkey - 49
Non-Resident Big Game - 2,446

Law Enforcement

The Law Enforcement Division provides services with a staff of 47 enforcement officers, four administrators and two clerical employees; the division operates on an annual budget appropriation of $968,000 (1969-70).

Upon completion of a six month field internship, new officers are assigned to one of the state's five enforcement districts which coincide with fish and game regions. Patrolling an area of 1638 square miles, each officer is responsible for enforcing laws in the area of fish, game, and marine safety. They also patrol state park areas and remove road killed big game animals.

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All officers are uniformed and issued state-owned, identified vehicles which are driven an average of 40,000 miles annually. Two division owned aircraft are also used for enforcement work. An average of forty citations are issued annually by each officer with a conviction rate of 99 per cent.

Water Pollution

The Division of Environmental Health Services, Department of Health, functions as the state's major water pollution control agency although it shares responsibility for pollution abatement programs with several other agencies including the Water Pollution Control Council, Soil and Water Commission, and the Water Resources Department.

Operating independently of these agencies, the division employs a staff of three administrators, four engineers, one planner, and four testing personnel and expends an annual budget of $183,000 (1969-70).

Information on the state's land management agency can be found in the tabular analyses section of this study.

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New Mexico

New Mexico's population of 1.01 million people is thinly distributed over the state's 121,511 square miles of land area at a rate of 8.3 persons per square mile. An arid state, New Mexico's inland water area amounts to 215 square miles.

Natural resource management is shared by a number of state agencies including the Department of Game and Fish, Department of State Forestry, and the Park and Recreation Commission. Water pollution abatement programs are administered by the Department of Public Health.

Department of Fish and Game

The Game and Fish Department's programs and policies are formulated by a five member commission which is appointed by the governor with the advice and consent of the senate. The commissioners serve staggered five year terms of office and may serve more than one term. Typically, the commission acts within the confines of the authority granted it by the legislature. This authority allows it to act independently in establishing fish and game seasons and bag limits, to provide conservation law enforcement services and to authorize programs to be implemented by the various division. The legislature, however, retains approval authority over the department's budget and the price of hunting and fishing licenses.

The commission also appoints the department's chief administrative executive, the director, who serves at the pleasure of the selection body rather than a fixed term. The director is responsible, through division chiefs, for both the department's full time staff of 171 and an annual department budget of $2.67 million (1969-70). The budget figure, 82 per cent of which is composed of self-generated monies, has

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The Fish Division, Department of Game and Fish, conducts it activities under five major program segments. These include research and management, coordination (between research, management, development and land acquisition programs), development, land acquisition (for public access sites), and production (of catchable size trout for stocking in public waters). Employing a staff of three administrators, three research personnel, and two field technicians, the division expends an annual budget of $560,000 (1969-70) with the hatchery program receiving the largest allocation (69 per cent).

The division's research efforts are directed towards studies of problems involved with the rearing and stocking of hatchery fish. Water quality studies are also being conducted with the goals of increasing fish production through the improvement of natural food sources and the prevention of fish kills resulting from summer stagnation. Pollution control and elimination studies are also conducted.

The division's hatchery facilities consist of six cold water hatcheries with a combined annual capacity of 4.0 million fish (429,000 pounds). In 1969 fish were planted in Nex Mexico's waters at the following levels: trout (rainbow, brown, cutthroat, and Dolly Varden) - 4.6 million, salmon - 307,300.

Distributed through vendors who receive $.25 on each license sold, 86,000 resident and 38,000 non-resident licenses were sold in 1969. The state also has one licensed commercial fisherman who works for the division as a rough fish control agent.

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Forestry

New Mexico's timber lands encompass 5.7 million acres from which a total of 225,000 board feet is harvested annually. The largest amount of forest land comes under the jurisdiction of the federal government, 3.8 million acres, while private and state forests account for 1.7 million and 163,000 acres respectively.

To administer its acreage, the Department of State Forestry, an agency separate from the Department of Game and Fish, employs a staff of 20 workers. The department expends an annual budget of $390,000 (1969-70) which includes allocation of $86,000 for forest management and $253,850 for fire protection and control.

The department engages in some extension-type activities beyond its management and protection responsibilities by assisting private landowners in spraying and reforestation projects.

Game

The Game Division, Department of Game and Fish, conducts its activities under four major segments: administration, exotic big game (raising selected species for introduction), animal control, and federal aid. The last program encompansses many of the traditional management activities - big game, waterfowl, game bird, habitat improvement, etc. The division employs a staff of eight administrative personnel, twelve researchers, 29 field technicians and expends an annual budget of $630,000 (1969-70). The budget provides for allocations in the areas of administration (5 per cent), research and management (50 per cent), habitat development (30 per cent) and nuisance animal control (10 per cent).

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Studies employing aerial surveys and pellet counts have established the state's big game animal populations at the following levels: mule deer - 300,000, white tail - 15,000, black bear - 3000, elk - 12,000, antelope - 180,000, bighorn sheep - 550, Barbary sheep - 400, turkey - 25,000 and javelina - 2,000.

Licenses distributed through authorized vendors were sold in the following amounts in 1969:

Resident Small Game - 13,240
Resident Turkey - provided with big game license
Resident Big Game - 99,770
Non-Resident Small Game - 1,853
Non-Resident Big Game - 4,915

Special licenses required for some animals are distributed through a lottery system when demand exceeds the number available.

Information and Education

The Information and Education Division, Department of Game and Fish, provides I & E services for the department with a staff of eleven and an annual budget of $199,000 (1969-70).

The division's services are oriented principally towards information programs with conservation education activities being limited primarily to individual presentations to schools by department personnel. Along with the regular format of news releases, feature stories, and special releases, the division also provides a weekly 3 1/2 minute taped program to 42 radio stations across the state. A half-hour color videotaped program is also provided to television stations on a weekly basis.

The division publishes the bimonthly magazine, NEW MEXICO WILDLIFE, which has a circulation of 13,000.

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Law Enforcement

As an agency of the Game and Fish Department, the Law Enforcement Division provides services in the area of fish and game law enforcement. Employing a staff of 34 officers and one administrator, the division operates on an annual budget of $60,000 (1969-70). To supplement the existing staff, the agency also uses employees from other divisions as well as citizens commissioned to make arrests.

New officers are assigned to a six month field internship before being installed as full time officers. Following this training period, officers are assigned to one of the state's 34 enforcement districts (one officer per district); officers are regularly rotated to different geographic areas. Within his assigned unit, each officer is responsible for an average territory of 4,200 square miles and, in addition to fish and game law enforcement, also patrols state park areas and removes road killed big game animals.

All officers are uniformed and drive state-owned cars an average of 25,000 miles annually. Citations are issued at an average annual rate of 40 per officer of which more than 90 per cent result in conviction.

Information regarding the state's water pollution control agency can be found in the tabular analyses section of the study.

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Pennsylvania

Pennsylvania's population of 11.79 million people is distributed over the state's 45,333 square miles of land area at a rate of 260 people per square mile. Like many eastern states, Pennsylvania has a number of densely populated urban areas with cities the size of Philadelphia and Pittsburg being cases in point. Yet in the state's north central region, many areas still remain wooded, undeveloped, and thinly populated. The dominant feature of Pennsylvania's topography is the low rolling slopes and ridges of the Appalachian and Allegheny mountain chains. Some agricultural areas in the state's southern and central regions are more open and have a less severe terrain.

Four agencies, administratively and organizationally independent of each other, have responsibilities for managing the state's natural resources. These are the Department of Forests and Waters, the Game Commission, and the Fish Commission. The Sanitary Water Board is charged with administering the state's pollution abatement programs.

Fish

The Fish Commission is headed by a nine member policy board appointed by the governor; members of the board serve staggered eight year terms and are responsible directly to the governor. The Fish Commission exists as a separate agency and is not a fishery agency for a larger department.

Programs are conducted under six segments including: (a) Executive and General Administration, (b) Fisheries, (c) Law Enforcement, (d) Conservation Education and Training, (e) Real Estate and Maintenance (acquires water and related land areas for public fishing and boating), and (f) Engineering. To staff these programs, the department employs

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53 administrative personnel, 18 researchers, and 315 field workers. The agency's annual operating budget, $5.0 million (1969-70), consists entirely of self-generated revenues.

Research is conducted on diet and culture methods, treatment of diseases and the introduction of new species to various waters of the state. The commission has also contracted with the Pennsylvania State University to conduct a pesticide monitoring program in which various species are checked for DDT concentrations.

An active hatchery program, supported by four warm water, five cold water, and one anadromous hatchery having a combined capacity of over 29 million fish, supplied the following amounts of fish for stocking purposes in 1969-70: trout-385 million, salmon-190,000, bass-1.1 million, walleye-21.3 million, pickerel, pike and muskellunge-1.7 million, and an additional 1.4 million fish of various species. A private hatchery program of 62 warm water and 56 cold water facilities is also operating in the state.

Fishing season, limits, and fees are established by the Fish Commission although the Department of Revenue is responsible for appointing issuing agents throughout the state (approximately 1800 agents). In 1968 licenses were sold to 654,000 residents and 34,000 non-residents. A small commercial fishery industry of twenty licensed fishermen is also regulated by the commission.

Forestry

Covering over 17 million acres, Pennsylvania's forest lands produce an annual timber harvest of 928 million board feet. Most of the forest acreage is held in private ownership, 13.5 million acres, while state and federal government own three million and 500,000 acres respectively.

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Approximately two million acres of the state's forest land is under the jurisdiction of the Bureau of Forests, Department of Forests and Water. Consisting of five divisions, Forest Protection, Forest Management, Forest Advisory Services, Minerals, and Land Acquisition, all operations are administered in the field by twenty district foresters. The bureau expends an annual budget of $5.95 million (1969-70) in the areas of forest management ($2.7 million) and fire protection ($3.2 million).

Game

The Pennsylvania Game Commission is in many ways similar to its fisheries counterpart, the Fish Commission. Although it has one less member on its policy board, the eight man board of the Game Commission is appointed by the governor to staggered eight year terms. The commission functions as an independent agency and formulates all game policy with the exception of license fees independently of the state legislature.

The agency's chief administrative officer, the executive director, is responsible for a staff of 35 administrative personnel, 14 researchers, 290 field technicians, 400 field workers, and 200 part time workers. In addition to implementing the commission's policies and programs, the executive director is also responsible for expending an annual budget of $11.3 million (1969-70) as well as a $3.5 million bond issue.

The Game Commission conducts its activities under seven program segments: (a) Executive and General Administration, (b) Information and Education, (c) Game Propagation and Stocking, (d) Research, (e) Law Enforcement, (f) Training of game conservation officers, and (g) Land Management.

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Seasons and limits are set by the Game Commission while licenses are distributed through county treasurers and 1600-1800 private issuing agents. One general license is valid for both big and small game (except antlerless deer) and in 1969-70 were sold to 1.1 million residents and 102,000 non-residents.

Information and Education

The Information and Education Division of the State Game Commission provides services for game functions with a staff of 26 and an annual budget of $750,000 (1969-70).

While the division offers many of the traditional I & E services--news releases, television programming, motion picture production--much effort is directed to the division's monthly publication, PENNSYLVANIA GAME NEWS, which has a circulation of 211,000 (including 38,000 out-of-state subscribers). While the division's conservation education program certifies 75,000 students annually in a hunter safety program, summer camps and programs for teachers' workshops are also a substantial part of the division's conservation education activities.

Law Enforcement

The Law Enforcement Division of the Game Commission provides services with a staff of 142 conservation officers, 17 administrative personnel, ten clerical workers and an annual budget of $2.41 million (1969-70). In addition, 1700 deputy game protectors (private citizens with full enforcement authority) supplement the full time staff.

New officers attend an eleven month training school followed by a three month field internship before being installed as a full time officer. Following this period, training school graduates remain under the supervision of a seasoned officer for one year. Officers are

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assigned to one of the state's 141 enforcement districts at the rate of one officer per district. Within these districts officers cover an average area of 350 square miles.

With the exception of two special investigators, all officers are uniformed and are issued state-owned, identified vehicles which are driven an average of 25,000 miles annually. Officers issue an average of 55 citations yearly with more than 95 per cent resulting in convictions. When defendants request to settle directly in the field, money can be accepted by the arresting officer.

Parks and Recreation

Pennsylvania's parks are maintained and operated by the Bureau of State Parks, an agency of the Department of Forests and Waters. The system includes 66 parks with a combined area of 118,000 acres. Also provided are 5,400 campsites (approximately 175 per park) having an average size of 3,600 square feet.

In addition to these facilities, the agency also provides 752 miles of nature trails, 468 miles of hiking trails, 67 miles of bridal paths, and 225 miles of snowmobile trails.

The state's park system is supplemented by six areas administered by the National Park Service and one national forest. Staffing the park system are 68 rangers, eight administrative personnel, 40 planners, eight maintenance workers, and a part time/seasonal crew of 650.

Although year-round camping is available at 27 park areas, the regular season runs from the second week in April to the third Sunday in October. The average visitation on major holiday weekends is approximately 350,000. Although no entrance fees are levied, resident and non-resident campers are assessed a $1.25 daily camping charge.

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While the bureau does not have a recreation section, the Department of Community Affairs, Division of Recreation and Conservation, administers program intended to provide recreation services for local units and urban areas.

Information regarding the state's land management and water pollution control agencies can be found in the tabular analyses section of this study.

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Natural resource management in Tennessee is the responsibility of three agencies including the Department of Conservation, the Game and Fish Commission, and the Stream Pollution Control Board, the latter being responsible for water pollution abatement.

The Game and Fish Commission is headed by a nine man body appointed by the governor; legislative confirmation of the appointments is not required. Each commissioner serves a six year staggered term of office. The commission, as its name suggests, is responsible for the management of the state's fish and wildlife resources. It functions as the chief policy making organ for the fish and game sections without serving in an administrative capacity.

Separate from the Fish and Game Commission is the Department of Conservation whose responsibilities are to the non-game resources of the state in the areas of minerals, parks, forest resources, water and land resources. It also functions in a planning capacity as well as provides services in the areas of information, education, tourist promotion, land reclamation, and hotel and restaurant inspection.

The department head, the commissioner, is selected by the governor and serves at the pleasure of the governor rather than a fixed term. The department employs 1500 full time personnel plus an additional 1600 part time employees and operates on a $12 million annual budget (1969-70).

Game

The Game Division is organized into four major program segments which include: (1) Lands Management (in charge of upland wildlife management area operations), (2) waterfowl management section (in charge

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of waterfowl management area development and operations), (3) game management services (district biologist staff which performs necessary work in each district regarding surveys, kill data, hunter contact, farmer assistance, etc.), (4) research (performs all research for division).

The division operates on a $1.2 million annual budget of which 33 per cent comes from a departmental budget appropriation, 21 per cent from self-generated funds, and 46 per cent from federal funds. The division is staffed with 96 personnel including 6 administrators, 6 research personnel and 84 field people.

Research includes the determination of wildfowl and small game populations through ground and aerial counts, annual road counts and kill data. The number of animals harvested in a season is determined by hunter contact in the field (small game) and a volunteer report system (big game). A tag and release method and harvest ratios are utilized to determine big game populations.

Licensing is accomplished through bonded license dealers. Total figures for 1969 hunting license sales include 257,040 resident small game, 75,378 resident big game, and 10,000 non-resident small game.

Law Enforcement

The Law Enforcement Division operates with an annual budget (1969-70) of $1.5 million and a staff of 119 enforcement officers and 3 administrators. The division also utilizes department employees from other divisions to supplement regular officers.

Law enforcement officers are assigned to districts corresponding with eight state-wide fish and game regions. With a range of 11-20 officers assigned to each district, each officer covers an average of

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315 square miles. Specific areas of responsibility include game and fish law enforcement, removal of road killed animals, and marine safety. With regard to marine safety, the full time game and fish officers devote a portion of their time to enforcing boating regulations during the boating season. Approximately twenty seasonal employees, usually teachers, coaches and college students, are hired during the boating season to enforce boating safety regulations.

All officers are uniformed but do not drive state-owned vehicles; personal vehicles are used by officers who record an average of 21,000 miles per year.

Parks and Recreation

The Tennessee state park system consists of 26 parks covering a total of 170,000 acres of land. Located on these parks are 2000 public campsites having an average size of 2800 square feet. Thirty per cent of the parks are designated for day use and the remainder are used primarily for "vacation" or extended usage. Parks are open the entire year with heaviest use occurring during a 175 day period in the spring and summer seasons.

An estimated 10 million visitors use Tennessee's parks each year which receive an average of 350,000 visitors on major holiday weekends. Neither entrance fees nor camping fees are levied on the users. Supplementing the state park system is one national park and one national forest as well as eighty state operated wilderness camping areas.

The Parks Division, Department of Conservation, is staffed by 51 park rangers, 32 administrative personnel, 90 maintenance, and 650 part time /seasonal employees. A recreation section of the Parks Division works with local units of government in developing parks in urban areas.

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This section also administers 76 hiking and nature trails having a combined length of 178 miles.

Water Pollution

The Tennessee Stream Pollution Control Board is responsible for maintaining the water quality of the state's lakes and streams. While it functions as an autonomous agency, the Stream Pollution Control Board works closely with the Department of Health.

A $430,000 annual budget provides for a staff of one administrator, nine engineers, and thirteen chemists and biologists. In 1970 the state bonded itself for $15.8 million for water pollution abatement.

Data from the Lands Management Division is included in the tabular analyses section of this study.

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Utah

Utah's population of 1,059,000 is distributed over the state's 84,916 square miles at the rate of 12.4 persons per square mile. With 75 per cent of its residents living in urban areas, Utah is the tenth most urbanized state in the union.

Utah has 616 square miles of fresh inland water and 1200 square miles of inland water in the Great Salt Lake. While having a minimal amount of fresh water lakes, there are, however, 5,110 miles of rivers and streams in the state.

Natural resource management is the responsibility of the State Department of Natural Resources although water pollution abatement is charged to the State Division of Health. The department is divided into six functional divisions including Parks and Recreation, Water Resources, Water Rights, Oil and Gas Conservation, State Lands, and Fish and Game. Each individual division has its own advisory board which develops policy for that division. The executive staff of the department is headed by a director who is appointed by the governor with the advice and consent of the legislature. The director serves at the pleasure of the governor.

The department operates on an annual budget (1969-70) of $9.7 million, $2.9 million of which comes from the general fund, $1.5 million from the federal government and the remaining 55 per cent from self-generated revenue. The self-generated revenue is derived from hunting and fishing license revenue (68 per cent), special use fees (12 per cent), and other miscellaneous fees (17 per cent).

Success in having budget requests approved by the legislature has been between 80 per cent and 90 per cent annually. With an estimated

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budget of $9.736,500 for 1970-71, the Utah Department of Natural Resources's budget has increased 78 per cent in the last ten years.

Fish

The Fish Section of the Fish and Game Division operates under three major program segments including fish culture (responsible for the rearing and distribution of cold water fish), research (conducts management-oriented studies, ecological evaluations, etc.), and management (operates fishing water inventories and habitat improvement programs).

The staff includes five administrators, thirteen research personnel, and forty-five field technicians and operates on an annual budget (1969-70) of $1.9 million dollars with 3.5 per cent of the annual budget expended for administration, 8 per cent for research, 65 per cent for hatcheries and 23.5 per cent for management and water development. The fish section operates on a regional management concept using units common with game management.

The thrust of research efforts are directed to ecological studies of fish habitat evaluation and studies evaluating management practices. No regular pesticide monitoring program is under operation. Studies attempting to assess the desirability of introducing new game species to state waters have resulted in the possible introduction of the striped bass.

The efforts of the hatchery program are directed primarily to the stocking of state water with some experimental rearing of striped bass being conducted. Twelve cold water hatcheries are being operated with a production of 15 million trout and 173,000 Kokanee salmon annually. Five private hatcheries are also in operation throughout the state.

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Fishing license sales in 1968-69 included 132,000 resident and 66,000 non-resident annual licenses; licenses are sold by conservation officers and through retail outlets. Fishing seasons and limits are established by the Fish and Game Board as proposed by the Fish Section and reviewed by division staff. All of the revenue generated by license sales is returned to the division's general fund.

Forestry

Of the 4.3 million acres of forest land in Utah, more than three-quarters of it is in federal hands. Only 280,000 acres are held by the state while 652,000 acres remain in private ownership. As might be expected, timber harvest figures reflect a similar breakdown. From a total harvest of 96 million board feet in 1969, 73 million board feet were removed from federal lands and 20 million board feet from private land. From a harvest of 3 million board feet, the state received $20,000 for timber removed from its land.

The division employs 10 foresters, 16 fire fighters, and 2 administrators and operates on an annual budget of $200,000 which reflects a breakdown of $42,000 for forest management and $158,000 for fire fighting. The division also utilizes prison labor to fight forest fires and participates with landowners in soil testing and surveying programs.

Game

The Game Section of the Fish and Game Division of the Department of Natural Resources operates on three major program segments: (1) big game and furbearers, (2) upland game, and (3) waterfowl. All three segments are comprised of planning/programming, management, and research functions. The Game Section employs two administrators, two management

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specialists, 13 research personnel, 26 field people and operates on an annual budget (1969-70) of $1.3 million which is derived from license revenue and federal funds. The budget provides for the following allocations: 5.2 per cent for administration, 17.1 per cent for research, 10.3 per cent for habitat development, and 69.4 per cent for maintenance, management and land acquisition.

The Game Section's research program is directed towards the reestablishment of native game species and applied research in a number of areas including browse revegetation for winter deer range, livestock/ big game relationships, antelope productivity and range relationships, elk productivity and band-tailed pidgeon distribution studies. A regular pesticide monitoring program is not practiced although pesticide levels are checked occasionally.

License and fee schedules are established by both the Board of Big Game Control (big game species) and the Board of Fish and Game (all other game animals) based on recommendations of the Game Section. Hunting licenses are sold through section offices and local license agents, usually retail sporting goods dealers. License totals for 1969 included 35,800 resident small game, 700 non-resident small game, 67,300 resident big game, 15,100 non-resident big game and 91,000 combination resident licenses, i.e., small game, waterfowl, big game, and fishing licenses. Anyone over 16 years old can purchase a deer hunting license which entitles them to one deer of either sex. This license is the base license to qualify the hunter for application privileges for other big game species. A quota is set on the number of permits for moose, buffalo, bighorn sheep, antelope, and anterless elk. Non-residents can purchase a deer license but are not allowed to

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Game populations in Utah include: 300,000 mule deer, 5,000 elk, 2,000 antelope, 200 sheep, 100 buffalo, and 300 moose. Deer are managed on herd flucuations in relation to proper use of their food supply, cover and range conditions rather than numerical counts. Aerial surveys are made to determine population sizes of other big game species.

Information and Education

Information and education services are provided to the public not by a separate division, but rather by an I & E section of the Fish and Game Division which provides services for all six divisions of the department. This section operates with a staff of ten and has an annual budget (1969-70) of $175,000, approximately 3.5 per cent of the Fish and Game budget. All revenue expended by this division is derived from the sale of hunting and fishing licenses.

The I & E program is directed towards resident sportsmen with a primary focus on the issues of improved sportsmen landowners relations, gaining acceptance and approval for management programs and policies, and attempts to foster a greater ecological awareness on the part of the public.

Most of the information is disseminated through state newspaper, television, and radio media via a weekly newsletter and special releases. Educational material is also prepared for use in conservation education programs throughout the state. Other services include a hunter safety program, in-service training offerings, and research in I & E approaches. The section does not publish a magazine for the department.

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Law Enforcement

While no separate law enforcement agency exists in Utah's Department of Natural Resource, these services are provided through a program within the Fish and Game Division which uses 58 conservation officers and two administrative personnel. These forces are supplemented at times by department employees from other divisions, e. g., park rangers provide law enforcement services in the state's park system. In some cases citizens are commissioned to make arrests.

In a training program which consists of an eight week on-the-job internship, primary focus is attached to conservation and public relations oriented work. A yearly two day in-service program is also used for veteran personnel.

Under a regional law enforcement concept, the state is broken down into 54 districts with one officer assigned to a 1600 square mile district. Officers are not regularly rotated to different districts.

All officers drive identified, state-owned cars and accumulate an individual average of 29,000 miles annually. Three light aircraft owned by the Game and Fish Division are available for law enforcement work. Approximately 28 citations are issued yearly by each officer with 98 per cent of the arrests resulting in conviction.

In addition to those enforcement officers used by the Division of Fish and Game, an additional law enforcement group of 45 officers is employed by the Parks and Recreation Division. This unit provides services for park areas and enforces state boating and water safety regulations.

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Parks and Recreation

The Parks and Recreation Division of the Department of Natural Resources administers the state's 40 parks utilizing a staff of 27 park managers, 10 administrators, 2 planners and 20 operations and maintenance people responsible for the orderly operation of the park system. The total acreage of the system exceeds 43,000 acres with an average park size of over 1000 acres. Each park averages ten campsites having a size of 3200 square feet per site. Eighty per cent of the state's parks are located within 30 to 100 miles of an urban center with each park generally having areas for both overnight and day uses.

With a park entrance fee schedule providing for a $1.00/car daily fee and a $7.00 annual permit, park attendance reached 2.3 million users in 1968-69 over a season stretching from May to October. Daily park permit sales reached 79,000 in 1968-69 with annual permit sales totaling 7,300; an anticipated 25 per cent increase was expected for the following year. Under its existing permit system, reservations are accepted only for groups with a size greater than ten.

In addition to the parks in the state system, Utah has 14 national parks, recreation areas, or national monuments and eight national forests within its boundaries.

The division does cooperate with local units of governments in developing and maintaining parks in or near urban areas, but does not have any plans for becoming directly involved in urban recreation.

There is no functional separation between park and recreation activities in the Natural Resources Department; park and recreation responsibilities are carried out by a single division.

Data on the Lands Management Division is included in the tabular analyses section of this report.

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Having a population of 3.4 million people, Washington's residents are distributed over the state's 66,700 square miles of land area at the rate of 51.1 people per square mile. The state also has 1,480 square miles of inland water area.

The management of the state's natural resources is administered through a number of agencies. A Department of Game, for example, is responsible for wildlife management, protection, and propagation as well as management of Washington's sport and game fisheries. A separate agency, the Department of Commercial Fisheries, is responsible for managing food species and the regulation of the state's commercial fishing industry. A third agency, the Department of Natural Resources, is charged with managing the state's forest and land resources, mineral deposits, agriculture and grazing, and the state's shoreline areas. Finally, park and recreation areas are the responsibility of a Parks and Recreation Commission.

Both the Department of Natural Resources and the Department of Game receive policy direction from boards or commissions composed of public officials, resource professionals, or lay citizenry. The Natural Resources Board, for example, is composed of five members including the governor, the Superintendent of Public Instruction, the Commissioner of Public Lands, the Dean of the College of Forestry (University of Washington) and the Director of the Institute of Agricultural Sciences, Washington State University. Members of the State Game Commission, on the other hand, are private citizens appointed by the governor to staggered terms of office who develop department policy, establish game and sport fishing regulations and seasons independently of the legislature.

The Game Commission also appoints the department's director and has the authority to remove him. The director is responsible for the operation and general supervision of the department including 430 full time employees and an annual budget of $10 million (1969-70).

Fish

Washington's fish resources are managed through the operations of two agencies, the Fishery Management Division of the Game Department and the Department of Fisheries. Both departments are independent of each other, operate on different budgets, and are responsible for managing different areas of the state's fish resources.

The Fishery Management Division of the Game Department is responsible for programs relating to sport and anadromous species. Its program segments include habitat management and protection, water quality, and hatcheries. The division employs six administrators, one researcher, twelve field technicians, 90 hatchery personnel and operates on an annual budget (1969-70) of $1.6 million. Of this, around 80 per cent is allocated to the hatchery program.

The hatchery program consists of 26 cold water facilities with a combined capacity of 40 million fish. While much work is done in the area of anadromous species (especially steelhead), over 35 million trout of various species were planted in 1968. A private program of approximately 70 cold water hatcheries also exists in the state.

Research is conducted by the staff in management techniques and studies of hatchery fish survival rates. A pesticide monitoring program is used for the analysis of chlorinated hydrocarbons is also underway in certain areas.

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In 1969 over 437,000 residents and 33,000 non-residents licenses were sold by various license agents throughout the state. Money generated through license sales returns to the Game Department's general fund.

Washington's other fish management agency, the Department of Fisheries, manages all marine and anadromous species except trout, char, steelhead, and whitefish which are under the jurisdiction of the Fishery Management Division. The department operates under seven program segments including administration, purchasing, management and research, engineering and construction, fish hatchery management, fisheries patrol, stream improvements, and planning/coordination. The scope of these program extends to both the salt water and anadromous fisheries of the state to manage all food fish species and shellfish. As such, the department's focus is primarily on commercial rather than sport species.

The department employs a staff of 59 administrators, 97 researchers, and 270 field technicians and operates on a combined operations/capital outlay budget of $6 million (1969-70).

The department's research staff conducts a pesticide monitoring program which monitors young salmon at irregular intervals on the Columbia River. A similar program conducted on oysters over a period of two and a half years throughout western Washington revealed mostly zero pesticide amounts with only traces noted in three locations. Research on the impact of environmental changes on salmon, bottomfish and shellfish is also conducted.

The department operates 25 salmon hatcheries which in 1969 produced 113 million salmon to be planted in state waters.

All food fisheries, whether commercial or sports, are regulated by the Department of Fisheries. Revenues generated from commercial fisheries in 1969 amounted to $600,000 based on license sales to 5000-6000 fishermen. Compared to other renewable resource industries in the state, commercial fishing ranks third. In 1969 the state sold 850,000 pounds of salmon to commercial canners for human consumption and 1.2 million pounds for animal food.

Forestry

Washington's forests cover over 19 million acres and are owned by three major parties - privately owned forests (9.1 million acres), federal forests (8.2 million acres), and state forests (1.7 million acres). Forest lands owned by the state are managed by the Forest Land Management Division, an agency of the Department of Natural Resources. The division employs a staff of 261 foresters, 729 seasonal fire fighters,* 33 administrative personnel, and 264 sub-professionals and operates on a biennial budget of $6.5 million while $7.9 million is allocated biennially for forest fire protection.

Of the seven billion board feet of timber removed annually from Washington's forests, timber from state lands accounts for 766 million board feet of the total figure. In 1970 the estimated value of timber removed from state lands was $35 million.

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*The Department of Natural Resources has a separate Fire Control Division and each district has a fire control staff-the result being a functional separation between forestry management and fire fighting within the department.

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In addition to its management duties, the division also has responsibilities in the areas of land appraisal, easement evaluations, trail construction and wilderness camping facilities. The division also assists private landowners by furnishing seedlings and conducting spraying operations.

Game

Programs operated by the game department include a big game management segment, an upland and migratory bird segment, as well as the operation of game farms which are intended mainly for raising pheasants and exotic game bird species. Game personnel include five administrators, three researchers, 38 field personnel, and ten part time employees. Operating on a $946,000 budget in 1969-70, funds were expended for administrative purposes (9 per cent), research 3 per cent), habitat development (15 per cent) and management of the game farm system (74 per cent).

In 1968, 900 authorized license agents sold 392,000 resident/non-resident general hunting licenses as well as 370,000 big game tags, a six per cent increase over 1967. While general hunting licenses can be obtained directly from a license agent, special hunts often require specific animal permits distributed on a lottery principle, i.e., hunters selected from a "pool" of registrants. Revenues generated from license sales are deposited in the Game Department's general fund.

Washington's big game populations include a three species deer herd (mule, white tail, and blacktail deer) of more than half a million animals, 22,000 black bear, 40,000 elk, and 7,000 mountain goat. Annual harvest figures are determined by mailing a questionnaire to ten per cent of the licensed hunters and projecting kill trends on the basis

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Information and Education*

The Special Services Division provides services for all divisions of the Game Department although all divisions also perform many of their own I & E services. The division is administratively under one of two department assistant directors. Most work is viewed as a staff function and is generally confined to I & E matters of state-wide significance. Besides information and education services, department program evaluation, firearm safety training, and farmer-sportsmen programs. Strict I & E functions are largely the responsibility of two information officers, a photographer, and a part time lab assistant. Public relations, as separated from I & E, is more the responsibility of the department's Administrative Division. This division also provides assistance to other divisions in I & E matters, largely in the preparation of publications or news media relationships.

Most publication and photo operations are largely in-house projects. The division takes and develops its own pictures and maintains a photo file. Motion pictures are also produced and edited by the division as is artwork and layout design. The division's quarterly publication, GAME BULLETIN, is produced from material written by division personnel and has a circulation of 18,000.

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*The information contained in this section refers to the Special Services Division of the Department of Game, an agency responsible only in the areas of game fish, birds and animals. Commercial fish species come under another state department, as do parks, forestry, lands and other functions. These agencies, operating programs independent of those of the Game Department, provide their own I & E services.

Law Enforcement

Enforcement of fish and game regulations is provided by the Law Enforcement Division of the Game Department; the force consists of 100 officers and three administrative personnel and operates on an annual budget of $2.3 million annually.

New officers are assigned to a ninety day classroom training program which is supplemented with an additional ninety day field program under the supervision of a training officer; an in-service training program is also conducted for veteran officers.

The state is divided into ten enforcement districts with ten officers assigned to each district; each officer patrols a 680 square mile area. In addition to the enforcement of fish and game laws, officers drive identified state-owned vehicles and individually accumulate an average mileage of 20,000 miles. The division also owns two light aircraft which are used for enforcement and patrol duty.

Water Pollution

The principal agency responsible for maintaining the quality of the state's water resources is the Water Pollution Control Commission, an independent agency which shares its pollution abatement responsibilities with the Department of Water Resources. The Water Pollution Control Commission employs a staff of four administrators, 22 engineers, 4 planners, and 28 testers. In addition to its $2.7 million annual budget a $2.5 million bond was authorized in 1968.

CHAPTER III

ORGANIZATIONAL PATTERNS: STATE NATURAL RESOURCE AGENCIES

In his history of a nation's misuse of its natural resources, Stewart Udall alludes to the early pristine condition of the North American continent:

> Superlatives alone could describe the bewildering abundance of flora and fauna that enlivened its (the American continent's) landscapes: the towering redwoods, the giant saguaro cacti, the teeming herds of buffalo, the beaver, and the grass were, of their kind, unsurpassed.[1]

The incredible opulence of all resource types fostered a "myth of superabundance" which was, of course, soon punctured as the new nation became increasingly developed, populated, and industrialized. In the wake of resource devastation came efforts from both federal and state governments to promote a more prudent use of natural resources. In the case of state agencies, these efforts were manifested in the establishment of a few small resource agencies or through attempts at resource management by the state law makers via direct legislation.* Historically, the separate state agencies either maintained their autonomy as separate departments managing less than all of the resource functions found in the state, e.g., fish department, game department, forestry department, etc., or eventually consolidated into a single comprehensive department.

