



DEPARTMENT OF FINANCE

A REVIEW OF NONGAME ACTIVITIES THE DEPARTMENT OF FISH AND GAME

A Staff Reference Report



A REVIEW OF NONGAME ACTIVITIES OF
THE DEPARTMENT OF FISH AND GAME

This is a Staff Reference Report, providing information, analyses or techniques which may contribute to the refinement of public policies and programs. It does not necessarily reflect the official policies or views of the California State Department of Finance

PREPARED BY

STATE OF CALIFORNIA
DEPARTMENT OF FINANCE
PROGRAM EVALUATION UNIT

ROBERT L. HARRIS
PROGRAM BUDGET MANAGER

BERNARD P. DONNELLY
CHIEF, PROGRAM EVALUATION

APRIL 1976

PREFACE

This report is a review of the "nongame" program of the Department of Fish and Game. Initiated at the request of the Governor, the objective of the study was to determine the appropriateness of General Fund expenditures for nongame activities. The report's emphasis was on nongame, and therefore did not examine to any depth either strictly game programs or environmental activities which encompass both game and nongame. Essential to this study was an investigation into the distinction between "game" and "nongame" activities, the methodology by which such program costs are charged, and a determination of the beneficiaries of such programs.

The methodology utilized consisted of interviews with departmental program and administrative staff and Wildlife Conservation Board staff. Also reviewed were relevant Fish and Game Code Sections, the Department's cost accounting system, the Fish and Game Preservation Fund, as well as a review of other sources of funds to determine limitations and use.

During the course of the study we imposed upon many individuals, all of whom were most cooperative. We would like to express our appreciation to the staff contacted at the Department of Fish and Game and the Wildlife Conservation Board. We would particularly like to thank the following employees of the Department of Fish and Game for their invaluable assistance:

Mr. Raymond Wilde, Administrative Officer; Mr. Carl Gyzms, Fiscal Officer;
and Mr. Howard Leach, Nongame Program Manager.

JERRY L. BAILEY
PROJECT MANAGER

CAROL V. ARMSTRONG

PREPARED UNDER THE GENERAL
SUPERVISION OF:

BERT H. BRENDLE
SUPERVISING PROGRAM REVIEW ANALYST

TABLE OF CONTENTS

	<u>Page</u>
PREFACE	111
LIST OF FIGURES	vii
LIST OF TABLES	ix
SUMMARY OF FINDINGS, CONCLUSIONS AND ALTERNATIVES	xi
CHAPTER I. INTRODUCTION	1
CHAPTER II. NONGAME ACTIVITIES, EXPENDITURES AND FUNDING	5
Nongame Activities	5
Nongame Expenditures	8
Nongame Funding	14
CHAPTER III. THE FISH AND GAME PRESERVATION FUND	19
Responsibilities	20
Capital Outlay	20
License and Fee Revenues	23
Budget Year Funding Demand	25
Future Funding Demand	30
CHAPTER IV. NEEDS, BENEFITS AND BENEFICIARIES OF NONGAME ACTIVITIES	35
CHAPTER V. FUNDING ALTERNATIVES	41
CHAPTER VI. SUMMARY OF FINDINGS AND CONCLUSIONS	49
CHAPTER VII. THE DEPARTMENT OF FISH AND GAME--A NEW PERSPECTIVE	55

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1.	NONGAME EXPENDITURES, 1969-70 THROUGH 1974-75	10
2.	SUMMARY OF EXPENDITURES BY CATEGORY FOR THE WILDLIFE CONSERVATION BOARD PROGRAM, 1948-1975	24
3.	COMPARISON OF INFLATED 1973-74 PROGRAMS TO BUDGETED 1976-77 PROGRAMS, STATE OPERATIONS ONLY	27
4.	COMPARISON OF INFLATED 1973-74 SPECIAL PROGRAMS TO BUDGETED 1976-77 PROGRAMS	28

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1.	REVENUE AND EXPENDITURE PROJECTIONS (FISH AND GAME PRESERVATION FUND <u>ONLY</u>)	31
2.	FUNDING DEFICIENCIES WITH ANNUAL GENERAL FUND/ENVIRONMENTAL PROTECTION PROGRAM FUND SUPPORT	44
3.	FEE SCHEDULE REQUIRED IF ALTERNATE SOURCES OF FUNDING ARE NOT AUTHORIZED	45
4.	FEE SCHEDULE IF PROPOSED LEVEL OF ALTERNATE FUNDS IS AUTHORIZED AND MAINTAINED	46

SUMMARY OF FINDINGS, CONCLUSIONS AND ALTERNATIVES

This summary presents a synopsis of key findings, alternatives and recommendations from our review of the nongame program of the Department of Fish and Game.

- A. The Department historically has been involved in both game and nongame research, regulation and development.
- B. Most of the recent (1968-75) legislation in nongame adds responsibilities to the Department in the area of threatened, rare, or endangered species. Other legislative acts have served to declare state policy, without specifically authorizing additional regulatory powers or placing new responsibilities upon the Department.
- C. It is difficult to determine if nongame expenditures have been increasing as the Department did not account for such expenditures until fiscal year 1969-70. Since fiscal year 1969-70, nongame expenditures remained relatively stable until fiscal year 1974-75 when such expenditures increased by 188 percent, or \$931,294 more than the \$494,732 nongame expenditure level in fiscal year 1973-74. The reasons for this increase are unknown. However, it is known that:
 1. Changes in cost reporting, rather than expanded activities, resulted in increases of \$360,224.
 2. Department headquarters began stressing the importance of distinguishing between the type of species (game or nongame) that benefit from activities. Nongame expenditures are based upon this distinction.

- D. There appear to be only a few instances where the nongame distinction definitely can be made. This would include research specifically related to nongame species as well as habitat acquisition and development for rare and endangered species. Research activities in this area amounted to \$406,921 in fiscal year 1974-75. The balance of reported nongame expenditures is due to a pro rata allocation of expenditures through a determination of benefiting species. This determination is based upon personal experience and the "best information available," including the relative population of such species. We question this procedure because:
1. There are inconsistencies among personnel in the pro rata process.
 2. Nongame population counts are based upon less sophisticated estimates than game and introduce error into the projections.
 3. Since there are predominately more nongame than game species, nongame could be considered the major beneficiary.
 4. More, if not most, of the activities are essential for game species.
- E. Although sufficient funds other than the Fish and Game Preservation Fund are available for acquisition of nongame areas, the Department has been absorbing the operating costs.
- F. Increased expenditures of the Department are:
1. Due to added nongame responsibilities--although we have been able to identify specifically only \$406,921 (1974-75) which is related to such new requirements and responsibilities.
 2. A result of game activities rather than nongame; the Department's expenditures increased \$11,912,079 between fiscal years 1969-70 and 1974-75. Of this amount 9 percent, or \$1,076,445 was attributable to nongame, while the balance of \$10,835,634 (91 percent), was the result of increases in game expenditures.

3. A result of ongoing maintenance costs associated with the \$62 million capital outlay program of the Wildlife Conservation Board. We estimate such maintenance costs to be currently \$2 million annually, with a potential annual cost of \$3 million when all projects are completed. Most of these projects benefit fishing and hunting activities.
 4. From 1973-74 through 1976-77, due more to inflation than to new or expanded programs.
- G. The projects of the Wildlife Conservation Board are funded from nonfishing/hunting sources, including State General Obligation Bond Funds. It is unclear if such support of fishing and hunting activities is more than, equal to, or less than the amount of support for nongame that license buyers have contributed.
- H. Compounding the financial problem of increased responsibilities, maintenance costs associated with Wildlife Conservation Board projects, and inflation is the finding that sport fishing fees have not been increased to a level to compensate for inflationary increases. The Department maintained the same fee level for 13 years (1958-59 to 1970-71) and, although three subsequent increases have occurred in various fees, the sport fishing fee level is \$1.75 below the amount required to compensate for inflation since 1958-59.
- I. Expenditure and revenue projections indicate that without alternate funding or fee increases, the Department will require an additional \$24.5 million over the next five years just to maintain current programs.
- J. Nongame benefits appear to be based more upon aesthetic and ethical considerations than upon any scientifically determined need. The general public does benefit, but to what degree is uncertain. It may be argued

that fishers and hunters benefit more since they are most explicitly interested in wildlife, both enjoying and extracting.

- K. We question the need for expanded nongame activity (as opposed to rare and endangered programs) due to increased government activities in environmental matters. Generally, such activities may help curb the problems of all wildlife.
- L. Other beneficiaries such as campers, hikers, boaters, etc., are not currently providing financial support for wildlife activities of the State. Such beneficiaries also contribute to wildlife problems.

Alternatives and Recommendations

This review was undertaken to determine the appropriateness of General Fund expenditures for nongame activities of the Department of Fish and Game. Since such proposed funding is due to the financial condition of the Fish and Game Preservation Fund, we also have examined additional alternatives. These are discussed briefly below.

Alternative 1: General Fund and/or Environmental Protection Program Fund support for ongoing nongame activities.

Discussion. We have certain reservations concerning this alternative because:

1. New responsibilities placed upon the Department are related to nongame research and development.
2. There are inconsistencies in allocating game/nongame expenditures due to the subjective distinction between such activities.
3. The alternative does not lend itself to program budgeting concepts, making it difficult to determine the proper level of support.

4. The fisher, hunter, and commercial interests have received most of the benefits resulting from the \$62 million expended through the Wildlife Conservation Board. This amount has been from sources other than revenues derived from fishers, hunters and commercial interests.
5. The proposal represents a diversion from the concept of special funds, with little or no distinction from the operations of other agencies totally supported from special funds.
6. The proposed level of \$2.5 million from General and Environmental Protection Program Funds will resolve the financial problem only for fiscal year 1976-77.

Alternative 2: Fee increases.

Discussion. The proper level of state activity in strictly game areas was beyond the scope of this study, but it was determined that sport fishing fees are beneath the level warranted by inflation. However, this alternative must be weighed against the fact that (1) such increases would be ineffective in preventing some program reductions in fiscal year 1976-77 since they would not become effective until January 1977 and (2) fee increases historically have been accompanied by a reduction in sales.

Alternative 3: New sources of revenue

Discussion. This alternative is not intended as a short-term solution, but rather as one which should be considered to alleviate long-range financial problems. We do not consider it a realistic alternative for fiscal year 1976-77.

Alternative 4: Program reductions.

Discussion. Since we have not examined the game activities of the State, we are unable to determine the environmental effects that program reductions would have. This alternative should be considered only after evaluation and determination of proper conservation levels.

All of the above alternatives are interrelated, with advantages and disadvantages to each if taken in isolation from the others. Each may be

appropriate after a more thorough study of the Department's activities. At this time we can make no recommendation, but can suggest only that programs and expenditures be oriented toward somewhat different objectives than they are currently. This aspect is discussed in more detail in Chapter VI. We do, however, suggest that the Department of Fish and Game and the Department of Finance begin evaluation at this time of the alternatives for resolution of fiscal year 1977-78 financial problems.

