

MANAGING OUR COASTAL ZONE



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*proceedings of
a conference on
coastal zone management
february 20-21 1973
albany, new york*

NEW YORK STATE SEA GRANT PROGRAM

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Proceedings
of a
Conference on
Coastal Zone Management

Sponsored by the
New York State Sea Grant Program

February 20-21, 1973
Albany, New York

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Managing Our Coastal Zone - The Keynote Address

The Honorable Perry B. Duryea
Speaker, New York State Assembly

It is certainly a pleasure to be with you today. As President Benezet said in his introduction, by persuasion and interest the subject that you undertake today, tonight and tomorrow is one to which I feel particularly close for a variety of reasons. I am sorry I must leave soon, but the Legislature is in session. Some people look askance on the performance of the New York State Legislature and some of its members. We are frequently compared to Columbus who, when he started out, didn't know where he was going, and when he got there didn't know where he was, but he had somebody else to finance the entire trip. Nevertheless we do know that about 2 o'clock a gavel should bang, and for that reason I'll try to move this along.

In terms of 1973, the effort you undertake with respect to coastal management is one of the big challenges of the day. We have had sporadic legislative attempts over the years in New York State toward coastal management. It may even be that New York was the leader amongst the states in dealing with various aspects of the coastal problem. We can go back to the mid-forties when protection of the coastline was an issue and programs were advanced from this state leading to federal funding of protection programs. Or we can move on to the 1960's when bond authorizations in New York provided for the acquisition of open lands and in some cases wetlands--I vividly remember taking part in the dedication of the Tobay Refuge under the New York Wetlands Act back in 1962. Or, more recently, we move along to the Environmental Bond Issues in New York State--not one but two--which have lent themselves to the improvement of our resources through the development of programs designed to meet the needs of the day in the face of ever-burgeoning population. In all of these we find that New York has been in the forefront of a national activity.

Most importantly, however, this all comes in focus here today as representatives of local government, representatives of those involved with the New York State management programs and representatives of commerce and industry join together to deal with a very knotty question. It's not going to be easy to find the balance which is important to the preservation of this tremendous resource that we have in New York and the other coastal states, but a balance must be attained if we are going to find the answers to these questions. I happened to be traveling in the South over the weekend and I found that one state had arbitrarily stopped all marine development in the very recent past. Now I'm not observing that that state should or should not have done that. But why did that state ever reach the point of deciding that, because control was lacking, the work that was going on had to be stopped arbitrarily despite its critical nature and without any regard to the involvements of many? I say that proper planning and projection of future needs and knowledge of the balance between environmental and economic needs of that particular area would have avoided the kind of crisis situation which had developed. Hopefully, an early discussion of problems that relate to New York by the group gathered here will avoid that kind of crisis.

Even as we were working last year in the Legislature on bills which would have limited drilling for oil in New York State waters, even as voluntarily we were trying to bring together, on a legislative level, the states on the Eastern seaboard into a loose grouping of communities of mutually beneficial interest, Congress was moving in the development of their Coastal Zone Act of 1972. Although we spent a lot of time at the legislative level with our legislative friends in other states trying to design cooperative programs, I for one feel that it's much better to do it the way you probably will discuss doing it here: within New York State under a broad umbrella or in a broad

framework involving many states and the support of the federal government. This is because the issues we face are, in many cases, issues which relate very clearly to federal controls and not to state controls. It's all very well for New York State to talk about legislation which will ban oil drilling in New York State waters and Long Island Sound or off our coastline, but in fact we don't accomplish very much if New York acts unilaterally without regard to other states or to the broader control the federal authorities have. For that reason, states joining together under a federal proposal for developing long range programs for specific areas is of particular significance. I would be very much concerned, however, if we waited for every state on the Atlantic seaboard, for example, to join together to develop plans for our coastlines under the 1972 federal enactment. It seems to me that we would accomplish a great deal if at least two or three or four states were able to move at almost the same time in availing themselves of the federal program.

For that reason it is my personal hope that this particular gathering will make some solid recommendations to the 1973 Legislature. Let's not waste time; we'll be in session for a number of months. We have bills introduced and sponsored by very dedicated legislators that relate to specific areas of the problem you will discuss, but that's not the right approach. We should approach this as a broad picture with broad solutions to problems affecting not only New York State and New York State waters but probably every state on the Atlantic seaboard. And therefore I say to you that the one thought a person who speaks here for the Legislature has uppermost in mind is to ask you to try to move fast enough so that specific recommendations will come out of this meeting and the other area meetings I know you will be conducting around the state, recommendations for action in 1973 by the New York State Legislature. I've talked to a number of my legislative colleagues who agree that that timetable is one they would like to meet. I hasten to add that legislative ears typically are not always receptive to recommendations from people who know more than they do; maybe after a lot of work a recommendation will come forward which will not be totally adopted. Nonetheless, recommendations are a way of beginning, which I think is very important. There are current knotty problems which will be treated piecemeal in bills this year: power plant siting; the environmental impact of power generation; the wetlands control question again; oil drilling; the possible need to transmit gas across the shorelines of New York State (in fact, reserves of gas exist offshore whose capture is economically feasible); and many other items. You know that haste is a very, very important aspect of your work. By 1985, predictions say, we will need twice as much energy as we need now, and we already use an unbelievable 69 quadrillion B.T.U.'s of energy a year. Even in Albany, where we are accustomed to dealing with rather large numbers and budgets that get out of hand year after year, we don't get into numbers that size. So the need to meet the future and to deal with our problems is a very real one.

One word of caution, however--and this is a word I used as we started this program--let's find a balance among the interests that are fighting for their own position in this whole matter of the environment and the coastal region. I can't help but think of the way in which Long Island Lighting Company has been able to harness a warm-water discharge to redevelop a total industry, the oyster industry on Long Island. Many people have been concerned about thermal pollution--rightly so in some instances. But by proper control of the discharge of one of the plants on Long Island Sound, an industry which would have been totally dead has been regenerated and production has increased tenfold in the past three years. Needless to say, the benefit of that renewal has spread to jobs and the economy and the future of the bays and the waterways that made the Long Island oyster famous. Let's work for a balance that can be obtained--a sensible one, and just that simple.

This may be one of the great reasons why people from the State of New York should participate with the federal government in developing coastal plans. New York State alone cannot solve the problems of its coastal area, nor can Connecticut, nor can New

Jersey; but states working together under a coastal management plan which they adopt as part of a total federal overview may be able to bring pressure to bear so that reasonable approaches to these issues will be found.

So again, welcome to Albany. Move rapidly so the Legislature may at least have some of the results of your work at hand as it meets in session in 1973. Although we can't promise anything, we can assure you that your recommendations and the recommendations of the groups who will meet in the future will be given very careful consideration. Thank you very much for inviting me today.

The Coastal Zone - Semantics and Definitions

Donald F. Squires
 Program Director
 New York State Sea Grant Program

Welcome to Sea Grant's first major conference in New York State. Many of you have attended meetings sponsored by Sea Grant on Long Island and along the Great Lakes held by our Advisory Services Program; sessions dealing with marinas and wetlands. Today's conference deals with an issue of statewide significance, the development of plans for the management of our coastal zone. We anticipate this to be the first of a series, the others being held regionally to permit fullest participation by those many who wished to be here, but could not get away.

We owe a great deal to the conference planning committee,¹ for their guidance in developing both format and structure. There have been some questions about the format, so let me quickly summarize how the planning committee visualized the conference and what we hope will emerge from it. This afternoon we have speakers who are knowledgeable about coastal zone planning and management; their task is to share with us their knowledge so that by dinner we all have some common understanding about coastal zone management and what are some of the alternatives selected by other states.

Beginning after dinner through noon tomorrow are a series of workshops. I want to emphasize that these are workshops and not panel discussions. We have chosen this format to give you, representatives of the community of New York State who are concerned enough about the coastal zone to brave the winter of Albany, an opportunity to voice your concerns and opinions. We want you to tell us what you think about coastal zone planning and management. We have selected leadership for each workshop from three sources: a knowledgeable person, often from state executive offices, who will serve as a stimulator for discussion and a resource person when details are wanted. Assisting the discussion leader are members of the Sea Grant family: a researcher in a field closely related to the subject of the workshop from the faculty of a State University campus or Cornell University, and a member of one of Sea Grant's Advisory Panels.

Sea Grant's role in coastal zone planning is that it is a significant part of our research program. The results of this research, which has been carefully planned in conjunction with regional planning boards, state agencies and others interested and actively working in the coastal zone, are directed towards assisting the state in making sound plans for the management of its resources. Thus, this conference is an educational enterprise in which we, the academic community, want to learn from you, the users of the coastal zone, what the issues of importance are and what are your views on a management program.

What is coastal zone planning and management? It became generally recognized in the early sixties that increasing urbanization of the coastal regions of the country and the parallel development of the coastal strip by industry were quickly exhausting a

¹Members of the conference planning committee were: V. Blankenship, SUNY at Buffalo; S. Denslow, Genesee-Finger Lakes Regional Planning Board; R. Ford, SUNY at Buffalo; J. Judd, NYS Sea Grant Program; L. Koppelman, Nassau-Suffolk Regional Planning Board; P. Marr, SUNY at Albany; J. McHugh, SUNY at Stony Brook; R. Pedersen, NYS Department of Environmental Conservation; H. Schultz, NYC Planning Commission; D. Squires, NYS Sea Grant Program; G. Stevenson, NYS Assembly Scientific Staff; R. Stewart, SUNY at Albany; H. Williams, NYS Office of Planning Services.

frighteningly finite resource. Some 70% of the earth's population live within one day's travel of the coastal zone, and it is in this region that population growth is most dramatic. Here in New York, everyone lives within an easy day's drive of the coast, a fact which alone makes New York's beaches and shore areas extremely important as a recreational resource. Recognizing that use of the narrow strip of land and water interfacing the oceans and the Great Lakes with the interior lands was increasing and that many of the utilizations were not compatible with each other or were not permitting a healthy environment, thought was given to ways in which use of this zone could be managed. Congress, in passing the Coastal Zone Management Act, took particular note of the special characteristics of the coastal zone and of the convergence of many interests upon it.

What is the relationship between coastal zone management and land use management? The end result of both management practices is about the same: to make best possible use of our resources. Land use management is the broader term, for it of course encompasses the coastal region and all interior lands. Land use planning will have to interrelate to the coastal zone plans and management schemes carefully, a fact recognized by the Congress. The separation of the two is merely a reflection of the special nature of the coastal region, for we must remember that the coastal zone encompasses not only the lands bordering the water, but the nearshore waters as well.

What is the coastal zone? In the Report of the Senate Committee on Commerce, the coastal zone was defined to include non-Federal coastal waters and the land beneath them and the adjacent shore lands including the waters therein and thereunder. The outer limit of the coastal zone is the outer limit of the territorial sea beyond which the States have no authority. The inner boundary is not precisely given and is in fact one of the first things a state must define as a part of its management program. There are many ways in which the coastal zone may be delineated: according to political units; by arbitrary definitions; or by natural boundaries such as watersheds, etc. We should give thought to this, for it is extremely important, particularly as coastal zone planning later interfaces with land use planning. For example, the Genesee-Finger Lakes Planning Region is composed of counties fronting the coast of Lake Ontario -- the political boundary there is "one county deep." For the Central New York Planning area, the coastline is very short, but the planning region extends deep into central New York. The boundary for the Eastern Ontario-St. Lawrence Planning Commission is an example of an arbitrary definition, being a line one mile from the coast itself. Is all Long Island just some perimeter coastal zone? What about Manhattan? Before we all laugh and ask "What coastal zone?" we should remember that it was on the coast of Manhattan where New York State began. It was the configuration of that coast which made the great Port of New York important and the center of world commerce that it is today.

We are not entirely without guidelines for the definition of the coastal zone, for the Act states: (Sec. 304 a) "Coastal zone means . . . the zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters." The Conference Report of the Commerce Committee recognized that no single definition would satisfy the needs of all coastal states. The Commerce Committee expected at a minimum that beaches, salt marshes and coastal and intertidal areas such as sounds, harbors, bays and lagoons will be included in the state's coastal zone. The intent of the Committee is that the zone chosen by the state should be sufficiently large to permit effective management programs for the diverse land and water uses of the area, but no so large as to encroach upon land use management.

What is meant by a management program? The federal guidelines state that a management program must incorporate six items: 1) an identification of the boundaries of the coastal zone; 2) a definition of permissible land and water uses so as to prevent such uses having direct significant or adverse impact on the coastal zone; 3) an inventory of areas of particular concern; 4) an identification of the means by which a state will

exert control over land and water uses; 5) guidelines on priority of uses within the coastal zone; and 6) the organizational structure by which the management program will be carried out.

When we think of the uses of the coastal zone, we must consider the resources that are present. Immediately springing to mind are such things as fish and shellfish important to us both as food and as a source of recreation. Both resources generate important industries. Commercial fisheries still exist on both coastlines, but are mere shadows of their former selves as a result of mismanagement and despoliation of the waters by dumping wastes. Recreation creates industry as well. Boating and fishing are multi-million dollar businesses, let alone all the local facilities for tourists seeking the pleasures of the coast.

Recreation generates a pattern of land use of increasing importance: the second or vacation home. Decades ago Long Island rapidly developed as the playground for the urban areas; its eastern reaches were dotted with summer cottages and resort hotels catering to the weekend and summer vacationers. But now Long Island is a bedroom community; the cottages of yesteryear have been winterized and now serve as year-round housing. Still important as a recreational area, Long Island has limited potential for the person seeking a site for a coastal second home. Now development is booming in other coastal areas such as the eastern Ontario region, hard by another of New York's great natural assets, the Adirondacks. All along the eastern Ontario coast are flocks of trailers (the modern-day cottage), huddled near the beach like giant sea gulls. As the use of coastal land for vacation homes increases, the frontage available will dwindle as it did earlier on the Adirondack Lakes. And soon we will have to consider the thorny problem of public access to the coast, for of all coastal resources, beach frontage is the most finite.

Another resource which springs quickly to mind are the sands and gravels on the bottoms of the bays, estuaries and coasts of the State. These are increasingly important as land quarries are exhausted or built over. We use sand and gravel for a variety of purposes: for the construction industry, for filling in eroding beaches and for industrial purposes. Important glass sand deposits have been identified in the Great Lakes. But there are non-voting organisms which use the sands and gravels offshore--the shellfish, basis of an important industry. The exploitation of offshore sands and gravels must be undertaken with full knowledge of the location of existing or potential shellfish grounds, and of the environmental effects of the dredging operations.

Oil and gas are known to exist below the Great Lakes and on the continental shelf. These are of great concern to many citizens because of the environmental hazard of their exploitation. New York has already passed legislation prohibiting the production of oil and gas from the Great Lakes, and there are bills currently before the legislature which would extend this prohibition to the continental shelf. But as the shortage of fuels increases and prices soar, will we as citizens be ready to accept the changes in our way of life that such bans bring about? Or should we as a community proceed with deliberation to develop these resources, at least to the point of learning what their potential is and what the actual hazards are?

We often forget, after a wet year like 1972, that we have known times of drought, when supplies of fresh water were short indeed. The Great Lakes constitute one of the largest reservoirs of fresh water in the world. Our use of water increases each year, but our sources do not. We must consider the development of the Great Lakes region carefully, with maintenance of water quality high in our minds. All too often, lakes and the rivers draining into the seas and their estuaries have been thought of as open sewers into which our wastes can be dumped. Western Long Island Sound now gives every indication of having absorbed about all the punishment it can take at the hands of man. Must we convert it into another Lake Erie?

In the past, we have gone about the management and conservation of coastal resources in a piecemeal fashion. We have enacted wetlands protection legislation. We have considered the thorny problem of public access to beaches versus the rights of private ownership of the shore zone. Increasing thought has been given to the electrical power industry, one of the greatest industrial users of the coastal zone. Some states have ventured even further and developed ways to select sites for shore zone development by industry or for the public, and some have instituted programs of shoreland zoning.

New York has taken some action about its wetlands, but only in the marine district. The state has shown increasing interest in bettering siting policies for power plants. Beyond this, we have been slow to move--and often only regarding Long Island, still considered by most New Yorkers as our coastal zone. New York City was our original coastal development; from a great port, it developed as an international center. As part of the great megapolis stretching from Boston to Washington, it exerts a great influence upon our entire coastal zone--on Long Island's coast and more recently upon the Great Lakes coast. Coastal zone management gives us an opportunity to look at the state as a whole and to learn how the various parts interact and impact on each other. Each of the "parts" of the state (Long Island, New York City, Lakes Erie and Ontario) relates to the other and cannot be considered independently. Just as it is not feasible for the City of Rochester to control water quality in Lake Ontario by its own local initiatives, so it is impossible for New York to plan the management of its coastal zone in bits and pieces. We are a part of an entity, a natural system which goes beyond our state borders. Planning for the coastal zone must recognize the interests and desires of the smallest segments, but in a larger framework of regional, state, federal and international understanding and cooperation.

