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THE UNIVERSITY OF RHODE ISLAND

A PROPOSAL FOR RENEWABLE RESOURCE MANAGEMENT IN LONG ISLAND SOUND

SUBMITTED IN PARTIAL FULLFILLMENT OF THE DEGREE MASTER OF MARINE AFFAIRS

> OLIVER T. EDSTROM APRIL 1977

PREFACE

By using the existing legislation for primary and secondary fisheries management of two states that have different legislation for the management of the renewable resources of a common body of marine water, propose a management plan to foster prudent utilization of the resources in that body of water. This management system would then serve as a single unit in decisions resolving conflicting uses of that resource for the well being of the states concerned and the resource. No attempt is made to evaluate the effectiveness of the existing laws in renewable resource management.

The thoughts and proposed plan are my own design and do not reflect the philosophy or policy of my employer in any manner.

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CHAPTER I

INTRODUCTION

Historical Fisheries Management

Traditional fisheries management is the application of scientific knowledge concerning fish populations to the problems of obtaining the maximum production of fishery products.¹ In reviewing the goals of fisheries management from a historical perspective, it is easy to follow how the philosophies have evolved from the pure scientific orientation of the mid-1800's to the complex goals of the 1970's. While the implementation of the methods of fisheries management remains centered on scientific criteria, the goals of management are directed to benefit people and not the stocks of fish.²

In the United States, prior to Public Law 94-265, the Fishery Conservation and Management Act of 1976, regulation of the harvest of oceanic fishery stocks was complicated by the principles of common property resource laws founded by Grotius' dissertation on freedom of the seas.³ Public Law 94-265 vests ownership in the right to manage stocks of fish within 200 miles of the United States' coast to the United States as the trustee of that fishery resource. Within the framework of extended jurisdiction of fishery management, individual states in the republic keep and maintain control of fishery resources within their respective territories.⁴ The range of various species of fish commonly extends into the jurisdiction of many states as fish follow their normal seasonal movements. As these fish populations move through state boundaries different sets of regulations govern the harvest of this same stock of fish. Often, when this stock of fish is in water under the laws of more than one state, different regulations concerning the exploitation of the fish apply depending only on the exact location of that fishery at any given time.

Today, the principal of fishery management embodies many different factors that can be classified as biological and non-biological. Although not explicitly stated in their state laws, the regulations on fisheries in the states of New York and Connecticut are guided by these criteria.

Biological Considerations

All ecosystems can be divided into three areas of productivity. The first level of productivity is the fixing of energy by plants, the primary producers. Within Long Island Sound, photosysthesis is restricted to the upper 25-30 feet in the water column.⁵ The rate of photosynthesis in Long Island Sound is estimated at 1,300 mg $C/M^2/day$ and net productivity is about 530 mg $C/M^2/day$.⁶ Compared to the most productive natural system known, the <u>Spartina</u> salt marsh, net productivity compares favorably at between 560-993 mg $C/M^2/day$.⁷ Secondary productivity is at the lower levels of consumers in

any environment. In the marine ecosystem, this niche is occupied primarily by zooplankton and filter feeders. Tertiary productivity is usually assigned to higher animal forms in an ecosystem. As energy is passed from a lower level of productivity to a higher level of productivity or consumption, there is a loss of energy available to the next succeeding level of consumers. Tertiary productivity is usually assigned to higher animal forms in the environment.

Fish, which form the tertiary level in marine systems, need three essential factors to perpetuate each species. The first is mature adults in sufficent numbers to successfully reproduce. The second is water quality suitable for growth and maturation. The third is specific habitat to be utilized as spawning, feeding and nursery areas. Only in recent years have efforts been directed towards regulating these critical parameters that lead to the eventual harvest of mature adults, the traditional goal of fishery management. In Long Island Sound, jurisdiction for management of these critical areas rests simultaneously with the Federal Government, the State of New York and the State of Connecticut.

Non-Biological Criteria

With the increased exploitation of fisheries resources in the last twenty years, non biological criteria for fisheries management have gained wider recognition. Among these are economic,

political and sociological considerations.

