

IN THE  
Supreme Court of the United States

STATE OF NEW JERSEY,  
*Plaintiff,*

v.

STATE OF DELAWARE,  
*Defendant.*

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**DELAWARE'S APPENDIX  
ON CROSS-MOTIONS FOR SUMMARY JUDGMENT**

**VOLUME 4 (Pages 2281 – 3172)**

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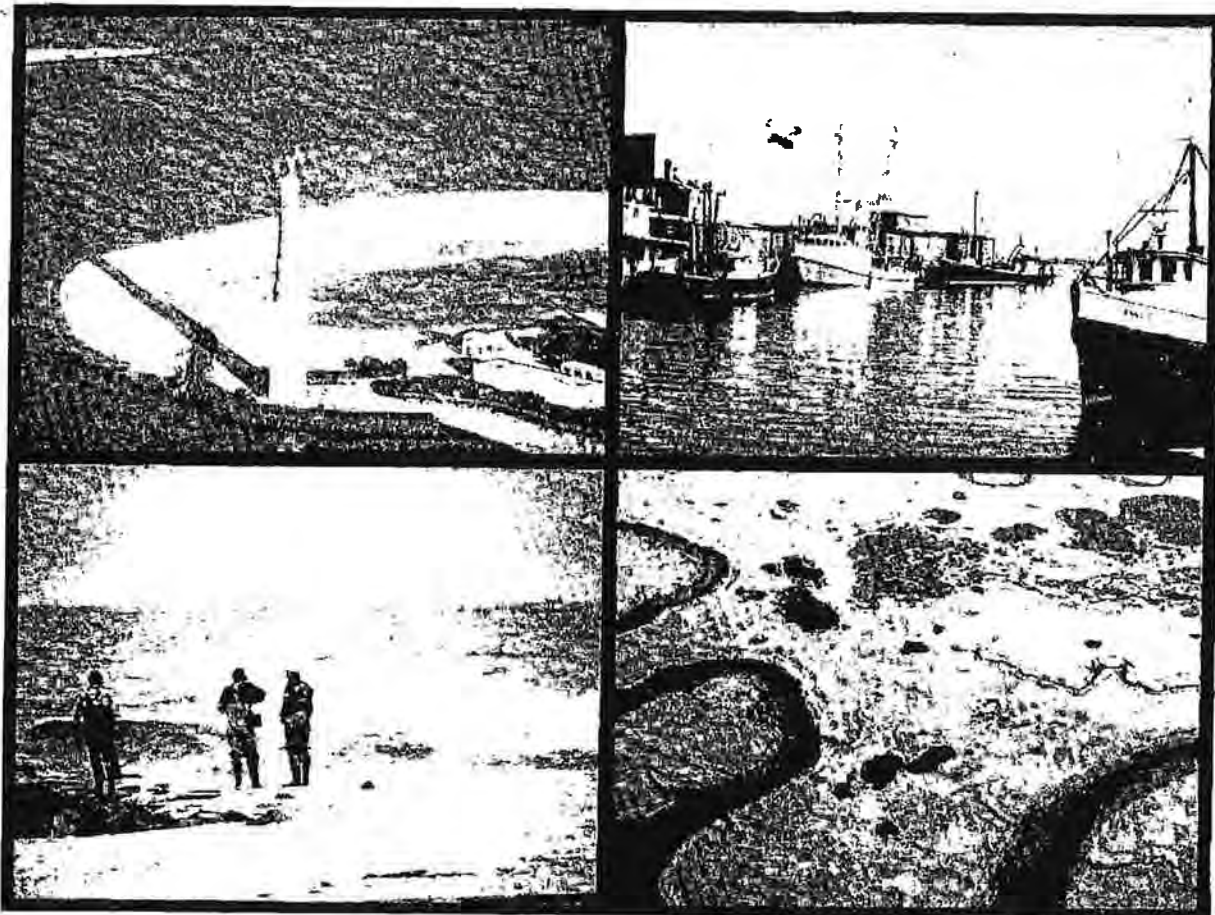
# STATE OF NEW JERSEY COASTAL MANAGEMENT PROGRAM BAY AND OCEAN SHORE SEGMENT

MAY 1978

DRAFT ENVIRONMENTAL IMPACT STATEMENT

US DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
Office of Coastal Zone Management

COASTAL ZONE  
INFORMATION CENTER



The New Jersey Coastal Management Program - Bay and Ocean Shore Segment  
was prepared in part with financial assistance from the National Oceanic and  
Atmospheric Administration, Office of Coastal Zone Management, under the provisions  
of Section 305 of the federal Coastal Zone Management Act (P.L. 92-583, as amended).

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BAY AND OCEAN SHORE SEGMENT  
AND  
DRAFT ENVIRONMENTAL IMPACT STATEMENT

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APR 19 1978

Mr. Robert Knecht  
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U. S. Department of Commerce  
National Oceanic and Atmospheric Administration  
3300 Whitehaven Street, N. W.  
Washington, D. C. 20235

COASTAL ZONE  
INFORMATION CENTER

Dear Mr. Knecht:

The State of New Jersey takes pride in submitting to you the New Jersey Coastal Management Program - Bay and Ocean Shore Segment, to begin the federal review process under Section 306 of the federal Coastal Zone Management Act.

The Department of Environmental Protection, as New Jersey's lead coastal management agency, will undertake a series of public hearings and informal workshops throughout the state to discuss the proposed Coastal Management Program - Bay and Ocean Shore Segment with a wide range of federal, state, and local agencies, interest groups, and citizens to help identify, over the next three months, the revisions that may be appropriate before the Governor's formal review and request that you approve the program.

New Jersey's coast is a fragile and coveted resource facing conflicting opportunities and pressures. This Coastal Management Program provides the framework for sound decision-making to conserve this resource and achieve a balanced use of the Bay and Ocean Shore region of New Jersey's coast.

Very truly yours,

Rocco D. Ricci, P. E.  
Commissioner

NOTE TO READER/NEPA SUMMARY

The National Environmental Policy Act of 1969 (NEPA) mandates that an environmental impact statement be prepared as part of the review and approval process of major actions by Federal agencies. The action contemplated is approval of the New Jersey Coastal Management Program - Bay and Ocean Shore Segment under Section 306(h) of the Federal Coastal Zone Management Act of 1972, as amended (CZMA). An immediate effect of approval is the qualification of the State for Federal matching funds for use in administering the Coastal Program for the Segment. In addition, the Coastal Zone Management Act stipulates that Federal activities affecting the coastal zone shall be, to the maximum extent practicable, consistent with an approved State management program.

This document is organized as follows:

- Part I - Introduction - prepared by the Federal Office of Coastal Zone Management (OCZM) with the assistance of the State of New Jersey.
- Part II - New Jersey Coastal Management Program - Bay and Ocean Shore Segment - prepared by the state and relied upon by the Federal OCZM as a description of the proposed action.
- Part III-VIII - Environment Impacts - prepared by Federal OCZM with the assistance of the State of New Jersey.

For purposes of reviewing this proposed action, the key concerns are:

- whether the Bay and Ocean Shore Segment is consistent with the objectives and policies of the national legislation,
- whether the State management authorities are adequate to implement the segment,
- whether the award of Federal funds under Section 306 of the Federal Act will help New Jersey to meet those objectives, and
- whether there will be a net environmental gain as a result of Program approval and implementation.

The Federal Office of Coastal Zone Management believes the answers to these key questions are affirmative. The Office wants the widest possible circulation of this document to all interested agencies and parties in order to receive the fullest expression of opinion on these questions.

This Program is of major significance, not only to New Jersey, but to the Nation. It is one of the first Programs submitted from an eastern coastal state. Further, the New Jersey coast represents a concentration of natural, historic, and economic attributes that is of national importance. The Federal Office of Coastal Zone Management thanks those participating in the review of the New Jersey Coastal Management Program - Bay and Ocean Shore Segment and this environmental impact statement.

Federal approval of the Coastal Program will permit NOAA-OCZM to award New Jersey annual program administration grants to implement the program, grants for continued funding under the Coastal Energy Impact Program (CEIP), and grants to plan and manage for shorefront access and shoreline erosion. In addition, federal actions in this segment of New Jersey's coastal zone will be required to be consistent with the Coastal Program, to the maximum extent practicable.

The award of federal funds will allow New Jersey to:

- a) continue to develop and implement the Program's Location Policies, also referred to as the Coastal Location Acceptability Method (CLAM).
- b) undertake three mapping programs which will chart the natural, social and economic features of the coastal zone.
- c) prepare a Coastal Handbook.
- d) increase coordination on coastal decision making between state and local governments.
- e) continue educational and information programs and projects to increase coastal awareness.
- f) develop specific energy facility siting criteria and policies jointly with the Department of Energy.
- g) coordinate with Atlantic City and County officials in the redevelopment of Atlantic City.
- h) support and promote access to beaches and other waterfront areas and continue the Beach Shuttle service to Island Beach State Park.
- i) improve coastal management enforcement and monitoring programs.
- j) fully consider the national interests in the use of the coastal zone.