What is the role of local government in coastal zone planning? The U.S. Senate believes strongly in local initiatives. In the report on the Coastal Zone Management Act, the Commerce Committee noted: "Whenever local government has taken the initiative to prepare commercial plans and programs which fulfill the requirements of the federal and coastal state zone management legislation, such local plans and programs should be allowed to continue to function under the state management program." Further, the Act specifically calls for the participation in plan development by local governments, regional planning bodies, and by interstate agencies. In New York many regional planning boards, conservation councils, and other local organizations have done enormously important work in developing basic information on use of the coastal zone. In the exhibit area outside the Ballroom are planning charts prepared by the College of Environmental Science and Forestry for the Eastern Ontario-St. Lawrence Commission. The Nassau-Suffolk Regional Planning Board and its Regional Marine Resources Council have conducted an extensive program of research to develop a management program and an informational system to back it up. The Genesee-Finger Lakes and the Erie-Niagara Regional Planning Boards and the New York City Planning Commission have also made exceptional coastal zone studies.

However, this is but the beginning of the story. Let me relate an incident which occurred at a meeting of the heads of coastal regional planning groups in New York sponsored by Sea Grant. There were about twenty people sitting around a table in Syracuse discussing the problems of their regions. The talk got around to one end of the table where, sitting side by side, were Harvey Schultz from the New York City Planning Commission and Fred Aufschlager from the Black River-St. Lawrence Regional Planning Board. These two represent the extremes of New York's coastal character--in the one kind (if I may be pardoned), no one can find the coastal zone, and in the other, no one knows it is a coastal zone.

Here in New York, we need to look at the great diversity of our coastal resources. For example, are the Great Lakes to be thought of only as a corridor for commerce, or should they be restored as a significant statewide recreational resource? Is New York

City always to have its back to the waterfront or will its pattern of development turn its face again to the harbor and the sea which gave rise to it? Will Long Island forever be suburbanized and its coastal waters so polluted that its commercial fishing fleet--the lingering remains of its older maritime history--disappears?

What then are the specific issues to which coastal zone management must address itself? Among them are:

- * Coastal erosion and stabilization, floods and flood damage prevention
- * Preservation, restoration, enhancement and protection of estuarine areas important in the life cycles of fish, shellfish and wildlife
- * Recreational needs including beaches, parks, preserves, areas for swimming, boating, fishing and associated activities
- * Open space for educational and natural preserves and public access to coastal and estuarine areas
- * Maintenance of navigation and commerce by water transportation corridors
- * Commercial fishing and related industries
- * Present uses, known proposals for change, and long term requirements
- * Present ownerships and the administration of publicly owned property
- * Present populations and population trends and their impact upon the coastal and estuarine environments.

We know all too little about many of these questions. Much basic information will be lacking, but the time is upon us and we will have to move ahead with deliberate speed, making the decisions which are necessary even when we do not know all the answers.

We hope that all of you present at this conference will make your contribution towards understanding the requirements and dimensions of a coastal zone management program. What emerges from the conference today will provide information to guide the research priorities for state agencies and the academic community; it will provide members of the legislature with additional insights towards coastal-zone-related bills which are before them now; it will provide guidance for state agencies and regional and local planners developing their programs on certain areas; and we sincerely hope that it will give all citizens a greater awareness of the precious resource that is their coastal zone.

Coastal Zone Legislation in the States¹

Marc J. Hershman
Research Director,
Coastal Resources Law,
Sea Grant Legal Program,
Louisiana State University

Introduction

Traditionally, state and local governments have had the option of controlling land use within their boundaries. Recently, the federal government has begun to assert a national interest in certain aspects of land use control. Congress passed the Federal Coastal Zone Management Act last October. It requires direct state involvement in land and water use controls in areas of particular concern within a state's coastal zone. The 93rd Congress is now considering a comprehensive land use policy and planning program whereby states would take a lead role in land use planning.

These federal initiatives create pressures within states for legislative change and program development. In many cases, states have recognized the need for better land-use planning, and this need filters up to the federal level, and new federal programs are started in an attempt to serve an established constituency. Wherever the initiative originates, state governments respond to the pressures from above and below, and most are now taking direct steps in coastal zone and land-use planning.

There is considerable similarity among states in preparing for these new land use control programs. There are also significant differences arising out of particular geographic and political circumstances within states. Comparative studies of state efforts are helpful in that issues can be delineated and alternative approaches reviewed. Occasionally, an innovative process may be developed. Most importantly, understanding the experience of other states in coastal zone and land use programs provides a broader experience-base from which to plan a new program. Hence, if New York must make decisions regarding land-use and coastal zone legislation in the near future, a review of the social, political, economic and environmental aspects of the programs of other jurisdictions may help. Although the geography among states differs, the social and political processes are very similar.

The coastal zone management programs of three states bordering the Gulf of Mexico will be reviewed in general terms. A comparison of these states leads to a list of issues to be addressed in designing a state level coastal zone program. Florida, Louisiana and Texas have been chosen as the conduits for this discussion. Any three other states in the nation could have been chosen. Each of the three states has an emerging coastal zone management program. Suggested programs and recommendations are continually generated but definitive action in terms of policy guidance and decision-making authority is yet to be enacted.

After a brief overview of the coastal zone programs of Florida, Louisiana and Texas, a list of issues will be presented. These should provide some guidance for state-level coastal zone legislation. Each issue will be discussed in terms of the experience of the three Gulf of Mexico states.

¹Research for this paper was sponsored by the Office of Sea Grant Development, Louisiana State University, Baton Rouge, Louisiana. (Maintained by the National Sea Grant Program, National Oceanic and Atmospheric Administration, Department of Commerce.)

Florida's Coastal Zone Program

Florida has a coastal area extending along both the Atlantic coast and Gulf of Mexico, with further coastal area surrounding the Florida Keys. In the last five years, environmental issues of major concern have faced Florida's coastal region. Most of these have been brought on by tremendous population growth. The proposed jetport site, located north of the Everglades, threatened the water supply necessary to preserve the Everglades, and brought national publicity. Urban sprawl surrounding Miami is a classic example of uncontrolled urban growth. The Biscayne Bay power plant controversy raised the issue of thermal pollution in Biscayne Bay, a major recreational area in south Florida. The latest environmental problems relate to development pressures along the Gulf Coast of Florida. Venetian Isle developments near Tampa, Florida and pressures for major residential and second home developments in Fort Myers are highly visible issues demanding closer attention.

In 1970, the Coastal Coordinating Council was established by an act of the legislature. The Coastal Coordinating Council is a small organization of twelve people with an annual budget of about \$225,000. They have developed a detailed atlas of the entire coastal zone indicating areas where development should be stressed, areas where conservation should be stressed and areas which should be preserved. They are actively assisting local governments incorporate their coastal zone management methodology into local planning efforts. Their statute does not give them regulatory authority over local planning or local projects.

Three new measures were passed in the recent legislative session which overlap the coastal zone efforts. There is a new land and water management program which regulates major development projects throughout Florida. There is a new bond issue to purchase recreation lands along the coast and inland. There is a new water management program which applies statewide.

In Florida, the Governor's office has established a program for land use planning. It is uncertain at this time where the coastal program will fit into this overall picture.

Louisiana's Coastal Zone Program

Geographically, Louisiana has a dominant characteristic: an extensive marsh and estuary system encompassing 7 million acres and including the active delta of the Mississippi River. There has been extensive canal dredging for oil and gas exploration and production, and navigational development within Louisiana's coastal zone. The vast marsh and estuary region is the nursery ground for most of the Gulf of Mexico fisheries. Canal dredging coupled with flood protection measures has facilitated erosion all along the coast. Sixteen and a half square miles of Louisiana are lost every year to erosion.

Because of the extensive marshes all along the coast, Louisiana's coastal zone program tends to be centralized. The state's Wildlife and Fisheries Commission has stressed the protection of the marshlands in the interest of preserving wildlife and fishery resources. However, major pressures for flood and hurricane protection, navigational development and mineral development have resulted in the non-renewable resources dominating over the renewable in the last thirty years. These issues tend to occur throughout the coastal area and act to centralize some of the problems.

Recent development of a coastal zone program by the Sea Grant program at Louisiana State University (LSU) in Baton Rouge, coupled with regional planning efforts by the Corps of Engineers and the Wildlife and Fisheries Commission, may act to reverse the bias in favor of the construction programs. Citizen pressure has had much to do with this.

Four major Louisiana-based groups are at work in coastal zone management. The Assistant Director of the Louisiana Wildlife and Fisheries Commission handles most decision-making relating to marine and coastal environmental affairs. The Louisiana Advisory Commission on Coastal and Marine Resources, in cooperation with the State Planning Office, is planning a comprehensive coastal zone management program for the state. The LSU Sea Grant Program has provided substantial backup information and support to the planning efforts. Finally, the Corps of Engineers has tremendous influence over most resource use problems in the coastal zone due to the flood protection program, and the extensive amount of coastal waters. The Corps has a major Basin Planning Study underway which provides much of the information regarding coastal water and land processes.

The coastal zone management plan being prepared by the Coastal and Marine Resources Commission will set forth specific programs to be implemented by government at several levels. Technical work in mapping the coastal zone and determining criteria for decision-making is progressing under Corps of Engineers and Sea Grant sponsorship. A trend in Louisiana is to incorporate coastal zone management concepts into environmental impact statement reviews of public projects. For example, the Corps of Engineers has 60 active major waterworks projects authorized in coastal Louisiana, each of which requires an environmental impact statement. This has generated many studies into the regional impact of the numerous projects.

The Texas Coastal Zone Program

Texas's coastal zone contains an extensive system of barrier islands. Problems with the barrier islands relate to their use by the public, and sanitary conditions on them. The Houston-Galveston region presents problems of urban sprawl and heavy industrial pollution. Agriculture and recreation are major uses of the coastal zone.

Texas's concern over its coastal zone was spearheaded by a key legislative leader-- Senator Babe Schwartz, whose district is along the coast. He was supported in his effort by the State Land Office and the Governor's Planning Office. Texas has a strong ocean-related industrial base which has had a continual interest in the state's ocean and coastal program. Texas A & M University and the University of Texas have significant coastal and ocean programs. Finally, the two visible issues which generated the need for a coastal zone program are the open beaches policy and the desire to eliminate the sale of submerged lands.

The Texas legislature, led by Senator Schwartz, asked the Interagency Council on Natural Resources and the Environment to prepare Texas's first comprehensive report on coastal zone management. They were preceded by legislative study committees which had dealt with the problems of beach access and use. Recently, The Texas Council on Marine Related Affairs was established to bring private sector viewpoints into coastal planning.

Texas has just released its Coastal Resources Management Program (CRMP) comprehensive report. This report suggests a number of specific programs and some legislative changes. The Texas Council on Marine Related Affairs and the Interagency Council on Natural Resources and the Environment will be responsible for implementing the suggestions of the CRMP. However, it is unclear at this time who is responsible for implementing the recommendations. Legislative action is necessary before any of them can be implemented.

Issues Facing State Level Coastal Zone Legislation

The following list suggests common problems all states face in devising coastal zone legislation to serve their needs. The list includes those considered critical by this author.

1. Coastal Zone vs. Land Use Management. All three states face the question of how to integrate, or coordinate, coastal zone planning with land use planning. In each case, the land use efforts have proceeded through the State Planning Office of each of the states, and were initiated by executive, rather than legislative, action. The coastal zone programs have arisen out of legislative committees which recognized the importance of the coastal zone and imposed planning requirements upon the executive branch. In Louisiana, lead agency designation for coastal zone management has been placed with the State Planning Office. This will probably insure coordination and integration within Louisiana. In Texas, however, the major lead for coastal zone matters seems to have been placed in the new Texas Council on Marine Related Affairs which is a legislatively created, and dominated, organ. Its relationship with the executive branch in the future is uncertain. Florida's Coastal Coordinating Council has, as one of its members, the director of state planning who is primarily interested in land use controls. It is uncertain whether the Coastal Coordinating Council will be merged with the land use program.

2. Legislative vs. Executive Lead. In the case of all three states, the initiative for coastal zone management has come from legislative groups. Typical of state legislatures, a low-visibility coastal zone study and advisory effort can normally get passed if there is no avowed opposition to it. However, with the passage of federal coastal zone management legislation and the impending land use legislation, there is now a direct necessity to deal closely with the executive. Since any regulatory program which evolves out of coastal zone planning will normally become a function of a regular executive agency, the executive branch must ultimately become involved.

In all three states there is little or no visibility of coastal zone matters and coastal zone issues with the chief executive. This stands in stark contrast to some of the other states of the United States. Delaware's former Governor Peterson was directly involved in lobbying for their coastal zone law. Governor Reagan was visibly opposed to the coastal zone proposition which recently passed in California.

3. State Planning Office vs. Line Agency for Coastal Zone Management. In Texas, the State Planning Office has been the staff agency doing coastal zone planning. In Louisiana, the Governor has assigned lead responsibility for coastal zone management planning to the State Planning Office. Both will be using special coastal zone commissions to assist them. In Florida, however, there is no role for state planning at this point, even though the State Planning Office sits as one of the 4-man Coastal Coordinating Council.

There should be a clear distinction between the planning aspects of coastal zone management and the actual management itself--a regulatory program. (Normally, State Planning Offices will not be regulators, although Delaware is an exception.) There is a trend toward State Planning Offices exercising lead responsibility for creating a coastal management program, but not in managing the coast. In Louisiana, management of the coastal zone has been with the Wildlife and Fisheries Commission and may remain there, even though state planning, in conjunction with the Coastal and Marine Advisory Commission, creates the management program.

4. Governmental Council vs. Interest Group Commission vs. Single Administrator. There have been a variety of approaches in deciding the nature of the group that directs coastal zone management efforts. Texas and Florida have intergovernmental councils made

up of existing agency heads. Louisiana created a 10-man Advisory Commission, most of whom are from the private sector. There have been suggestions that a single administrator responsible to the chief executive could handle coastal zone affairs. This latter approach could probably occur in actual management, where regulatory decision-making is the general practice. When programs are being formulated, however, the intergovernmental council and the commission are frequently used to expand the base of input for the planning effort. Interestingly, Texas uses all three approaches. The Council on Marine Related Affairs is similar to a commission, the Interagency Council on Natural Resources and the Environment is an intergovernmental council and the commissioner of state lands is an elected official whose influence over the use of the coastal area is very strong. If legislative recommendations are followed in Texas, the commissioner of state lands would have more power with respect to the use of coastal public lands than heretofore.

5. Government-University Relations. All three states have some relationship with universities in developing coastal zone management programs. Texas relied substantially on university-based research groups to prepare the technical reports accompanying their recent report. Louisiana's program arose out of recommendations from the LSU Sea Grant program. Some of the technical work in support of the coastal zone effort is being done by the University. Florida's relations to a particular university have been less visible. However, they recently hired a former university professor who was also a Sea Grant program director to handle research coordination. In many cases, Sea Grant programs at universities have been designated "coastal zone laboratories" for their particular states. In almost all states, university people, mainly Sea Grant funded, have been involved in developing coastal zone programs. Official documents in Florida, Louisiana and Texas all mention that there should be strong reliance upon university support in developing coastal zone programs. Much of this can be attributed to problems such as surface geology, marine biology, ecology, etc., which are disciplines whose expertise primarily rests in universities. An exception to this is in Louisiana, where the Wildlife and Fisheries Commission has the best marine biology data available in the state.

6. Technical Information Necessary for Decision-Making. If decision-making is to rely upon some rational analysis of the coastal environment, providing the necessary technical information for such a decision-maker is a highly complex and very expensive task. The three states have taken different approaches in this effort. Florida has integrated the technical work with the agency responsible for developing coastal zone management plans. (Their atlas of the Florida coastal zone was prepared in-house.) In Louisiana, although the statute requires the Advisory Commission on Coastal and Marine Resources to develop a coastal management plan, staff limitations did not allow the technical work to be accomplished internally. On their own initiative, the Corps of Engineers and the Sea Grant program have sponsored a continuing effort which is leading toward the presentation of coastal zone atlases to the state. There is close coordination between the Advisory Commission and this technical effort. In Texas, the coastal management program contracted with the Bureau of Economic Geology at the University of Texas to do the coastal mapping work. This work is summarized in an appendix to their final report. Florida's effort is probably the most successful since the scope and detail of the mapping project relate directly to the needs of the agency responsible for coastal coordination. Hence, it was probably done more economically and is more responsive to management efforts. It is also in-house, meaning that those who developed the atlas will also be those using it to advise planning units as to the methodology and conclusions of the effort.

7. The "Highly Visible Problem." Although there are very many similarities amongst coastal states, each has a particular problem which tends to dominate politically. This visible problem frequently requires special attention in coastal zone legislation and may in fact determine how coastal management proceeds in that state. Louisiana, for example, has the visible problem of oil and gas operations in the coastal zone. Coupled with this is the strong political "campaign" to have a superport located off its coast. A similar situation exists in Texas with respect to superport development. There is a

"healthy" competition between these two states over who will get the first superport in the Gulf of Mexico. This problem will probably be an integral part of coastal zone management and in some cases may be determinative. Florida on the other hand faces the highly visible problem of tourism and population boom. An effective coastal management program in Florida must address the question of urban development, subdivision controls, etc. Hence, each state addressing questions of coastal management will have to incorporate very particular, highly visible problem areas into the planning effort.

8. State and Substate Governmental Relations. Florida has begun an effective program of educating local planning groups about coastal zone management principles. They give out small grants to local planning units, requiring them to apply their coastal management methodology to the local situation. Regular conferences are held between the staff of the Coastal Coordinating Council and local and regional planning staffs. Louisiana and Texas have been working primarily at the state level. They have yet to face the question of integrating their efforts into substate units of government. Appropriate mechanisms for integrating with local governments are necessary in any state program. Local governments normally have the powers to control land use and, politically speaking, must be behind a given program for it to work. Frequently, their knowledge of local areas is a critical part of the planning process. Other states, notably Michigan and Washington, effectively relate their programs to local governmental units by statute.