CHAPTER I

INTRODUCTION

Background

The Department of Fish and Game and the Fish and Game Commission had its beginning in 1870 with the establishment of the "Board of Fish Commissioners." This early Commission was charged to "...provide for the restoration and preservation of the fish in the waters of the state."^{1/} In 1878 the Commission's authority was expanded to include game as well as fish. The authority of the Department, however, with respect to what is today designated as "nongame," has been an evolutionary one. The following list of pertinent events is meant to reveal this, but is not inclusive of all developments pertaining to nongame responsibilities of the Department:^{2/}

1. In 1913, the Department was charged with enforcing the law prohibiting the taking of the federally proclaimed endangered sea otter.
2. In 1937, the Department became the state agency responsible for programs under the Federal Pittman-Robertson Act, which sought to accelerate the restoration of "wildlife resources."
3. In 1939, California became the first State to investigate on a full-time basis "wildlife" diseases.
4. In 1945, the State Water Resources Act declared that the preservation and development of fish and "wildlife" was a beneficial use of water.

^{1/}Terry Harrell, "The Year Was 1870," Outdoor California, Volume 31, No. 2, (March/April 1970), California Department of Fish and Game, Page 5.

^{2/}Ibid.

5. In 1957, the Department began enforcing laws relating to "fully protected" (nongame) birds.^{3/}
6. In 1958, the Department became the administering agency for the development and enforcement of regulations regarding the transporting, possession, or releasing into the State of various species of wildlife not normally domesticated.^{4/}
7. In 1958, the Department became the responsible agency for the regulation within the State of any live fish, amphibious mammals or aquatic plants.^{5/}
8. In 1955, the Department began contracting with the University of California to study "wildlife" pesticide problems.
9. In 1959, the "Water Projects Branch" was established within the Department to study matters relating to the impact of water quality and land or water developments on fish and wildlife resources.

The program distinction between "game" and "nongame" wildlife traditionally has not been identified by the Department. Rather, these programs have been commingled as "wildlife" concerns. For many years the regulatory powers of the Fish and Game Commission referred specifically to "Fish and Game," which was altered in 1957 to more accurately reflect the Commission's and Department's role with respect to all wildlife:

"There is hereby delegated to the Commission the power to regulate the taking or possession of birds, mammals, fish, amphibia, and reptiles...."^{6/}

^{3/}Chapter 1972 (Statutes of 1972), as amended, California Fish and Game Code Section 3511.

^{4/}Chapter 1503 (Statutes of 1958), as amended, California Fish and Game Code Sections 2116-89.

^{5/}Chapter 1972 (Statutes of 1957), as amended, California Fish and Game Code Sections 2225-2304.

^{6/}Chapter 2181 (Statutes of 1957), California Fish and Game Code Section 200.

This traditional concern with all wildlife is further reflected in the Department's budget narratives:

1933 Governor's Budget--"This division spends its money in raising and planting game fishes, in the purchase and maintenance of game refuges...in the study and management of wildlife and the control of their diseases...." (Emphasis added.)^{7/}

1975 Governor's Budget--"The program objectives of the Department are to insure that fish and wildlife are perpetuated to be used and enjoyed by the people in the state now and in the future."

"More specifically...to maintain all species of fish and wildlife for their intrinsic and ecological values as well as for their direct benefits to man."^{8/}

Thus, the Department historically has been involved in all "wildlife" research, regulation and development, with both game and nongame being aspects of this term.

Nongame

In recent years there has been increased emphasis upon nongame management. Such emphasis has been due in large part to the mass media, which has brought to the public's attention the habits and environmental needs of various species. Government has responded to the concerns of the public by initiating studies on various species as well as investigating and reporting those factors which may have an adverse effect upon the habitat and/or continued existence of both wildlife in general and certain individual species in particular.

Costs related to nongame activities traditionally have been borne by the Fish and Game Preservation Fund, which derives its support from fishing, hunting, and commercial licenses, fees, tags, etc. This raises the

^{7/}State of California Budget for the Biennium July 1, 1933 to June 30, 1935, Page 207.

^{8/}Governor's Budget, 1975-76, Page 556.

basic issue of whether the use of special fund revenues is appropriate for activities that do not explicitly benefit the providers of the revenues. More specifically, this report will explore the issue of who should bear the cost of the nongame activities of the Department of Fish and Game.

CHAPTER II

NONGAME ACTIVITIES, EXPENDITURES AND FUNDING

Historically, the Department has been involved in nongame activities with the costs being borne by fishing and hunting interests. However, in recent years the level of effort directed at nongame has expanded due to increased public awareness and concern regarding environmental protection.

Nongame Activities

Several new responsibilities have been placed upon the Department of Fish and Game which can be highlighted by noting the relevant Federal and state legislation enacted since the late 1960's when nongame became a subject of widespread concern:

1968--Ecological Reserve Act (added by Chapter 1257, Statutes of 1968; Fish and Game Code Section 1580). Purpose: To protect rare or endangered wildlife, the Department is authorized to obtain land and water for the purpose of establishing ecological reserves.

1970--California Species Preservation Act (added by Chapter 1036, Statutes of 1970; Fish and Game Code Sections 900-03).

Purpose: Directs the Department to establish criteria for determining if a specie is endangered or rare. Requires the Department to biennially inventory the birds, mammals, fish, amphibia, and reptiles of the State which are threatened.

1970--Endangered Species Act (added by Chapter 1510, Statutes of 1970, Sections 2050-55). Purpose: Defines "endangered" and "rare" animals; prohibits the importation, taking, possession or selling of any animal determined by the Fish and Game Commission to be rare or endangered.

1970--Conservation of Aquatic Resources (added by Chapter 88, Statutes of 1970; Fish and Game Code Section 1700). Purpose: Declares that it is the policy of the State to encourage the conservation, maintenance, and utilization of the living resources of the ocean and other waters under the jurisdiction of the State. This policy is to include as an objective the maintenance of sufficient populations of all species of aquatic organisms to insure their continued existence.

1970--Endangered Species: Importation or Possession for Sale Unlawful (added by Chapter 1557, Statutes of 1970; Penal Code Sections 6530 and 653p).^{1/} Purpose: Makes illegal the importation into the State of specific dead animals, or parts thereof, or of any specie listed in the Federal Register by the Secretary of the Interior.

1973--Federal Endangered Species Act (Public Law 93-205). Purpose: The Act (1) requires states to develop a rare and endangered program or lose or have delayed Federal monies for various state projects affecting areas inhabited by such species; and, further, the State may be subject to civil suits if such protection and enforcement programs are not in operation;

^{1/}The Department of Fish and Game is currently seeking a transfer of this Penal Code Section into the Fish and Game Code.

(2) provides that if such programs are not operational within a specified period of time, the Federal Government will assure the operation of such programs; and (3) expands the endangered species list to include rare and endangered plants and insects.^{2/}

1974--Conservation of Wildlife Resources (added by Chapter 1190, Statutes of 1974; Fish and Game Code Section 1800). Purpose: States that it is the policy of the State to encourage the conservation of wildlife resources, to maintain sufficient populations of all species of wildlife for their intrinsic value; includes a disclaimer which states that no power is granted through the Act to regulate natural resources or commercial or other activities connected therewith.

1974--Live Wild Animals (added by Chapter 1503, Statutes of 1974 which amends Fish and Game Code Sections 2116-2187). Purpose: This Act amended Fish and Game Code Sections relating to the importation and transportation of restricted live wild animals which were originally added to the Code in 1958. Specifically: (1) it expands the nonnative mammals covered by the Code, most specifically adding monkeys, lions, tigers, elephants, ocelots, wolves, anteaters, etc., and (2) it now requires, rather than authorizes, the Fish and Game Commission, in cooperation with the State Department of Agriculture, to develop regulations governing the entry, transporting, and keeping of nonnative wild animals to prevent damage to native

^{2/} According to the Department of Fish and Game, the Attorney General has ruled, through an informal opinion, that the administering agency in California for these plants and insects should be the Department of Fish and Game, in cooperation with the State Department of Agriculture.

wildlife or to agricultural interests and to provide for the welfare of the wild animals.

Note: The original law required enforcing officers to examine "from time to time" the conditions under which the species are kept.

Most of the above legislation adds responsibilities in the area of threatened, rare, or endangered species. None of this legislation has included funding. The other legislative acts have served to declare state policy (without specifically authorizing additional regulatory powers or placing new responsibilities upon the Department) or have expanded earlier law and continued authorizations to generate revenue through a fee system.^{3/}

Nongame Expenditures

Although historically involved in nongame activities, the Department did not account for expenditures in this area until fiscal year 1969-70. Prior to this time, nongame expenditures were commingled with game activities.

Beginning in the 1969-70 fiscal year and thereafter, the Department displayed in the annual state budget a program entitled "nongame".^{4/} However, not all nongame expenditures are encompassed in this program. For example, the 1975-76 Governor's Budget shows \$440,397 as expenditures of the nongame program for fiscal year 1974-75, although total expenditures in that year for nongame activities were reported in the Department's Cost Accumulation Report

^{3/}Not included in this listing are various nonsubstantive amendments pertaining to the importation and transporting of various live, dead, or diseased species. Such laws were in existence prior to 1960, with subsequent amendments making only title changes or adding or deleting species.

^{4/}The nongame program is actually displayed as a subprogram (component) of the "Wildlife Management" program.

as \$1,480,846.^{5/} The difference in these amounts is due to the Budget's program budgeting format. That is, the Department's activities are budgeted on a functional basis (i.e., Enforcement, Wildlife Management, Environmental Services, etc.) with activities associated with nongame being aspects of several of these functional programs. The functional program of Nongame Management includes only that portion of nongame activities in which specific management functions are identifiable.

For purposes of this report, the determination of nongame expenditures relied upon an accumulation of the costs associated with the management of nongame (one element of the Wildlife Management Program), as well as the nongame aspects included within the three functional programs of Wildlife Protection (Enforcement), Environmental Services, and Inland Fisheries. Figure 1 displays reported nongame expenditures for the six-year period from fiscal year 1969-70 through fiscal year 1974-75.

Nongame expenditures have increased, with the most dramatic increase occurring in fiscal year 1974-75 (188 percent over fiscal year 1973-74). Expenditures in prior years were relatively stable.