The economics of fisheries has recently gained considerable momentum. The economical philosophy of fisheries management is based on the theory that fish, whether a common resource or owned, should be utilized to realize the maximum economic benefit to society. In the pure sense of this theory, biological considerations are not involved. With the universal trend of coastal nations extending jurisdiction of renewable resources to 200 miles from their respective coasts, the concept of fish as a common property resource is not applicable. Fishery economists reflect this change by suggesting that bio-economic models for the regulation of harvest and effort to achieve a maximum net economic benefit should be the goal of fishery management.⁸

With increased leisure time available to United States' citizens and the affluence to pursue marine recreational fishing, the importance of this activity on the harvest of fish stocks, the economic benefit generated by this sport, the pleasure derived from this pursuit and the political influence of people who fish has clearly demonstrated the importance of sport fishing in assigning exploitation allocations to this user group. The impact of these citizens is obvious when the particular fishing regulations of coastal states are reviewed.⁹ A survey of people who fish for recreation demonstrated that almost equal values are placed on catching fish and the aestetic enjoyment of where people fished.¹⁰ The politics of fishing has been involved as long as fishing

has existed. Often political influence is more significant because it is based on emotional response to a conflicting use of a resource that what should be more concrete criteria for fishery regulations. The magnitude of political influence can be either large or small. It can effect a large area or be localized.¹¹ Although the United States State Department denied they were using coastal fisheries as a negotiating tool prior to the Fishery Conservation and Management Act of 1976, their actions, voting record and position at the Law of the Sea Conferences clearly indicated a willingness by them to sacrifice United States' coastal fisheries resources for traditional freedom of the sea philosophies that include passage through straits, scientific research, and freedom of navigation for defense purposes.

Primary Fishery Management

Primary or direct fishery management is based on biological principals. The goal of this form of management is to produce the maximum sustainable yield (MSY) of a particular stock of fish without depleting the fishery. While this goal is admirable, it is seldom realized because of the inability to instantaneously adjust the harvest of a particular species by either increasing or decreasing the effort of production. Historically, the implementation of MSY objectives was instituted locally when fishing pressure on a particular stock either reduced the harvest or increased the effort to produce a specific yield from the fishery. Early attempts to achieve MSY were both direct and indirect

application of primary fishery management techniques. Direct methods involved limiting the total allowable catch. Indirect modes imposed restrictions on mesh size, permissable gear to harvest a particular stock, fish size limits to allow a sufficient portion of a specific population to reach sexual maturity and closing of areas and/or cessation of fishing during certain months, usually periods of spawning when they were known.¹² All these methods are now accepted tools for fishery management. Regardless of the methodology employed, the goals were based on MSY criteria. This concept was even prevalent at the 1958 Law of the Sea Conference where the theory of MSY was the governing factor in the negotiations although the terminology used optimum in the text.¹³

Secondary Fishery Management

Secondary or indirect fishery management is directed at environmental factors that govern the requirements of a desirable species of fish. Generally, secondary management is directed at spawning requirements, water quality requirements for spawning and hatching, habitat for nursery and feeding areas of the young, and water quality standards for adult fish growth.

Regulations in this area are usually involved with conflicting use by other sectors of the marine environment. Involved are regulations concerning abating the discharge of wastes containing chemicals identified as reducing the survival of eggs or fish larvae in or near a defined spawning area; destruction of habitat identified as necessary for spawning or nursery of a particular

species; identifying and conserving habitat known as important feeding areas for a particular species; and, conservation and preservation of habitat for forage fish preferred by a stock of fish important to commercial and sporting sectors of users of marine fishery resources.

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In evaluating the past and present philosophies of fishery management, it becomes clear that a new professional is emerging, <u>i.e.</u> a fisheries manager who has the ability to evaluate all criteria for the management of fisheries resources to the benefit of the consumers and the exploitators in present and future generations.

CHAPTER II

LONG ISLAND SOUND

Description 14

Long Island Sound is a moderately stratified estuary. Salt water enters the Sound through the Race and the East River. Most of the fresh water entering this estuary originates from the mainland. Water circulation patterns are governed by both tidal action and the coastal boundaries of the Sound. The greatest influence on these patterns comes from the tidal action through the Race. The influence of tidal movement through the East River is localized and deminishes proceeding easterly. Tidal ranges in the Sound vary from approximately 3 feet in the easterly portion to 9 feet in the westerly portion. Land drainage pattern, geological formations and winds also effect water circulation patterns but to a lesser extent.

The Sound is about 110 miles long with the widest portion measuring 21 miles and the average width about 9 miles. Depths range from 320 feet to intertidal regions with the average depth about 75 feet. Salinity varies seasonally and ranges from 32 0/00 to 23 0/00. Temperatures in the sound range from freezing to 90°F.