9. Multi-State Regions. The Gulf of Mexico states have not approached coastal problems from a regional viewpoint. The only visible regional groups are the Gulf State Marine Fisheries Commission and regional development commissions. The New York Bight-Long Island Sound is probably in quite a different position. A multi-state regional approach may be very necessary. Determination of multi-state regional approaches depends upon geography on the one hand, and political history on the other. The geography of the New York-Connecticut-New Jersey area may require a regional approach. Whether it can be done politically is a different matter.

10. Public Sentiment and Political Leadership. Contrary to California, whose citizens passed a coastal zone initiative into law by circumventing the legislature, and contrary to East Coast states, where public sentiment against offshore oil development and offshore power plants seems high, there is little such public visibility in the Gulf of Mexico. There is an "environmental movement," but there has yet to be a highly organized political campaign focused upon specific coastal problems (with the exception of a few highly volatile issues in Florida, such as the Everglades). Highly visible political leadership is also lacking in the Gulf of Mexico. No governor has yet made significant comments on coastal zone problems which would indicate that they are a major part of his program. Certain key state legislative leaders have taken the initiative to bring about reforms. The question of public sentiment and political leadership has a direct influence on the type of coastal zone legislation which can be passed. Substantial legislation, involving significant controls over development in the coastal region, can probably not occur without a very specific and direct campaign backed by strong politicians. This occurred in California, Delaware, and elsewhere. It may be necessary in the Gulf of Mexico before significant progress is made.

11. Asserting a Specific Policy Preference. Every state faces the problem of how much policy direction should be enacted into legislation. Those who must administer state statutes sometimes assert that they want the statute to give them some specific policy to implement, while others say that they would prefer a much broader, less specific statute, and allow administrative regulations and experience to fill in the gaps. Florida's Coastal Coordinating Council's enabling statute says nothing about how the coastal zone should be used. There is general language about providing the most benefit to the most people. However, the administrative agency, through their technical work and their desire to see their efforts at work, are teaching coastal zone management to local planners based upon their analysis of which areas of the coast should be preserved, con-

served or developed, based upon their research work into the intrinsic suitability of coastal resources to handle particular uses. Louisiana has faced a similar situation. Although the Wildlife and Fisheries Commission can regulate the use of water bottoms to minimize damage to fish and wildlife resources, there is no specific statutory authority enabling them to deny dredge and fill requests. They are working under neutral statutory guidance. Modifications can be suggested, and mitigation factors required, so as to minimize damage to fish and wildlife resources. States could follow examples set by California and Delaware and provide very specific policy preferences--preservation required over development. Each state must face this in developing legislation.

12. Integration of Management of Specific Resources with General Coastal Zone Management.

Each state has existing coastal management programs. Normally, management relates to a specific resource. Water quality laws, shrimp management laws, oil and gas development laws, are examples. Each has its own administrative agency. Does coastal zone management affect all of these activities? Or does it relate to something new, such as land use controls for the purpose of environmental quality? Florida is attempting to direct new growth into those areas best suited to receive that growth. Development is excluded from "preservation" areas--those which are highly productive for marine life or intrinsically valuable.

In Louisiana, the issue is clouded. Management of the three large marine fisheries--shrimp, oysters and menhaden--tends to be the centralizing feature of environmental management. The health of the coastal environment is determined by the damage or impact upon these particular fishery resources. Hence, it is hard to envision a separation of coastal zone management from fisheries or living resources management. Since there are already highly developed management programs for the fisheries resource, the question arises of what role a generalized coastal zone management program would play. Some have suggested that coastal zone management in Louisiana should be an expanded version of what we already have in the Wildlife and Fisheries Commission.

13. Impact of Federal Coastal Zone Management Legislation.

Officials in every state read the federal coastal zone management statute carefully prior to writing their own legislation. Although certain specifics may be altered within a state's program, the thrust of state level efforts will probably remain as they are and will not be substantially altered because of the federal coastal zone management statute. Some adjustments may be necessary, and some strengthening, but the overall impact will probably be slight. From the federal agency's viewpoint, they are as anxious to accommodate to programs states have already begun as the states are to maintain the work they have done and to strengthen it under the federal statute.

The coastal programs of Florida, Louisiana and Texas have been reviewed for the purpose of identifying common issues facing those three states. No statute from one state can be adopted and applied to another state without alteration and change. The governmental and technical issues are different, but the desire to preserve our coastal zones appears to be universally felt.

Policy Alternatives

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I have been asked to speak on the topic of "Policy Alternatives." Don Squires suggested that we might be able to provide some views of the alternatives available to the State of New York in coming to grips with the development of its coastal zone plan. I shall therefore attempt to array before you some of the basic issues concerning which state governments will have to make decisions, particularly in relation to the terms of the Coastal Zone Management Act of 1972. In the light of recent events regarding the funding of this Act, however, I would like to conclude with a report on some of the policy alternatives which are open to us at the federal level.

The first--and probably most important--issue facing the state is whether it should or should not embark upon the development of a coastal zone management program, as envisioned under this Act. I believe it is extremely important that the state recognize what this program is all about. The Coastal Zone Management Act is the first piece of land control legislation passed by Congress; it includes water control as well. It will not be the last, but at the moment it is the only one. It is not simply another categorical planning effort supported by the federal government. It carries with it encouragement that state government begin to exercise its constitutional authority regarding the control of land and water uses in coastal areas. It provides significant incentives, not only in potential funding, but in permitting states to begin to exert control over federal activities along the coastlines. This represents a considerable challenge to the traditional concepts of local autonomy in these matters. The Act provides a number of ways in which local and regional interests are to be taken into account in the preparation and implementation of coastal zone management programs. Nevertheless, it is clear that the central actor in this political process will necessarily be state government.

Let me say that the federal government is not going to tell the State of New York or any other coastal state whether it should engage in this program. It is entirely voluntary, although there are strong incentives for states to participate. The decision is yours, not Washington's. You cannot make this decision, however, without some reasonable knowledge of the consequences of starting on such a course. I hope that after we have reviewed some of the other policy questions here, you may be in a better position to grapple with this most important one.

One more point deserves mention here. The states themselves, in general, have taken the initiative in coastal zone management. The federal government has, perhaps, not been aware until recently of the really significant steps taken in this field within the last few years by various state governments. The Coastal Zone Management Act is, I believe, a recognition of these efforts, and an attempt to express the national interest in encouraging them.

If we assume that a state decides to develop a coastal zone program, the second question that arises is likely to be, "Who will develop that program?" Here again the state is the central focus. It will make the decision, not the federal government. Under the Act the state has the authority to undertake all the work itself, or it may opt to have other organizations or agencies perform some of it. Part of the program might be developed by area-wide planning agencies or local governments. Or the state might choose

to delegate some of the responsibility to interstate bodies, such as regional development or river basin commissions. The only admonition I would mention is that the state must assume responsibility for the development of a statewide program that is truly reflective not only of local or interstate concerns but--most importantly--of statewide interests.

New York State's coastal zone is perhaps one of the most varied and interesting in the country. It includes almost all of Long Island, with its valued seashore and insistent population pressures. It includes a good part of New York City, much of whose livelihood derives from its maritime commerce. It encompasses at least a portion of the Hudson riverfront, target of great recent environmental concern, and included within the statutory definition because of its tidal flow and presence of measurable quantities of seawater. And it includes, under this Act, the shores of Lake Erie, the Niagara River, Lake Ontario, and possibly parts of the St. Lawrence River.

It should be understood that the Act envisions the development of a coastal zone management program for all of a state's coastal area. While the Act specifically permits segmentation--that is, preparation of individual programs for various portions of its coastline at different times--it requires that there be provision for the integration of all coastal programs into a single state coastal zone management program within a reasonable period of time. We take this to mean that a state, in order to qualify for the benefits of the Act, may not exempt any part of the coastal zone from consideration in the state's overall program.

In preparing guidelines, we interpreted the Act to imply that segmentation should be the exception rather than the rule, and that primary interest should be focussed upon the more or less simultaneous development of a single state management program. Two reasons for allowing segmentation might be the state's necessity for devoting substantial staff resources to a segment of coastline with particularly pressing environmental or developmental problems, or the near-impossibility of developing at once a program for the extremely long coastline of a state like Alaska.

This is not to imply, however, that we at NOAA frown upon the notion of developing the management program in simultaneous segments, utilizing whatever planning agencies might be appropriate. I am, for example, quite familiar with the marine resources activities of the Nassau-Suffolk Regional Planning Board, and, in fact, I participated in some of their early work in coastal problems on Long Island. Other such regional bodies as the Genesee-Finger Lakes Regional Planning Board and the Erie/Niagara County agency also stand ready, I am sure, to assist the state in developing its program. Again, it is the state which must determine the proper mix.

A third major issue facing the state is, "Who will pay for developing and implementing the program?" As you are undoubtedly aware by now, the President's budget for Fiscal Year 1974 contains no request for funding under the Act. This is probably due to two factors: the Administration's desire to keep the budget within reasonable bounds, with particular emphasis on pruning or eliminating categorical grant programs, and a concern that a coastal zone program might in some way conflict with the land use program now being considered by the Congress.

We have received indications from the Office of Management and Budget that they feel there is adequate authority to fund this program under the HUD 701 comprehensive planning program. The Office of Coastal Zone Management has contacted HUD regarding use of 701 for the planning portion of state coastal zone management and has received some affirmative reactions. Given what appears to be the future direction of the 701 program, it seems likely that state governments may have some measure of control over virtually all 701 funds coming into the state. Obviously some of it might be applied to coastal zone planning. The FY 1974 budget includes a request for a 10% increase in 701 funds, essentially designated for phased-out planning programs. States may, therefore, have

to make some hard choices regarding funding for planning all around.

We are also investigating alternative sources for funding at least portions of a state's program, including the RANN program of the National Science Foundation, and NOAA's own Sea Grant program. In addition, we are looking at federal programs which might provide technical support for coastal zone planning and management, such as the Soil Conservation Service's conservation needs inventory and the technical capabilities of specific elements of NOAA, the Corps of Engineers and the Department of the Interior.

Once a state actually begins the development of a coastal zone program, a fourth issue confronting it will be the geographic extent of the coastal zone actually subject to the management program. This is an exceedingly complex issue. The coastal zone is defined in the Act as:

"the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder) strongly influenced by each other and in close proximity to the shorelines of the several coastal states, and includes transitional and intertidal areas, salt marshes, wetlands and beaches. The zone extends, in Great Lakes waters, to the international boundary between the United States and Canada and, in other areas, seaward to the outer limit of the United States territorial sea. The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact upon the coastal waters. Excluded from the coastal zone are lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents."

This is some help to a state, but obviously some further definition or criteria will be required. It is our present intention not to dictate to states how the line--at least the landward line--around the coastal zone should be drawn. We are aware, however, that many states, especially in the Southeast, are having a very difficult time with this issue, which is one of the six basic required elements of a coastal zone management program.

In virtually any coastal state, and I'm certain New York State is no exception, there will be conflicting pressures upon those developing a program to both expand and constrict the definition of the coastal zone. I presume that here, as elsewhere, the final criteria will represent a practical compromise, reflecting a recognition of both scientific and political considerations. And this, I suspect, is exactly what Congress intended.

You may have noticed that both the Act and I have refrained from use of the term "coastal zone plan." This is not simply a reflection of a growing concern about planning for planning's sake, but more a desire to emphasize that the effort envisioned here is seen as an integral system, encompassing both planning and implementation. In many ways the planning element of the system is the easier to tackle, despite the technical difficulties and political judgments required. It is in the management end where I have identified the last two issues facing the state. These are far and away the most critical and essential to the success of the system, and hence of greatest political interest.

The fifth issue can be stated, "How does the state intend to exercise its authority over the land and water uses of the coastal zone?" Here again, the Act has provided some guidance, listing three methods which must be used, either singly or in combination:

"(A) State establishment of criteria and standards for local implementation, subject to administrative review and enforcement of compliance; (B) Direct state land and water use planning and regulation; or (C) State administrative review for consistency with the management program of all development plans, projects, or land and water use regulations, including exceptions and variances thereto, proposed by any state or local authority or private developer, with

power to approve or disapprove after public notice and an opportunity for hearings."

NOAA does not intend to go very much further in interpreting this rather straightforward guidance. We do feel, however, that in order to comply with this requirement, virtually all states will require some new basic legislative authority. There is a tacit assumption on our part that the development of a state coastal zone management program will almost necessarily entail the preparation of a legislative package. The state legislature, therefore, will play an important role in the process of program development.

It should be pointed out that states are moving rapidly toward a recognition of the need for this type of authority. The various laws enacted in many states, including the spectacular referendum vote in California, all suggest a growing popular and legislative awareness that coastal resources are finite and require some rational form of management in the state's best interest.

The manner in which the state goes about exercising its land and water use authority really goes to the heart of the American governmental system. The tenacity which local governments exhibit in these matters demands that the national policy, as stated in the Act, of "encouraging cooperation among the various state and regional agencies including establishment of interstate and regional agreements, cooperative procedures and joint action" be followed closely. A strong intergovernmental approach is imperative.

The sixth and last issue is really a corollary of the previous one. "Who is to operate the management program?" The state, of course, can do it itself. But it may, at its option, delegate portions of that authority to local governments, area-wide or regional agencies, or interstate bodies, so long as the terms of the approved management program concerning land and water use control are being carried out in cooperation with the state. Each state will have a different set of circumstances and a different existing governmental structure into which coastal zone management must fit. The organization of the management implementation mechanism is clearly a delicate matter, requiring great technical and political skill, wisdom and tact, plus a minimum of federal intervention.

I hope that this discussion of the issues in the preparation of a coastal zone program may be of some assistance to you in deciding the first issue of whether to undertake such a program in the first place.

We in the Office of Coastal Zone Management have learned that a number of states plan to develop coastal zone programs on their own, with or without funding from the federal government. They intend to follow NOAA's guidelines when they are available and ultimately to submit those programs to the Secretary of Commerce for approval. They see as particularly attractive the measure of control that states can thereby obtain over the federal activities in their coastal areas, especially the required consistency with state programs of activities needing federal licenses or permits.

As a result of this desire on the part of states, the Office of Coastal Zone Management is proceeding to develop its guidelines on this program, despite the lack of funding. We are also bringing together a small, internal planning staff to put together a program of assisting states in their own coastal zone activities. Hopefully, we will be able to identify relevant sources of research, information and data--and funding as well, perhaps--useful to coastal zone managers. We also will try to determine significant gaps in knowledge and see how such knowledge might be gained. We will investigate the vast resources of NOAA to see how the capabilities of such elements as the Environmental Data Service, the National Weather Service and the National Ocean Survey can be brought to bear on coastal zone problems. And finally we will act as a clearinghouse for the interchange of ideas and individual state efforts. I am here to solicit actively your ideas about how we might be of assistance to you.

Summaries
of the
Workshops

Critical Issues for the Coastal Zone

Electrical Energy Production - Its Effect on the Coastal Zone

Discussion leader: Mr. Dennis Rapp, Director, Office of Environmental Planning, New York State Public Service Commission

Recorders: Mrs. Claire Stern, Executive Director, Long Island Environmental Council
Prof. Ronald Stewart, Atmospheric Sciences Research Center, SUNY at Albany

Summary prepared by Prof. Stewart

Introduction -

The workshop was attended by individuals representing federal, state and local government, industries, research institutes, and universities. The workshop started slowly as the individuals examined a series of points of interest in an attempt to find a common ground for the basis of discussion. At least five major areas of interest were enumerated by Dennis Rapp: 1) siting of electricity generating facilities, 2) super ports for fuel transport, 3) transmission lines, 4) energy consumption, and 5) oil and gas resource development along the coastal zone.

Discussion -

Siting was chosen as the first topic for the workshop. The availability of physical, chemical, and biological data for decision-making appeared to be a major stumbling block for all agencies and individuals. Each site must be reviewed under an environmental impact statement; yet these statements are neither all-inclusive for one site nor sufficient to make a model of a coastal zone area where several generating units are proposed. The impact of a nuclear versus a fossil fuel facility still rouses intense emotions and cannot yet be clearly decided based only upon the facts. The possibility of clustering our generating facilities was considered. The present concept of stretching out a series of sites all along a coastline simply dictates a whole series of land use planning concepts with a generating facility in the center. This is especially true if the facility is nuclear and subjected to population restrictions, but in more subtle ways is also true of a fossil facility which may release a stack plume causing an SO₂ problem downwind, or may cause even one oil spill on nearby beaches. Proper procedure would be to complete a land use plan, which would aid in siting in the same way it would delineate commercial or residential zones, only after a coastal zone resource map had been completed. The impact of single purpose siting on proper land use and its value must be considered. A full "social cost" must be comprehended and dealt with fairly.

Thus the concept of clustering should be given more study as soon as feasible. There appears to be some biological trade-off or balance which may enter into this concept. Based on the studies directed by Dr. Donald C. McNaught (SUNY at Albany), it appears that the zooplankton population regenerates itself after passage through the condensers and, by balancing the condensor loss with the gain due to warmer water, the total impact may be minimized. Whether or not this can be done was questioned and remains to be proven conclusively, but present studies point toward the feasibility of this concept.

