FINAL

PROGRAMMATIC IMPACT STATEMENT

ON

PUBLIC USE DEVELOPMENT ACTIVITIES

OF THE

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF FISH AND WILDLIFE

Required Under: State Environmental Quality Review Act of 1975 (SEQR)

Administered By: N.Y.S. Department of Environmental Conservation
Robert F. Flacke, Commissioner
50 Wolf Road
Albany, New York 12233

Telephone: 518-457-3446

Prepared By: Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233
Authors: Joseph Dell
Bruce Shupp
Wesley Stiles
Patrick Festa

Date: January 26, 1979

Contact: Herbert E. Doig, Director
Division of Fish and Wildlife
50 Wolf Road
Albany, New York 12233

Telephone: 518-457-5690

Availability of Documents and Exhibits Not Submitted with Statement:

Division of Fish and Wildlife
50 Wolf Road
Albany, New York 12233
Room 524

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SUMMARY

This document is a draft programmatic environmental impact statement to cover Public Use program activities of the Division of Fish and Wildlife, New York State Department of Environmental Conservation, including: 1) informing the public of fishing, trapping, hunting and other wildlife use opportunities 2) acquiring and developing facilities to provide or improve public access to fish and wildlife resources and 3) controlling and monitoring special permit and licensed uses of the state's fish and wildlife resources.

Specific activities involved are:

- providing signs to identify state owned and/or controlled access facilities and direct the public to these areas.
- preparing and distributing pamphlets and news releases publicizing resource use opportunities.
- purchasing public fishing right easements along streams.
- acquiring and developing boat fishing access sites on lakes, ponds and rivers.
- acquiring and developing hunter access and control facilities on state land.
- developing Fish and Wildlife Management Cooperative Area agreements with private landowners.
- issuing and controlling certain permits and licenses for specialized use of wildlife and fishery resources. Examples: Farm Fish Pond License and Certificate to import domestic game.
- conducting surveys of user density, preferences and distributions for planning future program needs and identifying areas of under-utilization or potential overharvest.

Environmental impacts associated with this program include:

Beneficial

- increase in opportunities for healthful outdoor recreational activities.
- more optimal allocation of resource use in relation to resource capacity
- increased diversity in types of hunting, fishing and other wildlife related recreational opportunities.
- reduced potential for trespass on private lands.
- increased public awareness of fish and wildlife resources and potentially increased public concern for habitat protection.
- reduction in habitat damage, litter and sanitary problems otherwise resulting from indiscriminate or uncontrolled access to public and private lands
- reduction of user pressure on individual fish and wildlife populations through a dispersion of access opportunities.
- reduction in the potential for overharvesting certain predator and game species by promoting use of presently underutilized species.
- increase in fish and wildlife populations eligible to receive the total management capabilities of the Division.

Adverse

- potential infringement on the privacy of landowners adjacent to public sites.
- potential conflicts among resident landowners and transient users over resource use and allotment.
- potential reduction in aesthetic qualities.
- potential increase in noise pollution and litter in areas where public access is provided to previously private lands.
- potential overharvest of certain fish and/or wildlife species resulting from increased use.
- vegetation will be removed, soil compacted and covered with gravel or pavement to provide parking areas and access roads.
- potential exists for increasing siltation in waterways adjacent to access sites or trails.
- shoreline disturbance in the form of dredging and/or vegetation removal is involved with the development of some boat access facilities.

The potential adverse impacts involved with this program are mitigated or avoided through careful planning and/or the employment of criteria designed to minimize both social and environmental impact.

A Notice of Completion of a Draft EIS on this program was published in the November 8, 1978 issue of the Environmental Notice Bulletin. Additionally, copies were mailed to organizations, agencies and individuals known to have interactions with or be interested in program activities. Public comments received and responses are included in appendices.

FOREWORD

This statement is one of a series of five that describe major Division of Fish and Wildlife programs containing actions which have potential for significant environmental impacts. It differs from most environmental impact statements in that it is generic and describes a major program rather than a specific project.

This statement was prepared in conformity with Environmental Conservation Law §8-0109 of Article 8, Rules and Regulations Parts 617, 618, and 618.14(s). of the State Environmental Quality Review Act (SEQR).

Activities of this Division, as discussed in these statements stem from Section 11-0303 of the Environmental Conservation Law (ECL). This section directs the Department to restore, maintain and improve the State's fish and wildlife resources, make these resources accessible for recreational purposes to the people of the State, and to provide for user safety and protect private premises from abuse of access privileges for hunting, fishing and trapping.

The Division's fish and wildlife management responsibilities span the entire state. Problems in meeting these responsibilities are complicated by an extremely wide range of ecological settings in which to exercise mandates. These vary from seacoast sand dunes to sub-alpine mountain tops, from intensely farmed lands to remote virgin forests, and including all forms of aquatic habitat from fresh to salt water. Topography varies from expansive flat lands through all intermediate gradients up to sheer cliffs. Temperature extremes are great and accumulated snows in some years exceed 6 feet in some areas. Reflecting this wide range in habitats flora and fauna species likewise are very diverse. These ecological settings are affected further by a wide range of human population density or use pressures.

This span of conditions and settings requires a very wide variety of options open to the manager and administrator in meeting similar goals in different habitats. Statewide these options are so numerous as to preclude any attempt to prepare individual statements for each option in each situation to describe existing programs. Rather, the requirements and spirit of the State Environmental Quality Review Act are best met for Division of Fish and Wildlife programs in programmatic statements wherein groups of varied but related actions and impacts are discussed, supported by their common background of need, justification, procedures and techniques. Further programmatic statements will serve as standard background references for future project impact statements and impact assessments, thereby eliminating need for frequent repetitions of generic program backgrounds.

This statement describes activities within a major program, and contains relevant and material information and facts that led to development of the program. As such this statement will serve as the environmental impact statement for all future program activities that do not involve significant departures from established and accepted practices. Should an established and accepted activity have significant site specific impacts, however, (for example: an effect on a critical area or an endangered species) an Environmental Assessment Form (EAS) will be prepared and evaluation made as to whether or not a supplemental impact statement would be required.

Determinations of significance will be based on criteria existing in Part 618, with particular reference to those on Type II actions or classes of actions.

> "Class 4. Minor alterations in the condition of land, water vegetation, and/or fish and wildlife resources"...
>
> "...The following site specific and individual fish and wildlife activities shall be considered "minor" if they do not involve significant departures from established and accepted practices and if such actions are described in and are a part of general fish and wildlife management programs for which an EIS has been prepared: fish and wildlife habitat improvement, planting of native or naturalized fish and wildlife, harvesting of thinning of fish or wildlife surpluses, setting of hunting, trapping and fishing seasons, weeding of competing or parasitic species and species incompatible with man's interests, improvement or rehabilitation of fish or wildlife resources, fish barrier dams, small rock or log dams, fish passage structures, minor diking, cribbing, bank stabilization and stream deflectors and other structures or improvements designed solely for fishery management purposes which do not materially alter the natural character of the waterway, and other alterations which are relatively short-lived and where followed by prompt replacement of fish or wildlife resources with the intention of providing equivalent or greater values."
>
> "Class 5. Information collection consisting of basic data gathering for possible future actions of the Department, short range planning activities, research, experimental management and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource and which are not preliminary steps leading to a given action or project already identified....this expiration shall not apply solely because of an information gathering aspect of a particular action. This class includes:...the sampling of fish and wildlife populations by netting, trapping and other acceptable scientific means; and inventory surveys conducted by Department personnel in the field for game management, fish management, forestry, fire control, environmental protection, etc.

An environmental assessment form or impact statement will be prepared for all new programs, or new elements to existing programs, which may have significant impacts.

Public notice will be given of any future impact statements, negative declarations or supplements to this programmatic statement.

The Department of Environmental Conservation is unique among agencies in that its legal mandates under Section 11-0303 of ECL direct it to impact upon the environment in the course of managing fish and wildlife resources for the benefit of the people in the State. Consequently most of the Division's activities have some degree of impact, either beneficial or adverse. As "stewards of the environment" of long standing, Division representatives have had to weigh

environmental consequences of inter-related program elements as they were being initiated, prior to but in the spirit of SEQR. Program elements often are not easily understood except in the context, and with the background knowledge of the program overview. For these reasons also the programmatic statements best serve the needs of the public for SEQR.

I. Description of Program and Setting

A. Definition of the Program

The Public Use Program of the Division of Fish and Wildlife entails all those Division activities which serve to maintain or increase public access to fish and wildlife resources of the State and which provide information to the public on how these resources can be best utilized.

B. Goals of the Program

As listed in the Fish and Wildlife Program Plan, the goals of the Public Use Program are to:

--provide optimum access for public use of fish and wildlife resources;

--protect fish and wildlife resources and access to those resources from adverse effects of resource users; and

--provide the greatest possible diversity of compatible fish and wildlife use opportunity.

C. Authority

Articles 11 and 13 of the Environmental Conservation Law direct the Department of Environmental Conservation in management of the fish and wildlife resources of the state.

1. Mandates

General purposes and policies governing the manner in which powers are to be exercised are expressed in Title 3, Section 11-0303. Although other Sections clarify roles and recent additions have dramatically accelerated and enhanced implementation, especially as regards environmental protection aspects, this Section basically describes overall responsibilities of the Division of Fish and Wildlife. Key portions are quoted as follows:

"1. ..., the general purpose..., is to vest in the Department, to the extent of the powers so granted, the efficient management of the fish and wildlife resources of the state. ... Such management shall be deemed to include both the maintenance and improvement of such resources as natural resources and the development and administration of measures for making them accessible to the people of the state."

"2. ..., to develop and carry out the programs and procedures which will in its judgement (a) promote natural propagation and maintenance of desirable species in ecological balance, and (b) lead to the observance of sound management practices for such propagation and maintenance on lands and waters of the state, whether owned by the state or by a public corporation of the state or held in private ownership, having regard to (1) ecological

factors, including the need for restoration and improvement of natural resources; (2) the compatibility of production and harvesting of fish and wildlife crops with other necessary or desirable land uses; (3) the importance of fish and wildlife resources for recreational purposes; (4) requirements for public safety; and (5) the need for adequate protection of private premises and of the persons and property of occupants thereof against abuse of privileges of access to such premises for hunting, fishing or trapping."

More recent environmental protection laws, both State and Federal have reinforced these mandates.