NEPA Summary

Draft Environmental Impact Statement                      ( ) Final Environmental Impact Statement

Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. For additional information about this proposed action or this statement, please contact:

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Attn: Ms. Kathryn Cousins  
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Phone: 202/634/4235

1. Type of Action

Proposed Federal approval of New Jersey Coastal Management Program - Bay and Ocean Shore Segment.

Administrative    ( ) Legislative



## 2. Brief Description of Action

It is proposed that the Secretary of Commerce approve the Coastal Zone Management Program (Bay and Ocean Shore Segment) of the State of New Jersey pursuant to P.L. 92-583. Approval would permit implementation of the proposed segmented program, allowing program administration grants to be awarded to the State, and require that Federal actions be consistent with the Program, to the maximum extent practicable.

## 3. Summary of Environmental Impacts and Adverse Environmental Effects

Approval and implementation of the Program will allow the State to more effectively implement existing State management within the Bay and Ocean Shore region. The State will condition, restrict, or prohibit selected land and water uses in some parts of the New Jersey coast, while encouraging development in other parts. Each coastal municipality will retain primary responsibility for managing land use along its coast. The impacts of the New Jersey Coastal Management Program - Bay and Ocean Shore Segment will be generally beneficial, although there may be some adverse, short-term economic impacts on some coastal users, and the Program will entail the irreversible commitment of coastal resources.

## 4. Alternatives Considered

### A. Federal Alternatives

The Assistant Administrator could delay or deny approval of the New Jersey Coastal Management Program - Bay and Ocean Shore Segment under the following conditions if:

1. The Program does not have the authorities necessary to implement the Program at the time of Section 306 segment approval.
2. The Program does not adequately achieve the goals of the Coastal Zone Management Act as expressed by Congress in Section 302 of the Act.
3. The national interest in the siting of facilities in the coastal zone were not adequately considered.
4. The Bay and Ocean Shore Segment could not be unified with the entire state coastal management program.

### B. State Alternatives

1. The State could withdraw its application and not seek Federal assistance.
2. The State could wait until the entire State Program is submitted.
3. The State could wait until new legislation is adopted that recodifies the Wetlands Act, CAFRA and Riparian Laws.
4. The State could reduce the coastal boundary under CAFRA jurisdiction.

5. The State could wait until more precise policies using the Coastal Location Acceptability Method (CLAM) have been completed or mapped.

6. The State could seek legislation delegating coastal zone management authority to localities.

5. A list of all Federal, State and Local Agencies and other parties from which comments have been requested is in the Appendix.
6. This DEIS was submitted to EPA on April 28, 1978, and a notice of availability was published in the Federal Register on May 5, 1978. Public comments on the DEIS should be submitted to the Federal Office of Coastal Zone Management by June 19, 1978.

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Chapter Two: BOUNDARY-DEFINING THE COASTAL ZONE

Introduction  
Inland Boundary - Bay and Ocean Shore Segment  
Seaward and Interstate Boundaries - Segment

\*\*\*\*\*

Introduction

Different people and various interest groups hold different perceptions of the geographic extent of New Jersey's coastal resources. This chapter defines the boundary of the Bay and Ocean Shore Segment of New Jersey's coastal zone under the federal Coastal Zone Management Act. At this stage of New Jersey's participation in the national coastal management program, the geographic scope of the New Jersey Coastal Program submitted for federal approval is limited to this initial segment. New Jersey's coastal management program for federal purposes does not yet include the entire coastline of the state. This boundary must not be considered in a vacuum. It must be read and understood in concert with the Coastal Resource and Development Policies of Chapter Three and the Management System of Chapter Four that defines how decisions on uses of coastal resources will be made within the defined boundary under the Coastal Program.

Inland Boundary - Bay and Ocean Shore Segment

The geographic scope of the Bay and Ocean Shore Segment includes lands along New Jersey's Atlantic Ocean shoreline, lands along the bays behind the barrier islands, and lands along the Delaware Bay and Raritan Bay. This general description provides the basis for the term "Bay and Ocean Shore Segment", as depicted in Figure 1. The actual inland boundary of the Segment uses the CAFRA boundary and the Upper Wetlands Boundary, and is defined as:

The landward boundary of the Coastal Area as defined in the Coastal Area Facility Review Act, or the Upper Wetlands Boundary of coastal wetlands located landward of the CAFRA boundary along tidal water courses that flow through the CAFRA Area, whichever is more landward, including State-owned tidelands.

In 1973, the Legislature enacted and the Governor signed into law the Coastal Area Facility Review Act (CAFRA). This law includes a statutory "Coastal Area" that generally describes the inland boundary of the Bay and Ocean Shore Segment, with the exception of certain additional wetlands areas as defined in this chapter. The inland boundary of the "Coastal Area" delineated under CAFRA in 1973 appears on Figure 2. It extends from the Raritan Bay east to Sandy Hook, south to Cape May Point and north and west up the Delaware estuary almost to the Delaware Memorial Bridge north of Salem. The total land area is 1,376 square miles or 17 percent of New Jersey's land area. The coastline is more than 215 miles in length, with 126 miles along the Atlantic oceanfront from Sandy Hook to Cape May. Inland the CAFRA boundary ranges from a few thousand feet from the ocean in Monmouth County, to 24 miles from the Atlantic Ocean around the Mullica River at Batsto in Burlington County. Major roads and rights-of-way, such as the Garden State Parkway and county roads, define the inland boundary. The law excluded a small area around the Cape May County Airport from the "Coastal Area". A metes-and-bounds description of the "Coastal Area" may be found in the statute, at N.J.S.A. 13:19-4. Maps indicating the CAFRA boundary on U.S. Geological Survey topographic quadrangle maps (scale of one inch = 2,000 feet or 1:24,000) are available for public inspection at the Trenton offices of DEP's Division of Marine Services.