The term "balance" came out in our commentary several times. How do you balance a demand for electrical power with a demand for preservation and/or a cleaner environment? Every device, facility or precipitator designed to decrease pollution requires electricity for its construction and/or operation and maintenance. (It was suggested that abstinence

to control population does not require electricity--unless you watch TV.) How do you balance the demand for suburban and city mass transit which depends on electricity with a demand to site generating facilities far away from people, and then attempt to control the construction of transmission line corridors? How do you select sites, and also select non-sites, those areas which the people are not willing to allow to be developed into generating facilities?

The development of off-shore versus on-shore siting is of concern, but neither time nor expertise was available to answer all the questions necessary for recommendations from the workshop. Development inland using auxiliary cooling facilities was discussed briefly, but no utility is prepared to go to dry cooling towers at this time, nor are they convinced of the availability of data on cooling towers and cooling ponds to make such decisions.

Recommendations -

1. Assign one organization the task of organizing and analyzing available environmental and planning data as they pertain to electric generating facilities so as to encourage broad-scale coastal zone energy management.

Much data which lies in the private sector and university offices should be made available for integration with government studies, especially the new environmental impact statements under Section VIII of the Public Service Law. A representative of Niagara Mohawk Power Corporation indicated their willingness to allow access to their data for such analysis and specifically encouraged the selection of the New York State Sea Grant Program to carry out this function. This was recognized as an excellent offer to initiate, and participate in, the long-range coastal zone impact of siting. Such a program would also point out the areas where environmental research is still lacking for realistic coastal zone management.

2. Require energy impact statements for all new construction whether public or private.

Before planning for new construction is approved, the initiating agency must present an analysis of the energy needs, electric or otherwise. This would aid in short- and long-range forecasting of energy demand by all regions within the state.

3. The siting of transmission lines should follow the guidelines of the Public Service Commission at this time.

Very little time was available for discussion on this subject, but later commentary stressed the need to prohibit transmission corridors from scenic and recreational coastal zones.

Critical Issues for the Coastal Zone

Water Quality Problems

Discussion Leader: Mr. Eugene Seebald, Director, Division of Pure Waters, New York State Department of Environmental Conservation

Recorders: Prof. Robert E. Ford, Department of Sociology, SUNY at Buffalo
Mr. Richard Miller, Executive Secretary, Long Island Fisherman's Association

Summary prepared by Prof. Ford

Introductory remarks -

Few states have as rich and varied shore as New York. Indeed, its variety proves impressive; ranging, for instance, from the tidal wetlands of the Great South Bay to the cataracts and gorges of the Niagara River. Almost as impressive as the variety of its shores is the diversity of water quality problems New York faces. New York's shores encompassing a highly populous and industrial state, confront an extended and complex array of water quality problems, almost staggering to the imagination.

Perhaps less recognized, as revealed by the discussions, is that many water quality problems are often unique to specific shores. In addition it was noted that the water quality dilemmas facing New York prove in many ways to be a microcosm of the national dilemma.

The problem is often localized -

Discussion revealed that while the state as a whole confronts an assortment of water quality difficulties, specific problems are often unique to specific geographic regions or coasts. New York's general problem thus is a product of a series of individual water quality difficulties. For instance, while Long Island's waters are particularly plagued by nitrate enrichment, Lake Erie's waters are more compromised by phosphates. In a similar manner, the impact of thermal pollution is apt to be very different in the Hudson River than in Lake Ontario.

Consensus thus seemed to be achieved in the proposition that no one single statewide solution could adequately handle the full diversity of water enrichment problems confronting New York. Thus, in many cases, regional or subregional planning appears to be the most reasonable approach to those water quality problems unique to a particular coastal zone. This, as several panel members observed, does not preclude the need for a degree of overall coordination through state involvements.

Coastal zone protection: A sense of urgency -

There appeared also to be widespread agreement that the water quality problems of the state's coastal zone are severe. With increasing population pressures, demands for more recreation, additional resource development and the need for more waste disposal sites, New York's coasts could well be subjected to even greater pressures in the immediate future. The situation, however, is not without hope. It was pointed out that there have been recent successes. It was noted that, for instance, Lake Erie is "improving". The western basin of Long Island Sound may be better. However, without rational coast use planning such improvements are apt to be short lived. On Long Island particularly, development presently threatens several critical areas.

Representatives of the fishing industry were particularly concerned, noting that if something isn't accomplished shortly there may not be much left worth preserving. With increased pressure at present for expansion of our power generation capacity, for exploration for our offshore oil and gas resources and growing demands for waste disposal sites, it is critical that rational management of the coastal zones should be instituted as quickly as possible. Use patterns of the coastal zone are critically interrelated to its water quality. Further improvements in water quality will be doubly difficult without use management of shore areas. Agreement seemed to be that coastal zone management must be instituted as quickly as possible. In fact, some speakers called for a moratorium on all development in coastal areas until a management scheme could be established.

A lack of reliable data, a limitation for any management scheme -

The scepticism that greeted several of the remarks on water quality of specific areas, the extended disagreements on the changing status of shore areas, revealed yet another problem. At the moment the water quality of our coastal zone remains poorly defined. While there is obviously extensive testing of water quality statewide under the auspices of a plethora of agencies, such testing is often uncoordinated. In addition, given the specific purposes to which testing is usually directed, methods remain unstandardized. It is difficult, thus, to contrast the quality of one body of water with another, or of a single body of water over time, without standardized methods and a consistent spectrum of tests. Since many of the critical questions involving shore waters involve changes over time, it appears important that such testing should also occur on a regular and sustained basis.

It appeared fairly obvious, that without a statewide inventory of coastal water quality standardized in method, processed on a regular basis, and easily available through a central source, that the complex decisions which necessarily accompany any coastal zone management system will become doubly difficult, if not impossible. There appeared to be strong agreement with the proposal that a central inventory of water quality of the coastal zone should be established. Such an inventory should be coordinated and directed by a statewide agency. Since testing of many of the coastal waters is already underway, efforts in behalf of this inventory would be better directed toward coordinating, standardizing and filling in gaps in the program rather than instituting an overall water quality regimen of its own.

Related to the above proposal was a second theme. It was interesting to observe just how limited data on many aspects of our coastal zone are. As one speaker observed, some areas of the moon are known in greater detail. For example, patterns of the currents of western Long Island Sound are obviously critical in siting sewage treatment plant outfalls; circulation of Lake Ontario is essential knowledge for any decision on siting of power plants. Both subjects are poorly understood at the present. It was pointed out that the relationship between wetlands and fishery resources is as yet unresolved. Management obviously presupposes extensive knowledge of the system addressed. It appears at this moment that there is simply insufficient information on many coastal systems to make the rational decisions called for.

In a similar manner, our grasp of available and new technologies is limited. In many areas new technologies still await development. A further sense of the workshop then was that coordinated interdisciplinary and policy relevant research must be carried out to assure that the required facts necessary for rational management be available. Such research could draw its funding from a variety of sources. What appears critical, however, is that such research efforts not only be coordinated, but also available through an established centralized inventory.

The concept of water quality tradeoffs -

Once an inventory does establish some reliable indices of current water quality and

available water quality control technology, the obvious next question is to what level of water quality for a particular shore should management efforts be directed. Perhaps in the extensive disagreements discussion on this topic encountered this workshop foreshadowed the debate that any implementation of coastal zone management programs will apparently stir. Opinions at the workshop on what levels of water quality to mandate in coastal areas ranged from those advocating pristine purity to those who argued that at least certain waters could best serve the state as disposal facilities. Representatives of the oil industry called for reasonable guidelines on offshore drilling; conservationists called for a complete cessation of all such activities. Public utility representatives argued for lenient thermal discharge criteria; representatives of citizens groups thought current standards too lax. Perhaps the most sustained call was from representatives of the fishing industry. They called for as high standards of water quality as possible as the only salvation for a "dying" industry.

Across this diversity of belief there appeared to be but one point of general agreement. Almost all accepted to varying degrees, the concept of trade-offs in water quality. Thus, there appeared to be widespread agreement that standards of acceptable water quality should vary from situation to situation depending upon the most reasonable usage of that particular coastal area.

This proposition, however, was greeted with a host of qualifiers. The problem appeared not to be with the sense of aforementioned statement, but rather with implementation. Fears were voiced that pressure groups would vandalize the concept of trade-offs in maximizing their own personal goals. Several propositions were directed toward minimizing such an eventuality. It was argued that in any water quality management scheme aesthetics should be heavily weighted in any decision-making, despite our current inability to place dollar values on such criteria. In a similar vein it was argued that since coastal areas are unique and essentially irreplaceable, that recreational and wildlife enhancement values be taken into particular account in any decisions of which water quality standards should be established. Furthermore, given world protein shortages, rising food prices, etc. specific consideration in water quality management should be given to water quality levels that permit many of our coastal regions to be employed as a food resource.

The above remarks as well as many other comments made relative to water quality can perhaps be summed up in two sentences, which met with general agreement. Given the coastal zone's unique aesthetic, ecological, recreational, and food resource values water quality standards should be established and maintained at as high level as is economically possible. Second, those uses of coastal waters which imperil water quality should, whenever at all possible, be sited at locations away from the coastal zone.

Upgrading of the water quality of the coastal zone -

It was generally agreed that shore waters in several locales are badly in need of upgrading. Yet it was also observed that merely to maintain current water quality levels threatens to be both an expensive and difficult proposition. Rational management of the coastal zone is obviously something that will not be achieved cheaply. Sewage facilities are becoming increasingly expensive. Waste disposal is becoming more problematic daily. In such a context then the sense of the workshop seemed to be that the good intentions so often expressed in legislation must be backed up with financial resources. The legislation of certain water quality levels becomes irrelevant without accompanying resources to achieve such goals. Both federal and state authorities must address themselves to the problem.

While all participants generally agreed with the abovepoint, some voiced some hesitation that current resourcelimitations are being over-stressed. It was noted for instance, that there are other "non-structural" alternatives for certain water quality problems. The great success of the phosphate ban in Erie County in reducing phosphates in water was noted. Alternatives to dumping, for instance recycling, were proposed. Tax incentives and effluent charges were also advanced as alternatives. The sense of these comments seemed to be that the price of pollution should be borne more heavily by those who actually pollute. Discharge taxes, bans on certain chemicals, and a realistic fine structure would go a long way towards reducing the general financial burden of maintaining quality coastal waters. Certainly any management scheme must address itself to those problems.

Summary -

The following points achieved at least general consensus:

Regional or sub-regional planning appears to be the most reasonable approach to those water quality problems unique to a particular coastal zone.

Coastal zone management must be instituted as quickly as possible.

A central inventory of water quality of the coastal zone should be established.

A coordinated interdisciplinary and policy relevant research program must be instituted to assure that the facts necessary for rational management be available.

Standards of acceptable water quality should vary from situation to situation depending upon the most reasonable usages of that particular coastal area.

Aesthetics should be weighted heavily in any decision-making, despite current inability to place dollar values on such criteria.

Recreation and wildlife enhancement should be taken into account in any decision of which standards of water quality are to be established.

Water quality level decisions should permit many of the state's coastal zone areas to be fully utilized as a source of food resources.

Given the coastal zones unique aesthetic, ecological, recreational and food resource values, water quality standards should be established and maintained at as high a level as economically possible. Those uses of the coastal zone which imperil water quality should, whenever possible, be sited at locations away from coastal areas.

The good intentions so often expressed in legislation must be backed up with financial resources.

The price of pollution should be borne more heavily by those who actually pollute.

Critical Issues for the Coastal Zone

Resources - Their Conservation and Utilization

Discussion leaders: Mr. James Davis, Director, New York State Geological Survey
 Mr. Albert Jensen, Acting Director, Division of Marine and Coastal
 Resources, New York State Department of Environmental Conservation
 Recorders: Prof. Robert Sweeney, Director, Great Lakes Laboratory, State University
 College at Buffalo
 Prof. Harry Brenowitz, Director, Institute of Marine Science, Adelphi University

Summary prepared by Profs. Sweeney and Brenowitz

Introduction -

Mr. Jensen discussed marine resources: the exploitation of sand and gravel in New York's estuaries has had a severe impact on living resources. At this time, the exploitation of sand and gravel in the ocean has been developmental. Oil and gas potential is beyond the three-mile limit and is a federal responsibility. Any activities in the Georges Bank Trough and the Baltimore Canyon Trough may have an impact on New York's coastal zone. The fin-fish industry is in a serious decline, from which there are social, economic and political consequences. Recreational activities are skyrocketing. The shellfish industry is beset with problems in the estuaries due to increasingly poor water quality brought about by land run-off, recreational utilization, etc. The living resources of the estuaries are definitely a coastal zone problem. Current research and development in aquaculture could bolster the shellfish and other living resource industries. We should increase our efforts toward recreational utilization of living marine resources.

Mr. Davis discussed the mineral (non-living) resources of the coastal zone. The resources are finite, can be recycled but are non-renewable. Society must establish priorities for their use. Evaluations and predictions of environmental impacts must be made. The two potential resources of greatest significance are sand and gravel and fossil fuels. A distinction was made between resource and reserve: a reserve is a proven thing with known location and extent; a resource is of unmeasured extent and unknown location. Presently we have no fossil fuel reserves; we may have resources. However, we do have sand and gravel reserves.

Discussion -

There was a lengthy discussion on the question of off-shore drilling for gas and oil. Many believe this question to be moot because the state's control extends only three miles onto the continental shelf, where the probability for deposits is low. However, others pointed out that litigation was underway involving several northeastern states who propose to extend their mineral rights one hundred miles from their shores. New York State has joined in the case. This legal matter is further complicated by the question of how the lines delineating state and commonwealth boundaries should be extended seaward. Mr. Jensen again stated that activities in the off-shore regions would have an impact within the three-mile limit due to presence of the Labrador and Baltimore Currents. Others pointed out that in any case, oil and gas tapped off-shore most likely would be transported to the land by pipes which would transect the area of state jurisdiction. Therefore, the state would have to confront this issue if off-shore drilling were permitted.

When asked to clarify some of the possible impacts of oil on marine biological systems, Mr. Jensen explained that the fraction of oil that floated on the surface could destroy the eggs and fry of species in the upper waters. The more dense components could smother bottom dwellers, such as shellfish and flounders. The situation is different from that of Santa Barbara. Much must still be learned about the effects of hydrocarbons on living resources. Mr. Davis gave an illustrated presentation on the geostratigraphic entrapment of oil, explaining that it was believed that the geological conditions off the coast of eastern Long Island were not similar to Santa Barbara and other regions where faulting and extreme internal pressures could lead to blow-outs. However, one could not be sure what geological conditions were present until test drillings are undertaken.

It was pointed out that most spills of oil on the continental shelf did not occur during the drilling but rather in the transfer of oil from rigs to ships and/or pipelines. Other causes of oil pollution are poor housekeeping practices, such as discharging bilgewater at sea.

A discussion arose over the "energy crisis." Several representatives of oil and gas interests contended that the "energy crisis" was both real and current. Others felt that the problem was more related to the transport of these fuels. They also contended that there were adequate reserves of fossil fuels, primarily in the form of coal. However, more effort should be expended on procedures for converting the coal to a more acceptable fuel (i.e., removing the sulfur through gassification). More research on such procedures will be necessary. It was suggested that our thrust should be to develop an energy policy for the State of New York. Several people suggested alternatives to fossil fuels, i.e., windmills, ocean wave action and currents, solar energy, or geothermal energy. In terms of energy policy and needs for the future, careful consideration of all possible alternatives is absolutely necessary. After all, fossil fuel reserves and resources are finite.

Mr. Sweeney, who had opposed off-shore drilling in Lake Erie, explained that his objection to drilling at this time was due to the inadequate state-of-the-art of both preventing and abating oil spills in open water. He also believed that the regulations originally proposed for Great Lakes drilling by the New York State Department of Environmental Conservation covering liability and inspection were inadequate. In brief, current risks are greater than the potential benefits. He felt that when these problems were remedied, it would be possible to explore for oil and gas in the Great Lakes.

It was brought out that biological productivity had increased in some areas where drilling was occurring. Some cautioned that this may have been due to the creation of conditions unfavorable to some predators that permitted one or more species to increase markedly in number. The end result could be a lowering of species diversity, which in turn could lead to a highly unstable condition in which population explosions and crashes were the norm. Such a system would be difficult to "tap" for beneficial purposes.

Summary -

It was agreed that the more effective management of our natural resources is necessary. However, care must be exercised not to adversely affect other possible utilizations (aesthetic, recreational, fisheries, etc.) in the pursuit of more limited objectives (i.e., exploration and removal of mineral resources).

More research is clearly necessary. It is imperative that management policies be developed and adopted to insure conservation and preservation of both the living and non-living resources of the coastal zone.

Critical Issues for the Coastal Zone

Environmental Control - Physical Limitations

Discussion leader: Mr. Robert Cook, Director, Central Engineering, Division of Resource Management, New York State Department of Environmental Conservation
 Recorders: Prof. Donald R. Coates, Department of Geology, SUNY at Binghamton
 Mr. Samuel Williams, President, O'Brien and Gere, Engineers, Inc.