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[1] Stewart Udall, The Quiet Crisis, (New York, 1964), pp. 15-16.

* The Michigan legislature, for example, passed the state's first hunting regulation in 1859 (banning deer hunting for the first seven months of the year), long before the establishment of an official game agency.

While the preceding chapter presented verbal summaries of the operations, staff and programs of the states involved in the study, the following is a discussion of the manner in which states organize their natural resource agencies. Although two major organizational formats are presented, it should be recognized that while all states will fall into either of these two categories, the different territorial sizes, populations, political climates and other factors among the states will result in variations within the two categories. Also included in the chapter is a view of the commission form of decision-making and its application to both types of organizational patterns.

Single Comprehensive Natural Resource or Conservation Department - Type A

An initial organizational framework encountered in the study's survey was one in which all natural resource functions were consolidated under and administered through one agency, i.e., a consolidated department. Fully 46 per cent of the state's have organizational patterns of this nature and those undergoing reorganization during the late '60's and early '70's exhibited a trend towards this organizational format.

The services offered by a comprehensive department are generally focused on the management of the state's natural resource base. Traditionally, this base has been divided into the recognizable components of fish, wildlife, forest and waters, parks, etc. Within the comprehensive department, these resources are managed individually or in combination by administrative sub-units or divisions of the department. Recently, however, these reorganizational efforts have reflected attempts to include apparatuses within the department to provide for environmental quality management as well. New York's Department of

Environment Conservation and New Jersey's Department of Environmental Protection, for example, are both organized to provide for the development of a body of knowledge and management skills to assess the impact of modern technology and social patterns on the environment in addition to managing the resource base.[1]

A natural resource agency organized under a comprehensive framework will receive administrative direction and policy guidance from two services, a chief executive and a board or commission* consisting variously of 3-12 members appointed by the state's governor.

In terms of policy formulation and development, the latter generally plays a more crucial role largely as a result of its authority to establish departmental policies, programs, and objectives. Natural resource commissions receive this authority based on specific legislative acts which delegate to them regulatory powers over natural resource functions. The effect has been to allow these boards to act in a quasi-legislative manner in the establishment of hunting/fishing regulations, seasons, methods of take, etc. In those states which have a comprehensive natural resource department, this authority has usually been extended to cover additional regulatory functions in the areas, for example, of oil, gas, and mineral production, water quality control, water safety, etc. Similarly, these commissions are empowered to exercise fiscal control by governing the financial policies of the department through budget approvals, supervision of expenditures, and the approval of allocations

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[1]"Governor's Program Bill Memorandum" (Albany, 1970), mimeo.

*The terms "board" and "commission" will be used interchangeably to mean that group which determines official policy for a natural resource agency.

for all programs. This is not to suggest, however, that the state legislature has removed itself entirely from the area of the department's finances. In all instances it is the legislature which provides the appropriations requested by the department.

In addition to a major policy board most natural resource agencies, despite the nature of their organizational framework, have the services of various advisory groups attached to the official structure of the department. Lacking any regulatory authority and composed of lay citizenry or officials from appropriate public agencies, these boards serve as vehicles to provide additional expertise or public informational inputs in the development of programs or policies. Michigan, for example, has six advisory groups in the areas of environmental quality, oil and gas, recreation, research, Great Lakes fisheries, and historic preservation.

Although policy duties are installed in the natural resource or conservation commission, the implementation of these policies is charged to the department's chief executive.* Of the 23 states which have single comprehensive departments, the chief executives in 9 of them are appointed by the governor with the remainder being selected by the department's policy board, i.e., commission. Whether he is referred to as Director, Secretary, or Commissioner, the chief executive serves as the agent who is responsible for the supervision and management of all department personnel. A further duty of the chief executive is to act as a communications link between his staff and commission/board

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*There are, however, four states in which the chief executive acts as the major policymaking agent of the department. In these instances the natural resource commission spoken of earlier acts in an advisory capacity.

members. Performing in this capacity, he prepares recommendations in those areas over which the commission exercises control, i.e., budgetary matters, policy, programs, and other appropriate activities.

While the official interaction between the chief executive and the commission suggests a subordinate-dominant relationship, the department's director functions in anything but a subordinate capacity. He is in most instances a professional with substantial experience in the resource field whose recommendations are solicited by commission or board members. His stature is reinforced by the fact that many of the statutes empowering commissions with legislative prerogatives specify that policy decisions are to be reached only after consultations with the department's director, i.e., chief executive.

Although the working relationship between the chief executive and the policy board is a close one, interpretations vary as to the role of each in the agency's operations. Some states, for example, make a strong distinction between the policy functions of the commission and the administrative duties of the chief executive. In these instances, any attempts by commission members, either singly or as a group, to assume administrative duties is viewed as an encroachment upon the executive powers of the director with the results having negative implications for maintaining a coherent chain of command. On the other hand, however, the commissions of a number of states consider the issuance of administrative orders within their purview.[1] Although this issue is at times left to be resolved by the two parties, specific

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[1]"Iowa Conservation Commission", mimeo., undated, p. 2.

guidelines are generally provided by the state legislature.

While the department's chief executive and policy board are responsible for providing overall direction and administration of the agency, they are, of course, supported by a staff assigned different roles within the organization. Under the type of organizational framework being discussed, i.e., a single comprehensive department, there exists a definite system of working relationships in which one individual has at least one supervisor from which he receives orders. The result is a scalar or hierarchical organization in which the working relationships of the employees form a pyramidal arrangement based on differing ranks.[1] (See Figure A)

This hierarchical design is further modified by the specialization of activities or responsibilities within the organization. Certain activities are defined on the basis of their integral relationship with the main function of a natural resource department. Such a department exists, of course, for the management and protection of the state's wildlife, forests, parks, etc. Consequently, sub-unit specialization is based upon the department's purposes, e.g., wildlife division, forestry division, park division, etc. These divisions or sub-units within the department are recognized as the "line" functions of the organization.

Further modifications within the basic hierarchy occur through the existence of additional operations which serve all other units in the department. All line divisions, for example, might at some time demonstrate the need for information, purchasing, personnel, or engineering

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[1]Comstock Glaser, Administrative Procedure, (Washington, 1941), p.10.

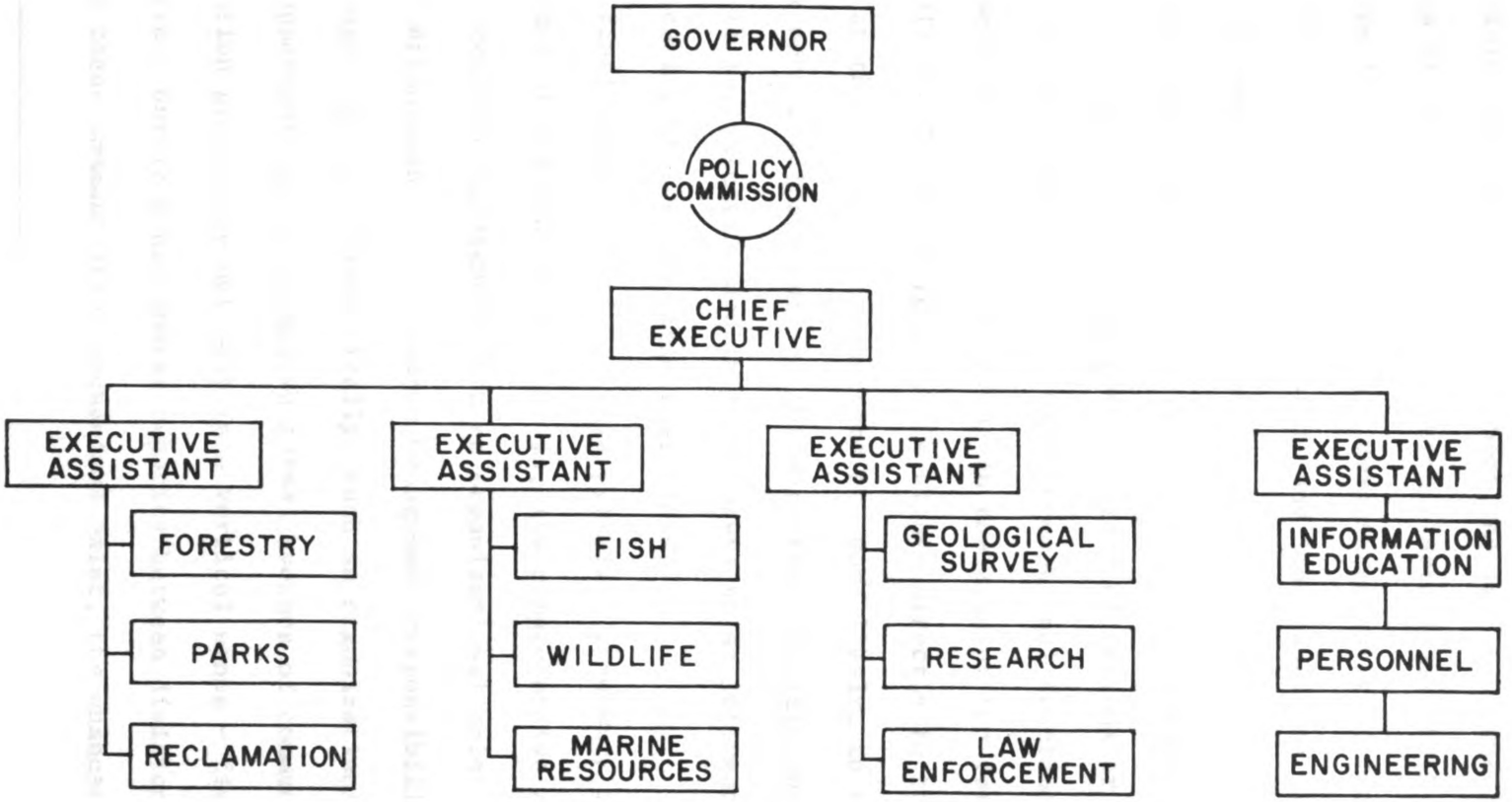


FIGURE A

TYPE "A" ORGANIZATIONAL PATTERN
SINGLE COMPREHENSIVE AGENCY

services. In effect these units buttress the processes of administration[1] by providing support services to both the executive and line or field branches of the resource organization. Activities which are arranged according to particular tasks are designated as staff functions.

While executives of both staff and line functions will maintain a base of operations at the central offices of the resource agency, the scope and geographical distribution of a state's natural resource base requires, in most cases, the establishment of regions or areas in which field offices representing the major operational functions of the department are located. Depending on the size of the resource agency, the field staff will be responsible either directly to the executive office at the agency's headquarters or, more likely, to a regional officer who coordinates all of the resource activities and programs under his jurisdication and in turn serves as an intermediary between the executive office and field operations.

A final characteristic of this pyramidal framework is noted in the dimensions of its functions, that is, its comprehensive approach to natural resource management from an organizational point of view. Under such an arrangement, all resource management responsibilities are charged to a single agency. Theoretically, such an organizational pattern provides opportunities to establish formal avenues of communication and information processing not only in a vertical sense - field → staff → executive - but in a horizontal capacity between divisions or bureaus. Because these communication mechanisms exist, the chances for coordinated

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[1] Ibid., p. 19.

planning and management activities are improved. Furthermore, the executive/staff/line trilogy is characterized by a linear relationship which operates in two directions. The policy board and the executive branch are dependent on the staff/line functions below it to implement policy and programs. Yet staff and line personnel not only act in that subordinate capacity, but they also serve as sources of data upon which the policy process is dependent. With all natural resource functions placed in a single department, decision-makers theoretically have access to all related information on a given management problem.

Functions Separated by Departments - Type B

The second recognizable natural resource agency pattern represents an organizational framework in which each function is established as a relatively autonomous unit which is as self-sufficient as possible. Figure B illustrates that each unit has department status, each ultimately responsible to the state's chief executive. Under this pattern, the directors of the respective departments are gubernatorial appointees who conduct the agency's activities based upon programs set forth by the governor.

Since the individual departments are largely independent of each other, there exists no single board or commission which formulates policy for all natural resource functions. Each department will have, in most instances, its own advisory board to provide consultations on policy matters. However, any such boards attached to the separate departments, with the exception of fish and wildlife commissions, are generally authorized to perform in only an advisory capacity. Fish and game commissions, with little exception, receive a statutory grant of authority to regulate fish and game functions in the same manner as those

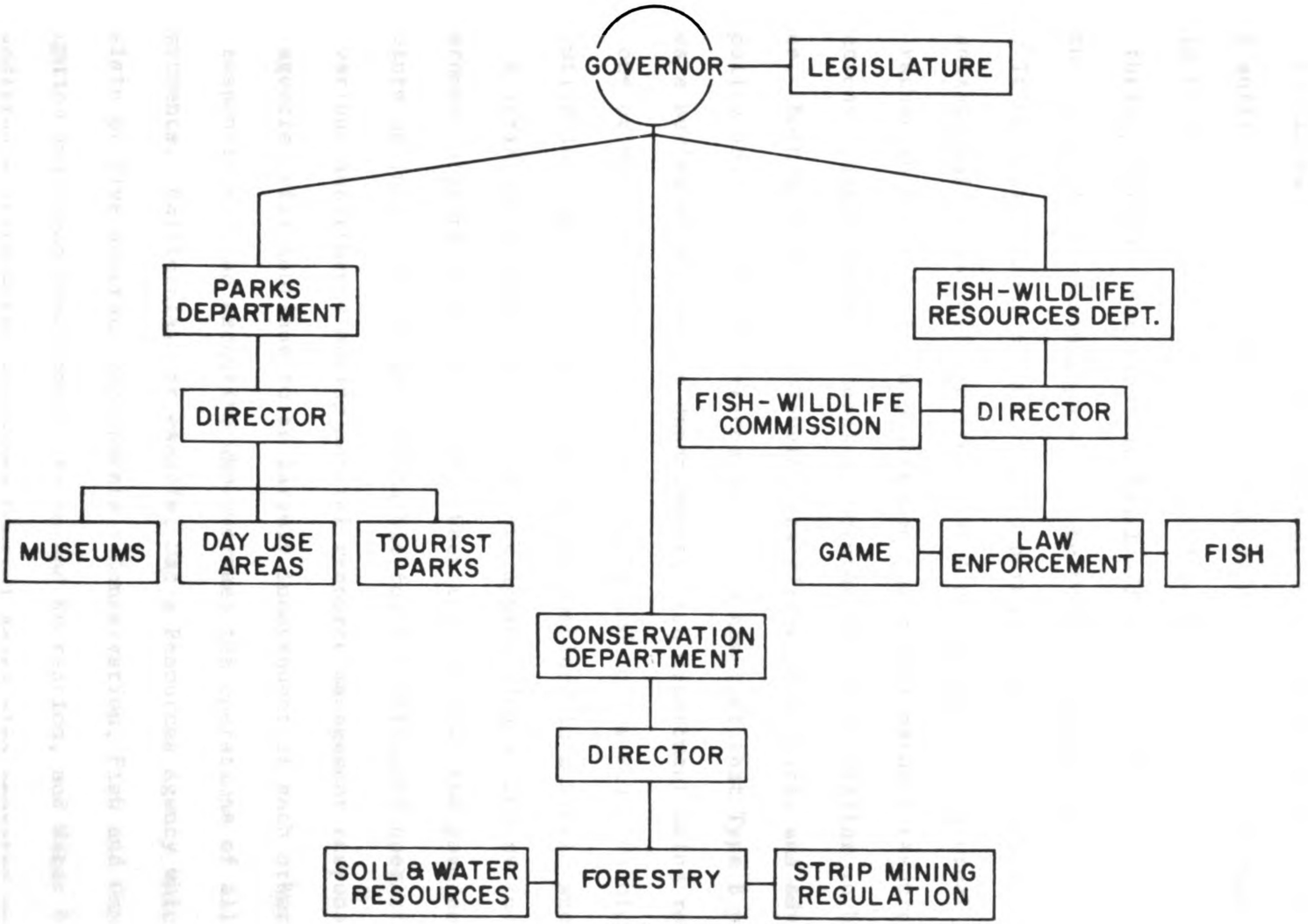


FIGURE B

TYPE "B" ORGANIZATIONAL PATTERN

AUTONOMOUS UNITS

commissions found in a comprehensive natural resources department.

Within each department are found all services necessary to provide self sufficiency. Information and education activities, for example, would be provided individually by each department which felt it desirable for their programs. Similar individual efforts would have to be made in the areas of purchasing, personnel services, accounting, and the like.

It becomes evident at this point, perhaps, that the Type B organizational format differs from Type A not so much in internal design but rather in the relationships between individual natural resource functions. Basic organizational structures are quite similar in both types. Both have executive levels, staff/line principles, and advisory or policy boards. The difference occurs in the fact that Type B provides a series of autonomous departments, each department being responsible for one or more natural resource areas, linked to the state's chief executive instead of having all functions combined in a single agency.

A variation of the Type B framework approaching a cabinet form of government appears in a few states. When this occurs, the governor appoints an individual to be responsible for the efficient operation of the various departments having natural resource management responsibilities. The agencies will continue to be largely independent of each other yet are responsible to an executive who oversees the operations of all departments. California, for example, has a Resources Agency which consists of five separate departments - Conservation, Fish and Game, Navigation and Ocean Development, Parks and Recreation, and Water Resources. In addition a State Water Resources Control Board also operates under a department status. Although each department develops its own programs and activities for a specific resource, they are nevertheless responsible

to the agency's chief executive, the Secretary, who serves as a means of coordination and communications between departments as well as provides recommendations to the departments to promote more efficient operation. Consequently, although the Resources Agency resembles the type B organizational framework, decision-making processes and information exchanges closely approximate that of a single comprehensive department.

Commission Form of Decision-Making

As has been illustrated in the preceding, policy bodies designated as commissions or boards are common to both organizational patterns A and B with commissions usually having a broader scope of authority in former pattern. In either circumstance the principal characteristic of the commission body is the plenary powers they have been granted to regulate natural resources in the area of their particular jurisdication. One may assume that the origin of these powers resulted from the recognition by lawmakers of the impracticality in concerning themselves each year with the technicalities involved in setting bag and creel limits based on a flucuating game supply.[1] Unique not only in the sense that lawmakers are generally cautious of their legislative prerogatives and therefore hesitant to delegate them to others, but that once accomplished, this delegation of authority to natural resource/game and fish commissions allows their promulgations to carry the weight of law. As was suggested earlier, these regulatory functions have extended to other natural

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[1]John R. Owens, A Wildlife Agency and Its Possessive Public (Indianapolis, 1965), p. 6.

resource activities as the scope of a particular agency has broadened.

Although it is a unique feature, the quasi-legislative role which most natural resource commissions maintain is not their sole distinguishing characteristic. As far as decision-making processes are concerned, the fact that these commissions function as a group has implications for policy formulation. Since the late 19th century and early 20th, social thinkers and philosophers suggested that the interaction between the individuals of a group, based on discussion, the exchange of ideas or perhaps even conflict, produces results which are somehow sounder and more encompassing then would be had the individuals acted separately.

Whether one subscribes to this view or not, the results of this study suggest that the commission form of natural resource government fulfills this function not only because commissions imply group action, but because the commission form provides a vehicle through which additional inputs enter into the decision process. The medium through which this occurs is the prublic meetings and public hearings over special issues authorized by the commissions. Of the commissions which responded to this study, 88 per cent were authorized to hold public hearings on particular issues. The result is to provide a forum through which the public, special interest groups, and various sources of expertise can make their views known.

In terms of democratic processes, the above principle may not appear as a major innovation, yet it presents a crucial aspect of natural resource policy development. One reason for its importance is that natural resource agencies have very vociferous public. [1]

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[1] Owen, pp. 9-11, 13-18 and Lewis W. Moncrief, "Analysis of Hunter Attitudes Toward the State of Michigan's Antlerless Deer Hunting Policy", unpublished Ph.D. dissertation (Dept. of Resource Development, Michigan State University, 1970), pp. 54-57.

At least one reason for the public's sensitivity to natural resource issues is the charge, either directly or indirectly, which is usually levied on the user of a state's natural resources in the form of license, camping, or entrance fees. Since it was their money which financed new game areas, parks, access sites, and the like, they are justified, it is argued, in their demands to be included in the decision process.

While there are not data to indicate the precise relationship between the input provided via testimony at a public meeting and the final policy outcome, the information regarding the individual composition of a commission provided by the study suggests the need for commission groups to rely on informational inputs from both the public as well as department staff. Almost without exception the individuals who fill commission posts are gubernatorial appointees (Two states elect commission members. In New Jersey, three of eleven members of the Environmental Protection Board are elected by federated sportsmen clubs throughout the state while commission members in Nevada are elected on a county basis.) Since members are paid on a per diem basis when they meet as a whole, most appointees are supported by other income sources; many are well-to-do businessmen or practicing professionals. No expert knowledge of conservation matters beyond an active interest in various forms of outdoor recreation, i.e., hunting and fishing, is expected of commission members. About the only requirement imposed collectively on the commission is that there be a semblance of geographical representation on the board. Similarly, a "packed" commission is usually avoided by

guidelines requiring bipartisan representation of political parties.*

Because commissions are characterized by a lay citizenry composition, their tendency will be to consider all presentations made by interest groups and specialists in the field in an actual decision situation. For if the department is blatantly pursuing a wrong course of action, or perhaps taking no action at all, these inputs provide a gauge of how acceptable a particular program is. In this respect, commissions function as "blank tablets" in the policy process on which are recorded inputs from public and staff information systems, as well as certain subjective criteria - ideas, values, observations, experiences. The commission's responsibility is to weigh all of the factors and then to decide on a policy appropriate to the situation being considered.

Organizational Tendencies

A cross section of the natural resource agencies throughout the states in 1970 suggests that many have as their raison d'etre the management of hunting and fishing resources. In twenty states the major resource agency has been installed with game and fish management responsibilities. In most instances these fish and game departments have their counterparts within the state governmental structure which also have department status, e.g., parks department, forestry department, water resources department, etc. There are, however, a few agencies in this category whose responsibilities go beyond fish and game management. The Montana Fish and Game Department, for example, also operates the state's

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*While these requirements are applicable to a commission attached to a single comprehensive natural resources department or fish and wildlife department as found in Type B organizational framework, there are instances where certain expertise is required when boards are set up to regulate certain health related resource functions or to set environmental standards. In these situations, members are generally professionals from other departments or members of the academic community.

park facilities and has a division of environmental resources. Similarly, Texas and Kansas have fish and wildlife agencies whose duties extend to forestry, and, in the case of Texas, parks.

Those departments which manage only a single resource are limited largely to the areas of forests, parks, or water resources. Fourteen states have, for example, charged management responsibilities to separate departments whose duties are limited to forestry. Additionally, seventeen states have made similar provisions in the area of park/recreation responsibilities. Table 2, however, shows that few states have seen fit to designate fish or game resources as separate functions. Pennsylvania is the only state to have delegated fish management responsibilities to one single agency and game management to another.* Although both Oregon and Washington are listed on Table 2 as having separate game departments, they are in effect departments having responsibilities in areas beyond game management. Washington's Department of Game and Oregon's Game Commission are both charged with managing their state's sport fishing as well.

The attempt to distinguish between resource agencies based on differences in their functions is at times further complicated by problems of semantics. It was noted earlier in this chapter that one type of natural resource organization pattern has all functions consolidated under a single agency, Type A. Invariably, these comprehensive agencies are entitled "Department of Natural Resources," "Department of Conservation" or variations thereof. Departments bearing these names,

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*It should be noted, however, that the above refers to separate sport or game fishing agencies. A number of states having significant commercial or marine fisheries have established separate agencies (not included in Table 2) to manage these resources.

Table 2. Major Characteristics of State Natural Resource Agencies

States	Single Consolidated Agency	Separate Fish Agency	Separate Game Agency	Consolidated Fish & Game	Separate Forestry	Separate Parks/ Recreation	Combined Forests/ Parks	Separate Nat. Res. or Conserv. Dept.	Director Develops Policy
Alabama	X								
Alaska				X				X	
Arizona				X		X			
Arkansas				X	X	X			
California	Resource Agency								
Colorado	X								
Connecticut				X			X		
Delaware	X								
Florida	X								
Georgia	X								
Hawaii	X								
Idaho				X	X				
Illinois	X								
Indiana	X								
Iowa	X								
Kansas				X		X			
Kentucky				X		X			
Louisiana				X	X	X			
Maine				X	X	X			
Maryland	X								X
Massachusetts	X								
Michigan	X								
Minnesota	X								X
Mississippi				X	X	X			
Missouri						X		X	
Montana				X	X				
Nebraska	X				X				
Nevada				X		X		X	
New Hampshire				X				X	
New Jersey	X								
New Mexico				X	X	X			
New York	X					X			
North Carolina				X	X			X	
North Dakota				X	X	X			
Ohio	X								X
Oklahoma								X	
Oregon			X		X	X			
Pennsylvania		X	X		X				
Rhode Island	X								X
South Carolina				X	X	X			
South Dakota	X								
Tennessee				X				X	
Texas				X	X				
Utah	X								
Vermont	X								
Virginia				X		X			
Washington			X			X		X	
West Virginia	X								
Wisconsin	X								
Wyoming				X	X	X			

however, are also found under the Type B organizational framework.

There are eight such agencies of the type described above whose scopes of activity differ. Missouri's Department of Conservation conducts, for example, management programs in the areas of fish, wildlife, and forest resources and thereby reflects the comprehensive features of the Type A pattern. A separate State Parks Board, however, administers the state's park system. Washington's Department of Natural Resources, on the other hand, is charged with managing the state's forest and land resources, mineral deposits, shoreline areas, and has responsibilities in the areas of agriculture and grazing. The state also has four additional resource agencies which suggests a wider distribution of natural resource management responsibilities than found in Missouri. A third variation occurs when agencies of the type described above have within their jurisdiction the development of programs which do not deal directly, although related to, natural resource management. A case in point, Virginia's Department of Conservation and Economic Development, has responsibilities in developing tourism resources and overseeing mined land reclamation projects in addition to the management of forest, park, water, and mineral resources. As was the situation with Washington's and Missouri's agencies, Virginia's Department of Conservation and Economic Development functions in relationship to other state resource agencies and therefore is also included in the Type B pattern.

As a separate category then, those natural resource/conservation departments within the Type B framework differ in two respects. Because some are responsible for strict natural resource management and others for economic development, different areas of responsibility are suggested . A second and related point is raised by the presence of a

separate natural resource department within a Type B framework tends to broaden the scope of management responsibilities beyond traditional game, fish, and forestry functions.

Table 2 also indicates, under the column, "Director Develops Policy," that four states have natural resource agencies in which departmental policies and programs are formulated by the chief executive. Alluded to earlier, this type of agency acts without the provision of a board or commission which has been delegated policy authority by the state legislature. Any boards which do exist are advisory in nature. This arrangement occurs only when all natural resource functions are placed within a single agency, i.e., Type A.

Finally, it is noted on Table 2 that the most frequently encountered agency is that which is listed in the first column, "Single Consolidated Agency." Since this is the Type A organization discussed earlier, the only remaining issue to be pointed out is that the trend in this direction is likely to grow. Of six states, for example, which were undergoing reorganization when initially contacted for this study, all had reorganized under a single department.

Conclusion

At the outset of this chapter efforts were made to distinguish between two organizational forms prevalent among the natural resource agencies of the states. Furthermore, it was indicated that one type, the single consolidated agency, represented a more recent trend whereby the outlying resource functions were united under one department. This development serves to underline the advantages which a comprehensive department holds for natural resource functions. Among these are the opportunities the comprehensive department presents for specialization.

Figure B, for example, illustrates that there are certain service oriented divisions which would provide specialized support for the entire department. The personnel division then becomes responsible for all departmental hiring; purchasing for all supplies of the department; research for all inventories, surveys, etc. Each of the autonomous departments in Figure B, however, must provide these services for themselves which, at best, results in duplication. At worst, the staff will be spread thinly as they attempt to do justice to a number of jobs. For example, information and education services for a separate fish and game department will in all likelihood have to be performed by field workers or law enforcement people taking time off from their regular duties.

Secondly, the relationships between the autonomous departments in Figure B indicates the absence of formal lines of communication. There are no data provided by the study to draw conclusions about the effect which this absence has on the overall coordination of natural resource planning functions. Presumably, however, the existence of all natural resource agencies under a single department, linked to each other by staff executives having authority over a number of resource functions, is predicated upon the existence of communicative channels. These avenues of communication can provide the degree of interaction necessary for long range planning between functions. Similarly, on a smaller scale the exchange of new ideas and techniques has value for all units within the department.

This is not to suggest that all states can operate efficiently or effectively under a single natural resources department. Although the trend has been for states to go from a Type B framework to Type A, organizational theorists, however, suggest that the reverse occurs in

the developmental processes of industrial or business firms. Fledgling organizations start out with an organizational structure which is modular in form, i.e., all the work that must be done is grouped into major functional departments or divisions.[1] Control for coordinating the departments is centralized in one decision-making figure or body. Since it is a young agency:

> the natural thrust is on operations rather than management because the immediate problem and the need to get things done seems more pertinent and immediate than planning for tomorrow. The best vehicle for this type of operation is a functional (modular) organizational structure.[2]

Once a young organization has overcome initial problems and begins rapid growth, on the other hand, a centralized management might find it difficult to exercise control over its operations resulting from excessive centralization and delays in decision-making. The manner in which the preceding disadvantages of large monoliths are overcome is to divide the organization into smaller, more flexible units. Under this system, the resulting units achieve a high degree of self sufficiency. Accordingly, each new sub-unit can be managed at the periphery of the original organization in much the same manner as a modular unit. As an example of the latter organizational form, the divisions of General Motors Corporation suggest a classic illustration.

The size of a single agency, then, can be one factor in explaining the necessity for not consolidating all resource dependent on a number

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[1] Louis A. Allen, "Functional and Divisional Organization" in Management and Organization, 1958, p. 1, mimeo.

[2] Ibid., p. 3.

of variables, one of which is the scope and geographical distribution of the resource to be managed. California's Department of Parks and Recreation maintains over 800,000 acres of state-owned or leased park lands which attract 36 million visitors annually and operates on an annual budget of $24.5 million. To combine this department with the remaining resource departments in California, which approximate the size of Parks and Recreation, into a single department would possibly render it unwieldly and inefficient.

Similarly, Table 2 notes that fourteen states have separate forestry departments or agencies. Most of these have forest holdings which require such large amounts of personnel and funds to manage the resource that separate departments have been necessitated.*

Final commentary is addressed to the role of the commission form of natural resource government, a form common to both Type A and B organizational frameworks. It is recalled that commission members are not natural resource professionals. The only information available to them in the decision-making process is that which they have acquired during their term of office or that which they received from agency staff. Another key feature is the "public" nature of commissions, i.e., the ease of access which the public has in reaching the commission. As a result, decision-making by the commission form reflects a participatory principle which can involve many parties representing different interests

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*In some instances tradition seems to be the only manner in which one can explain the continuing existence of separate agencies. In Oregon the state park system is administered and managed by the State Highway Department, a possible throwback to the CCC and WPA era when work crews developed park lands which were than maintained by state or local highway departments.

in the decision process. In this pluralistic context the participants attempt to influence each other through bargaining or the building of alliances. The result is a policy process which is a function of social dynamics rather than an intellectual exercise in which one or a group of decision-makers conceptualize all of the possible alternatives to a problem and then choose the correct solution. Since policy formulation by commissions is a social process, it is necessarily slow moving. While this is acceptable, inordinate lengths of time used for negotiations or bargaining can impair the ability of the agency's chief executive to administer programs effectively.

A final consideration of the commission form is related to the manner in which they assume office. Appointed in most instances by the governor, one assumes they are sympathetic to the governor's programs. Yet commissioners are individual souls, however, and the possibility arises that they will proceed their own ways ideologically and thereby frustrate the efforts of the state's chief executive to implement his own natural resource program. From the chief executive's standpoint then, the potential for obstruction by the commission form is considerable.

CHAPTER IV

SNOWMOBILING IN MICHIGAN STATE PARKS: A POLICY ANALYSIS

An initial consideration for this case study involves a look at various approaches to the study and analysis of policy. As is the case for any topic subject to study by students of various disciplines, a number of attitudes have developed concerning interpretations of the subject matter. Illustrative of this point is J. L. Pressman's article, "Decision-Making and Public Policy: The Perils and Possibilities of Fragmentation,"[1] which, in part, presents a number of policy constructs ranging from a rationalistic model to more heuristic models of "disjointed incrementalism" and "satisficing". Whatever the relative merits of these approaches, they all reflect a common raison d'etre, that is, their purpose is to determine what the environment of particular body politic will be. As such, they are descriptive or explanatory models which attempt to account for differences in policy outcomes. The assumption is that such endeavors will aid decision-makers by informing them of, or at least helping them to understand, the forces brought into play once the policy process has begun.

It is this approach, the application of an explanatory model, which will be used in this case study. Further explanation of the term,

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[1] J. L. Pressman, "Decision-Making and Public Policy: The Perils and Possibilities of Fragmentation," in Elements of Outdoor Recreation Planning, ed. B. L. Driver, (Ann Arbor, 1970), pp.273-298.

decision situation, will be arrived at as the chapter progresses. As a point of clarification, however, decision situation can be defined as one situation among various policy processes in which a fairly rapid decision is necessitated by virtue of attendant circumstances usually characterized by some sense of urgency.

Since this study utilizes the case study methodology, it is advisable to comment on the difficulties this approach presents. Assuming one of the objectives of this study will be to assess the response of Michigan's Department of Natural Resources (DNR) to the inputs of clientele groups in policy determination, it becomes a difficult task to select the one case most representative of the above. An analogous problem is faced by the statistician when he attempts to draw a representative sample from a heterogeneous population. Not only will each case present a different situation, but each situation will have a different set of parameters to which it reacts. Secondly, it is characteristic of a particular case to become meaningless when taken out of context, a situation which requires historical research to accurately place the case study in its proper perspective.

The Case: Snowmobiles in State Parks

While the use of motorized vehicles for purely recreational pursuits is a recent phenomenon, its rate of growth has been such as to present land managers with problems of truly outsized proportions. For areas with a suitable mix of temperature and precipitation, the problem is usually defined in terms of snow machines. Michigan, long recognized as a prime winter recreation area in the Lake States region, has also had to respond to problems presented by the use of snowmobiles. In particular, this study records the efforts of one agency, the Parks

Division of Michigan's DNR, to manage for snowmobile use.

