CEM

GUIDELINES FOR MARINE RESOURCES PLANNING AND POLICY ON LONG ISLAND

Prepared for the
Marine Resource Council
Nassau-Suffolk Regional Planning Board
under
Sea Grant Project GH-63
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

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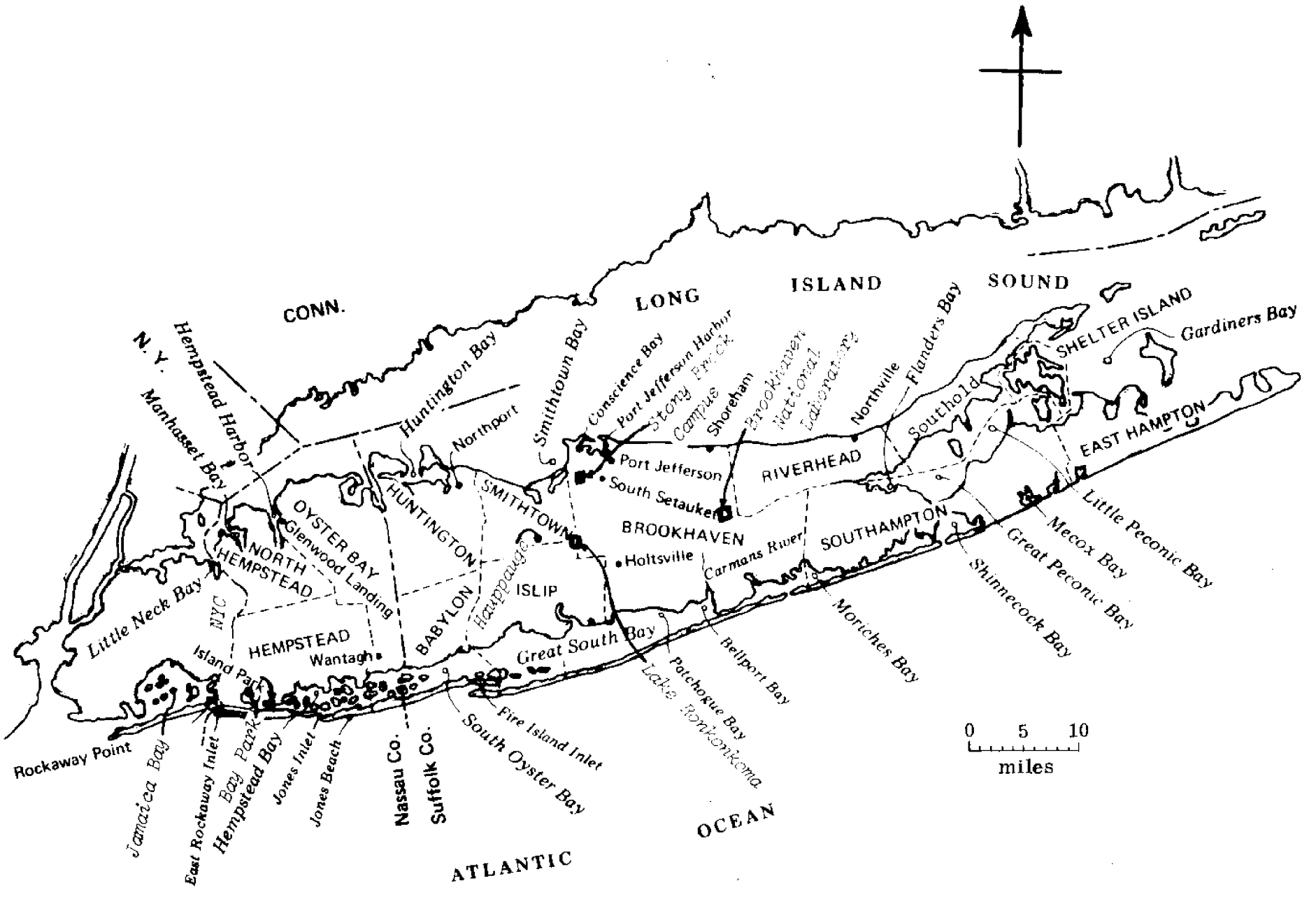
CONN.
N. Y.
LONG ISLAND SOUND
Hempstead Harbor
Manhasset Bay
Huntington Bay
Northport
Smithtown Bay
Conscience Bay
Port Jefferson Harbor
Stony Brook Campus
Shoreham
Brookhaven National Laboratory
Northville
Flanders Bay
Southold
SHELTER ISLAND
Gardiners Bay
EAST HAMPTON
Port Jefferson
South Setauket
RIVERHEAD
HUNTINGTON
SMITHTOWN
BROOKHAVEN
SOUTHAMPTON
OYSTER BAY
Glenwood Landing
NORTH HEMPSTEAD
Holtsville
Carmans River
Little Peconic Bay
Mecox Bay
Great Peconic Bay
Shinnecock Bay
Little Neck Bay
NYC
HEMPSTEAD
Wantagh
BABYLON
Hauppauge
ISLIP
Great South Bay
Moriches Bay
Bellport Bay
Patchogue Bay
Lake Ronkonkoma
Island Park
Rockaway Point
Jamaica Bay
East Rockaway Inlet
Bay Park
Hempstead Bay
Jones Inlet
Jones Beach
Nassau Co.
Suffolk Co.
Fire Island Inlet
South Oyster Bay
OCEAN
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FOREWORD