Primary among laws aimed at environmental protection and requiring Division of Fish and Wildlife actions are:

State - Stream Protection Act - Article 15, Title 5 of Environmental Conservation Law (ECL)

- Tidal Wetlands Act - (Article 23 - ECL)
- State Environmental Quality Review Act - (Article 8 - ECL)
- Freshwater Wetlands Act - (Article 24 - ECL)
- Siting of Major Utility Transmission Facilities (Article VII Public Service Law)
- Siting of Major Steam Electric Generating Facilities (Article VIII - Public Service Law)

Federal - U.S. Fish and Wildlife Coordination Act

- National Environmental Policy Act (NEPA)
- U.S. Water Pollution Control Act Amendments (FWPC-PL-92-500)

- Endangered Species Act of 1973 (PL 93-205)

2. Goals and Objectives

The Division of Fish and Wildlife annually publishes a Fish and Wildlife Program Plan to update the programs designed to carry out the above mentioned mandated responsibilities for the efficient management of the fish and wildlife resources of the state. Established goals reflective of these laws are to:

--perpetuate fish and wildlife as part of the various ecosystems of the State;

--provide maximum beneficial utilization and opportunity for enjoyment of fish and wildlife resources; and

--manage these resources so that their numbers and occurrences are compatible with the public interest.

Research and management programs designed to accomplish these goals fall in the general areas of environmental protection, environmental management, species management, public use and extension services. These programs are developed and coordinated by three Bureaus - Fisheries, Wildlife and Environmental Protection; with support services provided by the Program Administration and Planning and Extension Units assigned to the Division office. Other support services are provided by Department units such as Divisions of Legal Services, Finance and Personnel. Implementation is basically accomplished through the Department's nine regional offices.

Goals are also described in the Program Plan for each of the major program areas.

D. The Environmental Setting and Background

1. Location

The environmental setting for the program is the entire land and freshwater area of the state, with exceptions or emphasis as indicated in individual statements. There are more than 70,000 miles of streams and 3.4 million acres of natural and man-made lakes, ponds and reservoirs in the state; they drain 49,459.7 square miles of land area. Fish and/or wildlife occur within, on or over all parts of these aquatic and terrestrial habitats. Human activities relating to fish and wildlife likewise affect all parts of their environment.

2. Need for Fish and Wildlife Programs

The mandates described above required initially that programs be evolved to carry out legislative intent. The Division of Fish and Wildlife was delegated, and has retained, responsibility for formulating and carrying out those programs. Thus a need for programs to address the mandates was explicit in the law.

This programmatic statement, as well as the other four, describes programs subsequently developed and amended over the years as new knowledge was gained. It is important to recognize that individual programs or program elements do not function at the level deemed optimum by the Division. Financial or other constraints dictate otherwise. For example, if all top priority wetlands were purchased in one year, this one program would exhaust Division funds, with required elimination of all other programs. Although high-value wetland purchases are a high priority objective of the Division, and recognizing that every delay in purchase results in higher costs,

mono-operations of this type would cause a chaotic, unstable management situation. The alternative practiced, therefore, is a representative intermix of those program elements that need continuity, balanced annually according to priority demands, while addressing the mandates.

There are other compelling reasons for conducting the programs.

The existing and growing public demand for fish and wildlife for recreation and food is shown, in part, in the sales of hunting and fishing licenses, Table 1. Reduced total sales in 1971-72 and 1975-76 coincide with and are presumed caused by increases in license costs.

Another segment of the population uses fish and wildlife in a solely aesthetic sense, such as in bird watching, where possession is not a part of the experience. Since there are no licensing or registration requirements for this type activity, measuring its size is very difficult although it is known to be large.

A third classification of "user" of fish and wildlife is that group suffering damage from wildlife such as the orchardist suffering extensive deer, rabbit, robin or cardinal damage or the landowner whose woodlot, road or cornfield is flooded by an influx of beavers. Although a segment of this population reports depredation to the Division, especially those suffering severe commercial damages, a much larger proportion suffers silently smaller losses such as to shrubbery and gardens.

Each of the three groups has valid demands relating to their particular interest in fish and wildlife which they make known to the Division individually, as organizations or through their

1940 1976 -77

Year	Total Licenses	Combination Hunting and Fishing	Hunting[1]	Fishing[1]	Non-Resident 6 or 7 Day Fishing[3]	Non-Resident 3 Day Fishing	Big Game[1]	Trapping[4]	Archery	Nonresident Hunting Big Game Combination[2]
1940	776,187	254,134	159,334	196,090	-	-	158,226	8,403	-	-
1945	801,576	221,164	160,748	204,923	-	-	202,746	11,995	-	-
1950	1,273,085	231,101	219,315	458,673	-	-	348,131	14,729	1,136	-
1955	1,509,684	265,464	268,072	524,369	-	-	419,700	12,771	19,308	-
1959-60	1,456,634	204,576	280,450	511,391	11,736	-	418,953	9,152	20,376	-
1960-61	1,491,011	225,661	296,734	498,294	11,524	-	431,697	8,526	18,575	-
1961-62	1,477,883	211,344	290,132	504,837	11,488	-	437,213	7,877	14,992	-
1962-63	1,521,732	212,845	303,414	503,243	11,828	-	467,084	8,065	15,253	-
1963-64	1,521,118	206,917	291,843	507,393	11,250	-	480,369	8,835	14,511	-
1964-65	1,527,916	210,268	299,173	501,410	11,926	-	482,950	8,349	13,840	-
1965-66	1,582,963	213,931	306,534	519,451	12,978	-	502,992	8,650	18,497	-
1966-67	1,643,566	223,997	311,387	539,785	14,403	-	522,335	8,239	23,420	-
1967-68	1,737,961	232,318	314,576	590,676	15,064	-	545,207	6,764	33,356	-
1968-69	1,786,898	246,980	311,659	599,592	15,859	-	564,400	8,343	40,065	-
1969-70	1,819,323	252,860	309,992	585,276	15,686	-	599,683	9,533	46,293	-
1970-71	1,799,604	251,306	295,047	541,504	20,812	-	604,691	8,867	52,758	24,620
1971-72	1,690,662	223,581	287,910	551,152	20,573	-	529,280	9,050	51,781	17,355
1972-73	1,766,733	219,503	279,404	626,558	23,443	-	529,774	11,699	58,417	17,935
1973-74	1,945,447	242,925	315,264	637,154	24,144	-	635,716	15,399	74,845	
1974-75	2,069,931	247,045	326,166	677,431	26,568	-	682,212	16,800	93,709	
1975-76*	1,955,642	214,716	292,533	621,521	24,954	-	692,247	15,504	94,147[5]	
1976-77*	1,908,607	195,644	273,886	591,895	12,848	19,448	694,346	17,545	102,995[5]	

*Small game license not required of nonresident purchasing a big game license.

Note: 1940 to 1955 are on a calendar year basis; all other years are by license years ended September 30.

- Represents Zero.

1/ Includes free and non-resident licenses; excludes big game-hunting combination and 3, 6, or 7 day fishing licenses

2/ Not included in Big Game

3/ Non-resident fishing six day prior to 1973-74; seven days from 1973-74 to date.

4/ Non-resident trapping excluded.

5/ Includes Junior Archery

legislators, sometimes in the form of proposed legislation.

A great many people value fish and wildlife as a food source either from the economic saving standpoint or because each has its own distinctive taste. Most wildlife and fresh water fish species used as food are unattainable except by sport hunting and fishing. With few exceptions protected fish and wildlife cannot be sold. Species which can be sold usually are not obtainable in large numbers and consequently are high priced. The programs take into account public demand for fish and wildlife as food.

Because of the complexities of ecological systems, including the human interactions, there is a need for continuing basic and applied research as an essential forerunner to management. There are a vast number and diversity of species which make up an infinite number of systems, with each system in constant state of change. Man-made changes often introduce an unnatural element to further compound environmental problems. Although total understanding of ecological system function will probably never be achieved, continual study is necessary to establish, verify and update critical or meaningful pieces of the ecological puzzle needed for effective management. The inter-relationships between human and fish and wildlife welfare and the fruits of good versus bad management are so involved and extensive as to require continued study.

Historically, the Division has presented its proposals, programs, policies and activities to the public in a variety of ways such as: annual legislative hearings; special public hearings; annual and special meetings with the New York Conservation Council Inc.; meetings with public organizations (both sportsmen and non-sportsmen

groups); publications in the Conservationist magazine, New York Fish and Game Journal, New York State Environment Newsletter, annual Department reports, news releases, fishing, hunting and trapping guides and special brochures, booklets, leaflets and public notices. These extension efforts undoubtedly will continue, at the same rate, over and beyond SEQR requirements.

3. Historical Changes Relating to Programs

Following settlement of the State as a Dutch province in 1624 direct and side effects of the resultant human population explosion plus periods of over-exploitation of some plants and animals has encroached on, and in many cases, dramatically changed habitats and ecological relationships. Such changes accelerated rapidly as the human population increased. Changes affected the biological, physical and chemical characteristics of ecosystems. Vast areas have been covered with paving, buildings or some other hard surface hostile to almost all forms of life. Some species of plants and animals have been extirpated; and many exotic species have become established. Water bodies, soils and the air have been subjected to heavy loads of contaminants, products of construction, industry and farming. In effect, all habitats have been affected quantitatively and qualitatively in their capacity to support flora and fauna that did then or do now exist in the State.

Natural changes are taking place concurrently with changes brought about by man. Rates of death and birth, changes in weather patterns and other factors lead to shifts in dominance and interrelationships within and between ecosystem components. Flood, fire, wind and other catastrophic forces often bring about substantial and

acute changes in localized ecosystem structure.

There are numerous references documenting historical changes in the state's environmental characteristics. Smith (1954) describes changes as they influenced wildlife habitat. His major source of reference for early history was original field record books filed by land surveyors, some dating back to 1750. Included in his publication is a map and regional descriptions of the primeval forest, described by first European visitors as "an almost unbroken forest". Smith also summarizes periods of land classifications as derived from Federal and State censuses.

The historical accounts clearly show the dramatic change that has occurred to the physical environment. There are less obvious side effects to changing land use that may be of greater importance than those more visible; i.e. the warming of water temperatures by timber cutting in head-waters and along stream banks; scouring and sedimentation of streams and rivers by floating logs to mills; acid precipitation from smoke stacks, etc.

As history unfolded, recognition of some of the negative results being wrought led to the beginning of the wildlife conservation movement. Earliest actions were motivated by desire to maintain and manage game species for hunting purposes. This desire has remained a major motive but recognition soon came that these species are part of an intricate web of life and their welfare cannot be considered independent of the other organisms with which they coexist.

Legislation was passed and agencies established to regulate and manage. As described above, the Department of Environmental

Conservation evolved as the steward of the environment charged with major responsibilities for management of natural resources. Through delegation the Division of Fish and Wildlife historically has been charged with responsibility for management of Fish and Wildlife and shares ecological concerns for environmental protection.

While the Division has had the same responsibilities for monitoring and environmental protection it now has, legislation has only recently provided the necessary muscle for surveillance and control of environmental impacts on a universal scale in the state.