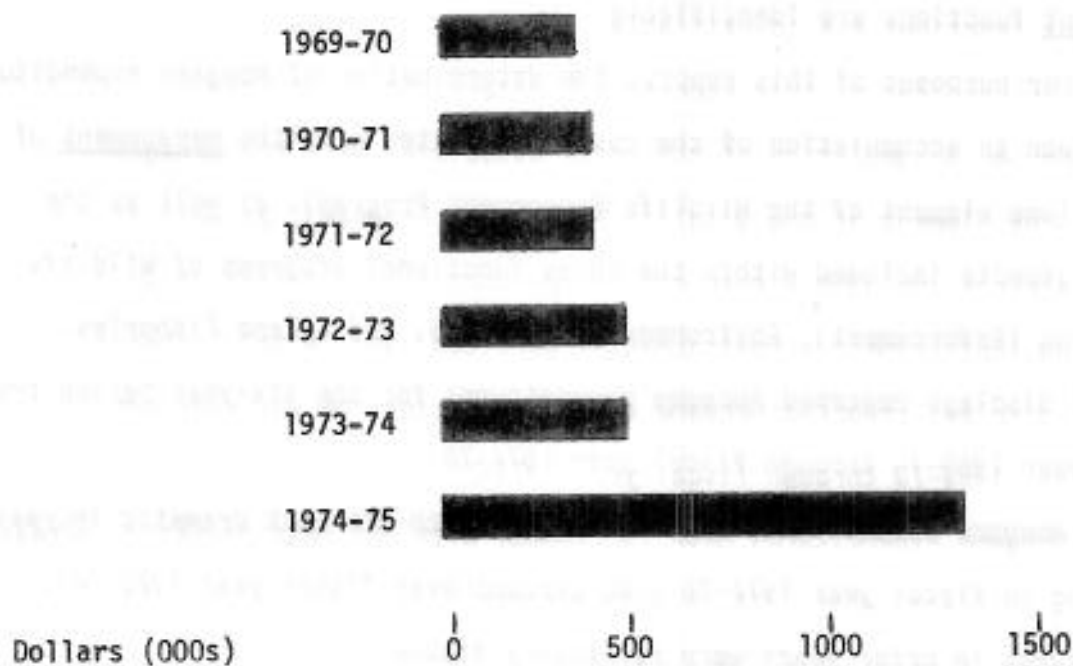
The reason for such an increase is difficult to identify. However, it should be noted that during 1974-75 several changes were made in the method by which nongame costs are accounted. Also, for the first time, financing from the General Fund for nongame activities occurred.

As noted earlier, it was not until 1969-70 that the Department began accounting for nongame expenditures. At that time, the Department added to its time-reporting documents and to its Cost Accumulation Report the designation of nongame in three functional programs: (1) Wildlife Management; (2) Wildlife

^{5/}The Governor's Budget, however, was not utilized as the source for accumulating costs. Instead, the more detailed "Cost Accumulation Report" of the Department was relied upon.

FIGURE 1

NONGAME EXPENDITURES
1969-70 THROUGH 1974-75^{a/}



^{a/}Source: Department of Fish and Game, Cost Accumulation Reports, 1969-70 through 1974-75.

Protection (Enforcement); and (3) Environmental Services. Beginning in fiscal year 1974-75 the following three additional changes were made in the time-reporting documents and the Cost Accumulation Report:

1. Under the Wildlife Protection Program, nongame was expanded to encompass "marine mammals," a designation which previously had been considered a game activity. For 1974-75 this resulted in an increase of \$88,076 in total nongame costs.
2. The Environmental Services Program added to nongame designations those water quality activities associated with nongame species. These were previously considered game expenditures, thus increasing nongame expenditures by \$45,259.
3. The Inland Fisheries Program was added to the previous three programs which maintained nongame categories. This meant that \$226,889 previously considered as game costs would now be designated as nongame expenditures.

These three changes had the effect of increasing nongame expenditures without a corresponding increase in nongame activities. The total increase amounted to \$360,224.

Along with the above changes, Department headquarters began stressing the importance of properly accounting for nongame expenditures. However, it is difficult to determine the effect this had on reported nongame expenditures.

A similar difficulty arises regarding the impact of Chapter 696, Statutes of 1974, which appropriated \$1 million to the Department for support of nongame activities. The Department notes that additional studies were undertaken as a result of this General Fund appropriation; however, it is difficult to determine how much was used as an offset to existing activities and how much represents expanded program.

Methodology of Charging Program Costs

The method used by the Department to allocate costs between nongame and game requires employees to identify the species benefiting from their activities. Employees then charge time to work codes identifying the species-- i.e., code numbers for trout, warm-water game fish, native nongame species, rare and endangered species, etc.^{6/} In some cases, this method is relatively straightforward, as when research and management plans are developed relative to specific nongame or rare and endangered species. Often, however, activities do not benefit only one specie, and in these cases:

"...the distribution of work between two or more codes should be made on the basis of the best information available."^{7/}

The "best information available" includes the individual experience of those in each program area, and relies upon the "relative population" of species in the area of work, among other things.

The identification of species benefiting from a particular activity is required in each program and function of the Department--e.g., Enforcement, Environmental Service, habitat improvements, disease and pesticide research. For example, if a certain pesticide is creating problems for various species, the cost involved in researching and resolving the problem is allocated between the game/nongame species involved, depending upon how many species of each type are being affected. Most of the reported nongame expenditures are a result of this pro rata methodology.

During the course of this study, some inconsistencies and problems with this allocation process were identified:

1. In conversations with personnel in the Department, it was found that there are inconsistencies in the manner of allocation. Some will

^{6/}Department of Fish and Game, Functional Time Reporting Instructions, memorandum to all employees, June 25, 1975.

^{7/}Ibid.

allocate equally between game and nongame, while others will allocate based upon the percentages of game and nongame species. This latter alternative would mean that in a case where field or research activity affects, for example, 10 species, of which eight are nongame, 80 percent of the expenditures would be charged to nongame.

2. Although the Department does periodic population counts of various game species, it does not do similar counts of nongame species, except where the animal is threatened, rare or endangered. Nongame population counts are based on less sophisticated estimates, which introduces error into the pro rata.
3. The Department states that there are 654 nongame species in California compared to 72 game species.^{8/} Therefore, in pro rata cases, nongame almost always would be allocated at least 50 percent of the costs, depending upon the allocation procedure used by each individual.
4. Many, if not most, of the activities undertaken by the Department are the result of conditions affecting "game" wildlife. That is, even though nongame species indirectly, or even primarily, benefit from such activities, the activity itself is usually required to assure continuation of game species.

The above inconsistencies and problems raise questions regarding the extent of nongame efforts and the level of expenditures needed to sustain required nongame activities.

^{8/}Department of Fish and Game, "Endangered? Rare? Protected?" unpublished report (typewritten).

Nongame Funding

Most of the legislation enacted within the past six years placed requirements on the Department of Fish and Game in the area of research relative to "threatened, rare, and endangered" species. Authorization also has been granted the Department for nongame habitat acquisition, although the primary emphasis relates more directly to acquisitions for threatened, rare and endangered species which are but a small part of the nongame category.

The Department has received state funds for the purpose of acquiring and developing nongame ecological reserves. In 1970, through the passage of Chapter 779 (Statutes of 1970), the Environmental Protection Program Fund was established with revenue derived from the sale of personalized license plates. The Secretaries of the Business and Transportation and Resources Agencies are responsible for the development of the program and the determination of priorities. The objective of the program is to preserve and protect California's environment. In the 1973-74 and 1974-75 fiscal years the Department received a total of \$420,000 for capital outlay projects for nongame species. Of this amount, \$355,050 was expended in the purchase of 12 ecological reserves, with \$65,950 reverting at the close of 1974-75. The 1975-76 Budget Act appropriated an additional \$300,000 for similar capital outlay projects.

In addition, the Department has received funds for support activities from the Environmental Protection Fund. Chapter 1181 (Statutes of 1974) appropriated \$5,000 to the Department for operation of a wild fowl decontamination project. In this same year the Department received \$95,000 through the enactment of the Nejedly-Bagley-Z'berg Suisun Marsh Preservation Act of 1974 (Chapter 1486, Statutes of 1974). This Act authorized funds for the preparation of the fish and wildlife element required for the Suisun Marsh Protection Plan.

In addition to Environmental Protection Fund support, the Department has access to Bagley Conservation Funds.^{9/} These funds, administered by the Department of Parks and Recreation, may be used for recreational land acquisition and development and for purchase of "wildlife" areas. That is, there is no distinction between "game" and "nongame" in the allocation of the funds.

The Wildlife Conservation Board is responsible for determining wildlife conservation projects to be financed from Bagley Conservation Funds. This Board is composed of the Director of the Department of Fish and Game, the President of the Fish and Game Commission, and the Director of the Department of Finance. During fiscal years 1971-72 through 1974-75, the Board has received appropriations totaling more than \$2,500,000 for two capital outlay projects. Two million dollars was appropriated for acquisitions related to the Suisun Marsh Project. The balance of \$500,000 was appropriated in 1971-72 for the acquisition of the Upper Tomales Bay in Marin County. The purpose of this purchase was to "...provide access to salmon and steelhead fishing on Papermill Creek and an ecological area with high wildlife value."^{10/} The Suisun Marsh Project is similar in that although there are threatened, rare and endangered species in the area, the location is heavily hunted for waterfowl and extensively fished for striped bass and sturgeon.

The State Beach, Park, Recreational and Historical Facilities Bond Act of 1974 provided \$10,000,000 to the Wildlife Conservation Board for acquisition and departmental projects concerning both game and nongame wildlife areas. The Board also receives \$750,000 annually from the State's share of parimutuel revenues which are deposited in the Wildlife Restoration Fund.

^{9/} Chapter 1, Statutes of 1971, 1st Extra Session, Section 316(b). The Department of Finance recommends capital outlay program expenditures pursuant to this legislation.

^{10/} The 1974 Wildlife Conservation Board; A Summary of W.C.B. Projects, 27th Annual Report, July 1974, Page 16.

These monies similarly may be used for acquisition and development costs relating to both game and nongame.

It would appear that sufficient funding from sources other than the Fish and Game Preservation Fund are available for acquisition of nongame areas in accordance with priorities established by the Wildlife Conservation Board and the Secretaries of the Business and Transportation and Resources Agencies. However, funding for the Department's support activities are not readily attainable and therefore are absorbed by the Fish and Game Preservation Fund.

This situation was to be remedied through the passage in 1974 of the Native Species Conservation and Enhancement Act, which restated the policy of preserving all wildlife and authorized the Department to receive funds from persons or organizations for the support of nongame species conservation programs.^{11/} It also required the Department to issue an object (certificate, decal, medallion) to each donor. It further established the Native Species Conservation and Enhancement Account within the Fish and Game Preservation Fund for the purpose of accounting for such donations. The program, however, has not been as successful as perhaps was anticipated, generating only approximately \$13,000 after 10 months of operation.

At present the Department of Fish and Game is confronted with nongame requirements, most specifically related to threatened, rare and endangered species, for which support funds are not provided either from specific appropriations or from public donations.

^{11/}Chapter 898, Statutes of 1974, Fish and Game Code Sections 1750-63.

Summary

This chapter has outlined the requirements that have been placed upon the Department of Fish and Game relative to nongame activities, the expenditures for nongame and the methodology for allocating expenditures between game and nongame. It also presented a review of funding for these activities. Stated briefly below is a summary of findings in each of these areas.