Summary prepared by Prof. Coates

Opening statement of Mr. Robert Cook -

Structures built by man along beaches are not immune to destruction by natural forces. It is clear that man cannot devise structures in such a locale that can withstand natural destruction in periods as short as 24 to 48 hours. However, since man already occupies some beaches, he and his structures cannot be abandoned. Something must be done in their behalf. The question then arises, what is the proper mechanism and procedure to protect the private citizen? The law in New York is very clear that state funds can only be used to protect public property. What, if any, are the circumstances that can justify expenditure of state funds for protection of private investments? Several situations are now occurring that have relevance to this issue, such as analysis and plans being created for floodplain management, and laws that will allow for floodplain insurance. We are in possession of sufficient knowledge to tell people that building and living along the beach is hazardous.

Discussion Period -

There was no structured format for the discussion. Instead, there was a wide range of free-wheeling comments and statements that covered a broad spectrum of problems and issues. Several themes kept recurring during the two-hour period, but formal action or consensus was not taken on any.

The greatest amount of time was devoted to the question of how much would really be lost in the beach environment if this area was left unaltered by man and his structures, and nature were allowed to take her own course. A philosophical element enters the picture because man has become imbued with struggle and his ability to control nature, rather than accommodate himself to nature. Several speakers mentioned there was a specific lack of sufficient geologic data in coastal areas of New York; furthermore, when data was available it wasn't always being used by the planners. Such information should be a necessity because geological science is very closely related to an understanding of the physical processes that operate in the coastal zone. The response to this was that invariably geological reports were written in a language and form not directly usable by the planner in the decision-making process. Another point raised was that although there is an absence of geologic information about New York beaches, there is much data from other beaches in the United States and England relevant to the New York situation. For example, studies in California and New Jersey have been done on the impact of groins and jetties. Also the work of Dr. Paul Godfrey and Dr. Robert Dolan (see Coates, D.R., ed., Coastal Geomorphology: Publications in Geomorphology, Binghamton, 1973, 404p.) on the barrier beaches of North Carolina is applicable to similar beaches on Long Island, such as Fire Island and Westhampton. Such studies showed that man's deliberate attempt to control beaches has caused accelerated erosion on both ocean and bay sides of the barrier islands. It was mentioned that more emphasis might be placed on "non-structural" control

methods in the coastal zone.

A specific type of problem and area mentioned was what to do about groins and erosion at Westhampton beach on Long Island. Although there are many groins in the area, erosion is still occurring. Residents want more groins, but this seems to be a never-ending cycle of "groins begetting groins." However, nourishment of beaches with imported sand without installation of groins has been unsuccessful in the past. For example, one case was cited in which 500,000 cubic yards of sand were washed away within a period of several days. A second problem at Westhampton duplicated in many other localities is that of public access to the beaches. Although there are public beaches, insufficient parking facilities deny use of the beach to the general public in actual practice.

Another major theme that occurred repeatedly during the session was the type, degree, and legality for state intervention in the protection of beaches. There is always the question of ownership; as is often said, "No two deeds are alike in Suffolk County." It is common for the property owner to own land to the mean high water level. Others own to the dune line. Greater law conformity would be in the general public interest. If public lands owned by a town or county are not properly protected, is it appropriate for the state to become involved and provide the needed protection? Governments seem generally to be persuaded to make decisions when they believe lands are being used for the highest and best utilization of the property; historically, this has meant large buildings and housing developments. Although it was recognized that the state could step in to protect public property otherwise unprotected, whether it could do so with the tight money situation and other priorities was a moot question. This problem of funding was mentioned several times throughout the discussion period. If sufficient funds became available, there are many things the state could do in the public interest in the coastal zone. However, when only a few hundred thousand dollars are available and not the many millions that are needed, the degree of state involvement at the present time must be severely limited.

When money becomes important, great care must be taken to assure people it is being spent in the area of greatest public interest and need. Before any coastal zone management program can become operational it must be understood that votes are necessary and that the voting public must become convinced of its high priority. Although all of the people cannot be pleased, a majority must realize the importance of the objectives for coastal management. A two-fold problem involves: 1) what to do about people already living and owning coastal property in hazardous areas? 2) how to alert would-be builders and people that development of additional coastal properties is not in the public interest? Any statement made concerning a management program must prove how the general public will be benefited.

The concept of time and how changes can occur in the long run was discussed. For example, what may be a problem today might be resolved by advances in science and technology tomorrow. Such breakthroughs can occur, and one example cited was in weather modification. By control of precipitation man could solve the problem of high water occurring on Lake Ontario, according to one participant. Also, in time, by legal procedures, more land can be acquired in the public interest in the beach area. Such property can be acquired through the law of "non-conforming use" whereby if more than 50% of a property is destroyed, as in a hurricane, the owner can be prevented from rebuilding at the same site. Furthermore, man's perception of the law changes in time; what may not be possible to do under the law today may be possible tomorrow. The literal statement of the statute hasn't changed, but people have changed. The state acquisition of property can become a problem because in condemning and appropriating coastal property for public use, it has taken lands off the tax rolls of the local government, which then seeks additional funding.

Summary -

This discussion group solved no problems, arrived at no unanimous decisions, formulated no recommendations. A variety of questions and issues was raised and there were several recurring themes that repeatedly received comments:

1. How many changes, if any, should man make in the natural processes that operate along the beaches?
2. What should be the involvement of New York State in the protection of beaches?
3. What is a proper strategy to follow regarding property owners and new construction in high hazard beach areas?
4. Where does the protection of beaches stand in order of priorities in the expenditure of state funds in the public interest?

Critical Issues for the Coastal Zone

Unique Areas - Problems of Preservation

Discussion leader: Mr. Henry G. Williams, Deputy Director, New York State Office of Planning Services

Recorders: Prof. Orville Terry, Marine Sciences Research Center, SUNY at Stony Brook
Mr. Eric Fried, Senior Wildlife Biologist, New York State Department of Environmental Conservation

Summary prepared by Prof. Terry

Background -

One of the strongest motivations for coastal zone planning arises from general concern that unregulated development of the zone can, and often has, resulted in the loss of irreplaceable resources which could and should be public assets, of both this and future generations. The particular resource most often mentioned has been the tidal wetlands, hardly even recognized as having value until the last few years, but now a focus of real concern as they are displaced by more immediately profitable land uses. A stark dilemma, still far from being resolved, is apparent between traditional concepts of private property rights and the increasingly asserted collective right of the people to a pleasing environment. The tidal wetlands introduce a further complicating element in that they also support a more concrete common property resource--the marine fisheries. It is almost unanimously agreed, immediate self-interest aside, that the wetlands should and must be protected. Yet how can this be done in the framework of our present system?

There are, of course, many other types of "unique" area deserving concern. The fresh water wetlands of the state have most of the public values of their marine counterparts and vastly greater total area in New York State. Many sites such as cliffs, dunes, beaches, and historical sites have special ecological, geological or cultural interest sufficient to justify protection from the workings of the profit system, even though it becomes increasingly difficult to draw up acceptable definitions to encompass them. Ultimately, public consensus must make the decisions.

Protection of such "unique" areas, however chosen, is a basic concern of coastal planning. Restrictive legislation is an obvious approach, but it has significant limitations and has oftentimes proved ineffective in preventing the adverse use of natural resources. The only enduring solution appears to many people to be some form of public ownership, with all its problems of funding and of management and supervision.

Discussion -

Substantial discussion concerning the definition of unique areas brought out the point that "unique" areas include more than wetlands. Cliffs, dunes, beaches, and sites having significant historical or cultural values must also be recognized. It is difficult, however, to identify and clarify particular sites in terms of their relative value to similar sites or to other needs of society. One possibility mentioned was a computer program which sorts out areas that do not "cluster" with other areas. The problem of defining marine and fresh-water wetlands was discussed, in relation to the wetlands survey (Marine Sciences Research Center, SUNY at Stony Brook), the Connecticut wetlands law, and proposed wetlands legislation. To some degree, all wetlands are unique and should be protected, but in practical terms there must be priorities, based on such things as

productivity, vulnerability, etc.

Can criteria be developed for unique areas which are not wetlands? More general criteria might be: irretrievability, contribution to ecosystem(s), support of rare or endangered wildlife.

Fresh water wetlands of the state are now being inventoried from aerial photos to about 0.5 acre by the New York State Department of Environmental Conservation. It is estimated that they may total 350,000 acres, or about 1% of the state's land area. The high cost of precise surveys was noted; for example, the Town of Southampton's current survey of its tidal wetlands was estimated to cost \$68,000. The advantages of such a survey, especially its usefulness in court cases, were compared to those of a simple legislative definition at minimum cost. The workshop was divided on the question of which method for defining wetlands was more appropriate.

The nature of an appropriate definition for unique areas was brought into question, with minority opinion that it should be based upon "process" rather than simple description. A key problem was seen to be the choice of an agency to establish and to apply a definition of unique areas.

Participants noted that "uniqueness" is a relative concept. What is unique in one frame of reference may be commonplace in another. The context is significant. Perhaps uniqueness is "that which provides variety within a given defined scope." This leads back to some variant of the computer approach--perhaps a voter survey of perceived "unique" sites from which common features could be selected. It might be better to eliminate the term "unique" in favor of some such phrase as "areas which are especially significant" (or of special value). They might be chosen on either a) an ecological, i.e., physical basis, or b) a cultural basis--archeological, historic, etc. Practicality may be involved--that which actually can be preserved or otherwise protected.

Assuming that the areas can be defined by some appropriate means, the next problem is the meaning of the concept of preservation. What level and method of protection is appropriate? Perhaps there should be an attempt to keep some areas "forever wild," while some other forms of protection or management are appropriate in other situations. While conceding that no area is completely unaffected by human activity, most speakers felt that some areas in the state should remain essentially untouched. It was noted that inaccessibility is the best protection for these areas. Other areas can be designated for relatively heavy use with appropriate safeguards. The level of use to be allowed might be based on the "character," however defined, of the area. The permitted use should be less than that which will alter the area's character.

It was stated that the ease of protection or preservation of an area is inversely related to its size, yet some relatively small areas, such as a small wetland in a built-up region, have special value. They are particularly "unique" in such an environment.

"Preservation" is closely related to the concept of ownership. How absolute a right does private ownership confer? There was difference of opinion regarding the extent to which ownership is an absolute right. The concept of stewardship was proposed, and also that ownership is really only a "bundle of rights" which is never complete. This is currently a dynamic area since the courts are changing their concepts of private vs. public rights. What means are available for insuring the "preservation" of unique areas now in private ownership? These can be grouped into three categories: a) zoning, b) a permit system, and c) cooperative programs, preferably with an economic incentive. There was some feeling that zoning is ultimately ineffective. Are the other categories any more effective?

In general, legislative protection is more effective when conducted by higher levels

of government. Local government is often influenced by local pressures and may lack expertise. It was suggested that a desirable approach is for the state to establish guidelines, standards and criteria, and for the municipality to make initial rulings with final review by the state. As an example, the legislature might extend the Stream Protection Act to cover Long Island wetlands and perhaps other kinds of area besides wetlands. Initially, an inventory listing of the areas should be made. Ultimately, the boundaries of all areas would be established precisely for regulation. Education for the protection of the areas and public recognition of their value would be necessary. A permit system should be established, with appeal to the state level, for local variances in exceptional cases. Vermont was cited as having a system like this.

Variations in the control mechanism were suggested to give more participation to local government. The Southampton Town Conservation Board is charged with safeguarding wetlands which are Town property. The general feeling seemed to be, however, that the thrust of land-use planning appears to be toward ultimate control at higher governmental levels; and to the establishment at higher levels of an overall program with standards and of broad criteria for enforcement. What is common in a locality may be unique statewide and vice versa. It may be feasible to authorize municipalities to set criteria for protection of unique areas and to enforce a program, but with state authority to proceed if local authority fails to act.

The general acceptance of statewide control was not unanimous; however, the view was also advanced that local values may be different from state values. In such instances, local values might be given priority. Would the workshop, as individuals, want the state to decide, for example, the fate of wetlands? There was some thought that the ideal arrangement might be a cooperative effort toward "preservation," but no detailed solution to the central vs. local authority dilemma was proposed.

There was limited discussion of specific legislation, existing or proposed, for wetlands protection; the consensus appeared to be that existing and proposed legislation would be adequate. No detailed suggestion of legislation to protect types of unique area other than wetlands was made. It was noted that the Scenic and Historic Site Trust is already engaged in making an inventory of such areas. No information on their criteria for the selection of sites was available to the workshop.

Summary -

The following statements were not framed as specific recommendations. They constitute an informal listing of the main points of general agreement in the workshop.

- * A program designed to protect "unique" areas, as one element in a coastal zone plan for the state, would not seriously overlap or duplicate existing programs. However, action at the state level is needed to insure overall coordination and implementation.
- * All state wetlands should be identified and reviewed for possible protection, but with some provision for necessary exceptions--an "escape" clause.
- * The definition and designation of "unique" areas other than wetlands such as significant historical, cultural or natural areas requires much more study. Further study is also needed regarding the means to identify and classify special areas (e.g., preserving, limiting or controlling use, managing, etc.)
- * The management and allowed use of "unique" areas ought to be based on the type of area and the reason for its protection. Generally, the favored use should be one which will not destroy or severely alter the area's natural character.
- * The ultimate responsibility for the designation and protection of "unique" areas must lie with the state, but with maximum local participation in both designation

and means of protection.

- * There is a need for more public education regarding "unique" areas, their nature, characteristics, and values.
- * Pending state wetlands legislation is supported, but should be broadened to cover fresh water wetlands and other "unique" areas under a broad coastal zone and general statewide land use plan.

Critical Issues for the Coastal ZoneLand Use Pressures on the Coastal Zone

Discussion Leader: Mr. Donald H. Elliott, Chairman, New York City Planning Commission
Recorders: Prof. Paul Marr, Department of Geography, SUNY at Albany
Mr. William Tyson, Executive Secretary, St. Lawrence-Eastern Ontario Planning Commission

Summary prepared by Prof. Marr

Introduction -

The New York State coastal zone is extensive, varied, and buffeted by pressures originating from both public and private sectors. The interests developing the coast lands of the state are increasing the tempo of their activity; this convergence on the margins of the state is taking place with little control. Land use planners have not been notably successful in regulating the changes taking place along the coastal zone. The state faces the prospect of diminished public access and scant land available for evolving long-term private needs. Furthermore, the loss of ecologically significant resources such as wetlands will have a detrimental effect on the productivity of commercial and sport fishing activities.

Background -

The purpose of this workshop was to examine the condition of our coast lands: New York City and the shores of Long Island in the south and the shores of Lake Erie, Lake Ontario, the Niagara River, and the St. Lawrence River on the western and northern margins of the state. In the south the developmental pressures range from the intense use and planned reuse of land on the waterfront of Manhattan Island to the gradually developing shores of scattered farms and villages on the eastern extreme of Long Island. In this area the public and government are aware of the value of the coast lands. Studies and plans have been made and are continuing for understanding the nature of the coastal land resource and husbanding this finite resource for a multiplicity of present and future uses. There may not be a consensus on coastal lands policy in the marine district or agreement on the means of controlling the use of this resource, but the variety of work being done towards this end by government at all levels and by private organizations is impressive.

On the western and northern borders of the state, the pressures on the coast also vary but are not nearly as intense as in the metropolitan New York City area. In the north and west the public and government are not so aware of the nature and speed of the development process. Significant coastal zone studies are occurring in the Buffalo, Rochester, and eastern Lake Ontario-St. Lawrence areas, but the agencies performing them do not have strong land use decision-making powers. Local government in much of this extensive region has not adopted the option of establishing the most rudimentary land use controls and is often antagonistic to establishing these controls over any part of the local jurisdiction undergoing development. The reasons for this are several. The principal resource of many of the coastal towns and villages is the shore land which produces a significant part of local taxes, and the summer recreational activity of this zone provides a strong but seasonal economic surge to the otherwise limited local economy. This activity is focused on eastern Lake Ontario, which recreation-bent downstate people can reach most directly by using Interstate 81.

The same locational relationship between New York City and eastern Lake Ontario makes the area attractive for a second major source of local income, power generation. Lake Ontario shore property is being purchased in substantial blocks for the present and eventual construction of power facilities. The water-cooling capabilities of these sites are the nearest to New York City that can be developed with comparatively little conflict with local interests.

Recommendations -

Workshop recommendations concerning land use were directed primarily at the problem of how to plan and manage the coastal zone most knowledgeably while at the same time utilizing existing institutions to the fullest extent possible. This discussion took place with the realization that:

1. Local government at present has the power to make the most significant land use control decisions.
 2. County and regional government land management powers are weak.
 3. State land use control powers are developing but thus far lack focus on a policy or a plan.
 4. Coastal land resource decisions are being made which do not take into consideration the unique value of the resource for local, regional, state, national, and even international purposes.
 5. A program for coastal land use control must be devised which allocates land for private and public uses.
 6. A coastal land use program will succeed only if the public and local officials willingly support it.
- * The workshop was generally of the opinion that precise planning and zoning decisions could be made best at the local level, but felt that there were demonstrated inadequacies with local planning and zoning that required modification. First, local planning and zoning decisions are regularly based on parochial criteria which seldom include adequate consideration of regional, state, or national requirements. Secondly, it is not uncommon for jurisdictions to refuse to exercise their option to prepare comprehensive plans and zoning ordinances and maps. Several suggestions were made to help resolve these two problems. Regional, statewide, and national considerations can be introduced into local land use decisions by setting state guidelines which regional planning commissions could be charged with directing at the local level. This would not prohibit local commissions and boards from making many of their own land use decisions, but their actions would be subject to regional review with channels of appeal open to a state board. Perhaps the recently-instituted California model of separate coastal commissions for various segments of the coast, over which a statewide commission presides, could be profitably studied. The second problem of jurisdictions failing to exercise the option to carry out a planning program could be resolved by mandating that county or regional planning agencies perform these local functions after a pre-determined grace period if local jurisdictions fail to respond.
- * The workshop also recognized the necessity of convincing the electorate and elected officials that coastal zone planning and management were beneficial to the community. This is necessary even if explicit guidelines are established by the state and enforced at the regional level, because unreported violations or an ignored program cannot be easily enforced. It is also necessary to recognize the strong home rule philosophy in local planning and the fact that a program partly directed from higher levels of government

will diminish this prerogative. Coastal zone issues must be dealt with most carefully, so that situations may be resolved in a fair atmosphere where the pros and cons of a case can be decided on merit. Awareness of the potential problems of imposing programs from above and the degree of delicacy that should be exercised in the process of implementing a program may help the smooth interfacing of agencies at several levels of government. Perhaps one of the successful means of assuring that an imposed program has the understanding of the electorate and elected officials is to incorporate both in the process of goal formation for a coastal zone program when it is first being considered and while it is being formulated.