Briefly, the Parks Division's history in regulating snowmobile use goes back as little as five years ago when the division first perceived the growing recreational use of snowmobiles and initiated a program to "establish temporary trails in Michigan State parks and recreation areas."[1]

As an initial management gesture, it soon became apparent that these first trails, laid out simply by signing trees along a designated route with flagging tape, fell short in meeting the growth rate of the activity. Not only were these trails inundated by early affictionadoes, but problems of law enforcement, trespass on private lands, and indications of possible ecological damage were also encountered by DNR field personnel.[2]

Within a few years, however, a number of permanent and semi-permanent trails had been developed throughout the park system. Although this trail system was supplemented by additional trail networks provided by other agencies, e.g., the Forestry Division of the DNR and the U.S. Forest Service, user demand was heaviest in the southern tier of Michigan's lower peninsula where state park lands received the brunt of snowmobile use.

Until the middle of the 1970-71 season, the procedures governing snowmobiling on state park lands had reflected a "trails only" rule as established by the Parks Division. Specifically, the regulation stated:

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[1]"Snowmobile Report Following 1970-71 Use Season," Park Design Section, Parks Division, Michigan Department of Natural Resources, p. 1.

[2]Ibid., p. 2.

1. Snow travelers may be operated only upon designated trails or areas.[1] Such trails or areas will be properly signed for such use.

Yet once again, there were indications that the existing park regulation was not adequate to cope with the demands of the snowmobiling public. As of October 1, 1971, there were 208,000 snowmobiles registered in Michigan as required by the state's "Snowmobile Law" (Act 74, P.A. 1968), an act which established regulation, equipment, and operation requirements.[2] Yet figures compiled by the Law Enforcement Division, Michigan Department of Natural Resources, indicated that 2,273 violations of the above law occurred during the winter of 1970-71, a non-compliance figure of 15 per cent. When projected over the state's 200,000 snowmobilers, this non-compliance figure indicates a total of 30,000 violations.[3]

Similarly, the 1968 legislation made no reference to the relationship between climatic conditions and snowmobiling. Although Michigan's automobile license plates proclaim the state to be a "Water-Winter Wonderland", the lower third of Michigan's lower peninsula receives an average seasonal snowfall of approximately fifty inches and has a much shorter snow season than the state's snowbelt areas which have an annual snow season of 100 days or more. Consequently, concern was expressed from a number of sources over those parks in southern Michigan which were receiving snowmobile use.

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[1]"State Park Policy #23, Motorized Snow Traverlers," Parks Division, Michigan Department of Natural Resources.

[2]A new snowmobile law was enacted in November, 1971, which provided for greater stringency in the areas indicated above.

[3]Frank Opolka, "Snowmobile Policy on State Forest Lands" (unpublished graduate paper, Michigan State University, Park and Recreation Resources, 1971), p. 8.

The Department of Natural Resources' reaction to what was approaching a crisis situation resulted from a meeting at the department's Region III (Southern Michigan) headquarters on January 18, 1971. Called for by the deputy director of field operations, the meeting was also attended by the Region III supervisor, park and related supervisory personnel.[1] The participants agreed that the snowmobiling in the parks issue was being compounded by unclear registration figures and Region III's climate conditions.

At the regional supervisor's request, a staff meeting was planned for the following day at the department's Lansing offices to attempt a policy resolution of the problem. The meeting would be attended by the remaining two regional supervisors, the deputy directors of field operations, recreation, resource management, and administration, and staff personnel of the Parks Division, Lansing office.[2] At that meeting a decision was made to remove the trails-only emphasis of the present policy and thereby open all state park lands to non-competitive snowmobiling across Michigan. No additional policy statements were issued. Instead, new emphasis would be given to the existing park regulation. Because of the manner in which the original regulation was worded, a major policy change was implemented simply by allowing "designated areas" to apply to areas beyond the original snowmobile trails.

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[1] Mr. W. W. Shapton, Deputy Director, Field Operations, Michigan Department of Natural Resources, personal interview, 12-5-71.

[2] Ibid.

Information Systems in the Decision Process

The organization of Michigan's Department of Natural Resources is characterized by tendencies towards centralization. On the one hand its broad purposes are defined by putting all functional work of one kind into one organizational component, i.e., a division structure. The divisions are generally operations oriented and, as administrative units, are responsible to one of five deputy administrators (deputy directors) in the areas of recreation, resources management, field operations, administration, or water management. A relatively large department, the deputy administrators serve as administrative, communications, and coordination links between the operational divisions and the department's chief executive. Especially noteworthy as a feature of centralized decision-making authority is the Natural Resources Commission, the department's major policy making and problem solving organ. (A more detailed account of the latter's role in the decision-making process is provided in another section of this study.)

The intent of the above is to characterize the nature of the DNR's organizational structure so that inputs of existing information systems can be traced in the decision-making process. In order to establish policy, the policy body must have access to an information system which provides data in a usable format. Such information is needed not only to set objectives in an initial policy decision, but to evaluate the impact of the decision once it is implemented as well as to determine its efficiency. The information system serving the DNR is its own staff-line organizational components.

In following traditional staff-line principles, line supervisors are assigned the responsibility for personnel, funds, equipment,

buildings, and programs assigned to them. The fourteen district offices of the department are the "outposts" from which DNR line personnel supervise activities and programs. Land managers within districts, e.g., state forest supervisors and park managers, serve in a line capacity responsible for the activities of their units.[1] From a communications standpoint, line personnel have considerable input in program plans and directives. Serving as the primary focus of public contact, field personnel act as a monitoring system which gathers and communicates information about public reactions to a particular program or policy to the appropriate line supervisors. As would be expected, initial inputs about the snowmobile problem in Michigan parks originated with park managers receiving comments at their parks from snowmobilers.[2]

Staff personnel function as the administrative arm of the DNR whose primary responsibilities are to assemble, analyze, and provide supervision for projects in the name of the appropriate deputy director.[3] Since staff recommendations for policy changes depend heavily on information received from line personnel, a system of interaction between the two types of personnel has evolved around information exchanges under formal and informal circumstances. This system is characterized by periodic staff visits to the regional offices, meetings of staff and line personnel, and written reports submitted by line personnel to staff offices.[4]

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[1]"Reappraisal of the Michigan Department of Natural Resources," Wildlife Management Institute, 1970, p. 5.

[2]"Snowmobile, op. cit., p. 2.

[3]"Reappraisal., op. cit., p. 12.

[4] Personal interview with Mr. Paul Rearick, Parks Division, Michigan Department of Natural Resources, 11-16-71.

This system is supplemented by a more formal channel of communication in which a field order serves as the chief communicative link. The procedure for issuing field orders requires the signatures of the deputy director originating the order (usually issued from requests for aid by a field unit), and the deputy directory for field operations.[1] Theoretically, the field order originates at the deputy director level, proceeds to the appropriate division, and then to line personnel for implementation. As such, it reflects a staff function, but the content of a field order calls for activities which could only have been prescribed after receiving information from line personnel about the problem or activity in question. It should also be noted that field orders are used to proscribe new activities rather than for routine operations which are defined in policy manuals compiled by each division. These manuals contain procedural guidelines which cover most of the daily operations incurred by the various divisions.

As it applies to the snowmobile issue, both the main and secondary lines of communication acted as feeders to the department's information system. Actual implementation was accomplished via the field order procedure. Data contributing to the final decision was relayed along more informal lines involving written and verbal communications between individuals in the department.

Extra-Departmental Inputs

Any decision, whatever its scope, does not occur in a vacuum. In the decision to allow unrestricted snowmobiling in the parks, inputs to the information system were not limited to DNR personnel.

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[1] "Reappraisal..,op.cit., p. 13.

Possessing a good deal of autonomy and having an image of not being a pawn of political machinery, the DNR is nevertheless subject to pressures from the state legislature. Such pressures are largely applied through the politics of budgetary review or, more drastically, by legislative encroachment of DNR discretionary powers.[1] An example of the latter as it applied to the case being studied was observed in the attempts of an upper peninsula senator to open the Porcupine Mountains State Park to snowmobiling. Submitted before any DNR action had been taken on present snowmobiling regulations, passage of the senator's bill would have pre-empted the Natural Resource Commission's legislative role in the regulation of snowmobiling areas.[2] Whether or not the senator's actions spurred the DNR to act on snowmobile policy when it did is academic, but historically, the department has established a tradition of acting to prevent inroads on its own policy powers by state lawmakers.*

Given the impact of the department's ruling, one would suspect that it would have gone to greater lengths to secure formalized inputs from the public sector prior to its decision. The fact remains, however, that data inputs were largely internalized through staff-line interactions. This internal information system was being "fed", though, through day to day contacts with the public by field and park personnel.

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[1] Rearick interview.

[2] Ibid.

*Always a controversial issue, a moratorium on anterless deer hunting during the 1969-70 hunting season was proclaimed by the Natural Resources Commission in the face of public outcry after a poor deer season the year before. The commission did so reluctantly only after it appeared that the legislature was about to act in its stead.

Yet the Parks Division continued to rely heavily on its own observations of snowmobile use to arrive at its liberalized ruling.[1] Letters from the snowmobiling public were received and informal contacts with legislators interested in regulation revision were maintained. Groups who would later show opposition to the ruling, however, remained largely reticent, probably under the assumption that the status quo would be maintained, i.e., snowmobiling would be restricted to trails only.

The Commission--Its Role in the Decision

The members of the five man body which serve as the policy making board of the DNR, the Natural Resources Commission, are appointed by the governor with approval of the senate. Although it is composed of lay citizenry, i.e., non-civil service appointees, the members of the commission are selected on the basis of training or experience related to one or more of the activities pursued by any of the department's divisions.[2] As the principle decision-maker, the commission's chief role is to effect policy rather than to act in an administrative capacity.

The key feature of the commission in its policy making role is the degree of autonomy it possesses in establishing policy for the conservation and development of the state's natural resources. While the powers of the commission are somewhat restricted in certain areas, those involved with setting regulations and establishing basic policies for the department are quite broad.[3] These powers are shored up by the transfer of legislative power to the commission to the effect that any

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[1] Rearick interview.

[2] "Michigan's Commission of Natural Resources: Its Roles and Goals," Department of Natural Resources mimeo. (1971), p. 2.

[3] "Report to the Governor's Special Conservation Committee on the Michigan Department of Conservation," Wildlife Management Institute (1963), p. 33.

of its pronouncements within the boundaries of its discretionary authority carries the weight of law.

This authority is specifically defined in two state acts, Discretionary Power Acts of 1925 and 1955, which provided the commission with broad powers to regulate commercial fishing and to establish hunting and fishing seasons, bag limits, and methods of take. The commission's authority receives greater specificity when new legislation names the commission as the enforcing agent of the rules and regulations needed to administer the new act.[1]

At monthly commission meetings, policy issues are decided through a majority rule procedure in which each man casts one vote. Decisions which must be reached in this manner include land sales and exchanges, approval of mineral and oil leases, and the like.

Separate from such functions, however, is the quasi-autonomy of each division within the department to establish such procedures and practices necessary to carry out their programs. (see page 89) Generally, these procedures are referred to as "policies", but they should not be confused with the broad decision-making authority afforded the Natural Resources Commission. It is this divisional autonomy which allows the Parks Division to establish regulations governing park use. In this manner the Parks Division is able, for example, to implement regulations similar to Park Policy #23, the regulation authorizing snowmobiling in designated areas, without receiving express and specific

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[1] State of Michigan, Laws Relating to Natural Resources, compiled by the Michigan Department of Natural Resources (Lansing, 1968), pp. 41-44, 107, 149.

consent from the commission.

This does not mean, however, that division level staff is able to establish operational policies without being responsible to the executive branch of the department since a seemingly routine regulation may have implications far beyond its original intent. Since a new divisional park policy represents an addition to the extant "canon" of park regulations, it must be implemented through the field order procedure (see page 93) and therefore must be authorized by the appropriate deputy director. When the scope of a new operational policy is deemed to be subject for additional consideration by either the department's director or the Natural Resources Commission, it is referred to the appropriate level.

In the snowmobiling issue decision-making authority of the commission was applied indirectly since it was within the scope of the Parks Division's operational procedures authority to change the regulation. Because the Natural Resources Commission had certain prerogatives in the regulation of motor vehicles, its members were notified during the January, 1971, conferences held by staff and field personnel relative to the snowmobile problem. And although no formal group action by the commission was taken, the effect was to give consent to proceed with the formulation of a new ruling to liberalize snowmobiling restrictions in state parks.[1] The commission's role does not end here, however. Whenever special interest or lobby groups seek a reversal or change in

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[1]Rearick interview.

existing policy, the commission is recognized as having final authority and therefore is subject to pressure from advocates of change in any evaluation a particular policy might undergo.

Policy Evaluation

A decision to open up the parks to snowmobiling beyond the trails-only restriction had been formalized via the field order procedure in January, 1971. An evaluation, of sorts, of that decision's effects had begun shortly after. It reflected both a continuation of an evaluation conducted by the Parks Division regarding the snowmobile issue as well as a departmental assessment of public reaction to the new ruling.

Recreationists, as clientele of public land management agencies, are as desirous as any special interest group to participate in decision processes which affect them. This participation is likely to be characterized by an atmosphere of conflict.[1] The above was typified at the monthly Natural Resource Commission meeting of February 11, 1971. Aside from the public hearings which the commission is authorized to hold, the monthly meetings represent an opportunity for the public to make presentations on an issue. The majority of the presentations before the commission are made by an individual associated with a conservation or recreationist group. The appearance of the group's representative before the commission poses an opportunity for the interest group to perform a service for their constituencies. There is some doubt, though, that the expressed opinion of the group's representative making the presentation would be the same had one been

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[1]Robert N. Twiss, "Recreationists as Decision Makers," in "Proceedings of the 57th Western Forestry Conference" (Portland, 1966), p. 42.

able to poll the membership as a whole. The presentations tend to be polemic in nature and probably function more to clarify the issue at hand rather than their need to get the support of their membership.[1]

At the February meeting, objections to the DNR's actions were voiced by the Sierra Club, Michigan Natural Areas Council, and the Michigan Parks Association. Support was registered by Senator Joseph Mack, Michigan International Snowmobile Association, and the Michigan Snowmobile Distributor's Association.[2] While the influence of the specific presentations on the commission might be negligible, collectively they served to elicit reactions from within the DNR in support of the new program. Notable was a statement from the deputy director of field operations which pointed out the extent to which the Parks Division had gone to assess the environmental impact of snowmobiles on park lands.* Similarly, he emphasized that the new rules would enable an evaluation of snowmobiling in open areas of the state as opposed to the results under previous trails-only regulations.[3]

The deputy director's comments implied an awareness of varying sets of criteria in policy evaluation. Since a formal evaluation procedure occurs infrequently in the DNR, ongoing patterns of policy

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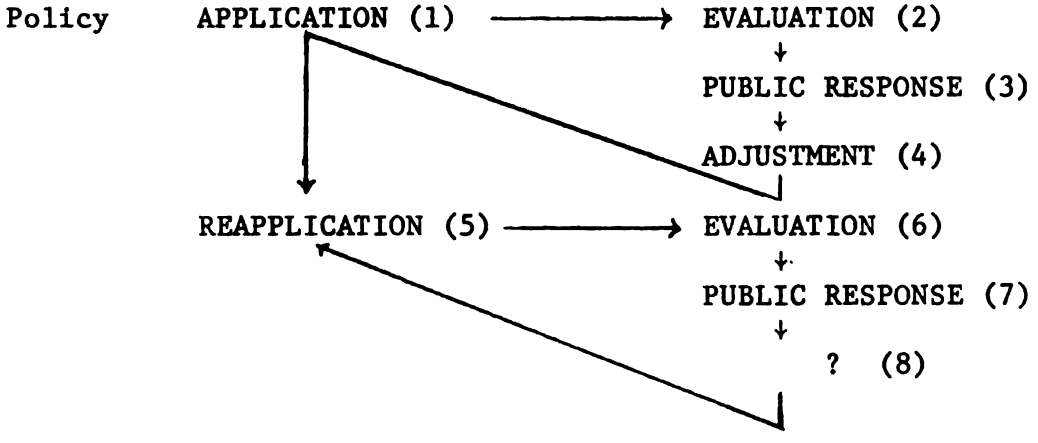
[1]Twiss, op cit., p. 42.

[2]Notes taken from a Natural Resources Commission meeting, February 11, 1971.

[3]"Proceedings of Michigan's Natural Resources Commission", February 11, 1971, pp. 278-279.

*A season before the new ruling was implemented, the Parks Division had set up three test areas in southern Michigan to evaluate the effect of machines on groundcover. The three test areas differed in topography only: Proud Lake, flat; Waterloo Recreation Area, rolling; and Dodge #4 State Park, "manicured" turf. Where a four inch snow base had been maintained, no damage to groundcover could be determined. It was largely on the basis of this experiment that Parks personnel were convinced of the advisability of unrestricted snowmobiling.

"adjustment" is usually the accepted standard. The evaluation process alluded to in the deputy director's remarks suggests that it consists of sequential activities involving policy application, public response, and forthcoming adjustments. For example, at the beginning of the snowmobile era, the first policy called for the provision of marked trails. Subsequent evaluation showed public reaction was in favor of additional areas. The concommitant adjustment resulted in the application of a new or adjusted policy--unrestricted snowmobiling. Further evaluation may result in additional changes. The above may be diagrammed in the following flow chart:



To operationalize its own evaluation of use and user impact, a DNR interoffice communication was sent by the deputy director-field operations to the regional managers. It contained instructions to record snowmobile use for the 1971-72 season, a list of areas not required to report (no snowmobiling allowed), and a use reporting procedure.[1]

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[1]Michigan Department of Natural Resource Interoffice Communication from Deputy Director-Field Operations to Regional Managers, 11-5-71.

Conclusions and Discussion

An original concern of this paper was to identify some elements of policy formation in a decision situation which differed from more traditional forms of policy making by virtue of the time element involved. In either process, however, both processes are initiated by the manifestation of some public problem, some human need for which relief is sought and which transcends individual problems and affects whole segments of the public. When this occurs, problems may enter the governmental sphere to be resolved. The rationale for governmental action is described by one author in terms of breakdowns in the social construct:

> Society is a group, an organism whose functions usually operate in an orderly fashion, but like any organism, breaks down at times into various stages of disruptiveness. It is at this point that society's leaders attempt to restore order. The nature of the problem, the extent of its size, and the effect of its disruptiveness on various publics will determine whether government, as representative of society's leaders, will enter into the problem.[1]

Because so much snowmobiling occurs on public lands, and because the influx of recreationists with snow machines on public lands resulted in crowding, trespass, and accidents, the resulting breakdown was sufficient to warrant a response by a governmental agency to what was basically a social problem.

Once the problem enters governmental systems, the decision-making machinery will turn out a finished produce, i.e., a policy, to resolve or assuage the issue. In many instances this process is discernible

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[1]Charles O. Jones, An Introduction to the Study of Policy, (Belmont, California), p. 21.

as a number of steps or functions.[1] First, the perception of the need for change in policy is accomplished either through information systems within a bureau or by elected legislators or officials. This step fleshes out the alternatives which are perceived and thus focuses on the dimensions of the problem. The next phase, interpretation, determines the initial objectives behind which the power of the bureau will be mobilized. It is in this stage that the supporting issue of budgetary implications has to be considered, as do program and course-of-action strategies. This level also assesses whether pressure for change in the existing policy should be resisted in favor of a wait-and-see posture. The process enters a third stage when decision makers attempt to procure support to sustain the course of action decided upon. This includes smoothing over inter-agency disputes about a particular course of action, forming alliances with other agencies for policy implementation, and enlisting support from clientele groups which the policy purports to serve. The final phase in the evolution of a decision is formalization which may entail legal authorization from another group, budgetary and personnel changes, and formal communication of the new or revised policy to appropriate offices or personnel.

This model describes a process through which decisions evolve with each phase being built on the phase which precedes it. It is dynamic in nature but only to the extent that the preceding stages form a foundation for the next. It proceeds through well defined channels,

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[1]William J. Gore, "Stages in Decision-Making" in Policies, Decisions, and Organizations, ed. Fremont J. Lyden, et. al. (New York, 1969), p. 292.

requires large information inputs, and relays interaction with other agencies and clientele groups. Consequently, the role of communications and information processing rather than delegated decision-making prerogatives assumes a larger role in the policy process. And although the Natural Resources Commission's legislative discretionary powers may prove advantageous in terms of efficient policy making in the natural resources field, it is the lack of formal group representation which thrusts major responsibilities on the DNR to seek out public inputs to the policy process. If, theoretically, the commission remains separated from influences or the state legislature, it is in the same manner separated from a formal public constituency.

In reality, of course, the DNR has definite clientele groups who are inclined to be extremely vocal in their reactions to policies or programs. Yet the animated response at the February commission meeting of the conservation groups in their efforts to damn the liberalized snowmobiling ruling carried implications that no outsiders were consulted by the department regarding the issue. Direct charges were made, in fact, by the Sierra Club to the effect that the commission did not seek public inputs prior to reaching a decision. Indeed, the reaction of some of the commissioners, apologetic chagrin, furthered the impression that they were hearing concerned public viewpoints for the first time.[1]

This breakdown in the information flow process points out another issue of the case being studied. The constraints of a decision

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[1]Notes from Natural Resources Commission meeting, 2-11-71.

situation are characterized, as indicated earlier, by a sense of urgency raised in the face of a pressing public problem. As a result, there is often little time to define explicit objectives, procure sufficient data, assess alternatives, or to undertake any of the approaches suggested by a rationalist model to decision-making. As such, there may be a tendency for policy to suffer with regard to clarity, comprehensiveness, and operational effectiveness. More importantly, policy will tend to be formulated through channels and patterns other than the officially accepted ones.[1] Thus the decision situation promotes circumstances which allows for the formation of broad policy by sub-units. In this case a policy was implemented by a purely administrative unit in a manner which limited the role of the traditional policy making body of the DNR.

The remaining question is what role does the decision situation play in the historical context of policy making. From an operational viewpoint, it was suggested that the decision situation is not hampered by tradition, power structures, and formal divisions of work which characterize the public bureaucracy. It capitalizes on the structural modes of organizational pattern, though informally, to pass on and process the data and information related to the issue. As such, agency resources are concentrated to meet acute problems. The result is that the decision situation lends itself to flexible approaches to a problem, a quick initial response to the problem, and efficiency in the short run.

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[1] Yehezekel Dror, Public Policy Making Reexamined, (Chicago, 1968), p. 21.

But what of long term considerations? While the initial reflex-like response to an issue assures sensitivity of public needs, it can also be interpreted as an attempt to minimize risks and achieve a defensible posture.[1] This is especially true since the process described contains no provisions for comprehensive planning. Planning by itself, of course, does not assure that problem areas will be anticipated before they are encountered. However, the absence of the planning element smacks of a decision process which is reactionary and erratic rather than progressive and purposeful.

Yet the decision situation is not without progress or growth. For in the case studied, policy had evolved to its present status through three levels. This cumulative growth resembles Lindblom's model of incremental decision-making in which a central authority exercises initiative in directing the policy growth. Additionally, a lack of planning usually means that most of the agency's available resources will have to be concentrated on the problem at hand while other aspects of the agency's programs may be neglected.

In many respects policy evolution through a decision situation process seems to be a very human exercise. A problem arises, actions are taken and resources are expended to deal with it, and the resulting situation is observed to see how successful the actions have been in removing the problem. Yet this approach fails in two areas--perception and creativity. Because problems aren't perceived before they arise, an agency has to act under

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[1] Ibid., p. 21.

the constraints of present conditions--limitations of time, funds and manpower. Under these limitations, the paths available to action are reduced which therefore hampers broad application of an agency's resources to meet the issue.

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APPENDICES

APPENDIX I

TABULAR ANALYSES

APPENDIX I

TABULAR ANALYSES

Included in the following appendix are eleven tables containing data relevant to the appropriate table heading. Located in the upper left hand corner of each page, the table headings are: chief executive, conservation commission, fish, forestry, game, information and education, lands management, law enforcement, parks, recreation, and water pollution control agency. These tables provide supplementary information to data presented in the text. The table headings only indicate a specific resource function; the title of the agency responsible for managing the resource indicated in the table heading can be located in Chapter II. Information which needed clarification or could not be presented in tabular format has been footnoted and can be found in a section immediately following the tables.

APPENDIX I

AGENCY DATA: A DIVISIONAL BREAKDOWN

The following tables present data as reported in the questionnaires used in the study. Each table reflects the same functional breakdown as reported in Chapter II: chief executive, conservation commission, fish, forestry, game, information and education, lands management, law enforcement, parks, recreation, and water pollution control.

Data contained in the tables includes information about the staff, budget, and programs of the agency responsible for that particular resource indicated in the table's heading - fish, game, parks, etc. Although the tables do not reveal specific agency titles, this information is provided in the verbal summaries of Chapter II.

Data provided by an agency in response to a particular question which could not be reported in the tabular format is footnoted and appears in a section which follows the tables. This is particularly true for multiple license sales categories and agency jurisdiction. Additionally, all salaries are reported as yearly figures unless otherwise indicated.

Chief Executive	Population 1970 M	Population Density Per Sq. Mile	Total Land Area - Sq. Miles	Total Inland Water Area - Sq. Miles	Total Ocean or Great Lake Shoreline Miles	Total Annual Conservation Budget - 1969-70 M	Number of Employees in Conservation Department Full Time	Part Time	Personnel Under Civil Service: Executive Personnel	Administrative Personnel	Research Personnel	Field Personnel	Types of Equipment Leased: Autos	Trucks	Aircraft	Business Machines	Data Processing Equip.	Duplicating Machines
ALABAMA	3,444	68.7	50,851	758	295	8,138	378	23	Yes	Yes	Yes	Yes				X	X	
ALASKA [1]	300	.51	586,400		33,000	8,990	370	450	No	Yes	Yes	Yes	X	X	X	X	X	X
ARIZONA [1]	1,771	15.6	133,563	366	0	4,277	246	30	Yes	Yes	Yes	Yes					X	X
ARKANSAS [1]	1,923	37.3	51,562	1,000	0	4,776	272	50	No	No	No	No		X	X		X	
CALIFORNIA [1]	19,953	127.5	156,500	2,200	1,205	28,000	1165		Yes	Yes	Yes	Yes					X	X
COLORADO	2,207	21.7	104,247		0	9,000	500	125	Yes	Yes	Yes	Yes			X	X	X	X
CONNECTICUT	3,032	600	NOT AVAILABLE															
DELAWARE	548	225.2	NOT AVAILABLE															
FLORIDA	6,789	125.7	54,136		7,700	14,727	821	250	No	Yes	Yes	Yes				X	X	
GEORGIA	4,590	77	NOT AVAILABLE															
HAWAII [1]	769	123.6	6,424	25	750	4,089	428	200	No	Yes	Yes	Yes	X			X		
IDAHO	713	8.3	82,708	889	0	5,259	260	50	Yes	Yes	Yes	Yes			X		X	
ILLINOIS	11,114	191	56,400				920	72	No	Yes	Yes	Yes					X	
INDIANA	5,196	144	NOT AVAILABLE															
IOWA	2,825	50.1	56,290	298	0	7,396	464	300	Yes	Yes	Yes	Yes				X		
KANSAS [1]	2,247	27	82,264	10,000 [2]	0	3,000	180	20	Yes	Yes	Yes	Yes			X	X		X
KENTUCKY [1]	3,219	80	40,395			4,351	270	45	Yes	Yes	Yes	Yes			X	X	X	
LOUISIANA [1]	3,641	81	45,177	3,346	6,952	8,000	719	25-50	No	Yes	Yes	Yes					X	
MAINE [1]	992	32	31,012	2,203	3,500	4,000	260	40	Yes	Yes	Yes	Yes					X	X
MARYLAND	3,922	395	9,874	703	3,190	16,381	1033	400	No	Yes	Yes	Yes						X
MASSACHUSETTS	5,689	702.8	8,095	255	1,980	7,000	600	1600	No	No	Yes	Yes	X				X	X
MICHIGAN	8,875	155.7	57,022	1,194	3,288	34,300	2158	675	No	Yes	Yes	Yes	X				X	X
MINNESOTA	3,805	44.7	85,000	4,000	180	27,129	1160	550	No	No	Yes	Yes				X		X
MISSISSIPPI [1]	2,217	46.6	NOT AVAILABLE						No	No	No	No					X	
MISSOURI	4,677	67.1	69,686	1,122	0	11,000	595	200	No	No	No	No			X		X	
MONTANA [1]	694	4.5	145,603	1,535	0	5,565	276	200	No	No	No	No			X		X	
NEBRASKA	1,483	19.4	76,663	729	0	9,817	350	169	No	No	No	No						X
NEVADA [1]	489	4.5	109,789	751	0	2,000	99	45	No	Yes	Yes	Yes						X
NEW HAMPSHIRE	738	79	NOT AVAILABLE															
NEW JERSEY	7,168	955.6	7,509.48		127	46,600	1400	7000	No	Yes	Yes	Yes			X		X	X
NEW MEXICO [1]	1,016	8.3	121,511	215	0	2,675	171	29	No	Yes	Yes	Yes			X		X	X
NEW YORK	18,237	379.7	47,834	1,742	439	60,000	2442	3000	No	Yes	Yes	Yes					X	X
NORTH CAROLINA	5,082	103.7	NOT AVAILABLE															
NORTH DAKOTA [1]	618	9	70,665	1,208	0	1,281	75	10	No	No	No	No						X
OHIO	10,652		NOT AVAILABLE															
OKLAHOMA	2,559	37	69,031	144	0	3,500	340	20	No	No	No	No					X	X
OREGON [1]	2,091	21.7	960,300	666	429	7,000	319	119	Yes	Yes	Yes	Yes	X	X	X	X	X	X
PENNSYLVANIA [1]	11,794	260	NOT AVAILABLE				693	108	No	Yes	Yes	Yes			X	X	X	X
RHODE ISLAND	947	789.7	NOT AVAILABLE															
SOUTH CAROLINA [1]	2,591	86.3	30,209	533	2,876	2,250	275	175	No	No	No	No						X
SOUTH DAKOTA	666	8.6	77,047	1,100		4,000	225	200	No	No	No	No						X
TENNESSEE	3,924	92.9	42,244	870	10,000	11,954	1500	1600	No	No	No	No						X
TEXAS	11,197	42.7	262,300	5,000	327													
UTAH	1,059	12.4	84,916	1,200	280	10,000	620	75	No	Yes	Yes	Yes	X	X	X			
VERMONT [1]	444	47.9	9,274	333	0	1,904			No	Yes	Yes	Yes	X		X			
VIRGINIA	4,648	116.2	40,000	976		7,537	561	1100	Yes	Yes	Yes	Yes					X	
WASHINGTON	3,409	51.1	66,709	1,483		10,000	430	50	Yes	Yes	Yes	Yes						
WEST VIRGINIA	1,744		NOT AVAILABLE															
WISCONSIN	4,418	80.7	54,705	17,079	820	58,200	1461	496	No	Yes	Yes	Yes				X	X	X
WYOMING	332	3.4	97,281	633	0	6,207	263	30	No	No	No	No			X		X	

Administration

Chief Executive (Continued)	Conservation Dept. Head Selected by:				Conservation Dept. Head Responsible to:			Dept. Head Services for:		Salary Range							
	Conservation Commission	Governor	Legislature	Competitive Exam	Conservation Commission	Governor	Legislature	Fixed Term	At Pleasure of Selective Body	Head Conservation Dept.		Assistant Head		Line and Staff Chiefs		Division Chiefs	
										From	To	From	To	From	To	From	To
ALABAMA		X				X			X	19,800		11,000		10,036	17,199	11,856	17,199
ALASKA		X	X			X		X			27,500	2,089/mo	2,248/mo			1,655/mo	2,235/mo
ARIZONA	X				X			X		16,000		13,870	17,645	11,502	14,685		
ARKANSAS	X				X				X		12,500					8,940	11,976
CALIFORNIA		X				X			X		2,291/mo	1,708/mo	2,066/mo	1,337/mo	1,626/mo	1,405/mo	1,793/mo
COLORADO				X	X				X	1,372/mo	1,837/mo	1,128/mo	1,512/mo	975/mo	1,306/mo		
CONNECTICUT	NOT AVAILABLE																
DELAWARE	NOT AVAILABLE																
FLORIDA		X				X			X		28,000		14,000			17,000	19,000
GEORGIA	NOT AVAILABLE																
HAWAII		X				X		X			27,500		26,125	11,388	17,676	13,856	18,564
IDAHO	X				X				X	14,472	17,724	11,904	14,472			10,812	13,128
ILLINOIS		X				X			X		20,000		16,000	985/mo	1,517/mo	1,273/mo	1,805/mo
INDIANA	NOT AVAILABLE																
IOWA	X				X				X		17,500	12,528	17,628	11,928	16,788	9,348	13,812
KANSAS	X				X				X		15,500	9,324	12,924	8,892	12,324		
KENTUCKY	X				X				X		16,000	11,410	15,500			10,344	14,556
LOUISIANA	X				X				X	16,500		1,000/mo	1,400/mo			880/mo	1,280/mo
MAINE		X				X		X			16,500	10,660	14,170	9,932	13,208	9,698	12,896
MARYLAND		X				X			X		35,000		30,000	22,000	25,000		20,500
MASSACHUSETTS	X																
MICHIGAN	X				X				X	25,500		23,600		22,400	24,700	17,000	22,700
MINNESOTA		X				X		X			23,000		18,500		17,500		17,000
MISSISSIPPI		X			X				X		17,000		10,500			7,340	10,980
MISSOURI	X				X				X		25,000		22,000	19,000	20,000	16,092	17,226
MONTANA	X				X	X			X		1,538/mo		1,347/mo				1,156/mo
NEBRASKA	X				X			X		12,180	19,980	12,360	15,240			11,400	14,280
NEVADA		X				X			X		19,430		16,230	9,971	12,733	13,800	16,510
NEW HAMPSHIRE	NOT AVAILABLE																
NEW JERSEY		X	X			X			X		38,000	14,600	30,900	14,600	18,900	10,300	15,000
NEW MEXICO	X				X				X			980/mo	1,300/mo			900/mo	1,205/mo
NEW YORK		X				X			X		37,275	26,837	31,500	22,630	24,550	23,775	24,541
NORTH CAROLINA	NOT AVAILABLE																
NORTH DAKOTA		X				X		X			13,000		10,000				10,500
OHIO	NOT AVAILABLE																
OKLAHOMA	X				X				X	12,000	17,000	11,875	16,627			10,995	15,396
OREGON	X				X				X	1,300/mo	1,670/mo	1,186/mo	1,500/mo	928/mo	1,186/mo	1,075/mo	1,373/mo
PENNSYLVANIA	X				X				X	17,839	23,915	15,387	20,629				
RHODE ISLAND	NOT AVAILABLE																
SOUTH CAROLINA	X					X			X	20,000	22,000	18,000	20,000	16,000	18,000	16,000	18,000
SOUTH DAKOTA	X				X				X	1,030/mo	1,315/mo	901/mo	1,151/mo			850/mo	1,084/mo
TENNESSEE		X				X			X		1,666/mo	1,145/mo	1,420/mo			825/mo	1,420/mo
TEXAS	NOT AVAILABLE																
UTAH		X				X	X		X		15,756			11,000	15,000	12,000	15,000
VERMONT	X				X			X			12,000					10,000	14,000
VIRGINIA		X				X			X		25,000	17,100	20,500	12,500	17,100	11,670	20,500
WASHINGTON	X				X				X	22,500	22,500	13,336	19,592			12,612	16,908
WEST VIRGINIA	NOT AVAILABLE																
WISCONSIN	X				X				X	21,400	27,870	21,400	27,870	15,144	19,700	19,400	25,280
WYOMING	X				X	X			X		15,000	1,137/mo	1,518/mo	1,053/mo	1,406/mo	1,053/mo	1,406/mo