4. The Ecological System

Division programs are inseparably and intricately tied to ecological systems. Knowledge of how these systems function and the laws of nature are prerequisite to meeting Division goals.

Ecology is too broad a field to attempt an adequate summary of its complexities. One of the briefest more lucid explanations of ecology is provided by Storer (1953). Some of his most cogent comments are: ..."The most basic truth regarding our Earth home is that all living things, in some manner, are related to each other, ..." and, "...The subject of ecology is so vast and complex that no human mind has ever fathomed all its secrets. Many of them can probably never be unraveled, but the basic principles of ecology are known, and on the functioning of these known principles depends the future of all human lives."

Other pertinent references (texts) on ecology principles and functions include Allee (1951), Elton (1927), Leopold (1933), Odum (1953) and Woodbury (1953).

Although a thorough review of ecological function is not presented in these programmatic statements it is essential to recognize that the directors and executors of the program are trained biologist/ecologists.

5. The Fish and Wildlife Profession

An integral element of the setting for the program described herein is the biologist who contributes to the fish and wildlife management programs.

The profession is a combined art and science. As with physicians, foresters and others concerned with living organisms there is a basic background of scientifically based data and principles built through research and experience to govern decisions. There are, however, frequent gaps in knowledge which defy precise scientific description. It is in these areas where experience and training bring "art" to bear.

Although there are isolated, centuries-old historical examples of fish or wildlife management, its practice as a profession is recent. In the United States private organizations and governmental agencies concerned with conservation first came into being in the later 1800's. The need for protection of species such as salmon, bison and heath hen was by then so overwhelmingly evident as to require action. Although a few individuals even then were calling attention to habitat deterioration as a major cause of decline of some species most early effort went toward preserves, refuges, artificial rearing and stocking. Governmental organization was followed by recognition of the need for trained fish and wildlife management

specialists and by 1919 a College of Fisheries at Seattle was established as the first school teaching fisheries sciences. Its counterpart in wildlife sciences was established at the University of Wisconsin in 1933. Cooperative Wildlife Research Units were established at several additional universities in 1934. Cooperative Fisheries Units were added in 1960. Today hundreds of colleges and universities teach fish and wildlife-science related courses.

Research programs generated by universities and federal and state agencies were further stimulated by the Pittman-Robertson (1937) and Dingell-Johnson (1950) federal aid acts which annually provide excise tax funds specifically for fish and wildlife restoration projects. The current situation is one of well qualified, professional fish and wildlife biologists in decision-making positions for management of fish and wildlife resources. They have available to them a vast library of references built rapidly in the short history of the profession.

The history and evolution of the fish and wildlife management professions along with highlight accomplishments is summarized by Benson (1970) and Trefethan (1975) and is recommended reading for a better understanding of the programmatic statements.

Almost the entire professional staff of the Division of Fish and Wildlife consists of either fish or wildlife biologists or ecologists with a minimum bachelor's degree in biological sciences with special course work in fish and/or wildlife management. This professional staff plans, directs, conducts, reports on and evaluates the program described herein.

6. Sources of Funds

Sources of funds have a definite bearing on the types of activities engaged in by the Division of Fish and Wildlife.

The Conservation Fund, by law, must be used exclusively for fish and wildlife programs. It derives primarily from: (a) sale of hunting, fishing and trapping licenses and special permits; (b) fines and penalties for violation of the fish and wildlife law; (c) reimbursement from the federal aid fish and wildlife restoration programs; *and (d) all other income from fish and wildlife programs such as timber sales on wildlife managed areas.

The State General Funds consisting of State Purposes, Capital Construction and Local Assistance Funds also are made available to the Division to supplement certain programs. A portion of the funds derived from the 1960 and 1972 Environmental Quality Bond Acts have been made available for the acquisition of public fishing rights and fishing access sites under the Waterway Access category. A majority of the land rights acquisition phase of both stream and lake access activities will continue to be supported by these funds.

In 1977-78 about two-thirds ($15+ million) of the Division budget was from the Conservation Fund.

These taxes and new ones now being considered have historically received enthusiastic support from those who are being taxed - the hunters and fishermen.

7. Fish and Wildlife Values

The state's fishery and wildlife resources are publicly-owned and as such represent public wealth. Wealth is whatever anyone

*The federal aid programs (c above) likewise, by law, are earmarked for fish and wildlife programs. The programs are available to states that have passed laws governing wildlife conservation including a prohibition against diversion of license fees paid by hunters and fishermen.

values and is not to be confused with money, which is merely an agreed-upon means of exchanging and transferring some kinds of wealth. Public wealth is wealth that belongs to everyone. A public building is public wealth whose value can be measured in money at a given time. Moonlight is public wealth that cannot be bought, sold, given money value or for that matter, managed or preserved. Fishery and wildlife resources fall somewhere in-between. They can be managed, but it is a difficult and uncertain business to measure their worth on a monetary standard.

To manage public wealth means to preserve and where possible to increase its worth to the public. Management may be protective by preserving and protecting what is there, or developmental which involves attempting to increase the worth of the resource. In managing recreational and commercial fisheries and wildlife resources, we are responsible to the public as a whole. But we also have a particular responsibility to work in the interests of the consumptive users as long as these do not conflict with the general public interest which centers on the long-term maintenance and welfare of the resource.

Wealth has value if it can be used or reserved for future use. Sometimes use must be immediate, as with ice cream on a hot day, or the value is lost. Use may be non-consumptive, as with a work of art, scenic vista or bird watching, or consumptive as with food. Some forms of wealth retain their value if used consumptively at a limited rate. Fishery and wildlife resources, as renewable resources, fall in both categories. Maximum value of fisheries and wildlife resources is probably reached by blending the varied public use interests while following the guiding principles that the practice of good stewardship and wise use will assure enjoyment of these valuable resources for future generations.

Direct individual benefits and indirect collective benefits ensue from the maintenance and utilization of the fisheries and wildlife resources.

The most profound and rewarding benefits accrue to the individual. Through the nature, location or personal demands of the resource, mental and physical health is fostered. In contrast to the pressures and continuum of the technological and crowded environs of the majority of New Yorkers, the fisheries and wildlife resources and their environs offer diversity of pasttime and surroundings, the facilities for learning, relaxing, meditating and recreating the spirit; an emotional and mental outlet, and often, a remote-setting of needed silence and solitude. Healthful outdoor recreation and exercise, and personal challenge and skill are implicit to the degree that each person is capable. Observation or study of the fisheries and wildlife resources, whether in an urban or remote setting, impart a uniquely personal and aesthetic experience which transcends mere resource utilization. All of society benefits from the resulting mental and physical health of its citizens.

Fish or wildlife harvest through sportfishing, commercial fishing, hunting or trapping provides a diverse source of food and other products. This aspect of the resource is particularly important to the lower-income user.

Collectively, there are social benefits associated with the resource. Small groups of friends, clubs, special interest groups, local civic organizations and educational groups explore the resource and its peripheral subjects with the traditional approval of society toward the implications of birthright, preservation and the simple, quality life. Participation

carries no qualifications of age*, sex, social or financial status, intellectual or physical prowess. It is, in the best American tradition, an equalizer. It can be enjoyed for a lifetime.

Economic gain to merchants providing goods and services is a sound secondary benefit derived from sportfishing, hunting and trapping activities, and has profited the economy of many communities. Most commercial fishermen and trappers, of course, must count financial benefits as their primary objectives.

The resource use experience is reenforcing and self-perpetuating. Commercial fishermen, sportfishermen, hunters, trappers and naturalists alike, within their own activities, realize an appreciation for the resource and may opt to guard and improve it for continued use. The ultimate value of the fisheries and wildlife resources is that people want to use them.

Fish and wildlife are effective barometers of the quality of an ecosystem providing an early warning system for environmental degradation. The condition of a fishery, expecially, is the single best index of water quality and is so used, for suitability of water for many purposes. Resources, in indicating the quality of their inherent life also broadly comment on the quality of human life.

8. Program Description

On the basis of Division mandates and the trend toward reduced access opportunities for the public on privately owned lands, the Division of Fish and Wildlife embarked on programs of land acquisition and access development in the early 1920s with the purchase of property for Wildlife

*except for license requirements

Management Areas (WMA). The Division holds title to and administers fifty-six wildlife management areas totaling over 150,000 acres.

In 1935, legislation was passed making $100,000 available to the Conservation Department for the acquisition of public fishing rights. This program was the first of its kind in the United States and was described by Hopkins, 1940. New York voters approved Bond Acts in 1960 and 1972 which included additional funds for acquisition. To date, easements have been acquired on 325 streams totaling 1,016 miles. Monies for access development also originate from the "Conservation Fund" whose income is derived from the sale of hunting, fishing and trapping licenses and, in some instances, funding is available from general State revenues.

In 1957, the state legislature passed the Fish and Wildlife Management Act (F.W.M.A.), which authorized the Conservation Department to enter into cooperative agreement with landowners for the purpose of providing public access to private lands. To date, approximately 500,000 acres are included in this program.

In addition to acquiring and developing lands to provide public access to the state's fish and wildlife resources, the Division has been engaged in extension activities to inform the public of fishing, hunting and viewing opportunities. This work is aimed at achieving an optimum and well-distributed pattern of resource use.

Public use needs are being monitored and projected for the future by means of special surveys of current usage and evaluations of habitat, resource landowner opinions and access stations, capabilities and trends.

The Public Use Program is broken down into a number of sub-program activities which are discussed in detail below.

a. Use Opportunity: This sub-program can best be described as informing

the public of existing fishing, trapping, hunting and other fish, wildlife, land and water resource use opportunities. The activities include:

1) Providing signs to identify state owned and/or controlled access facilities.
2) Post boundaries of access areas, fishing rights sections and cooperative areas to help the public find and use these facilities and protect adjacent private properties from trespass.
3) Preparation and distribution of pamphlets and brochures giving directions to access areas, listing special regulations, and describing fishing, hunting and viewing opportunities available.
4) Preparation and distribution of media news releases to publicize how, where, when and why to use the resource and to inform the public of new regulations.
5) Promoting urban fishing and wildlife programs to develop interest in these resources by identifying use opportunities which are readily available to urban residents.

A major objective of this informational work is to direct users to underutilized areas and resources in order to spread use among available lands and waters and to optimize the use of species which are currently underexploited.

b. Public Access Development: Acquiring and developing public access facilities is an important, continuous function of the Division's Public Use Program. It includes not only acquiring and developing State facilities, but also working with private business, citizen groups, Federal and other State agencies to develop cooperative

public use and access agreements. A summary of the various phases of this sub-program follows:

1) Public Fishing Rights Easements: This activity involves the buying of perpetual easements along stream banks. Easement stipulations allow only for the use of the property by fishermen for fishing. Access to these easements is provided by the purchase of right-of-way paths from public roadways or from parking areas which are purchased fee title and designed to accommodate four to ten vehicles. Present level of effort results in the acquisition of approximately 12 additional miles of trout stream per year.