The boundaries between New York and Connecticut in L_{ong} Island Sound were established in 1881. (figure 1)

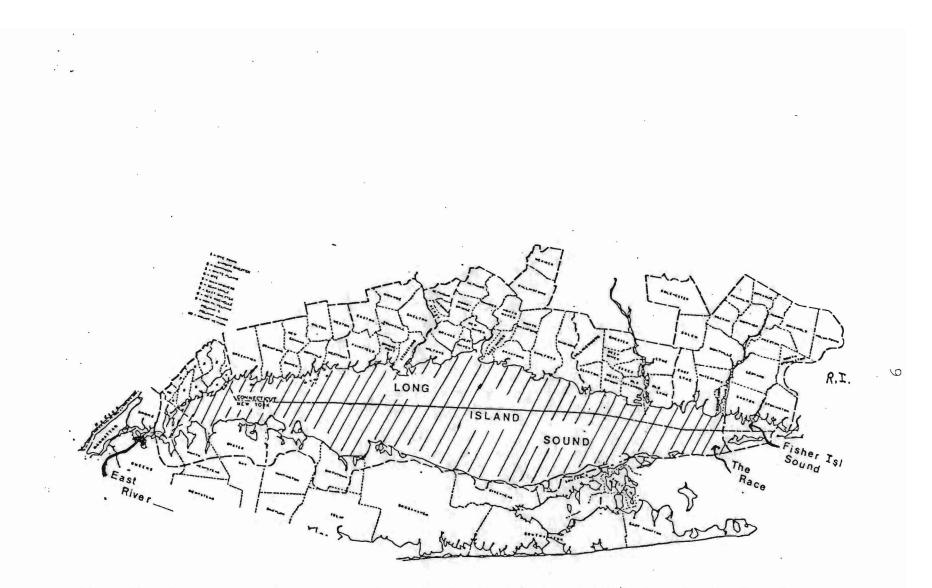


Figure 1 A general map of Long Island Sound adapted from a generalized map in <u>People</u> and <u>the Sound</u>, annon., 1975, New England River Basins Commission.

Biology

As an estuary, Long Island Sound is a region of transition. Therefore, organisms that inhabit the Sound must be able to adapt to fluxuating environmental conditions. The distribution of species in an estuary is dependant on a variety of factors that are often synergistically related. Under normal conditions, these parameters include the dissolved elements of oxygen, nitrogen, carbon dioxide ; salinity; temperature; and, sediment characteristics for some species. Life that has adjusted to the changes in an estuary often require these alterations in environmental parameters to complete their life cycles. Typical of most estuaries, the marine flora and fauna in Long Island Sound has characteristically more numbers of fewer species of organisms compared with the open ocean.

As mentioned earlier, the productivity in Long Island Sound is high. Within the open waters of the Sound, primary productivity is attributable to phytoplankton dominated by algal species of diatoms and dinoflaggelates. Attached and rooted flora also are important but do not approach the contribution by phytoplankton. Secondary productivity lies primarily with the grazers that include zooplankton dominated by copepods and neckton, marine worms, and sedentary grazers including clams, oysters, gastropods and other epifaunal life. Consumers are exclusively fish and man.

Tidal wetlands in Long Island Sound are predominately of the high marsh classification dominated by the meadow grass,