This report is part of a series prepared by The Center for the Environment and Man, Inc., for the Regional Marine Resources Council of the Nassau-Suffolk Regional Planning Board under the continuing program: The Development of Methodologies for Planning for the Optimum Use of the Marine Resources of the Coastal Zone. The program is being funded in part by the Sea Grant Program of the National Oceanic and Atmospheric Administration, U.S. Department of Commerce, and is structured into six functional steps:

Functional Step One (Problems). Identifies, classifies and briefly analyzes the problems that confront planners and decision makers with regard to the area's marine resources.

Functional Step Two (Knowledge Requirements). Identifies the knowledge necessary for making sound decisions with regard to the use of the marine resources.

Functional Step Three (State of the Art). Assesses the availability and adequacy of the necessary data and knowledge.

Functional Step Four (Knowledge Gaps). Determines necessary data collection and research activity.

Functional Step Five (Data Collection and Research Program). Formulates a priority-oriented, marine-related data collection and research program and monitors its implementation.

Functional Step Six (Management Information System). Develops a system for organizing and synthesizing the knowledge and data and provides analyzed information to marine resource planners.

This report is a product of Functional Step Six. It is an example of the type of analyzed information that is provided to marine resource planners, derived from the synthesis of analyzed and evaluated information developed in the preceding functional steps.

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INTRODUCTION

The objective of this report is to provide the Marine Resources Council (MRC) of the Nassau-Suffolk Regional Planning Board, with suggested guidelines pertaining to four high priority problem areas that are related to the marine coastal resources of Long Island:

- Water Supply and Waste Water Disposal
- Dredging
- Coast Stabilization and Protection
- Wetlands

The background studies and analyses that form the basis for these guidelines are discussed in detail in reports 7 through 12, respectively referenced in Appendix A. The guidelines represent the consensus of the CEM research team comprised of representatives who conducted the specific studies referenced above, and are based on consideration of the interrelationships among the respective problem areas.

Our intent in this report is to present only succinct statements for MRC reaction and guidance. In this format, each statement 1) can be evaluated separately; 2) if adopted indicates a course of action; and 3) then becomes an accessible reference guide for future Council activities and actions. We have intentionally eliminated background, rationale, justification and other supporting analyses to preclude dilution of the importance of the statements themselves. The reader is encouraged to read the reports referenced above for a fuller perspective of the situation on Long Island.

The report is organized into four major sections, each presenting the guidelines related to one of the respective priority problem areas.