2) Fishing Access Sites: Fishing access sites provide anglers boat access to lakes and rivers and/or parking areas for ice fishermen during the winter season. They may be designed only for smaller car-top boats or have permanently paved ramps for launching trailer boats. Parking areas are provided for 10 to 50 vehicles and/or trailers. At present, the Division operates 74 developed sites and holds an additional 16 sites which have yet to be developed. Twenty-five sites have launching ramps with the remainder accommodating carry-on boats only. An additional two to four sites are being acquired each year. Sanitary facilities have been provided at 13 sites.

In 1968, some 58 developed and undeveloped sites on large waterways were administratively classified as "Boat Launching Sites" and jurisdiction over these sites transferred to the Division of Parks. These sites are intended to accommodate a wide range of recreational boating activities.

Fishing access sites provide access to waters in 30 counties for a total of 90,200 acres of lakes and 200 miles of rivers. The total parking facilities accommodate 1793 cars and 696 trailers.

Remaining access needs include 264 lake sites providing access to 90,185 acres and 660 miles of lake shoreline, and 133 river sites giving access to 1,203 river miles. In addition, 64 fishing piers on major lakes and rivers have been proposed for acquisition and development by 1995. Piers provide ready access for fishermen without boats and have a high potential for meeting recreational fishing needs in urban areas. These have been described in detail by Jackson (1975).

Current fishing access sites are illustrated in the 1977-78 New York Sportfishing Guide Map.

3) Hunting and Viewing Access and Control Facilities: There are several types of control and access facilities on Division lands administered for wildlife users.

   a. Permit station facilities serve to control public use by regulating total numbers of users and the time of day and week the area is used. These stations are employed where tight control of public use is deemed necessary to prevent over-concentrations of hunters or other users and potential problems with landowners.

   b. Gates and/or barriers are used to control access or to restrict the type of travel allowed. These are commonly used to guard against damage to roads and trails during adverse weather conditions.

c. Observation towers or platforms are built and maintained to allow viewing of wildlife concentrations while protecting against habitat destruction of environmentally sensitive areas and wildlife molestation. Towers are normally used at wetland units that harbor large numbers of migratory waterfowl and other birds.

d. Roads and trails are developed on Division administered lands following engineering and construction standards which include environmental safeguards adapted as Department policy (Anon. 1973). For example, roads are kept back from water courses at least 150 feet and all stream crossings are at right angles; brush and tops from trees removed are chipped and scattered on site. Maintenance of roads and trails is annual. Roadsides are mowed to prevent encroachment of brush and trees. Roads are graded and gravel added as needed.

When designing and constructing a road or trail network, every effort is made to avoid sensitive areas such as wetlands, streams, and sites where rare or endangered plants and animals live.

e. Parking areas and overlooks have been developed and maintained through the years on many Wildlife Management Areas. Parking areas are usually designed for ten cars or less and are often constructed at the terminus of a road. Larger parking facilities are constructed around permit stations and on certain W.M.A.'s where large-scale controlled hunts take place. Parking

areas and overlooks are not usually constructed on non-Division owned cooperatives. Temporary parking spots, which do not involve new construction are generally established on F.W.M.A. areas where public use may be seasonal and the landowner does not wish a permanent area established.

Maintenance on Department owned and managed parking and overlook spots is annual. This work includes trash pick-up, replacement of bumper poles and gravel and mowing.

4) Fish and Wildlife Management Cooperative Areas: In 1957 the New York State Legislature passed the Fish and Wildlife Management Act which authorized the Department of Environmental Conservation to enter into cooperative agreement with landowners for the purpose of providing public access to private land. Fifty-eight areas totaling about 500,000 acres are now included in the program. The number of individual landowners involved in each given area ranges from one to 65. Eighteen of these cooperative areas provide fishing as well as hunting opportunities. A total of 59,439 surface acres of water have been made available to the public through the cooperative program.

Cooperative agreements specify the type of public use the landowner will allow. The DEC posts the cooperators' boundaries, delineates restricted zones around occupied dwellings or other sensitive areas and manages public use by permit issuance, temporary access point development or both.

This program provides a tremendous amount of recreational opportunity for the public, while helping protect the rights of

private landowners.

c. Special Controlled Use of the Fish and Wildlife Resource: The Division of Fish and Wildlife issues permits and/or licenses to provide for specialized use of wildlife and fishery resources. Table 2 lists these special licenses and numbers issued in 1977-78. Readers are directed to the documents cited, including the Fish and Wildlife Law for further explanation of purposes and regulations.

The Division of Fish and Wildlife authorizes and conducts field trials under the authority granted by Environmental Conservation Law Section 11-0927. The Division conducts field trials on DEC administered areas as well as authorizing trialing on private property. No trialing is allowed from April 16 to August 15 on other than authorized dog training areas. Wild game may not be taken by shooting or otherwise killed in the course of a field trial.

Facilities for field trialing require annual development and maintenance. Development includes the establishment of field crops such as corn and buckwheat along trial courses. Maintenance includes annual mowing to reduce brush and encourage grass growth. Ponds and pond banks for the use of retriever dogs and their handlers are likewise annually maintained.

Prior to trialing on State W.M.A.'s public use facilities associated with the trials are sometimes provided. These may include: dog kennels, horse stables and parking access points for owners, handlers and spectators. In one case, at the Three Rivers Wildlife Management Area, field trial headquarters building is made available.

Table 2 - Special Controlled Use Permits and Licenses 1977-78

SPECIAL USE	SECTION IN LAW	NO. ISSUED
License to Collect, Possess and Sell for propagation, scientific or exhibition	11-0515	893
Farm Fish Pond License	11-1911	(Available from Regional offices)
Fishing Preserve License	11-1913	72
Taking and Sale of Bait Fish	11-1315	741
Commercial Net License	11-1503	1018
	11-1507	
	11-1509	
	11-1511	
Set Lines	11-1307	396
Permit to Possess Live Piranha	11-1703(b)	12
License to Possess and Sell Live Game	11-0515.2	893
Certificate of Marsh Registration	11-1109	52
Certificate to Import Domestic Game	11-1715	5
License to Deal in Plumage (for Fly Fishing Purposes)	11-1731	14
Game Bird Breeder License	11-1901	1039
Game Animal (White tail deer) Breeder Licenses	11-1905	27
Shooting Preserve License	11-1903	520
Fur Breeder License	11-1907	14
Field Trial License	11-0927	60
Dog Training Area License	11-0925	52
License to Practice Taxidermy (for a fee)	11-1733	435

During 1977, fifty-seven licensed field trials were authorized and fifty-five dog training permits were issued.

d. User Surveys: User surveys, combined with quantitative fish and wildlife population estimates allow for a prediction of the resources use and harvest capacities.

Frequent monitoring of the many facets of use are essential background to proper control, regulation and management. A wide variety of methods and techniques are used to get needed data. They include: creel and bag checks; cooperator diary and mail questionnaire surveys; annual summaries of license sales; summaries of harvest success rates; surveys to determine area uses and users and annual flights to count wildlife (waterfowl), anglers and hunters. Some surveys are conducted annually to measure levels and trends, other sporadically to meet timely needs.

Two or more surveys often are combined to determine use over large areas and to develop background for annual program planning. Aerial surveys, for example, give counts of anglers distributed over a wide area. Concurrent creel censuses of more limited scope can then be related to the aerial counts in such terms as total take for the period, man days of effort, species taken, angler distribution and angler densities. Also, concurrent electrofishing surveys could be used to contribute answers such as numbers, sizes, species and spacial distribution of fishes available (or unavailable) to the anglers. Still other surveys could be used to establish the degree of posting relating to fishing and hunting opportunities and to evaluate existing and potential public use conditions.

License sales totals and patterns show trends in hunting, trapping and fishing activity and allow for projections of use demands and income.

Sportsmen questionnaires, along with other survey methods, allow for estimates of total use and harvest of New York's fish and wildlife resources. They also provide a valuable means of obtaining information on user satisfaction and references and opinions on DEC programs and adequacy of current management effects to meet resource and use needs.

In 1977, questionnaires were mailed to 25,000 licensed anglers and 57,000 licensed hunters and trappers.

e. Current and Projected Angler Use: A statewide measure of angler use in New York was conducted in 1973 (Brown, 1976). Projections indicated that 904,135 licensed anglers fished 16,081,000 days in 1973 and spent $207,058,000 in related expenditures or $12.88 per angler day. For every licensed angler there is presently an unknown number of unlicensed fishermen including persons under 16 years of age, residents in the armed forces and patients at various institutions. In 1970, approximately 20% of New York's population was composed of children 5 to 15 years of age.

Stroud (1977) projected that in 1975 there were 34.3 million freshwater habitual anglers (fished three or more times per year) over 12 years old who fished 638 million days across the U.S.

The USFWS (1972) estimated that the long-term annual rate of freshwater angler growth (1955-1970) of 3.18 percent has averaged twice the population growth. Using these projections, Stroud (1977) estimates

that by 1975 the number of habitual freshwater anglers in the U.S. will reach 47 million and they will fish 871 million angler days per year.

Beginning with the highest year of New York fishing license sales (1974-75) and projecting increases in the 951,044 licenses at the annual 3.18 percent growth rate, New York should have 1.3 million licensed anglers in 1985 and 1.8 million by 1995. Assuming they would fish at the same rate as anglers in the 1973 survey, 17.047 days annually per respondent (Brown, 1976), then angling demands from licensed anglers alone on the New York fishery resource would approach 22 million days in 1975 and 31 million in 1995.

These calculations suggest that not only will enlightened fishery technology be required to manage the State resources so that the doubling of use can be absorbed, but that a substantial increase in public access to the fishery resources must be provided.

The objectives of the Division of Fish and Wildlife (Jackson, 1975) to approximately double access to the surface acres of New York waters and to develop 64 new fishing piers on major waters appear to be logical and conservative estimates of future public access facility needs to meet this demand.

At present, public access per fishing license holder is guaranteed by state ownership at rates of: boat access to .09 lake acres, shoreline access to .06 lake acres, boat access to .0002 river miles and shoreline access to .0011 stream miles. To simply maintain existing inadequate levels of guaranteed opportunity an additional 80,000 acres and 160 miles of boat access will have to be provided by 1995.

Additional shoreline access to 964 miles of stream water will be required.