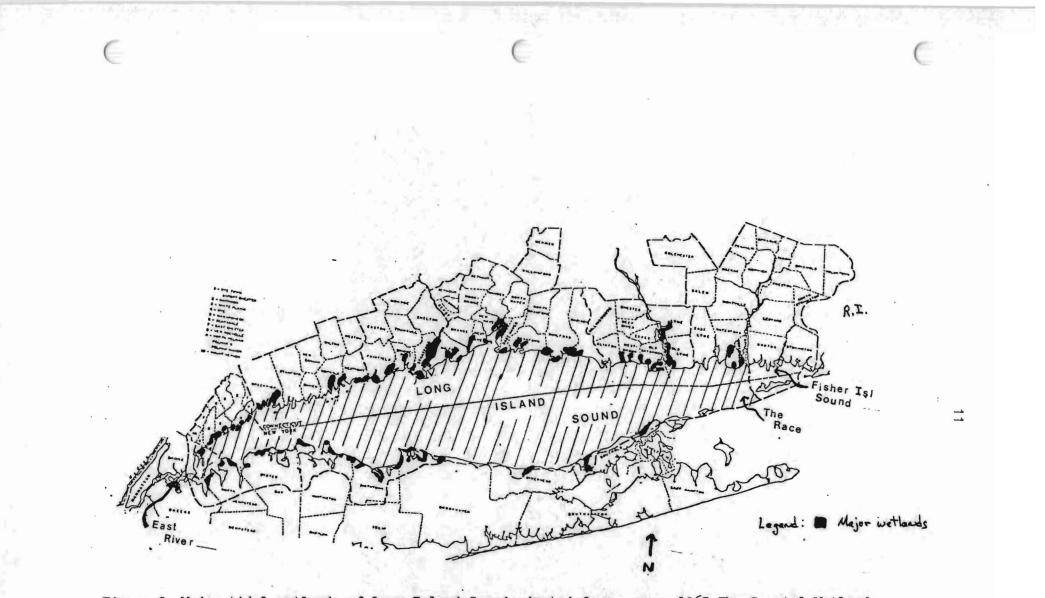


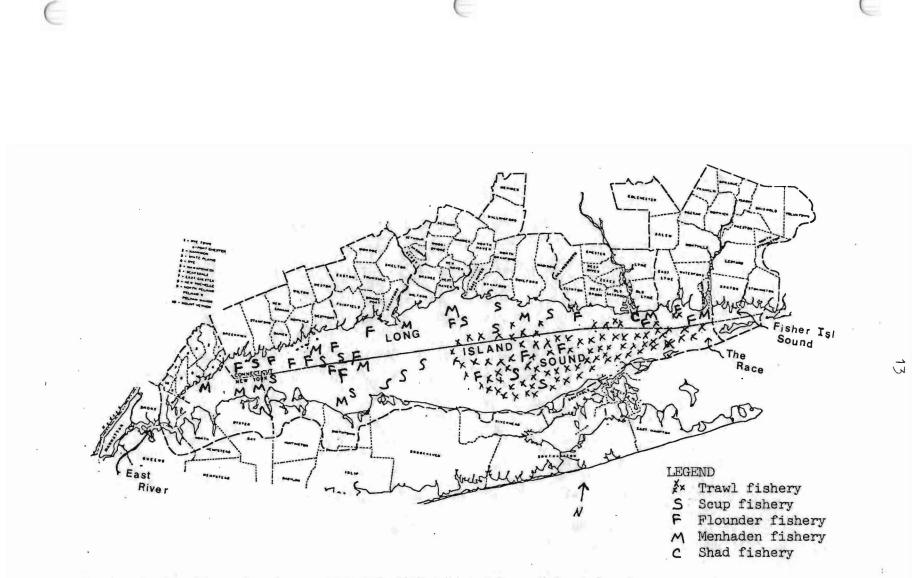
Figure 2 Major tidal wetlands of Long Island Sound adapted from annon, 1965 The Coastal Wetlands Inventory of Long Island, New York, U.S. Fish and Wildlife Service, Boston, Mass. and annon., 1965, The Coastal Wetlands Inventory of Connecticut, U.S. Fish and Wildlife Service, Boston, Mass.

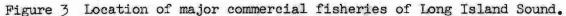
<u>Spartina patens</u>. They are evenly distributed within the Sound and are often found in low lying areas near the mouths of tidal rivers and creeks (figure 2). In the total Long Island Sound ecosystem, the role of tidal wetlands include detrital contribution to estuarine food chains, sediment traps and releasers of stored nutrients, heavy metal sinks, water purification, a buffer zone for storm tides and waves, and visual aesthetics for passive recreation. Probably the most important role of wetlands along the Sound is habitat. Many investigators state that tidal wetlands are necessary and essential spawning, nursery, and feeding areas for not only the valued biota of the Sound but also as contributers to the food chains in the open ocean.

Renewable Resources

The renewable resources of Long Island Sound are allocated among the commercial fishing, sport fishing and molluscan shellfishing. The principal commercial finfish of the Sound are the American shad, butterfish, winter flounder, menhaden, white perch, scup, bluefish, striped bass, weakfish and makeral. The commercial molluscan shellfishery is concentrated on hard clams and oysters with some effort directed to mussels and soft shell clams. By far, the most important fishery in Long Island Sound is the commercial and sport fishery for the American lobster.

Commercial finfishing in Long Island Sound declined significantly from the 1950's and appears to have leveled at a



