ACTIVITY NUMBER 6

Coastal Zone Boundaries

New York State Coastal Zone Management Program

ACTIVITY NO. 6 - COASTAL ZONE BOUNDARIES

General Description

The purpose of this activity is to further detail items contributing to the formulation of coastal zone boundaries based primarily on information derived from Activities 1, 2, 4, 7, and 8, together with pertinent socio-economic and political considerations. This information will be used to refine sketch maps, prepared in the first year, of alternative coastal zone boundaries for discussion purposes among interested parties. The inputs and understandings gained from these discussions will be used as input for further refinement of coastal zone boundaries.

TASK 6.1

STATEMENT OF TASK

Prepare Technical Memoranda on Factors That Will Determine the Coastal Zone Boundary; Refine the First Year Sketch Maps.

Products Expected

1. Maps showing preliminary preferred and alternative statewide boundaries.

DEC

Progress

10% complete - Maps showing preliminary preferred and alternative boundaries has not been completed due to various factors: *

- need to complete the NYSCZM base map series (produced under Task 10.3) before plotting alternative boundaries;
- Lack of specific boundary information from some regional and county contractors, especially early in the 2nd year of the program;
- scheduling differences for the completion of the freshwater wetland maps (Task 7.1) and fish and wildlife habitat information (fish and wildlife habitat, Lakes Erie and Ontario, mapping was not scheduled for completion until later in the program year);

- local public hearings at which mapped alternative boundary information would be needed for discussion were deferred by DOS until late in the program year.

Representative maps of alternative boundaries for use at local public review and discusions are now being prepared and will be completed in time for local meetings.

Prognosis

Mapping of remaining boundary alternatives will be completed by March, 1977. Minor problems are expected due to the incomplete status of wetland and fish and wildlife habitat for the Great Lakes area. Approximations of such critical areas will be used for determination of alternative boundaries.

SLEOC

Progress

100% complete - Alternative boundary maps prepared for the SLEOC segment of the NYSCZM program have been completed.

Prognosis

Minor revisions may be necessary based on review and comment received and coordination with NYSCZM Boundary policy.

N-SRPB

Progress

100% complete - Alternative boundary maps prepared for the N-SRPB segment of the NYSCZM program have been completed.

Prognosis

Minor revisions may be necessary based on review and comment received and coordination with NYSCZM Boundary policy.

2. Report summarizing boundary alternatives.

DOS/DEC

Progress

90% complete - The DEC boundaries paper "Memorandum on a Statewide Coastal Zone Management Boundary" was circulated to substate CZM participants for review and comment in the Fall of 1976. Response was somewhat limited and generally concerned matters of local importance. *

Following circulation of the DEC paper, a second paper discussing commonalities of boundary determination "Analysis of Preliminary Coastal Zone Boundaries prepared by New York State Substate Participants" was prepared. A detailed outline for a statewide policy paper on boundary determination and delineation has been completed using material derived from the previous two papers. This paper will be used for boundary discussions at public meetings, and for 3rd year CZM boundary work. *

Prognosis

Remaining work includes completion and circulation of the Statewide Boundary policy paper, and revisions to the boundary papers and mapping as a result of comments received from various review meetings.

3. Statewide maps showing alternative coastal zone boundaries for public discussion purposes.

DOS/DEC

Progress

50% complete - Representative boundary maps for various sections of the state are being prepared for use in public discussions during February and March. *

Prognosis

It is anticipated that the entire state will be completed by March, 1977.

SLEOC

Progress

100% complete

N-SRPB

Progress

100% complete

TASK 6.2

STATEMENT OF TASK

Discussion of Alternative Coastal Zone Boundaries With Governmental Units and Citizens Advisory Committees.

Products Expected

1. Minutes of meetings, written comments and similar materials.

DOS/DEC

Progress

10% complete - Boundary considerations were presented to the State Interagency Planning Commission through the Department of State Interagency Planning Commission in August, 1976. The presentation included a discussion of the preliminary boundary determination process and a slide presentation showing actual field conditions used in boundary determination.

Prognosis

Public meetings and discussion with other state agencies, the Citizens' Advisory Committee, and substate participants will be accomplished during February and March, 1977. Meetings will be held on boundary materials, with request for review and comment.

2. Compile and analyze comment and input received, make modifications to preliminary maps and report materials.

DOS/DEC

Progress

10% complete - Comment and input received to date has been included in boundary maps and boundary paper preparation.

Prognosis

Completion of this Task requires presentation of boundary materials mentioned in Task 6.1 and receipt of comment and input. No problem is anticipated in completing this Task.

Outline of Statewide Boundary Determination and Process FEB 8 1977

1. Statement of intent - to satisfy the statewide boundary requirement
2. Process of boundary determination to date (2-10-77)
   a. Circulation of technical guidelines - "CZ Boundaries" by DOS (9-75)
   b. Contractor identification of preliminary boundaries according to contract requirements (quote work item contract language) (4-1-76)
   c. First year DEC boundary discussion paper circulated to contractors (10-76)
   d. Summary of contractor boundaries (1-24-77)
   e. Analysis of contractor approaches to boundary delineation to determine common approaches (1-27-77)
   f. Preparation of State policy on boundary determination (2-10-77)
3. Process to follow
   a. Circulation of State policy paper for review and comment - state, contractors (2-77)
   b. Revision to State policy paper (3-77)
   c. Distribution of State policy paper for immediate use in contractor - held public meetings (3-77)
   d. Review and resolution by contractors of public comments on contractor boundary delineation (4-77)
   e. Revision by contractors to their boundary delineations (4-77)
   f. Contractors prepare justification for revised boundary in detailed report including maps showing changes (guidelines for report to be issued by DOS) (5-77)
   g. Review by State (State policy and State and interstate coordination of boundary) (5-77)

h. Conflict resolution with contractors (6-77)

i. Establish draft statewide boundary (mapped and written description) (7-77)

j. Public meetings (7/8-77)

k. Establishment of statewide boundary for draft plan (3-31-78)

l. Public hearings on draft plan ( )

m. Incorporate boundary into CZ legislation ( )

4. State Policy

a. Introduction - recognition of need for uniform, common approach to a statewide CZ boundary which can reflect and incorporate regional urban to rural differences with respect to:

1. Biological/physical/cultural characteristics
2. Existing land and water uses
3. Development pressures
4. Water body type classification - lake/river/ocean
5. Interstate and international boundaries
6. Political jurisdictions - type and nature

b. Recognition of importance of biological/physical/cultural features and their uses as determinants of the landward CZ boundary.