Finance

Chief Executive (continued)	Working Budget For 1969-70 ($M)				% Budget Increase Since 1960	% of Budget Request Actually Appropriated				% of Total Budget Which is Self Generated	Sources of Self Generated Revenues ($M)									
	General Fund Appropriation	Self Generated Revenue	Federal Funds	Other		Appropriation is 90-100% of Request	Appropriation is 80-89% of Request	Appropriation is 70-79% of Request	Appropriation is Less Than 70% of Request		Hunting and Fishing License		Park Fees (camping & entrance)		Special Service Area Use Fees		Other			
											$	%	$	%	$	%	$	%		
ALABAMA	860	5,938	1,339		80.6	X				72.9	2,003	33	55,502	.01			3,[illegible]0	65.3		
ALASKA	4,692	1,370	2,664	265	415	X				15.23	1,370	100								
ARIZONA	0	3,161	1,049	67	216	X				5.5	2,761	95					147	5		
ARKANSAS	0	4,777	.00	0	18	X				100	3,635	75					787			
CALIFORNIA		23,800	2,200	2,200	80	X				100	15,000	74					5,400	24		
COLORADO	1,017	9,461	1,947		232				X	76.1	9,078	93.4	260	2.7	90	.9	285	3.9		
CONNECTICUT	NOT AVAILABLE																			
DELAWARE	NOT AVAILABLE																			
FLORIDA	14,764	8,149	8,149	0	50		X			25	1,684	25	1,645	25						
GEORGIA	NOT AVAILABLE																			
HAWAII	3,295	102	600	93	335		X			0	89	2.8	31	1.0	65	2.1	2,971	2 94.2		
IDAHO	0	3,964	1,113	183	166	X				80	3,800	98					100	2		
ILLINOIS	33,367	9,302	2,292	961	100	X				20	4,578		400				467			
INDIANA	NOT AVAILABLE																			
IOWA	2,154	3,687	1,555		191				X	50	2,755	75	287	8	88	2.3	150	4		
KANSAS		1,946	600		60		X					98						2		
KENTUCKY		3,151	500			X				100		100								
LOUISIANA		7,394	800		65			X		90	985	13					6,556	87		
MAINE		3,000	500	300	100					100	2,800	72								
MARYLAND	8,723	6,566	1,093	710						40	1,911	35	1,040	19	1,076	20	1,431	26		
MASSACHUSETTS		2,000							X	33			1,750	[illegible]			250	12		
MICHIGAN	16,104	16,641	1,065	473	93		X			48	9,400	27.4	3,600	5.9	1,215	3.5	1,997	58		
MINNESOTA	8,974	12,539	840	4,776	45			X		46	9,217	73	921	8	709	5	1,692	14		
MISSISSIPPI				3,269	86.8	X				100	2,273	69			125	5	871	26		
MISSOURI	965	8,005	1,667		100	X				15	6,460	85	0		80	10.6	339	44		
MONTANA	150	4,135	1,150	136	255	X				74	4,100	85	35	15						
NEBRASKA	2,771	4,610	2,436		300			X		50	4,370	93	300	[illegible]			30	1		
NEVADA	1,506	97	208	196			X			4.8			40				57			
NEW HAMPSHIRE	NOT AVAILABLE																			
NEW JERSEY	25,000	5,500	2,600	13,500	50		X			20	2,300		1,075				1,800			
NEW MEXICO	0	2,198	678	0	10	X				82.2	2,019	75.7					1,650	62		
NEW YORK	53,740	10,000	7,000	35,000			X			46	9,000		8,700							
NORTH CAROLINA	NOT AVAILABLE																			
NORTH DAKOTA	0	800	400	80	60	X				66	780	90					90	10		
OHIO	NOT AVAILABLE																			
OKLAHOMA		4,100			27					100		70						25		
OREGON		6,030	1,750		100	X				77	5,800				80		100			
PENNSYLVANIA	0	10	1	4		X				55	8,700	87					1,100	13		
RHODE ISLAND	NOT AVAILABLE																			
SOUTH CAROLINA	0	2,250	500	0	0					100	1,800				90		600			
SOUTH DAKOTA	2,000	2,500	500	500		X				60	1,845		340		5		210			
TENNESSEE	11,868	2,469	708	0	82	X				21			2,101	85			368	15		
TEXAS	NOT AVAILABLE																			
UTAH	2,900	5,300	1,500	0	78		X			55	3,600	68	100	2	650	12	140	18		
VERMONT	0	2,255	113	192	100		X			90		100								
VIRGINIA	5,861		1,676	13	144		X			0										
WASHINGTON	1,197	7,130	1,188	485	100	X				81		77						4		
WEST VIRGINIA	NOT AVAILABLE																			
WISCONSIN	31,800	22,200	3,700	513	277	X				38	11,500	52	1,300	6	665	3	8,600	32		
WYOMING	0	4,742	1,465		100					76	4,539						252			

Conservation Commission	Commission's Activities Best Described As:		Areas In Which Conservation Commission Has Control:									Commission Able To Make Policy Independent of Legislature		Commission Has Authority To Hold Public Hearings		Commission Meetings Open To Public		Commission Meeting Minutes Required To Be Made Public		Commissioners Serve:		Commissioner May Succeed Himself	
	Develop and Enunciate Policy For Implementation by Department's Director	Review and Approve Policy Generated by Executive Staff of Department	Fish	Game	Parks	Forestry	Law Enforcement	Water Pollution	Recreation	Boating	All Conservation Functions	Yes	No	Yes	No	Yes	No	yes	No	Concurrently	Staggered Terms	Yes	No
ALABAMA [1]	NOT AVAILABLE																						
ALASKA [1]	X	X	X	X			X					X		X		X			X		X	X	
ARIZONA [1]		X	X	X			X	X	X	X		X		X		X			X		X	X	
ARKANSAS [1]		X	X	X						X		X		X		X		X			X		X
CALIFORNIA [1]	X		X	X	X		X	X	X			X		X		X		X			X	X	
COLORADO		X									X	X		X		X		X			X	X	
CONNECTICUT [1]	X		X	X			X					X		X							X	X	
DELAWARE [1]	Advisory Only												X	X		X		X			X	X	
FLORIDA [1]		X	X	X			X					X		X		X		X			X	X	
GEORGIA		X	X	X			X					X		X		X		X			X	X	
HAWAII		X	X	X	X	X	X		X	X			X	X		X		X			X	X	
IDAHO		X	X	X			X					X		X		X		X			X	X	
ILLINOIS	NOT AVAILABLE																						
INDIANA	X		X	X	X	X	X		X			X		X		X		X			X	X	
IOWA	X		X	X	X	X	X		X			X		X		X		X			X	X	
KANSAS [1]		X	X	X			X		X			X		X		X			X		X	X	
KENTUCKY [1]	X		X	X			X	X				X		X		X			X		X	X	
LOUISIANA	NOT AVAILABLE																						
MAINE [1]		X	X										X	X		X			X		X	X	
MARYLAND	NOT AVAILABLE																						
MASSACHUSETTS														X							X	X	
MICHIGAN		X									X	X		X		X		X			X	X	
MINNESOTA	NOT AVAILABLE																						
MISSISSIPPI [1]	X		X	X			X					X		X		X		X			X	X	
MISSOURI [1]	X	X	X	X		X	X		X			X		X		X			X		X	X	
MONTANA		X	X	X	X		X	X	X			X		X		X		X			X	X	
NEBRASKA [1]	X	X	X	X	X		X	X	X	X		X		X		X		X			X		X
NEVADA		X	X	X			X	X		X		X		X		X			X		X	X	
NEW HAMPSHIRE [1]		X	X	X			X					X		X		X			X			X	
NEW JERSEY [1]		X	X	X				X				X		X		X			X		X	X	
NEW MEXICO			X	X			X	X				X		X		X		X			X	X	
NEW YORK	NOT AVAILABLE																						
NORTH CAROLINA		X	X		X	X						X		X		X		X		X		X	
NORTH DAKOTA	NOT AVAILABLE																						
OHIO	NOT AVAILABLE																						
OKLAHOMA [1]		X	X	X			X	X					X	X		X		X			X	X	
OREGON		X	X	X			X					X		X		X		X			X	X	
PENNSYLVANIA	NOT AVAILABLE																						
RHODE ISLAND [1]	NOT AVAILABLE																						
SOUTH CAROLINA	X		X	X			X							X		X			X		X	X	
SOUTH DAKOTA	X										X	X		X		X		X			X		X
TENNESSEE	X												X		X		X		X		X	X	
TEXAS	X		X	X	X		X		X			X		X		X		X			X	X	
UTAH	X	X									1	X		X		X		X			X	X	
VERMONT	NOT AVAILABLE																						
VIRGINIA		X			X	X	X	X			1	X		X		X		X			X	X	
WASHINGTON			X	X			X					X		X		X		X			X	X	
WEST VIRGINIA	NOT AVAILABLE																						
WISCONSIN		X									X		X	X		X		X			X	X	
WYOMING	X		X	X			X			X		X		X		X			X		X	X	

Conservation Commission Continued	Commissioner Appointment Confirmed By:			Hunting and Fishing Regulations Set By:				Hunting and Fishing Fees Set By:				Hunting and Fishing Seasons Set By:				Legislature Has Approved Authority Over Commission's Budget:	
	State Senate	House	Legislative Confirmation Not Required	Conservation Commission	Conservation Department	Department Director	Legislature	Conservation Commission	Conservation Department	Department Director	Legislature	Conservation Commission	Conservation Department	Department Director	Legislature	Yes	No
ALABAMA	NOT AVAILABLE																
ALASKA	X	X		X							X	X				X	
ARIZONA	X			X							X	X				X	
ARKANSAS			X	X				X				X				X	
CALIFORNIA	X			X							X	X					
COLORADO	X			X							X	X					X
CONNECTICUT			X	X							X	X				X	
DELAWARE			X			X					X			X		X	
FLORIDA			X	X							X	X					X
GEORGIA	X			X							X	X					
HAWAII	X			X							X	X				X	
IDAHO	X			X							X	X				X	
ILLINOIS	NOT AVAILABLE																
INDIANA			X	X							X	X				X	
IOWA	X										X					X	
KANSAS	X			X							X	X				X	
KENTUCKY			X	X				X				X				X	
LOUISIANA	NOT AVAILABLE																
MAINE			X[2]				X				X				X		X
MARYLAND	NOT AVAILABLE																
MASSACHUSETTS	NOT AVAILABLE																
MICHIGAN	X			X			X				X	X			X	X	
MINNESOTA	NOT AVAILABLE																
MISSISSIPPI			X	X							X	X				X	
MISSOURI			X	X				X				X					X
MONTANA	X			X							X	X				X	
NEBRASKA	X			X			X				X	X			X		
NEVADA			X	X							X	X				X	
NEW HAMPSHIRE			X	X[1]							X					X	
NEW JERSEY	X			X								X					
NEW MEXICO	X			X							X	X				X	
NEW YORK	NOT AVAILABLE																
NORTH CAROLINA	NOT AVAILABLE																
NORTH DAKOTA	NOT AVAILABLE																
OHIO	NOT AVAILABLE																
OKLAHOMA	X			X			X	X			X	X			X		X
OREGON			X	X							X	X					
PENNSYLVANIA	NOT AVAILABLE																
RHODE ISLAND	NOT AVAILABLE																
SOUTH CAROLINA	X						X				X				X	X	
SOUTH DAKOTA	X			X							X	X					X
TENNESSEE			X			X					X			X			X
TEXAS	X			X							X	X				X	
UTAH			X														
VERMONT	NOT AVAILABLE																
VIRGINIA			X													X	
WASHINGTON			X	X							X	X				X	
WEST VIRGINIA	NOT AVAILABLE																
WISCONSIN	X			X			X				X	X				X	
WYOMING	X			X	X						X	X	X				X

Fish	Employees and Salary Range												Fish Division Uses Regional Concept With Field Officers in Each Region					
	Administrative Salary			Research Salary			Field Salary			Part-time Salary			Fish Division Uses Own Engineering Staff		No	Yes		No
	#	From	To	#	From	To	#	From	To	#	From	To	Yes	No		Fish Districts Same As Game Districts		Fish Districts Same As Forestry Districts
ALABAMA	3	10,036	13,923	11	7,800	11,492	8	4,446	7,878	6	4,446				X			X
ALASKA [1]	6	1,312/mo	2,235/mo	31	787/mo	1,464/mo				42	506/mo	830/mo			X			X
ARIZONA	3						2								X	X		X
ARKANSAS	4	400/mo	750/mo				38	300/mo	700/mo				X					X
CALIFORNIA	12	644/mo	1,626/mo	13	644/mo	1,048/mo	3	863/mo	1,048/mo	20	415/mo	502/mo			X	X		X
COLORADO	5	6,000	16,000	10	7,500	16,000	6	7,500	10,000	6	1,200	2,200			X			X
CONNECTICUT	4	9,601	13,700	1	9,601	11,827	22	5,029	11,827	6		5,029			X	X		X
DELAWARE	NOT AVAILABLE																	
FLORIDA													X			X		X
GEORGIA	3			8			24			18			X					
HAWAII	1	13,836	21,480	10	7,344	19,488	4	5,484	11,388	1	5,760	8,928			X	X		
IDAHO	7			6			45								X	X		
ILLINOIS	2	805/mo	1,560/mo	0			30	461/mo	1,035/mo	10	2.02/hr	2.14/hr			X			X
INDIANA	3	715/mo	1,115/mo	3	600/mo	860/mo	5	600/mo	860/mo	29	300/mo	440/mo			X			X
IOWA	4	8,904	13,152	7	8,076	10,824		4,704	9,816			322/mo			X	X		X
KANSAS	NOT AVAILABLE																	
KENTUCKY	3	710/mo	1,213/mo	11	530/mo	906/mo	17	308/mo	745/mo	3	376/mo	583/mo			X	X		
LOUISIANA	1	750/mo	1,050/mo	13	600/mo	990/mo	17	275/mo	600/mo	8	1.50/hr				X	X		X
MAINE	2	9,698	13,208	6	7,358	12,896	12	6,422	11,180	8	4,498				X	X		X
MARYLAND	NOT AVAILABLE																	
MASSACHUSETTS	3	175/wk	450/wk	6	142/wk	200/wk	12	125/wk	170/wk	10	125/wk	150/wk			X	X		X
MICHIGAN	3	740/mo	1,744/mo	18	480/mo	1,288/mo	170	424/mo	1,288/mo	16	222/mo	270/mo			X	X	X	
MINNESOTA	4	7,692	15,600	14	2,692	13,872	197	5,400	12,336	50	2.69/hr	3.02/hr			X			X
MISSISSIPPI	3	775/mo	850/mo	12	475/mo	750/mo	23	460/mo	725/mo						X	X		
MISSOURI	5	4,764	16,896	21	4,536	14,616 [1]	51	3,732	11,448	50					X			X
MONTANA	5	920/mo	1,101/mo							11	1.60/hr	4.40/hr			X	X		X
NEBRASKA	4	405/mo	1,150/mo				63 [1]	375/mo	880/mo	30	1.65/hr	2.25/hr			X	X		X
NEVADA	2	10,500	12,782				26	6,159	11,594						X	X		X
NEW HAMPSHIRE	3	9,755	14,268	7	7,724	10,543	4	5,309	6,481		5,309	6,481			X	X		
NEW JERSEY	2	12,603	19,916	5	8,530	11,092	42	4,988	11,092	5					X	X		
NEW MEXICO	3	750/mo	1,205/mo	3	525/mo	940/mo	2	525/mo	940/mo	0	310/mo	333/mo			X	X		X
NEW YORK	10	9,925	19,490	28	6,075	15,110	192	6,075	13,635	215	2.25/hr	3.00/hr			X	X		X
NORTH CAROLINA	5	11,300	15,850	4	8,568	12,468	9	8,568	12,468	30	1.60/hr	2.00/hr			X	X		
NORTH DAKOTA	NOT AVAILABLE																	
OHIO	3	7,000	16,000	10	6,000	14,000	65	4,000	11,300						X	X		X
OKLAHOMA	NOT AVAILABLE																	
OREGON	18	1,129/mo	1,373/mo	30	350/mo	1,200/mo	68	517/mo	975/mo	30	425/mo	660/mo			X			X
PENNSYLVANIA	53	4,121	23,915	18	4,551	16,978	315	4,329	16,978	0			X			X		X
RHODE ISLAND	1	9,152	12,926	4	7,930	9,542	13	4,900	9,542	5	4,900	6,200			X	X		X
SOUTH CAROLINA	NOT AVAILABLE																	
SOUTH DAKOTA	5			6			11			18					X	X		X
TENNESSEE	NOT AVAILABLE																	
TEXAS	NOT AVAILABLE																	
UTAH	5	835/mo	1,170/mo	13	570/mo	919/mo	45	426/mo	919/mo	30	354/mo	518/mo			X	X		X
VERMONT	1	11,000	16,000	7	8,500	14,000				10	5,500	7,000			X	X		X
VIRGINIA	NOT AVAILABLE																	
WASHINGTON	6	13,248	16,104	1		10,896	12	9,420	12,012	2		6,372			X	X		X
WEST VIRGINIA	5	4,000	12,500	12	7,600	12,000	30	4,000	8,000	10	1.40/hr	2.00/hr			X	X	X	
WISCONSIN	9	7,500	18,000				203	6,500	12,000	67	100/mo	460/mo			X	X	X	
WYOMING	2	975/mo	1,406/mo	See "Field"			24	571/mo	1,206/mo	12	375/mo	448/mo			X			X

Fish Continued	Salt Water Fishery in State		Anadromous Fishery in State		Fish Division Conducts an Information/Education Program		Source of Operating Budget:				Budget Allocations Within Divisions				Number of Fish Hatcheries					
															Warm Water		Cold Water		Anadromous	
	Yes	No	Yes	No	Yes	No	Department Budget Appropriation %	Self-generated Revenue %	Legislature Appropriation %	Size of Annual Budget 1969-70 Amount M	Administration %	Research %	Hatcheries %	Other %	Number	Capacity per Year (Fish) MM	Number	Capacity per Year (Fish) MM	Number	Capacity per Year (Fish) MM
ALABAMA	X		X		X					660					2	2.12				
ALASKA	X		X		X			100		1,203	10	45	15	30	0	0	1			
ARIZONA		X		X		X			100	400	15		70	15	1		2	.2 lbs.		
ARKANSAS		X		X	X		100			500	13		46	41	3	6	0		0	
CALIFORNIA	X		X		X		100			1,225	23.8	27.7	48.5		2	.6	13	25	6	100
COLORADO		X	X		X				100	1,800	5	12	75	8	1.5	25	17.5	21	1	4
CONNECTICUT	X		X			X			X	600	8-10	15-20	35	35			3			
DELAWARE																				
FLORIDA	X		X		X			100		1,233	7	24	9	60	2	3				
GEORGIA	X		X		X				100		3	27.3		69.7	7	9	2	.315	1	10
HAWAII	X			X	X		30	8	62	317					0		0		0	
IDAHO		X	X		X		100			1,564	12.48	31.64	42.25	13.6			14	1		
ILLINOIS		X		X	X		100			1,000	20		10	70	2	.5	0		0	
INDIANA	X		X			X		100		2,500	5	30	20	55	6				2	.16
IOWA		X		X	X		100			1,100	5	15	25	45	6		3		0	
KANSAS															3	3	0		1	.5
KENTUCKY	X			X		X		100			8	48	4	40	1	.5	0		0	
LOUISIANA	X		X		X				100	400	15	40	15	30	3	3	0		1	.5
MAINE	X		X		X		100			300	10	20		70			10	2		
MARYLAND																				
MASSACHUSETTS	X		X			X			100	600	15	30	35	20			5	1.2	1	
MICHIGAN		X	X			X		100		2,600	1				2	7.5	5	8.1	1	.5
MINNESOTA		X	X		X			X	X	3,000				100	10	500	4	2		
MISSISSIPPI	X		X		X		100			500	10	35	0	55		1				
MISSOURI		X		X		X	100			2,000	3	15	30	52	4	2.5	5	.75	0	
MONTANA		X		X	X				100	1,200	3	51	46	0	0		8		0	
NEBRASKA		X		X	X			100		581 [1]	6	30	47	17	3		2			
NEVADA		X		X		X		X		459	10	20	60	10			4			
NEW HAMPSHIRE	X		X		X				100	700	10	30	60				8	2		
NEW JERSEY	X		X			X		100		509	6		60	34	1	.006	1	.36	0	
NEW MEXICO		X		X	X		100			560	8	16	69	7	0		6	4.9	0	
NEW YORK	X		X		X		100			2,400					3		14	2.5	0	
NORTH CAROLINA	X		X		X		0	100	0	619	10	20	43	27	2		4	.5	1	100
NORTH DAKOTA											2.5	3.5	40	54						
OHIO		X	X		X					719	10	40	20	30	6	40	1	.04	0	
OKLAHOMA																				
OREGON	X		X		X			75 [1]		6,000	10	9	35	46	0		11	20	4	4
PENNSYLVANIA		X	X		X			100		5,000	8	7	38	47	4	25	5	4	1	.15
RHODE ISLAND	X		X		X				58 [1]	452	9	17	23	51	1		2	.05		
SOUTH CAROLINA																				
SOUTH DAKOTA		X		X		X	100			300	16	18	33	33	1		1			
TENNESSEE																				
TEXAS																				
UTAH		X		X		X	100		0	1,945	3.5	8	65	23.5	0		12			
VERMONT		X		X		X	100			335	8	25	60	7			5	2		
VIRGINIA																				
WASHINGTON	X		X		X		50	50	0	1,600	9	10	80	1	0		9	35	15	5
WEST VIRGINIA		X		X		X	2	98	0	841 [1]	8.3	20.2	27	44.5 [2]	2	1	4	.5	0	
WISCONSIN		X	X		X					4,240	1.86	0	21.4	66.7	2	45 lbs.	12	.4 lbs.		
WYOMING		X		X		X	100			1,318	5.3	15	79	.7	0		11	14	0	

Fish Continued	Species and Quantities of Hatchery Produced Fish:					Existance of Private Hatcheries in State				# of Annual Fishing Licenses Sold					
						No	Yes								
	Trout MM	Salmon MM	Bass MM	Other Cold Water Species MM	Other Warm Water Species MM		Warm Water #	Cold Water #	Other #	Resident M	Non-Resident M	Resident Trout and Salmon M	Non-Resident Trout and Salmon M	Wife Can Fish on Husband's License Yes	No
ALABAMA			.120		2.9		15	2		450	.42				X
ALASKA	1.5	2		1.3				1		63	37				X
ARIZONA	.2		.025					1							X
ARKANSAS	.40		.90		3.5	X				414	190				X
CALIFORNIA	21	18			.1		116	35	27	1,866	29	169[1]			X
COLORADO	21	4			15			14		330	167				X
CONNECTICUT	.6	.4	.01	.03				2		140	6				X
DELAWARE															
FLORIDA			.15		1.7		1			481	28				X
GEORGIA	.315		.5		11					569	16				X
HAWAII	.09					X				4	.012				X
IDAHO								20							X
ILLINOIS			.25		.25		6			700	25				X
INDIANA	.08	.08	.15		.15			0		320[1]	31	14			X
IOWA	.21		.05				10	0		400	20	14			X
KANSAS															
KENTUCKY			.5							271	31[1]				X
LOUISIANA			1		2.5	X				400	16				X
MAINE	.8	.5	.231					3		137	91				X
MARYLAND															
MASSACHUSETTS	1.3						4	11	2	163	5				X
MICHIGAN	3	5.6	.123		7.5		4	30		925[2]	177	292	28	X	
MINNESOTA	1.8	.180	.1		295		95	20		1,100	340				X[1]
MISSISSIPPI										245	105				X
MISSOURI	1.65		.3		2.2		50	12							X
MONTANA	4.9	4.9		.015			54			167	68	2	2		X
NEBRASKA	.034	.090	.211		17.2		9	7	3	141[2]	11[3]				X
NEVADA	1.95	.04						1		67	76				X
NEW HAMPSHIRE	1.7	.3	.046	.06				1		80	35	114	1.9		X
NEW JERSEY	.356		.003				2	1							X
NEW MEXICO	3.99	.307		.622			1	2		86	38				X
NEW YORK	6.3	.5			326		4	35		803	59				X
NORTH CAROLINA	.4	.585			13.8		3	18		270	51	62	33		X
NORTH DAKOTA															
OHIO	04	.25	.2		30.9					850	23				X
OKLAHOMA															
OREGON	17.9	4.8				X				418[2]	8.5				X
PENNSYLVANIA	4	.150	1.2		24		62	56		651	34				X
RHODE ISLAND	.9							1		20	1				
SOUTH CAROLINA															
SOUTH DAKOTA	.06				20			10		121	85				X
TENNESSEE															
TEXAS	1														
UTAH							0	5	0	132	66				X
VERMONT	7						0	1		36	42				X
VIRGINIA															
WASHINGTON	35						0	70		437	33				X
WEST VIRGINIA	5		.28		.01		0	2		204	20				X
WISCONSIN	2.?	.4	.03	2.76[3]			600	1200		696[4]	321				X
WYOMING	14									78	97				X

Fish Continued	Proceeds of Fishing License Sales: Remains in Fish Division %	Goes to Department General Fund %	Goes to State General Fund %	Other %	Seasons & Limits Set By: Conservation Dept.	Conservation Commission	Legislature	Fish Divisions	Fishing Regulations Enforced By: Conservation Officers	Special Fish Officers	Local Sheriffs	Township Officials	Fish Division Regulates Commercial Fishing: Yes	No	Size of Commercial Fishing Industry: Revenue Generated (M)	# of Licensed Fishermen (M)	Size of Fish Plantings: Trout 1969-70 M	Salmon 1969-70 M	Bass 1969-70 M	Other Cold Water Species 1969-70 M	Other Warm Water Species 1969-70 M
ALABAMA	54			46	X				X				X		18.6	2					
ALASKA				100		X			X					X		.019	1,094	1,280		1,200	
ARIZONA			100			X			X				X			.002		47(lbs.)	25(lbs.)		
ARKANSAS		100				X			X				X		60	2			1,000		3,800
CALIFORNIA		100				X			X					X	288,000[2]	9.5					
COLORADO		100				X			X					X			25,000	4,000	100		15,000
CONNECTICUT		100				X			X				X			1	1,200	900		60	
DELAWARE																					
FLORIDA	38.8	61.2				X			X				X		42.2	3.7			150		1,700
GEORGIA			100			X	X		X				X			.006	800		500		
HAWAII	100				X		X		X				X		3,500[1]	1.2	90				
IDAHO		100				X			X				X								
ILLINOIS	75	25					X		X					X	500	.350	22	9	200		268
INDIANA	100							X	X				X		4.2	1.3[2]	80	80	150		150
IOWA		100			X	X		X	X				X		5	.2					
KANSAS																					
KENTUCKY		X				X[2]			X				X			2.7	440		491		7,064
LOUISIANA				100			X		X				X		2,620[1]	6.1[2]					500
MAINE		100				X	X		X				X				800	500		231	
MARYLAND																					
MASSACHUSETTS		100					X	X	X					X			1,009	.325			
MICHIGAN				100		X			X				X		35	.250	2,984	5,625	123		7,020
MINNESOTA				X	X				X				X		500	.290	2,000	225	225		249,203
MISSISSIPPI		100				X	X		X				X			2.2					
MISSOURI		100				X			X					X		.900	1,650		300		2,200
MONTANA		100				X			X				X		100	.004	4,927	4,949		15	
NEBRASKA			100			X			X				X		4.7	.173					
NEVADA		100				X			X				X								
NEW HAMPSHIRE		100				X	X		X				X		4	.150					
NEW JERSEY		100				X				X				X	16		356			356	6
NEW MEXICO		100					X			X				X		.001	4,621	307			
NEW YORK		100			X		X		X					X	135	1	5,954	344	21	0	326,152
NORTH CAROLINA		100				X		X	X					X[1]			400		586		20,600
NORTH DAKOTA																					
OHIO	100						X		X					X		.343	95	95	400		381
OKLAHOMA																					
OREGON		100				X			X[3]					X							
PENNSYLVANIA	100							X	X	X	X			X	.800	.020	3,850	140	1,100		24,400
RHODE ISLAND	100				X				X				X			1	105				
SOUTH CAROLINA																					
SOUTH DAKOTA		100				X			X				X			.010					
TENNESSEE																.010					
TEXAS																					
UTAH		100				X			X				X			1					
VERMONT		100				X	X		X												
VIRGINIA																					
WASHINGTON		100				X			X					X		5					
WEST VIRGINIA	55			45		X			X				X								
WISCONSIN				100		X			X				X			.443	2,800	370	84		15,600
WYOMING		100				X		X	X				X		18,000	.157					

Forestry	Acres of Forests in State: Privately Owned M	State Owned M	Federally Owned M	Employees and Salary Range: Foresters #	Foresters Salary From	Foresters Salary To	Fire Fighters #	Fire Fighters Salary From	Fire Fighters Salary To	Administrative #	Administrative Salary From	Administrative Salary To
ALABAMA	20,741	202	799	38	7,527	14,534	100	3,185	4,446	19	5,713	14,534
ALASKA	400	3,400	24,400	11	848/mo	1,576/mo	0			0		
ARIZONA	NOT AVAILABLE											
ARKANSAS	16,535	19	3,480	20[1]	5,100	8,100	335	3,204	4,080	7	7,476	9,708
CALIFORNIA	8,160	91	9,132	79	717/mo	1,273/mo	3,452	359/mo	959/mo	441	717/mo	976/mo
COLORADO	8	300	14	17	6,000	14,500				2	13,500	18,500
CONNECTICUT	1,793	152	3	17	8,000	17,500	78	5,000	7,500	20	7,000	11,000
DELAWARE	380	18	2	2	6,000	9,500	8	3,000	4,000			
FLORIDA	17,300	540	1,600	550[1]								
GEORGIA	NOT AVAILABLE											
HAWAII	1,089	451	9	15	6,600	13,836						
IDAHO	3,066	940	11,817	38	6,972	8,472	31	5,736	10,296	13	6,640	16,000
ILLINOIS	3,521	121	229	27	7,500	12,420	23	4,932	7,524	7	9,660	18,720
INDIANA	3,725	130	145	26	660/mo	1,310/mo				12	420/mo	525/mo
IOWA	2,558	24	13	14	6,972	10,824				2	8,904	13,812
KANSAS	2,000		0	13	9,000	12,000	3,100[1]			6	13,000	19,000
KENTUCKY	NOT AVAILABLE											
LOUISIANA	15,153	168	716	45	7,200	20,000	423	3,700	6,100			
MAINE	16,953	64[1]	77	35	6,422	10,660	222	4,796	10,166	13	6,136	16,952
MARYLAND	2,696	144[1]	14	32	7,170	10,360	23	6,459	11,090	6	13,789	16,685
MASSACHUSETTS	NOT AVAILABLE											
MICHIGAN	12,800	3,800	2,600	121	6,440	15,513				6	13,258	20,759
MINNESOTA	7,523	3,304	3,819	167[1]	569/mo	1,300/mo		1.50/hr	2.69/hr	48	616/mo	1,520/mo
MISSISSIPPI	15,100	1.7[1]	1,119									
MISSOURI	13,000	200	1,300	56	7,392	17,736	120	3,924	8,556			
MONTANA	5,300	700	16,300	24	7,608	10,740	22	7,608	10,740	7	10,200	15,000
NEBRASKA	NOT AVAILABLE											
NEVADA	72	13	32	4	7,850	14,000	18	5,850	10,500	4	8,652	14,000
NEW HAMPSHIRE	4,210	118	509	5	8,078	10,163	12	6,890	8,619	7	9,755	16,500
NEW JERSEY	1,756	347	17	18	8,124	18,910	38	4,750	12,225	37	4,524	18,970
NEW MEXICO	1,733	163	3,839	10	460/mo	1,200/mo	9	315/mo	600/mo	1		860/mo
NEW YORK	13,389	3,296	101	88	7,705	13,635	138	6,115	10,475	19	14,020	27,605
NORTH CAROLINA	18,300	307	1,400	94	7,344	18,876	354	3,444	13,476	2	8,412	10,600
NORTH DAKOTA	3,558	632	110	7	7,000	11,000	4	5,200	7,000	1	10,000	11,000
OHIO	6,329	168	121	43[1]	6,490	16,328	18	5,990	7,426	17	6,490	11,523
OKLAHOMA	NOT AVAILABLE											
OREGON	10,100	920	15,400	114[1]	599/mo	1,373/mo	72	302/mo	884/mo	38	332/mo	1,669/mo
PENNSYLVANIA	13,500	3,000	500									
RHODE ISLAND	NOT AVAILABLE											
SOUTH CAROLINA	NOT AVAILABLE											
SOUTH DAKOTA	430	65	1,039	8	550/mo	900/mo		375/mo	450/mo	0		
TENNESSEE	NOT AVAILABLE											
TEXAS	14,830	44	636	40	7,200	15,000	200	3,000	5,400	8	8,400	22,500
UTAH	752	240	3,406	10	6,216	15,468	16	4,248	6,528	2	4,452	7,896
VERMONT	3,940	131	224	55	3,536	14,300	8	4,420	9,464	4	7,848	17,680
VIRGINIA	14,137	235	1,437	120	7,032	15,675	108	7,032	15,675	25	7,032	18,700
WASHINGTON	9,116	1,650	8,233	261	615/mo	1,479/mo	729	295/mo	678/mo	33	824/mo	1,859/mo
WEST VIRGINIA	10,353	153	83	48	540/mo	1,215/mo	16	410/mo	1,065/mo	5	540/mo	745/mo
WISCONSIN	10,400[1]	541	1,900			[2]						
WYOMING	859	111	3,583	6	838/mo	968/mo						