Figure 1

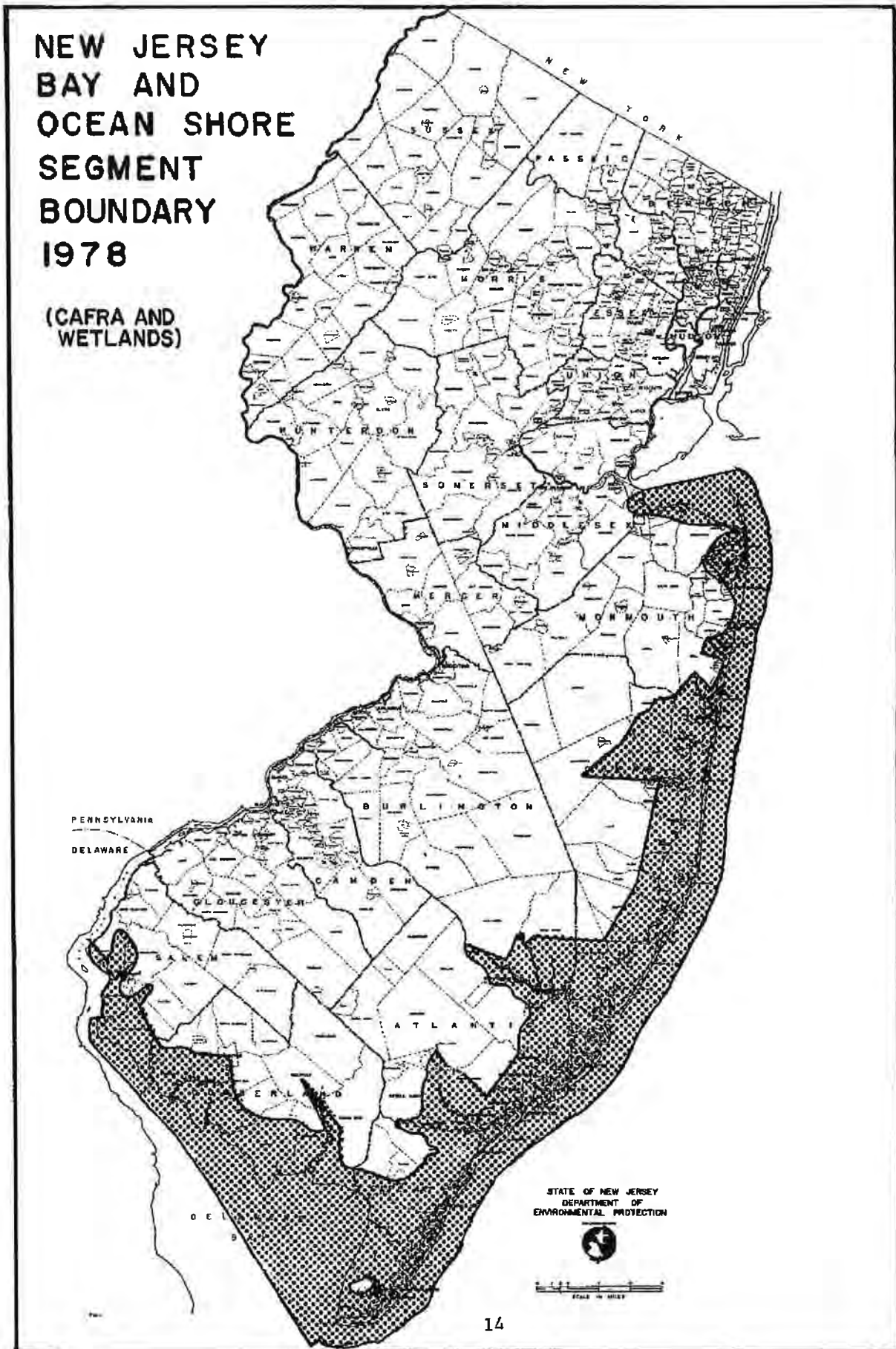
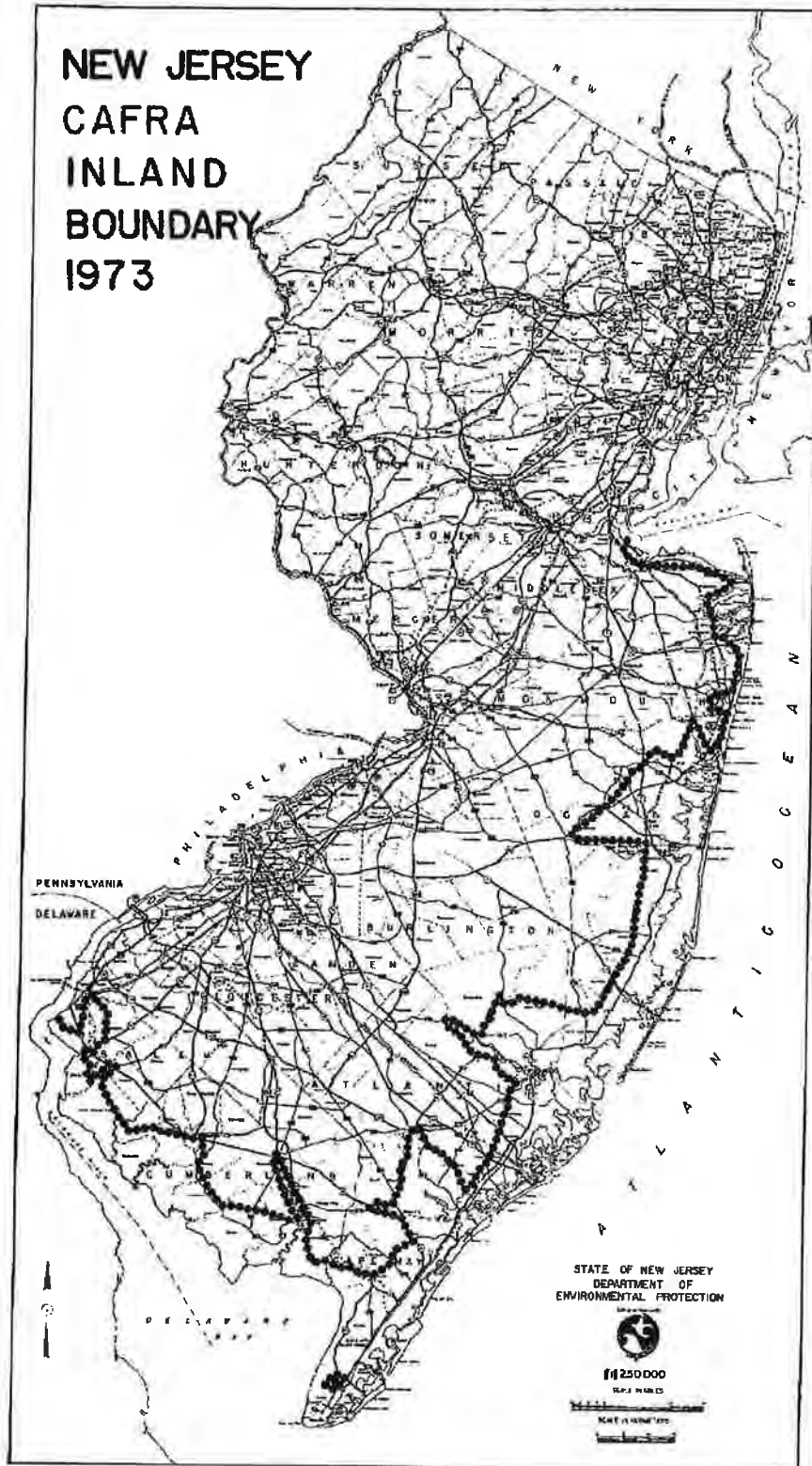


Figure 2



The CAFRA Area features the stretch of barrier islands and headlands traditionally called the "Jersey Shore," long known as a recreation area for the state, northeastern United States, and Canada. This area includes all of the state's oceanfront beaches. Parts of the unique Pine Barrens, as well as the shores of the Delaware Bay and Raritan Bay are also included within the "Coastal Area". All of Atlantic City, which faces new opportunities and problems as a result of casino gambling and offshore oil and gas exploration, lies within the CAFRA Area.

While the statutory CAFRA Area does include considerable portions of the regulated coastal wetlands, DEP completed the rigorous delineation and mapping of coastal wetlands required by the Wetlands Act of 1970 (N.J.S.A. 13:9A-1 et seq.) after enactment of CAFRA. As a result, approximately 3,750 acres of selected coastal wetlands are found landward of the present CAFRA inland boundary, along tidal streams that are largely included within the CAFRA Area. This situation occurs primarily in Atlantic, Burlington, Cumberland, Monmouth and Salem counties. In order to comply with the inland boundary requirements of the federal Coastal Zone Management Act, these coastal wetlands must be included with this first segment of New Jersey's coastal management program. State-owned tidelands along these same tidal streams are also included by definition.

The Upper Wetlands Boundary defines land areas subject to the jurisdiction of the Wetlands Act, on photo-maps (scale of one inch = 200 feet or 1:2,400) on file at county court houses and available for inspection at the Trenton offices of DEP's Division of Marine Services. Appendix F lists the DEP Wetlands maps that include wetlands areas considered to be within the inland boundary of the Bay and Ocean Shore Segment. Figure 3 shows an example of an area in Monmouth County where wetlands extend landward of the CAFRA boundary. As the inland boundary of the Segment is not exactly the same as the CAFRA inland boundary, the phrase "Bay and Ocean Shore" will be used to describe the geographic area that includes the CAFRA Area and these directly adjacent Wetlands, for the purposes of the federal Coastal Zone Management Act. This term will also be used to distinguish the Bay and Ocean Shore Segment from the waterfront areas of New Jersey's coastline along the Delaware and Hudson rivers.

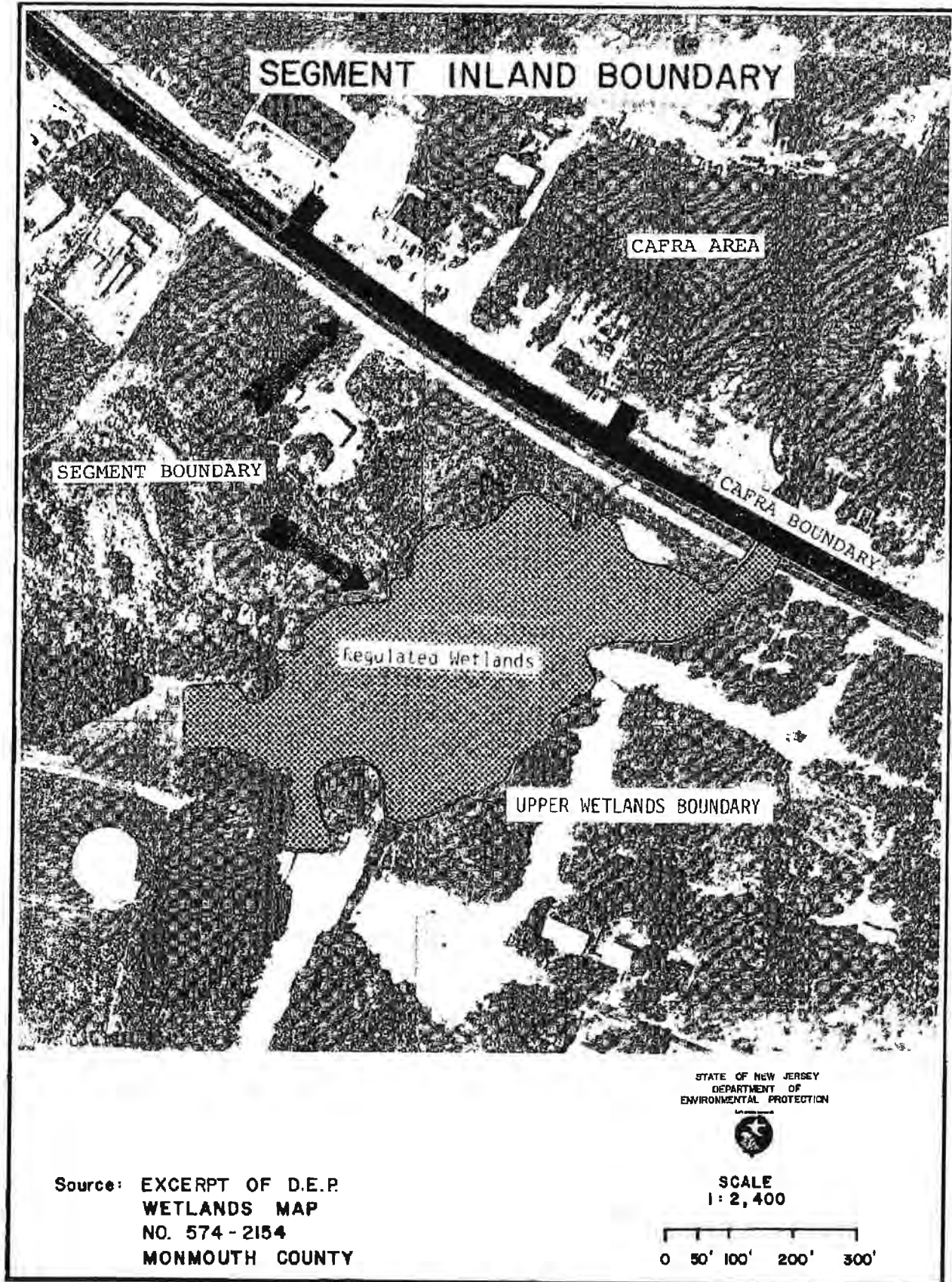
Finally, as DEP completes its multi-year tidelands delineation program, the inland boundary of the Bay and Ocean Shore Segment may require further revision to include tidelands that may also be located landward of the present CAFRA boundary.