1. Need to define shoreland uses "which have a direct and significant impact upon coastal waters"
2. Determination by contractors of biological/physical/cultural characteristics and their uses for their coastal areas - local area importance and justification according to State's definition in #1 above
3. DEC input in determining biological/physical features of statewide importance
4. Designation of certain biological/physical/cultural features as GAPC's which will affect the landward CZ boundary
5. Defines the optimum coastal land area

c. Cultural, man-made or political boundaries are used as a line to delineate the CZ boundary (most inland) or, in some instances, natural feature boundaries are used where measurable or distinguishable

1. Easily recognizable
2. Encompass biological/physical/cultural features justified as requiring inclusion within the coastal zone boundary according to definition of "direct and significant impacts on coastal waters"
3. General agreement by contractors as most appropriate
4. Some non-coastal oriented land may be included in the coastal zone; special provisions can be made for broad/general controls, as opposed to GAPC's with stricter controls

d. Recognition that, in effect, a modified "tiered approach" evolves in places where varying degrees of control are needed within the coastal zone

   1. more intensive controls will usually be necessary close to the shoreline, less intensive inland. Will be reflected in greater number of GAPC type areas near the shoreline requiring the more intensive controls, while less intensively contolled areas serve as buffer areas.
   2. Contractors will determine tiered areas, justified to State, and requiring agreement or conflict resolution.

e. Coordination of adjacent contractor boundaries and State boundaries is necessary

   1. Effort to coordinate required between contractors
   2. Ultimate responsibility to coordinate rests with State, both between contractors and interstate.

New York State Coastal Zone
Management Program

"Analysis of Preliminary Coastal Zone Boundaries prepared by New York State Substate Participants

Prepared by:

The State of New York Department of State
and
The New York State Department of Environmental Conservation

January, 1977

Introduction

The purpose of this report is two-fold. The first section summarizes first and second year work on delineation of coastal zone boundaries accomplished by local CZM contractors. This work was carried out in accordance with technical guidelines issued by the Department of State which discussed program requirements, key objectives, definitions, limitations and boundary determination methods. These technical guidelines state that "each contractor shall be responsible for the development and application of the detailed technical method for determining the most appropriate coastal zone boundaries for his territory. However, determination of a final statewide coastal zone boundary must meet program requirements and reflect a consistent and common approach. Therefore, the second section identifies common elements and methods undertaken by the local contractors in their boundary delineation as a prelude to formulation of a statewide boundary policy in a subsequent paper, "New York State Department of State, Division of State Planning: "Coastal Zone Boundaries."

Local Contractor Boundaries

1. Chautauqua County Division of Planning

Initial steps in the development of the preliminary CZ boundary included a review of the CZM Technical Guidelines, inventory of all land and water uses needing controls and development of possible criteria to be used in defining the CZ boundary. Further refinement of possible criteria led to a preliminary boundary system containing both biophysical and administrative elements relating to the escarpment, watersheds, municipal boundaries, transportation corridors, the international boundary, and contour lines.

This preliminary boundary system is comprised of 4 zones, each representing a different degree of control. The most stringent controls are found in the zone which encompasses the shoreline and its immediate area including the coastal waters.

2. Erie and Niagara Counties Regional Planning Board

The three alternative approaches suggested in the DOS Technical Guidelines for delineating coastal zone boundaries were evaluated for their applicability to the Erie-Niagara region. This evaluation was based on the physical, biological, geological and administrative characteristics of Erie and Niagara counties. Actual mapping of a coastal zone boundary for the counties has not yet occurred because the Regional Planning Board felt there was a lack of information on controls which would be imposed on areas within the boundary. In addition, local communities wanted more information on geographic areas of particular concern and legal and institutional arrangements before making decisions on boundary possibilities.

The three alternative approaches evaluated included a biophysical approach, biophysical/administrative approach, and a multiple approach. The biophysical/administrative approach was felt to be most appropriate since it surmounts some of the difficulties encountered in using a strictly biophysical approach. The inland boundaries are to be delineated along a set of existing, easily located lineaments on a cultural features encompassing the location of coastal zone biophysical features. Once the critical biophysical features are adequately identified, the boundaries will then be delineated using appropriate administrative boundaries which may include a combination of any or all of the following:

- coastal municipality boundaries
- first major roadway from the coastline
- other roadways
- railroad tracks
- utility lines
- creeks and streams

The boundary delineation process will include consideration of information obtained from the inventory and analysis of coastal zone resources.

3. Genesee/Finger Lakes Regional Planning Board (Wayne and Orleans Counties)

Maps were prepared delineating the tentative coastal zone for the counties of Wayne and Orleans. The boundaries are based on a number of various considerations - natural systems, 100 year flood plains, state owned properties, prior shoreline studies, federal and state guidelines, and local and county input. The boundaries remain as preliminary designations pending further consideration of various factors throughout the planning phases. Preliminary mapped boundaries almost exclusively follow cultural features such as roads, railroads, municipal boundaries, park boundaries, etc.

4. Monroe County Department of Planning

The delineation of the coastal zone boundaries took into account the following factors: guidelines in federal legislation and in the Coastal Zone Management Program contract, the boundaries established in previous studies of the coastal zone, natural characteristics, cultural features, and public input.

Guidelines from the federal legislation were followed to ensure that the boundaries would extend "inland from the shoreline only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters." In addition to these general guidelines, the Coastal Zone Management Program contract sets forth a minimum area to be included in the coastal zone boundaries. The boundaries ultimately established include all of the area specified in the contract, but also extend in some cases beyond this area to take into account the boundaries established in other studies of the shoreline, important natural features, certain cultural features, and public input.

First the boundaries were extended to include the area studied in shoreline reports prepared by the Genesee/Finger Lakes Regional Planning Board. The extensions, which were of a minor scope, were undertaken in order to better integrate the Coastal Zone Management Program with significant work already done on the coastal zone.

Secondly, the boundaries were extended in order to include natural features which have a significant effect on drainage within the coastal zone. Any wetland areas which extend to the lakeshore were included, as were the floodplains of creeks where these floodplains also extend to the lakeshore. The boundaries were also extended to provide a reasonable buffer zone around the fragile wetland areas.

Thirdly, the boundaries were extended to include certain cultural features, specifically roads and railroad lines. The important biophysical features which make up the coastal zone are encompassed by these cultural features. The extensions were made to include the cultural features primarily to define a coastal zone which may be conveniently described and readily identified.

5. City of Rochester Department of Community Development

The boundaries of the coastal zone for Rochester were defined by the Division of State Planning as:

- That portion of the Genesee River from its terminus at Lake Ontario south to the Extent of Tidal Action (approximately Stutson Street).
- Adjacent land area located between the Genesee River shoreline and Lake Avenue on the west and the City line on the east, as far south as Stutson Street.
- Land within the City of Rochester located between the Lake Ontario shoreline and Beach Avenue on the south
- Estuary type areas within Durand Eastman Park.

6. Central New York Regional Planning and Development Board

Under the CNYRPDB Coastal Zone Management Program, an area was recognized and designated as being within the coastal zone if one or more of the land and water surface criteria were evident in areas adjacent to the Lake Ontario shoreline. No one element was construed as being more important than another. Rather, determination of a coastal zone for planning or management program purposes was to be dependent upon the characteristics of a particular tract or area of land. Criteria considered included the following:

Water Surfaces

1. Water surface, extending from the "shoreline" to the U.S.-Canadian Border. For study purposes, all water surface extending seaward 1,000 feet from the "shoreline".