SECTION I

WATER SUPPLY AND WASTE WATER DISPOSAL GUIDELINES

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Policy and Planning Guidelines

We recommend adoption of the following policies and planning guidelines:

- Groundwater is a valuable natural resource which should be held in trust. Therefore, prohibit all activities or practices that will further degrade the quality, or seriously reduce the quantity of that resource.

- Continue to use groundwater as the water supply for Nassau and Suffolk Counties insofar as it can be used without degrading this resource.

- Prepare for and implement, the complete recycling of water by Nassau and Suffolk Counties at the earliest date, including groundwater supply, advanced waste water treatment and recharge as major components of recycling.

- Accelerate the sewering for the Island with a goal to sewer, within 15 years, those areas where population density is "intermediate" or higher as defined by the criteria applied in the Comprehensive Development Plan for Long Island.

- Construct ocean outfalls for disposal of treated effluent as rapidly as feasible as an intermediate step in preparation for recycling; and use outfalls when appropriate as a backup for treated effluent disposal once recycling is implemented.

- Prohibit new sewer outfalls in embayments and Long Island Sound, and phase out the use of existing outfalls in these areas as soon as it becomes feasible.

- Require all developers to install sewers as a precondition for approval of new development plans in areas designated by the Comprehensive Plan for "intermediate" or higher population densities.

Research and Analysis Guidelines

- Place highest priority on groundwater recharge and supporting advanced waste water treatment research that will conform to the

policy and planning guidelines outlined above; work to obtain widespread support for, and accelerate, these areas of research; and promote Long Island as a laboratory for groundwater recharge research.

- Support a research and analysis program to analyze the long-range feasibility of using water supplied from outside the bi-county region in the event that recharge and/or associated advance waste treatment technologies do not advance to the point where recycling on Long Island is feasible. Explicitly investigate, as part of this program, the externalities outside the bi-county region and consider them in the costs for an outside source of supply.

Council Activity Guidelines

- Support the development and use of a "PERT" type diagram identifying the type of decisions and timing of decisions for selecting alternatives of supply, treatment and discharge on a geographical basis over the region (i.e., What decisions must be made? When should they be made? In what part of the system should they be made? What are the criteria on which the decision is based?); and support and participate with agencies charged with responsibility for these decisions in the preparation of such a planning tool.

SECTION II

DREDGING GUIDELINES

DREDGING GUIDELINES

Policy and Planning Guidelines

We recommend adoption of the following policies and planning guidelines:

- The Corps of Engineers develop a preliminary classification system for dredging applications to be implemented on a trial basis on Long Island using: 1) size (volume) of the project, 2) environmental quality at the removal and disposal location, 3) timing, 4) reversability, and 5) compatibility with the Comprehensive Development Plan as classification characteristics[1/]; and distribute the preliminary classification system along with the public notices.

- The Corps of Engineers adopt an interim classification definition whereby all dredging projects at inlets and all projects of 100,000 cubic yards or more in volume be classified or defined as "major projects."

- For "major" applications, require applicants to prepare initial environmental impact statements to be disseminated along with the Corps of Engineers' public notices; and, as an interim measure following agency review, distribute review comments by agencies, such as the Fish and Wildlife Service, as proxy environmental impact statements.

- The Corps of Engineers require a report of the physical, chemical and biological character and composition of the areas to be dredged and disposed upon to be included by the applicant as a part of "major" applications.

- Include proposed monitoring provisions along with every "major" application to insure consideration of the adequacy of these provisions during the application review.

[1/] See Paragraph 2.4.2, reference 9.

- Deposit no dredging spoil from any public dredging project on any wetland in Nassau and Suffolk Counties, until such time as suitable wetland spoil sites have been identified and a wetland management program or plan is available.

- Conduct a thorough in-house review of county and municipal dredging projects at the county and municipal level, based on the classification characteristics cited above, prior to filing an application.