A comment should be included on fishing license sales since 1974-75. In the 1975-76 license year, the license fee was increased from $4.25 to $6.25. License fee increases have historically caused a temporary decline in license sales, and this was reflected in the 1975-76 totals. Restrictions on fishing in the Upper Hudson River, because of PCB contamination in 1975, and bans on total possession of some species and of certain sizes of other species in Lake Ontario in 1976, have further depressed fishing license sales in the 1976-77 license years (totals not complete). Should this trend continue, projections will be modified accordingly.

It is anticipated that, coupled with the historical recovery of license sales following a fee increase, license sales will again begin an upward trend at the same rate observed prior to 1975, inasmuch as the DEC has taken positive action toward abating further discharge of toxic substances and to clean up contaminants.

f. Current and Projected Hunter and Trapper Use: From 1956-57 through 1967-68, the Bureau of Wildlife conducted an annual small game take survey to provide a detailed and broad information base on small game species and hunter use. One major conclusion reached was that controlled harvest is generally not a limiting factor on small game species and seasons can be reasonably modified to accommodate user desires. For example, ruffed grouse seasons were lengthened when surveys showed that shorter season lengths were not limiting population levels from year to year.

Currently, annual harvest routinely is tallied for deer, bear, turkey, muskrat, beaver, otter, bobcat and fisher. Pheasant harvests have been tallied for the past two years. Harvest statistics and associated biological data provide a basis for determination of species numbers. These figures, in turn, help form the basis for subsequent management recommendations.

Waterfowl seasons are largely established by Federal authority, but states have some flexibility for season modification within the Federal framework. In 1975, recognizing that there was hunter dissatisfaction with existing waterfowl zones, the Division requested and obtained additional zoning for upstate New York. A survey of hunter satisfaction with the new zoning was conducted in 1976 and 1977 and will be continued for the two more years of the zoning experiment. Hunter satisfaction and take implications will be evaluated for future waterfowl zoning recommendations.

Big game populations can be regulated by hunter harvest, and control of annual hunting removal of antlerless deer is a major management tool. Human land-use is an important aspect of deer management and deer populations are deliberately controlled to prevent excessive damage to agriculture and forestry. Farmer acceptance of deer damage was used along with biological indices in determining appropriate deer population levels, which vary throughout the State, in the 1940s. In recognition of the fact that land use has changed and human attitudes may have changed since that time, a survey of farmer attitudes in the Lake Plain was conducted in 1975. Farmers were generally tolerant of deer damage to crops, and forty-six percent of those surveyed wanted

the deer herd to increase (Brown and Decker, 1975). Similar surveys are being conducted in the central and western portions of the State. Farmer attitudes will be an important input into controlled changes in deer population levels and public use.

Black bear populations in the Catskills declined in the 1960s, prompting an investigation and subsequent season closure to allow the population to return to former levels. A survey was initiated in 1976 and will continue through 1981 to determine the attitudes of seasonal users, residents and the general public toward this population level of black bears in the Catskills.

A 1972 study (Brown and Thompson 1976) to determine reasons for posting and hunter access indicated that 42 percent of rural acreage in the State was posted, particularly land close to metropolitan areas. Fifty-five percent of those who posted were motivated by negative experiences with hunters, snowmobilers, fishermen and other trespassers. Hunter access to both private and public lands was surveyed in 1976 (Brown et al. 1978). Hunters reported the following levels of participation: big game - 11 days per hunter; waterfowl - 10 days per hunter and small game - 17 days per hunter. Sixty percent of hunters preferred private property. Half encountered posting and other access problems; one third reported access problems caused by posting. The majority of hunters indicated that they would ask permission to hunt on posted property, indicating that posting does not necessarily limit access. The survey also indicated a large potential for increased hunter participation if more land were open to hunting. Increases in hunter days of 34 percent for big game, 60 percent for small game and 91 percent for

waterfowl were projected if more land were accessible.

Other recreational uses of wildlife besides hunting are considered in two surveys. A survey of wildlife interests, needs and attitudes of urban and suburban residents of the State (Brown and Dawson 1978) indicated that 73 percent of respondents participated one or more days per year in wildlife-related activities other than hunting. Forty-four percent of respondents stated that there was not enough wildlife in their neighborhood to provide sufficient observation. On the opposite side of the picture, only 20 percent of respondents had nuisance wildlife problems such as garden damage. Results of the survey will be used in planning urban wildlife programs.

A much broader range of wildlife use is being sampled in a wildlife values survey initiated in 1976 and not yet completed. Both economic and non-economic values of wildlife will be determined and utilized in planning non-game programs.

Wildlife management objectives are generally to maintain wildlife populations at carrying capacity under existing land use. Opportunities for habitat management are extremely limited because only 10% of New York State lands are publicly owned and approximately half of these are "forever wild" Forest Preserve Lands. Given these parameters, hunters can not look forward to any major increases in most game species, and in fact, increasing human development will usurp more wildlife habitat in the future, decreasing absolute game numbers. In spite of these projections for game abundance, the key to increased hunting may simply be increased hunting opportunity through access.

From 1970-71 through 1976-77 resident hunting license sales increased

for all but small game licenses. Trapping license sales and archery stamp sales essentially doubled, and big game license sales increased by 10 percent, while small game license sales decreased by 14 percent. The decrease in small game license sales may be a response to declining wild pheasant populations, since pheasants are one of the most popular small game species, and increases in license costs. In 1976-77, licenses issued totalled approximately 273,000 small game licenses, 195,000 combination hunting and fishing licenses, 694,000 big game licenses; 102,000 archery stamps and 17,500 trapping licenses. In 1977-78 a muzzle-loading season was instituted for big game and 1,547 muzzle-loading stamps were sold.

The results of the hunter access survey (Brown et al. 1978) tend to confirm that opportunity, rather than game abundance, is the important factor in increased hunting activity. Additional incentives besides current programs such as FWMA should be developed to increase hunter access to private lands. Specialized hunting opportunities such as archery and muzzle-loading seasons appear to have increasing appeal, and a framework of biological and sociological constraints on such seasons is being developed. Other potentials for increasing hunting activity are the new sportsmen's license, a combination big game, small game, and fishing license, better publicizing of areas where game is underharvested and the possible lowering of the minimum hunting age.

II. Environmental Impacts of Public Use Activities

Acquisition of land for access, development of facilities for public access, promotion of public use of the fish and wildlife resources and issuance of special licenses and permits have significant environmental impacts. Public benefits are accrued; potential for adverse impact exists and certain unavoidable negative impacts must be carefully weighed against benefits.

Mitigation of negative impacts is a major consideration of Division of Fish and Wildlife public use policies and is built into all use development programs.

This section examines the beneficial impacts, adverse impacts, mitigation of adverse impacts and discusses unavoidable impacts that remain when the public is provided use opportunities to the fish and wildlife resources. Except where indicated those impacts are of long-term nature.

A. Beneficial Impacts of Public Use Development

The beneficial impacts of DEC public use programs are divided among three broad areas: public benefits; benefits to the physical environment and benefits to the fish and wildlife resources.

1. Public Benefits: Continued expansion of public use facilities leads to optimum fulfillment of one of the mandates of the Division of Fish and Wildlife, thereby increasing healthful outdoor recreational opportunity.

   Public ownership of water access sites and access facility development increases the availability of the resource to the user and provides for safer, more convenient and more frequent use.

   Diversity of access facilities on many waters serves to allocate

use over more areas, increasing recreational enjoyment by reducing competition among users for limited access opportunities.

Public access facilities reduce the potential for trespass on private lands.

Resource use information directs the public to the diverse opportunities available, and explains where and how to best utilize these resources.

Access to many lands and waters, special licenses for farm ponds, fishing preserves, commercial fishing, set lines, bait fish sale, shooting preserves, and field trials provides for diversity of opportunity and enables public use of the fish and wildlife resource for both recreational and food supply purposes.

Estimates of current use of the fish and wildlife resource and polls of user needs and demands, facilitate planning and implementation of programs to meet future needs.

2. Benefits to the Physical Environment: Properly designed and maintained access facilities reduce shoreline, aquatic and adjacent upland damage caused by indiscriminate access. They can also reduce litter and sanitary problems.

   Regulation of use through specific access points control type of access and the impact that use will have on surrounding environment.

3. Benefits to the Resource: Expansion of public access facilities and the distribution of use opportunity information to potential users has definite benefits to the New York freshwater fish and wildlife resources. Diversity and dispersion of access facilities divides harvest among water and lands thereby reducing the pressure

on individual fish and wildlife populations.

Increased access opportunities result in increased public involvement with fish and wildlife and promote public interest in conserving habitat utilized by these resources.

Promoting angler use of "panfish", "rough fish", and certain game leads to better utilization of under exploited species. This reduces the potential for harvesting predator species and can reduce the number of certain fish forage species which have the capacity to overpopulate and depress survival and growth of predators.

A controlled commercial fishery provides for the management of species that are abundant and minimally utilized by sport anglers. This affects an efficient use of the total resource and aids in maintaining species and use diversity in larger waters. Included is the commercial sale of bait fish collected from under-utilized bait fish populations.

Licensing of scientific collectors for educational management and research purposes and the use of wildlife management areas as "outdoor classrooms" by an array of school groups, environmental groups, etc. in some cases increases the total data base on: fish and wildlife histories, toxicant levels and effects, species distribution, population dynamics, propagation techniques, species interaction, disease and parasite incidence and harvest impacts.

One of the most significant benefits in developing public access on previously private waters and lands is that the resource is then eligible to receive the total fish and wildlife management capabilities of the Division of Fish and Wildlife including: stocking,

habitat management, user data collection, specialized regulations, etc.

B. Adverse Impacts of Public Use Development

Potential adverse impacts emanating from public use program activities can also be categorized into the three broad areas of public, physical environment and resource concerns.

1. Potential Adverse Public Impacts: A major impact of providing new public access to previously private lands and waters is the sense of infringement of privacy among resident and adjacent landowners. In addition to the non-tangible loss of privacy, other real or imagined conflicts between transients and residents can develop including: spatial demands; sharing of the resources; fishing or hunting vs. other recreational demands; disagreement on major or "best" use of the water and lands; opinions of need for and/or method of aquatic vegetation control and water level manipulation.

Improperly designed and/or located access facilities can create safety problems, congestion and a public nuisance from visual and noise pollution.

Abuses of regulations concerning use of public facilities can create litter, sanitary and law enforcement problems leading to increased need for public services reflected in higher taxes, use fees or license costs.

Public access potentially could lead to overcrowding on a short-term or long-term basis and result in a loss of user enjoyment. Overcrowding could also lead to a reduction in real estate values of surrounding property. This is potentially more possible for property adjacent to public access facilities.

Public access facilities potentially could compete with local

commercial operations charging fees for access facilities and services.

Increased public access to more waters could facilitate public consumption of fish flesh contaminated by toxic substances.