2. "Coastal Waters", including but not limited to harbors, roadsteads, and estuary-type areas such as bays, shallows, and marshes.

3. Other waters, adjacent to the shoreline, which contain a measurable quantity of sea water, including but not limited to, sounds, bays, lagoons, ponds, and estuaries.

4. The mouths of streams whose water discharges into Lake Ontario and its coastal waters.

5. Streams, upstream to the extent that existing or potential land and water uses, located on or adjacent thereto, are related directly to the existence of Lake Ontario.

6. Physiographic features whose existence or character is due directly to lake influences, including but not limited to, beaches, sea cliffs, and bars.

7. Flood hazard areas, including those areas included within the 100-year flood plain of the lake and tributary streams as described above in #5.

8. Areas within the Lake Plain, but limited to areas which meet one or more of the other criteria

9. Areas which contain or have the potential to support a relatively high proportion of land uses related directly to the existence of Lake Ontario, including but, not limited to:

   (a) Recreational uses, including swimming, boating, fishing, hunting, campgrounds, and so on;

   (b) Commercial activities, including marinas, retail boat sales, retail sports equipment sales, campgrounds, cabin and cottage rentals, land and water based tour and guide activities, and so on;

(c) Agricultural activities dependent upon coastal and lake influences, or whose existence and location is due to characteristics of the Lake Plain;

(d) Industrial uses and activities, including shipping, commercial harbors, water-dependent manufacture, commercial fishing, extractive industries, etc.;

(e) Special natural ecosystems, unique natural areas, open space, and environmental phenomena whose character and existence is due to the unique land-water interface created by lake influences;

(f) Special public uses and activities, including fish hatcheries, wildlife management areas, forest and open space preserves, publicly managed recreation and so on;

(g) Lake-dependent utilities, including power-generating plants; waste disposal areas, and so on;

(h) Seasonal and permanent residential areas whose existence and location is due to lake and coastal influences.

Consideration of this discussion as a premise limited the potential coastal zone boundary to a relatively small area, running more or less parallel to the Lake Ontario shoreline.

Three alternative boundaries were depicted based on varying degrees of strictness of interpretation of the Federal and State guidelines. The first alternative is almost exactly the same boundary which the St. Lawrence-Eastern Ontario Commission (SLEOC) uses as the inland limit of its "primary coastal zone", the area in which that agency performs detailed project reviews of development proposals. Boundary alternatives two and three have more extensive boundaries based on the growing salmon sports fishing activity in several streams flowing into Lake Ontario.

7. St. Lawrence-Eastern Ontario Commission (SLEOC)

The preliminary CZ boundary (the "primary coastal zone") was defined in terms of the location of intensive coastal-related development and processes. Generally, the offshore boundary extends outward to the 30 foot depth contour, in which most aquatic bioproductivity occurs. The boundary extends inland to the greater of:

1. the extent of large coastal wetlands, or
2. the extent of past and anticipated coastal dependent land uses and development

In both cases the inland boundary was then established in relation to the nearest roadway parallel to the shoreline, for convenient reference.

Revisions are anticipated. They will reflect:

1. establishment of a secondary zone inland boundary based on small watersheds tributary to the coast (based on consideration of non-point run-off and sedimentation);
2. reassessment of prospects for the lake salmonid fishery;
3. explicit inclusion of federal lands; and
4. conformation with draft GAPC's

8. Capital District Regional Planning Commission

CDRPC defined an interim coastal zone boundary of one mile from the shoreline of the Hudson River for initial planning purposes. Of the three alternatives for CZM boundaries--biophysical, biophysical/administrative, and multiple--CDRPC chose the second alternative for use in the Capital District. The biophysical alternative could be delineated on a map, but actual boundary

demarcation and recognition would be extremely difficult. This section of the Hudson Valley contains a great variety of biophysical features; the two sides show distinctly different forms.

The multiple alternative was deemed inappropriate because its applicability would be severely limited in the Capital District's small scale coastal zone and as initially defined by the one-mile deep preliminary planning boundary. Single-purpose boundary alternatives such as arbitrary distances (i.e., one mile or one kilometer), flood plains, and transportation arteries were also rejected as being insensitive and insufficiently comprehensive indicators of the coastal zone.

The selection of a biophysical/administration combination of natural features, political boundaries, and cultural features was utilized because it allowed maximum flexibility in delineating an inclusive, rational, reasonable identifiable and recognizable boundary. The method acknowledges the competition for dominance, in this area of often intensive human activity, between man-made and natural features in the landscape. Also, because this boundary may enclose an area of special regulation applicable to both public agencies and private property owners, the value of a readily visible, easily demarcated, and unequivocal boundary where possible should not be underestimated in facilitating management activities.

The delineation of the boundary of the coastal zone in the Capital District was accomplished by using several criteria in combination. These include existing land use, contour lines, configuration of stream valleys draining into the Hudson, transportation arteries and utility lines (for ease of demarcation), planned future land use, and DCRPC's Preliminary Regional Development Plan.

9. Columbia County Planning Department

In drafting the preliminary boundaries, it was the intent of the CCPD to include lands immediately adjacent to the river course which have the most pronounced impact on river quality conditions. All areas under tidal influence were included, as were lands which formed the drainage areas for the river far inland as necessary to include the major terrestrial influences. While the larger streams entering the river carry materials from inland areas a number of miles from the shoreline and influence the coastal quality to some degree, the inland boundaries were restricted to points within a reasonable distance from the river to facilitate management program implementation.

Once the areas of concern were identified, based on the various physical, biological and social factors involved, a boundary was laid out which followed highways, power transmission lines and other easily recognizable features which were able to include these areas of concern. In addition to this primary area, secondary zones were laid out which have an impact of lesser magnitude on the shore areas, but are still considered to be of major importance to the coastal zone program.

10. City of New York Department of City Planning

The NYC/CZM coastal area boundaries are structured within four management zones which recognize the unique characteristics of an urban coast. Responding to the diversity of local areas, NYC/CZM has divised a network of specific boundaries rather than one generalized definition. Together, these four zones encompass more than just a "designated area". Instead, they define the length, depth and height of manageable coastal land, water and air.

The network of boundaries attempts to consolidate areas of concern and methods of regulation as elements in the construction of a management plan. Since management realms intersect and overlap within coastal areas, regulations governing navigation, environment, commerce and development all share unclear areas of jurisdiction. To simplify this administrative web, areas of similar management possibilities have been layered into four zones:

1. The Water Edge Zone extends from the U.S. Pierhead Line seaward to the three-mile limit or the N.Y. State territorial limit. The U.S. Pierhead Line is the boundary at which municipal land use controls are superseded by federal regulations of waterways. U.S. pierhead lines are only established for navigable waterways. Where no pierhead line has been established, the Mean High Water line is its legal equivalent. The Water Edge Zone contains tidal wetlands, littoral zones, fish and wildlife areas, and shipping channels.