Research and Analysis Guidelines

- Initiate and support a research program to identify and evaluate spoil disposal alternatives, especially including the possible use of irreversibly degraded wetlands as spoil disposal areas.

- Encourage research to develop tools (models) for predicting environmental changes due to inlet and bay dredging.

Council Responsibility and Activity Guidelines

- Include "major" applications on the Council agenda for review and approval, encourage widespread public awareness of these, and submit the Council views to both the Corps of Engineers and the New York State Department of Environmental Conservation.

- For "major" dredging projects, invite periodic progress reports at Council meetings by the person or agency undertaking the project; and inform the Corps of Engineers when monitoring inadequacies are observed or reported, or when a dredging activity is apparently not being carried out as approved.

SECTION III

COAST STABILIZATION AND PROTECTION GUIDELINES

COAST STABILIZATION AND PROTECTION GUIDELINES

Policy and Planning Guidelines

We recommend adoption of the following policies and planning guidelines:

- Accept the widespread shoreline regression along the north shore as a long-term natural phenomenon beyond present practicable capability to control; consequently emphasize land use-control techniques and management practices that will influence occupancy and development of the threatened reaches so as to minimize losses associated with the regression.

- As major local exceptions to the above-stated general policy for the north shore, 1) encourage the creative enhancement or maintenance of heavily used beaches, preferably through sand nourishment techniques; and 2) encourage the maintenance of existing navigation channels connecting major embayments to the Sound.

- Place primary emphasis on dune stabilization and beach nourishment techniques along the south shore to preserve and enhance the capability of the barrier islands to protect the environments of the south shore bays from sudden changes caused by storm breaching.

- Stabilize existing inlets along the south shore at approximately their current dimensions and locations, recognizing that the stabilization techniques chosen should include provision for adequate sand on downdrift beaches. Avoid making substantial changes in these inlet characteristics unless explicitly justified by an analysis of the consequent changes in the backbays.

- Control the use and development of the barrier beaches and all estuarine areas along the south shore with land control measures geared to public values.

- Although shoreline erosion problems in the bays encompassed within the eastern forks can be substantial at specific sites, no general policy or planning guideline can be established

because the variable nature of the shoreline requires a detailed site-by-site examination.

Research and Analysis Guidelines

- Inventory offshore sand deposits in sufficient detail to assess the physical, ecological and economic feasibility of using these sands to maintain and enhance major Long Island beaches.

- Analyze the feasibility of creatively employing inlet development and stabilization techniques to enhance the environment of the south shore bay system. Accomplish this analysis as a part of the federally authorized, but not yet funded, Great South Bay Study.

- Develop models as tools to aid in determining the relationships between inlet characteristics (location and size) and selected physical/chemical characteristics of the backbay system; the selected characteristics should include tidal elevations, salinity, currents, water quality, shoaling and scouring.

SECTION IV

WETLANDS GUIDELINES

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Policy and Planning Guidelines

We recommend adoption of the following three stage program for wetlands planning and management:

- Stage 1 - Establish, as a minimum, a two-year moratorium on wetlands development (e.g., dredging, filling, building).
- State 2 - Acquire wetlands for public ownership as a high priority component of any bi-county land acquisition program.
- Stage 3 - Establish a regional land-use control authority for planning and management of wetlands in the coastal zone context.

Research and Analysis Guidelines

- Continue and expand the MRC wetlands program to design and develop an adequate wetlands classification scheme (e.g., containing descriptors pertaining to physical, biological, and cultural features).
- Continue and expand the inventory of each wetland unit in both counties based on the characteristics established in the classification scheme referenced above.

Council Responsibility and Activity Guidelines

We recommend that the MRC, in conjunction with other cognizant agencies, assume the responsibility for:

- Wetlands planning for the bi-county region, securing technical and financial assistance from state and federal agencies.
- Design of a wetlands management plan for implementation within two years.
- Coordination and sponsorship of meetings and hearings to obtain input from all interested parties on the goals and specific objectives of wetlands management.

APPENDIX A

REFERENCES

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