Nongame Requirements--Legislation enacted since 1968 has been in an area more specific than the general "nongame" designation. That is, although various legislative acts state that it is the policy of the State to encourage the perpetuation of all species of wildlife, specific requirements and responsibilities placed on the Department of Fish and Game relate primarily to research, land acquisition and development of species considered threatened, rare or endangered.

Nongame Expenditures--There appear to be only a few instances in which the nongame distinction definitely can be made. Such instances would include research specifically related to nongame species as well as habitat development for rare and endangered species. We were able to identify only \$406,921 in expenditures that clearly were related to nongame activities. The remaining \$1,019,105 of reported nongame expenditures for fiscal year 1974-75 were in activities that affected both game and nongame.

It was not until 1969 that the Department began accounting for expenditures in the nongame area, and it was not possible to determine what expenditures were prior to that time. Beyond this, recent alterations in the work codes and the Cost Accumulation Report make it difficult to determine if, in fact, nongame activities are demanding more of the Department's attention and resources. It is important to note that the concept of allocating

expenditures based upon a determination of the benefiting species is particularly questionable since many of these activities traditionally have been deemed essential for purposes of "game." Using such a methodology potentially could mean more nongame than game expenditures. Why, for example, should not all of the enforcement activities be deemed nongame since there are but few game species?

Nongame Funding--It appears that sufficient funds have been and are available for acquisition of nongame habitat areas, depending upon priorities established by the Secretaries of the Business and Transportation and Resources Agencies, and the Wildlife Conservation Board. The sources of such funding include the Environmental Protection Fund; Bagley Conservation Funds; the 1974 State Beach, Park, Recreational and Historical Facilities Bond Funds; and the Wildlife Restoration Fund.

Nongame operating costs have been absorbed by the Department of Fish and Game, although \$1,000,000 was appropriated from the General Fund for such expenditures in both 1974-75 and 1975-76 fiscal years. A donation program established to provide support for nongame activities has not been successful.

CHAPTER III

THE FISH AND GAME PRESERVATION FUND

The Fish and Game Preservation Fund is the depository for license and fee receipts collected by the Department of Fish and Game. This Fund is used to finance the operating expenses of the Department. At the end of fiscal year 1976-77, the Fund is expected to have a \$2.5 million surplus, down from \$4.3 million at the beginning of the fiscal year. This does not include the General Fund support of \$1.5 million.

The Department has noted that this surplus will be inadequate to maintain current program activities throughout fiscal year 1976-77. Similar surplus shortages in the past have been funded through fee increases, and, in addition, the Department received \$1 million support from the General Fund. The proposed remedy for the fiscal year 1976-77 surplus shortage is to provide \$1.5 million General Fund support and \$1.0 million Environmental Protection Fund support.

Several factors appear to account for the recurring problems in the Fish and Game Preservation Fund:

1. Added responsibilities have been assigned to the Department of Fish and Game, without provision for additional funding.
2. The capital outlay program administered by the Wildlife Conservation Board has attendant ongoing maintenance costs that have been absorbed by the Fish and Game Preservation Fund.

3. Licensing and fee revenues have not kept pace with inflationary cost increases.

Responsibilities

The added responsibilities of the Department related to nongame activities were discussed in Chapter II. Generally, these added responsibilities fell in the area of research related to threatened, rare and endangered species. Total identified expenditures in this area were \$406,921, not all of which represent increased workload. Other changes were found to be more of a clarifying nature than that of added responsibilities since the Department historically has performed nongame functions. Added responsibilities in the game area were beyond the scope of this study.

The Department has indicated that much of its increased cost is attributable to work in the nongame area. Between fiscal year 1969-70 and fiscal year 1974-75, expenditures increased by \$11,912,079. Of this amount, we were able to identify only \$1,076,445 or 9 percent (of what the Department classifies as nongame) which was attributable to nongame. The remaining \$10,835,634 or 91 percent represents increases in game activities.^{1/} The extent of increased game responsibilities represented by this amount was not examined. We did, however, review the capital outlay programs related to both game and nongame.

Capital Outlay

The Department of Fish and Game finances some capital outlay projects from the Fish and Game Preservation Fund. Since these expenditures are under

^{1/}Department of Fish and Game, Cost Accumulation Reports, 1969-70 through 1974-75.

the control of the Department and presumably are considered in the Department's priority setting process, capital outlay projects financed from the Fish and Game Preservation Fund are not included in the following discussion. We are more concerned with the Department's responsibilities regarding the projects funded by the Wildlife Conservation Board.

The purposes of the Board are to:

"...investigate, study, and determine what areas within the state are most essential and suitable for wildlife production and preservation, and will provide suitable recreation; and shall ascertain and determine what lands within the state are suitable for game propagation, game refuges, game farms, fish hatcheries, game management areas, and what streams and lakes are suitable for, or can be made suitable for, fishing, hunting, and shooting.

"The board shall also ascertain what lands are suitable for providing cover for the propagation and rearing in a wild state of waterfowl, shore birds, and upland birds, and the possibilities of acquiring easements on such lands to provide such cover.

"As a result of such studies the board shall determine what areas, land, or rights in lands or waters shall be acquired by the state in order to effectuate a coordinated and balanced program resulting in the maximum revival of wildlife in the state and in the maximum recreational advantages to the people of the state.

"The board shall authorize the acquisition of such lands, rights in land, water, or water rights as may be necessary to carry out the provisions of this chapter."^{2/}

The Wildlife Restoration Fund is the operating fund for the Board.

During earlier years (1948 to 1963), support was derived exclusively from the revenues from parimutuel betting. This subsequently was made an annual appropriation (1955) of \$750,000 from the same source "for purposes of the Board." In more recent years, other sources of revenue have been placed at the disposal of the Board. Since 1947 total appropriations to the Board have been \$62.0 million. The sources of these funds were:

^{2/}California Fish and Game Code Sections 1345-48.

	<u>Millions</u>
Parimutuel	\$27.7
Federal Funds	10.8
Bagley Conservation Funds	2.5
State Beach, Park Recreational and Historical Facilities Bond Act of 1964 (General Fund)	5.0
Recreation and Fish and Wildlife Enhancement Bond Act of 1970 (General Fund)	6.0
State Beach, Park Recreational and Historical Facilities Bond Act of 1974 (General Fund)	<u>10.0</u>
TOTAL	\$62.0

Our concern with the capital outlay program of the Wildlife Conservation Board is with the ongoing costs that are subsumed in the Department of Fish and Game's annual budget. The Department is required to manage and maintain completed projects of the Board; however, no funds are provided for this purpose.

By fiscal year 1970-71 the Board had completed about \$40 million in capital outlay projects. Most of these projects are maintained by the Department of Fish and Game.^{3/} The Department was unable to provide us cost figures for managing and maintaining these projects, but if we assume a 5 percent annual cost associated with the pre-1970-71 expenditures of the Board, the Department could be absorbing \$2.0 million of management and maintenance costs each year.^{4/} This figure is probably conservative since many projects from the remaining

^{3/} Some projects, such as boat launching ramps, are maintained by local governments. However, neither the Wildlife Conservation Board nor the Department of Fish and Game could provide us with estimates of the number of projects or the dollar value of such projects that are maintained by local governments.

^{4/} The 5 percent figure was derived through a comparison of the Department of Parks and Recreation facility maintenance costs. That Department budgets its maintenance costs at 2 percent of initial capital outlay expenditures. Since this 2 percent figure does not include personnel costs for operations, we have adjusted the figure to 5 percent.

\$22 million also have been completed and are being managed and maintained by the Department. When all of the projects are completed, the Department could be absorbing over \$3.0 million of annual management and maintenance expenses.

It should be pointed out that most of the projects undertaken by the Board involve fish hatcheries, fish and game habitat development and improvement, game farms and fishing and hunting access development (see Figure 2). Because of this, there does not seem to be any question about the legitimacy of the Department being the provider of the management and maintenance. There remain, however, some questions regarding the capital outlay program:

1. What are the actual ongoing costs associated with the capital outlay projects?
2. Who are the beneficiaries of the projects?
3. Are the beneficiaries willing to support such activities? At what level?
4. Are the beneficiaries paying their "fair share?"

This report does not attempt to answer these questions, but succeeding sections will explore these issues further.

License and Fee Revenues

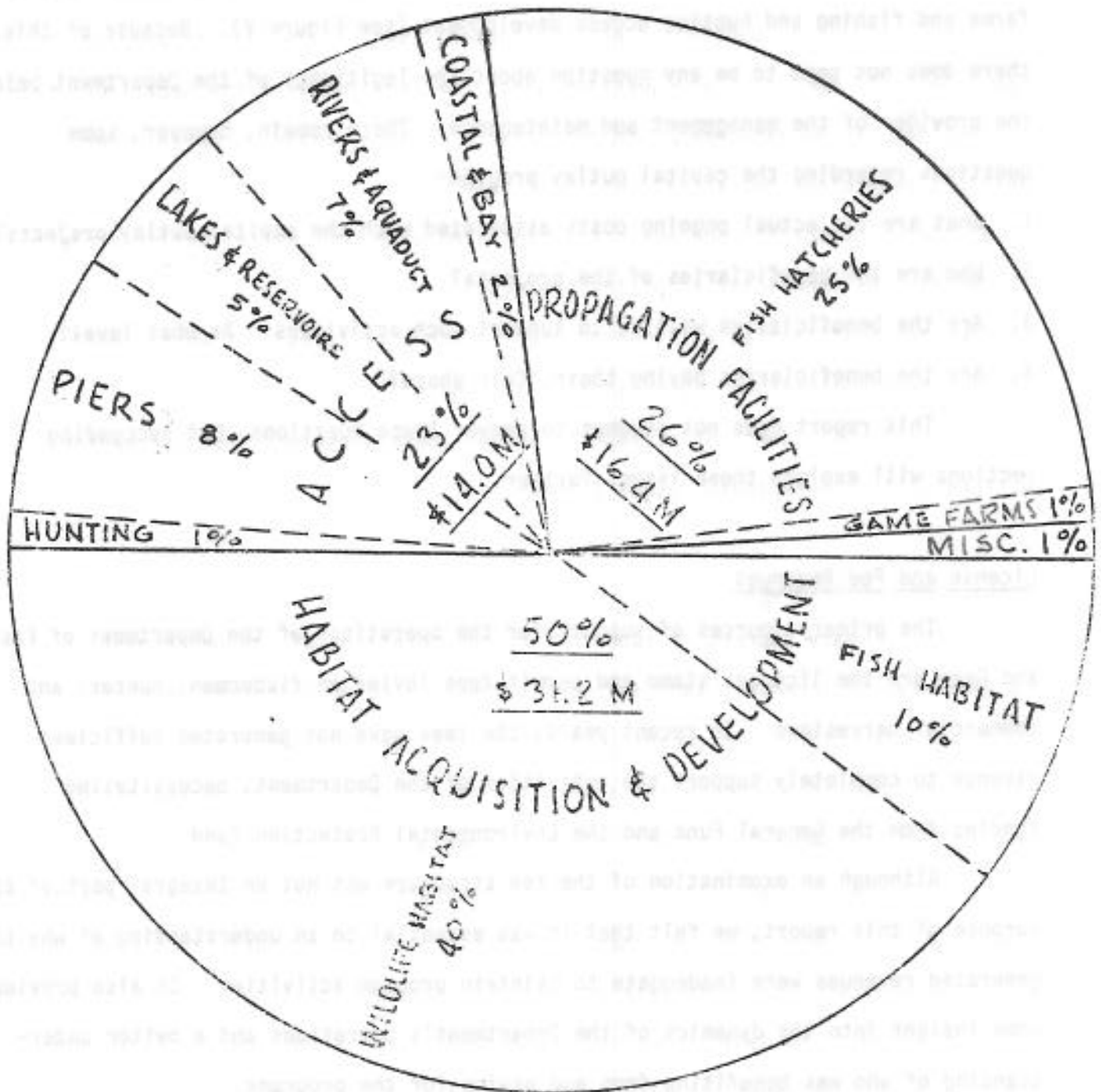
The primary sources of support for the operations of the Department of Fish and Game are the license, stamp and permit fees levied on fishermen, hunters and commercial harvesters. In recent years, the fees have not generated sufficient revenue to completely support the activities of the Department, necessitating funding from the General Fund and the Environmental Protection Fund.