2. The Waterfront Zone begins at the U.S. Pierhead Line (or at Mean High Water) and extends upland to a line which is determined by local conditions. This upland limit may be no less than 1,000 feet from the pierhead line in areas characterized as developed. In underdeveloped areas containing no natural features, the upland limit will not occur before the first major man-made physical barrier. The Waterfront Zone will extend further inland than these minimums to include the most upland boundary of any of the following 15 conditions listed below:

- tidal wetland (NYS/DEC)
- littoral zone
- coastal fish, shellfish, and wildlife areas (survey being conducted by NYS/DEC)
- shipping channels and facilities
- watersheds
- freshwater systems substantially intact
- flood plains
- beaches, public and private
- utility stations
- transportation modes and arteries required for access
- parks on the coast
- special zoning districts on or near coast
- airports, heliports, seaplane bases and ferries on the coast
- areas of importance to coastal appearance, and scenic views from the coast (this is defined only in one area, more will be added later)
- nearby sources of air pollution that will significantly affect the coastal area (not defined, it is possible that items mapped here will not be adjacent to the coast)
- noise sources that will adversely affect the coastal area

3. The Coastal Upland Zone extends from the upland limit of the waterfront zone to the upland limit of Community Boards adjacent to the pierhead line. The Utilization of Community Boards as part of the Coastal Zone Boundaries is useful on many fronts. Community Boards are made up of local representatives who would participate in any coastal decisions for the adjacent neighborhoods. The waterfront may be of value to the neighborhoods, but much of the possible value of the coast depends in turn on the quality of the nearby neighborhoods.

Their perception of the waterfront's value in decisions that might not affect the immediate coast is necessary.

Community District lines were chosen because of the possibility of more efficient data exchange; census data, land use data and neighborhood characteristics are routinely aggregated by these community districts. Also they are broad enough to include other administrative boundaries and to allow expansion of the upland boundary of the waterfront zone, as the second-

year yields more maps of environmentally sensitive areas with their supportive upland areas.

4. The Coastal Airspace Zone is a new concept conceived so that consideration may be given to air quality, noise pollution and scenic views. Various reports have been produced linking the existence of natural features to levels of air quality and noise pollution. An attempt will be made to link this data with NYC air and noise quality data and to define the interaction of various levels of air and noise pollution and waterfront uses.

11. Nassau-Suffolk Regional Planning Board

The seaward boundary for the NSRPB is 3 miles offshore in the Atlantic Ocean on the south, and the New York-Connecticut border on the north in Long Island Sound and on the east in Block Island Sound.

The CZM Act states that "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". A primary inland coastal zone boundary was determined for Nassau-Suffolk based on the Regional Planning Board's decade long experience with coastal research and inventory efforts, and based on the input provided by the Citizen Participation Committee during the Year I CZM effort. This primary zone, over which the more stringent controls will be placed, is defined by the maximum area delineated by the 10 foot elevation contour line, the line located 1000 feet inland from the Mean High Water Line, the line located 1000 feet from the banks of any stream, ditch, or drainage way

discharging to coastal waters, and the outer periphery of any contiguous freshwater wetland (as identified pursuant to the NYS Freshwater Wetlands Act of 1975) and contiguous Geographic Areas of Particular Concern (GAPC's). This boundary was found to adequately cover shorelands, the development of which are most likely to have direct and significant impacts upon coastal waters, including wetlands, protective upland vegetation, the barrier beach and other coastal landforms, the 100 year flood plain, areas characterized by high groundwater table, bluffs and steep slopes, freshwater wetlands, stream corridors, and major drainage ways or swells carrying surface runoff into coastal waters.

However, other significant areas are excluded by the primary zone definition, including those which may be visible from the water or located within other scenic coastal vistas (especially on Nassau-Suffolk's North Shore) and whose alteration or use might significantly impact coastal aesthetics. Stormwater runoff originating from developed areas greater than 1000 feet from the shoreline or streams may run downgrade and directly enter coastal waters, carrying various pollutants from lawns, roadways, etc.

In addition, development in areas recharging to shallow groundwater aquifers located close to shore, or close to creeks and streams, may have significant long-term impacts on nearshore coastal waters through contamination of underflow with pollutants from cesspool and sump leachates.

In light of these facts, a secondary coastal zone (outside of the primary zone) was established which may have significant aesthetic or water quality impacts on coastal waters. On the North Shore, the secondary zone consists of those areas contained within the drainage basins identified during the Board's "208"

Areawide Waste Treatment Management Planning Study (or in the case of the Peconic River drainage basin, as defined during a study conducted by the Board for the U.S. Department of Housing and Urban Development which are approximated by cultural features. The North and South Forks are underlain by shallow aquifers, and thus are included in their entirety. On the South Shore, those areas bounded on the east and west by stream corridors are included, with the northern boundary defined by a major east-west cultural feature.

Analysis of Local Contractor Approach to Coastal Zone Boundary Delineation

This section of the report analyzes boundary determination approaches by Coastal Zone Management sub-state participants for the purpose of identifying elements and methods common to their approaches. It is anticipated that this analysis will assist in the formulation of a New York State Coastal Zone Management statewide boundary policy.

The following is a brief discussion of several of the commonalities of approach and a brief discussion of each:

Cultural Features and Political Boundaries. All substate participants recognized the importance of delineating the landward coastal zone boundary by an easily recognizable and identifiable political boundary or cultural feature such as a road, railroad, utility line, etc. The political/cultural boundary provided an unequivocal well defined boundary for facilitating future management activities.

It should be noted that the presence of a political/cultural feature in a coastal area was not generally a boundary determinant in itself. The decision to use a political/cultural feature was usually based on other determinants, such as inventories of coastal land and water resources and uses which could then be encompassed by the nearest political or cultural feature as a boundary.

Features used as boundaries included highways, railroads, municipal boundaries, utility lines, creeks and streams, park boundaries, and property lines. In several instances, there were deviations from the political/cultural feature in order to incorporate biological/physical features not totally included within the bounds of the political/cultural boundary.

Biological/Physical Features and Coastal Related Development and Processes. Biological/physical features and coastal related development and processes were used as prime determinants in the limit of the coastal zone "inland from the shoreline only to the extent necessary to control shorelands", the uses of which have a direct and significant impact on the coastal waters.

These features (land and water uses requiring controls) are viewed as the minimum coastal zone area, and vary according to characteristic regional and local importance and differences.

Biological/physical features and coastal related development processes considered include:

> drainage features including wetlands, watersheds, rivers, creeks, streams, 100 year flood limits, flood plains, etc., but not necessarily including the entire feature or drainage pattern.

Limitations on the extent of the drainage feature to be included were self-imposed by the substate participants and included:

- limit of tidal influence
- measurable quantity of sea water
- mouths of streams
- the extent that existing or proposed land and water uses related directly to the major water body

- the extent of large wetlands
- configuration of stream valleys
- impact of adjacent land on river quality
- drainage areas for the river far inland to include major terrestrial influences
- a reasonable distance...to facilitate management program implementation
- most pronounced impact on river quality
- significant water quality impacts on coastal waters

fish and wildlife areas including management areas, breeding grounds, littoral zones, shellfish beds, and coastal related wildlife.