#### Seaward and Interstate Boundaries - Bay and Ocean Shore Segment

The seaward boundary of the Bay and Ocean Shore Segment and indeed the entire coastal zone is the outer limit of the United States territorial sea. This limit is three nautical miles from base lines established by international law and defined by the United States. The geographic jurisdiction of the Coastal Area Facility Review Act extends seaward to the State's territorial limit.

New Jersey has potential interstate coastal zone boundaries with Delaware, New York, and Pennsylvania, but the Pennsylvania boundary will not be addressed here as it does not affect the Bay and Ocean Shore Segment.

Figure 3



New Jersey's Bay and Ocean Shore Segment boundary with the State of Delaware through Delaware Bay and the Delaware River was established in 1933 by the U.S. Supreme Court in New Jersey v. Delaware (291 U.S. 361). The interstate boundary is generally along the ship channel in the middle of Delaware Bay. However, from a point near the northern tip of Artificial Island, in Lower Alloways Creek Township, Salem County, the interstate boundary between New Jersey and Delaware extends north at the mean low water line on the New Jersey shoreline, until the Delaware-Pennsylvania boundary. Resolution of potential conflicts between the coastal policies of Delaware and New Jersey will require continued coordination and work in the first year of Program approval, toward appropriate agreements between the coastal management programs of both states, Salem County and the affected municipalities.

The extensions on the open sea of New Jersey's boundaries with New York and Delaware are not yet determined. The issue of the lateral seaward boundary is receiving focused attention as a result of the 1976 amendments to the federal Coastal Zone Management Act, which created a Coastal Energy Impact Program to assist states financially to cope with the onshore effects of offshore oil and gas energy activities. Each state's share of this financial assistance depends in part upon the leased Outer Continental Shelf acreage adjacent to a particular coastal state. Adjacency is determined by the extension of the lateral seaward boundary of each state. The New Jersey Department of Environmental Protection and the New Jersey Department of Energy, the designated lead agency for administration of the Coastal Energy Impact Program in New Jersey, are taking steps to define the lateral seaward boundaries of New Jersey with Delaware and with New York.



- (d) the Department of Environmental Protection and the Department of Energy are satisfied that no other feasible and economical energy alternative exists for the timely and efficient production of needed electrical power.

Liquified Natural Gas - The National Energy Plan contains the following statements applicable to New Jersey:

"Due to its extremely high costs and safety problems, LNG is not a long-term secure substitute for domestic natural gas. It can, however, be an important supply option through the mid-1980s and beyond, until additional gas supplies may become available...The previous Energy Resources Council guidelines are being replaced with a more flexible policy that sets up no upper limit on LNG imports. Under the new policy, the Federal Government would review each application to import LNG so as to provide for its availability at a reasonable price without undue risks of dependence on foreign supplies. This assessment would take into account the reliability of the selling country, the degree of American dependence such sales would create, the safety conditions associated with any specific installation, and all costs involved." (p. 57)

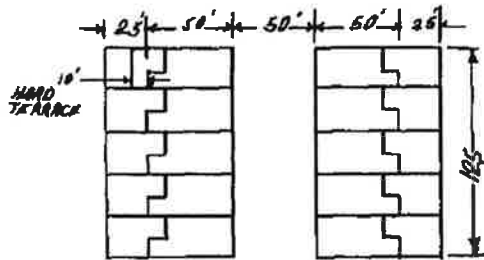
LNG facilities have been proposed in recent years for Deptford and Logan Townships in Gloucester County, and on Staten Island, New York from where the LNG would be pipelined to New Jersey. The New Jersey Coastal Program states that LNG terminals shall be acceptable only at sites remote from substantial concentrations of human populations. As noted by the former Federal Power Commission, such sites may exist in the more rural parts of the Segment. No LNG terminal shall be approved in the coastal zone until the Federal Energy Regulatory Commission (former Federal Power Commission) within the Department of Energy, responds affirmatively to the May 1976 petition by New Jersey and its neighboring states for the issuance of siting criteria that adequately consider the safety hazards associated with this energy technology. If the Commission does not respond positively to the petition by New Jersey and others, and if there is a pressing need for LNG as determined by the New Jersey DOE Master Plan, New Jersey will then attempt to create an interstate task force to define appropriate siting criteria for this type of energy facility. (See Chapter Three, Section 7.4.14)

#### Recreation

The New Jersey coast is a national recreational resource. In considering the national interest in recreation, New Jersey reviewed the Nation-wide Outdoor Recreation Plan, the evolving New Jersey State Comprehensive Outdoor Recreation Plan (SCORP), the Land and Water Conservation Fund Act, and the Historic Preservation Act (P.L. 89-665). In addition, New Jersey offered draft coastal documents including the Coastal Management Strategy (September 1977) for review to the National Marine Fisheries Service, Bureau of Outdoor Recreation and its successor National Heritage Program, Fish and Wildlife Service, National Park Service and staff of Gateway National Recreational Area-Sandy Hook, and the Advisory Council on Historic Preservation.

Major objectives of the national interest in recreation are:

- To consider recreation as an equal among competing uses of the coastal region.
- To provide high quality recreational opportunities to all people of the United States, while protecting the coastal environment.
- To increase public recreation in high density areas



Case No. 10

Total Site Area:	0.57 Acres
Dwelling Units:	10
Average Lot Size:	0.043 Acres of 1,875 Sq. Ft.
Gross Density:	17.5 DU/Acre
Total Area Structures and Paving (assuming all impervious):	= 0.49 Acres or 85.6% of site.

If 5% or 0.028 acres is preserved or planted as native forest vegetation and a minimum 5% or 0.028 acres is planted with herbs or shrubs, and if the impervious paving is reduced to 80% by making a minimum 5.6% or 0.032 acres permeable, this plan would be acceptable under CLAM in any area designated for Intensive Development.

ACKNOWLEDGEMENTS

The Office of Coastal Zone Management in the Division of Marine Services, Department of Environmental Protection, prepared the New Jersey Coastal Management Program-Bay and Ocean Shore Segment, with the assistance of staff of the entire Department, other state, federal, and local agencies, interest groups, and citizens.

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\*\*\*\*\*

Special thanks to Commissioner Rocco D. Ricci, First Deputy Commissioner Betty Wilson & Director Donald T. Graham of the Division of Marine Services.

# NEW JERSEY COASTAL MANAGEMENT PROGRAM BAY AND OCEAN SHORE SEGMENT Public Hearings

Tuesday, June 13, 1978  
7:30 p.m.

Cumberland County Court House  
Freeholders' Meeting Room  
Second Floor, Rear  
Broad Street, (Route 49)  
Bridgeton, New Jersey

Wednesday, June 14, 1978  
7:30 p.m.

Ocean County Administration Bldg.  
Freeholders' Meeting Room  
Hooper Avenue & Washington Street  
Toms River, New Jersey

Thursday, June 15, 1978  
10:00 a.m.