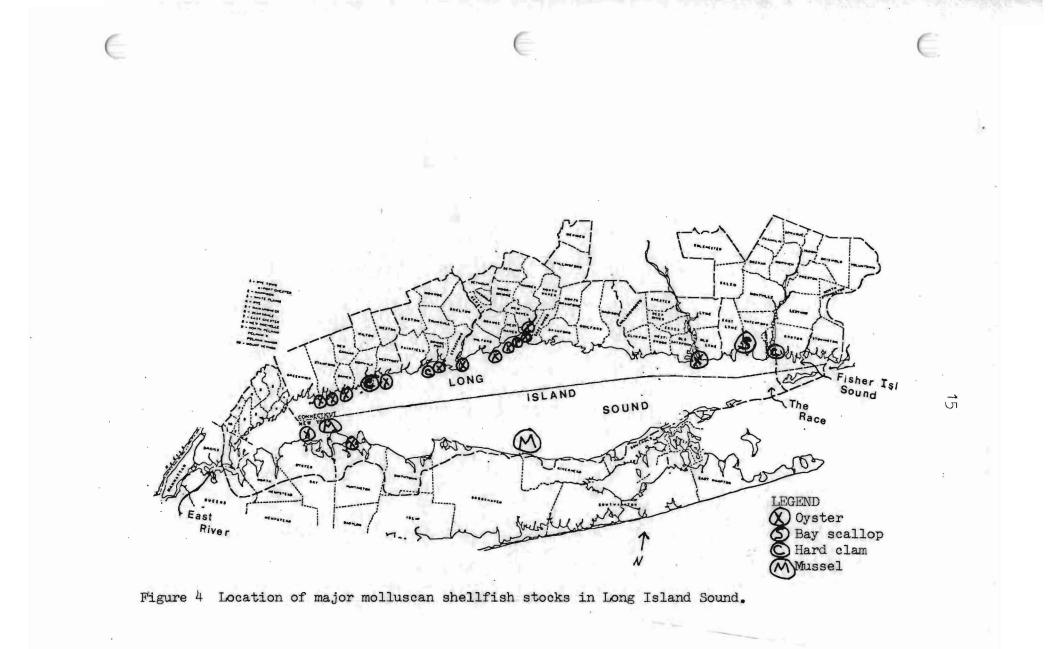


a yield of about one million pounds annually.¹⁶ In Connecticut, less than five full-time otter trawl fishermen net about half the total catch in the Sound in a directed fishery towards scup, winter flounder and bait species for lobstermen.¹⁷ In New York waters, trawl fishermen direct a seasonal fishery towards flounder, butterfish, and scup.¹⁸ The Connecticut River shad fishery contributes about 250,000 pounds annually.(see figure 3)

In the late 1800's and early 1900's, the Long Island and Long Island Sound oyster were known in gourmet circles throughout the world. Since then, annual production has decreased dramatically from 20 million pounds to less than 1 million pounds in the early 1970's when an increase was noted.¹⁹ (see figure 4)

The sport fishing efforts in Long Island Sound have increased annually. The sport fishing effort is directed towards winter flounder, fluke, striped bass, butterfish, scup, weakfish, bluefish, tautog, hake, tomcod, smelt, and to a limited extent cod and pollack in the eastern portion of the Sound. In addition, there is a sport fishery for blue crabs and lobster. In almost all instances, the sport and commercial fishermen are in direct competition for the identical stocks of fish.

According to a recent survey of marine recreational fishing, a total of 798,000 people fished in marine waters from Connecticut. In the survey, there was not a breakdown of New York people who fished specifying Long Island Sound as the location where they fished.²⁰



Using the unadjusted values of the 1970 Hunting and Fishing Survey, the average marine angler participated in sport fishing at least 12 days per year would give about 9,500,000 angler days. Assuming that the value of \$10.77 per angler day spent, the value of 1973-74 sportfishing using 1969 dollars, makes the value of marine recreational fishing in Connecticut a \$101,970,360.00 industry!²¹

CHAPTER III

EXISTING FISHERIES LEGISLATION

Existing Regulations New York

The State of New York Statutes provide for both direct and indirect fisheries management. The laws regarding fisheries stipulates that the State of New York:²²

Owns for the purpose of regulation and management all fish,
 <u>ferae</u> <u>naturae</u>, within its territory that are not privately owned
 Is custodian of all natural resources in its territory and
 has an obligation to manage prudently the water resources of the
 State consistant with federal regulations

3) Has the obligation to preserve, conserve and manage its natural resources including water quality and habitat for organisms classified as <u>ferae</u> <u>naturae</u>

4) Has the right under the provisions of management to license those that use the resource who are residents of New York and to non-residents providing that those states extending reciprocal privileges to New York residents

Has established the inland boundry of the marine district
Has the authority to regulate the molluscan shellfish
resources in the state which includes the right to lease under-

water state land for shellfish culture at a stipulated fee; to map survey and stake these areas; to license shellfish growers, shippers, and handlers; the right to indicate the type of gear to be used in harvesting; and, to stipulate seasons and minimum size limits