(natural) physiographic or geologic features directly related to the coast including bluffs, escarpments, beaches, bays, shallows, marshes, harbors, bars, steep slopes, underground water systems, lagoons, ponds, estuaries, and those features described as drainage features.

existing land use directly related to the coastal zone including shipping, ports, recreation, mineral extraction, commerce, agriculture, industry, second home, residential, and transportation.

The Tier Approach. The Tier approach was employed by several substate participants to divide the proposed coastal zone into parallel zones according to a hierarchy of proposed use controls ranging from greater to lesser controls the farther away one goes from the shoreline. Boundaries between the zones were determined by the use of a line defined by cultural features, a 10 foot elevation contour, or 1000 foot setback from the shoreline, biological/physical features, a combination of biological/physical/cultural features, and the elevation and setback lines or a "third dimensional boundary" (skyward as used by New York City.)

Other Determinants. Other boundary determinants such as the 10 foot contour or the 1000 foot setback line were applied as appropriate with regard to encompassing relevant biological/physical features of regional importance. N-SRPB, for instance, related the 10 foot contour and 1000 foot setback to the most important "direct and significant impacts" and the necessary buffer areas of drainage ways discharging into coastal waters. New York City characterized the 1000 foot setback as encompassing "developed" areas.

Factors which were unique or not commonly considered in boundary determination:

- aesthetic considerations
- buffer zones
- air and noise quality (air space)
- adjustment of boundaries to meet adjacent proposed boundaries

NEW YORK STATE COASTAL ZONE MANAGEMENT PROGRAM

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MEMORANDUM
on
A STATEWIDE COASTAL ZONE MANAGEMENT BOUNDARY

Prepared by

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TABLE OF CONTENTS

Introduction

The purpose of this report is to explain the approach and delineation of a preliminary statewide coastal zone boundary based on first year program efforts by local contractors as well as the Department of Environmental Conservation (DEC). Included in the report is a discussion of the alternative boundary proposals submitted by each contractor plus a reference to the inventory work undertaken by DEC on geographic areas of particular concern (GAPC) which affect boundary delineation.

The Coastal Zone Management Act requires any state receiving a program development grant to identify the boundaries of that part of the coastal zone that will be subject to its management programs.[1] The subsequent regulations issued under the Act plus the threshold paper on boundaries prepared by the Federal Office of Coastal Zone Management (OCZM) provide further guidance to the State to develop and apply a procedure for identifying the boundary of its coastal zone.[2] To this end, technical guidelines were issued by the Department of State for use by contractors in initially identifying their respective coastal zone boundaries.[3] Reference is made to that document for the detailed discussion of program requirements, key objectives, definitions, limitations and boundary determination methods.

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[1]Coastal Zone Management Act of 1972, P.L. 92-583, Section 305 (b)(1).

[2]15CFR 920.11; and U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management: "Threshold Paper #1: Boundaries".

[3]New York State Department of State, Division of State Planning: "Coastal Zone Boundaries".

The technical guidelines state that "each contractor shall be responsible for the development and application of the detailed technical method for determining the most appropriate coastal zone boundaries for his territory." However, while these requirements have been satisfied in varying degrees by the contractors, putting together all of their boundaries would not necessarily result in a cohesive and consistent statewide coastal zone boundary. Two guiding principles defined by the OCZM clearly indicate that a statewide approach to an inland boundary is a necessary part of the CZM program. One specifies that the state must be capable of applying the policies, objectives and controls of its CZM program consistently within the entire coastal zone, while the other states that final inland boundaries submitted to OCZM for program approval must be determined after a clearly defined and documented procedure - one which incorporates a priority scheme for permissible uses and identifies areas of particular concern - has been applied.[4]

The section below expands upon the technical guidelines issued by DOS by specifying the approach taken to develop a preliminary statewide boundary that emphasizes the process of boundary determination rather than delineation of a final boundary. The preliminary statewide boundary which has begun to emerge will serve as a point for discussion during the public meetings to be held in the second year of the program.

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[4] The Office of Coastal Zone Management, The National Oceanic and Atmospheric Administration, U.S. Department of Commerce, Inland Boundaries of a State's Coastal Zone, May, 1975, pp. 2-4.

GUIDELINES AND ASSUMPTIONS

DEC's approach to delineating a preliminary statewide boundary rests on several guidelines and assumptions. First, the State technical guidelines suggest a two step boundary delineation process. The first step would establish a boundary encompassing a specific coastal planning area larger than the final coastal zone boundary. The second step would involve a reduction of this area as boundaries are refined based on appropriate analysis and evaluation of data, policies, and program findings.

Second, DEC assumed that the larger area delimited in the first step should be delineated by either a landward line 1000' from the water's edge or a line 10' in elevation higher than the mean high water elevation. This would encompass most of those shoreland uses " which have a direct and significant impact upon coastal waters." In low-lying shoreline areas, use of the 10' contour line as the landward boundary is most appropriate since it is assumed that uses within this line would directly affect coastal waters even though lying beyond the 1000' distance from the water's edge. Conversely, where bluffs rise directly from the water's edge, use of the 10' contour line is inappropriate since only a small, almost vertical area would lie within the boundary. Here, use of the 1000' line from the water's edge is most desirable.

In many areas, in fact, such a line may encompass a larger area than needed for management purposes and will be reduced later in accordance with the first guideline above.

Third, for this first effort, the delineation of multiple boundaries was not undertaken. However, the probability is high that a form of the multiple boundary approach will be needed to accommodate the different types of management controls required to protect and/or preserve certain GAPC's. At this time, it is not possible to delineate those areas where different intensities of management controls

are needed since all such areas have not yet been identified. Certainly, however, it would be expected that an area containing extensive dunes and wetlands would require different management controls than an area where agriculture is practiced to within twenty feet of the shoreline. Once all such areas have been identified, the need for different degrees of management controls will be considered and boundaries drawn to the extent necesaary for control. In this sense, then, multiple boundaries will undoubtedly be a feature of New York's CZM program.

Fourth, the first version of Threshold Paper #1: Boundaries, prepared by the OCZM, said that " the State must define the boundary geographically so that it is capable of being mapped, and so that the State can determine with reasonable ease and speed whether the holdings of any property owner lie within the coastal zone." While this statement has been removed from the subsequent version of the boundary threshold paper, DEC feels that it is still valid and that it makes a strong case for delineating a preliminary boundary defined by the boundaries of minor civil divisions or by cultural features such as highways, railroad tracks, utility lines, etc. Such a boundary, incorporating the biophysical features which should be in the coastal zone and located as near as possible to the 1000' line or 10' contour line, will facilitate the ready identification of property in the coastal zone. The necessity for costly surveys and mapping will also be eliminated.

Fifth, as additional GAPC's are designated, as Federal lands are identified and excluded, and as public hearings take place, adjustments and refinements to the preliminary boundary will be made.