State Museum Auditorium  
205 West State Street  
Trenton, New Jersey

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION



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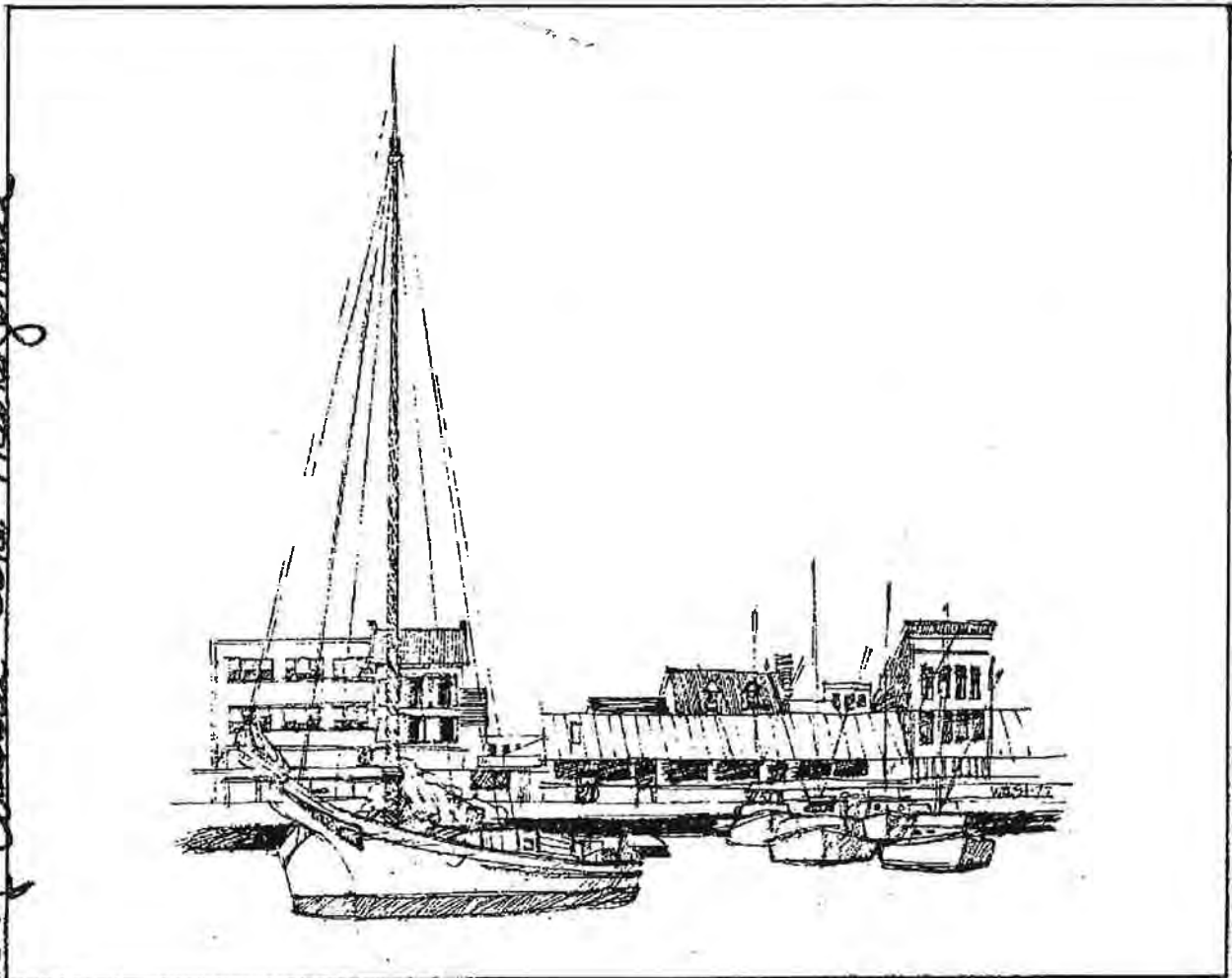
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# State of New Jersey Coastal Management Program - Bay and Ocean Shore Segment and Final Environmental Impact Statement



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Office of Coastal Zone Management*



U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
Office of Coastal Zone Management

The New Jersey Coastal Management Program - Bay and Ocean Shore Segment  
was prepared in part with financial assistance from the National Oceanic and  
Atmospheric Administration, Office of Coastal Zone Management, under the provisions  
of Section 305 of the federal Coastal Zone Management Act (P.L. 92-583, as amended).

NEW JERSEY COASTAL MANAGEMENT PROGRAM  
BAY AND OCEAN SHORE SEGMENT  
AND  
FINAL ENVIRONMENTAL IMPACT STATEMENT

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August 1978

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Brendan Byrne  
Governor

Daniel J. O'Hern  
Commissioner

U.S. N.O.A.A. / O.C.Z.M.  
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MAR 13 1987



STATE OF NEW JERSEY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DANIEL J. O'HERN, COMMISSIONER  
P. O. BOX 1390  
TRENTON, N.J. 08625  
609-292-2885

AUG 22 1978

Dear Reader:

I am pleased to present you with the New Jersey Coastal Management Program - Bay and Ocean Shore Segment and Final Environmental Impact Statement. As Governor Byrne indicates in his cover letter, the Department of Environmental Protection is the lead agency for coastal zone management in New Jersey.

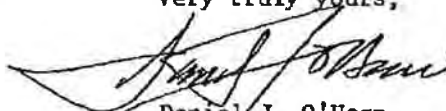
Preparation of this Coastal Management Program began under the leadership of former DEP Commissioners David J. Bardin and Rocco D. Ricci. I wish to express my gratitude to my predecessors and to Director Donald T. Graham of the Division of Marine Services and David N. Kinsey, Chief of the Office of Coastal Zone Management and his staff for their contributions to this work.

The Management System, including the specific responsibilities of this Department to meet the requirements of the federal Coastal Zone Management Act, are explained within the Program description. I am also directing that all Departmental decisions which affect the Bay and Ocean Shore Segment be consistent with the Coastal Management Program, to the extent permissible under existing statutes. In particular, the decisions of the Natural Resources Council on riparian lands management will be subject to my oversight and approval to insure that the Program's policies are implemented.

Insights, suggestions and criticism from a wide variety of public agencies, organizations and individuals have already contributed significantly to the preparation of this program for the Bay and Ocean Shore Segment. The planning and implementation of New Jersey's coastal program will be successful only if it is understood and supported by the public.

Each area of the state is special and important, but the coast is the area which presents perhaps the most challenging set of potential opportunities and conflicts. This Coastal Management Program - Bay and Ocean Shore Segment is a major step towards the maintenance and enhancement of this precious area.

Very truly yours,



Daniel J. O'Hern  
Commissioner

100% RECYCLED



NOTE TO READER/NEPA SUMMARY

The National Environmental Policy Act of 1969 (NEPA) mandates that an environmental impact statement be prepared as part of the review and approval process of major actions by Federal agencies. The action contemplated is approval of the New Jersey Coastal Management Program - Bay and Ocean Shore Segment under Section 306(h) of the Federal Coastal Zone Management Act of 1972, as amended (CZMA). An immediate effect of approval is the qualification of the State for Federal matching funds for use in administering the Coastal Management Program for the Bay and Ocean Shore Segment. In addition, New Jersey will be eligible for continued funding under the Coastal Energy Impact Program (CEIP). The federal Coastal Zone Management Act stipulates that Federal activities affecting the coastal zone shall be, to the maximum extent practicable, consistent with an approved State coastal management program.

This document is organized as follows:

- Part I - Introduction - prepared by the Federal Office of Coastal Zone Management (OCZM) with the assistance of the State of New Jersey.
- Part II - New Jersey Coastal Management Program - Bay and Ocean Shore Segment - prepared by the state and relied upon by the Federal OCZM as a description of the proposed action.
- Parts III-VIII - Environmental Impacts - prepared by Federal OCZM with the assistance of the State of New Jersey.

The thirteen appendices which follow Part VIII are also part of the Program. Appendix M includes responses to general questions raised by the public on the Draft EIS.

For purposes of reviewing this proposed action, the key concerns are:

- whether the Bay and Ocean Shore Segment is consistent with the objectives and policies of the national legislation,
- whether the State management authorities are adequate to implement the segment,
- whether the award of Federal funds under Section 306(h) of the Federal Act will help New Jersey to meet those objectives, and
- whether there will be a net environmental gain as a result of Program approval and implementation.

The Federal Office of Coastal Zone Management believes the answers to these key questions are affirmative. The Office has widely circulated this document to all interested agencies and parties in order to receive the fullest expression of opinion on these questions.

This Program is of major significance, not only to New Jersey, but to the Nation. It is one of the first Programs submitted from an eastern coastal state. Further, the New Jersey coast represents a concentration of natural, historic, and economic attributes that is of national importance. The Federal Office of Coastal Zone Management thanks those participating in the review of the New Jersey Coastal Management Program - Bay and Ocean Shore Segment and this environmental impact statement.

NEPA Summary

( ) Draft Environmental Impact Statement                      (X) Final Environmental  
Impact Statement

Department of Commerce, National Oceanic and Atmospheric Administration,  
Office of Coastal Zone Management. For additional information about this proposed  
action or this statement, please contact:

Office of Coastal Zone Management  
National Oceanic and Atmospheric Administration  
Attn: Ms. Kathryn Cousins  
Regional Manager, North Atlantic Region or  
Richard S. O'Connor  
Assistant Manager, North Atlantic Region  
3300 Whitehaven Street, N.W.  
Washington, D.C. 20235  
Phone: 202/634/4235

1. Type of Action

Proposed Federal approval of New Jersey Coastal Management Program - Bay and  
Ocean Shore Segment.

(X) Administrative                      ( ) Legislative

2. Brief Description of Action

It is proposed that the Secretary of Commerce approve the Coastal Zone Manage-  
ment Program (Bay and Ocean Shore Segment) of the State of New Jersey pursuant to  
P.L. 92-583. Approval would permit implementation of the proposed segmented  
program, allowing program administration grants to be awarded to the State, and  
require that Federal actions be consistent with the Program, to the maximum extent  
practicable.