7) Regulates the taking of lobster (<u>Homarus americanus</u>) that include a commercial license fee for both state residents and non residents from states with reciprocal licenses for New York residents; regulations for dismemberment; a minimum legal length of 3 3/16 inches; and, egged lobsters shall be returned to the water

8) Crabs (<u>Callenectes sapidus</u>) taken for sale must be licensed and those crabs with external eggs shall not be possessed

9) Menhaden may be taken with the appropriate license and a fee based on the tonnage of the fishing vessel registered in the State of New York

10) Commercial food fish may be taken with a license by beam or otter trawl in areas not closed to the use of this gear

11) Establishes minimum commercial size limits for fluke at 14"; striped bass at 16"; bluefish at 9"; scup at 7"; weakfish at 9"; makerel at 7"; sea bass at 8"; cod at 10"; tautog at 7"; and winter flounder at 8"

12) Gill nets are allowed except where their use is restricted by other regulations and mesh size limits are followed

13) Sportfishing for lobster by New York residents requires no license providing that not more than 6 lobsters per day for private use and the minimum legal length and egg law is followed 14) Except for the minimum legal length for striped bass at
16", angling is not lisenced.²³

Existing Regulations Connecticut

Direct and indirect fisheries management in Connecticut is found in the Statutes. Existing legislation in the State of Connecticut declare that:²⁴

 All animals all animals classified as <u>ferae</u> <u>naturae</u> are subject to management and regulation within Connecticut territory
 Connecticut is custodian of all its natural resources for the citizens of the state and Connecticut has the obligation to regulate these resources prudently and consistant with Federal regulations and guidelines

3) The state has the obligation to preserve, conserve and manage animals <u>ferae</u> <u>naturae</u> particularly the environment in which they are found

4) Connecticut has the right to license its citizens using its resources with reciprocal licenses to citizens of those states who provide for Connecticut citizens a license schedule

5) The marine resources of the state are delimited

6) A license is required to take and sell blue crabs with provisions for an annual report of the total catch. Restrictions include a size limit of 5" from tips of the spikes for hard shell crabs and $\frac{1}{2}$ " for soft shell crabs. Egg bearing crabs are protected

7) A license to commercially take lobsters is required with the restrictions that the minimum legal length is 3 3/16" along the carapice; egged lobsters must be returned to the water; and, a monthly log book must be submitted

8) A license to take lobsters for personal use is required with the necessity of reporting annually the total catch and following the size limits and egg bearing lobster regulations

9) Dismemberment of lobsters is not allowed except for immediate personal consumption

10) Licenses for the sale and transportation of lobsters is required with appropriate reporting forms

11) All vessels used to take menhaden shall have the boat and gear registered and fish outside a line from fixed features along the Connecticut coast

12) All vessels licensed for fishing of commercial finfish species shall be licensed and report the catch monthly

13) Gear restrictions are stipulated for directed fisheries
14) Fish taken for sale must meet minimum size requirements for
butterfish at 6"; tomcod at 6"; tautog at 7"; mackeral at 7";
scup at 7"; kingfish at 8"; seahorse at 8"; winter flounder at 8";
bluefish at 9"; weakfish at 9"; fluke at 14"; and cod at 10"
15) Striped bass may not be taken for commercial use in
Connecticut waters

16) All striped bass taken by sport fishing have a minimum legal length of 16"

17) A sport license in not required to fish in water designated as the marine district

18) Commercial fishing will be allowed in those areas specifically closed by statute

19) Sea run brown trout shall have a minimum legal length of 15" 20) The regulation of molluscan shellfish shall be under the Department of Agriculture who has the authority to lease underwater state land for shellfish culture at a fixed rate; map, survey, and stake these areas; license all aspects of this industry in cooperation with the State of Connecticut Department of Health; and to regulate all aspects of harvesting within state jurisdiction.

Existing Secondary Fisheries Management

The secondary management of fisheries resources encompasses regulation of limiting factors for fisheries production that include water quality criteria and habitat considerations. The indirect levels of fishery management are controlled by the State of New York and the State of Connecticut with Federal consent.²⁵

The national goal stipulates that by 1983, water quality will provide for the protection and propagation of fish, shellfish, and wildlife as well as recreation in and on the waters of the United States. Administration of this goal was delegated to the Environmental Protection Agency with the encouragement by Congress

for states to cooperate to achieve this standard. If individual states can meet these goals within their own statute regulations with the proven ability to administer a water quality program, the head of EPA can delegate the power to internally regulate water quality to those states who qualify. Both New York and Connecticut have this assigned authority.