Construction activities may result in short-term impacts including an increase in noise levels, dust levels and a temporarily significant reduction in aesthetic quality.

Issuances of special licenses for commercial fishing can also lead to social problems. Real or imagined conflicts exist between sport and commercial fishermen, the former claiming the latter are consuming an excessive share of the resource.

Issuance of special licenses for commercial and non-commercial game bird shooting preserves can lead to certain problems. With the longer open seasons allowed under such licenses, the potential exists in some cases, for the taking of wild game birds out-of-season, with the resultant potential for causing problems both to the resource and the public.

Increased availability of public hunting areas could lead to an increased number of hunting accidents.

Abuses of special netting licenses can occur whereby license holders take banned species, short fish, fish in restricted areas and fish out of season.

Likewise holders of scientific collector licenses could abuse the privilege of their license and use it indiscriminately, taking fish or wildlife for personal rather than scientific purposes.

2. Possible Adverse Impacts to the Physical Environment: The development of public access facilities such as boat access sites,

parking lots, road and trail networks, fishing piers and rights of way may change the character of the existing land, vegetation and, in some cases, the shoreline of the waterway. Trees and brush will be removed, low areas filled and soil compacted and covered with road paving materials, either temporary or permanent. Thus, the access facility alters a segment of the natural lands of New York State. An average fishing access site contains approximately 3.5 acres of developed area. Therefore, if all the 92 presently owned sites and 264 proposed sites (346 total) were fully developed, a total of 1,211 acres of land surface would be altered.

Construction operations for site clearing, paving, boat ramps, docks, roads, etc. may cause short and long-term shoreline disturbance, siltation and changes in bottom type in the immediate area adjacent to the site. In some cases, dredging is necessary to develop adequate depth for safe boat launching.

Posting and signing of public access areas may cause objectionable visual pollution, particularly in rural or forested areas.

Erosion of soils on unimproved trails and rights of way may develop from increases in use, as might bank erosion along streams and lakes which receive heavy use.

Runoff from paved areas may cause increased erosion of adjacent lands and subsequent siltation in the waters.

Gas and oil pollution may be increased where new public access significantly increases internal combustion engine use.

Increased water use can lead to more camping, picnicking and hiking on private and public islands and adjacent lands thereby increasing disturbance of vegetation, soils and additional litter and

sanitary concerns.

3. Possible Adverse Impacts to the Resource: Public access development on previously private waters and additional access locations on public waters potentially could lead to excessive fishing and hunting pressure resulting in short-term or long-term overharvest of target species.

Commercial catch of various target species and inadvertent catch of non-target species may result in short or long-term forage problems in the selected waters and the sale of wild-caught bait fish for use in state waters can result in the release of undesirable species into waters where they currently do not exist.

Critical habitat could be damaged or destroyed during construction of public access facilities.

Overharvest situations and loss of habitat that seriously depleted the resource would increase the need for management and require additional expenditures to maintain fishing and hunting quality.

An increase in noise levels can have a negative impact on wildlife, particularly during winter. At this time physiological requirements may include quietness. An example of a negative effect would be that of snowmobile traffic on wintering deer. Research has shown that the presence of loud noise near wintering deer may raise the heart rate, metabolic rate etc. (Severinghaus and Tullar 1975).

Road and parking area development can lead to increased soil compaction affecting burrowing life forms and eliminating vegetation.

C. Measures to Minimize, Mitigate or Eliminate Adverse Impacts

Present public access and access facilities development activities are framed by a number of legislative and administrative controls. These include:

1. Section 11-0303 of the Fish and Wildlife Law which mandates that provisions for the public to have access and utilize the fish and wildlife resource must be compatible with programs designed to protect, conserve and manage the total natural resources of the state. This requires careful evaluation of the potential impact of increased use and facility development on existing ecological systems.

2. Site Criteria for Public Access Developments - Jackson (1974) described the process of determining if a site is acceptable for development, criteria for determining spacing, size of access site and construction policies. Efforts are made to minimize erosion and siltation problems through proper site sloping, establishing vegetated buffer strips along unstable banks, seeding of perimeter areas and graveling or paving of heavily used parking areas. These stringent criteria are specifically designed to eliminate or minimize social and physical construction problems associated with access site development.

3. Section 11-2102 of the Fish and Wildlife Law gives DEC the authority to regulate the activities at fishing access facilities and public fishing rights areas. This includes authority to regulate the use of boats and motors at these sites. This provides the opportunity to negate both social and environmental problems which may arise subsequent to development.

4. DEC has an intensive, statewide toxic substances monitoring progra to identify waters where contaminant levels in fish flesh exceed actionable levels established by the U.S. Food and Drug Administration. Where excessive levels have been identified, public health warnings, fish possession bans, the ban of all fishing or a combination of these measures have been utilized to protect public health. In addition, literature containing information on how to properly prepare and cook fish to remove and minimize contaminants has been prepared by DEC.

5. Sections 11-1503 through 11-1511 of the Fish and Wildlife Law provide for strict regulatory control of commercial fishing. Included are regulations concerning gear types, gear sizes, species, size of fish and seasons. Commercial fishermen are required to report their catch annually to DEC. Fishery personnel and Environmental Conservation officers periodically monitor commercial operations. Fishery investigations by DEC and the United States Fish and Wildlife Service monitor the status of fish populations in Lakes Ontario, Erie and Champlain, and a program for the Hudson River is planned. This work allows for the adjustment of regulations in response to fish stock fluctuations.

6. Scientific collector permit applications are given careful review by Central office, regional fishery and wildlife management and sometimes law enforcement staffs. Reputation of applicants, relevance of the projected work and potential contribution of the project to fishery and wildlife science are major determinants in issuance decisions. Collectors are required to notify the regional law enforcement officer prior to making collections and to advise him of work

locations and techniques. Annual or more frequent reports of activities are required.

7. Section 11-1315, 11-1317 and Rules and Regulations 18.2 of the Fish and Wildlife Law provide for the licensing and control of the commercial and recreational collection of bait fish and aquatic insects. This allows for the protection of forage species where deemed necessary by fishery managers and provides for the monitoring of use levels. Section 11-1309-9 of the Fish and Wildlife Law gives DEC the authority to regulate or prohibit the use of fish as bait. This provides for controls over the introduction of undesirable species into waters where they currently do not exist. Presently, the use of fish as bait is totally prohibited in approximately 800 waters.
8. Permit stations and other user control facilities are used to limit the number of consumptive users on hunted lands to insure against overharvest of game species and exceptionally large concentrations of users which make for conflicts with landowners or between users.
9. New York State law requires all first-time hunters to pass a hunter-training course. This training program is directed at establishing a safer, more knowledgeable hunter population. The course curriculum includes sections on basic wildlife management principles and hunter ethics.
10. Proper site design, use control, facilities and maintenance schedules serve to minimize sanitary and litter problems.
11. Competition with private enterprise is minimized by proper site selection and negotiations with local public and government organizations during the decision-making process.

12. Planning and use of indicators provided by surveys, special studies and projections makes it possible to take advantage of private enterprise public use efforts, anticipate and prepare for land needs and minimize conflicts with private enterprise and landowners.

13. Section 11-1903, and Rules and Regulations 153.1 of the Fish and Wildlife Law provide for the licensing and control of commercial and non-commercial game bird shooting preserves. Applications are given careful review (as in #6 above) and complete records and annual reports of operations are required to insure compliance with rules and guard against conflict with wild bird populations.

D. Unavoidable Adverse Impacts

Although mitigation procedures greatly reduce adverse impacts there remain several areas which will continue to present problems and conflicts.

Some conflicts between users will continue regardless of mitigation procedures.

Until such time that the public is sufficiently educated and motivated to eliminate litter, this situation will undoubtedly present aesthetic problems where public access is permitted and encouraged. This is more directly associated with public attitudes in general than specifically with users of the fish and wildlife resources.

Another factor related to public attitudes is nuisance use of public facilities. Abrogation of regulations do occur and probably cannot be totally eliminated. Greater law enforcement efforts and sufficiently restrictive penalties by the judicial system can reduce this problem to a great extent.

Increased public use of unimproved trails and shorelines will lead to erosion problems.

Even though special use permits are issued under stringent regulations, some abuses of the regulations can be expected. While most of these infractions are not of sufficient magnitude to threaten a resource, they may continue to present social problems.

The collection sale and use of baitfish potentially may lead to the introduction of undesirable fish species even with the present stringent regulations. The total prohibition of the use of fish as bait is a possibility, but it is doubtful whether such a regulation

would be accepted by the present angling public.

Alteration of the physical habitat of access sites is inevitable if safe and adequate public access is to be provided.

A loss of flora and fauna will occur when roads, trails, buildings and parking areas are constructed. However, regulatory and administrative procedures governing site selection and development greatly reduce or eliminate the potential for environmental degradation and, often, reduce problems caused by indiscriminate access.

E. Irreversible and Irretrievable Commitments of Resources

Land areas utilized for access facility development will be permanently altered. With the exception of a few road networks on Wildlife Management Areas, this loss ranges in magnitude from an area of several hundred square feet to up to five acres. Construction activities may include clearing and stripping of vegetation, grading, placing six inches of gravel base and installation of guide rails, bumper rails, launch ramps, bulkhead, cribbing and sanitary facilities.

The gravel base, consisting of local gravel or crushed stone, may be stabilized by oil penetration treatment or black-top paving where heavy use is anticipated.

Access roads may be gravel or paved surfaces and include metal or concrete culverts.

Bumper rails, guide posts, bulkheads and cribbing are of wood construction, a renewable resource.

Sanitary facilities range from wooden, pit-privies at remote, low-use sites, to concrete block buildings with chemical, pump-out toilets or septic field and running water at high-use sites.

Boat launching ramps may be gravel, concrete or metal mats.

Oil for paving use is a non-renewable resource, but its use may ultimately save oil by reducing maintenance time and equipment use.

Cost for construction of Division of Fish and Wildlife Fishing Access sites range from $15,000 to $50,000 and emanate both from the general tax fund and the Conservation Fund. Maintenance costs are supported by the annual sale of fishing, hunting and trapping licenses and general revenues administered through DEC Division of Operations.

Maintenance includes inspections, facility rehabilitation, resurfacing and minor grading, painting, lawn and weed cutting, litter pickup and sanitary facility maintenance. Cost of annual maintenance ranges from one day's salary to $3,000 per facility. These costs represent funds and personnel time not available for other uses.

Use opportunity information, public education, user surveys, issuance of special licenses and program administration require professional, technical and clerical personnel input, office equipment and supplies, paper supplies and printing services. These expenditures represent personnel and material costs not available for other uses.