DELINEATING A PRELIMINARY STATEWIDE COASTAL ZONE BOUNDARY

Using the guidelines and assumptions discussed above, DEC is undertaking the following mapping and analysis that will lead to the delineation of a preliminary statewide coastal zone boundary before public hearings begin:

1. Mapping a 10' contour line and a line 1000' from the water's edge for the state's entire coastline (complete)

2. Mapping the CZ boundaries recommended by local contractors (complete except for Chautauqua County, the Black River-St. Lawrence Regional Planning Board areas, Columbia County, and New York City)

3. Adjusting the local contractor boundaries to accord with identified GAPC's such as significant fish and wildlife habitats, and to bring the boundary in line with the 1000' or 10' contour line (incomplete)

4. Mapping a preliminary boundary for those areas with no local contractors, as along much of the Hudson River (incomplete)

5. Mapping the boundaries of identified GAPC's that will affect the preliminary statewide boundary (complete: significant Fish and Wildlife habitats for Hudson River and Long Island; 100 year flood for Hudson River; and historic sites along the Hudson River)

6. Preparing mylar overlays of the preliminary statewide boundary for selected quad sheets which will then be photographed for public hearings. (All mapping so far has been done on tracing paper overlays of U.S.G.S. topographic sheets.)

NEXT STEPS

Immediate next steps, during months one and two of the second year program, include completion of the preliminary statewide boundary mapping and analysis tasks identified as necessary for public participation purposes. These tasks are:

1. Completion of the mapping of the preliminary statewide boundary on tracing paper overlays of 1:24,000 U.S.G.S. topographic sheets.
2. Preparation of mylar overlays for selected quad sheets of the preliminary statewide boundary to be photographed for the public meetings.
3. Preparation of preliminary statewide boundary maps at any other scale or level of detail deemed necessary for public discussion purposes.
4. Preparation of a report for public participation purposes which discusses the preliminary statewide boundary in general terms and region by region and includes the approach and rationale for this boundary selection.

During the remainder of the year, adjustments to the preliminary statewide boundary will be made based on the following considerations:

1. The results of the public meetings.
2. Identification and mapping of additional GAPC's.
3. Identification and mapping of excluded Federal lands.
4. Designation of permissible and priority uses.
5. Resolution of conflicts between natural resource and economic development factors.

At the end of the second year, based on the outcome of the public hearings and other considerations, adjustments will be made to the preliminary

boundary. The result will be the tentative statewide coastal zone boundary around which the management programs will be refined during the third year.

SUMMARIES OF LOCAL CONTRACTOR BOUNDARIES

1. Nassau-Suffolk Regional Planning Board

Landward boundaries are recommended based on a combination of the following, mapped by DEC to include the maximum land areas: the 10' contour line; a line located 1000' inland from the shoreline at mean high water: a line located 1000' from the banks of any stream, ditch or drainage way discharging to coastal waters and the outer periphery of any contiguous freshwater wetland (as identified pursuant to the NYS Freshwater Wetlands Act of 1975) or other contiguous areas of critical concern. These latter areas included: significant fish and wildlife habitats; flood plains and the extent of the 100 year flood; groundwater aquifers and water supply sources; steep slopes subject to erosion; presence of unstable land forms such as beaches, dunes, and bluffs; landward limit of marine influenced vegetation; and the landward limit of tidal flow.

2. City of New York Department of City Planning

The CZM/NYC coastal area boundaries are structured within four management zones. The boundary lines are preliminary and represent a synthesis of information gathered to date.

A. The waters edge zone extends seaward 3 miles from the U.S. Pierhead line. The Pierhead line was chosen because of its management implications. City jurisdiction presently extends to the Pierhead line. Contained within the zone are the marine tidal wetlands and the littoral zone. Significantly, these two areas are interrelated subsystems of the marine bio-system. The limits of the littoral zone/marine tidal wetlands extend seaward to a depth of approximately 30' and are so indicated on the waters edge zone maps.

B. The waterfront related zone includes both man-made and bio-physical features. It extends landward from the U.S. Pierhead line to a boundary line delineated by one or more of the following features: Marine Tidal Wetlands within the U.S. Pierhead lines, freshwater wetlands, flood plains, beaches, parks, watersheds, streams, lakes, ponds, many arterial roads, the 10' and 20' elevation, 1000' protective areas from banks of sensitive ecological systems, and man-made features including promenades, buildings, piers, and geologic features. The zone is the most complex as it requires a careful integration of man-made uses and features, with the marine-related biophysical features. The area included within the boundary is under N.Y.C. jurisdictions, providing a management logic to the boundary. It should be noted at this point that the four zones have overlapping jurisdictions: A overlapping with B,C and D encompassing both A and B. Overlaps represent areas of public interest, be they community or governmental, as well as management concerns.

C. The water related upland zone is defined inland by the boundaries of the existing Community Planning Districts (CPD) contiguous with the waterfront. The Districts, as required by the N.Y.C. Charter Revision, will have an active role in all land use decisions. Data base information is gathered by CPD and is updated by the Department of City Planning. The information base and the listing of public participation by CPD suggests a natural forum for the plans, policies and programs of the CZM. The boundaries of the CPD's represent the inland limits of the coastal area.

D. The water related airspace zone is a new concept for New York City. It completes the three dimensionality of the coastal area. Consideration is given to air quality, noise or acoustical sources, and scenic views. For the moment 1000' has been selected as the upper boundary. Additional Work remains to be done in order to refine the concept.

3. Columbia County Planning Department

In drafting the preliminary boundaries, it was the intent of the CCPD to include lands immediately adjacent to the river course which have the most pronounced impact on river quality conditions. All areas under tidal influence were included, as were lands which formed the drainage areas for the river as far inland as necessary to include the major terrestrial influences. While the larger streams entering the river carry materials from inland areas a number of miles from the shoreline and influence the coastal quality to some degree, the inland boundaries were restricted to points within a reasonable distance from the river to facilitate management program implementation.

Once the areas of concern were identified, based on the various physical, biological and social factors involved, a boundary was laid out which followed highways, power transmission lines and other easily recognizable features which were able to include these areas of concern. In addition to this primary area, secondary zones were laid out which have an impact of lesser magnitude on the shore areas, but are still considered to be of major importance to the coastal zone program.

4. Capital District Regional Planning Commission

CDRPC has defined an interim coastal zone boundary of one mile from the shoreline of the Hudson River for planning purposes.

For management purposes, a biophysical/administrative boundary alternative was chosen based on a combination of factors. These included existing land uses, contour lines, configuration of stream valleys draining into the Hudson, political boundaries, transportation arteries and utility lines (for ease of demarcation), planned future land use, and CDRPC's Preliminary Regional Development Plan.

5. Black River - St. Lawrence Regional Planning Board

Delineation of the preliminary coastal zone was based upon a combination of natural and man-made features including drainage basins, highways, political boundaries, and existing land use. Four alternatives are delineated.

6. Central New York Regional Planning and Development Board

Under the CNYRPDB Coastal Zone Management Program, an area was recognized and designated as being within the coastal zone if one or more of the land and water surface criteria were evident in areas adjacent to the Lake Ontario shoreline. No one element was construed as being more important than another. Rather, determination of a coastal zone for planning or management program purposes was to be dependent upon the characteristics of a particular tract or area of land.