Although an examination of the fee structure was not an integral part of the purpose of this report, we felt that it was essential to an understanding of why the generated revenues were inadequate to maintain program activities. It also provided some insight into the dynamics of the Department's operations and a better understanding of who was benefiting from and paying for the programs.

In reviewing the fee rates, we found that fees had remained at a constant level for a period of 13 years (fiscal years 1958-59 to 1970-71).

FIGURE 2

SUMMARY OF EXPENDITURES BY CATEGORY FOR
WILDLIFE CONSERVATION BOARD PROGRAM, 1948-1975



During fiscal years 1971-72 through 1975-76, fees were increased three times. Comparing present fees with the base period 1958-59, adjusted for subsequent inflation, shows that certain fees have not kept pace with inflationary changes, whereas others are well above the level needed to account for price increases.^{5/} This dichotomy, of course, could be the result of changing levels of service, but we were unable to identify sufficient programmatic redirection to justify the discrepancy.

In the fishing license and stamp category, it would be necessary to adjust the combined fees upward by about 20 percent or \$1.75 to compensate for inflation. The stamp cost and the license fees were combined for purposes of this determination, since 85 percent of the fishermen who purchase a general license also purchase both the inland stamp and the trout/salmon stamp. In the case of the trout/salmon stamp, its price exceeds the level justified by price increases. An adjustment of the fishing fees by \$1.75 beginning January 1, 1977 would yield over \$1.5 million annually.

Hunting and commercial fees are presently at a level that compensates for inflation and would not require adjustment for a few years. At that point, another analysis of each of the fees should be conducted.

Budget Year Funding Demand

The Department of Fish and Game has indicated that the surplus in the Fish and Game Preservation Fund will be inadequate to maintain its current programs throughout fiscal year 1976-77 and that it will require funding from sources other than revenues received from licenses and fees. Accepting for now that maintaining the current level of program activity is desirable, an analysis

^{5/} Adjustments were made using the California Consumer Price Index provided by the Population Research Unit of the Department of Finance.

was made of the expected revenues and expenditures to determine the extent of the impending problem.

Expenditures were examined to isolate the causes of the increases that have occurred during the period 1973-74 through 1976-77. We hypothesized that the increases were due to new or expanded programs, or both. As a method of determining the degree to which these factors have influenced expenditure levels, we began by inflating the 1973-74 program to determine how much of the overall increase could be attributed to inflation. The results of this process are shown in Figure 3.

Inflation has been the most substantial contributor to the increases in departmental expenditures; explaining over 91 percent of the increases since 1973-74. Although there has been a reduction of 14.4 man-years, Personal Service expenditures have increased 27.9 percent, exclusive of salary increase and TEC costs for fiscal year 1976-77. Operating expenses have increased 37.4 percent over this three-year period. We have been unable to identify within the above figures any new or expanded programs not present in the 1973-74 fiscal year. The unexplained \$561,104 we were informed by department staff represents special increases that were allowed for abnormal price increases in fish food. We were unable, however, to secure any substantiating documentation for these increases.

Total departmental expenditures also include the State's share of Federal cooperative programs, major capital outlay and other expenditures which are treated separate from state operations and are funded from distinct accounts within the Fish and Game Preservation Fund. These expenditures are listed in Figure 4 and are compared in the same manner as were state operation expenditures.

FIGURE 3

COMPARISON OF INFLATED 1973-74 PROGRAMS
TO BUDGETED 1976-77 PROGRAMS^{a/}
STATE OPERATIONS ONLY

	<u>Actual 1973-74</u>	<u>1973-74 Program In 1976-77 Dollars</u>	<u>Requested Budget 1976-77</u>
Personal Services	\$15,773,974	\$20,188,159	\$19,941,852
Operating Expenses	<u>7,687,504</u>	<u>10,044,750</u>	<u>9,766,103</u>
Total	\$23,461,478	\$30,232,909	\$29,707,955
Less Reimbursements:			
Other	\$-1,458,351	\$-1,808,355	\$-1,766,906
Federal	-1,200,081	-1,488,100	-1,689,798
Transfer from Environmental Protection Program Fund ^{b/}			1,000,000
Position Reduction (14.4 Positions)			<u>246,307</u>
Total, 1973-74 Expenditures	\$20,803,046	--	--
Cost of a 1973-74 Program in 1976-77 Dollars	--	\$26,936,454	\$27,497,558
Amount of Proposed 1976-77 Budget Not Attributable to Inflation			<u>\$ 561,104 (8.3%)</u>

^{a/}The effects of inflation in the Personal Services Category have been calculated by determining the average man-year Personal Service expenditures for each of the years 1973-74 through 1976-77, calculating the percentage growth per man-year for each year and then cumulatively applying this annual increase against the base period expenditures in Personal Services. The inflationary increases in operating expenses have been determined by applying the annually allowed price increase per the Department of General Services Price Letter plus any additional amounts allowed by the Department of Finance in the planning estimates of each year.

^{b/}The 1976-77 Governor's Budget includes a transfer of \$1,000,000 to the Fish and Game Preservation Fund for ongoing nongame activities. The Department has reduced the Operating Expenses Category by this amount.

FIGURE 4

COMPARISON OF INFLATED 1973-74 SPECIAL PROGRAMS
TO BUDGETED 1976-77 PROGRAMS

	<u>Actual 1973-74</u>	<u>1973-74 Program In 1976-77 Dollars</u>	<u>Requested Program 1976-77</u>
State Share of Federal Cooperative Programs	\$1,142,802	\$1,517,641	\$1,825,366
Major Capital Outlay	140,010	185,933	150,000
Duck Stamp Account ^{a/}	86,629	115,043	238,600
Marine Research Committee ^{b/}	113,788	151,110	169,935
Crab Research ^{c/}	--	--	30,000
Native Species Conservation and Enhancement ^{d/}	--	--	17,500
Pacific Marine Fisheries Commission ^{e/}	<u>20,400</u>	<u>27,091</u>	<u>21,600</u>
Total 1973-74 Expenditures	\$1,503,629	\$1,996,818	\$2,453,001
Amount of Proposed 1976-77 Budget Not Attributable to Inflation			<u>\$ 456,183</u>

^{a/}The Duck Stamp Account represents expenditures solely for the purpose of protection and propagation of migratory waterfowl and for the preservation of wetlands. At least 80 percent is required to be expended for preservation areas in Canada. Revenues for this purpose are generated through a \$1 charge for duck stamps (Chapter 1582, Statutes of 1970, Fish and Game Code Sections 3700-3706).

^{b/}The expenditures through the Marine Research Committee are for purposes of research in the development of commercial fisheries and products of the Pacific Ocean. Revenues for this purpose are generated through an additional privilege tax on mackerel, squid, herring and anchovies (Section 729, Fish and Game Code).

^{c/}Chapter 416, Statutes of 1974, placed an additional privilege tax on crabs for a market crab study. The original legislation provided \$10,000 General Funds and \$50,000 Fish and Game Preservation Funds for this purpose. The 1976-77 budget includes an additional \$10,000 in Fish and Game Preservation Funds for continuation of the study.

^{d/}Chapter 898, Statutes of 1974, authorized the Department to receive and expend specified donations for the support of nongame species conservation programs.

^{e/}Represents payment to the Pacific Marine Fisheries Commission in accordance with the Pacific Marine Fisheries Compact to promote better utilization of marine, shell and anadromous fisheries in the Pacific Ocean.

Except for the amount expended in Federal cooperative programs, the expenditures are for specific purposes as mandated by law. The amount expended is determined by the amount generated from the source of revenue.

Expenditures in the Federal programs have expanded at a rate more than sufficient to meet the increased costs from inflation. The Department states that the increase in Federal funds allotted to California has allowed them to transfer positions to Federal programs, thus avoiding substantial man-year reductions due to the high inflationary period experienced. The Department's proposed 1976-77 budget for State Operations is 14.4 man-years below that allocated during fiscal year 1973-74. During this same period, Federal cooperative programs have increased 31.2 man-years.^{6/} Thus, the transfer of positions into Federal programs enables the Department to show a departmentwide increase of 16.8 man-years from 1973-74 to 1976-77. Such transfers may be questionable, however, depending upon the need that California has for these programs, and recognizing that California must pay a part of any Federal programs undertaken.

The total departmentwide expenditures as proposed for 1976-77 include state operations of \$27,358,251 and special expenditures of \$2,453,001 for a total of \$29,811,252.^{7/} The amount related to new or expanded programs is approximately \$507,725, which is for the proposed Environmental Impact Review analysis and for the expansion in Federal programs. Beyond this, however, it appears that inflation has been the primary cause of the Department's increase in expenditures.

^{6/}The four Federal cooperative programs are the Wildlife Management Program, Fisheries Management Program, Marine Fisheries Program, and the Anadromous Fisheries Program.

^{7/}This amount includes \$150,000 in capital outlay which is not included in the support appropriation for the Department.

Future Funding Demand

Salary increases and TEC have not been included in previous calculations. We estimate this amount to approximate 6.2 percent of the proposed 1976-77 Personal Services Category. Beyond the budget year, we have assumed an overall 5.5 percent increase for 1977-78 fiscal year and an incremental expenditure growth of 5 percent thereafter.^{8/} Table 1 projects future expenditures and revenues of the Department to determine what the short-fall will be between expected expenditures and anticipated resources.