3. Summary of Environmental Impacts and Adverse Environmental Effects

Approval and implementation of the Program will allow the State to implement  
more effectively existing State management within the Bay and Ocean Shore region.  
The State will condition, restrict, or prohibit selected land and water uses in  
some parts of the New Jersey coast, while encouraging development in other parts.  
Each coastal municipality will retain primary responsibility for managing land use  
along its coast. The impacts of the New Jersey Coastal Management Program - Bay  
and Ocean Shore Segment will be generally beneficial, although there may be  
some adverse, short-term economic impacts on some coastal users, and the Program  
will entail the irreversible commitment of coastal resources.

4. Alternatives Considered

A. Federal Alternatives

The Assistant Administrator could delay or deny approval of the New  
Jersey Coastal Management Program - Bay and Ocean Shore Segment under  
the following conditions if:

1. The Program does not have the authorities necessary to implement the Program at the time of Section 306 segment approval.
2. The Program does not adequately achieve the goals of the Coastal Zone Management Act as expressed by Congress in Section 302 of the Act.
3. The national interest in the siting of facilities in the coastal zone were not adequately considered.
4. The Bay and Ocean Shore Segment could not be unified with the entire state coastal management program.

B. State Alternatives

1. The State could withdraw its application and not seek Federal assistance.
  2. The State could wait until the entire State Program is submitted.
  3. The State could wait until new legislation is adopted that recodifies the Wetlands Act, CAFRA and Riparian Laws.
  4. The State could reduce the coastal boundary under CAFRA jurisdiction.
  5. The State could wait until more precise policies using the Coastal Location Acceptability Method (CLAM) have been completed or mapped.
  6. The State could seek legislation delegating coastal zone management authority to localities.
5. A list of all Federal, State and Local Agencies and other parties from which comments were received is listed in the Appendix M.
  6. This FEIS was submitted to EPA on August 30, 1978.

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Introduction

Inland Boundary - Bay and Ocean Shore Segment

Seaward and Interstate Boundaries - Segment

\*\*\*\*\*

Introduction

Different people and various interest groups hold different perceptions of the geographic extent of New Jersey's coastal resources. This chapter defines the boundary of the Bay and Ocean Shore Segment of New Jersey's coastal zone under the federal Coastal Zone Management Act. At this stage of New Jersey's participation in the national coastal management program, the geographic scope of the New Jersey Coastal Program submitted for federal approval is limited to this initial segment. New Jersey's coastal management program for federal purposes does not yet include the entire coastline of the state. The proposed boundary for the entire coastal zone is described in Appendix E. All federal lands are excluded from the coastal zone. Appendix F contains a list of the excluded federal lands.

The boundary for the Bay and Ocean Shore Segment must not be considered in a vacuum. It must be read and understood in concert with the Coastal Resource and Development Policies of Chapter Four and the Management System of Chapter Five that defines how decisions on uses of coastal resources will be made within the defined boundary under the Coastal Management Program.

Inland Boundary - Bay and Ocean Shore Segment

The geographic scope of the Bay and Ocean Shore Segment includes lands along New Jersey's Atlantic Ocean shoreline, lands along the bays behind the barrier islands, and lands along the Delaware Bay and Raritan Bay. This general description provides the basis for the term "Bay and Ocean Shore Segment", as depicted in Figure 1. The actual inland boundary of the Segment uses the CAFRA boundary and the Upper Wetlands Boundary, and is defined as:

The landward boundary of the Coastal Area as defined in the Coastal Area Facility Review Act, or the Upper Wetlands Boundary of coastal wetlands located landward of the CAFRA boundary along tidal water courses that flow through the CAFRA Area, whichever is more landward, including State-owned tidelands.

In 1973, the Legislature enacted and the Governor signed into law the Coastal Area Facility Review Act (CAFRA). This law includes a statutory "Coastal Area" that generally describes the inland boundary of the Bay and Ocean Shore Segment, with the exception of certain additional wetlands areas as defined in this chapter. The inland boundary of the "Coastal Area" delineated under CAFRA in 1973 appears on Figure 2. It extends from the Raritan Bay east to Sandy Hook, south to Cape May Point and north and west up the Delaware estuary almost to the Delaware Memorial Bridge north of Salem. The total land area is 1,376 square miles or 17 percent of New Jersey's land area. The coastline is more than 215 miles in length, with 126 miles along the Atlantic oceanfront from Sandy Hook to Cape May. Inland the CAFRA boundary ranges from a few thousand feet from the ocean in Monmouth County, to 24 miles from the Atlantic Ocean around the Mullica River at Batsto in Burlington

Figure 1

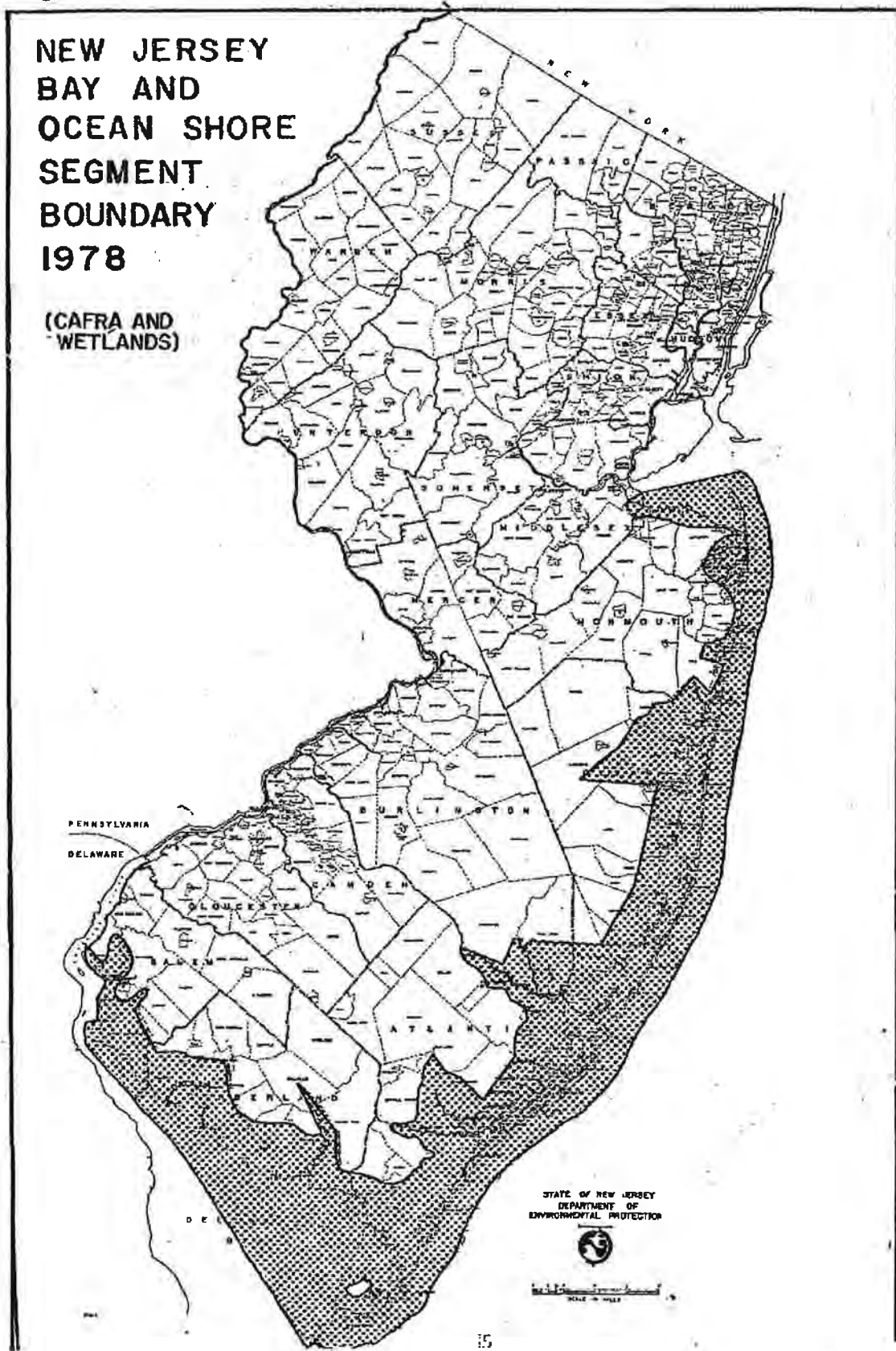
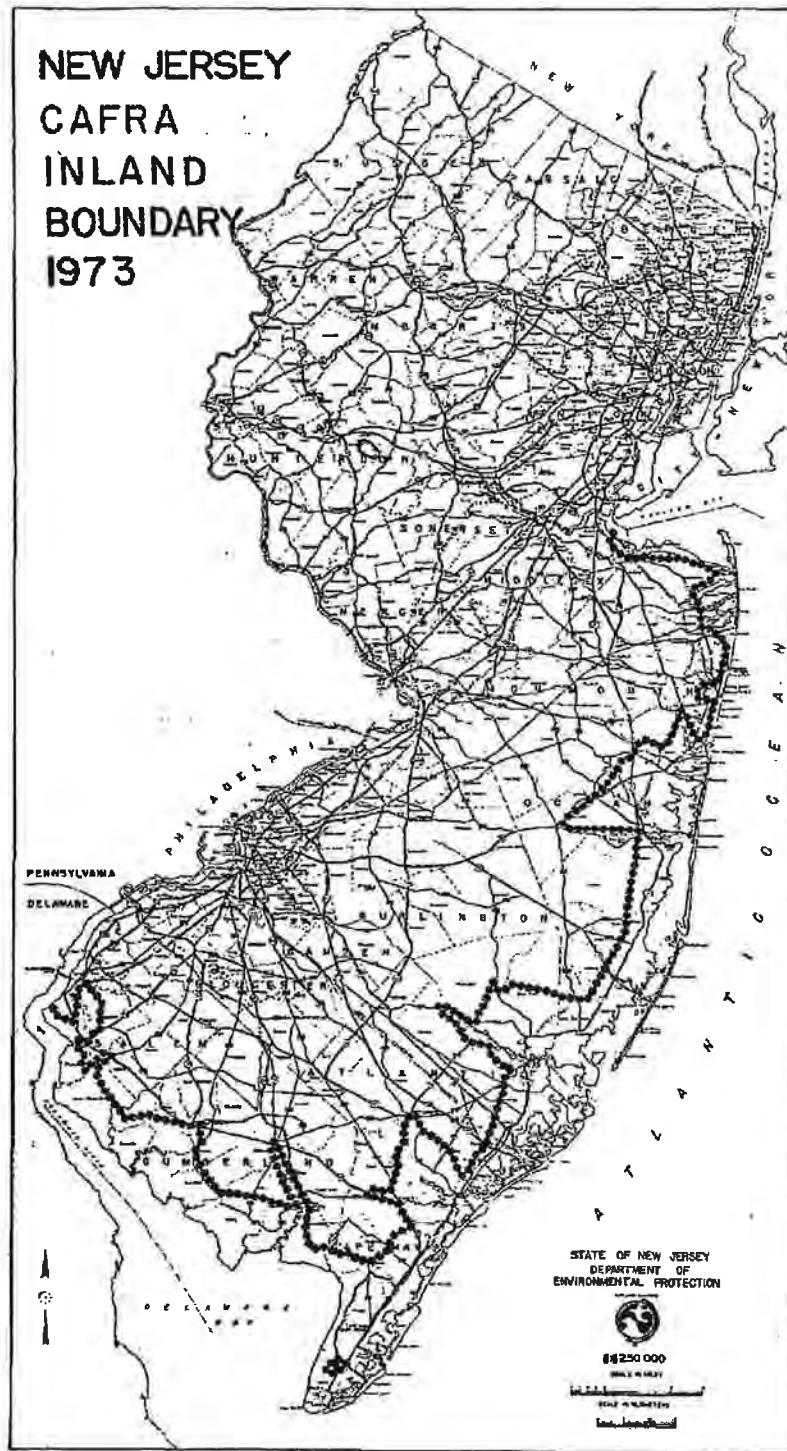