Forestry Continued	Employees and Salary Range Continued: Clerical #	Clerical Salary From	Clerical Salary To	Part-time #	Part-time Salary From	Part-time Salary To	Functional Separation Between Forestry and Fire Fighting: Yes	Functional Separation Between Forestry and Fire Fighting: No	Total Volume of Commercial Timbering in State: (Board Feet) MM	Size of Annual Budget and Functional Breakdown - 1969-70: Annual Budget Amount M	Forest Management Amount M	Forest Management %	Fire Fighting Amount M	Fire Fighting %	Commercial Timbering in State Controlled by Forestry Division: Yes	Commercial Timbering in State Controlled by Forestry Division: No
ALABAMA	30	3,380	7,163	193	1.19/hr	1.88/hr		X	1,291	3,114	176		2,556			X
ALASKA	1	545/mo	655/mo	4	848/mo	1,020/mo		X	600		162		200			X
ARIZONA																
ARKANSAS	32	3,360	4,476	7	1.71/hr	2.50/hr		X	1,922	2,463	137		2,326			X
CALIFORNIA	160.8	395/mo	517/mo	16	480/mo	530/mo		X	5,344	43,050	2,160		30,380		X	
COLORADO	4	4,480	7,176	14	4,880	8,085		X	300	590	230		215			X
CONNECTICUT	8	4,500	7,000	2	2,500	4,000	X		32	1,664	1,004		474			X
DELAWARE	1	3,000	4,000					X	75		84		19			X
FLORIDA								X	325	9,418	1,780		6,700			X
GEORGIA																
HAWAII		4,080	5,484			4,080		X	6	1,049	856				X	
IDAHO	25	3,516	6,972	300	2.25/hr	13.96/hr		X	1,680	3,035[1]	705		835		X	
ILLINOIS	11	4,428	7,092	20-60	2.02/hr	up	X		150	1,200						X
INDIANA	6	345/mo	500/mo	72	1.65/hr	2.30/hr	X		232	1,132	400		240			X
IOWA	2	3,864	6,636	15[1]	5,196	8,076		X	75	348	133		171			X
KANSAS	4	4,500	6,500	30	1.60/hr	2.50/hr	X		29	613	462		1,850[2]			X
KENTUCKY																
LOUISIANA	26	3,500	13,000	0			X		50	4,033	153		3,387			X
MAINE	15	3,796	7,358	91	1.83/hr	2.11/hr		X	650	2,916	903		2,013			X
MARYLAND	8	4,451	8,487	80	1.25/hr	1.90/hr		X	297	1,662	865		797			X
MASSACHUSETTS																
MICHIGAN	24	5,304	7,412	50	4,593	7,036	X		823	2,218	1,838					X
MINNESOTA	45	342/mo	616/mo	62	370/mo	506/mo		X	126	5,758	4,579		1,179		X	
MISSISSIPPI								X		4,100[2]						X
MISSOURI	6	3,924	6,084	30	260/mo	350/mo	X		495	2,300	700		1,600			X
MONTANA	13	4,200	6,000	100	2.30/hr	4.00/hr	X		1,300	1,548	373		982			X
NEBRASKA																
NEVADA	3	5,900	7,800	13	5,000	7,100	X		3	648	162		486		X	
NEW HAMPSHIRE	5	4,604	6,922	25-35	2.06/hr	2.30/hr	X		172	582	236		340			X
NEW JERSEY	10	4,514	10,560	2,505	1.60/hr	2.52/hr	X		54	1,240	238		1,002			X
NEW MEXICO	5	330/mo	750/mo	20	315/mo	550/mo		X	225	390	86		254			X
NEW YORK	70	4,200	8,410	1,000			X		.54	9,954	3,076		1,872			X
NORTH CAROLINA	33	4,080	7,680	400	1.30/hr	2.00/hr		X	1,400	6,500	553		566			X
NORTH DAKOTA	1	4,500	5,000	4		1.60/hr		X	2	120						X
OHIO	22	3,744	6,802	124	3,744	4,618	X		389	2,587	1,380		416			X
OKLAHOMA																
OREGON	48	289/mo	660/mo	0				X	9,728	6,990	2,471		4,519		X[2]	
PENNSYLVANIA								X	928	5,952	2,677		3,275			X
RHODE ISLAND																
SOUTH CAROLINA																
SOUTH DAKOTA	4	250/mo	500/mo		375/mo	450/mo	X		114,500	375	255		120			X
TENNESSEE																
TEXAS	18	3,300	6,400	6			X		1,700	1,900	210		1,100			X
UTAH	2	3,764	9,564	2	3,192	4,452	X		96	200	42		158			X
VERMONT	6	4,004	7,304				X		2,002	800	650		150			X
VIRGINIA	34	3,600	6,720	45	4,512	8,784		X	1,000	3,970	720		2,355			X
WASHINGTON	167	342/mo	748/mo				X		7,119	25,577					X	
WEST VIRGINIA	3	280/mo	570/mo	0			X		600	1,500	342		707			X
WISCONSIN							X		2 (cords)	12,200[3]	4,200		2,800			X
WYOMING	1	362/mo	603/mo	4	390/mo	762/mo		X	730	110	44		66			X

Forestry Continued

	Revenue Returned to Local Units by State and Federal Government in Lieu of Taxes: State		Federal		State Divided Into Regions For Timber Harvesting Regulations:		Responsibilities Beyond Timber Management and Fire Protection:												Manner in Which Forests Lands were Aquired:			Private Land-owners Assisted in the Following:				Prison Labor Used to Maintain Forests and Fight Fires	
	Fee Acre	Per Year M	Fee Acre	Per Year M	Yes	No	Land Appraisal Yes	Land Appraisal No	Easement Evaluation Yes	Easement Evaluation No	Surveying Yes	Surveying No	Trail Construction Yes	Trail Construction No	Wilderness Camping Facilities Yes	Wilderness Camping Facilities No	Tax Reversion %	Purchases %	Received as Gifts %	Soil Testing	Furnish Seedings	Spraying	Surveying	Yes	No
ALABAMA	0	0				X		X		X		X	X			X	0	50	50		X			X	
ALASKA	0	0		160		X		X		X		X		X		X	1				X		X	X	
ARIZONA																									
ARKANSAS		2				X		X		X		X		X		X		100			X				X
CALIFORNIA	1.28	88			X			X		X		X		X		X		98	2		X			X	
COLORADO	0	0	.25	1,750		X													100		X	X		X	
CONNECTICUT		961				X	X		X		X		X		X		0	65	35	X	X	X		X	
DELAWARE						X		X		X		X		X		X		99	1		X				X
FLORIDA	.90	275				X		X		X		X		X		X		40	60	X	X	X			X
GEORGIA																									
HAWAII						X		X		X		X	X		X						X				X
IDAHO					X		X		X		X		X			X	2								X
ILLINOIS				47		X	X		X			X	X		X			100				X	X		X
INDIANA	1					X		X		X		X		X		X		85	15		X			X	
IOWA		7				X		X		X		X	X		X			95	5		X			X	
KANSAS	0	0				X		X		X		X		X		X				X	X		X		X
KENTUCKY																									
LOUISIANA						X		X		X		X		X		X					X			X	
MAINE						X		X		X		X		X		X	X	X	X		X	X			X
MARYLAND		12	0	0				X		X	X		X		X			65	35		X	X		X	
MASSACHUSETTS																									
MICHIGAN	.20	800	.09	240		X	X		X			X	X		X		80	20			X			X	
MINNESOTA		141				X	X		X			X	X		X		28	3	69		X	X			X
MISSISSIPPI	3					X		X		X		X		X		X			100		X				X
MISSOURI	.15		1			X	X		X		X		X			X	0	95	05		X	X		X	
MONTANA			.25	4,000		X	X		X			X	X			X			100		X			X	
NEBRASKA																									
NEVADA	0	0				X		X		X		X		X		X		100			X	X		X	
NEW HAMPSHIRE						X	X		X		X		X			X		50	50		X			X	
NEW JERSEY	.10					X		X		X		X		X		X					X	X		X	
NEW MEXICO	0	0				X		X		X		X		X		X			1		X	X		X	
NEW YORK						X		X		X		X	X		X		30	65	5		X	X		X	
NORTH CAROLINA	0	0				X	X		X		X		X			X			100		X	X		X	
NORTH DAKOTA	0	0				X		X		X		X	X		X			98	2	X	X		X		X
OHIO						X		X		X		X	X		X			99.9	.01		X			X	
OKLAHOMA																									
OREGON	3	3			X		X		X		X		X		X		72	11	17		X			X	
PENNSYLVANIA	.20	394				X	X		X		X		X			X	0	98	2		X			X	
RHODE ISLAND																									
SOUTH CAROLINA																									
SOUTH DAKOTA	0	0				X		X		X		X		X		X		25			X	X			X
TENNESSEE																									
TEXAS			.78	517		X		X		X		X		X		X			100		X	X	X		X
UTAH						X		X		X		X		X		X				X	X	X	X	X	
VERMONT	.32		.75			X	X		X		X		X		X		0	90	10		X	X		X	
VIRGINIA	1.06					X		X		X		X		X		X	20	60	20		X				X
WASHINGTON					X		X		X		X		X		X		18.6	2.7	0 2[1]		X	X		X	
WEST VIRGINIA					X			X		X		X	X			X		100			X	X			X
WISCONSIN	.30	251		[4]		X	X		X			X		X		X	50	32	18		X				X
WYOMING	0	0			X		X			X		X		X		X	0	0	0[1]			X		X	

Game	Employees and Salary Range												Division Organized According to Program Segments		Game Division Uses Own Engineering Staff:	
	Administrative Salary			Research Salary			Field Salary			Part-time Salary						
	#	From	To	#	From	To	#	From	To	#	From	To	No	# of Segments Yes	Yes	No
ALABAMA		11,128	17,199	9	9,321	12,246		9,321	11,492				X			X
ALASKA	11	1,312/mo	1,859/mo	12	983/mo	1,696/mo	30	840/mo	1,464/mo	5-10	848/mo	983/mo		6		X
ARIZONA	4	895/mo	1,255/mo	16			4	740/mo	1,035/mo	3[1]	500/mo	705/mo		3		X
ARKANSAS	NOT AVAILABLE															
CALIFORNIA	18	522/mo	1,626/mo	33	415/mo	1,273/mo	88	415/mo	1,273/mo	33.9	395/mo	505/mo		7	X	
COLORADO	8	10,608	22,044	21	7,536	12,900	130[1]	5,628	11,700	20	3,996	9,168		3		X
CONNECTICUT	1	11,289	13,701	5	8,623	11,827	4	8,623	10,723	6-17	2.00/hr	4.00/hr		3		X
DELAWARE	2	712/mo	1,280/mo	1	712/mo	960/mo	17	645/mo	960/mo	6	376/mo	480/mo	X			X
FLORIDA	2	10,400	16,560	8	9,180	12,660	27	5,300	10,100	2	3,400	4,200		6		X
GEORGIA	10	850/mo	1,500/mo	2	615/mo	800/mo	40	416/mo	800/mo					2		X
HAWAII	1	1,153/mo	1,700/mo	9	709/mo	1,624/mo	10	414/mo	949/mo	4	414/mo	643/mo		4		X
IDAHO	6	8,472	13,128	8	6,636	8,904	13	6,636	9,804	25	3,192	5,736		4		X
ILLINOIS	3	753/mo	1,540/mo				75+	423/mo	911/mo	50+				6		X
INDIANA	6			7			69			4				3		X
IOWA	NOT AVAILABLE															
KANSAS	4	557/mo	1,027/mo	8	557/mo	854/mo	38	282/mo	613/mo	5	282/mo	422/mo		5	X	
KENTUCKY	5	4,415	14,556	1	7,716	10,872	55	4,080	10,872	18	2,700	4,000		7	X	
LOUISIANA	NOT AVAILABLE															
MAINE	2	746/mo	924/mo	4	494/mo	902/mo	20	346/mo	902/mo	25	346/mo	414/mo				X
MARYLAND	2	5,658	16,885	7	5,658	15,348	63	4,251	12,687	6	2.00/hr	2.99/hr		3		X
MASSACHUSETTS	2	10,150	12,500	5	8,977	11,068	4	7,835	9,713	16	5,680	6,865		3	X	
MICHIGAN	16	11,046	22,759	0			79	5,324	16,808	25	5,324	7,037		3		X
MINNESOTA	5	650/mo	1,250/mo	15	641/mo	1,112/mo	79	468/mo	988/mo	75	2.69/hr	3.02/hr		4		X
MISSISSIPPI	2	10,200	11,000	10	7,200	9,600	35	5,520	9,600	4	3,600	4,200		5	X	
MISSOURI	7	9,900	16,092	12	8,148	12,624	34	4,536	10,392	325	120	4,620		3		X
MONTANA	3			30			10			50				8		X
NEBRASKA	2	10,560	14,280	1			13	7,320	12,000	5	1.65/hr	2.50/hr		3		X
NEVADA	2	13,433	14,750	5	11,154	12,241	31	5,930	11,154	7	5,441	6,466		4	X	
NEW HAMPSHIRE	1	10,387	12,924	9	7,162	11,281				3	1.88/hr			6		X
NEW JERSEY	3	10,887	18,970	10	8,124	12,225	33	4,988	9,124	4	2.25/hr	3.25/hr		4		X
NEW MEXICO	8	6,900	14,460	12	6,300	11,280	29	5,760	11,280	5	3,600	3,960		11		X
NEW YORK	5	5,400	16,400	39	5,000	16,800	174	5,000	17,900	40	4,000	7,200		4		X
NORTH CAROLINA	5			3			58			40				7		X
NORTH DAKOTA	NOT AVAILABLE															
OHIO	15	7,426	16,120	7	8,770	12,896	60	4,077	8,632				X			X
OKLAHOMA	9	5,976	12,462	4	6,701	9,147	48	4,404	9,480	0				3		X
OREGON	5	884/mo	1,373/mo	10	510/mo	1,129/mo	90	517/mo	1,186/mo	5	425/mo	570/mo		4		X
PENNSYLVANIA	35	13,301	23,915	14	9,159	14,188	290	7,177	14,188	206	2.11/hr			7	X	
RHODE ISLAND	1	9,152	10,946	3	6,890	9,542	12	4,394	9,048	2	4,120		X		X	
SOUTH CAROLINA	2	10,200	14,940	5	7,600	10,985	42		10,985	10	1.40/hr	3.00/hr		12		X
SOUTH DAKOTA	5	640/mo	850/mo	5	555/mo	785/mo	14	420/mo	755/mo					2		X
TENNESSEE	6	980/mo	1,190/mo	6	290/mo	860/mo	84	290/mo	860/mo	35	1.20/hr	1.75/hr		4		X
TEXAS	13	11,000	18,000	57			74						X		X	
UTAH	4	797/mo	1,170/mo	13	557/mo	797/mo	26	627/mo	877/mo	92	322/mo	428/mo		3		X
VERMONT	1	173/wk	238/wk	(5	142/196 combined)								X			X
VIRGINIA	1													2		X
WASHINGTON	5	10,380	16,104	3	7,752	12,012	38	5,784	12,012	10	4,104	7,752		3		X
WEST VIRGINIA	6	4,000	11,000	11	4,000	12,000	45	5,000	9,000					4		X
WISCONSIN	6	10,800	19,690				133	6,080	11,900	35	5,300	7,300	X			X
WYOMING	4	743/mo	1,129/mo				75	470/mo	867/mo		362/mo	448/mo		6		X

Game Continued	Source of Operating Budget: Department Budget Appropriation %	Self-generated Revenue %	Legislative Appropriation %	Game Division Uses Regional Concept With Field Office in Each Region: No	Yes: Game Districts Same as Fish Districts: Yes	Yes: Game Districts Same as Fish Districts: No	Yes: Game Districts Same as Forestry: Yes	Yes: Game Districts Same as Forestry: No	Game Division Conducts an Information and Education Program: Yes	Game Division Conducts an Information and Education Program: No	Size of Annual Budget 1969-70 M	Budget Allocations Within the Division: Administration %	Research %	Habitat Development %	Other %	Hunting Seasons & Limits Established by: Game Division	Conservation Director	Conservation Commission	Legislature
ALABAMA		100				X		X	X		3,089	12	32	41	15		X		
ALASKA	1					X		X	X		1,970	2						X	
ARIZONA			X		X			X		X	307							X	
ARKANSAS																			
CALIFORNIA	100					X		X		X	3,919	5	15	65	15			X	
COLORADO			X		X			X	X		3,000	7	16	8	69			X	
CONNECTICUT			100		X			X		X	370	15	15	60	10			X	X
DELAWARE		30	70		X			X	X		800	5	5	25	65			X	
FLORIDA	50[1]				X			X		X	1,000	5	20	50	25			X	
GEORGIA	100					X		X	X		800	10	30	60		X		X	
HAWAII			100			X	X			X	245	10	30	5	55			X	
IDAHO	100				X		X			X	1,055							X	
ILLINOIS			100			X		X		X	1,780	10	10	20	60	X	X		
INDIANA		100				X		X		X	2,500	1	15	20		X	X		
IOWA																			
KANSAS	100				X			X	X		633	10	20		70			X	
KENTUCKY		100		X						X	785	4	1	20	75			X	
LOUISIANA																			
MAINE	100				X			X		X	500	6	15	65	11				X
MARYLAND	100					X		X	X		700	10	24	62	4		X		X
MASSACHUSETTS	100				X			X	X		769	2	18	20	60			X	
MICHIGAN			100		X		X		X		1,737							X	X
MINNESOTA			100			X		X	X		2,670	3	10	20	67	X			
MISSISSIPPI	99	.01				X		X	X		700	6	9	84	1			X	X
MISSOURI	100			X				X			1,600	22	19	41	28			X	
MONTANA	X				X			X	X		1,250	5	15	30	10			X	
NEBRASKA	100				X			X	X		254	10	90					X	
NEVADA	100				X			X		X	900	10	25	40	25			X	
NEW HAMPSHIRE	100			X						X	240								X
NEW JERSEY		100		X					X			5	30	60	5			X	
NEW MEXICO	100					X		X		X	630	5	50	30	15			X	
NEW YORK			100		X			X		X	3,300	2	46	43	9		X		X
NORTH CAROLINA	65	35	0		X			X	X		1,000	6	5	81	8	X	X	X	
NORTH DAKOTA																			
OHIO			100		X			X	X		1,710	21	15	63		X			
OKLAHOMA	100			X							850	10	10	60	20			X	X
OREGON	100					X		X	X		2,700	19	7	43	31			X	
PENNSYLVANIA		100				X		X	X			7.9	1.8	46.8	37.2			X	
RHODE ISLAND	100			X						X	200	10	20	65	5	X	X		
SOUTH CAROLINA	100					X		X	X		600	20	10	60	10				X
SOUTH DAKOTA	100					X		X	X		300							X	
TENNESSEE	33	21	46		X			X		X	1,200	8.3	7.4	72	12.3	X	X	X	
TEXAS		100			X			X	X		2,012							X	X
UTAH			100		X			X	X		1,324	3.2	17.1	10.3	69.4			X	
VERMONT	X				X			X	X		130	12	78	10				X	X
VIRGINIA	100					X		X	X		1,514[2]	4	20	70	6			X	
WASHINGTON	100				X			X	X		947	8.5	2.5	15	74			X	
WEST VIRGINIA	2	50.8			X		X		X		1,009	7.2	28.3	57.4	7.1		X		
WISCONSIN	93		7		X		X		X		3,900	33		33	33			X	
WYOMING	90					X		X	X		1,400							X	

Game Continued	Proceeds of Hunting License Sales: Stays in Game Division %	Goes to Department General Fund %	Goes to State General Fund %	Other %	Game Division Provides Recommendations in Establishing Seasons and Limits Yes	No	# of Hunting Licenses Sold in 1969: Small Game Resident M	Small Game Non-resident M	Turkey Resident M	Turkey Non-resident #	Big Game Resident M	Big Game Non-resident M	Big Game Animals & Approximate Numbers: Deer Mule M	Deer White Tail M	Deer Other M	Bear Black M	Bear Brown M	Bear Grizzly M
ALABAMA	100				X		1							500				
ALASKA				100	X		3								200	20		12
ARIZONA		100			X		2						220	35			1.5	
ARKANSAS					X													
CALIFORNIA		100			X		1						1,500					
COLORADO		100			X		35[2]	2.8	.8	16	157	15	X	X		X		X
CONNECTICUT			100		X		70	.001			2[1]	.001		8				
DELAWARE	80			20	X									5				
FLORIDA		100			X		223	2.8						450		1		
GEORGIA					X													
HAWAII			100		X		8,360-combined							.45				
IDAHO		100			X		1							400		40		
ILLINOIS					X		398	7	0	0	50	0						
INDIANA	100				X		447	3.2			57	.177		400				
IOWA																		
KANSAS		100			X		198	19.6	0	0	12	0	7.5	27.5				
KENTUCKY		X			X									50				
LOUISIANA																		
MAINE		100			X		1							275		15		
MARYLAND		100			X		175	8.3						50				
MASSACHUSETTS		100			X		1							16				
MICHIGAN				100	X		571[1]	.5	4.2		609	14		650		7		
MINNESOTA				100	X		302[1]	1.4			290			500	0	60		
MISSISSIPPI	1	99			X		1							275	.050			
MISSOURI		100			X		381	8.9	8.0	87	169	6		X		.100		
MONTANA		100			X		67	.7	1.5	105	117	15						
NEBRASKA		100			X		199	20	1.7	49	28	2.5	40	36				
NEVADA		100			X			.8	0	0	36	3.7	150					
NEW HAMPSHIRE		100			X		1							45	1.1			
NEW JERSEY	100				X		156	2.6	0	0	0	0		50				
NEW MEXICO		100			X		13	1.8			100	4.9	300	15	3			
NEW YORK				100	X		286	345			550	26		500	6			
NORTH CAROLINA		100			X		1							152	1			
NORTH DAKOTA																		
OHIO				100	X		482	1.7	.9		29			22				
OKLAHOMA		100			X		187	2.6	5.4		67	.7	.3	60				
OREGON		100			X		1		.25				400	1	350	11		
PENNSYLVANIA	100				X		1							650		1.5		
RHODE ISLAND				100	X		13	13			1			25				
SOUTH CAROLINA		100			X		212	10.5						270				
SOUTH DAKOTA		100			X		100	18.9	6	283	2.9	53	85	130				
TENNESSEE		100			X		257	10			75			100	.2	.3		
TEXAS		100			X						896	8.6	170	3,050		.05		
UTAH				100	X		36	.7			67	15	300					
VERMONT		100			X		103[1]	1.2				41		177		2		
VIRGINIA		100			X		381	15.4	200	12,000				200		1		
WASHINGTON		100			X		1						185	70	245	22		
WEST VIRGINIA	60			40	X						226	20		137		.06		
WISCONSIN		100			X		420	3.5	0	0	494	9.3		500		8		
WYOMING		100			X		1						250	50		2 5		05

Game Continued	Big Game Animals & Approximate Numbers Continued: Elk M	Antelope M	Sheep M	Other M	Specific Animal Permit as Well as Hunting License Required: Yes	No	Deer Herd Large Enough to Permit Open Season: Yes	No	Doe Hunting Permitted: Yes	No	Bear Population Large Enough to Permit Open Season: Yes	No	Dogs Allowed for Bear Hunting: Yes	No
ALABAMA				300 Turkey		X	X		X			X		
ALASKA	1.2		37.5	4	X		X		X		X		X	
ARIZONA	9	6	.3	17 Javelina	X		X		X		X		X	
ARKANSAS														
CALIFORNIA	3.7	2.9	3.9	3 Wild Pigs	X		X		X		X		X	
COLORADO	X	X	X	Mt. Goats/ Lions	X		X		X		X		X	
CONNECTICUT					X		X		X			X		X
DELAWARE						X	X		X			X		X
FLORIDA				80-100 @ Wild Turkey/Hog		X	X		X		X		X	
GEORGIA							X		X		X		X	
HAWAII		.2	1.3	3 80 Goat/Pig	X		X		X			X		
IDAHO	95	6	2.5	3 1.8 Goat/Moose	X		X		X		X		X	
ILLINOIS					X				X			X		
INDIANA						X	X		X[1]					
IOWA														
KANSAS	.06	.35		.8 Turkey	X		X		X			X		
KENTUCKY					X				X			X		
LOUISIANA														
MAINE				14 Moose		X	X		X		X		X	
MARYLAND					X		X		X			X		
MASSACHUSETTS					X		X		X		X		X	
MICHIGAN	2			.020 Moose		X	X		X		X		X	
MINNESOTA	.025			7 Moose		X	X		X		X		X	
MISSISSIPPI					X		X		X			X		
MISSOURI						X	X		X			X		X
MONTANA					X		X		X		X			X
NEBRASKA		6.5				X	X		X			X		
NEVADA	.200	3	2.5	Mt. Lion	X		X		X			X		
NEW HAMPSHIRE						X	X		X		X		X	
NEW JERSEY					X		X		X			X		X
NEW MEXICO	12	18	.6	25 2 Turkey/Javelina		X	X		X		X		X	
NEW YORK						X	X		X		X			X
NORTH CAROLINA						X	X		X		X		X	
NORTH DAKOTA														
OHIO				3.5 Turkey	X		X		X			X		
OKLAHOMA	.3	.3			X		X		X			X		
OREGON	50	10	.15	.075 Goat	X		X		X		X		X	
PENNSYLVANIA						X	X		X		X[2]			X
RHODE ISLAND					X		X		X			X		
SOUTH CAROLINA						X	X		X		X		X	
SOUTH DAKOTA	2	24	.02	.3 Mt. Goat	X		X		X			X		X
TENNESSEE				2 Wild Hog		X	X		X		X		X	
TEXAS	.4	12.4	7	14 1.5 Javelina/Boar		X	X		X			X		
UTAH	5	2	.2	.3 .1 Moose/Bison	X		X		X		X		X	
VERMONT						X	X		X		X		X	
VIRGINIA	.4				X		X		X		X		X	
WASHINGTON	60	.75	.3	7	X		X		X		X		X	
WEST VIRGINIA				40 Turkey		X	X		X		X		X	
WISCONSIN					X		X		X		X		X	
WYOMING	55	140	3	3 Moose	X		X		X		X			X

Information and Education	Divisions Receiving Information and Education Services: Forestry	Parks	Game	Fish	Other	All Divisions	# of Employees in Information & Education Division	Annual Budget 1969/70 M	Programs Directed Towards: Sportsmen	Non-sportsman	Resident	Non-resident	Conservation Department Magazine: Circulation M	Subscription Fee	Title	Frequency	No Magazine
ALABAMA						X	8	65	X		X		24	None	Alabama Conservation	Bi-monthly	
ALASKA						X	5	55	X	X	X						
ARIZONA						X	11	140	X	X	X		26	None	Wildlife Views	Bi-monthly	
ARKANSAS			X	X			6	90	X		X		15	None	Ark. Game & Fish	Quarterly	
CALIFORNIA			X	X	X		6	250	X	X	X		24	2.00/yr	Outdoor California	Bi-monthly	
COLORADO						X	27	479	X		X		54		Colorado Outdoors	Bi-monthly	
CONNECTICUT			X	X			2	31	X	X	X						X
DELAWARE			X				2	30		X	X		6	None	Delaware Conservationist	Quarterly	
FLORIDA			X[1]	X			12	430	X		X	X			Florida Wildlife	Monthly	
GEORGIA			X	X			13	315	X		X		32	1.00/yr	Georgia Game & Fish	Monthly	
HAWAII																	
IDAHO			X	X	X		15	242	X		X		27	None	Idaho Wildlife Review	Bi-monthly	
ILLINOIS						X	10		X		X						X
INDIANA						X	6		X	X	X		25	3.00/yr	Outdoor Indiana	10 per yr	
IOWA						X	15	268	X		X		68	1.00/2 yrs	Iowa Conservationist	Monthly	
KANSAS						X	6	100					26	None	Kansas Fish & Game	Quarterly	
KENTUCKY			X	X			8	140	X		X						
LOUISIANA	NOT AVAILABLE																
MAINE			X	X	X		11	115	X		X		14	2.50/2yrs	Maine Fish & Game	Quarterly	
MARYLAND						X	7		X	X	X						X
MASSACHUSETTS			X	X			5		X		X		43	None	Mass. Wildlife	Bi-monthly	
MICHIGAN						X	37	622	X	X	X		42	2.00/yr	Mich. Natural Resources	Bi-monthly	
MINNESOTA						X	14	204					65	None	Conservation Volunteer	Bi-monthly	
MISSISSIPPI			X	X			8	120	X		X		32	None	Miss. Game & Fish	Bi-monthly	
MISSOURI						X	33	540	X		X		185	None	Conservationist	Monthly	
MONTANA		X	X	X			23	400	X	X	X		20	None	Montana Wildlife	Quarterly	
NEBRASKA	NOT AVAILABLE																
NEVADA			X	X	X		4	67	X	X	X		2.5	2.00/yr	Nevada Outdoors	Quarterly	
NEW HAMPSHIRE			X	X			6	98	X	X	X	X	5.2	None	N. H. Natural Resources	2 Times Year	
NEW JERSEY	NOT AVAILABLE																
NEW MEXICO			X	X			11	199	X		X			1.00/yr	N. Mexico Wildlife	Bi-monthly	
NEW YORK						X	40	950		X	X		130	2.00/yr	N. Y. Conservationist	Bi-monthly	
NORTH CAROLINA			X	X	X		8	250	X		X		103	1.00/yr	Wildlife in N. Carolina	Monthly	
NORTH DAKOTA						X	4	85	X		X		25	1.50	North Dakota Outdoors	Monthly	
OHIO	NOT AVAILABLE																
OKLAHOMA						X	15	300	X		X						
OREGON			X	X			10	140	X		X		55	None	Oregon St. Game Cons. Bulletin	Monthly	
PENNSYLVANIA						X	26	750	X		X	X	211	1.50/yr	Penn. Game News	Monthly	
RHODE ISLAND						X	3		X	X			1	None	AgReCon	Quarterly	
SOUTH CAROLINA	NOT AVAILABLE																
SOUTH DAKOTA						X	4	145	X		X		40	None	S. Dakota Conservation Digest	Bi-monthly	
TENNESSEE	X	X			X		5	60	X	X	X						
TEXAS						X	38	671	X		X		55	None	Texas Parks & Wildlife	Monthly	
UTAH			X	X	X		10	130	X		X						X
VERMONT			X	X	X		3		X	X	X						X
VIRGINIA			X	X			12	200	X		X		50	1.50/yr	Virginia Wildlife	Monthly	
WASHINGTON						X	5	75	X		X		18	None	Game Bulletin	Quarterly	
WEST VIRGINIA						X	10	97	X	X	X		27	2.00/yr	Wonderful W. Virginia	Monthly	
WISCONSIN						X	17	354	X		X		100	None	Conservation Bulletin	Bi-monthly	
WYOMING						X	17	300	X	X	X		60	2.00/yr	Wyoming Wildlife	Monthly	

Information and Education Continued	Amount of Budget Expended On:																					
	Newspaper Services		Magazine Services		Other Publications		Photo Services		Radio		TV		Motion Picture Production		Conservation Education		Other		Motion Picture Loan Service	
	M	%	M	%	M	%	M	%	M	%	M	%	M	%	M	%	M	%	M	%
ALABAMA			17										0						0	
ALASKA	40	20	10	5	10	5	10	5	10	5	20	10	40	20			30	15	30	15
ARIZONA	8		22		15		1		1		25		0		30		35		1	
ARKANSAS																				
CALIFORNIA																				
COLORADO													30		12.5					
CONNECTICUT																				
DELAWARE																				
FLORIDA	43	10	108	25	22	5	4.3	1	22	5	21.5	15	8.6	2	64.5	15	129	30	8.6	12
GEORGIA	1.5	.5	78	26	23	7.5	11	3.5	1	.3	8	2.6								
HAWAII																				
IDAHO	15	19	15	8	4	5	2	15	80	2										
ILLINOIS	26	10			2.6	1	50	25	20	10	1.2	05	5.2	2			.30	49	15	6
INDIANA																				
IOWA	.6	10	0	0			.5	20			.8	20			.7	15	20			
KANSAS	20	20	30	30	20	20	10	10	5	5	2	2	0		5	5	6	6	2	2
KENTUCKY																				
LOUISIANA																				
MAINE	1.2	2.1	20	36	8	14	4	7	.1		.1		2	3.5	10	18	9	16	2	35
MARYLAND																				
MASSACHUSETTS		10		35				20		2		10		5		5		3		10
MICHIGAN	37	6	82	13	50	8	37	6	12.5	2	37	6	37	6	155	25	136	22	43.5	6
MINNESOTA																				
MISSISSIPPI		8		25		15		5		3		10		5		10		17		2
MISSOURI		.3	116	298	50.9	13	3.5	.9	5.13	1.3	1.65	.4	18	5	151		125	32	37	95
MONTANA																				
NEBRASKA																				
NEVADA																				
NEW HAMPSHIRE	5	5	12	15	3	3	10	15									1	1		
NEW JERSEY																				
NEW MEXICO			37		14		5.5		16.6(combined)				0		0		0		0	
NEW YORK	80		200		100		20						25		300		200		20	
NORTH CAROLINA																				
NORTH DAKOTA	4.2	5	22	25	4.2	5	8.4	10	8.4	10	8.4	10	8.4	10	4.2	5	8.4	10	8.4	10
OHIO																				
OKLAHOMA																				
OREGON		10		15		10		5		5		5		5		15		20		10
PENNSYLVANIA			320		95		25		0		15		20		150				0	
RHODE ISLAND	.28	2	2.1	15	.28	2	.28	2							.7	5	10	74		
SOUTH CAROLINA																				
SOUTH DAKOTA	4		50		10		46		2		3		5		5		60		2	
TENNESSEE																				
TEXAS																				
UTAH																				
VERMONT	2		0		36		2.5						3		2.5				0	
VIRGINIA																				
WASHINGTON	6.3	8	10	13	.2	13	.2				1.5	2	3	4	2	3			1.7	2
WEST VIRGINIA	1.5		40		5															
WISCONSIN																				
WYOMING																				