Revenues have been projected based upon a time-series analysis of revenue sources. As fee increases were found to affect the number of licenses and tags purchased, the time-series included years when the fees remained at the same level. The reaction to fee increases was then examined and adjustments were made to the projections. It was found in several cases that a decrease in purchases occurred when fees were increased. However, it was also found that the reaction was for not more than two years, with third-year rates approximately equal to the number sold prior to the increase and succeeding years resuming the previously established trend. The projections are at current fee levels and assume that future purchases will not deviate from the historical trend when fees remain unchanged. Our projections are quite close to the Department of Fish and Game estimates and therefore we have used their projections for fiscal years 1975-76 and 1976-77 and ours thereafter.^{9/}

The projections indicate that the Department will require an additional \$24.5 million over the next five years just to maintain existing programs. This does not include any further new capital outlay maintenance costs.

^{8/} These represent Department of Finance estimates, but have been reduced slightly to compensate for the fact that calculations were based on total expenditures combining both Personal Service and Operating Expenses.

^{9/} The variance between the two estimates was approximately 1 percent, or \$300,000. In 1975-76 our estimate was lower than the Department's and in 1976-77 higher by about the same amount.

TABLE 1

REVENUE AND EXPENDITURE PROJECTIONS^{a/}
(FISH AND GAME PRESERVATION FUND ONLY)

	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>	<u>1979-80</u>	<u>1980-81</u>
Beginning Surplus	\$ 4,297,464	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
Revenue	27,669,810	28,735,099	29,508,143	30,275,003	31,035,509
Total Resources Available	<u>\$31,967,274</u>	<u>\$31,735,099</u>	<u>\$32,508,143</u>	<u>\$33,275,003</u>	<u>\$34,035,509</u>
Less:					
Expenditures:					
State Operations	\$28,594,645	\$30,167,350	\$31,675,717	\$33,259,502	\$34,922,477
Other ^{b/}	<u>2,605,086</u>	<u>2,748,365</u>	<u>2,885,783</u>	<u>3,080,072</u>	<u>3,181,575</u>
Total Expenditures	<u>\$31,199,731</u>	<u>\$32,915,715</u>	<u>\$34,561,500</u>	<u>\$36,289,574</u>	<u>\$38,104,052</u>
Required Ending Balance	<u>3,000,000</u>	<u>3,000,000</u>	<u>3,000,000</u>	<u>3,000,000</u>	<u>3,000,000</u>
Total Required Ending Balance and Expenditures	\$34,199,731	\$35,915,715	\$37,561,500	\$39,289,574	\$41,104,052
Funding Deficiency	\$ 2,232,457	\$ 4,180,616	\$ 5,053,357	\$ 6,045,573	\$ 7,068,543
Cumulative Funding Deficiency	\$ 2,232,457	\$ 6,413,073	\$11,466,430	\$17,512,003	\$24,580,546

^{a/} This table assumes no program expansion or new programs, as well as no change to the current fee schedule. It does not include funding from sources other than the Fish and Game Preservation Fund.

^{b/} Includes State contribution to Federal programs, capital outlay, and other expenditures which are designated by law for specific purposes.

It is currently proposed to fund nongame and environmental activities amounting to \$2.5 million from the General Fund and the Environmental Protection Program Fund. Such an amount would allow the Department to operate at current levels through fiscal year 1976-77. We could find no evidence to suggest that nongame activities should require a level of support beyond the \$2.5 million, except for that amount resulting from inflation. Assuming, therefore, that the General Fund and Environmental Protection Fund again will finance such activities at this level in fiscal year 1977-78, the Department still will require additional funds for that year, and the deficiency will increase annually each year.

It should be noted that there is the possibility of Federal funds becoming available for rare and endangered specie activities. The Federal Endangered Species Program (Public Law 93-205), although as yet unfunded, will provide a Federal two-to-one match for such state operated programs. The program also may allow Federal match for previous years' expenditures. If and when Federal monies are appropriated, it would seem appropriate to reimburse the General Fund for its contribution to these activities.

Conclusion

This chapter has examined the Fish and Game Preservation Fund to determine the factors contributing to the impending financial problem and the extent of the problem. Stated briefly below are the findings of this chapter.

Factors contributing to the financial problem appear to be:

Added Nongame Responsibilities--As noted in Chapter II, such new responsibilities are related to nongame research and development. During fiscal year 1974-75 this represented \$406,921 of the Department's total recorded nongame expenditures of \$1,426,026. The Department's expenditure

increases from fiscal year 1969-70 through 1974-75 are most substantially a result of increases in game activities rather than nongame. During this period total expenditures increased by \$11,912,079, of which \$10,835,634, or 91 percent, was a result of increases in game activities. Nongame expenditures represent 9 percent or \$1,076,445 of this total increase.

Maintenance Costs Associated With WCB Projects--The Wildlife Conservation Board has authorized capital outlay expenditures of \$62 million since fiscal year 1947-48 and, although the financing of such projects has been from nonlicense sources, the maintenance of completed projects is the responsibility of the Department and hence of the license buyer. We estimate such maintenance costs to be \$2 million annually, with a potential \$3 million annual cost once all projects are completed.

Inflation--Inflation has been the major contributor to the increase in expenditures since fiscal year 1973-74. The 1976-77 proposed budget reflects a \$6,555,205 or a 31.5 percent increase over the 1973-74 expenditure level for what is essentially the same level of service provided in 1973-74.

Fishing License Fees Have Not Kept Pace With Inflation--Although other fees have been increased to a level commensurate with inflationary pressures, sport fishing fees have not. This fee is \$1.75 below the amount required to compensate for inflation.

Our analysis of future revenues and expenditures indicates that without alternate funding sources or fee increases, the deficiency of \$2.2 million projected for 1976-77 will increase to \$4.1 million in 1977-78, and to \$7 million in 1980-81. The total deficiency for this five-year period (1976-77 through 1980-81) will exceed \$24 million.

We suggest that the Department of Fish and Game, the Fish and Game Commission and the Department of Finance begin evaluating alternatives for financing this recurring and increasing deficiency. This matter is of some

urgency if fees are to be increased, since any increase would not become effective until January, or midway into each fiscal year. The decision to raise fees to alleviate the 1977-78 deficiency would be most effective if any adjustments could be made in January 1977.

Fee increases obviously are only one solution to the problem. Other suggestions will be offered in succeeding chapters.

CHAPTER IV

NEEDS, BENEFITS AND BENEFICIARIES OF NONGAME ACTIVITIES

Benefits derived from nongame wildlife have been implicitly accepted throughout this report. Similarly, the need for such species to be protected and developed by the State also has been accepted. This chapter will explore these assumptions and, in addition, will examine the question of "who" the beneficiaries are, and therefore who should be providing financial support.

Benefits

The assumption that benefits are derived from nongame species is one which appears to be based more upon philosophical and ethical inclinations than upon any scientific or measurable evidence. However, this is not to imply that there may not be substantial benefits from the perpetuation of all such wildlife. Such benefits may be in:

1. Aesthetics.
2. Environmental Balance--Of which man is but a part; and a part which may be affected by imbalances in the total natural community.
3. Scientific Investigations--Allowing man to learn more about himself.
4. Food Source--This includes, obviously, game species which are ecologically interrelated with nongame, and may be dependent upon a chain of many nongame species for continuation.

These benefits are very general, and the question arises as to what specific benefits are derived through the perpetuation of individual species

such as the Desert Salamander, the Peregrine Falcon or the Owens Pupfish. The answer to such a question is nebulous, and perhaps always will be if individual species are viewed separately and out of context with the total ecological community. It would appear that the argument for the perpetuation of individual species is based upon the rationale that factors contributing to the extinction of one specie may lead to the further decline of still others. Thus, investigation and perpetuation of one specie is important in the continuation of all species.

Needs

It has also been assumed that without state participation in the protection and development of nongame wildlife, the population of these species will diminish. Given the objectives of the Department, the degree of state involvement should be just enough to insure that these species will not be threatened with extinction.

The current objective of the Department is to complete the rare and endangered species list and insure that such native California species will continue to thrive. This implies that continuing research should be done on all species to insure that those on the list are being repopulated and those not currently on the list are not decreasing in population to the point of becoming so threatened or endangered. Inventories on all species are implied, although many species are sufficiently abundant that detailed research is as yet not required, though periodic monitoring of populations may be necessary. Once the threatened, rare and endangered list is satisfactorily completed, those species would require continual investigation, rigid enforcement, and perhaps habitat acquisition to insure that repopulation will occur, or at least that the situation will not worsen.

The assumption that already rare and endangered species will continue to decrease, perhaps to extinction, without government participation may be valid. However, the need for state participation beyond that necessitated for such threatened species should be evaluated in light of recent governmental activities in environmental matters generally. It should be noted that much has already been done to prevent the further decline of species, although this has been an indirect benefit from such environmental activities.

These environmental activities have been initiated to control some of the factors which have been responsible for species becoming rare and endangered. Most species become so classified due to: (1) habitat destruction through human encroachment, (2) human disturbance and taking of wildlife, (3) pollution or (4) predation.^{1/} Although not directly concerned with wildlife, both business and government are today concerned with the effects that man-made actions have on the environment, and through various planning processes (i.e., CEQA, EPA, Forest Practices Act, ARB, etc.) an attempt is being made to minimize the detrimental effects that technology has had upon man and the total ecological community. The problems created in the natural environment through encroachment and air and water pollution are being evaluated and controlled. If these policies and programs are effective, the result will be a reduction of the factors contributing to the decline of wildlife.

Beyond the concern with the environment generally are the changes in law relating specifically to the protection of wildlife. In the past, many nongame species have been subject to removal from the natural environment by private collectors, as well as for commercial, educational and research uses. Today only three species may be legally taken without a permit: English Sparrows, Starlings, and depredating crows. With proper publicity to educate

^{1/} Interview notes.

the public, and assuming that most people are law-abiding, it is anticipated that fewer species will be taken from their natural surroundings.

It should be noted also that certain species, such as the Peregrine Falcon and the Southern Bald Eagle, are extremely sensitive to any contact at all with humans. It is questionable whether these and other such highly sensitive species are capable of adapting, even with government protection and development, to an environment in which man must also exist.

Beneficiaries

It has been assumed that those deriving benefits from the Department's programs should assume the related financial burden. It would appear that only two beneficiaries have been identified: the fishing and hunting interests and the general public.

We acknowledge that the general public does derive benefits from the nongame program, but we have also found that the General Fund has provided financing for strictly game programs. It is not clear whether the benefits to the public from nongame activities have been less than, equal to, or more than the amount contributed to the game programs by the General Fund. However, it also may be contended that general public benefits are not derived from strictly nongame functions but from game activities as well.

The determination of how much the General Fund should provide should include an analysis of all interest groups which derive benefits from the programs of the Department, including both game and nongame programs. The restriction of beneficiaries to the fisher/hunter and the general public eliminates other interest groups which may derive a great deal of benefit yet provide little or no funding for the Department's operations. Such groups would include recreationists, commercial interests, homeowners, and motorists.

Some of these, such as motorists and recreationists, not only derive benefits but also are contributors to the problems of wildlife. The housing industry is diminishing the wildland areas for example, and motorists and recreationists pollute the air and water.