- * Land control programs that rely on zoning and related land use controls alone run the danger of setting a negative and restrictive tone. It should be possible to consider positive measures to develop a coastal lands control program incorporating developmental elements. Such measures could, for example, compensate private and public sectors for restricting private development and for limiting thereby a potential increase in future taxes. Developmental rights or access rights permitting the public to cross property can be purchased from owners whose land is considered valuable for a variety of public uses but should not be further developed. Wetlands perhaps can be controlled in this manner, and access across private lands can be obtained to enable the public to reach the shore. Where large parcels of coastal property include valuable wetland or other shore resources valuable for public use, it may be feasible to use planned unit development methods allowing highly restricted development close to the shore offset by more dense development inland. In communities where the coastal lands are a major source of tax revenue, the regulation of coastal development by non-local government may cause a serious problem in the provision of local governmental services. This could be offset by subventions from the state. An alternate solution would be to establish a special coastal zone tax district extending beyond the local municipality so that inland areas benefiting from public coastal developments could also share the burden of their provision. Either recommendation or a combination of both would make the setting aside for public use of coastal lands having regional or statewide significance much more palatable to towns, villages, and cities with a limited tax base.

Summary -

The two coastal zones, downstate and upstate, have quite different pressures on their coastlands. Downstate--New York City and Long Island--has severe pressures on the shorelines, but ecological and recreation values are fast emerging as issues of major importance. In the north the pressures range from a comparative lack of interest for the inhospitable shores of Lake Erie to the rapidly developing second home and trailer sites that already cover sixty percent of the shorelands of eastern Lake Ontario and the St. Lawrence River. Here the shore is considered a major natural resource whose continued development directly benefits the economy; residents don't want interference in the process of exploitation. This divergence of attitude and conditions along the New York shorelands presents a distinct challenge to those considering--dealing with the problem of the diminishing shoreland resources of the state. It suggests the difficulty of devising uniform for both the marine and the lake and river shorelands. This is especially true if a program for regulating the use of the developed and undeveloped shoreland of New York State is to be based at least partially on existing planning institutions and on the interest and participation of local electorates and officials.

The workshop was of the opinion, therefore, that a coastal zone land use management program should provide management guidelines at the state level of government to

be enforced by regional boards having review powers over the coastal zone actions of local planning agencies. A program such as this would create substantial local concern if municipalities were asked to set aside part of their coastal zone resources because they were considered local, state, or national assets and if they were asked to set aside part of their local planning prerogatives. It was therefore suggested that means of compensating municipalities for a loss in tax base be considered as a part of a land use management program. It was also suggested that a management program have a positive or developmental aspect rather than being only prohibitive of certain coastal activities. Compensation for tax loss would require program funds, but would help assure a more rapid response to the danger the state faces in the deterioration of its shores and the loss of options over the control of its valuable and unique coast lands.

Critical Issues for the Coastal Zone

Recreation - Public and Private Sectors

Discussion leader: Mr. Charles Breuel, Deputy Commissioner, Division of Comprehensive Planning, New York State Office of Parks and Recreation

Recorders: Prof. Bruce T. Wilkins, Department of Recreation, Cornell University, and Program Leader for Advisory Services, Sea Grant Program
Mr. Royal LaLonde, Hutchinson's Boat Works

Summary prepared by Prof. Wilkins

Introduction -

The group agreed major coastal planning problems involved recreation. Indeed, there was some feeling that recreation may be the major concern regarding coastal uses in the next several decades. It was agreed drastic action is needed if people a hundred years from now are to have options for use of the coast and that the state must play a more important role than it has in the past in directing these decisions on the coastal region. The discussion began with an understanding that recreation is an appropriate use of the coastal resource, and that there are conflicts with other uses, and among recreational uses.

During these discussions there was no attempt to reach consensus although ideas often had major support. This synopsis attempts to indicate when ideas were not widely agreed to.

The group did not spend much time discussing types of recreation appropriate to coastal regions; these are self-evident. Among those mentioned were boating, swimming, hunting, passive uses, activities enhanced by the proximity to water (picnicking, camping, etc.), fishing, iceboating, skating and off-the-road vehicle use.

Access -

Access to the coast was a major concern. A relatively small proportion of the New York coast is presently in public ownership; much of this is not readily available for recreational use either because of pollution (around New York City and other major metropolitan areas) or because of its distance from major population segments. More access is needed, but the possibility of acquisition of certain rights rather than outright purchase was suggested. Tax writeoffs or use of eminent domain are possible alternate means of acquisition of access. Participants suggested that perhaps the public should have first refusal on all sales of coastal land.

Criteria for selecting areas for public acquisition are extremely important; among these, proximity to population centers seems to be a major criterion. Lack of adequate access results partly from a tendency to acquire relatively inexpensive land, land typically in low density population areas. Numerous objections and impediments to public acquisition of coastal lands were discussed, including reluctance of local governments to have lands removed from tax rolls; resistance to persons from outside a community using areas owned by local governmental units; a tendency for funding for acquisition of such lands to be deleted from budgets. A specific illustration given was New York's Environmental Bond Issue. A high proportion of the original recreation land acquisition proposal was cut. This meant that relatively few acres of land in close proximity to urban

centers (due to higher price per acre) would be acquired. The need for identification of choice recreational parcels was noted. These possibly could be acquired now and only later developed.

It was felt essential that the public be made aware of the need for retaining lands for recreational purposes, and a substantial discussion involved what information is needed in order to create this understanding on the part of the public to support acquisitions of such lands. If land is not acquired, rationing--selling to the highest bidder, first come first served, by lotteries or other means--will have to be developed in the near future.

Competition among uses -

It was recognized there is not sufficient land, particularly in the Long Island region, for all conflicting uses. Planners may not have adequately viewed alternatives for meeting recreation needs. Multiple uses of areas must be considered; areas necessarily acquired for other purposes, such as power plants, sewage treatment sites, etc., must be designed so they can be used for certain types of recreation (picnicking, hiking, year-round marinas heated by effluent from power plants, etc.). Uses not necessitating coastal locations may have to be prohibited if essential coastal activities are to be accommodated.

Private and public land relationships -

The private sector today provides the bulk of many forms of recreation. It is entirely appropriate and important that this continue. Opportunities for stimulating or enhancing the private sector's involvement in coastal recreation were discussed at length. Governmental options identified to stimulate the private sector's involvement included:

1. Assistance through governmental low-cost loan, guarantees, or tax relief.
2. Establishing user fees at public facilities high enough to repay substantial proportions of costs including capital investment, thus reducing economic competition with private suppliers.
3. Clearer enunciation of the plans of public agencies to avoid unnecessary duplication of investment.
4. Better lines of communication established within the private sector and between the private sector and the public sector.
5. Avoiding competitive investment by the public sector where possible.
6. Acquisition by government of some lands not otherwise readily available to the private sector, which in turn could be sold or leased back to the private sector.

Little information exists on the private sector of the recreation industry; thus it is hard to fit into a total recreational plan for the coastal areas. It was suggested that, to provide the widest spectrum of opportunities for coastal recreation, the private sector has to be involved. This would permit provision of the full range of recreation, from highly naturalized low use areas which might be predominantly or solely public, to highly developed "plush" areas which might be exclusively, privately developed.

Maximizing existing resources -

An opportunity exists for enhancing use of existing resources. These might include increasing opportunities. For example, stimulating fish populations (as the Coho in the Great Lakes) or altering distribution of use so that more use of certain recreation areas is made at certain times such as mid-week periods. Because some areas may be physically inaccessible, providing a way to the shore at cliff-like areas of the Great Lakes, for example, makes them more "usable."

Alternatives to coastal resources for recreation such as pools or inland recreation areas should not be overlooked in the planning process. Opening water supply reservoirs to recreationists would help in providing such alternatives. Because this must be done with wisdom, planners must understand the social needs that recreation meets. Research on this facet is scarce.

Population effects on recreation -

Population growth, it was agreed, is a significant contributor to the growing demand for recreation. Some felt this was outside the concerns of this workshop, others felt it impossible to ignore. All agreed that the past pattern of population growth, continued indefinitely, would not permit desired recreational uses of coastal regions. It was agreed the situation is at a crisis point.

Local government and recreation -

Many coastal recreation areas, particularly on Long Island, are owned by local governments which resist use of their land by persons from other communities. It was suggested that the "carrot" approach of providing funds for recreational development has not always been successful. Some felt the reverse, that withholding any state funds from the community which does not permit those from outside their boundaries to use its recreational area, would carry great weight.

State responsibilities and actions -

The coast is a danger zone for many uses; flood hazard is ever-present. Therefore, exploration of the opportunity for state development or for closure of development on such areas should be undertaken. The Adirondack Park Commission concept was suggested as an approach of great potential merit in determining the recreational uses of the coastal regions. Because of the potential hazards, the state will have to be more involved in plans for, and restrictions upon, development in the coastal region. Some felt Sea Grant should play a major role in such planning activities. Other options offered included suggestions for requiring environmental impact statements in any coastal zone development. It was suggested the St. Lawrence-Eastern Ontario Commission pattern, somewhat strengthened in enforcement policies, might be copied. It was agreed that major questions remain as to who reviews, responds, and issues "permits" for development under any such situation. California has faced this question in their coastal management program and New York should benefit from their experience. Other state actions might include programs similar to the Fish and Wildlife Management Act.

Summary -

Recreation is a major use of the shoreline. The economy of many portions of the state is based upon coastal recreation. We face growing problems in accessibility and quality of recreational opportunity.

Immediate action is needed if such opportunities are to be available to future generations. Such actions require more involvement by the state than has been traditional and may include acquisition, closer liaison with the private sector, enhanced management of existing resources and actions to stimulate or transcend local decisions.

Implementation of Coastal Zone Management and Planning

Preparation and Coordination of Coastal Zone Plans

Discussion Leader: Stuart O. Denslow, Executive Director, Genesee-Finger Lakes Regional Planning Board

Recorder: Prof. Joseph Heikoff, Graduate School of Public Administration, SUNY at Albany

Summary prepared by Prof. Heikoff

General Introduction -

The chairman invited comments on the importance, in planning to develop goals and objectives of keeping in view the great variety of interests that impinge on the coastal zone. The planning process requires mechanisms for reconciling interests and establishing a policy framework for coastal zone programs.

1. Coastal zone resources are limited. The competition for land may preclude simple definition of objectives, since regional and local objectives may be in conflict. Local interests may favor economic development to maximize local employment, tax revenues, and enjoyment of recreational resources, while regional objectives may focus on preservation and conservation of the natural environment and access for wider publics to recreational and other activities in the coastal zone. It is necessary to determine the variety of citizen needs and desires, especially for those who do not have organization channels for expressing their interests, and to develop institutional mechanisms for reconciling divergent interests.

2. It is important to preserve and manage the natural environment, especially for the protection of shellfish beds and typical ecological systems.

3. Citizen participation is important in the planning process. This involves finding out what people really want and planning ahead, rather than accommodating to the objectives and plans decided on by government agencies. It was pointed out that this may be a simplistic approach, for there are divergent regional and local interests. What some local people want may not coincide with the desires of other local groups, and local interests may wish to block facilities and programs for regional development.

In any case, citizen participation should be a component of all stages of the planning process, beginning with defining objectives. It should not be limited to public hearings after the political and technical decisions have already been made. Effective citizen participation requires commitment by those responsible for planning to allowing sufficient time for citizens to learn about the issues and alternatives and to arrive at constructive consensus rather than attempting to resolve difference by confrontation. A concomitant commitment is to sustained long-term planning rather than "one-shot" efforts to deal with short-term crises.

Objectives for Coastal Zone Management -

The workshop committees were asked by the chairman to identify four coastal zone management objectives. They reported as follows:

Committee 1

Objectives were grouped into three classes: general management, specific operations, and the planning process.

General objectives: These relate to management concerns with area economic development, efficiency in the operation of public facilities and services, favorable cost/effectiveness relationships, etc.

Specific objectives: (1) Protection and preservation of unique resources (2) Determination of the most appropriate uses for land in particular locations with particular characteristics (3) Coordination with planning for areas inland from the coastal zone, especially concerning problems of urbanization and urban sprawl.

Planning Process objectives: (1) Assuring citizen participation in planning (2) Defining criteria for achievement of planning objectives.

Committee 2

(1) A basic objective is to arrive at an understanding of the dynamics of coastal zone ecosystems. This will help to identify unique areas for protection and preservation and establish priorities for action. This objective relates to understanding the "supply side" of coastal zone management.

(2) A complementary objective is understanding the "demand side" in terms of identifying specific economic demands and interests in developing or conserving coastal zone resources.

(3) Allocation of land and water resources for various uses or reservations, identification of priorities, and the trade-offs required to reconcile the diverse objectives of the interest groups that have a stake in the coastal zone.

(4) Development of programs to implement plans and achieve the optimization of land use allocation determined in the previous objective.

Committee 3

(1) The primary objective is to establish long-term planning on a regional basis to identify and understand the nature of coastal zone management problems.

(2) Planning and management should aim at creating a pleasant environment that would preserve natural beauty and meet aesthetic criteria where development is indicated.

(3) Coastal zone resources should be managed to optimize the creation of wealth, taking into account the interests of the minority that exercises economic control over these resources and the majority that depends on them for their livelihood, recreation, and other requirements.

(4) Development objectives should be meshed with complementary objectives for preserving unique natural resources in the environment.

General Discussion on objectives -

Committee presentations were followed by discussions about (1) identifying the kinds of institutions that are appropriate for defining coastal zone management ob-

jectives (2) locating these institutions in the general governmental context (3) determining how various public and private interests will be represented in the process of defining planning and management objectives.

The following answers to these questions were suggested:

1. Objectives should be defined at the governmental level where the political power is located to mount the action required to achieve them.
2. An opposite point of view is deliberately to delegate political power to the level of government where decisions should be made if power is to be available to deal with problems and issues where they exist.
3. General objectives for management should be established at state and regional levels as guidelines for the identification of detailed objectives at the local level. Coastal lands and resources are limited. Definition of management objectives should therefore not be left to local authorities alone. As these resources are important to all the people in the state, development and conservation objectives should be determined--at least in general terms--at the state level.
4. Environmental resources, especially unique ecological configurations, are of value and interest to people beyond the borders of local and state jurisdictions; and plans for management of these resources cannot be carried out without the collaboration and parallel commitment to planning and implementation by neighboring state and national jurisdictions. On the other hand, care should be taken to avoid the development of unwieldy intergovernmental coordinating mechanisms that obstruct decision making or produce only generalized and ineffectual plans.
5. The potential role of the universities in the performance of technical and coordinating functions should be considered.

The Planning Process -

Presentation

To prepare for committee discussion of elements of the planning process, Edith G. Tanenbaum, a member of the Nassau-Suffolk Regional Planning Board, described some of the study procedures used in the coastal zone. Her presentation was illustrated by graphic analysis and overlay maps of Hempstead Harbor. Study areas were defined by focusing on opportunities and actual proposals for development and identifying constraints on development, such as topography, biota and history. The study procedure in Nassau-Suffolk started with mapping available information on topography, including erosion problems of the bluffs; water bodies and wetlands of critical concern; areas and structures of archeological and historic value, etc. The boundary for coastal zone mapping was identified as a railroad or state highway paralleling the shore or, where these features were not present, a line one mile from the shoreline. Terminal and transportation facilities and areas with potential for renewal and redevelopment were shown. Areas identified included those with potential for rapid change in character brought about by development: land that was vacant, areas in agricultural use, in institutional ownership, or used for private recreation. Map overlays with these various kinds of information focused attention on areas of opportunity or need for development. Active development proposals and projects were analyzed to discover how the land uses affected each other, how dredging or excavation changed the environment, how industrial development would affect the town beaches and tourism.

Comments on the presentation noted that this procedure was used also in the Long Island Sound River Basin Study, which compiled available information, identified gaps in the data, and carried out research to fill the gaps. A question was raised about how the Nassau-Suffolk Regional Planning Board was tied into the decision-making structure to assure implementation of plans. Dr. Tanenbaum indicated that the agency would follow a dual strategy: relying on the logic and merit of plan proposals to attract support and also actively developing a constituency of local politicians and citizens.

Key Elements of Coastal Zone Plans

The committees reconvened to identify key elements of the planning process that would advance the achievement of coastal zone management objectives.