Consideration of this discussion as a premise limited the potential coastal zone boundary to a relatively small area, running more or less parallel to the Lake Ontario shoreline.

Three alternative boundaries were depicted based on varying degrees of strictness of interpretation of the Federal and State guidelines. The first alternative is almost exactly the same boundary which the St. Lawrence-Eastern Commission (SLEOC) uses as the inland limit if its "primary coastal zone," the area in which that agency performs detailed project reviews of develop-

ment proposals. Boundary alternatives two and three have more extensive boundaries based on the growing salmon sports fishing activity in several streams flowing into Lake Ontario.

7. Genesee/Finger Lakes Regional Planning Board

Maps were prepared delineating the tentative coastal zone for the counties of Wayne and Orleans. The boundaries are based on a number of various considerations-natural systems, 100 year flood plains, state owned properties, prior shoreline studies, federal and state guidelines, and local and county input. The boundaries remain as preliminary designations pending further consideration of various factors throughout the planning phases.

8. Monroe County Department of Planning

The delineation of the coastal zone boundaries took into account the following factors: guidelines in federal legislation and in the Coastal Zone Management Program contract, the boundaries established in previous studies of the coastal zone, natural characteristics, cultural features, and public input.

Guidelines from the federal legislation were followed to ensure that the boundaries would extend "inland from the shoreline only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters." In addition to these general guidelines, the Coastal Zone Management Program contract sets fourth a minimum area to be included in the coastal zone boundaries. The boundaries ultimately established include all of the area specified in the contract, but also extend in some cases beyond this area to take into account the boundaries established in other studies of the shoreline, important natural features, certain cultural features and public input.

The boundaries as defined so far were presented to the individual town policy committees for review and were modified accordingly. The modifications were relatively minor, involving a reduction of the proposed coastal area in Greece and an expansion of the area in Irondequoit. It should be pointed out that the town supervisor and planning board representatives were present at these town meetings, in addition to numerous citizens.

9. City of Rochester Department of Community Development

The boundaries of the coastal zone for Rochester were defined by the Division of State Planning as:

-That portion of the Genesee River from its terminus at Lake Ontario south to the Extent of Tidal Action (approximately Stutson Street).

-Adjacent land area located between the Genesee River shoreline and Lake Avenue on the west and the City line on the east, as far south as Stutson Street.

-Land within the City of Rochester located between the Lake Ontario shoreline and Beach Avenue on the south.

-Estuary type areas within DurandEastman Park.

CENTRAL NEW YORK REGIONAL PLANNING AND DEVELOPMENT BOARD
700 East Water Street Syracuse, New York 13210 315-422-8276
Gary G. Hayes
Executive Director

12 November 1976

David E. Buerle
NYS Department of Environmental Conservation
Office of Program Development, Planning, and
Research
50 Wolf Road
Albany, New York 12233

Re: Memorandum on A Statewide Coastal Zone Management Boundary

Dear Mr. Buerle:

The guidelines issued by DOS on the approach taken to develop a preliminary statewide boundary appear to be both reasonable and workable.

From our work on Phase I of CZM it has become apparent that considering political boundaries when establishing a CZM boundary may facilitate adoption by local municipalities of land use controls affecting the coastal zone. Perhaps this concept could be considered in the adoption of the final technical guidelines.

Sincerely,

Lane A. Gallo

Lane A. Gallo
Senior Planner/Environmental Management

LAG/jmp

ST. LAWRENCE-EASTERN ONTARIO COMMISSION

317 WASHINGTON ST., WATERTOWN, N. Y. 13601

PHONE (315) 782-0100

EXTENSION 263-4

CHARLES W. KELLY, Chairman WILLIAM E. TYSON, Executive Director

October 19, 1976

TO: David E. Buerle

FROM: G. L. Harder

SUBJ: Draft "CZM Statewide Boundary" memo (DEC, 5/76)

1. We reviewed this material (as to DEC's approach) some time ago, with the Department's program coordinator. At that time we expressed our view, which we have since reiterated to DOS/DSP, that DEC's second basic assumption results in a preliminary CZ definition that is much too limited (see, specifically, paragraphs 2 and 3 on page 3).

2. This (in our opinion) rather cautious and limited view of the CZ may have been unavoidable under the circumstances. That is, central office staff in Albany simply cannot obtain a sufficiently detailed perception of local conditions that should be reflected in the boundary delineation process. (Perhaps, if resources allowed, it would be better for the work to be handled by staff based in DEC regional offices, with guidelines and coordination from Wolf Road.)

3. The Department's third point (pp. 3-4) opens the likelihood for subsequent enlargement of the CZ during the program development process, so we are not deeply concerned at this point. By the time the first segment is proposed for OCZM review, however, a consistent statewide approach will, of course, need to be described.

jl

County of Monroe

NEW YORK

DEPARTMENT OF PLANNING
301 COUNTY OFFICE BUILDING
ROCHESTER, NEW YORK 14614

DON B. MARTIN, DIRECTOR

TELEPHONE:
(716) 428-5401

November 9, 1976

Mr. David E. Buerle
Coastal Zone Coordinator
Division of State Planning
NYS Department of State
162 Washington Avenue
Albany, NY 12231

Dear Dave:

We thank you for the opportunity to review the preliminary draft: Memorandum on a Statewide Coastal Zone Management Boundary. The report will be of assistance to us as we work towards the delineation of the Monroe County Coastal Zone Boundary.

Upon completion of our review we have the following questions and comments:

1. Has DEC prepared maps showing an alternative boundary of the Monroe County coastal zone using the ten foot contour in low lying areas (Hamlin, Parma, Greece, Irondequoit) and 1000 foot delineation for the high bluff areas? Will we have these maps for public meetings in January, 1977? Should Monroe County prepare its own?

2. If the boundaries that have been determined on the basis of CAPC's are more extensive or sensitive than those in the arbitrary boundaries, is it politically wise to display the latter boundaries at public meetings?

3. The decision of boundary delineation based on management controls would seem to rest with the state level of government. What input will local governments have into that decision?

4. We agree that the boundaries should be mapped so that the state or local government can determine with reasonable ease and speed whether the holdings of any property owner lie within the coastal zone.

5. Will DEC take into account other CAPC's other than wildlife habitats in their mapping, i.e. wetlands? Pg.5

6. Should contractors submit adjustments to coastal boundaries to DOS after comments at public meetings? A procedure should be developed in which DOS and/or DEC could be updated regarding recommended coastal boundary adjustments.

If you have any questions or comments regarding this review please contact Dot Fellows at 428-5469.