. 11

Federal Management

Until the passage of the Fishery Conservation and Management Act of 1976, the role of the federal government in fisheries management was to act in the national interest providing research, advise, and coordination to states until enactment of the Fish and Wildlife Coordination Act of 1956. Under the provisions of this legislation, provisions were made on the federal level to develop a total plan for fish, shellfish and wildlife resources of the United States. To meet this goal, the act provided federal input for economic studies of the fishing industry, fishery product market research, statistical information, and to develop, manage, conserve and protect fisheries resources.²⁶ The act did not give authority for the federal participation in the regulation of fisheries within the territorial or internal waters of the United States.

In 1965, the Anadromous Fishery Conservation Act was passed giving federal authority to regulate this fishery resource with the

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cooperation of the states in whose waters they spawned over the entire range of that species excluding only the territorial waters of other nations.

The National Environmental Policy Act of 1969 and the Federal Water Pollution Control Act of 1972 provided important authority to the federal government to actively become involved with the secondary aspects of fishery management that included water quality standards, fish habitat, nursery and spawning areas since regulation of these aspects of fisheries had a direct impact on the national level.²⁷

Discussion of Existing Laws

Both the State of New York and the State of Connecticut have the authority and legislation to regulate primary and secondary levels of fishery management. Habitat and water quality considerations are regulated by the individual state statutes and are consistant with federal guidelines and regulations.

The laws in both states governing the harvest of fish and shellfish on a commercial basis are present with few differences. Both states provide for reciprocal licenses for the citizens of the other state although the fees differ. The regulations for the shellfish industry are essentially the same except that the administration of the laws in Connecticut rests with the Department of Agriculture.

The major differences between the renewable resource laws

between New York and Connecticut include:

1) For personal use of the lobster resource, New York requires no license or reporting system while placing a maximum per day yield on the fishery while Connecticut has a license and reporting system for the total annual catch

2) In New York, commercial lobster license provides for minimum reporting while in Connecticut, a daily log and monthly reporting system are a condition of the license

3) Striped bass are not a commercial fish in Connecticut while in New York they are both a commercial and sport fish

4) The commercial finfish license in Connecticut requires an identical reporting system as the commercial lobster fishery while New York reporting system is less strict

5) New York has established a minimum legal length for butterfish and tomcod.

The similiarities in both states' laws place restrictions on gear, seasons, and specific areas where commercial fishing is not allowed. Neither state has a marine sport fishing license.

CHAPTER IV

MANAGEMENT PROPOSAL

An Act

To provide for the conservation and management of the renewable

resources of Long Island Sound.

FINDINGS - The State of New York and the State of Connecticut

declare the following:

 Long Island Sound is internal marine water of the United States under the lawful jurisdiction of these states
 Each state has lawful powers, duties and obligations under existing state and federal regulations to prudently manage the renewable resources of Long Island Sound

3) The fisheries resources of Long Island Sound are one unit providing important contributions to the economies, food sources and recreational opportunities of their respective residents and particual other residents of the United States 4) The renewable resources of Long Island Sound are fragile biological entities

5) This renewable resource in presently under the individual regulation of these two states

6) Many of these state's citizens are dependant in one form or other on the renewable and non-renewable resources of Long Island Sound

7) The multiple use of the total resources of Long Island Sound often conflict

8) The management of the renewable resources to achieve the maximum prudent utilization is the duty of these states

9) Preservation and conservation of the renewable resources

is necessary to maintain and improve the level of importance. PURPOSES --- The purpose of the act is to allow the State of New York

and the State of Connecticut to enter into a compact to:1) Conserve and manage the renewable resources of Long IslandSound as a joint venture

2) Promote sound management principals of the renewable resources of Long Island Sound to realize their maximum utilization

3) Serve as a model of cooperative effort of renewable resource management to other entities who regulate a resource unit common to a single body of water

4) Provide a basis of management consistant with the goals of resource allocation, state legislation and federal regulation.

POLICY- It is further stated that it is the policy of the act to:

1) Neither conflict nor supercede existing state(s), federal or local regulation(s) pertaining to renewable resource management unless explicitly stated or deemed inconsistant with this act 2) Continue and cooperate with exsisting programs designed to improve environmental quality

3) Improve existing renewable resources for the betterment of these states and of their citizens and of the Nation consistant with national standards.