Committee 1 identified these elements:

- (1) Geographic delineation of the planning/management area and relating it to contiguous areas with which there would be mutual interaction.
- (2) Inventory of resources, issues, problems, etc. in the planning area.
- (3) Determination of appropriate kinds of development for the area and allocating available land to meet identified public needs and development objectives.
- (4) Determination of mechanisms for plan implementation.
- (5) Determination of mechanisms for program review and evaluation.
- (6) Citizen participation and education, including progress reports on planning and implementation.

A member of the committee pointed out that the planning process should include concern for the interests of the poor and disadvantaged minorities. Residents in New York City ghettos and blighted areas should be given the opportunity for vacations in coastal zone recreation areas.

Committee 2 identified these elements:

- (1) Plan for management of living resources--the biota.
- (2) Plan for management of non-living resources, such as minerals.
- (3) Plan for shorelands development, including land use, recreation, transportation, etc.
- (4) Plan for water management to achieve objectives for both supply and quality.
- (5) Plan for physical maintenance of the shore line to control erosion, sedimentation, etc.

The committee indicated that concern for implementation was an important component of each of these plan elements.

Committee 3 identified these elements:

- (1) Definition of planning/management goals.

- (2) Inventory of resources, living and non-living; analysis of physiography.
- (3) Definition of specific operational objectives.
- (4) Identification and analysis of program and project alternatives.
- (5) Decision-making: choice from among policy alternatives.
- (6) Development of procedures and standards for regulation of private and public activities in the coastal zone and evaluation of effectiveness of management programs.

These activities should be coordinated with planning for lands and water areas contiguous to and influencing the coastal zone.

Coordination -

Discussion of coordination focused on communication and public education. It had already been noted that there are many publics with a stake in the coastal zone. The communications problem, therefore, involves reaching all of the publics that should be involved in coastal zone planning and management, especially those that have not been organized or are inadequately represented. From the point of view of those responsible for planning there are two aspects to the communication problem. One is during the citizen participation phase when the planners seek inputs from the various publics. The other aspect concerns communication in the reverse direction, after policy and planning decisions have been made, to inform the public of these decisions. Since most plans have distributive consequences, the costs and benefits of implementation are not evenly spread among all interest groups. It is therefore necessary to explain planning proposals to the various groups affected and to obtain their approval and support. Persuasion is therefore an important element in this aspect of communication, and it includes political decision makers as well as organized and other interests.

The communication process requires considerable expenditures for such activities as public opinion surveys, publications, meetings, and public education programs in schools. It is important that knowledgeable estimates of these costs be made in budgeting for the planning process and that sufficient funds are made available.

In carrying out communication programs, especially to citizen groups and political leaders, it is important to present data, analyses, planning options, and other information in terms the audience will be able to understand and use effectively both in making their own decision and in trying to persuade others to support their positions on the issues. It was suggested that planners give the decision makers planning packages that they can sell and then provide technical support for their political leadership.

Suggestions for Legislative Action -

No attempt was made at this workshop to formulate or reach consensus on formal proposals for legislation on coastal zone planning and management. Nevertheless, a list was prepared of issues and viewpoints, not all necessarily consistent, that should be taken into consideration in drafting legislation.

1. Legislation should contain a "social planning" element to identify the poor and minority interests in use and enjoyment of the coastal zone.

2. Legislation should deal with the problem of deciding on trade-offs between objectives of protection and preservation of the coastal zone and development to achieve an optimum level of economic and public benefits. The most vocal public appears to favor preservation to advance ecological values and restrict coastal zone use to the affluent minority. This should be balanced by concern for less vocal publics whose interests would require a wider distribution of benefits from development and management of coastal zone resources.

3. The public policy that the coastal zone is an area of state interest should be established by some form of constitutional declaration that would require a voter referendum. This will produce legislative debate and attract public attention. Legislative debate and a constitutional declaration are necessary to affirm state responsibility in the coastal zone and overcome parochial local interests that invoke home rule powers.

4. In contrast to the above proposition, the suggestion was made that action on a constitutional change should be delayed until statewide versus home rule issues are resolved.

5. A joint legislative committee or commission should be established to focus on coastal zone management. A broad variety of interests should be represented on this body so that all the relevant issues and alternatives may be represented.

6. A point of view opposite to that noted in 5 above suggested that a legislative committee or commission with politically appointed members would have a built-in bias. It would, therefore, be advisable to vest primary responsibility for coastal zone management in an existing administrative agency.

7. A third opinion suggested that a temporary state commission would be more effective politically than an existing agency, which already has its constituency and enemies. Such a commission should include representation from the various concerned state agencies, but it should have its own staff and adequate budget.

8. The alternative of vesting responsibility for coastal zone management in an existing agency was supported by the view that the executive branch has better staff and other resources for the studies and planning required than a new legislative body.

9. Organizational arrangements could perhaps combine both suggestions by vesting the exploration of the political issues in a legislative body and delegating technical planning and management responsibility to an administrative agency. In any case, it is necessary to designate a state agency to take major responsibility for coastal zone planning, management, and coordination.

10. Coastal zone planning should be initiated immediately whether or not federal funds are appropriated for grants to the states. These resources are too important and too fragile to be neglected.

11. In the budgeting process, proper consideration should be given to the scope and scale of effective coastal zone planning and management so that adequate state funds may be appropriated to do the job.

12. Environmental impact statements should be required for proposals for private developments as well as for public projects. California has already enacted this requirement into law.

Implementation of Coastal Zone Planning and Management

The Coastal Zone as a Public Trust

Discussion Leader: Mr. H. Crane Miller, Attorney, Consultant to the Nassau-Suffolk Regional Planning Board

Recorders: Prof. W. Keith Kavenagh, Institute for Colonial Studies, SUNY at Stony Brook
Mr. Paul Mac Cleenan, Buffalo Evening News

Summary prepared by Mr. Miller and Prof. Kavenagh

Agenda -

The workshop opened with the participants making an agenda, adopting the following:

1. History
 - a. How effective: --boundaries of the public trust?
 - b. Trends
2. Definition
3. Legal status
 - a. State jurisdiction
 - b. Private property vs. public trust
 - c. Living resources
 - d. Beach access
 - e. Public trust vs. riparian or littoral rights vs. navigational servitude
4. How should the public trust be administered? Implications for management.

History -

Since the latter seventeenth century, the concept of the jus publicum (public rights) being superior to the jus privatum (private rights) in such areas as the foreshore and wetlands, has been an integral part of the English common law. In fact, even though the sovereign held the foreshore and lands under water in jus privatum as the chief proprietor of the realm, they were subject to the jus publicum and could not normally be alienated for exclusive private use, although the Crown could lease such areas or grant temporary monopolistic use thereof.

In New York, after its conquest from the Dutch in 1664 and again in 1674, a number of Long Island towns received charters from the royal governors, which created a group of local proprietors as a board of trustees in each town to administer all unappropriated lands therein for the benefit and use of the townspeople. Included in the grants were such items as beaches, harbors, marshes, rivers, streams, ponds, inlets, and the like. Thereafter the trustees, over many years, sold off much of the upland to private individuals. Yet, they only leased out marsh areas for thatch grass and closely regulated fishing and shellfishing activities in local waters. In other words, they did recognize that there existed certain areas which the public in general relied upon for common use and which should not be given to private individuals.

In 1777 the first State constitution ratified and confirmed all colonial town charters and reorganized the applicability of the English common law at least as it existed up until 1775, unless later modified or altered by acts of the state legislature. Since that time at least four towns (Huntington, Brookhaven, Southampton, and Easthampton) have continued to exercise their trust responsibilities insofar as wetlands generally are concerned. These, of course, are the towns fortunate enough to have obtained the so-called Dongan Charters of the 1680's. Babylon acquired a trust obligation, as derivative from the Huntington charter of 1688/94, since it split off from that town in 1872. The remaining towns (Southold, Riverhead, Smithtown, Islip,) own only to the highwater mark. Because the State succeeded to all Crown interests after the Revolution, it has control over all lands below the high water mark, and by rights, should be holding them in trust for all the people of the state.

Frequently, throughout the colonial and the national periods, Long Island's towns have jealously guarded their trustee responsibilities against attack and now have, by virtue of long use, custom, the state's constitution, and various federal and state court decisions, sufficient power to reassert control over local wetlands in the name of the people of the towns. In the four colonial charter towns this can be done independently; in the remainder, it must be done in conjunction and in concert with state agencies and state plans.

Trends in the use of the public trust concept are clearly to apply the concept liberally. The public trust is the keystone of most environmental litigation. In marine related areas, the public trust doctrine is particularly applicable to wetlands, to beach access, to boundary questions, and actions to quiet title. The public trust doctrine is also applicable to the management of living resources, although it has not yet been used extensively for that subject area.

The public trust doctrine is a living, dynamic doctrine. Some in the workshop questioned its viability in that the definition of public trust for our coastal areas both on the Atlantic and the Great Lakes, both in terms of history and legal interpretation, lag behind current public viewpoints and philosophy. Moved by dwindling public lands, loss of access, mounting populations and a new concern or "environmental ethic" this definition that satisfied past generations perhaps is obsolete. The seminar raised a number of questions on how this definition might be revised to reflect new viewpoints and remedies in law and legislation. The courts, who have been the leaders in environmental matters, keeping abreast of public viewpoints as much as any branch of our governments, have used the public trust doctrine and expanded its use to reflect the new viewpoints of environmental concern. It remains particularly for the legislative and executive branches of our governments to use the doctrine as creatively as have the courts.

Definition-

There are many different ideas as to what constitutes a public trust, none of which are consistently treated in our law, for each State and the Federal courts have differing positions. Perhaps the greatest historical support is given to the idea that certain interests are so intrinsically important to every citizen that their free availability tends to mark the society as one of citizens rather than of serfs. Allied to that is the principle that certain interests are so particularly the gifts of nature's bounty that they ought to be preserved for the whole of the populace. And perhaps least used is a recognition that certain uses have a peculiarly public nature that makes their adaptation to private use inappropriate.

Legal Status -

In discussing the legal status of the public trust doctrine, the greatest amount of discussion was devoted to beach access and to living resources.

The participants were referred to three recent state court cases which have further enlarged the public's right to use and access of the nation's ocean shoreline. The three cases rely on three distinct but related doctrines: Gewirtz vs. City of Long Beach, upon a theory of irrevocable dedication of parklike beach to public use; Borough of Neptune City vs. Borough of Avon-by-the-Sea, on the public trust doctrine; and City of Daytona Beach vs. Tona-Rama, Inc., on a theory of prescriptive easement.

Application of the public trust doctrine to living resources is less known than to such areas as wetlands, beach access, etc., and less applied. The rule of law which American courts have consistently recognized is that animals ferae naturae are owned by the States, not as proprietors, but in their sovereign capacity as the representatives and for the benefit of all their people in common. The property right is a "common ownership . . . to be exercised . . . as a trust for the benefit of the people, and not as a prerogative for the advantage of the government as distinct from the people, or for the benefit of private individuals as distinguished from the public good."

There are problems of unlimited entry into the hardshell clam fishery and the need for regulation. In response to a query whether the public trust doctrine applies to such problems, it was noted that the doctrine does apply, but that the administration of the doctrine, and generally of all United States fisheries, has permitted the problems to proliferate. Efforts to provide management have been geared to promote inefficiency in the fisheries. Fisheries management generally in the United States in a case of maladministration of the public trust.

In conclusion, the issues relating to the public trust doctrine are very much alive and critical to the resolution of many of the marine and lake related problems confronting us. Beach access has been identified as one of the critical public issues both on Long Island and in the Great Lakes-Niagara River systems. The public trust doctrine should be explored thoroughly in relation to those problems for possible solutions. With respect to hardshell clam fishery, it was suggested that the fishery resort to court action to force the State government to enforce laws already on the books. In doing so, the public trust doctrine might prove to be a useful legal tool to demonstrate the maladministration of the fishery.

Implications of the Public Trust Doctrine for Management -

The public trust relates not only to issues of ownership or access to areas held in the public trust, it also provides a rationale for public regulation of use of those resources. Heavy emphasis was given in the workshop to judicial interpretation of the public trust doctrine. The doctrine is applicable to the executive and legislative branches, as a rationale for legislative oversight and executive evaluation of State-administered programs. Its range of applicability is very broad -- front Act XIV, Sec. 1 of the New York State Constitution preserving the "forever wild" character of the Adirondack Forest Preserve, to the administration of publicly owned parks, beaches, forest lands, wetlands, and other areas in the public trust, to regulation of public and private uses of public trust resources through compensatory and noncompensatory regulations (easements, zoning, etc.)

The public trust doctrine can be one of the most useful legal and equitable tools applicable to a broad range of land and water uses in coastal zone management. Its applicability should be unaffected by institutional and organizational questions, such as creation of a single coastal zone management authority (as was suggested on the one hand during the workshop), or by regional or local management arrangement. Any such administrative agencies with authority to regulate land and water uses, will be subject to the public trust doctrine in a broad range of their activity. Indeed, the doctrine may provide the one major unifying force in response to the confusion expressed by many of the participants in the workshop over the lack of a centralized agency or government with authority to resolve conflicting user interests, such as commercial vs. sports fishing, recreation vs. private property, food production vs. undisturbed natural environments.

No consensus was reached in the workshop regarding the institutional or organizational aspects for administration of the public trust. Nor did the discussion lend itself to specific recommendations. The discussion tended to focus primarily on marine aspects, but it was noted repeatedly that the problems discussed and the general principles applied to the marine as well as to the Great Lakes-Niagara River systems.

Implementation of Coastal Zone Planning and Management

The Changing Role of Local Governments

Discussion Leader: Mr. Per Moberg, Associate Director, Office of Community Assistance,
New York State Department of Environmental Conservation

Recorder: Prof. O. Andrew Collver, Department of Sociology, SUNY at Stony Brook

Summary prepared by Prof. Collver

Opening statement by the Chairman -

The conversation should be directed to two questions: (1) Is there a need for a change in the role of local governments in managing the coastal zone? (2) If there is a need, what kinds of change should occur? "Local government" was taken to mean counties, towns, cities and incorporated villages.

The main topics touched upon were trends in the development of federal and state programs of resource management; the uneven but generally poor performance of local governments, which have been entrusted with the zoning power; the need to understand under what conditions local governments can be induced to act in the interest of a larger constituency than their own local electorate; the need for state guidelines to set limits to the use of local zoning power; and the general outlines of a coastal zone management plan under which local governments would be induced to carry out federal and state policies.

Local Governments' Record Up To Now -

Several observations were made concerning the role of local governments in coastal zone management up to the present time.

1. Zoning is only a delaying tactic. Sooner or later it yields to economic and political pressure. It is not a tool for protecting coastal areas from development.

2. The performance of local governments is very uneven. Some rural areas along the shore of Lake Ontario barely have town governments, and they are scarcely aware that a seacoast is entrusted to their care. The Town of Hempstead on Long Island has a quite well developed system of coastal zone management.

3. Local governments have made some progress under the "squeaky wheel" principle, but vocal pressure groups cannot be depended upon to apply steady pressure on all towns to achieve a uniform coastal zone management plan.

4. Environmental protection plans can benefit from a favorable wave of public opinion now, but the wave will subside. A permanent system of routine support for coastal zone protection is needed, one that will not depend on a current clamor.

5. There is a lack of clear jurisdictional responsibility over coastal resources. It must be made clear to all concerned (a) what standards are to be enforced and (b) what agencies of government are responsible for their enforcement in each locality.

6. The failures of local government in this area cannot be corrected by turning their powers back to the state. The state is limited in its ability to act, and the sentiment for home rule is very strong. The plan that is devised must be one involving cooperation between state and local governments.

Recommendations -

Recommendations were made concerning the information base, legislation, and implementation of the coastal zone management plan. These were offered by individuals, agreed upon by a few others and modified somewhat by the discussion. There being no objection raised to them, they may be regarded as recommendations of the group, although no vote was taken.

Information Bases

1. Research is needed to establish base data for planning.
 - a) to identify unique and endangered areas
 - b) to identify the functions that various types of shore areas play in larger ecosystems
 - c) to estimate the environmental impacts of various land uses and human activities on coastal environments
 - d) to evaluate the effectiveness of different systems of resource management.

2. Sea Grant and other research programs should provide advisory information to the state legislature as rapidly as possible.

3. Technical assistance and planning data should be channeled from state agencies and research programs to localities through the appropriate local agencies, such as, for instance, local environmental conservation commissions.

4. The program must rest ultimately on public support. Information should be supplied to the public so that they will be aware of opportunities and needs in their own localities.

Legislation

5. Most of the implementation of the management plan must be in the hands of local governments, but first the state should set guidelines by legislation.

6. Such legislation should be concerned for balanced economic use as well as preservation and public access.

7. The legislation should explicitly recognize a hierarchy of interests in relation to any resource. It should spell out clearly the principle that when a decision affects the interests not only of local people, but of a larger region, all the people of that larger region should be represented in the making of the decision.

8. Following the principle above, the state should delegate to county and regional planning agencies more power over decisions that will have regional or countywide impact.

Implementation

9. There should be a state agency to administer the program. This may be an existing agency, or a newly created one. It should be a single agency and not a council of agencies.

10. A model wetlands ordinance should be presented as an example for local governments to follow.

11. A state agency should provide technical assistance to localities implementing the plan.

12. The plan should provide fiscal incentives for participation by local governments.

13. The state agency administering the program must be able to call upon the police powers of the state to enforce compliance with the general guidelines.