Lands Management	Units of Land Reverting to State Annually: For Non-payment of Taxes	As Gifts	Other	Average Size of Reverted Units: (Acres)	Location of Reverted Units: Rural Areas	Small Towns and Cities	Large Cities	Metropolitan Areas	State Allowed to Sell/Trade State Land For Private Land to Consolidate Holdings: Yes	No	Bureau Regulated Channeling and Dredging Operations Yes	No	Bureau Handles Oil and Mineral Leases: Yes	No	Annual Budget 1969-70 M	Funding Sources: Department Budget Appropriation %	Revenue From Land Sales %	Legislative Budget Appropriation %	Total Acres Of State Owned Land M	Total Acres Of Federally Owned Land M
ALABAMA									X		X		X		74		20	80	[1]	
ALASKA	45			5	X				X		X		X		133			100	26,000	461,000
ARIZONA										X		X	X					100	9,250	
ARKANSAS	NOT AVAILABLE																			
CALIFORNIA										X	X		X		1,750			100	2,319	47,202
COLORADO	NOT AVAILABLE																			
CONNECTICUT	0	5		100	100				X			X		X	105	100			190	7
DELAWARE	NOT AVAILABLE																			
FLORIDA	NOT AVAILABLE																			
GEORGIA	NOT AVAILABLE																			
HAWAII			6-8			75	25		X			X								
IDAHO	0				X					X	X		X					100	2,930	34,195
ILLINOIS	NOT AVAILABLE																			
INDIANA	NOT AVAILABLE																			
IOWA	0	0	3-4000	100	100				X				X		85	100			160	222
KANSAS	NOT AVAILABLE																			
KENTUCKY	NOT AVAILABLE																			
LOUISIANA	NOT AVAILABLE																			
MAINE	NOT AVAILABLE																			
MARYLAND	NOT AVAILABLE																			
MASSACHUSETTS	NOT AVAILABLE																			
MICHIGAN	6,000	10	250	1	15	5	80		X			X	X		500			100	4,300	3,300
MINNESOTA			125	40	100				X			X		X				100	4,638	3,392
MISSISSIPPI	NOT AVAILABLE																			
MISSOURI	NOT AVAILABLE																			
MONTANA	0	0	0							X		X	X		202			100	5,123	27,662
NEBRASKA			X	1	90	10				X	X		X		671			100	1,600	665
NEVADA										X		X						X	2	60,723
NEW HAMPSHIRE	NOT AVAILABLE																			
NEW JERSEY	NOT AVAILABLE																			
NEW MEXICO	NOT AVAILABLE																			
NEW YORK	NOT AVAILABLE																			
NORTH CAROLINA	NOT AVAILABLE																			
NORTH DAKOTA	NOT AVAILABLE																			
OHIO	NOT AVAILABLE																			
OKLAHOMA	NOT AVAILABLE																			
OREGON	0	0	0	3-10	100				X			X		X	80	100			825	32,130
PENNSYLVANIA	[1]			1-150	100				X			X		X		20[2]			3,010	650
RHODE ISLAND	NOT AVAILABLE																			
SOUTH CAROLINA	NOT AVAILABLE																			
SOUTH DAKOTA	0	0	0	60	100				X			X		X	280	100			216	
TENNESSEE	NOT AVAILABLE																			
TEXAS					99					X	X									
UTAH		0	0		X		X		X			X	X		200			X	4,500	30,000
VERMONT	NOT AVAILABLE																			
VIRGINIA	NOT AVAILABLE																			
WASHINGTON	NOT AVAILABLE																			
WEST VIRGINIA	NOT AVAILABLE																			
WISCONSIN	0[1]	1,000 acres		40	99	1			X			X		X		X			884	1,636
WYOMING	0	0		5	50	50			X			X	X		164			100	3,653	28,984

Lands Management Continued	Employees and Salaries											
	Administrative Salary			Land Appraisers Salary			Legal Staff Salary			Part-time Salary		
	#	From	To	#	From	To	#	From	To	#	From	To
ALABAMA	2	5,447	15,158	2	6,591	8,957	1	11,500	14,534			
ALASKA	114	470/mo	2,000/mo	4	983/mo	1,219/mo				0		
ARIZONA												
ARKANSAS												
CALIFORNIA	4	900/mo	1,400/mo	12	700/mo	1,200/mo	4	900/mo	1,500/mo			
COLORADO												
CONNECTICUT	1	12,500	16,000	4	11,000	13,500			1			1
DELAWARE												
FLORIDA												
GEORGIA												
HAWAII	13	9,000	17,500	1								
IDAHO				5	8,200	14,000	1					
ILLINOIS												
INDIANA												
IOWA	1	10,000	12,000	1	7,800	9,500	1			2	8,400	9,500
KANSAS												
KENTUCKY												
LOUISIANA												
MAINE												
MARYLAND												
MASSACHUSETTS												
MICHIGAN	20	384/mo	1,680/mo	14	624/mo	1,346/mo	0			0		
MINNESOTA				6	646/mo	913/mo						
MISSISSIPPI												
MISSOURI												
MONTANA												
NEBRASKA	12	350/mo	1,075/mo	9	615/mo	770/mo	1			1	2.10/hr	
NEVADA	3	6,441	17,600					14,131				
NEW HAMPSHIRE												
NEW JERSEY												
NEW MEXICO												
NEW YORK												
NORTH CAROLINA												
NORTH DAKOTA												
OHIO												
OKLAHOMA												
OREGON	1	11,700	14,700	3	9,150	11,700			25.00/hr			
PENNSYLVANIA	2	16,000	17,000				1					
RHODE ISLAND												
SOUTH CAROLINA												
SOUTH DAKOTA	7	600/mo	900/mo	8	350/mo	550/mo				9	240/mo	350/mo
TENNESSEE												
TEXAS												
UTAH	5			0						8		
VERMONT												
VIRGINIA												
WASHINGTON												
WEST VIRGINIA												
WISCONSIN	5	750/mo	1,250/mo	0			0			2		2.00/hr
WYOMING	20	249/mo	1,118/mo	3	616/mo	1,034/mo	1	750/mo	1,034/mo	1	20.00 day	20.00 day

Law Enforcement	Employees and Salary Range											
	Enforcement Officers			Administrative			Clerical			Part-time		
	#	Salary From	To	#	Salary From	To	#	Salary From	To	#	Salary From	To
ALABAMA	110	6,305	13,312				4	5,447	7,163			
ALASKA	36	785/mo	1,460/mo	8	1,050/mo	2,300/mo	9	500/mo	1,000/mo	100	580/mo	800/mo
ARIZONA	9		10,260	2	9,444	15,420	3	4,884	6,168			
ARKANSAS	122	5,124	6,864	2	6,996	11,976	1	4,104	5,508			
CALIFORNIA	230	700/mo	849/mo	45	884	1,626	9	457/mo	651/mo	0		
COLORADO	2[1]	727/mo	1,301/mo	1	727/mo	975/mo	4	425/mo	570/mo	1	2.02/hr	
CONNECTICUT	38	6,655	9,736	5	8,623	13,701	1	5,194	6,304			
DELAWARE	10	6,504	8,316	2	7,176	9,180						
FLORIDA	125	6,552	12,660	24	10,404	16,560	2	3,360	6,840	0		
GEORGIA		492.50/mo	1,131.50/mo		591.50/mo	1,034.50/mo		343.50/mo	648.50/mo		12.00 day	18.00 day
HAWAII	23	6,660	11,388	1	9,372	14,532	4	4,284	8,508			
IDAHO	64	553/mo	742/mo	10	673/mo	1,094/mo	2	340/mo	527/mo			
ILLINOIS	130	489/mo	666/mo	5			5			0		
INDIANA	116	440/mo	575/mo	10	510/mo	750/mo				6		
IOWA	63	6,300	8,400	5	7,320	12,528	1	4,704	6,024			
KANSAS	60	485/mo	613/mo	7	674/mo	1,077/mo	2	336/mo	463/mo			
KENTUCKY	121	457/mo	643/mo	11	710/mo	1,231/mo	1	415/mo	998/mo	0		
LOUISIANA	200	380/mo	800/mo		880/mo	1,280/mo		275/mo	580/mo		1.5/hr	
MAINE	120	472/mo	780/mo	3	680/mo	1,024/mo	5	292/mo	516/mo	0		
MARYLAND	60	6,459	11,000	5	9,284	16,235	1	5,300	7,000	0		
MASSACHUSETTS	68	142.10/wk	216/wk	3	196.20/wk	294.45/wk	4	97.60/wk	164.75/wk	0		
MICHIGAN	168	6,827	10,857	20	10,129	20,664	4	5,300	8,486	0		
MINNESOTA	146	569/mo	1,028/mo	8	641/m0	1,300/mo	9	342/mo	913/mo	6	342/mo	616/mo
MISSISSIPPI	166	375/mo	600/mo	2	625/mo	829/mo	2	428/mo	465/mo	0		
MISSOURI	131	6,384	11,448	3	7,392	17,736	2	3,384	1,084	0		
MONTANA	60	551/mo	818/mo	3	761/mo	898/mo	21	442/mo	579/mo	3	19.50 day	
NEBRASKA	47	6,360	10,320	4	10,560	14,280	2	5,400	7,800	0		
NEVADA	36	593/mo	876/mo	1	876/mo	1,065/mo	1	403/mo	489/mo	2	403/mo	489/mo
NEW HAMPSHIRE	40	7,646	9,616	1	10,520	13,161	1	5,389	7,076	0		
NEW JERSEY[1]	64	5,499	9,577	18	8,124	14,151					1.60/hr	3.00/hr
NEW MEXICO				1			1					
NEW YORK	233	6,115	7,540	16	8,630	10,475	21	4,615	7,135		20.00 day	
NORTH CAROLINA	162	6,700	11,660	2	11,100	15,560	2	4,650	5,840	14	50/mo	300/mo
NORTH DAKOTA	23	450/mo	600/mo	1		835/mo						
OHIO	112	5,990	9,942	9	8,570	16,120	8	4,826	6,968	0		
OKLAHOMA	NOT AVAILABLE											
OREGON[1]	90	570/mo	842/mo	2	1,075/mo	1,245/mo	2	302/mo	425/mo	0		
PENNSYLVANIA	142	7,177	9,618	17	8,721	16,170	10	4,551	6,716	0		
RHODE ISLAND	45	5,200	6,812	1	10,062	12,064	2	3,900	5,694	120	2.39/hr	
SOUTH CAROLINA	NOT AVAILABLE											
SOUTH DAKOTA	49	425/mo	734/mo	4	650/mo	1,052	1		545			
TENNESSEE	119	530/mo	650/mo	3	900/mo	1,325	3	420/mo	530/mo	20	330/mo	330/mo
TEXAS	297	500/mo	768/mo	26	743/mo	1,302/mo	30	360/mo	590/mo			
UTAH	58	518/mo	797/mo	2	835/mo	1,170/mo	1	354/mo	494/mo			
VERMONT	43	5,798	9,464	1		11,544	2	5,122	6,812	94	1.93/hr	
VIRGINIA	116	5,880	7,680	2	9,600	13,728	1	4,512	5,640	1	2.00/hr	
WASHINGTON	100	586/mo	712/mo	3	1,051/mo	1,340/mo	2	506/mo	615/mo	0		
WEST VIRGINIA	89	390/mo	510/mo	0			9			0		
WISCONSIN	142	602/mo	1,169/mo	5	1,069/mo	1,641				32		
WYOMING												

Law Enforcement Continued	Use of Auxiliary Forces to Supplement Regular Officers: No	Yes: Dept. Employees From Other Divisions	Yes: Citizens Commissioned to Make Arrests	Yes: Citizens With Less Than Arrest Authority	All Enforcement Officers Uniformed: Yes	No	# of Plain Clothes Officers	Availability of Law Enforcement Training Officer: Yes	% of Time Devoted to Training	No	Conservation Officers Hired Under Civil Service Regulations: Yes	No	Minimum and Maximum Working Hours Per Week of Conservation Officer: Min	Max	Primary Focus of Training Program (Ranked in Order of Importance): Police Oriented 1	2	3	Conservation Oriented 1	2	3	Public Relations Oriented 1	2	3	Availability of In-Service Training Program: Yes	No
ALABAMA	X				X					X	X			60			X	X				X	X		
ALASKA		X			X			X	100		X		37.5	37.5		X		X				X	X		
ARIZONA		X			X					X	X		40	40	X					X		X	X		
ARKANSAS		X			X					X		X											X		
CALIFORNIA		X	X		X			X	90		X		40	40	X				X			X	X		
COLORADO		X	X		X			X	20		X		40	100	X			X			X		X		
CONNECTICUT		X			X					X	X		35		X				X		X				X
DELAWARE		X			X					X	X		37.5	37.5		X	X				X				X
FLORIDA		X	X	X	X			X	60		X		45	85		X	X				X				X
GEORGIA		X	X			X	4			X	X														X
HAWAII		X	X		X			X	20		X		40	40		X	X				X		X		
IDAHO		X	X		X			X	15		X		40	40	X				X		X		X		
ILLINOIS	X				X					X	X		40		X				X			X	X		
INDIANA	X				X					X	X		48	54		X	X				X		X		
IOWA	X				X			X	40		X			50		X	X				X		X		
KANSAS		X			X			X	15		X		48			X		X		X			X		
KENTUCKY		X			X					X		X			X		X				X		X		
LOUISIANA		X				X	3			X	X			40		X		X				X	X		
MAINE		X			X					X	X							X					X		
MARYLAND	X				X			X	50		X		40	40	X				X		X		X		
MASSACHUSETTS		X			X			X	10		X		40		X				X		X		X		
MICHIGAN		X			X					X	X		40	40		X		X				X	X		
MINNESOTA	X				X			X	15		X		40	40	X				X			X	X		
MISSISSIPPI		X			X			X	25			X	40	60			X		X		X		X		
MISSOURI		X			X			X	25			X				X		X				X	X		
MONTANA		X			X			X	90			X	40			X				X	X		X		
NEBRASKA	X				X					X		X	50		X			X				X			X
NEVADA		X			X					X	X		60	60			X	X			X		X		
NEW HAMPSHIRE	X				X			X	100			X					X		X		X		X		
NEW JERSEY				X	X			X	25		X		40				X		X		X				X
NEW MEXICO		X	X		X					X		X	40				X	X			X		X		
NEW YORK		X	X		X					X	X		40	40			X	X			X		X		
NORTH CAROLINA	X				X			X	20			X	40	40	X				X		X		X		
NORTH DAKOTA	X					X				X		X			X			X				X	X		
OHIO	X				X			X	50		X		40			X		X				X	X		
OKLAHOMA																									
OREGON	X				X			X	70			X	40	40	X				X			X	X		
PENNSYLVANIA		X	X			X	2	X	100		X						X	X			X		X		
RHODE ISLAND			X		X		3	X	20		X		35		X								X		
SOUTH CAROLINA																									
SOUTH DAKOTA	X				X			X	10			X	40	58			X	X			X				
TENNESSEE		X			X					X		X					X	X			X		X		
TEXAS			X		X			X	100			X	48		X			X		X					X
UTAH		X	X		X			X				X	40				X	X		X			X		
VERMONT			X		X			X	100		X		59	average	X			X			X		X		
VIRGINIA		X			X					X		X	48		X			X			X		X		
WASHINGTON		X				X	2	X	25%		X		40	40	X			X		X			X		
WEST VIRGINIA		X			X					X	X		24	hr call	X			X			X		X		
WISCONSIN		X	X			X	1	X	90		X		40		X			X			X		X		
WYOMING		X			X					X		X											X		

Law Enforcement Continued	Officers Rotated Regularly to Different Geographic Areas: Yes	No	Portion of Force Trained in Control Technique Yes	No	Law Enforcement Districts Coincide With Fish and Game Regions: Yes	No	Approx. Size of Area Covered by Each Officer Sq. Ft.	Specific Areas of Responsibility for Enforcement Officers: (more than one may be checked) Game Laws	Fish Laws	Forest Fire Protection	Marine Safety	Park Service	All Conservation Related Enforcement	Officers are Responsible For Patrol fo State Parks and/or Other State Areas Yes	No	Officers Required to Pick Up Road Killed Big Game Animals: Yes	# of Animals Picked Up Yearly	No
ALABAMA		X	X		X								X	X				X
ALASKA	X			X		X							X	X		X	180	
ARIZONA		X	X		X			X	X		X				X	X	300	
ARKANSAS		X		X		X		X	X	X	X			X		X	400	
CALIFORNIA		X		X	X		1,000	X	X						X		4,000	X
COLORADO		X	X			X	1,117						X	X		X		
CONNECTICUT		X		X	X		200	X	X		X				X	X	250+	
DELAWARE		X		X		X	340	X	X		X				X			X
FLORIDA		X	X		X		475	X	X		X			X		X		
GEORGIA		X		X		X		X	X		X				X	X		
HAWAII		X		X		X	200	X	X						X		0	X
IDAHO		X	X		X		1,305	X	X	X	X				X	X	700	
ILLINOIS		X		X		X							X		X	X	2,000	
INDIANA		X		X		X	400	X	X	X	X	X	X	X		X	850	
IOWA		X	X			X	1,200						X	X		X	1,200	
KANSAS		X	X		X			X	X		X				X	X	1,000	
KENTUCKY		X		X	X		334	X	X					X		X	300	
LOUISIANA		X	X		X										X	X	750	
MAINE	X			X		X	360	X	X					X		X	1,100	
MARYLAND		X	X		X		400	X	X		X			X				X
MASSACHUSETTS		X		X		X	200						X	X		X	990	
MICHIGAN		X	X		X		576						X	X		X	6,500	
MINNESOTA		X		X	X		635						X		X	X	3,500	
MISSISSIPPI		X	X		X		500	X	X					X		X	300	
MISSOURI		X		X		X	571	X	X	X					X	X	1,600	
MONTANA		X		X		X	3,000	X	X		X		X	X		X		
NEBRASKA		X	X		X		1,638	X	X		X	X		X		X	1,529	
NEVADA		X		X	X		3,000	X	X		X				X		150	X
NEW HAMPSHIRE		X		X	X		300	X	X	X	X			X		X	549	
NEW JERSEY		X	X			X							X	X		X	30	
NEW MEXICO		X		X	X		4,200	X	X	X			X	X		X	400	
NEW YORK		X		X	X		250	X	X		X			1		X		
NORTH CAROLINA		X	X		X		380	X	X		X				X	X	450	
NORTH DAKOTA		X		X	X		3,000	X	X		X				X			X
OHIO		X		X	X		450						X		X	X	1,800	
OKLAHOMA																		
OREGON		X	X			X							X	X		X	1,002	
PENNSYLVANIA		X		X	X		350	X							X	X	22,000	
RHODE ISLAND		X	X			X	50						X	X		X	75	
SOUTH CAROLINA																		
SOUTH DAKOTA		X		X	X		1,500						X	X		X	500	
TENNESSEE		X		X	X		315	X	X		X			X		X	578	
TEXAS			X		X		992						X		X		X	
UTAH		X		X	X		1,574	X	X	X					X		1,500	X
VERMONT		X		X	X		250	X	X		X			X		X	3,200	
VIRGINIA		X		X		X	350	X	X		X			X		X	3,000	
WASHINGTON		X		X	X		680	X	X							X	95	
WEST VIRGINIA		X	X		X		450						X	X		X	100	
WISCONSIN		X	X		X		900						X	X		X	13,000	
WYOMING	X			X		X		X	X		X			X				X

Law Enforcement Continued	All Officers Drive State Owned Vehicles: Yes	# Driving State Vehicles	No	All Officers Drive Identified Vehicles: Yes	No	Average Annual Mileage Driven by Officers: M	Fire Arms Issued to Officers:* Yes	No	Law Enforcement Division Owns Aircraft: Yes — Primary Use: #	Enforcement	Patrol	Administration	Other	No	Owns Helicopters Yes #	No	Officers Can Issue Citations to Appear in Court Yes	No	Officers Have Authority to Accept Bond or Fine Money in The Field Yes	No	Average # of Citations Per Officer Issued Yearly #	% of Arrests Resulting in Conviction %
ALABAMA	X	110		X		25	X		1					0		X	X			X	60	92
ALASKA	X	36		X		20	X		8		X					X	X			X	30	96
ARIZONA	X			X		28		X	2		X		X			X	X			X	40	96[4]
ARKANSAS			X		X	23	X							X			X		X		49	97
CALIFORNIA	X	230		X		30		X	4	X						X	X			X	15-500	97.5
COLORADO	X			X		22		X	4							X	X			X	30	2
CONNECTICUT	X	38		X		30	X							X			X			X	16	95
DELAWARE	X			X		32	X							X			X			X	70	96
FLORIDA	X	125		X		25		X	4		X				2		X		X			80
GEORGIA	X			X		35	X		2		X					X	X			X		85
HAWAII	X	23		X		10	X							X		X	X			X	15	70
IDAHO	X			X		22.7		X						X		X	X			X	27.1	98
ILLINOIS	X	135		X		18		X						X			X			X	50	97
INDIANA		0	X		X	24	X							X		X	X			X	30	96
IOWA	X			X		36	X							X			X			X	68	99
KANSAS	X	60		X		35		X						X		X	X			X	51	98
KENTUCKY		0	X		X	18		X						X		X	X			X	50	84
LOUISIANA		160	X	X		35		X						X			X			X	40	90
MAINE	X				X	22	X		5		X						X		X		30	95
MARYLAND	X				X	25	X							X		X	X			X	50	93
MASSACHUSETTS	X	55			X	25	X							X		X	X			X	20	95
MICHIGAN	X			X		20	X							X		X	X		X[1]		48	96
MINNESOTA	X			X		24	X		4		X					X	X			X	38	99
MISSISSIPPI	X	168		X		24		X						X		X	X			X	60	90
MISSOURI		20	X	X		24.8		X						X		X	X			X	51.7	98.7
MONTANA	X	74			X	25		X	4		X				1		X		X		40	90
NEBRASKA	X			X		40	X		2	X			X			X	X			X	40	99
NEVADA	X			X		24	X		1				X			X	X			X	23	96.4
NEW HAMPSHIRE	X			X		30	X							X		X	X			X	12	99
NEW JERSEY	X			X		5	X		12						12		X			X	5	85
NEW MEXICO	X			X		25		X						X		X	X			X	40	98
NEW YORK	X				X	20	X							X		X	X			X	28	
NORTH CAROLINA	X				X	25	X		4	X						X	X			X	81	97
NORTH DAKOTA	X			X		35		X	1							X	X			X	40	99
OHIO	X				X	24		X						X		X	X			X	46	99.6
OKLAHOMA																						
OREGON	X				X	30	X							X		X	X			X	119	96
PENNSYLVANIA		155	X	X		25	X							X		X		X	X		55	98
RHODE ISLAND	X				X	30	X							X	1		X			X	10	90
SOUTH CAROLINA																						
SOUTH DAKOTA	X	54		X		35	X							X		X	X			X	20	97
TENNESSEE		19	X	X		21	X		1		X	X	X			X	X			X	48	92
TEXAS	X	314		X		28	X		4				X			X	X			X	67	96
UTAH	X	60		X		28.9		X	3	X			X			X	X			X	28	98.4
VERMONT	X				X	28	X							X		X	X			X	30	95
VIRGINIA	X	116			X	25	X		1				X			X	X			X	69.7	94
WASHINGTON		90	X	X		20		X	2		X	X				X	X			X	51	98
WEST VIRGINIA	X			X		30	X							X		X	X			X	30	95
WISCONSIN	X	142			X	22	X		5	X	X					X	X			X	65	97
WYOMING	X			X		30		X						X		X	X			X	25	95

* A negative response does not necessarily mean that officers are unarmed.

Law Enforcement Continued	Type of Validation Tag Issued to License For Attachment to Big Game				Size of Annual Operating Budget 1969-70	Enforcement Division's Legal Services Obtained From:		
	Metal Tag	Paper Tag	Plastic Tag	Other		Staff Attorneys Assigned to The Division	State Attorney's Staff	Private Lawyers Hired as Staff
ALABAMA	X				1,261		X	
ALASKA	X	X			1,458		X	
ARIZONA	X				235		X	
ARKANSAS		X				X	X	
CALIFORNIA		X			5,605		X	
COLORADO		X			157		X	
CONNECTICUT					466		X	
DELAWARE		X					X	
FLORIDA					1,601		X	
GEORGIA		X			2,324		X	
HAWAII	X				254		X	
IDAHO		X			968		X	X
ILLINOIS	X	X			2,681		X	
INDIANA			X		1,300		X	
IOWA		X			789		X	
KANSAS	X				760	X		
KENTUCKY	X				1,270		X	
LOUISIANA		X			2,831	X		
MAINE				X	1,553		X	
MARYLAND		X			680	X	X	
MASSACHUSETTS	X				700		X	
MICHIGAN		X			3,083		X	
MINNESOTA	X				2,375	X	X	
MISSISSIPPI				X	1,269		X	
MISSOURI		X			1,568	X		X
MONTANA				X		X		
NEBRASKA		X			968		X	
NEVADA			X		245		X	
NEW HAMPSHIRE		X			424		X	
NEW JERSEY		X					X	
NEW MEXICO		X			60	X		
NEW YORK	X	X	X		2,538	X		
NORTH CAROLINA					1,800		X	
NORTH DAKOTA	X				276	X	X	
OHIO		X			789	X		
OKLAHOMA								
OREGON		X			1,386		X	
PENNSYLVANIA		X			2,419		X	
RHODE ISLAND		X			650	X	X	
SOUTH CAROLINA								
SOUTH DAKOTA	X	X			534		X	
TENNESSEE		X			1,478	X	X	
TEXAS		X			3,900		X	
UTAH			X		767		X	
VERMONT		X	X		700		X	
VIRGINIA		X			1,267		X	
WASHINGTON		X			2,300		X	
WEST VIRGINIA		X			811		X	
WISCONSIN	X				2,664	X	X	
WYOMING		X					X	

Parks	Number of Employees: Park Rangers	Administrative	Planning	Maintenance	Part-time	Law Enforcement in Parks Responsibility of: (More Than One May be Checked): State Police	County Police	Conservation Officers	Park Rangers	Budget Sources: Self-generated	Appropriated	Proportion of Self-generated Revenues: Park Entrance Fees	Camping Fees	Boat Launching Fees	Concessions	Proportion of Expenditure For Park Development: Land Aquisition	Park Development	Maintenance	Administration
ALABAMA	NOT AVAILABLE																		
ALASKA	4	6	3	3	0	X			X		100	0	0	0	0	6	50	28	16
ARIZONA	24	8	1	1	7				X		100						20	25	55
ARKANSAS	24	3	1	131	60	X	X	X		37	63	0	70		30	0	10	75	15
CALIFORNIA	370	167	144	301	1,350	X	X		X		100	0							
COLORADO	24[2]	11	9	11	16			X	X	15	85	53	8	26	13	2	30	59	9
CONNECTICUT	35	25	8	117	574				X	40	60	21	104		2.6	13	42	36	9
DELAWARE	5	23	2	48	2				X	1		1				1			
FLORIDA	343	8	22		25				X	46	54	31	60	1	8	44	6	38	12
GEORGIA	57	27	9	87	229	X	X			40.3	59.7	0	24	0	24.1	0	7.7	4.1	20.2
HAWAII		7	3	79			X		X		100	0	0	0	100	20	60	15	5
IDAHO	NOT AVAILABLE																		
ILLINOIS	135	22	12	510	200			X			100		85		10	1			
INDIANA	NOT AVAILABLE																		
IOWA	40	5	0	35	125			X		14	86	0	12.7	0	1.3	0	0	80	20
KANSAS	10	11	10	53	21				X	43[1]	57[1]	79	1		5		31	56	13
KENTUCKY	40	125	10	350	1,110	X	X			55.9	44.1	0	8.6	0	1.6	2	97.5	0	.5
LOUISIANA	NOT AVAILABLE																		
MAINE	8	3	3	12	150	X	X	X	X	51.4	48.6	42.6	54.4	.6	2.4	80	20	63.4	36.6
MARYLAND	NOT AVAILABLE																		
MASSACHUSETTS	NOT AVAILABLE																		
MICHIGAN	297	51	10	622	combined				X	33	67	0	92	0	8	25	25	48	2
MINNESOTA	NOT AVAILABLE																		
MISSISSIPPI	NOT AVAILABLE																		
MISSOURI	9	35[1]	5	101	80	X	X	X	X	20	80	0	68	0	32	15	35	35	15
MONTANA		15	2	8	105			X		25	75	70	25		5	10	30	50	10
NEBRASKA	NOT AVAILABLE																		
NEVADA	11	8	7	4	28		X		X	3.9	96.1	80	20			5	33	35	27
NEW HAMPSHIRE	NOT AVAILABLE																		
NEW JERSEY	63[1]	31	13	115	666				X		100	0	0	0	0		15	50	33
NEW MEXICO	NOT AVAILABLE																		
NEW YORK	NOT AVAILABLE																		
NORTH CAROLINA	24	21	2	3	97	X			X	15	85	0	40	2	58				
NORTH DAKOTA	6	4	2	51	30	X			X		100	35	23	0	42	10	8		
OHIO	1								X		100	0	0	0	0			80	20
OKLAHOMA	NOT AVAILABLE																		
OREGON	188	28	7	188	235	X	X			10	90		13.6		.4	11	46	29	6[1]
PENNSYLVANIA	68	8	60	8	650	X	X	X	X		100					20	41	(39)	
RHODE ISLAND	NOT AVAILABLE																		
SOUTH CAROLINA	108	10	7	5	225	X	X	X		38	62	0	40	0	0	0	50	7	43
SOUTH DAKOTA	15	9	2	24	125	X	X	X	X	20	80	90	0	0	10	10	25	55	10
TENNESSEE	51	32	12	90	650				X	60	40	0	0	0	0	5	95	0	0
TEXAS	220	35	56		400				X	10	77	0	80	0	15	2	30	5	36
UTAH	27	10	7	20	89				X	12	88				0	2	51	37	10
VERMONT	13	7	5	24	180	X				80	20	8	50	0	25	0	0	30	70
VIRGINIA	NOT AVAILABLE																		
WASHINGTON	NOT AVAILABLE																		
WEST VIRGINIA	28	30		89	215			X	X			0	5	0	6	0	0	42	58
WISCONSIN	NOT AVAILABLE																		
WYOMING	30	12	8	64	250			X	X	50	50	38.4	53		8.6	16	33	33	17

Parks Continued	Total # of State Owned Parks:	Total Acres of State Park Lands:	Average Size of State Parks: (Acres)	Total # of Camp Sites in State Park System:	Average # of Camp Sites Per State Park:	Average Size of Camp Sites in State Park: Sq Ft	Proximity of Parks to Urban Areas: Within 30 Miles of Urban Area	Within 30-100 Miles of Urban Areas	Within 101-150 Miles of Urban Areas	More Than 150 Miles From Urban Areas	Proximity Of Park to Highways: Within 5 Miles of a Major Highway	Within 6-15 Miles of a Major Highway	More Than 15 Miles From a Major Highway	Facilities Available in Average State Park: Camping Sites	Boat Access Points	Boat Ramps	Public Swimming Areas	Concession Stands	Picnic Areas	Tables & Grills	Flush Toilets	Pit Toilets
ALABAMA																						
ALASKA	60	40	1	588	9.8	5,625	11	21	7	61	95	1.5	3.5	X	X				X	X		X
ARIZONA	10	20		236	25	800	100				95		5	X	X	X	X	X	X	X	X	X
ARKANSAS	28	18	640				2	90	8		90	10		X	X	X	X	X	X	X	X	
CALIFORNIA	184	760		7,733		900	50	40	8	2	80	10	10	X	X	X	X	X	X	X	X	X
COLORADO	23	41	2,000	600	50	3,560	20	60	15	5	60	20	20	X	X	X	X	X	X	X	X	X
CONNECTICUT	87	29	250	1,858	75	1,600	90	10			35	40	25	X			X	X	X	X	X	X
DELAWARE	10	6					50	50			100			X	X		X	X	X	X	X	
FLORIDA	83	177	2,135	2,826	80	700	65	35	0	0	56	13	18	X	X	X	X	X	X	X	X	X
GEORGIA	45	39	833	2,000	60	300	50	50			53	45	2	X	X	X	X	X	X	X	X	X
HAWAII	39	9	225				100				100			X			X	X	X	X	X	
IDAHO																						
ILLINOIS	72	70	800	9,000	150	50	5	85	10		80	10	10	X		X		X	X	X		X
INDIANA																						
IOWA	91	34	373	44	100	1,500	5	70	20	5	20	75	5	X	X	X	X	X	X	X		X
KANSAS	18	24	1,000	5,924	40-1,100	2,400	35	65	100		60	40		X	X	X	X	X	X	X	X	X
KENTUCKY	36	30	1	1,711	80	3,600	30	70	0	0	66	34	0	X	X	X	X	X	X	X	X	X
LOUISIANA																						
MAINE	28	247	1,000	1,050	100	800	10	70	10	10	40	40	20	X	X	X	X		X	X	X	X
MARYLAND																						
MASSACHUSETTS																						
MICHIGAN	75	207	2,566	13,674	204	2,500	60	40	0	0	91	6	3	X		X	X	X	X	X	X	
MINNESOTA																						
MISSISSIPPI																						
MISSOURI	56	80	1,000	3,400	120	2,500	5	30	50	15	85	10	5	X	X	X	X	X	X	X	X	X
MONTANA	40	19	482	7-800	20-25	1/4 acre	90	10			75	15	10	X	X	X	X	X	X	X	X	X
NEBRASKA																						
NEVADA	10	45	170	19	19	550	40	60			60	30	10	X					X	X		X
NEW HAMPSHIRE																						
NEW JERSEY	32	227	7,090	1,125	58	1,200	25	75	0	0	85	10	5	X	X		X	X	X	X	X	X
NEW MEXICO																						
NEW YORK																						
NORTH CAROLINA	17	54	3,200	381	22	25,000	5	90	5	0	10	70	20	X		X	X	X	X	X	X	
NORTH DAKOTA	10	5	506	215	50	3,600	90	10			50	40	10	X					X	X		X
OHIO	57	136	2,400	7,273	200	2,500	85	15			50	45	5	X		X	X		X	X		X
OKLAHOMA																						
OREGON	221	80	360	4,011	80	2,500	80	15	5	0	96	2	2	X		X			X	X	X	X
PENNSYLVANIA	66	118	1,704	5,393	175	3,600	25	50	25	0	25	50	25	X	X	X	X	X	X	X	X	X
RHODE ISLAND																						
SOUTH CAROLINA	29	52	1,786	900	50	920	100				10	10	80	X	X	X	X	X	X	X	X	
SOUTH DAKOTA	50	87	250	800		8,000					25	75	0	X	X	X	X		X	X	X	X
TENNESSEE	26	170		2,000	100	2,800		100			100			X	X	X	X	X	X	X	X	
TEXAS	67	63		3,119										X	X	X	X	X	X	X	X	X
UTAH	40	44	300	467	10	3,200	40	40	10	0	50	35	15	X		X		X	X	X	X	X
VERMONT	45	120	200	2,100	60	2,000	20	70	10	0	50	45	5	X	X		X	X	X	X	X	
VIRGINIA																						
WASHINGTON																						
WEST VIRGINIA	27	60	2,000	419	30	2,000	15	85			15	35	50	X	X	X	X	X	X	X	X	
WISCONSIN																						
WYOMING	56	1,104		3,545	6-563	2,000	41	59			49	47	4	X	X	X	X	X	X	X	X	