Figure 2



County. Major roads and rights-of-way, such as the Garden State Parkway and county roads, define the inland boundary. The law excluded a small area around the Cape May County Airport from the "Coastal Area". A metes-and-bounds description of the "Coastal Area" may be found in the statute in Appendix H (N.J.S.A. 13:19-4). Maps indicating the CAFRA boundary on U.S. Geological Survey topographic quadrangle maps (scale of one inch = 2,000 feet or 1:24,000) are available for public inspection at the Trenton offices of DEP's Division of Marine Services.

The CAFRA Area features the stretch of barrier islands and headlands traditionally called the "Jersey Shore," long known as a recreation area for the state, northeastern United States, and Canada. This area includes all of the state's oceanfront beaches. Parts of the unique Pine Barrens, as well as the shores of the Delaware Bay and Raritan Bay are also included within the "Coastal Area". All of Atlantic City, which faces new opportunities and problems as a result of casino gambling and offshore oil and gas exploration, lies within the CAFRA Area.

While the statutory CAFRA Area does include considerable portions of the regulated coastal wetlands, DEP completed the rigorous delineation and mapping of coastal wetlands required by the Wetlands Act of 1970 (N.J.S.A. 13:9A-1 et seq.) after enactment of CAFRA. As a result, approximately 3,750 acres of selected coastal wetlands are found landward of the present CAFRA inland boundary, along tidal streams that are largely included within the CAFRA Area. This situation occurs primarily in Atlantic, Burlington, Cumberland, Monmouth and Salem counties. In order to comply with the inland boundary requirements of the federal Coastal Zone Management Act, these coastal wetlands must be included with this first segment of New Jersey's coastal management program. State-owned tidelands along these same tidal streams are also included by definition.

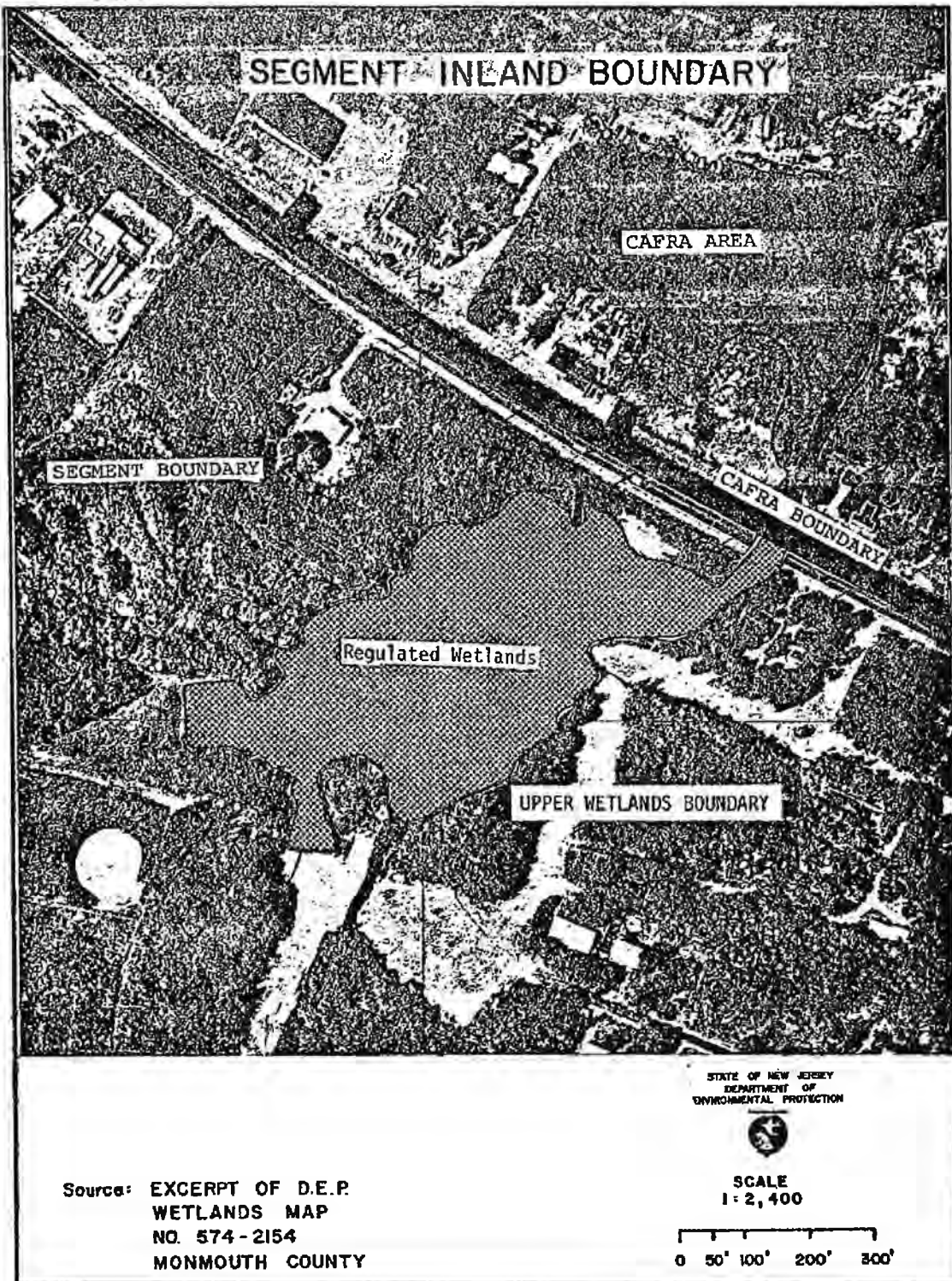
The Upper Wetlands Boundary defines land areas subject to the jurisdiction of the Wetlands Act, on photo-maps (scale of one inch = 200 feet or 1:2,400) on file at county court houses and available for inspection at the Trenton offices of DEP's Division of Marine Services. Appendix E lists the DEP Wetlands maps that include Coastal Wetlands areas considered to be within the inland boundary of the Bay and Ocean Shore Segment. Figure 3 shows an example of an area in Monmouth County where wetlands extend landward of the CAFRA boundary. As the inland boundary of the Segment is not exactly the same as the CAFRA inland boundary, the phrase "Bay and Ocean Shore" will be used to describe the geographic area that includes the CAFRA Area and these directly adjacent Wetlands, for the purposes of the federal Coastal Zone Management Act. This term will also be used to distinguish the Bay and Ocean Shore Segment from the waterfront areas of New Jersey's coastline along the Delaware and Hudson rivers.