14. The program should be under continuing public review and revision.

15. Jurisdictional disputes arising under the program may be resolved either by the courts, or by public hearings in which anyone who claims an interest in the decision under consideration may be heard.

Implementation of Coastal Zone Planning and Management

Interstate and Intrastate Planning

Discussion Leader: R. Adm. Edward Stephen (Ret.), Chairman, Nassau-Suffolk Regional Marine Resources Council

Recorders: Prof. Leonard Dworsky, Director, Water Resources and Marine Science Center, Cornell University

Mr. Leonard Crook, Executive Director, Great Lakes Basin Commission

Summary prepared by Prof. Dworsky

Opening Remarks -

In order to be productive and to carry out the objectives of the conference in the time allocated for the workshop, and in order to meet the charge laid upon the conference by Keynote Speaker Duryea, the workshop staff proposed and received from the group concurrence to proceed along the following lines: To seek

1. identification of the regions of New York State in which coastal zone planning and management should apply, considering intrastate, interstate and international implications;
2. identification of existing agencies having responsibility for coastal zone planning and management activities for each of the regions identified; and,
3. proposals for the establishment of an institution/organization by New York State on an interim or other basis to carry out the purposes of the Coastal Zone Management Act of 1972.

The intent of the workshop was to recommend alternative ways for New York State to organize to best meet the purposes of the coastal zone act. While workshop participants were requested to respond to the specific information needed, other pertinent information was also welcomed.

Definition of Planning Regions -

Reference was made to Section 306 of the Coastal Zone Management Act which provides for the designation of segments of the state for planning regions. Mr. Dworsky proposed as a starting point the following regions: Long Island, New York City, Lake Ontario, Lake Erie, the St. Lawrence River (within the United States), Niagara River, and the Hudson River (from New York City to some point toward Albany). Ensuing discussion questioned the identity of New York City as the metropolitan area extends beyond the political boundaries. Further discussion was concerned with the relationship between the proposed regions and the study being undertaken by the New England River Basins Commission of the Long Island Sound region. It was estimated that almost 75% of the coastal zone planning required for lower New York State would be covered by the Long Island Sound Study. It was also pointed out that for purposes of integrity of the Port of New York, to have coastal zone planning done by the three states within its area (New Jersey, New York and Connecticut) would result in a highly segmented approach.

Various other suggestions included considering the New York City region as being defined by that of the jurisdiction of the Port of New York Authority, the Tri-State Sanitation Commission, and others.

The role of local governments and their potential contribution to coastal zone planning was re-emphasized. As alternatives, it was suggested that regions could be considered on the basis of political units, economic units, watersheds and other factors, but that such definitions should consider the level of government which should carry out the decisions.

After discussion of the definition of planning regions, the alternative of considering the state as a whole for planning purposes was considered. This was subsequently rejected and for purposes of further discussion, the regions listed were considered for further discussion:

- Long Island Sound (with inter- and intrastate implications)*
- Atlantic Ocean
- Hudson River Tidal Zone
- Lake Ontario (with international implications)
- St. Lawrence River
- Niagara River
- Lake Erie (with intrastate, interstate and international implications)

*There was division on the matter of Long Island where representatives from the Island wished to have it considered as a unit, not divided as proposed. Representatives from the New England River Basins Commission indicated their view of Long Island Sound as an interstate body of water.

Identification of Responsible Agencies Concerned with the Coastal Zone -

The workshop recognized a very large number of local, state, regional and federal agencies that share responsibility for coastal zone management. The workshop did not feel that developing a listing of such agencies was a proper expenditure of their time, but felt that such a listing should be developed at an early date for the information of all interested parties.

Institution/Organization Arrangements for Carrying out Coastal Zone Planning -

It was pointed out to the workshop that a program developed under the segmented regional designations would, in its early stages, be imperfect, transitional and would require a growing degree of amalgamation of user interests to effectively integrate considerations of preservation, conservation and development of the coastal zone. There would also be a need to develop arrangements among governments in a vertical hierarchical sense. It was suggested that a strong central organization with a broad advisory base would serve.

Other participants pointed out that consideration should be given to the role of existing agencies. Which have a potential for undertaking coastal zone planning

and management? Would such a structure consist of a single agency, say the Department of Environmental Conservation, or of four or five state agencies in combination? What kinds of powers should such a single agency or combination of agencies have?

In response to the above questions the point was made that uncertainties of the federal legislation in terms of budget support, the need to maintain flexibility during the next few years, and time to develop a feeling for the arrangements which would be most effective may require some new concepts. An arrangement of several of the key agencies which have existing competence and staff under some umbrella which would provide staff capability would provide the desired attributes during the planning stages, with the designation of a specific agency responsibility for the longer term to come later. It was suggested that such an arrangement would be called a 'task force' or 'work group' to provide for the initiation of the requirements under the Coastal Zone Management Act. At least one participant made a strong point of the need in New York State for coastal zone management whether there was federal legislation or not; that a task force might be one way to proceed; that formation of a plan was imperative and that a task force could initiate this. Again it was indicated that the Great Lakes Basin Commission and the New England River Basins Commission are deeply involved in coastal zone planning in New York State. Agency representatives also responded by outlining the capabilities of their agencies, particularly the Office of Planning Services and the Department of Environmental Conservation.

It was pointed out that Section 305 of the Coastal Zone Management Act defines what the functions of a management organization would be, and further, that section 306(c)(2) of the act, providing for administrative grants, did not require that there be an agency designation until the coastal zone plan was submitted to the Secretary of Commerce for approval. A distinction between the planning and management sections of the act was pointed out and its evolutionary nature discussed. Under the terms of the act, it would be appropriate for a task force to work through the plan formulation stage and to hold the tighter, more precise assignment of responsibility for management to an agency until the plan was submitted for approval.

Governor Rockefeller's objective of establishing a series of State coordinating committees located across the state, with citizen advisory councils, to bring together physical planning efforts was reviewed.

Further discussion indicated the need for a state agency leadership to be established as a means of coordinating interstate and intrastate, and international interests. Further, involvement of state agencies would make possible the state funding of the development of the coastal zone plan.

Summary -

The main points were summed up by the chairman by referring to the task force idea for organization and the need for funding to get the work underway. Alternative proposals for developing a plan included:

- 1) Assignment of responsibility to the N.Y.S. Department of Environmental Conservation
- 2) Assignment of responsibility to the N.Y.S. Office of Planning Services
- 3) Assignment of responsibility, for an interim year, to a work group task force composed of state agencies, interstate bodies, legislative, regional and

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local governments as well as non-governmental persons, to initiate a fact finding and planning program under the specifications laid out in the Coastal Zone Management Act.

- 4) Assignment of the responsibility to a legislative commission or committee.

Implementation of Coastal Zone Planning and Management

Economic Implications of Coastal Zone Management

Discussion Leader: Mr. Harvey Schultz, Director, Economic Development Section, New York City Planning Commission

Recorders: Prof. Robert Crow, School of Management, SUNY at Buffalo
Mr. Stanley Platt, Oceanographic Fund, Inc.

Summary prepared by Prof. Crow

Introduction -

In considering "economic implications" it was first necessary to define "economic." Two definitions were implied by the discussions: (1) the allocation of scarce resources among alternative activities by alternative means for alternative ends and (2) that which pertains to phenomena subject to the "measuring rod of money." These two definitions, both of respectable intellectual parentage, imply quite different viewpoints. The former definition is obviously much broader, considering monetary phenomena as an important component of the economic problem, but by no means all of it.

Benefits and Costs of Coastal Zone Activities -

The most important disparity between the two points of view lies in the area of what to consider as benefits and costs of coastal zone activities. In particular, those representing the broader point of view argued for including intangible costs and benefits in planning considerations. These would include consequences which are measurable but not translatable into dollar figures (such as pollution costs) and those which cannot be measured or numerically valued (such as the value of a scenic area). It was argued that such considerations have often been of great importance to sizable segments of society and may override purely market-oriented monetary considerations. Two special points were brought out in this connection: (1) the value of "options" -- opportunities to engage in an activity, regardless of whether present or future generations actually do; and (2) the risk of unforeseen consequences resulting from serious disruption of the existing natural environment. Those taking the more narrow, market-oriented viewpoint argued that it was not known whether society really valued the intangible consequences of coastal zone activities and that, therefore, the importance of such consequences should be discounted in the face of clear preferences of society as expressed by willingness-to-pay measures.

The Financing of Coastal Zone Planning -

This issue was discussed at some length, but the conclusion can be stated briefly. There seemed to be a consensus (at least no spoken dissenting opinion) that if coastal zone management was worthwhile (which no one really questioned), it was worth going ahead with or without Federal support, although most favored keeping the door open for Federal support as long as it did not restrict the State in a significant way. Consideration of the level and strategy of funding was much more controversial. One view stated that a small, State planning agency could get a great deal done, especially in the initial stages.* These stages were seen to be primarily concerned with problem

*The Adirondack Park Agency was cited as an example.

definition and the inauguration of systematic scientific studies, and the collation of existing scientific material, on such basic questions as the environmental damage (or enhancement) of thermal discharge in large bodies of water. This view held that such an agency with a record of clear accomplishment on a limited budget could reasonably hope for more resources as necessary. A large budget in the early phases of a management effort was regarded as more of an encumbrance, since it implied the bureaucratic imperative to generate more activity than thought in simply spending all of the money available. This was held to be detrimental in the long run in that the Governor and Legislature would become disenchanted with the management agency's activity and cut off funding just as it became organized and began to be productive.

An opposite point of view was that if the management effort did not have full funding to start with, it might never be funded adequately. Also, it would not obtain the visibility and respect of the Governor and Legislature and thus be less effective in the achievement of its goals. Also, many felt that a centralized agency of any sort was inappropriate and that the management function should be the responsibility of county or multi-county management agencies, arguing that such agencies would have much more sensitivity to the people who would be most affected by coastal zone management activities.

Implications of Coastal Zone Management on the Economy -

Little could be said about the implications for the economy without reference to a specific plan. The same is true for a particular segment of industry. Much more depend on the basic objectives of the coastal zone management agency and on its definition of the public's economic well-being. For example, if the narrow definition of economic consequences is adopted, there is likely to be much more industrial use relative to recreational use. Even if the issue is which industrial use will be dominant, there is still little that can be said without more specific information. For example, to encourage the development of industries which would use the waters as a means of waste disposal would damage fishing and allied industries. One thing that was agreed upon was that at present too little is known about the coastal zone, and better information on the natural environment is necessary.

Metropolitan Problems -

Several issues relating specifically to metropolitan areas were raised. One was that of developing deteriorating waterfront areas in cities like New York and Buffalo. No proposals were advanced, but it was agreed that it was an important problem. A second was the problem of natural areas interfering with the logical progression of metropolitan growth. One view held that it was necessary to question whether growth itself was even desirable before comparing its value to preservation of natural areas. Finally, the question was raised as to whether coastal zone management should be separated from more general questions of land-use management, not only in metropolitan areas but for all lands in the state.

Implementation of Coastal Zone Planning and Management

Information and Educational Needs for Coastal Zone Management

Discussion Leader: Mr. Richard Maltby, Assistant Director, Erie and Niagara Counties Regional Planning Board

Recorders: Prof. John Judd, Coordinator for Great Lakes Studies, New York State Sea Grant Program

Dr. Mason Lawrence, Deputy Commissioner for Environmental Management, New York State Department of Environmental Conservation

Summary prepared by Prof. Judd

General Introduction -

Four basic questions for consideration of the information and education needs for coastal zone management were posed:

1. How much research has been done and what gaps must be filled?
2. How can the research results be coordinated for best use?
3. How do we begin and carry out a program of education about the importance of our coastal zone?
4. To whom should an educational program be directed?

Discussion -

It was pointed out that the International Field Year-Great Lakes (IFYGL) will result in a large amount of information being available on Lake Ontario. A great deal of this information directly relates to the coastal zone and coastal zone problems. There are gaps, however, in regard to the coastal zone that still must be filled. We can not wait for all of the answers. Research is an on-going process and we must begin to plan now, filling the gaps as we progress.

A question was asked regarding the cost of the IFYGL Program. The U. S. Government allocated approximately \$6 Million as did Canada. This was for a study of the whole lake. A great deal can be done with little money through projects involving graduate and undergraduate students such as the coastal zone study of Jefferson and St. Lawrence Counties carried out by the SUNY College of Environmental Science and Forestry.

There appear to be two types of research needed - long range scientific needs; and, "fire fighting" items that must be looked at immediately. In some instances the data must be collected over a long period of time. We must, however, be ready to step in and fill the gap for immediate needs as well. We must always be ready to move toward solving the perceived needs of the public.

It was suggested that a data bank be established to have access to a pool of information about the coastal zone. The point was made that we must know who will use the information and how it will be used or it will just be collection for collection sake. It was pointed out that the National Oceanic and Atmospheric Administration

plans to establish a data bank of sources of information on coastal zones. The data bank will include sources of unpublished information not readily available to users.

The largest gap appears to be one of education. Scientists write in a jargon not readily understandable by planners, legislators or the citizenry. Information is available, but must be translated. It was suggested that the Sea Grant Advisory Service could be the medium for this. Researchers and decision makers approach research in different ways. To researchers, research is a way of life; to legislators, it may provide a means for moving towards rational decisions, or a means of delaying decisions.

Many other states have carried out coastal zone plans. We must look to them as a basis for our work. Both Texas and California now have full plans prepared. We must spend time and money to bring together all types of information and make it available to those who will use it.

We should be attempting to educate four types of audience: a) planners, researchers and administrators - the study participants, b) elected officials on both the state and local level, c) organized citizens groups, and d) lay citizens.

High school students should receive information on problems and programs of the coastal zone to bring them to a knowledge of the subject. We must train teachers to bring the information to students either through short courses or in-service training. This provides for the longer range by educating the voters of the future. We must also educate the people now. Legislators will soon be enacting state legislation that will directly effect the coastal zone.

Local governments also lack information. Some groups such as the Central New York Regional Planning and Development Board have an Environmental Management Task Force to aid them in coastal zone problems and programs. To aid local government officials and citizens groups, the N.Y.S. Sea Grant Program, in cooperation with regional planning boards, has planned a series of coastal zone management conferences.

A number of methods were suggested to bring information about the coastal zone to the attention of the public. Project Hudson Sloop was described. If funded, a ship will begin to travel up and down the Hudson River providing information about the river and its problems to the citizens along its banks. It was suggested that similar vessels might move along the coasts of Long Island and the New York Great Lakes providing information about the coastal zone.

It was suggested that perhaps "science translators" were needed to bring scientific information to the public. Perhaps a science writers workshop on coastal zone planning and management should be set up.

Educational TV can bring information to a local area on specific coastal zone problems. In this way citizens will have understanding of specific problems which exist, but of which they are not aware. Most citizens have little background knowledge. For example, many lay people do not know what a wetland is. Perhaps something along the line of the N.Y.S. Department of Environmental Conservation's solid waste program should be set up to educate the public about the coastal zone.

An Environmental Information Service was instituted at Stony Brook. It is very much underused by the public. It is seldom contacted by the single citizen. The

program was expanded through local public libraries but there was still little demand. Either the public is seeking information from sources not known at this time or perhaps information is not being sought. It was suggested that what is needed is an active, rather than passive, program to help people perceive coastal zone problems.

Both the Departments of Education and Environmental Conservation are moving through the state with conservation education programs. At times they appear to be at odds as to who should do it. A coastal zone program would face the same problem unless we go through an independent group such as advisory services.

The major objectives of an education program for coastal zone management should be to teach the following points: 1) Coastal zone management involves the totality of the coastal zone and cannot be piecemeal effort; 2) no longer is the individual completely free to do what he wants with his private property along the coastal zone. It was suggested that legislative action would be needed to emphasize these points as state policy toward the coastal zone. Maine has done this through legislation. California had a referendum on the issue.

Conclusions and Recommendations -

The following recommendations were made by the workshop:

1. A study be designed and funded to determine what coastal zone related research has been accomplished to date and what needs to be done to provide for good planning and management of our New York coastal zones.
2. Data sources for the coastal zones of New York must be identified and made readily available to those who need them.
3. A registry of experts on all phases of the coastal zone should be prepared in a central information bank. Anyone needing information on a specific problem could request computer information for the experts required. There is then direct communication between these people. Such a program should be periodically updated so it would continue to be current.
4. Funds should be made available by the state to support a program for the dissemination of understandable information to the public to prepare them for citizen input into local regional and state coastal zone problems and programs. This could be done by brochures, programs and films for educational and cable TV, newspaper releases explaining local problems and multimedia presentations.
5. The state should establish educational centers for the coastal zone. These would be in tourist areas and would explain the coastal zone and the problems and plans for it as illustrated by points within the local region. This could also be used as a focal point for meetings between the public and researchers. Such centers could be built on or near existing research centers to take advantage of the expertise available.
6. There should be a registry of citizens groups so that information on the coastal zone can be rapidly disseminated to them.
7. Place coastal zone exhibits and information in museums, power plant project centers, nature centers and other existing facilities to educate the public.

8. Use issues of local interest to create an atmosphere for education about the coastal zone. Local people with a knowledge of local issues can carry information to more people.

9. Legislation should be put forth to develop a coastal zone plan and to prepare the public through full information on such a plan.

10. The N.Y.S. Sea Grant Advisory Service should be the lead in providing educational information and programs on coastal zone problems, planning and management.

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