Parks Continued	Camping Season	Average Camping Days Per Year	# of People Using State Parks Each Year: Day Use: #	Day Use: %	Vacation Use: #	Vacation Use: %	Approximate Use on Major Holiday Weekends: # of People M	Approximate # of People Turned Away Each Year (Excess Capacity): Day Use # of People	Vacation # of People
ALABAMA									
ALASKA	Entire Year	105		2					
ARIZONA	Entire Year		1,008				21		
ARKANSAS	Entire Year	180	6,000	60	4,000	40	3	0	0
CALIFORNIA	Entire Year	365	32,535	89	3,973	11	810	215,454	596,632
COLORADO	Entire Year	180					20	0	
CONNECTICUT	June 1-Sept. 5	200	7,000		500		250	25,000	
DELAWARE	Entire Year	120	3,208	88	284	12	142	0	
FLORIDA	Entire Year	365	6,259	84	1,175	16	75	0	129,740
GEORGIA	Entire Year	275	6,375	85	1,115	15		0	
HAWAII	Entire Year	360	6,200					0	
IDAHO									
ILLINOIS	Entire Year	120	20 Million Combined				900	300,000 combined	
INDIANA									
IOWA	Entire Year	180						0	0
KANSAS	May 1-Oct 15	240	4.1 Million Combined						
KENTUCKY	Apr. 1-Oct. 31	120		43		37		0	
LOUISIANA									
MAINE	Apr. 15-Oct. 15	100	1,500	84	300			5,000	50,000
MARYLAND									
MASSACHUSETTS									
MICHIGAN	Entire Year	120	13,492	72	5,465	28	800	229,156	302,108
MINNESOTA									
MISSISSIPPI									
MISSOURI	Entire Year	180		89		1		0	0
MONTANA	May 1-Sept. 30	100	640	75	156	25			
NEBRASKA									
NEVADA	May 1-Nov. 1	160	869	95	46	5	19	0	0
NEW HAMPSHIRE									
NEW JERSEY	Entire Year	100	4,775		1,750		75		
NEW MEXICO									
NEW YORK									
NORTH CAROLINA	Apr. - Nov.	120	2,500		100			0	
NORTH DAKOTA	Entire Year	365							
OHIO	Entire Year	250	27,872	90	2,672	10	378	0	
OKLAHOMA									
OREGON	Apr. - Oct.	150	18,000	70	1,400	23		0	60,000
PENNSYLVANIA	Apr. - Oct.	180		100		50	350	0	13,000
RHODE ISLAND									
SOUTH CAROLINA	March - Dec.	225		70		30	250	0	0
SOUTH DAKOTA	May - Sept.	75						0	
TENNESSEE	Entire Year	175					350	0	
TEXAS	Entire Year	365		90		10	400		
UTAH	May - Oct.	150	2,300				80	0	0
VERMONT	May - Oct.	80	500	50	500	50	60		
VIRGINIA									
WASHINGTON									
WEST VIRGINIA	Apr. - Oct.	150	2,928	86	415	14	75	0	50,000
WISCONSIN									
WYOMING	Entire Year	100	7,390	88	865	12	236	0	13,575

Parks Continued	Fee Schedule				Reservations Accepted For State Park Campsites		# of National Recreation and Wildlife Areas in State			Availability of Camping Facilities in Wilderness Areas:		
	Daily Park Permit		Annual park Permit							Yes		
	Resident	Non-Resident	Resident	Non-Resident	Yes	No	NPS Facilities	National Forests	National Game Areas	# of Areas	# of Campsites	No
ALABAMA												
ALASKA	0	0	0	0		X	1	2	18			X
ARIZONA	1					X	1	1	0			X
ARKANSAS						X	4	2	5			X
CALIFORNIA	1.00	1.00			X		5	17	6	1	47	
COLORADO	1.00	1.00	5.00	5.00		X	8	14	0	325	6,428[2]	
CONNECTICUT	1.00	1.00				X	0	0	0			X
DELAWARE	0	0	0	0		X	0	0	1			X
FLORIDA	.25	.25	10.00	10.00	X		6	3	7	1	15	
GEORGIA	0	0	0	0		X	0	2	0			X
HAWAII	0	0	0	0	X		3	0	0			X
IDAHO												
ILLINOIS	0	0	0	0		X	0	1	0			X
INDIANA												
IOWA						X	0	0	0	3	150	
KANSAS	1.00	1.00	5.00	5.00		X						X
KENTUCKY	0	0	0	0		X	3	1	1	2		
LOUISIANA												
MAINE	1.00	1.00	10.00	10.00		X	1	1	1	307[1]	921	
MARYLAND												
MASSACHUSETTS												
MICHIGAN	1.00	2.00	3.00	5.00		X	1	4	2	2	429	
MINNESOTA												
MISSISSIPPI												
MISSOURI	0	0	0	0		X	4	2	1	8		
MONTANA	1.00	1.00	1.00	1.00		X	2					
NEBRASKA												
NEVADA			7.00	7.00	X		2	2	0			
NEW HAMPSHIRE												
NEW JERSEY	.25				X		3	0	6	2		
NEW MEXICO												
NEW YORK												
NORTH CAROLINA	0	0	0	0	X		8	0	0			X
NORTH DAKOTA							1	1		2	4	
OHIO	0	0				X	1	1				
OKLAHOMA												
OREGON	2		0	0	X		3	13	11			X
PENNSYLVANIA	1.25	1.25	0	0		X	6	1		15	0	
RHODE ISLAND												
SOUTH CAROLINA	0	0	0	0		X		2				X
SOUTH DAKOTA	0	0	2.00	2.00		X	4	2	5			X
TENNESSEE	0	0	0	0		X	1	1		8		
TEXAS	1					X	1	4	8			X
UTAH	1.00	1.00	7.00	7.00	X		14	8	0			X
VERMONT	.25	.25	5.00	5.00	X			1				X
VIRGINIA												
WASHINGTON												
WEST VIRGINIA	0	0	0	0		X		2				X
WISCONSIN												
WYOMING	1.00	1.00	3.00	3.00		X	0	2	3			X

Recreation	Employees and Salary Range														
	Supervisory Salary			Administrative Salary			Maintenance Salary			Prison Labor Salary			Part-time Salary		
	#	From	To	#	From	To	#	From	To	#	From	To	#	From	To
ALABAMA	NOT AVAILABLE														
ALASKA															
ARIZONA		8,000	11,400		8,900	16,000		5,400	7,062				7	4,500	5,400
ARKANSAS															
CALIFORNIA															
COLORADO															
CONNECTICUT	NOT AVAILABLE														
DELAWARE	1	10,416	14,000	2	7,008	9,500									
FLORIDA			1												
GEORGIA [1]				1/2		10,500							20	1.50/hr	3.75/hr
HAWAII	6	8,500	12,500	10	5,000	18,500	73	6,000	14,000						
IDAHO	NOT AVAILABLE														
ILLINOIS	1												200	2.02/hr	
INDIANA				4	10,000	13,000									
IOWA	NO RECREATION DIVISION														
KANSAS															
KENTUCKY	7	530/mo	676/mo	1	643/mo	862/mo	0			0			17	285/mo	308/mo
LOUISIANA	NOT AVAILABLE														
MAINE	1	10,000	12,000												
MARYLAND	1	12,800	16,800	2	10,600	15,200	0			0			0		
MASSACHUSETTS	NOT AVAILABLE														
MICHIGAN	1	14,365	18,541	2	6,180	14,490									
MINNESOTA	NOT AVAILABLE														
MISSISSIPPI	NOT AVAILABLE														
MISSOURI															
MONTANA	3	900/mo	1,100/mo	14	760/mo	920/mo	8	510/mo	680/mo				110	350/mo	440/mo
NEBRASKA	NOT AVAILABLE														
NEVADA	NO RECREATION DIVISION														
NEW HAMPSHIRE	NOT AVAILABLE														
NEW JERSEY	1	14,590	18,970	2	10,369	13,477	0			0			2		
NEW MEXICO	NOT AVAILABLE														
NEW YORK	NOT AVAILABLE														
NORTH CAROLINA [1]	10	9,840	12,468	4	11,300	16,600	0			0			0		
NORTH DAKOTA	NO RECREATION DIVISION														
OHIO	9	9,360	17,000	24	7,426	10,150	600+	4,000	7,426	0			700+	1.96/hr	2.42/hr
OKLAHOMA	NOT AVAILABLE														
OREGON	3	600/mo	1,130/mo	10	385/mo	1,186/mo									
PENNSYLVANIA	75	7,401	19,664	20	8,580	15,387	335	4,551	10,954	0			0		
RHODE ISLAND	NOT AVAILABLE														
SOUTH CAROLINA				2	8,185	12,790							12	100/wk	
SOUTH DAKOTA	NOT AVAILABLE														
TENNESSEE															
TEXAS	NO RECREATION DIVISION														
UTAH	30	853/mo	919/mo	17	266/mo	1,170/mo	15	354/mo	518/mo	0	0	0	91	1.54/hr	354/mo
VERMONT	2	3,328	7,306	2	7,878	14,300	0			0			0		
VIRGINIA	NOT AVAILABLE														
WASHINGTON	NOT AVAILABLE														
WEST VIRGINIA															
WISCONSIN			1												
WYOMING	NOT AVAILABLE														

Recreation Continued	Availability of Staff Specializing in Urban Recreation Services:		State Cooperates With Local Units in Developing State Park Facilities in or Near Urban Areas:		State Bonded For Recreation Programs:		The Following Are Part of The State's Recreation Program:												Functional Separation Between Parks Division and Recreation Division
							Nature Trails		Hiking Trails		Bridal Trails		Bicycle Trails		Motorcycle Trails		Snowmobile Trails		
	Yes	No	Yes	No	Yes (Amount) MM	No	#	Total Miles	#	Total Miles	#	Total Miles	#	Total Miles	#	Total Miles	#	Total Miles	
ALABAMA																			
ALASKA		X		X	.9		0	0	10	46	0	0	0	0	0	0	0	0	No
ARIZONA		X		X			5	10	5	15	0	0	0	0	0	0	0	0	No
ARKANSAS		X		X		X				85									No
CALIFORNIA	X		X		150		X	46.9	X	317.2	X	333.8	0		0		0		No
COLORADO		X	X			X													No
CONNECTICUT																			
DELAWARE			X			X	3	7.4											Yes
FLORIDA		X	X		20			7,467		7,467									Yes
GEORGIA		X	X			X	15	12	10	30	3	20	0		0		0		
HAWAII		X		X		X	X		X										No
IDAHO																			
ILLINOIS		X		X		X	22	60	50	150	4	17	6	21	0		7	55	No
INDIANA	X		X			X	8	5	90	212	10	74	5	50			1	2	Yes[1]
IOWA																			
KANSAS	X		X			X	6	10	18	27	0		0		0		0		
KENTUCKY		X		X		X			15		11								No
LOUISIANA																			
MAINE		X	X			X	6	12	10	150	1	5	0		0		9	30	No
MARYLAND		X		X		X													Yes
MASSACHUSETTS																			
MICHIGAN	X		X		100		5	33	15	338	9	89			0		27	700	Yes
MINNESOTA																			
MISSISSIPPI																			
MISSOURI		X		X		X	80	100	80	100	10	25	0		0		0		No
MONTANA		X		X		X													No
NEBRASKA																			
NEVADA																			
NEW HAMPSHIRE																			
NEW JERSEY	X			X				7.5		466.7		428.0				262		37.4	Yes
NEW MEXICO																			
NEW YORK																			
NORTH CAROLINA	X		X			X	0		0		0		0		0		0		Yes
NORTH DAKOTA																			
OHIO		X	X		100		7	8.5	228	1,006	48	112	7	237	0	0	1	3	No
OKLAHOMA																			
OREGON	X		X			X	5	2.5		122									No
PENNSYLVANIA		X	X		270		31	75.2	48	468.5	16	67.5					40	225.8	Yes
RHODE ISLAND																			
SOUTH CAROLINA		X	X			X	30	50	2	6	2	16	0		0		0		No
SOUTH DAKOTA																			
TENNESSEE	X		X			X			76	78	5	17	1	3	0		0		No
TEXAS																			
UTAH		X	X		2		2	4	0		0		0		0		0		No
VERMONT		X		X	10														Yes
VIRGINIA																			
WASHINGTON																			
WEST VIRGINIA		X		X	19,458		2	6	50	108	7	47							
WISCONSIN	X		X		56		15	15		245	3	40	3	117	0			190	No
WYOMING																			

Water Pollution Control Agency	State Has Single Agency Charged With Protection of Water Resources: Yes	No Responsibility Shared With:	Agency Independent of Other State Agencies Yes	No	Size of Annual Budget 1969-70 Amount M	Source of Operating Budget: Department Budget Appropriation %	Legislative Budget Appropriation %	Other %	State Has Bonding Program For Water Pollution Control Yes	No
ALABAMA	X		X		351		X	X		X
ALASKA		State Dept. of Health & Natural Resources		X	57	X		X		X
ARIZONA		1		X	152	X		X		X
ARKANSAS	X		X		270		X	X		X
CALIFORNIA	X		X		3,600		X			X
COLORADO	X		X		255		X	X		X
CONNECTICUT	X		X				X		X	
DELAWARE	X			X	400		X			X
FLORIDA	X		X		1,000		X			X
GEORGIA	X		X		601	X		X		X
HAWAII		Dept. Land & Natural Resources/Dept. of Health			180	X		X		X
IDAHO		State Reclamation		X	120	X	X			X
ILLINOIS	NOT AVAILABLE									
INDIANA		State Dept. of Health & Natural Resources & Stream Pollution Control Board		X	708		X	X		X
IOWA										
KANSAS	NOT AVAILABLE			X	524	X		X		X
KENTUCKY	X		X		400		X	X		X
LOUISIANA		LA Dept. Health & LA Stream Control Comm.		X	315		X		X	
MAINE		Water Resources Committee			434		X		X	
MARYLAND	X			X	1,600[1]		X			X
MASSACHUSETTS		Division of Water Resources/Dept. Public Health		X	626		X	X	X	
MICHIGAN		MI Depts. of Health & of Agriculture		X	1,606	X		X	X	
MINNESOTA		Depts of Conservation & Health	X		675		X			X
MISSISSIPPI	X				264	X	X	X		X
MISSOURI	X		X		427		X			X
MONTANA										
NEBRASKA		See "NEBRASKA" - Verbal Summary	X		183		X			X
NEVADA		Division Health/Dept. Fish & Game Dept. Conservation and Natural Resources		X	69		X			X
NEW HAMPSHIRE	X		X		350		X		X	
NEW JERSEY		State Dept. of Conservation & Economic Development		X	739		X	X	X	
NEW MEXICO	X			X	113	X	X	X	X	
NEW YORK	NOT AVAILABLE									
NORTH CAROLINA		Bd of Health & Dept. of Water & Air Resources		X	776	X		X		X
NORTH DAKOTA	X			X	70	X		X		X
OHIO		Dept. of Resources, Agriculture, Industrial Relations		X	1,000	X	X	X	X	
OKLAHOMA				X	654		X			X
OREGON	X		X		450		X	X	X	
PENNSYLVANIA	X			X	906		X		X	
RHODE ISLAND	X		X		272	X		X	X	
SOUTH CAROLINA	X			X	525		X	X		X
SOUTH DAKOTA	X			X	90	X		X		X
TENNESSEE		Stream Pollution Control, Water Qual. & Res., Dept. Conser.	X		430		X	X	X	
TEXAS	X			X	2,300	X	X			X
UTAH	NOT AVAILABLE									
VERMONT	X			X		X	X	X		X
VIRGINIA		1	X		1,423		X	X		X
WASHINGTON		Dept of Water Resources	X		2,700		X		X	
WEST VIRGINIA	NOT AVAILABLE									
WISCONSIN	X			X	2,500		X		X	
WYOMING		1		X	50		X			X

Water Pollution Control Agency Continued	Employees and Salary Range														
	Administrative			Engineering			Planning			Testing			Clerical		
	#	Amount From	To	#	Amount From	To	#	Amount From	To	#	Amount From	To	#	Amount From	To
ALABAMA	2	13,900	18,800	4	8,900	15,800				8	4,000	12,700	3	4,000	7,100
ALASKA				3	983/mo	1,770/mo							1	586/mo	706/mo
ARIZONA	1	15,144	19,338	7	8,262	17,645	1	9,691	12,072	1	8,948	11,149	3	3,852	5,420
ARKANSAS	4	7,000	12,000	2	8,000	11,000	2	5,000	9,000	15	5,000	10,000	2	3,000	4,000
CALIFORNIA	12	16,000	26,000	76	14,000	25,000	11	16,000	25,000				37	6,000	9,000
COLORADO	2	13,536	21,000	8	9,168	15,672				3	7,920	11,136	3	3,816	7,536
CONNECTICUT															
DELAWARE	3	15,000	18,000	2	11,500	14,000				9	5,500	7,500	5	4,200	5,200
FLORIDA	6						4								
GEORGIA	3	9,888	22,200	16	8,976	17,748				10	4,992	13,248	9	3,720	8,976
HAWAII	2		17,000	4		12,000				3		9,000	2		6,000
IDAHO	1		15,000	4	9,000	14,000							2		4,000
ILLINOIS															
INDIANA	Combined staff of 66 employees with salary ranges of 3,780 - 28,200														
IOWA															
KANSAS	1	12,300	17,200	8	4,800	13,600	9[1]	3,500	12,900				7	3,500	5,800
KENTUCKY	2	17,000	20,000	8	9,000	18,000				6	6,000	12,000	8	4,000	6,000
LOUISIANA	2	10,000	16,000	1		10,000	1		8,000	3		9,000	2		6,000
MAINE	2	10,000	20,000	12	6,000	19,000				6	6,000	11,000	6	300/mo	460/mo
MARYLAND	8	11,000	25,000	14	11,000	19,500	1	11,000	13,000	0			14	4,400	9,200
MASSACHUSETTS	6	162/wk	472/wk	35	134/wk	363/wk							16	105/wk	148/wk
MICHIGAN	4	9,900	24,700	29	11,400	20,700	9	12,200	18,500	6	7,500	11,500	17	6,300	8,500
MINNESOTA	5	9,000	21,000	28	9,700	12,800	0			5	5,600	11,000	15	4,000	6,800
MISSISSIPPI	2	12,000	18,000	6	8,400	15,000	3	10,400	12,000	5	6,000	12,000	7	4,200	8,400
MISSOURI	3	600/mo	1,586/mo	11	630/mo	1,244/mo				6	572/mo	843/mo	8	305/mo	572/mo
MONTANA															
NEBRASKA	3	400/mo	1,500/mo	4	500/mo	1,000/mo	1	1,000/mo		4	400/mo	1,000/mo	2	300/mo	425/mo
NEVADA	1	17,000	21,000	1	10,000	12,000	1	8,600	10,900				2	5,000	6,700
NEW HAMPSHIRE	3	12,500	21,000	13	8,600	15,000	3	12,500	21,000	22	5,200	8,250	8	4,200	6,365
NEW JERSEY				30	8,957	18,970				18	5,499	11,645	10	4,281	7,508
NEW MEXICO	1	6,900	9,420	5	9,000	14,000				3	7,200	9,840	3	4,320	6,300
NEW YORK															
NORTH CAROLINA	7	12,460	20,200	15	10,800	16,600				26	4,500	13,700	11	3,800	9,800
NORTH DAKOTA	1	17,000	22,000	2	10,000	15,000				2	5,700	9,600	1	5,400	6,900
OHIO				60	6,000	22,000				10					
OKLAHOMA															
OREGON	3			9			4			6			5		
PENNSYLVANIA	10	8,580	16,978	60	9,011	23,915	10	8,163	16,978	64	4,551	16,978	46	4,121	10,954
RHODE ISLAND	1	15,000	17,000	7	8,000	15,000				7	4,000	12,000	4	4,000	6,000
SOUTH CAROLINA	3	9,000	22,000	9	9,000	15,000	1	11,000		26	6,000	11,000	12	5,000	7,000
SOUTH DAKOTA	1	12,600	16,100	4	7,500	14,200				1	11,100	14,200	3	3,600	6,100
TENNESSEE	1	1,470/mo	1,670/mo	9	755/mo	1,510/mo				13	685/mo	1,190/mo	6	330/mo	530/mo
TEXAS	9	6,500	22,500	35	4,920	14,628	2	13,248	13,692	25	7,080	10,872	47	3,780	7,560
UTAH															
VERMONT	3	10,000	16,000	12	10,000	14,000	2	10,000	12,000	4	8,000	10,000	3	4,000	5,000
VIRGINIA	6	9,168	17,640	25	5,640	12,512	0			37	4,128	11,472	15	3,936	5,880
WASHINGTON	4	865/mo	1,278/mo	22	908/mo	1,631/mo	4	558/mo	1,342/mo	28	558/mo	1,278/mo	12	37 /mo	712/mo
WEST VIRGINIA															
WISCONSIN	25	602/mo	2,100/mo	65	560/mo	1,500/mo	5	765/mo	1,500/mo	10	600/mo	1,100/mo	26	379/mo	568/mo
WYOMING	0			3	11,00	16,000	0			0			1		

CHIEF EXECUTIVE

Alaska

[1]Information in this table refers only to Alaska's Fish and Game Department, not all natural resource functions.

Arizona

[1]Information in this table refers only to Arizona's Game and Fish Department, not all natural resource functions.

Arkansas

[1]Information in this table refers only to Arkansas' Game and Fish Commission (Department), not all natural resource functions.

California

[1]Information in this table refers only to California's Department of Fish and Game.

Hawaii

[1]The amounts listed as self generated revenues are deposited directly in the state's General Revenues Fund and are not controlled by the Department of Land and Natural Resources.

[2]Amounts in this category include:
Timber sales - $89,000
Land fees - $24,000
Land Rentals - $2.8 million
Water Sales - $152,000

Kansas

[1]Information in this table refers only to the Forestry, Fish, and Game Department, not all natural resource functions.

[2]This figure indicates acreage, not square miles, and consists largely of man made impoundments.

Kentucky

[1]Information refers to the Department of Fish and Wildlife Resources, not all natural resource functions.

Louisiana

[1]Information refers to the Wildlife and Fisheries Department, not all natural resource functions.

Maine

[1]Information refers to Department of Fish and Game, not all natural resource functions.

Mississippi

[1]Information refers to the Game and Fish Department, not all resource functions.

Montana

[1]Information refers to Fish and Game Department, not all resource functions.

Nevada

[1]Information refers only to Fish and Game Department, not all natural resource functions.

New Mexico

[1]Information refers only to Game and Fish Department, not all resource functions.

North Dakota

[1]Information refers only to Game and Fish Department, not all resource functions.

Oregon

[1]Information refers only to the Oregon State Game Commission, not all resource functions.

Pennsylvania

[1]Information refers only to the Pennsylvania Game Commission, not all resource functions.

South Carolina

[1]Information refers only to Wildlife Resources Department, not all natural resource functions.

Virginia

[1]Information refers only to Department of Conservation and Economic Development, not all natural resource functions.

CONSERVATION COMMISSION

Alaska

[1]Information refers to the Board of Fish and Game.

Arizona

[1]Information refers only to Game and Fish Commission.

Arkansas

[1]Information refers only to the Game and Fish Commission.

California

[1]Information refers only to Fish and Game Commission.

Connecticut

[1]Information refers only to the Board of Fisheries and Game.

Florida

[1]Information refers only to Game and Fresh Water Fish Commission.

Georgia

[1]Information refers only to Fish and Game Commission.

Kansas

[1]Information refers only to Forestry, Fish, and Game Commission.

Kentucky

[1]Information refers only to Fish and Wildlife Resources Commission.

Maine

[1]Information refers only to Fish and Game Commission.

[2]Commissioners' appointments confirmed by Governor's Council.

Maryland

[1]The Maryland Department of Natural Resources has no legally constituted body to determine official policy.

Mississippi

[1]Information refers only to Game and Fish Commission.

Montana

[1]Information refers only to Fish and Game Commission.

Nevada

[1]Information refers only to Department of Conservation and Natural Resources.

New Hampshire

[1]The state legislature establishes hunting regulations although fishing regulations are set by the Fish and Game Commission.

New Jersey

[1]Information refers only to Fish and Game Council. Seventeen additional councils serve New Jersey's Department of Environment Protection but only in an advisory capacity.

New Mexico

[1]Information refers only to Fish and Game Commission.

Oregon

[1]Information refers only to Game Commission.

South Carolina

[1]Information refers only to Wildlife Resources Commission.

Utah

[1]No single comprehensive commission exists; each division has its own citizen board which establishes policy relative to its specific function.

Virginia

[1]Additional areas of control include state travel services, mined land reclamation, and geological survey.

FISH

Alaska

[1]Information in this table applicable only to Division of Sport Fisheries. Data about the Division of Commercial Fisheries can be found under ALASKA in Chapter II.

California

[1]Figure refers to three day Pacific Ocean license rather than resident trout and salmon.

[2]Figure refers to value of product at the consumer level.

Hawaii

[1]This figure represents market value, revenue to state government not available.

Indiana

[1]Other license categories include combined hunting and fishing (317,000) and 14 day non-resident fishing.

[2]Only two licensed commercial fishermen can be classified as earning a full time living from commercial fishing.

Kentucky

[1]1968 figures do not include 77,000 combination hunting and fishing licenses.

[2]Kentucky Fish and Wildlife Resources Department.

Louisiana

[1]Figure reflects market value for fresh water species; salt water commercial fishing revenue had a value of $37.5 million.

[2]Does not include 10,800 salt water commercial fishermen.

Michigan

[1]Funds allocated in following categories:
Administration and technical staff - 26%
Cold water management - 27%
Warm water management - 20%
Anadromous management - 27%

[2]Figures from 1968 data.

Minnesota

[1]Minnesota, however, does have a husband/wife combination license.

Montana

[1]The division also employs the following:
26 management personnel ($658/month to $920/month)
27 hatchery personnel ($455/month to $818/month)

[2]Included in resident and non-resident license figures.

Nebraska

[1]Budget figure based on 1968 data.

[2]Figures do not include 56,600 resident combination hunting and fishing licenses.

[3]Does not include 14,100 five day non-resident licenses.

Nevada

[1]"Field" category includes 19 hatchery personnel.

North Carolina

[1]Commercial fishery regulation is the responsibility of a separate division.

Oregon

[1]Remaining 25% of budget derived from federal grants.

[2]Data based on 1968 figures.

[3]Fishing regulations enforced by a special game division of the Oregon State Police.

Rhode Island

[1]Remaining 42% from federal grants.

Utah

[1]See "Number of Fish Planted."

Vermont

[1]No commercial fishing industry exists in state.

Wisconsin

[1]Data reflects 1968 budget.

[2]Sub-categories under "other" category:
Fish removal - 11.2%
Habitat management - 6.3%
Investigations - 16.7%
Capital outlay - 10.1%
Land control - 22.8%
Miscellaneous - 7.8%

[3]Figure does not include three million muskellunge and 76 million walleye fry.

[4]Does not include 46,700 husband/wife licenses.

FORESTRY

Alaska

[1]Alaska's forest lands acquired through a federal grant of 103 million acres.

Arkansas

[1]Forestry staff also includes seven communications ($5988 - 8000), and nine nursery ($3528 - 4992) personnel.

[2]The state returns 25% of net state forest (cutting permits) receipts to local units.

Florida

[1]Forestry personnel include approximately 800 employees, including 550 foresters or related field personnel. The remainder includes administrative personnel, skilled and unskilled laborers, etc.

Idaho

[1]This figure represents the entire budget (1969-70) of the Department of Public Lands. Additional figures besides timber management and protection costs include administration and services - $342,000; administration of state lands - $253,000; and slash disposal - $900,000.

[2]All of the state's forest lands were granted to it under the federal Admissions Act.

Indiana

[1]15% of net amount is returned to counties on all stumpage sales while 25% is returned to counties from sales on federal lands.

Iowa

[1]Represents "other" employees rather than part-time personnel.

Kansas

[1]Only 10% of this figure are salaried, the remainder serve on a voluntary basis.

[2]These funds are supplied by the counties within the state.

Maine

[1]Does not include 75,000 acres of municipal forest land.

Maryland

[1]Does not include 31,000 acres of municipal forest land.

Minnesota

[1]Figures do not include 72 forest technicians.

Mississippi

[1]Does not include 651,000 acres of Sixteenth Section Public Lands.

[2]Biennial figure.

[3]All income from Sixteenth Section Timber Sales are returned to counties in which sales are made.

Missouri

[1]U.S. Forest Service returns 25% of receipts from sale of timber and grazing permits to local units.

New Mexico

[1]Most forest land in New Mexico was acquired by grant from the federal goverment of four school sections per township.

Ohio

[1]Additional staff includes 87 maintenance personnel and 57 laborers.

Oregon

[1]Additional staff includes 46 technicians, 43 specialized laborers, and 25 general laborers.

[2]The State Forest Department enforces statutes requiring permits to operate power driven vehicles, slash disposal, fire equipment, burn permits, etc.

[3]Based on timber sales revenue figures, the state returns $3.01 million annually to local units while the federal government returns $55.9 million (1969).

Washington

[1]The remaining 72% was received through federal grants. All percentages reflect only those lands held by the Department of Natural Resources - does not include parks, game lands, or highway lands.

Wisconsin

[1]Figures include 2.6 million acres of county forests.

[2]Included in this figure is a $5.2 million annual parks and recreation budget.

[3]The federal government returns 25% of timber sale receipts to local units.

[4]Division of Forestry and Recreation personnel:

Forest Management	190	Permanent-($6084-12,312)
	63	Seasonal-($5316-7332)
	10	Administration-($11,328-15,864)
Fire Control	140	Permanent-(same as above)
	200	Seasonal -(same)
	8	Administration-(same)
Parks and Recreation	115	Permanent-(same as above)
	97	Seasonal-(same)
	10	Administration-(same)

Wyoming

[1]State forest lands acquired through common school, institution,and other land grants.

GAME

Alabama

[1]Alabama licenses were sold in 1969 in the following categories:

Resident county hunting - 84,145
Resident state hunting - 235,983
General (non-resident) - 4,950

Alaska

[1]State monies from license sales in addition to matching Pittman-Robinson are the principal sources of operating revenues.

[2]Funds allocated in following areas:

Federal Aid Activities (research, survey, and inventory coordination) - $1.6 million
State management activities - $260,000
Sea Otter Transplant - $58,600

[3]Licenses were sold in the following categories in 1969:

Resident hunting - 48,800
Non-resident hunting - 10,500
Non-resident big game tags - 11,100

[4]Additional big game species and herd sizes include:

Bison - 350,400
Caribou - 500,000
Mountain Goat - 15,000
Moose - 120,000
Musk Oxen - 375
Wolf - 5,000

Arizona

[1]Figure refers to "project assistants" rather than "part-time" personnel.

[2]Licenses were sold in the following categories:

General resident - 93,000
General non-resident - 10,300
Resident turkey - 17,150
Resident hunting and fishing - 161,500
Non-resident hunting and fishing - 175,390
Resident big game - } 163,600
Non-resident big game - }

California

[1]1968-69 California license sales:
General hunting - 683,550
Non-resident general hunting - 1,533
Deer tags - 382,700
Non-resident Deer Tags - 620
Pheasant tags - 137,000
Bear tags - 32,800
Junior hunting license - 73,500

Colorado

[1]Include 115 wildlife conservation officers.

[2]Hunting license figures are for 1968.

Connecticut

[1]Figure refers to bow and deer permits.

Florida

[1]Remaining 50% from Pittman-Robertson monies.

Idaho

[1]Hunting licenses were sold in the following categories:
Resident hunting - 178,489
Turkey tags - 69
Non-resident bird tag - 5,000
Non-resident big game - 15,000

Indiana

[1]Antlerless deer hunted during bow season and with firearms in certain designated areas for herd control.

Maine

[1]License sales in 1968 amounted to 169,000 resident and 38,000 non-resident licenses of various categories.

Massachusetts

[1]Sales include 131,000 resident and 1,600 non-resedent licenses which are valid for all species.

Michigan

[1]Figures reflect 1968 data.

Minnesota

[1]Figures based on 1968 data.

Mississippi

[1]License categories include general resident (231,000), resident turkey and deer permits (132,200), non-resident general license (10,200), and non-resident turkey and deer (7,100).

Nebraska

[1]Research conducted by separate division.

New Hampshire

[1]In 1968 licenses were sold in the following categories:
Resident hunting - 30,000
Resident combination - 37,100
Non-resident hunting - 26,300

North Carolina

[1]Hunting licenses (1969) were sold in the following categories:
Resident combination
hunting and fishing - 162,000
Resident hunting - 113,800
Non-resident hunting - 4,850
Non-resident six day hunting - 2,600

Oregon

[1]Licenses were sold in the following categories in 1968:
Resident hunter - 359,000
Resident deer - 286,100
Resident elk - 64,300
Non-resident hunter - 4,760
Non-resident deer - 1,900
Non-resident elk - 800

Pennsylvania

[1]Licenses were sold in the following categories in 1969:
Senior resident - 895,100
Junior resident - 148,700
Archery - 142,600
Non-resident - 17,700
Antlerless deer - 303,300

[2]Bear are generally hunted although there was no open season in 1970-71.

Vermont

[1]One license valid for both big and small game.

Virginia

[1]Game employees include 32 management personnel ($5,400 - 12,000), 15 biologists ($9,600 - 13,500), and assorted specialized personnel ($5,400 - 8,000).

Washington

[1]License sales in 1968 amounted to 342,000 general hunting licenses and 370,000 big game tags.

Wyoming

[1] Licenses sold in the following categories:
Resident small game - 16,000
Resident bird - 28,000
Resident deer - 52,000
Resident elk - 35,600
Non-resident deer - 64,300

INFORMATION AND EDUCATION

Florida

[1]This agency provides services for the Florida Game and Freshwater Fish Commission, not all natural resource agencies.

LAND MANAGEMENT

Alabama

[1]Although the total number of state owned acres is unavailable, the State Lands Division managed 50,000 acres of surface land and 525,000 acres of subaqueous land.

Connecticut

[1]Additional employees include seven land agents ($8500 - 11,000), one land purchaser ($10,000 - 12,000), and two clerks ($5500 - 7000).

Michigan

[1]Units acquired through purchase and exchange vary in size up to hundreds of acres while platted lots averaging 40' x 120' represent the bulk of parcels which become state owned property through tax reversion.