Sincerely,

Dorothy L. Fellows

Dorothy L. Fellows
Coordinator
Coastal Zone Management Program

DLF/mm

xc: NYSDEC, Office of Program Development Planning and Research

MEMORANDUM

DATE: October 21, 1976

TO: David E. Buerle

FROM: Lee E. Koppelman

SUBJECT: Comments on "Memorandum on a Statewide Coastal Zone Management Boundary" May 12, 1976

My staff concurs with DEC's two step boundary delineation process (pg. 3). However, the unique biophysical features of the Nassau-Suffolk region necessitate the establishment of a Step I planning area that is far more extensive than that delineated by the 1000 ft/10 ft boundary. The NSRPB has determined primary and secondary coastal zones (see attachment) whose boundaries will be refined based on Year II analyses and evaluations. Please note that most of the areas within the secondary zone could be incorporated into the primary zone as GAPC's according to the guidance presently provided by OCZM and DOS (see Division of State Planning, DOS "New York State Coastal Zone Management Program: Land and Water Uses", July 1976).

In addition, my staff would like clarification on how the designation of permissible and priority uses should be used to adjust preliminary CZM boundaries (pg. 6).

Section 305(b)(1) of the Coastal Zone Management Act of 1972 requires the identification of the coastal zone subject to the State's management program.[1] The seaward boundary extends outward to the outer limit of the United States territorial sea.[2] For New York State, the seaward boundary is 3 miles offshore in the Atlantic Ocean on the south, and the New York-Connecticut border on the north in Long Island Sound and on the east in Block Island Sound.[3]

The Act states that "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".[4] A primary inland coastal zone boundary was determined for Nassau-Suffolk based on the Regional Planning Board's decade long experience with coastal research and inventory efforts, and based on the input provided by the Citizen Participation Committee during the Year I CZM effort.[5] This primary zone, over which the more stringent controls will be placed, is defined by the maximum area delineated by the 10 foot elevation contour line, the line located 1000 feet inland from the Mean High Water line, the line located 1000 feet from the banks of any stream, ditch, or drainage way discharging to coastal waters, and the outer periphery of any contiguous freshwater wetland (as identified pursuant to the NYS Freshwater Wetlands Act of 1975) and contiguous Geographic Areas of Particular Concern (GAPCs).[6] This boundary was found to adequately cover shorelands, the development of which are most likely to have direct and significant impacts upon coastal waters, including wetlands, protective upland vegetation, the barrier beach and other coastal landforms, the 100 year flood plain, areas characterized by high groundwater table, bluffs and steep slopes, freshwater wetlands, stream corridors, and major drainage ways or swales carrying surface runoff into coastal waters.

However, other significant areas are excluded by the primary zone definition, including those which may be visible from the water or located within other scenic coastal vistas (especially on Nassau-Suffolk's North Shore) and whose alteration or use might significantly impact coastal aesthetics.[7] Stormwater runoff originating from developed areas greater than 1000 feet from the shoreline or streams may run downgrade and directly enter coastal waters, carrying various pollutants from lawns, roadways, etc.

In addition, development in areas recharging to shallow groundwater aquifers located close to shore, or close to creeks and streams, may have significant long-term impacts on nearshore coastal waters through contamination of underflow with pollutants from cesspool and sump leachates.[8]

In light of these facts, a secondary coastal zone (outside of the primary zone) was established which includes areas which may have significant aesthetic or water quality impacts on coastal waters.[9] On the North Shore, the secondary zone consists of those areas contained within the drainage basins identified during the Board's "208" Areawide Waste Treatment Management Planning Study (or in the case of the Peconic River drainage basin, as defined during a study conducted by the Board for the U.S. Dept. of Housing and Urban Development[10]) which are approximated by cultural features.[11] The North and South Forks are underlain by shallow aquifers, and thus are included in their entirety. On the South Shore, those areas bounded on the east and west by stream corridors are included, with the northern boundary defined by a major east-west cultural feature.

[1]The Act defines the "coastal zone" to mean the coastal waters and adjacent shorelands strongly influenced by each other and in proximity to the shorelines of the State (PL 92-583 Section 304(a)).

[2]See PL 92-583 Section 304(a)

[3]See Office of Coastal Zone Management, NOAA "Boundaries of the Coastal Zone" May 1975, pp 4-8. Congressional consent for the seaward lateral boundary compact (Jan. 10, 1925) between N.Y. and Conn. is contained in 43 Stat. 731.

[4]PL 92-583 Section 304(a)

[5]See Nassau-Suffolk Regional Planning Board "Coastal Zone Planning Elements: Goals and Boundaries" Jan. 1976

[6]Regulations covering the Act indicate the acceptability of a boundary which is delineated by a strip of land of uniform depth (e.g. 250 feet, 1000 yards, etc.) with the condition that any such boundaries include and be limited approximately to those lands which have any existing, projected or potential uses which would have a direct and significant impact upon coastal waters (15 CFR 923.11 (b)(1)).

[7]Impacts upon coastal waters can include aesthetic characteristics (sensory experiences), see OCZM, NOAA, "Threshold Paper #2: Land and Water Uses", pg 3.

[8]Nassau-Suffolk Regional Planning Board, "The Status and Potential of the Marine Environment", Dec. 1966, pg 3-12. "The role of groundwater in the nitrogen buget of individual bays is quite pronounced" (Marine Sciences Research Center, SUNY at Stony Brook "Characteristics and Environmental Quality of Four North Shore Bays, Nassau and Suffolk Counties, L.I., N.Y." Jan. 1972, Technical Report Series #14). Subsurface flow is the largest nitrogen input to Great

South Bay (see Adelphi University Institute of Marine Science, "An Assessment of the Water Quality Characteristics of Great South Bay and Contiguous Streams" Feb. 1973, Garden City, L.I., N.Y.).

[9]The office of Coastal Zone Management has identified as acceptable the use of multiple boundaries or a tiered approach (e.g., based on biophysical differences) in the delineation of the coastal zone, and the application of different levels of control (see OCZM, NOAA, "Boundaries of the Coastal Zone" May, 1975, pp 6-7; also OCZM, NOAA, "Threshold Paper #1: Boundaries" pp 7-8).

[10]See "Integration of Regional Land Use Planning and Coastal Zone Science: A Guidebook for Planners - June 1976" prepared by the Nassau-Suffolk Regional Planning Board for the Office of Policy Development and Research, Department of Housing and Urban Development Under Contract #H-2050R.

[11]The States are encouraged to take early and continuing account of existing Federal and State land/water use and resource planning programs in determining their coastal zone (15 CFR 920.11). The Office of Coastal Zone Management has identified a variety of criteria for selecting an inland coastal zone boundary, including the use of a biophysical boundary defined in terms of natural biological, geological, or physical features, or a combination thereof. Those features can include drainage basins, flood plains, dune formations, ecosystems, ridges of coastal mountain ranges, etc. Once appropriate biophysical delimiting features are identified, any number of political boundaries, (e.g. county, township, municipal lines, SMSA's, etc.), cultural features (e.g., highways, roads, canals, etc.), property lines, or existing designated planning and environmental control areas, may serve as approximations of the selected biophysical features (see OCZM, NOAA, "Boundaries of the Coastal Zone" May 1975, pp 2-5; also OCZM, NOAA, "Threshold Paper #1; Boundaries" pg 7).