Additional sources of revenue should be an important consideration in light of the apparent diminishing interest in sport hunting. If a similar situation develops in fishing activities, the reliance upon the General Fund could be substantial. We feel that it may be appropriate at this time to begin seeking alternative funding sources to the General Fund and the Fish and Game Preservation Fund with a view toward assuring that program beneficiaries are paying their fair share.

CHAPTER V

FUNDING ALTERNATIVES

Chapter III identified a funding demand of approximately \$2.2 million to maintain existing programs during the 1976-77 fiscal year. This chapter will explore some alternatives available to resolve this fiscal problem.

General Fund Support

This alternative is proposed by the Department of Fish and Game and is based upon the supposition that nongame and environmental activities should not be the responsibility of license buyers. The Department states that Fish and Game activities have been self-supporting from licenses and fees, and that the Department can no longer absorb nongame and environmental activity costs.

Our findings indicate that the Department has received substantial amounts of funding from sources other than the license buyer. Since 1970 approximately \$20 million from these sources has been expended on projects designed to enhance fishing and hunting activities, and in total more than \$62 million has been expended since fiscal year 1947-48. The General Fund has contributed to this amount through the financing of General Obligation Bonds. The decision to utilize General Funds for support of nongame activities would assume that fishing, hunting, and commercial interests have expended more on nongame activities than these same interests have received through the Wildlife Conservation Board.

Our findings also indicate that 91 percent of the \$11,912,079 increase in departmental expenditures is due to increased expenditures in game activities, rather than nongame, and that inflation and maintenance costs associated with the capital outlay program of the Wildlife Conservation Board are probable causes of this increase. The finding that fishing license fees have not kept pace with inflation (by approximately 20 percent) compounds the financial problem.

Beyond this, the decision to utilize General Funds for nongame would represent a major departure from the theory of special funds. The fact that a special fund supports activities which also benefit the general public is not by itself a rationale for General Fund support. Governments perform functions which benefit either the collective (general public) or a combination of collective and individual interests. That is, there is always a collective benefit from the operations of government as government is not intended to serve private interests. However, where collective benefits are primarily associated with an identifiable group, that group may be compelled to pay for the total operations.^{1/} This traditionally has been the concept of special funds and a requirement that license buyers pay the total cost of wildlife conservation would seem consistent with that tradition.

Departing from this concept could establish a precedent whereby other special funds similarly could request General Fund support for collective

^{1/}William J. Shultz and C. Lowell Harriss, American Public Finance (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1965), Pages 165, 166. In this discussion of taxation, however, the authors first point out that taxation preceded any established principles of fiscal "justice".

benefits. For example, the California Highway Patrol is supported entirely from revenues received from motor vehicle fees. Yet, this Department does perform activities which benefit the general public, i.e., assistance to local law enforcement agencies in such criminal violations as drugs, burglaries, homicides, etc. We see little distinction between the Department of Fish and Game request for General Funds and a potential request from the California Highway Patrol.

This is not to suggest, however, that General Funds should not be provided when new responsibilities are added which represent a substantial, distinct, and identifiable diversion from the normal operations of a special fund agency. Such new responsibilities for the Department of Fish and Game are those that require research and development of threatened, rare and endangered species, and if policy statements are also considered mandates, then similar research and development of nongame species also could be considered as items justifying General Fund support.

Expenditures for research and development for nongame species during fiscal year 1974-75 were \$406,921, or approximately one-third of the Department's expenditures for nongame. The balance of the reported expenditures is due to a benefiting specie criteria, which represents the collective or nonlicense buyer benefits. The problems involved with providing General Funds for this portion are: (1) as stated, it represents a divergence from the concept of special funds, (2) there are inconsistencies in allocating game/nongame expenditures due to the subjective distinguishment between game and nongame activities and, (3) the process does not lend itself to program budgeting which would include identification of needs, objectives and accomplishments in meeting stated objectives. It would be difficult, if not impossible, for the Department of Finance and the Legislature to determine the proper level of General Fund support.

It is important to note that should \$2.5 million be appropriated to the Department from the General and Environmental Protection Program Funds, the fiscal problems will be alleviated for only the budget year. Assuming that the Department receives \$2.5 million annually, plus an additional amount for inflation, a deficit of \$10.5 million still will occur over the next five years. This is displayed in Table 2.

TABLE 2
FUNDING DEFICIENCIES WITH ANNUAL
GENERAL FUND/E.P.P. FUND SUPPORT

	1976-77	1977-78	1978-79	1979-80	1980-81
Beginning Surplus General Fund/E.P.P. Fund	\$ 4,297,464	\$ 3,267,543	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
Revenues	2,500,000	2,637,500	2,769,375	2,907,843	3,053,235
Total Resources	27,669,810	28,735,099	29,508,143	30,275,003	31,035,509
Total Expenditures	\$34,467,274	\$34,640,142	\$35,277,518	\$36,162,846	\$37,088,744
Ending Balance	-31,199,731	-32,915,715	-34,561,500	-36,229,574	-38,104,052
Deficiency to Maintain \$3 million Surplus	\$ 3,267,543	\$ 1,724,427	\$ 716,018	\$ -106,728	\$ -1,015,308
	--	\$ 1,275,573	\$ 2,283,982	\$ 3,106,728	\$ 4,015,308

Increase Fishing and Hunting Licenses, Fees, Tags, Etc.

This alternative has been relied upon three times since 1970-71, although not every fee was raised. The Department states that fees are currently at the maximum level and that any subsequent increases may result in loss of revenue. As pointed out in Chapter III, fee increases traditionally have resulted in a decline in licenses purchased, although this decline extends for only two years. Apparently part of the revenue problem is due to annual, but insufficient increases. That is, fees are raised an insufficient amount, but nevertheless to a level which results in a decline in sales. Subsequently, an increase is necessitated the following year.

Table 3 displays the level of individual fees needed to meet annual expenditures if new sources of funding are not authorized. However, it should

be noted that this level does not reflect the resulting decline in purchases when fees are increased. Thus the amounts for each fee should be adjusted to a somewhat higher level to compensate for this decrease in sales.

The fee levels displayed in Table 3 assume a full year at those levels, and since fee increases become effective in January, it is not currently possible to generate sufficient revenues for the 1976-77 fiscal year at the levels shown. However, the chart does serve to display the relatively minor annual adjustment to individual fees needed to generate the required resources.

TABLE 3
FEE SCHEDULE REQUIRED IF ALTERNATE SOURCES OF
FUNDING ARE NOT AUTHORIZED

	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>	<u>1979-80</u>	<u>1980-81</u>
Fishing License (\$4)	4.34	4.62	4.72	4.83	4.94
Fishing Stamps:					
Inland (\$2)	2.21	2.37	2.43	2.49	2.55
Trout (\$3)	3.21	3.37	3.43	3.49	3.55
Hunting License (\$10) . . .	10.86	11.63	11.99	12.41	12.84
Deer Tags (\$3)	3.30	3.60	3.78	4.00	4.29
Commercial Licenses (\$35) .	36.61	38.00	38.60	39.28	39.97
Boat Registration (\$100) . .	109.71	117.77	121.00	124.55	128.08

Table 4 reveals approximate fee levels if the proposal to utilize the General and Environmental Protection Program Funds is adopted. As noted, fee increases are not required to continue program levels in 1976-77. If, however, the level of General and EPP Funds does not increase in 1977-78, the Department must propose fee increases to be effective in January 1977. Should increases not be adopted at that time, a much more substantial increase would be necessitated the following January to compensate for half-year implementation. The larger increase also might generate a more substantial decrease in sales.

TABLE 4

**FEE SCHEDULE IF PROPOSED LEVEL OF ALTERNATE FUNDS
IS AUTHORIZED AND MAINTAINED^{a/}**

	<u>1976-77^{b/}</u>	<u>1977-78</u>	<u>1978-79</u>	<u>1979-80</u>	<u>1980-81</u>
Fishing License	4	4.19	4.32	4.43	4.53
Fishing Stamps:					
Inland	2	2.11	2.20	2.25	2.31
Trout	3	3.11	3.20	3.25	3.31
Hunting License	10	10.50	10.90	11.24	11.61
Deer Tags	3	3.17	3.33	3.48	3.68
Commercial Licenses . . .	35	35.91	36.63	37.20	37.82
Boat Registration	100	105.42	109.48	112.61	115.95

^{a/}\$2,500,000 in 1976-77 and thereafter, including inflation factor.

^{b/}With the proposed level of funding, no fee adjustment is required and the amounts shown here reflect current levels.

It would appear that even with the current proposal to use alternate sources of funding for fiscal year 1976-77, the Department of Fish and Game and the Department of Finance should at this time be determining the level of funding for fiscal year 1977-78 to prevent a recurrence of the present situation.

As a possible remedy to the fiscal problem, and due to the relatively minor adjustments that have to be made annually to the fees, the Department should evaluate the feasibility of indexing fee levels to inflation. It may be that small annual adjustments would not have the effect of reducing sales. However, we have assumed that programs will be maintained, not enhanced, and that current fees are supporting the programs for which individual fees are assessed. We have not evaluated the validity of this latter assumption.

The Department states that a \$3 million beginning fund balance is necessary to alleviate cash flow problems which occur during the winter months. Therefore, if alternate sources of funds are not provided, the Department might be forced to reduce programs even with a fee increase effective January 1977.

New Sources of Funding

In examining the beneficiaries of nongame activities, we have identified groups which not only benefit to a greater degree than the general public, but also contribute to the problems of wildlife. These groups currently provide no financial support for the Department. More specifically, these beneficiaries are campers, hikers, bird-watchers, boaters, etc. As noted in Chapter IV, although not extracting from the environment, these groups do pose problems for the wildlife of the State through noise and waste pollution of the land and water. These factors have been identified as contributing to the decline of various species.

The Department should define the costs associated with such recreational use and devise a means by which these users can support their fair share of the department's activities.

Program Reduction

Although discussed here as an alternative, it appears that the Department would have no other recourse but to reduce programs if alternate sources of funding in the amount of approximately \$2.2 million are not authorized. As stated, the alternative of increasing fees is not viable due to the January effective date for such increases.

The Department has stated that any further increase in fees may result in a loss of revenue. If true, this implies that fishers, hunters, and commercial interests view any further increase in fees as a cost which would exceed their benefits from the activities of the Department. Assuming that this does represent the attitude of these interests, it would appear that program reductions would be proper, for it would reflect the level of activity that benefiting interests are willing to support. Thus hatchery production of trout might decrease if fishermen are unwilling to provide for current production levels.

The determination of the effects of program reductions on the wildlife resources of the State was beyond the scope of this study. Therefore we cannot assume that such reductions would reduce benefits to the fishermen, hunters, and commercial interests without corresponding or even predominant damage to the ecological balance. Any proposed reductions should be closely examined for effects of this nature.

CHAPTER VI

SUMMARY OF FINDINGS AND CONCLUSIONS

This study was conducted to evaluate the merits or demerits of providing General Funds for nongame activities of the Department of Fish and Game. Summarized below are the findings of the study.