Nebraska

[1]The administration and management of state lands is the responsibility of the Board of Educational Lands and Funds. These lands total 1.6 million acres and were provided under a federal grant for the support of common schools.

Pennsylvania

[1]All tax delinquent lands revert to counties, not the state.

[2]Remaining funds from land sales and other sources.

Wisconsin

[1]Tax delinquent lands revert to counties rather than the state.

LAW ENFORCEMENT

Colorado

[1]Personnel who provide conservation law enforcement services but are not attached to this division include 100 game wardens and 15 area supervisors.

Michigan

[1]Officers can accept bond money when authorized by immediate supervisor by radio, phone, or personally.

New Jersey

[1]This information refers only to park rangers and their enforcement responsibilities; enforcement services for fish and game functions are provided by the Fish and Game Division.

New York

[1]Fish and wildlife officers are responsible for patrolling only two park areas - the Adirondack and Catskill Forest Preserves.

Oregon

[1]Conservation law enforcement services are provided by a special division of the Oregon State Police.

PARKS

Arizona

[1]Fees included a $1.50/night camping charge and a $.50/person day use fee.

Alaska

[1]Average sizes of: wayside parks - 73.8 acres; recreation - 11,907; and historic sites - 61 acres.

[2]Combined day use and camping visitation - 288,000.

Colorado

[1]Other park personnel - 11 park managers and three Land and Water Conservation Fund administrators.

[2]These areas are provided by the U.S. Forest Service and the N.P.S.

Delaware

[1]Although budget information was not available in the form requested, the following state park commission budget information was provided (1968-69):

Self generated revenue - $140,000
Land Acquisition - $686,800
Park Development - $483,000

Illinois

[1]The following amounts were reported as being expended for park development: land acquisition and development - $35 million; maintenance and administration - $8 million.

Kansas

[1]The state legislature must appropriate all funds to the agency; no expenditures can be made from fee revenue without legislature consent.

Kentucky

[1]Average size of Resort Park - 1400 acres; Day Use Park - 800 acres; Shrines - 10 acres.

Maine

[1]These areas provided by the Maine Forestry Department.

Missouri

[1]Does not include 65 park maintenance supervisors.

New Jersey

[1]Duties largely restricted to law enforcement work; park rangers are graduates of the New Jersey Police Academy.

Ohio

[1]See personnel figures in "Recreation" table.

Oregon

[1]Additional categories include planning (4%) and Willamette River Parks System (4%).

[2]Although fees are not assessed for day users, overnight camping fees range from $1-3 per campsite.

Texas

[1]Because of many permit types, a breakdown was unavailable. Total fee receipts, however, were $618,800 (1969).

RECREATION

Florida

[1]Although separate park and recreation functions were provided for under Florida's 1969 state government reorganization, the agency responsible for recreation had not yet been funded (and consequently was not operational) when this study was being conducted.

Georgia

[1]Information applies to recreation services provided by Parks Department on Park Properties. In addition a Georgia State Recreation Commission, separate from the Parks Department, provides advisory services to local units.

Illinois

[1]The State Parks Division is responsible for the operation of Indiana's parks while the Division of Outdoor Recreation provides planning and consultant services.

North Carolina

[1]Recreation services are provided by the Department of Local Affairs, Recreation Division.

Wisconsin

[1]See personnel figures listed in "Parks" table.

WATER POLLUTION CONTROL

Arizona

[1]The Arizona state agencies having responsibilities for water resources management are: the Department of Health, Game and Fish, the Oil and Gas Conservation Commission, the Interstate Stream Commission, the State Land Commission, and the Highway Department.

Kansas

[1]Water quality specialists rather than "planning" or "testing" personnel,

Maryland

[1]Budget figure for fiscal year 1970-71.

Virginia

[1]Agencies sharing water pollution control responsibilities include the State Water Control Board, the Department of Conservation and Economic Development, and the State Health Department.

Wyoming

[1]The principle water pollution control agency is the Department of Health, Division of Health and Medical Services. However, the following agencies are also involved in pollution control programs: Engineering Department, Department of Economic Development, and the Game and Fish Commission.

APPENDIX II

QUESTIONNAIRES USED IN FACT FINDING SURVEY

FACT FINDING SURVEY
by Senator Gordon Rockwell, Chairman, Michigan Senate Conservation Committee

QUESTIONNAIRE FOR THE CHIEF EXECUTIVE OF THE DEPARTMENT OF CONSERVATION OR NATURAL RESOURCES OF THE STATE OF _____

ADDRESS _____

Please attach a copy of the organization chart of your department.

GENERAL INFORMATION

1. Population _____
2. Population Density _____ per square mile
3. Total Land Area _____ square miles
4. Total Inland Water Area _____ square miles
5. Total Ocean or Great Lake Shoreline _____ miles
6. Total Annual Conservation Budget _____

ADMINISTRATION

1. By whom is the head of the conservation department selected?
   a. Conservation Commission _____
   b. Governor _____
   c. Legislature _____
   d. Competitive Examination _____

2. To whom is the head of the Conservation Department responsible?
   a. Conservation Commission _____
   b. Governor _____
   c. Legislature _____

3. Does the head of the department serve for a fixed term or at the pleasure of the selection body? _____

4. What is the salary range of the following officials?
   a. Head, Conservation Department From _____ to _____
   b. Assistant Head From _____ to _____
   c. Line and Staff chiefs From _____ to _____
   d. Division Chiefs From _____ to _____

QUESTIONNAIRE FOR THE HEAD OF THE CONSERVATION DEPARTMENT continued.

PERSONNEL

1. How many permenent employees does the conservation department have? _____

   a. How many seasonal or part-time employees? _____
   75-100 in summer months

2. Do you have a central personnel file? _____

3. Are all personnel under civil service? _____

   a. Executive personnel _____

   b. Administrative personnel _____

   c. Research personnel _____

   d. Field personnel _____

4. Please indicate the qualifications required for division chiefs.

   Education _____

   _____

   Experience _____

   _____

   _____

5. How are your division chiefs chosen? _____

   _____

   _____

6. Are your key personnel training successors at this time? _____

   If not, why not? _____

   _____

   _____

7. What seems to be the most effective method of recruiting critical personnel?

   _____

   _____

   _____

8. What is the prime incentive used to retain personnel in all divisions? _____

   _____

   _____

   _____

QUESTIONNAIRE FOR THE HEAD OF THE CONSERVATION DEPARTMENT continued.

PERSONNEL

1. How many permenent employees does the conservation department have? _____

   a. How many seasonal or part-time employees? _____
      75-100 in summer months

2. Do you have a central personnel file? _____

3. Are all personnel under civil service? _____

   a. Executive personnel _____

   b. Administrative personnel _____

   c. Research personnel _____

   d. Field personnel _____

4. Please indicate the qualifications required for division chiefs.

   Education _____

   _____

   Experience _____

   _____

   _____

5. How are your division chiefs chosen? _____

   _____

   _____

6. Are your key personnel training successors at this time? _____

   If not, why not? _____

   _____

   _____

7. What seems to be the most effective method of recruiting critical personnel?

   _____

   _____

   _____

8. What is the prime incentive used to retain personnel in all divisions? _____

   _____

   _____

   _____

QUESTIONNAIRE FOR THE HEAD OF THE CONSERVATION DEPARTMENT continued.

FINANCE

1. What is your working budget for this year?

   a. General Fund Appropriation $_____

   b. Self-generated Revenue $_____

   c. Federal Funds $_____

   d. Other _____ $_____

   TOTAL

2. What is your estimated budget for next year? $_____

3. By how much has your budget increased in the last 10 years? _____%

4. How successful is your department in having your budget request appropriated?

   a. Appropriation is 90%-100% of request ____

   b. " " 80%-90% " " ____

   c. " " 70%-80% " " ____

   d. Appropriation is less than 70% of request ____

5. What percentage of your total budget is self-generated? _____%

6. Please list your sources of self-generated revenue.

   a. Hunting and fishing license sales $_____ ____%

   b. Park fees (camping and entrance) $_____ ____%

   c. Special service area use fees $_____ ____%

   d. Seafood, Game & Fish, Lands, $_____ ____%

   e. Forestry, Water Safety & Parks $_____ ____%
   miscellaneous licenses, fees, taxes and fines

7. Please list your contemplated new sources of revenue?

   a. _____ _____

   b. _____ _____

   c. _____ _____

   TOTAL ESTIMATED INCREASE

PURCHASING

1. Please indicate instances of successful automation installations in your department. _____

QUESTIONNAIRE FOR THE HEAD OF THE CONSERVATION DEPARTMENT continued.

2. Please indicate types of equipment which your department leases.

   a. Automobiles ____ d. Business machines ____

   b. Trucks ____ e. Data processing equip. ____

   c. Aircraft ____ f. Duplicating machines ____

3. Please briefly outline your general purchasing policy. _____

4. What is the limit for purchases made by a division without authorization ?

5. What types of outside services can be authorized by your department? _____

PLANS AND GENERAL POLICIES

1. Do you encourage autonomy in your divisions within the framework of department policies? _____

2. Does your present table of organization allow maximum efficiency of operation?

3. Are any changes in the organizational structure from department to division being contemplated? _____ If so, please describe. _____

   Reason for the contemplated change? _____

4. What is the greatest single problem in your department at this time? _____

QUESTIONNAIRE FOR THE HEAD OF THE CONSERVATION DEPARTMENT continued.

5. What types of long range plans are being undertaken? _____

6. What is the most critical problem facing your state now other than finances?

7. What is your most valuable resource at the present time? _____

8. Which resources must be protected and conserved to the greatest extent at the present time? _____

   Why? _____

9. Are there any outstanding features or aspects of natural resource management in your state which you would like to point out at this time? _____

FACT FINDING SURVEY
by Senator Gordon Rockwell, Chairman, Michigan Senate Conservation Committee
RETURN TO: P.O. Box 240, Capitol Building, Lansing, Michigan, 48902

QUESTIONNAIRE FOR THE CONSERVATION COMMISSION OF THE STATE OF _____

ADDRESS _____

Please attach a copy of your organization chart.

1. Do you have a legally constituted supplementary body to determine official policy or provide advice regarding policy? _____
2. Which of the above two functions most adequately describes the activities of the commission?
   a. Develop and enunciate policy for implementation by director of department ____
   b. Review and approve policy generated by executive staff of department _____
3. Does the commission have control of all conservation functions? _____
4. In which areas does the commission have control?

a. Fish	____	e. Law enforcement	____
b. Game	____	f. Water pollution	____
c. Parks	____	g. Recreation	____
d. Forestry	____	h. Other _____	____

5. How much control does the commission have over the budget of the conservation department? _____
6. How much control does the commission have over the rules made by the department concerning the operation of the department? _____
   _____
7. Is the commission able to make conservation policy independent of the legislature?
   _____
   _____
8. Does the commission have the authority to hold public hearings on matters of concern to it? _____
9. Are commission meetings open to the public? _____
10. Are the minutes of the commission meeting required to be made public? _____
11. Do all commissioners serve concurrently, or are their terms staggered? _____
12. May a commissioner succeed himself? _____
13. Are there any specific qualifications for commissioners? _____
    _____

QUESTIONNAIRE FOR THE CONSERVATION COMMISSION continued.

14. If appointed, are commissioners subject to confirmation by the legislature? _____

    a. Senate _____ House _____

15. Is the authority of the commission clearly spelled out, or is it left to interpretation? _____

16. Does the commission have actual administrative authority? _____

_____

17. Who sets the hunting and fishing regulations, fees and seasons?

agency	regulations	fees	seasons
a. The Conservation Commission	____	____	____
b. The Conservation Department	____	____	____
c. The Department Director	____	____	____
d. The Legislature	____	____	____

18. Does the legislature have approval authority over these regulations? _____

19. Does the commission have its own budget? _____

20. Does the legislature have approval of this budget? _____

21. Does the commission serve as a liasion between the conservation department and the special interest groups in the state? _____

_____

FACT FINDING SURVEY
by Senator Gordon Rockwell, Chairman, Michigan Senate Conservation Committee
RETURN TO: P.O. Box 240, Capitol Building, Lansing, Michigan, 48902

QUESTIONNAIRE FOR THE FISH DIVISION OF THE STATE OF _____

ADDRESS _____

Please attach a copy of the organization chart of your division

DIVISION ADMINISTRATION

1. How many personnel are employed by the fish division in the following categories?

   a. Administrative _____ Salary range _____to_____

   b. Research _____ Salary range _____to_____

   c. Field _____ Salary range _____to_____

   d. Part-time _____ Salary range _____to_____

2. Is your division organized into program segments such as habitat management, species management, etc? _____

   a. How many program segments do you have? _____

   b. please list and briefly outline the function of each segment.

      1. _____

      2. _____

      3. _____

      4. _____

      5. _____

      6. _____

3. Does operation planning and program direction come from the central division staff or is the staff used for planning only? _____ Please explain _____

4. Are there any areas where the fish division has significant autonomy from Department administration in decision-making? _____

QUESTIONNAIRE FOR THE FISH DIVISION continued.

5. Does the fish division have its own engineering staff or do you use Department or State engineers for design and construction of projects? _____

6. Do you have a regional concept in fish management with field offices in each area? _____

   a. Are fish districts the same as game districts? _____

   b. Are fish districts the same as forestry districts? _____

7. Do you have a salt-water fishery in your state? _____ Please describe _____

8. Do you have an anadromous fishery in your state? _____ Please describe _____

9. Does the fish division conduct an information and education program to help create a favorable public response to fish management? _____ Please explain _____

10. Where does the operating revenue for the fish division come from?

   a. Department budget appropriation ____%

   b. Self-generated revenue ____%

   c. Legislative appropriation ____%

11. How large is the annual budget of the fish division? _____

12. How is the money allocated within the division?

   a. Administration ____%

   b. Research ____%

   c. Hatcheries ____%

   d. Other _____ ____%

QUESTIONNAIRE FOR THE FISH DIVISION continued.

RESEARCH

1. How large is your fish research staff? _____

   a. Biologists Salary range _____ to _____

   b. Administrative Salary range _____ to _____

   c. Clerical Salary range _____ to _____

2. What are the educational requirements for fish biologists? _____

3. Do you monitor pesticide concentrations in various species of fish in your state?

   _____ Explain briefly the program _____

4. Please briefly outline the focus of your research program in the fisheries division?

5. Is your division considering introducing new species of sport and game fish into to waters of your state? _____

HATCHERIES

1. To what extent do you conduct hatchery programs to:

   a. Stock state waters _____

   b. Introduce new species _____

   c. Other _____ _____

2. Do you feel the state hatchery program is adequate to keep state lakes and streams stocked? _____

3. _____

QUESTIONNAIRE FOR THE FISH DIVISION continued.

3. How many fish hatcheries do you have presently?

a. Warm-water _____ Capacity per year _____ fish

b. Cold-water _____ Capacity per year _____ fish

c. Anadromous _____ Capacity per year _____ fish

d. Salt-water _____ Capacity per year _____ fish

4. What species and in what quantities are fish being produced in your state hatcheries?

a. Trout _____ fish

b. Salmon _____ fish

c. Bass _____ fish

d. _____ _____ fish

e. _____ _____ fish

5. How many fish were planted by your state in the last two years?

	1967	1968	1969-70
a. Trout	_____	_____	_____
b. Salmon	_____	_____	_____
c. Bass	_____	_____	_____
d. _____	_____	_____	_____
e. _____	_____	_____	_____

6. Is there a private hatchery program in your state? _____

a. How many hatcheries?

1. Warm-water _____ Capacity _____

2. Cold-water _____ Capacity _____

3. _____ _____ Capacity _____

LICENSING

1. Please attach a copy of your fishing license fee schedule.

2. How many regular annual fishing licenses were sold last year?

a. Resident _____

b. Non-resident _____

c. Resident trout and salmon _____

d. Non-resident trout and salmon _____

3. May a wife fish on her husband's fishing license? _____

QUESTIONNAIRE FOR THE FISH DIVISION continued.

4. What happens to the revenue generated by fishing license sales?

   a. Remains in the fish division ____%

   b. Goes to the Department general fund ____%

   c. Goes to the State general fund ____%

   d. Other _____ ____%

5. What system does your state use to handle fishing license sales? _____

   _____

   _____

6. By whom are the fishing seasons and limits established?

   a. Conservation Department ____

   b. Conservation Commission ____

   c. Legislature ____

   d. Fish Division ____

7. Who is responsible for the enforcement of fishing regulations?

   a. Conservation officers ____

   b. Special fish officers ____

   c. Local sheriff's ____

   d. Township officials ____

COMMERCIAL FISHING

1. Does the fish division have control of commercial fishing in your state? _____

   Explain _____

2. How large is the commercial fishing industry in your state?

   a. Revenue generated _____

   b. Number of licensed fishermen ____

   c. Rank compared to other industry in your state ____

3. Can your state sell harvested fish to commercial canners? _____

   _____

FACT FINDING SURVEY
By Senator Gordon Rockwell, Chairman, Michigan Senate Conservation Committee
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QUESTIONNAIRE FOR THE FORESTRY DIVISION OF THE STATE OF _____

ADDRESS _____

Please attach a copy of the organization chart of your division (F.Y. 1969-70)

1. How many acres of forests are there in your state?
   a. Privately owned _____
   b. State owned _____
   c. Federally owned _____

2. How many employees does the forestry division have?
   a. Foresters _____ Salary range _____ to _____
   b. Fire fighters _____ Salary range _____ to _____
   c. Administrative _____ Salary range _____ to _____
   d. Clerical _____ Salary range _____ to _____
   e. Other non-prof. _____ Salary range _____ to _____
   to

3. Is there a functional separation between forestry and fire-fighting in your division? _____ Explain _____

4. How large is the operating budget for the forestry division? _____
   a. forest management _____
   b. fire-fighting _____

5. Does the forestry division control commercial timbering in the state? _____

6. What is the volume of the timbering industry in your state? _____ Bd.Ft.
   a. Private _____ Pulpwood _____ BDFT
   b. State _____ Veneer _____ BDFT
   c. Federal _____ Staves _____ BDFT

7. How much revenue is generated by timber harvesting on state-owned lands per year? _____

8. How much revenue does the state and the federal government return to local units of government in lieu of taxes?
   a. State _____ per acre _____ per year
   b. Federal _____ per acre _____ per year

QUESTIONNAIRE FOR THE FORESTRY DIVISION continued.

9. Is your state divided into regions for timber harvest regulation? _____

10. Do you use the same units for forestry as for fire-fighting? _____

11. Are timber management and production self-supporting operations in your state? _____

12. Does your division have responsibility beyond timber management and fire-protection?

    a. Land appraisal _____

    b. Easement evaluation _____

    c. Surveying _____

    d. Trail construction _____

    e. Wilderness camping facilities _____

13. How was the forest land owned by the state acquired?

    a. Tax reverted _____%

    b. Purchased _____%

    Received as gift _____%

14. Do you use prison labor to maintain forests and fight fires? _____

15. Do you assist private landowners with any of the following?

    a. Soil testing _____

    b. Furnish seedlings _____

    c. Spraying _____

    d. Surveying _____

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QUESTIONNAIRE FOR THE GAME DIVISION OF THE STATE OF _____

ADDRESS _____

Please attach a copy of the organization chart of your division.

DIVISION ADMINISTRATION

1. How many personnel are employed by the game division in the following categories?

   a. Administrative _____ Salary range _____ to _____

   b. Research _____ Salary range _____ to _____

   c. Field _____ Salary range _____ to _____

   d. Part-time _____ Salary range _____ to _____

2. Is your division organized into program segments, such as habitat management, species management, etc? _____

   a. How many program segments do you have? _____

   b. Please list and briefly outline the function of each segment.

      1. _____

      2. _____

      3. _____

      4. _____

      5. _____

      6. _____

3. Does operation planning and program direction come from the central division staff, or is the staff used for planning only? _____ Please explain.

4. Are there any areas where the game division has significant autonomy from Department administration in decision-making? _____

QUESTIONNAIRE FOR THE GAME DIVISION continued.

5. Does the game division have its own engineering staff or do you use Department or state engineers for the design and construction of projects? _____

6. Do you have a regional concept in game management with field offices in each area? _____
   a. Are game districts the same as fish districts? _____
   b. Are game districts the same as forestry districts? _____

7. Does the game division conduct an information and education program to help create a favorable public response to game management? _____ Explain _____

8. Where does the operating budget of the game division come from?
   a. Department budget appropriation ____%
   b. Self-generated revenue ____%
   c. Legislative appropriation ____%

9. How large is the annual budget of the game division? _____

10. How is the money allocated within the division?
    a. Administration _____%
    b. Research _____%
    c. Habitat development _____%
    d. Other _____ _____%

RESEARCH

1. How large is your game research staff? _____
   a. Biologists _____
   b. Administrative _____
   c. Clerical _____
   d. Field _____

2. What are the educational requirements for game biologists? _____

QUESTIONNAIRE FOR THE GAME DIVISION continued.

3. Do you monitor pesticide concentrations in various species of game in your state? _____ Explain briefly the program _____

4. Please briefly outline the focus of your research program in the game division.

5. Is your division considering introducing new species of game animals into your state? _____ Explain _____

HUNTING

Please attach a schedule of hunting license fees and seasons.

1. By whom are the seasons and the hunting limits established?
   a. Game division _____
   b. Conservation director _____
   c. Conservation commission _____
   d. Legislature _____

2. Are the recommendations of the game division sought and utilized in establishing the seasons and the limits? _____

3. What system do you use to handle sales of non-big game licenses? _____

4. How many hunting licenses were sold last year in the following categories?
   a. Resident small game _____ Non-resident small game _____
   b. Resident turkey _____ Non-resident turkey _____
   c. Resident big game _____ Non-resident big game _____

QUESTIONNAIRE FOR THE GAME DIVISION continued.

5. What happens to the revenue generated by hunting license sales?

   a. Stays in game division _____%

   b. Goes to Department general fund _____%

   c. Goes to State general fund _____%

   d. Other _____ _____%

6. What methods do you use to determine wildfowl and small game populations? _____

_____

_____

BIG GAME MANAGEMENT

1. Please identify the big game animals which you have in your state and give their approximate numbers.

   a. Deer Mule _____ White tail _____ Other _____

   b. Bear Black _____ Brown _____ Grizzly _____

   c. Elk _____

   d. Antelope _____

   e. Sheep _____

   f. Other _____ _____

2. What methods do you use to determine big game populations, especially deer?

_____

_____

3. What system do you use to distribute big game hunting licenses? _____

_____

_____

4. Do you require a specific animal permit as well as a hunting license? _____

5. How are these permits distributed?

   a. First come-first served _____

   b. By a drawing _____

   c. Other _____

6. What system do you use to determine the number of animals killed in a season? _____

_____

_____

QUESTIONNAIRE FOR THE GAME DIVISION continued.

7. Do you have a large enough deer herd in your state to permit a hunting season? ____

8. How large is the deer herd? _____

   a. Does and fawns _____

   b. Bucks _____

9. Do you permit the hunting of does in your state? _____

10. Do you have a large enough bear population to permit the hunting of bear? _____

11. How large is the bear population in your state? _____

12. Do you permit the use of dogs while bear hunting? _____

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QUESTIONNAIRE FOR THE LANDS MANAGEMENT DIVISION OF THE STATE OF _____

ADDRESS _____

Please attach a copy of the organization chart of your division.

1. How many units of land revert to your state each year? -
   a. For non-payment of taxes _____
   b. As gifts _____
   c. Other _____ _____
2. What is the average size of these units? _____
3. Where are these units usually located?
   a. in rural areas _____%
   b. in small towns and cities _____%
   c. in large cities _____%
   d. in metropolitan areas _____%
4. Does your state pay local property taxes on these units of land? _____
5. If not, does the state make "in lieu of taxes" payments to local units of government? _____ If so, how much? _____per_____
6. Briefly outline your procedure for disposing of tax-reverted land. _____
   _____
   _____
7. Are you allowed to make trades or sell state-owned land for privately owned land in order to consolidate holdings? Please explain _____
   _____
   _____
8. How many people are employed by the lands management division?
   a. Administrative _____ Salary range_____to_____
   b. Land appraisers _____ Salary range_____to_____
   c. Legal staff _____ Salary range_____to_____
   d. Part-time _____ Salary range_____to_____
9. Does you division have control of channeling, dredging and other such activities

QUESTIONNAIRE FOR THE LANDS MANAGEMENT DIVISION continued.

10. Does your division handle oil and mineral leasing for the state? _____

    If not, who does? _____

11. How large a budget does the lands management division have? _____

12. Where does your funding come from?

    a. Department budget appropriation _____ ____%

    b. Revenue from land sales _____ ____%

    c. Legislative budget appropriation _____ ____%

13. How many total acres of state-owned land is there in your state? _____

14. How many total acres of federally-owned land is there in your state? _____

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QUESTIONNAIRE FOR THE LAW ENFORCEMENT DIVISION OF THE STATE OF _____

ADDRESS _____

Please attach a copy of the organization chart of your division.

Personnel

1. How many people are employed by the enforcement division?

   a. Enforcement officers _____ Salary range _____ to _____

   b. Administrative _____ Salary range _____ to _____

   c. Clerical _____ Salary range _____ to _____

   d. Part-time _____ Salary range _____ to _____

2. Do you use auxillary forces to supplement regular officers? _____

   a. department employees from other divisions _____

   b. citizens commissioned to make arrests _____

   c. citizens with less than arrest authority _____

3. Do you use non-paid assistant area conservation people? _____

   Are they reimbursed for their expenses? _____

4. Are all of your enforcement officers uniformed? _____

   If not, how many plainclothed officers do you have? _____

5. Do you have a law enforcement training officer? _____

   How much of his time is devoted to training duties? _____ %

6. What are the required qualifications for conservation officers?

   Age _____ Marital status _____

   Education _____

   Experience _____

   _____

7. Do your conservation officers come under civil service? _____

8. How long is the training period before the new officer is put into the field? _____

9. Do you have a regular internship or on-the-job training program under a regular officer? _____ How long? _____

QUESTIONNAIRE FOR THE LAW ENFORCEMENT DIVISION continued.

10. What is the primary focus of your training program? (Please rank in order of importance)
    a. Police-oriented _____
    b. Conservation-oriented _____
    c. Public relations-oriented _____

11. What are the minimum and maximum working hours of a conservation officer?
    _____ per week

12. Do you pay for over-time or do you allow your officers to take time-off in periods of relative inactivity? _____

13. Do you have an in-service training program to keep officers informed and up to date? _____

14. Are your officers regularly rotated to different geographical areas? _____
    How often? _____

15. Are your officers trained in riot control techniques? _____
    a. Is riot control training planned? _____

RESPONSIBILITY

1. Do you have a regional concept in law enforcement, with districts for each officer or group of officers? _____
    a. How many districts? _____
    b. How many officers per district? _____

2. Do your law enforcement districts coincide with fish and game regions? _____

3. Approximately how large an area does each officer cover personally? _____ sq.mi.

4. Indicate specific areas of responsibility for enforcement officers?
    a. Game laws _____
    b. Fish laws _____
    c. Forest fire protection _____
    d. Marine safety _____
    e. Park service _____
    f. All conservation law enforcement _____

5. Are your officers responsible for patrol of state parks and other state areas? _____

6. Are your officers required to pick up all big game animals killed or injured by vehicle collision? _____
    a. How many total animals picked up each year? _____

QUESTIONNAIRE FOR THE LAW ENFORCEMENT DIVISION continued.

7. Are your officers responsible for the protection of department-owned equipment, and for prosecution of violators? _____

EQUIPMENT

1. Do your officers all drive state-owned cars? _____

   a. How many do? _____

   b. If personal vehicles are used, are officers reimbursed for mileage? _____

      Is there a limit to the number of miles paid? _____

2. Do your officers all drive identified vehicles? _____ How many do? _____

3. What is the annual average mileage driven by an officer? _____ miles

4. Are enforcement officers issued sidearms? _____

5. Does the law enforcement division own aircraft? _____ Number? _____

   Type? _____ Primary use? _____

   Helicopters? _____ Number _____ Uses? _____

6. Can your officers issue written citations to appear in court? _____

   What is the procedure? _____

   _____

7. Do your officers have authority to accept bond or fine money in the field? _____

   Please explain _____

   _____

8. What is the average number of citations issued per officer per year? _____

9. What percentage of arrests result in conviction? _____ %

10. What type of validation tag is issued to licensees for attachment to big game?

    a. metal tag _____

    b. Paper tag _____

    c. Plastic tag _____

    d. Other _____ _____

11. Does your division have access to automated bookkeeping and record-keeping equipment and techniques? _____

QUESTIONNAIRE FOR THE LAW ENFORCEMENT DIVISION continued.

12. How large an operating budget does the enforcement division have?

1969-70 $_____

1968-69 $_____

1967-68 $_____

13. How does the enforcement division obtain legal services?

a. Staff attorneys assigned to the division ____

b. State Attorney's staff ____

c. Private lawyers hired to permanent staff ____

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QUESTIONNAIRE FOR THE PARKS DIVISION OF THE STATE OF _____

ADDRESS _____

Please attach a copy of the organization chart of your division.

1. How many persons are employed by the entire parks division?
   a. Park rangers _____
   b. Administrative _____
   c. Planning _____
   d. Maintenance _____
   e. Part-time _____
2. Are personnel given the opportunity to upgrade themselves through training and examinations? _____
3. What are the qualifications for park rangers? _____
   a. Education _____
   b. Experience _____
   _____
4. Who is responsible for law enforcement in state parks?
   a. State Highway Patrol _____
   b. County Police _____
   c. Conservation Officers _____
   d. Park Rangers _____
5. What is the total budget of the parks division?
   a. Self-generated _____%
   b. Appropriation _____% By whom _____
6. Please indicate the approximate proportions of self-generated revenue.
   a. Park entrance fees _____%
   b. Camping fees _____%
   c. Boat launching fees _____%
   d. Concessions _____%
7. Please indicate the approximate percentage of expenditure for park development.
   a. Land acquisition _____%
   b. Park development _____%

QUESTIONNAIRE FOR THE PARKS DIVISION Continued.

c. Maintenance _____%

d. Administration _____%

FACILITIES

1. What is the total number of state-owned parks in your state? _____

2. How many total acres of state parkland do you have? _____ acres.

3. What is the average size of a state park in your state? _____acres.

4. What is the total number of campsites in your state parks? _____

5. What is the average number of campsites per state park? _____

6. What is the average size of a campsite in a state park? _____ sq. ft.

7. Please indicate, in approximate figures, where your state parks are located in relation to urban areas and major highways.

   Location:

   a. Within 30 miles of urban areas _____%

   b. Within 30-100 miles of urban areas _____%

   c. Within 100-150 miles from urban areas _____%

   d. More than 150 miles from urban areas _____%

   Proximity to highways:

   a. Within 5 miles of a major highway _____%

   b. Within 5-15 miles of a major highway _____%

   c. More than 15 miles from a major highway _____%

8. Please indicate which facilities are present in an average state park in your state.

   a. Camping sites _____
   b. Boat access points _____
   c. Boat ramps _____
   d. Public swimming areas _____
   e. Concession stands _____
   f. Picnic areas _____
   g. Tables and grills _____
   h. Flush toilets _____
   i. Pit toilets _____

9. What percentage of state parks are designated for the following useage?

   a. Day-use _____%

   b. Vacation _____%

10. What are the limits of your camping season? From _____ to _____.

    a. How many good camping days are there in the average year? _____

QUESTIONNAIRE FOR THE PARKS DIVISION Continued.

11. How many people use your state parks each year?

    a. Day-use _____%

    b. Vacation _____%

12. How many people on average use state parks on major holiday weekends. For example Memorial Day or Labor Day. _____

13. How many people are turned away from use of state parks per year?

    a. Day-use _____

    b. Vacation _____

14. Fee Schedule

    a. Daily park permit resident $_____ non-resident $_____

    b. Annual park permit resident $_____ non-resident $_____

15. How many park permits were sold last year?

    a. Daily park permit resident _____ non-resident _____

    b. Annual park permit resident _____ non-resident _____

16. How many park permits do you anticipate selling this year?

    a. Daily park permit resident _____ non-resident _____

    b. Annual park permit resident _____ non-resident _____

17. Do you accept reservations for campsites in your state parks? _____

    Please explain your procedure _____

18. How many National Parks, Forests and Game Areas do you have in your state?

    a. National Parks _____

    b. National Forests _____

    c. National Game Areas _____

19. Are camping facilities provided for wilderness areas? _____

    a. Number of areas _____

    b. Number of campsites _____

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QUESTIONNAIRE FOR THE RECREATION DIVISION OF THE STATE OF _____

ADDRESS _____

Please attach a copy of the organization chart of your division.

1. Is there a functional separation between the parks division and the recreation division in your state? _____ Please explain _____

2. How many people are employed by the recreation division?

a. Supervisory	_____	Salary range	_____ to _____
b. Administrative	_____	Salary range	_____ to _____
c. Maintenance	_____	Salary range	_____ to _____
d. Prison labor	_____	Salary range	_____ to _____
e. Part-time	_____	Salary range	_____ to _____

3. Do you have personnel specializing in urban recreation services? _____

4. Does the state cooperate with local units of government in developing and maintaining state park facilities in or near urban areas? _____ Explain _____

5. Does your state have any plans to become involved in urban recreation services?

6. Has your state bonded itself for state recreation programs? _____
   If so, for how much? _____

7. Please indicate which of the following are a part of the recreation program in your state.

a. Nature Trails	number	_____	total miles	_____
b. Hiking Trails	number	_____	total miles	_____
c. Bridal Paths	number	_____	total miles	_____
d. Bicycle Trails	number	_____	total miles	_____
e. Motorcycle Trails	number	_____	total miles	_____
f. Snowmobile Trails	number	_____	total miles	_____

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QUESTIONNAIRE FOR THE WATER POLLUTION CONTROL AGENCY OF THE STATE OF _____

ADDRESS _____

Please attach a copy of the organization chart of your agency

1. Does your state have a single agency charged with the protection of the state's water resources? _____

2. If not, how is the responsibility shared and with whom? _____

3. Is the water pollution control agency independent from other state agencies? ____

4. If not, under which state agency does water pollution control come?
   a. Department of Conservation _____
   b. Department of Health _____
   c. Other _____ _____

5. How many people are employed by the water pollution control agency?
   a. Administrative _____ Salary range _____
   b. Engineering _____ " " _____
   c. Planning _____ " " _____
   d. Testing _____ " " _____
   e. Clerical _____ " " _____

6. How large is the annual water pollution control budget? _____

7. From what source does the water pollution control budget come?
   a. Department budget appropriation _____
   b. Legislative budget appropriation _____
   c. Other _____ _____

8. Has your state undertaken a public bonding program to finance water pollution control? _____
   Is such a program being considered? _____

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