DEFINITIONS — As used in this act, unless explicitly stated, the following words will mean:

1) Conservation and management refers to all rules, regulations, methods past and possible to insure that the present renewable resources will be maintained and utilized to their maximum benefit

2) Renewable resources will be all fish, molluscan shellfish, shellfish as well as any living resource that might be harvested

3) Long Island Sound will be the marine area defined by the State of New York and the State of Connecticut at their inland districts, terminating at the western end at the Throgs Neck Bridge and at the eastern end by one nautical mile from a line connecting Fisher's Island, Race Rock, Little Gull Island, Great Gull Island, Plum Island to Orient Point 4) Prudent utilization will mean with respect to yields from a renewable resource whatever method of use that provides the greatest overall benefit to these states and the Nation considering food source, recreational activities, commercial activities, economical, sociological and ecological factors

5) Person shall mean any individual, corporation, partnership, fisheries management council, state or federal government and all legal entities

6) LISRRC shall be the Long Island Sound Renewable Resource Committee.

Title I - Authority

SEC 01 It is hereby declared that the State of New York and the State of Connecticut shall have jurisdiction of renewable resources within Long Island Sound that are consistant with exsisting legislation

SEC 02 The effective date of this compact will be one year from the date that both states approve this agreement.

Title II - Management Program

SEC 01 All regulations for the management of the renewable resources of Long Island Sound shall be consistant with national policy

SEC 02 The composition of this management authority will be: a) A marine renewable resource manager who shall be an employee of the states concerned with the knowledge and ability to deal with the complexities of this management system

> b) The Commissioners, or their appointed representative, of the department designated by each state to manage the marine resources of Long Island Sound

c) The marine division director in each state

d) A representative from each state concerned with

commercial fishing, sport fishing and molluscan shellfishing. e) A representative of the Federal Government.

SEC 03 Each member of the committee shall have one vote in matters requiring voting.

Title III - Powers and Duties

SEC 01 LISRRC will have the powers and duties to carry out the provisions of this act which will include the authority to license, promulgate regulations, and enforce those regulations.

During the interim period the LISRRC shall determine SEC 02 and establish:

a) A uniform license structure for the residents of both states who commercially exploit the renewable resources of Long Island Sound.

b) A uniform license for sport users of these resourcesc) An interim set of regulations consolidating existing regulations of the states concerned.

SEC 03 The funds collected for this purpose shall be placed in separate funds in the respective states and shall be only used to better the resource that served as a source of this money.

a) The monies in these funds can be used to seek additional monies to carry out the intent of this act.

b) No more than 5% of the monies collected shall be used for administrative expences.

Title IV - Dipactive

Title IV - Directive

SEC 01 It is the intent of this act for LISRRC to improve the renewable resources of Long Island Sound. This act directs LISRRC to gather and utilize all possible reources to gather sufficient data to base sound management decisions. It is not the intent of this act to exclude any user of the resources of Long Island Sound. LISRRC should include reciprocity provisions to other states and assure all concerned that the goals of this act will perpetuate.SEC 02 Where possible, this cooperative group should serve

as a unit providing imput to conflicting uses of the total resources of Long Island Sound to achieve a balanced allocation of the rights and privileges of all concerned.

SEC 03 Prior to enacting any regulations for management purposes, LISERC shall hold public information meetings throughout the region to solicit imput from various sources in the area.

Discussion

The purpose and design of this proposed act is to serve as a source of renewable resource management that will provide goals of management consistant with the complex interaction of marine resource users. The plan will use fees from resource users and direct activities towards improving that resource. The fees would generate more monies through matching funds than could ever be realized by the fiscal limitations of each individual state. The intent of the proposal is not to replace any existing state authority but to promote maximum use of resources within state agencies augmented by monies generated.

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- 9. For a detailed review see: N.G. Benson, Ed., <u>A Century of</u> <u>Fisheries in North America</u>, (Sp. Pub. No.7, AFS, 1970).
- 10. Why People Fish, SFI Bull NO 258.
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- 12. H. Nielson, The Evolution of Fisheries Management Philosophy, (MFR: Dec. 1976, pp15-23.
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- 14. O. Edstrom. summarized from a paper presented at the Fairfield County Management Associations Annual Banquet titled: What is Long Island Sound, May 1974.
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- 1970 Sport Fishing and Hunting Survey, Bureau of Sport Fishing and Wildlife, Boston, Ma., p.5.
- For a complete listing of New York Laws, see 17¹/₂ McKinney, Articles 11, 13, 15, 25.
- 23. Note: There is currently an Act to establish a marine sport fishing license in the New York General Assembly.
- 24. For a complete list see; The General Statutes of Connecticut revised 1976, Vol 5, Title 25.
- 25 Federal Water Pollution Control Act as Amended (1972), 70 Stat 498, 84 Stat 91, 33 USC 1151.
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