III. Alternatives to the Public Use Development Program

The only alternative to the development and promotion by the Division of the public use of the fisheries and wildlife resources is for the Division not to pursue these activities. The "no program" alternative would result in:

1. A failure of the Department to meet its legislative mandate to develop and administrate measures for making the fish and wildlife resources accessible to the people of the state.
2. A reduction in the recreational value of fishing and hunting as a result of increased competition for accessible resources. As population grows and rural areas become suburban, the opportunity for fishing and hunting on private or semi-private land will decrease at a continually faster rate effecting a proportionately increased demand on existing public access. This situation will lead to spacial confinement, a lack of diverse opportunity and, to protect the accessible fish and wildlife populations, an increase in regulation.

Subalternatives

Within the alternative to continue with a Public Use Development Program a number of subalternatives exist regarding methods and degrees of implementation. These subalternatives are discussed below:

A. Place a higher priority on public use development and expand acquisition, cooperative area and facility development efforts. This would be dependent on the willingness of the legislature to appropriate sufficient capital construction funds to facilitate development of access sites and also on the ability of other Division program areas of environmental protection, environmental management, species management and extension services to absorb the loss of input utilized for an expanded public use program.

B. Encourage and financially support local government to develop access facilities. This alternative appears desirable to DEC but would add financial burdens to local governments and jeopardize perpetuity of access unless legalized agreements accompanied State funding.

C. Division of Fish and Wildlife could acquire land and build facilities under agreements that all maintenance would be assumed by local government. Limitations are similar to B, but may be overcome if local governments would properly assess the value of access to the local economy and if appropriate contract conditions were instituted.

D. Encourage private enterprise to develop access facilities on private lands and waters. Annual staffing and maintenance costs may require fees so high that they become prohibitive. Commercial facilities would only be profitable on high intensity use waters. DEC would not

have control over use or authority to mitigate use conflicts. The public would have to pay for access to a public resource.

E. Develop State access sites and lease their operation and maintenance responsibility to private enterprise to operate on a profit basis by charging a fee. The same limitations of profit potential exist as for alternative D.

F. Encourage other State agencies, local governments and private enterprise to promote access and fishing opportunity. This is an action which is being implemented to a limited degree in the present program. Local governments and business are interested in "tourism", but are not adequately capitalizing on the capacity of the New York fishery resource to strengthen the tourist industry.

G. Alternatives to financing maintenance and construction costs of access facilities would be charging user fees, either by pay as you use programs, or by annual permits identifiable by car and/or boat stickers. Restricting use to licensed hunters/fishermen only is another way to insure users are contributing to maintenance costs.

Selection of Existing Program

The present program direction and level of effort has been dictated in part by budget constraints which prohibit an expanded program without serious reductions in other activities conducted by the Agency. The blend of Public use actions now employed allows for limited but continous progress in a variety of program areas. These actions provide diversity of opportunity in a framework which emphasizes the minimization and mitigation of unavoidable impacts.

IV. Growth Inducing Aspects of Public Use Development

Fishing, hunting, trapping and fish and wildlife viewing are big business - in the United States and in New York.

Brown (1976) estimated that the average daily expenditures of 904,185 New York licensed anglers in 1973 was $12.88 and this does not include any multiplier effect of these expenditures in the state economy - only direct expenditures. If a 6 percent annual inflation rate is applied to the 1973 daily expenditures, then they have reached $16.25 in 1977. Applying this daily rate to a projected (page 29) 1.8 million licensed anglers fishing 31 million days in 1995 yields an estimated annual expenditure of 504 million in 1977 equivalent dollars. Unlicensed anglers would expend an additional amount equal to perhaps 30 percent of this estimate.

In 1976, 1,144,880 hunting and trapping licenses (big game, small game, hunting-fishing combination and trapping) were sold in New York State. While enjoying the wildlife resources, all types of users are spending large sums of money on lodging, hunting and trapping equipment, binoculars, bird books, food and many other products. The development of public use facilities encourages public use, thus raising user expenditures.

However, unless the public is aware of public access facilities and the capability of the resource to provide enjoyable outdoor recreation, and unless access facilities are available, this projected level of growth will not occur. Although some of the projected expenditures will be transferred to other recreational pursuits if access is not available in New York, much of the use will go to other progressive states and Canadian provinces which

have the foresight and initiative to develop facilities and promote their resources.

Increased public use of these resources, through increased access and promotion, provides more subtle benefits, too. By increasing the number of New York residents who enjoy the fish and wildlife resources, we are, thereby, increasing their level of environmental awareness which will be critically needed as the struggle to improve environmental quality progresses through the twentieth century. It is becoming increasingly clear that new economic development in many urban areas is positively associated with environmental quality.

The license fees paid by these users and their subsequent support of increased legislative expenditures to support environmental activities will increase the Division of Fish and Wildlife's capability to effectively manage the resources according to their legislative mandates.

Today much of the State's fish and wildlife resource is located in remote areas that have a low economic base. Public use development in these areas will definitely benefit local economy directly and indirectly as transient users support local commercial establishments and add to the local tax base.

Hunting and fishing development activities are not expected to effect significantly secondary growth of industrial or housing facilities.

V. Effects of Public Use Development on Energy Resources

The use of energy for public use activities is not considered significant. Oil based and electric energy is expended driving to fishing and hunting locations and in the use of boats for fishing or reaching hunting lands. By developing and publicizing access and resource availability closer to population centers and at more frequent intervals on larger lakes and rivers, travel on land and water is reduced. Less travel time over water allows the use of smaller engines, since speed of travel is not vital to reach fishing sites within a reasonable time frame.

By increasing access sites on smaller waters and restricting use of motors, anglers are encouraged to use manually propelled craft suited for the small waters, without sacrificing angling opportunity.

Developing fishing piers in or adjacent to urban areas served by mass transit facilities will optimize mandays of fishing per energy unit expended.

A minimal amount of electricity is required to keep access sites functional.

Costs:

Construction and maintenance of access facilities consumes petroleum energy. The amounts expended to clear, construct and maintain these small sites which average less than five acres is probably negligible compared to the annually accrued transportation savings of the users.

Aerial user counts are conducted from light, fixed wing, single engine aircraft and are efficiently scheduled to include many count areas per flight and are often included in combination with other assignments

requiring aircraft use. These counts would be virtually impossible by other methods since they cover remote area waters and large lakes and rivers. Similarly, instantaneous counts would entail numerous land and water craft, far exceeding the fuel consumption of the one small aircraft.

Increases in resource use through promotion and access development may result in overall increased use of energy for fishing and hunting but it can be assumed that this increase will be diverted from other leisure time interests. By diversifying access availability and emphasizing sites within easy reach of urban centers, resource users will have the opportunity to continue their activities if energy problems become more acute.

Literature Cited

Allee, W.C. 1951. Principals of Animal Ecology. W.B. Sanders Company, Philadelphia

Anon. 1973. Unpaved Forest Handbook. Chapt. 700-Construction, NYS DEC, 50 Wolf Road, Albany (unpublished)

Benson, N.G. 1970. A Century of Fisheries in North America. Special Publication No. 7. American Fisheries Society, Washington, D.C.

Brown, T.L. 1976. The 1973 New York Statewide Angler Survey. Special Report, NYS DEC, 50 Wolf Road, Albany. 123 p. (unpublished report)

Brown, T.L. and D. J. Decker. 1975. Deriving Social Indices of Farmer Attitudes Toward Deer Management Levels. Final report of Jobs I-1 to I-3, Pittman-Robertson Project W-146-R. 102 p. mimeo.

Brown, T.L. and D.E. Thompson. 1976. Changes in Posting and Landowner Attitudes in New York State, 1963-1973. N.Y. Fish and Game Journal, (23):101-137.

Brown, T.L., D.J. Decker, C.P. Dawson and D.L. Hustin. 1978. Hunter Access to Lands on Which to Hunt in New York. Final report of Study II, Pittman-Robertson Project W-146-R. 176 p. mimeo.

Brown, T.L. and C.P. Dawson. 1978. Wildlife Interests, Needs and Attitudes of Urban and Suburban Residents of New York: The Statewide Study. Final report of Job III-2, Pittman-Robertson Project W-146-R. 119 p. mimeo.

Elton, C. 1927. Animal Ecology. MacMillan, New York, New York

Hopkins, A.S. 1940. "New York State's Public Fishing Program" Journal of Forestry, Vol. XXXVIII, No. 6. June 1940.

Jackson, B.J. 1974. Site Selection Criteria for Public Fishing Access Developments. NYS DEC, Bureau of Fisheries, 50 Wolf Road, Albany. 25 p. (unpublished report)

_____. 1975. Fishing Access Site Program Plan. Supplement 1: An Inventory of Fishing Access Needs. NYS DEC, Bureau of Fisheries, 156 p. (unpublished)

Leopold, A. 1933. Game Management. Scribners. New York, New York

Odum, E.P. 1953. Fundamentals of Ecology, W. B. Saunders Company, Philadelphia.

Severinghaus, C.W. and B.F. Tullar. 1975. Wintering Deer Versus Snowmobiles. NYS Conservationist, June-July, 1975.

Smith, R.H. 1954. A History and Definition of Game Ranges in NYS. Final Report. Project W-23-R, NYS DEC, 50 Wolf Road, Albany.

Storer, J.J. 1953. The Web of Life. The New American Library of World Literature, Inc. New York, New York

Stroud, R.H. 1977. Changing Challenges in Recreation Fishing, Bulletin 284. SFI 608 Sport Fishing Institute, 13th Street N.W., Washington, D.C.

Trefethan, J.B. 1975. An American Crusade for Wildlife, Winchester Press and Boone and Crockett Club., New York, New York

U.S.F.W.S. 1972. 1970 National Survey of Fishing and Hunting. Bureau of Sport-fishing and Wildlife. Resource Publication 95. 100 p.