Chapter I examined the historical activities and responsibilities of the Department, noting that the Department of Fish and Game always has had involvement in both game and nongame research, regulation and development.

Chapter II analyzed the requirements, expenditures and funding of nongame activities.

Nongame Requirements

Most of the recent (1968-1974/75) legislation in nongame adds responsibilities to the Department in the area of threatened, rare, or endangered species. Other legislative acts have served to declare state policy, without specifically authorizing additional regulatory powers or placing new responsibilities upon the Department. In some cases earlier law has been expanded and has continued authorizations to generate revenue through a fee system.

Nongame Expenditures

It is difficult to determine if nongame expenditures have increased due to the fact that the Department did not account for such expenditures until fiscal year 1969-70.

However, such expenditures did increase dramatically in fiscal year 1974-75, although for previous years they remained relatively stable, expanding from \$349,581 (1969-70) to \$494,732 (1973-74). Expenditures in fiscal year 1974-75 increased to \$1,426,026. The reasons for such an increase are difficult to identify, but the following is known:

1. Changes in the cost accumulation system were made during this year which account for \$360,224 of the increase. This represents not an increase in activity, but a change of costing codes.
2. The Department headquarters began stressing the importance of distinguishing between the type of species (game or nongame) that benefit from activities.

The methodology of charging nongame costs was examined and it was found that the Department allocates expenditures between game and nongame depending upon this benefiting specie criteria. This is accomplished through the "best information available" to the personnel and includes individual experience and "relative population" of species in the area. We found that such an allocation process is questionable since:

1. There are inconsistencies in the manner by which personnel allocate costs.
2. Nongame population counts are based upon less sophisticated estimates than game, thus introducing error into the allocation.
3. Many, if not most, of the activities of the Department are the result of conditions affecting "game" wildlife.
4. There are predominately more nongame species than game, and therefore nongame species could be determined to be the major beneficiaries.

There appears to be only a few instances where the nongame distinction definitely can be made. This would include research specifically related to nongame species as well as habitat acquisition and development for those rare and endangered species. In 1974-75 the expenditures for these purposes were \$406,921.

Nongame Funding

It appears that sufficient funds are available for the acquisition of nongame areas, although the Department has been absorbing the expenditures associated with support activities of nongame. The donation program established to provide support for these activities has not been successful.

Chapter III examined the Fish and Game Preservation Fund to determine the factors which have placed recurring financial problems on the Department and to determine the extent of the impending financial problem. It was found that:

1. Added responsibilities in the area of nongame have been placed upon the Department without provision for additional funding. As noted earlier, however, this is specifically in the area of threatened, rare or endangered species.
2. Between fiscal year 1969-70 and 1974-75, expenditures of the Department increased by \$11,912,079. Of this amount, only 9 percent or \$1,076,445 was attributable to nongame, while the remaining \$10,835,634, or 91 percent, was the result of increases in game expenditures.
3. The Department has received since 1947 more than \$62 million in WCB Capital Outlay projects--most of which has been expended for fishing and hunting purposes. Such monies have been provided from sources other than fishing and hunting licenses, taxes, fees, etc. This program is administered by the Wildlife Conservation Board, although maintenance of most projects is the responsibility of the Department of Fish and Game. Actual maintenance costs for these projects are unknown, but we estimate an annual current cost of \$2 million for projects already completed, with total annual costs of approximately \$3 million when all projects are completed. The maintenance of these projects is placing increased burden upon the license buyer.

4. The Department maintained the same fee levels for 13 years (1958/59-1970/71) and although fees have been repeatedly increased, the general fishing license is below the level that would be justified by inflation. This license should be 20 percent higher, or approximately \$1.75 more than is currently levied to compensate for inflation alone. This amount probably should be higher to compensate also for maintenance of capital outlay projects necessitated by the Wildlife Conservation Board's capital outlay program--most of which has been in the sport fishing area. It was found that inflation, rather than new or expanded programs, has been the major fiscal problem of the Department for the years 1973-74 through 1976-77. Our estimates indicate that over the next five years the Department will experience a \$24.5 million deficiency if programs are maintained at current levels, no fee increases authorized, and no alternate funding provided.

Chapter IV briefly examined the issues of needs and benefits of nongame activities. We have concluded that the benefits of nongame are primarily of an aesthetic nature, based more upon philosophical or ethical considerations than upon any scientific evidence.

We have, however, raised the question of the need for extensive nongame activities. Such a need may exist in the area of rare and endangered species, but given the recent concern over, and expenditures toward, the improvement of the environment generally, we question any further involvement in nongame beyond that in the rare and endangered species classification. Many of the factors which have contributed to the decline of species are being examined and attempts are being made to control them through other governmental programs. Although the objectives of such programs are not specifically to enhance the wildlife of the State, it may be assumed that if environmental quality is improved one of the principal beneficiaries will be the State's wildlife.

It is assumed that the general public does benefit from the perpetuation of all species, although as stated, such benefits are difficult to identify. However, it also may be argued that it is the fisherman, hunter, and recreationist who benefit more, since it is they who are actually going into the wildlands, and we assume that they have a greater than usual appreciation of, and interest in, the wildlife of the State.

Chapter V explored four alternatives to resolve the pending financial problem:

1. General Fund support.
2. Fee increases.
3. New sources of revenue.
4. Program reductions.

Although each of the above alternatives was examined separately, the most appropriate solution may be a combination of several of these. Due to the limited scope of this study and the problems identified in accounting for nongame costs, we offer no recommendation on the appropriate level of General Fund support for nongame activities. However, we have projected both revenues and expenditures and have concluded that the current financial situation will be a recurring and increasing problem.

During the course of this study, it was evident that the Department of Fish and Game's activities were becoming more a blend of conservation than recreation activities. With this in mind, it may be appropriate to view the Department from a somewhat different perspective, which is discussed in the next chapter.

CHAPTER VII

THE DEPARTMENT OF FISH AND GAME A NEW PERSPECTIVE

The recurring financial problems of the Department of Fish and Game suggest that an evaluation of the Department's objectives and of the benefits of its activities may be in order. It appears that the Department is currently oriented toward both recreational and conservation objectives. The attempt to accomplish both sets of objectives while funded from only one source, and without identification of beneficiaries or of the costs associated with providing such benefits, may result in detrimental effects to each.

This chapter will explore an alternative to the current objectives and financing of the Department of Fish and Game. However, prior to implementing the suggestions in this chapter, the Department should first develop reliable and valid cost centers as herein discussed.

Historically, we assume that the principal orientation of the Department has been to recreation, most specifically in the area of fishing and hunting. The reliance by the Department solely upon the Fish and Game Preservation Fund may have been a proper one, assuming this primary objective. Secondary activities and collective benefits may have been minimal, and such a natural component of game activities to render alternate sources of funding unnecessary. Such alternate funding sources perhaps were deemed unnecessary due to increasing revenues and a growing economy which placed little emphasis upon environmental issues.

However, much has changed since the establishment of the Board of Fish Commissioners in 1870 and the subsequent financing of that agency through fishing, hunting and commercial fees. The substantial increase in population

has intensified the use of the State's natural resources, while diminishing both the quantity and quality of those resources. The result has been an increased public awareness of, and interest in, environmental matters, and the use and abuse of public resources for which no compensation is received.

Because of these circumstances, perhaps the Department should be viewed from a different perspective, i.e., as having the role of preserving the ecological balance at some defined level (or at its present level). Attendant to this role would be the payments from those causing any disruptions to the balance. To enhance this objective, the Department might be totally funded from the State General Fund, with fishing, hunting, commercial fees and other use and extractor fees recorded as revenue to the General Fund.

We envision that such a change in orientation and funding would involve the following:

1. A determination of the proper level of all wildlife, i.e., the desired ecological balance to be maintained.
2. The identification of factors which disrupt this level.
3. The development of "cost centers"--cost assessment of departmental activities which are directly associated with the disruptive factors.
4. A reassessment of current fee levels to reflect: (a) an amount necessary to recover direct costs incurred by the Department to replenish species diminished by certain disruptive factors, and (b) an amount which might be assessed as a privilege fee for such activities as fishing and hunting.
5. The identification of, and fee assessment on, beneficiaries of departmental activities which are not currently providing financial support.

The identification of disruptive factors involves two aspects which should be analyzed: (1) tangible disruptions such as fishing, hunting, encroachment, etc., and (2) intangible disruptions such as hiking, camping, boating, etc. In both areas the Department may be able to equate certain

expenditures to many of these specific disruptions. The direct costs then could be assessed against those in the public area responsible for such disruption.

For example, sport fishing may be depleting the natural level of a variety of species. The annual cost of replenishing these species through hatchery production and related management activities could be borne by fishermen. Currently, we have been unable to determine if the fees now levied are adequate to recover the direct costs associated with sport fishing activities. This is also true with respect to hunting and commercial fishing functions.^{1/}

All of the Department's expenditures may not be directly allocated to the users. That amount which cannot be assessed directly may be construed as that required for environmental maintenance, a general public benefit and properly funded from either the State's General Fund or the Environmental Protection Fund.

The process described above has the advantage of equating direct costs to direct beneficiaries. It would allow the Department to reduce activities selectively when the beneficiary is unwilling to provide sufficient revenue to maintain existing activities. This should be accomplished without detrimental effects to the environment which benefit the general public.

It should be noted also that the concept of providing total General Fund support enhances the conservation objective by removing the direct link between support and operations. At least in theory, the present funding process

^{1/}Deer hunting poses a more difficult problem, but a problem which may eventually encompass a variety of species. Currently there is an annual reduction in the number of deer. There is also an annual reduction in the number of deer hunters. It may be that deer hunting is essential to maintain deer herds due to inadequate food source levels during the winter months. Consequently, the hunting fee for this specie perhaps should be reduced, or conceivably eliminated and replaced by a lottery system. Such decisions would have to be carefully evaluated by the Department. The problem, however, should be analyzed in terms of preserving the level and quality of wildlife rather than enhancing recreational activities.

may have the effect of placing the Department in the position of allocating resources and establishing policies favorable to recreationists. Total General Fund support, with fees becoming revenue to the General Fund, would allow for a more equitable balance between conservation and recreation activities.

It should be noted that any new taxes may not be clearly related solely to the activities of the Department of Fish and Game. They may be equated only to the broader area of resource protection and development which encompasses a variety of agencies within the Resources Agency. For example, a fee assessed against outdoor recreation goods would be a revenue to the General Fund for support of activities in agencies such as the Departments of Conservation, Navigation and Ocean Development, Parks and Recreation, and Fish and Game. Any proposed fees also should include an analysis of existing fees which support those various departments with a view more toward matching fees to the actual benefits received.

Regardless, however, of the viability of any proposed new fees, the concepts discussed in this chapter may better serve the interests of the general public as well as specific users. It would allow for better analysis of state conservation needs, while also revealing direct costs which correctly should be borne by beneficiaries.