Woodbury, A.M. 1953. Principles of General Ecology, Blakiston Company, Toronto

List of Documents Available* for Review

List of Fishing Access Sites Administered by the Division of Fish and Wildlife

1976-77 New York Resident Angler Survey

Scientific Collector's License Application

Application for Farm Fish Pond License

Application for Fishing Preserve License

Application for Bait License

List of Waters in Which the Use of Bait Fish is Prohibited

Commercial Inland Fisheries - Digest of Fish and Game Law and the Rules and Regulations Relating to Commercial Inland Fishing

Set Line Regulations

Application for Piranha Permit

Fishing - New York State 1978: A compendium of Sportfishing Rules and Regulations

Ice Fishing Regulations

Fishing Access Site Program Plan Supplement 1: An Inventory of Fishing Access Needs (Jackson 1975)

Site Selection Criteria for Public Fishing Access Developments (Jackson 1974)

New York State Fish and Wildlife Law

*At 50 Wolf Road, Albany, New York and DEC Regional Offices

Federal Laws Cited

Endangered Species Act (16 USC 1531-1543)

Federal Aid in Sport Fish Restoration Act (16 USC 777-777k)

Federal Aid in Wildlife Restoration Act (16 USC (16 USC 669-669i)

Fish and Wildlife Coordination Act (16 USC 661-666c)

National Environmental Policy Act (42 USC 4321-4335)

Water Pollution Control Act Amendments (33 USC 1251-1376)

friends of animals, inc. *11 West 60th Street, New York, N.Y. 10023 • (212) 247-8120*

TO: Peter A.A. Berle, Commissioner
N.Y.S. Department of Environmental Conservation

FROM: Alice Herrington, President-FoA

RE: Development Activities to Benefit Hunters
Programmatic Impact Statement

1. Our members, who number about 40,000 in New York State, object to these plans to donate the people's wildlife to the consumptive users, namely hunters and trappers, by developing access to public lands. The Supreme Court held in 1842 that wildlife is held in trust for all the people. The people do not agree that any person or group may claim ownership of an individual animal simply because he has rendered it dead. The only way for all the people to share all the animals is to permit nature's patterns to go forth uninterrupted by human mischief.

2. Wilderness is essential to the people's mental tranquillity and respect for nature. The very definition of wilderness excludes mankind.

3. The Division of Wildlife has proposed this public access plan because it operates entirely on behalf of the animal-consumptive crowd, does not work for the people as a whole, nor for the animals, nor for the ecology, despite the lip-service it pays the latter (coupled with the ridiculous "research" finding that non-consumptive users are pleased to visit cemeteries in order to look at chipmunks!) My verification of this strong indictment of the work plans of the Wildlife Division is to be found in the footnote on page 15: "The federal aid programs /c above/ likewise, by law, are earmarked for fish and wildlife programs, only with the further stipulation that recipients of the major benefits /90 percent/ should be those taxed for the funds, i.e. hunters and fishermen."

No such stipulation is to be found in the Federal Pittman-Robertson Act under which the excise tax on guns and ammunition is returned to the States for wildlife conservation. In practice, indeed these monies ($67 million last year)which, prior to 1937, were in the General Treasury, have been expended for the ecological havoc called "habitat manipulation" and the murderous processes called "wildlife management". We are currently challenging the misuses of these monies in the Federal Courts, for failure to have submitted Environmental Impact Statements prior to use of the monies. The overall effect of burning and razing the forests, manipulating other lands and permitting increased public access has been to place on the threatened and endangered list hundreds of species of "non-game" animals (i.e. those used only as target practice by the hunters) which require climax terrain for survival.

We request this public access plan be rejected and, further, that all those acting upon this matter be required to read the book, The Arrogance of Humanism. It's author, David Ehrenfeld, M.D., Ph.D., is Professor of Biology at Rutgers University.

AH:vl

President

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
Rm. 771, U. S. Courthouse & Federal Building, 100 So. Clinton St., Syracuse, N. Y. 13260

December 1, 1978

Mr. Herbert Doig, Director
Division of Fish & Wildlife
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, N. Y. 12233

Dear Herb:

Thank you for the opportunity to review the draft "Programmatic Impact Statement on Publis Use Development Activities of the Department of Environmental Conservation, Division of Fish and Wildlife".

We only have one comment concerning the draft. In the Adverse Impact Section, it is pointed out that potential exists for increasing siltation in waterways adjacent to access sites and trails. No mention is made, however, under "measures to minimize, mitigate or eliminate adverse impacts" of techniques that will be used to minimize erosion and siltation.

We feel the impact statement could be strengthened with a discussion of measures the Division will take to minimize erosion and siltation impacts. This can be accomplished through proper site design, seeding of exposed soil on light use areas, gravelling or using wood chips and heavy use of access sites and including soil and water control measures such as diversions and water bars on trails. An annual maintenance program will also be needed. These will minimize soil erosion and resulting sedimentation.

Sincerely yours,

Robert L. Hilliard
State Conservationist

Appendix B-1

Response to Letter from Friends of Animals, Inc.

The Friends of Animals, Inc. letter is mainly an expression of philosophy rather than being a referenced critique of the statement offered for review. Response comments to direct or inferential references to the statement are keyed to the numbered sections of Ms. Herrington's letter.

1. Contrary to claim, it is very clear that individuals or groups can claim ownership of animals after they are dead, as long as it is in conformity with provisions of the law. The law as quoted on page 4 of the statement provides for "production and harvest of fish and wildlife crops".

   In People vs Bootman, 180 N.Y. 1, the New York Court of Appeals stated:

   > "The game and fish within the boundaries of the state belong to the people in their unorganized capacity and may be taken by any citizen ... during the open season. ... Laws passed for this purpose do not interfere with private property, for there is no property in living wild animals and only as the law permits their capture is there property in wild animals after they are caught or killed. ... therefore, it is within the authority of the legislature to impose restriction and limitation upon the time and manner of taking fish and game, considered valuable as articles of food or merchandise. For this purpose fish and game laws are enacted. The power to enact such laws has long been exercised, and so beneficially for the public that it ought not now to be called into question".

2. The purpose of this comment can only be surmised to infer that the public use program is a challenge to wilderness. There is no threat in this program, as indicated by the small size and scope of component parts described

in the statement, to the establishment and maintenance of wilderness areas in the state.

3. The comment that the program "operates entirely on behalf of the animal-consumptive crowd" is refuted by documented records of the types of use of areas acquired under this program and by Division policy which provides for such diversified use.

A 1975-76 survey of users of the Partridge Run Wildlife Management area, an upland area, showed that approximately 63 percent of the use was by hunters and trappers. The other 37 percent accommodated participation in fishing, picnicking, camping, swimming, snowmobiling, cross country skiing, hiking, bird watching, trail biking, nature education, apple picking, ginger digging, riding through the area and examining old grave sites.

A two-year survey of users of the Howland Island Wildlife Management area, primarily a wetland area with surrounding uplands, showed that the ratio of users during the hunting season as compared to the period when hunting was not permitted was about one to three.

The criticism of the footnote on page 15 is valid in that no percentage figure is, per se, contained in the law. However the essence of that statement is correct. The footnote has been amended accordingly.

The comment alleging that hundreds of climax habitat non-game animals are on threatened or endangered lists, due to practices stated, is presumably aimed at linking the public use program with threats to animal species survival. This comment conveys some misinformation that needs clarification for the record.

There are 760 species of vertebrate fish and wildlife in New York. Of these, nine are listed as resident endangered species, including fish (3),

turtle (1), snail (1), butterfly (1), mammal (1) and bird (2). Also, two birds are listed in the migrant endangered species category. An additional 11 species are listed as extirpated (6) or extinct (5).

There are 177 endangered and 37 threatened species in the United States. Both federal categories include insects and snails and the former also includes clams and crustaceans in the totals.

Eliminating sea and prairie animals, migratory birds, insects and a number of other listed animals that do not inhabit climax forest it is clear that the number used in the comment is a gross exaggeration.

Secondly, almost all habitat degradation is traceable directly to historical human settlement which changed forests into agricultural lands, and industrialization and technology which have introduced toxic or degrading substances into all environments. There can be no legitimate linking of these historical events with the limited scope public use program that weighs probable consequences as plans are developed. The same Division that conducts the public use program also conducts an environmental protection program aimed directly at preventing or mitigating undesirable and unnecessary impacts on all fish and wildlife and their habitats. About 25 percent (second highest of six programs) of total staff time goes to environmental protection.

As further evidence that Division of Fish and Wildlife programs are not degrading climax type habitats, two species which either favor or use climax habitat have been reestablished on very large tracts of the state from which they had been totally eliminated. Wild turkeys and varying hares now thrive in 34 and 18 counties, respectively, where they were replanted through extensive Division efforts. In the case of the varying hare, restoration into almost all of these areas was made possible only by the earlier land acquisition and reforestation programs of the Department. Goals, policies and

practices attending these stocking programs were, and are, aimed at maintaining these species in perpetuity. Quite obviously this can be achieved only with recognition of and management of the entire ecological web that sustains these species.

Wildlife and its habitat will never be free of interruption by human activity. Ninety percent of New York's surface area is privately owned. Agriculture, forestry, development and other human land uses have manipulated most of the State's habitat at some time in its history. A few scattered remnants of virgin forest may remain. Habitat manipulation by wildlife professionals is recent and occurs mostly on wildlife management areas, which comprise only a little over 150,000 acres or one-half of one percent of the State. The choice is between manipulation guided by wildlife professionals and directed toward wildlife benefits, or manipulation without consideration of wildlife and its use.

Habitat manipulation by wildlife professionals and public use have not endangered non-game wildlife species. In fact, professional habitat manipulation may be the salvation of several endangered species. The Karner blue butterfly on the state's endangered list, and proposed for threatened Federal listing, depends on early successional stages of vegetation for survival. The lupine which the larvae feed on is maintained by periodic fire. The control of fire, as human development enclosed its habitat, is probably the major factor leading to the butterfly's present precarious status.

With respect to the use by hunters of non-game animals for target practice, when and if it does occur it is an illegal act and any individual so caught is subject to prosecution. Undoubtedly it does occur occasionally, hunters being no different than all other segments of society in law transgressions, but the incidence is in no way the common occurrence inferred by the comment. There is no evidence that the occasional illegal taking is in

any way limiting to species occurrence or abundance.

Staff has reviewed the book by Dr. Ehrenfeld and concurs with most of his commentary. Man's transgressions against nature and his own kind are well documented in this and numerous other references. However, the relationship of the subject of this particular book to the request that the public use program be rejected is not clear.

Appendix B-2

Response to Letter from USDA, Soil Conservation Service

Additions to the statement were made on page 43, as recommended.

Statement of Findings
for the Programmatic Environmental Impact Statement
on the Division of Fish and Wildlife's
Public Use Development Activities

Date MAY 22 1981

I find that the Division of Fish and Wildlife's program of Public Use Development meets the requirements of Article 8 of the Environmental Conservation Law and its appurtenant rules and regulations 6NYCRR Part 617. This finding is made as a conclusory statement, as documented below, that:

1. Consistent with social, economic and other essential considerations from among the reasonable alternatives thereto, this program is one which minimizes or avoids adverse environmental effects to the maximum extent practicable, including the effects disclosed in the relevant impact statement, and

2. Consistent with social, economic and other essential considerations, adverse environmental effects revealed in the impact process will be minimized or avoided by incorporating those mitigative measures which were identified as practicable.

These conclusions are drawn from pages in the Final Environmental Impact Statement which indicates that the several beneficial effects strongly outweigh potential adverse impact (pp 35-42) and that those potential negative impacts are subject to measures included in the program which are provided by law, including regulation of use, public information/education, and site design.

Commissioner
Department of Environmental Conservation