Finally, as DEP completes its multi-year tidelands delineation program, the inland boundary of the Bay and Ocean Shore Segment may require further revision to include tidelands that may also be located landward of the present CAFRA boundary.

#### Seaward and Interstate Boundaries - Bay and Ocean Shore Segment

The seaward boundary of the Bay and Ocean Shore Segment and indeed the entire coastal zone is the outer limit of the United States territorial sea. This limit is three nautical miles from base lines established by international law and defined by the United States. The geographic jurisdiction of the Coastal Area Facility Review Act extends seaward to the State's territorial limit.

Figure 3





New Jersey has potential interstate coastal zone boundaries with Delaware, New York, and Pennsylvania, but the Pennsylvania boundary will not be addressed here as it does not affect the Bay and Ocean Shore Segment.

New Jersey's Bay and Ocean Shore Segment boundary with the State of Delaware through Delaware Bay and the Delaware River was established in 1933 by the U.S. Supreme Court in New Jersey v. Delaware (291 U.S. 361). The interstate boundary is generally along the ship channel in the middle of Delaware Bay. However, from a point near the northern tip of Artificial Island, in Lower Alloways Creek Township, Salem County, the interstate boundary between New Jersey and Delaware extends north at the mean low water line on the New Jersey shoreline, until the Delaware-Pennsylvania boundary. Resolution of potential conflicts between the coastal policies of Delaware and New Jersey will require continued coordination and work in the first year of Program approval, toward appropriate agreements between the coastal management programs of both states, Salem County and the affected municipalities.

The extensions on the open sea of New Jersey's boundaries with New York and Delaware are not yet determined. The issue of the lateral seaward boundary is receiving focused attention as a result of the 1976 amendments to the federal Coastal Zone Management Act, which created a Coastal Energy Impact Program to assist states financially to cope with the onshore effects of offshore oil and gas energy activities. Each state's share of this financial assistance depends in part upon the leased Outer Continental Shelf acreage adjacent to a particular coastal state. Adjacency is determined by the extension of the lateral seaward boundary of each state or the delineation of a resource allocation between states. The New Jersey Department of Environmental Protection and the New Jersey Department of Energy, the designated lead agency for administration of the Coastal Energy Impact Program in New Jersey, are taking steps to define the lateral seaward boundaries of New Jersey with Delaware and with New York.

"New or expanded electric generating facilities (for base load, cycling, or peaking purposes) and related facilities are conditionally acceptable subject to the following conditions:

- (a) The construction and operation of the proposed facility shall comply with the Coastal Resource and Development Policies, with special reference to air and water quality standards and policies on marine resources and wildlife,
- (b) NJDEP and NJDOE shall find that the proposed location and design of the electrical generating facility is the most prudent and feasible alternative for the production of electrical power that NJDOE has determined is needed, including a consideration, evaluation, and comparison by the applicant of alternative sites within the coastal zone and inland,
- (c) Fossil fuel (coal, oil or gas) generating stations shall not be located in particularly scenic or natural areas that are important to recreation and open space purposes,
- (d) Nuclear generating stations shall be located in generally remote, rural, and low density areas, consistent with the criteria of 10 CFR 100 (U.S. Nuclear Regulatory Commission rules on siting nuclear generating stations and population density) and/or any other related federal regulations. In addition, NJDEP shall find that the nuclear generating facility is proposed for a location where the appropriate low population zone and population center distance are likely to be maintained around the nuclear generating facility, through techniques such as land use controls or buffer zones,
- (e) The construction and operation of a nuclear generating station shall not be approved unless DEP finds that the proposed method for storage and disposal of the spent fuel to be produced by the facility: (i) will be safe, (ii) conforms to standards established by the U.S. Nuclear Regulatory Commission, and (iii) will effectively remove danger to life and the environment from the radioactive waste material. This finding is required under present state law (N.J.S.A. 13:19-11) and will be made consistent with judicial decisions (see Public Interest Research Group v. State of New Jersey, 152 N.J. Super. 191) and federal law,
- (f) The construction of electric generating facilities using renewable forms of energy such as solar radiation, wind, and water, including experimental and demonstration projects, is encouraged in the coastal zone provided that the facilities do not significantly adversely affect scenic or recreational values.

Liquified Natural Gas - The National Energy Plan contains the following statements applicable to New Jersey:

"Due to its extremely high costs and safety problems, LNG is not a long-term secure substitute for domestic natural gas. It can, however, be an important supply option through the mid-1980s and beyond, until additional gas supplies may become available...The previous Energy Resources Council guidelines are being replaced with a more flexible policy that sets up no upper limit on LNG imports. Under the new policy, the Federal Government would review each

application to import LNG so as to provide for its availability at a reasonable price without undue risks of dependence on foreign supplies. This assessment would take into account the reliability of the selling country, the degree of American dependence such sales would create, the safety conditions associated with any specific installation, and all costs involved." (p. 57)

LNG facilities have been proposed in recent years for West Deptford and Logan Townships in Gloucester County, and on Staten Island, New York from where the LNG would be pipelined to New Jersey. The New Jersey Coastal Program states that LNG terminals are discouraged unless they are constructed so as to neither unduly endanger human life nor property nor otherwise impair the public health, safety and welfare, and comply with the Coastal Resource and Development Policies. Because the tankering of LNG could pose potential risk to life and property adjacent to New Jersey's waterways which also serve as boundaries with the states of Pennsylvania along the Delaware River and the state of New York in the Port of New York and New Jersey, the state considers decisions concerning the siting of LNG terminals to be an interstate matter. New Jersey is still awaiting a response in this regard to the petition (RM 76-13) it filed, along with its neighboring states, to the Federal Energy Regulatory Administration (former Federal Power Commission) in May 1976 (See Section 4.4.14 of Chapter Four).

#### Recreation

The New Jersey coast is a national recreational resource. In considering the national interest in recreation, New Jersey reviewed the Nation-wide Outdoor Recreation Plan, the evolving New Jersey State Comprehensive Outdoor Recreation Plan (SCORP), the Land and Water Conservation Fund Act, and the Historic Preservation Act of 1966 as amended. In addition, New Jersey offered draft coastal documents including the Coastal Management Strategy (September 1977) for review to the National Marine Fisheries Service, Bureau of Outdoor Recreation and its successor Heritage Conservation and Recreation Service, Fish and Wildlife Service, National Park Service and staff of Gateway National Recreational Area-Sandy Hook, and the Advisory Council on Historic Preservation.

Major objectives of the national interest in recreation are:

- To consider recreation as an equal among competing uses of the coastal region.
- To provide high quality recreational opportunities to all people of the United States, while protecting the coastal environment.
- To increase public recreation in high density areas
- To improve coordination and management of recreation areas.
- To protect existing recreation areas from adverse contiguous uses.
- To accelerate the identification and no-cost transfer of surplus and under-utilized federal property.

New Jersey will consider the recreational potential of a site in each decision under the Coastal Program. The highest priority for use of waterfront sites will be recreation, and residential and industrial projects will include recreation areas to the maximum extent practicable. The Policies are consistent with the New Jersey State Comprehensive Outdoor Recreation Plan (SCORP), which was also prepared by DEP.

Comment

Response

U.S. NUCLEAR REGULATORY COMMISSION - Cont.

1137.  
Pg. 177, paragraph 3, states that, "The Commission has interpreted "public welfare" to include a full consideration of national interests..." We do not find assurance in either the N.J. law or the regulations that the "public" includes those beyond the State's border.

The interpretation has been included in Chapter 4, which has been adopted as regulation by New Jersey.

1138.  
Pg. 186 Federal Consistency - We suggest changing the second sentence to read: "They issue permits and licenses for activities such as...the construction and operation of nuclear power plants..."

This suggestion has been incorporated in revised chapter 6, federal consistency section.

1139.  
Pg. 187 (2) - This statement tends to equate national interest with national security. National interest is a broader concern. We suggest changing the wording to: "The activity is clearly in the national interest and is carried out in a manner which minimizes conflict with the Coastal Resource and Development Policies."

This has been clarified in revised chapter 6, federal consistency section.

1140.  
Pg. 189 - The NRC mission has been lumped under DOE. NRC should be separately stated as we are an independent Federal agency. It should read: "NUCLEAR REGULATORY COMMISSION Permits and licenses the construction and operation of nuclear facilities."

This change has been incorporated in revised chapter 6, federal consistency section. Please excuse this error.

1141.  
Pg. 203 section 2 state, "Under these policies, large scale energy production...must locate in the region outside the Segment's boundaries." Where is the justification that keeps this from being an arbitrary exclusion of activities in the national interest?

This section has been clarified in revised Part III, Section 2. Large scale energy production is not prohibited, but must comply with the full range of BOSS policies.

1142.  
Pg. 212 (paragraph 1) - The timetable for DOE and DEP to investigate the feasibility of alternative energy production methods is not given.

This is outlined in the Energy Master Plan as being 1-2 years.

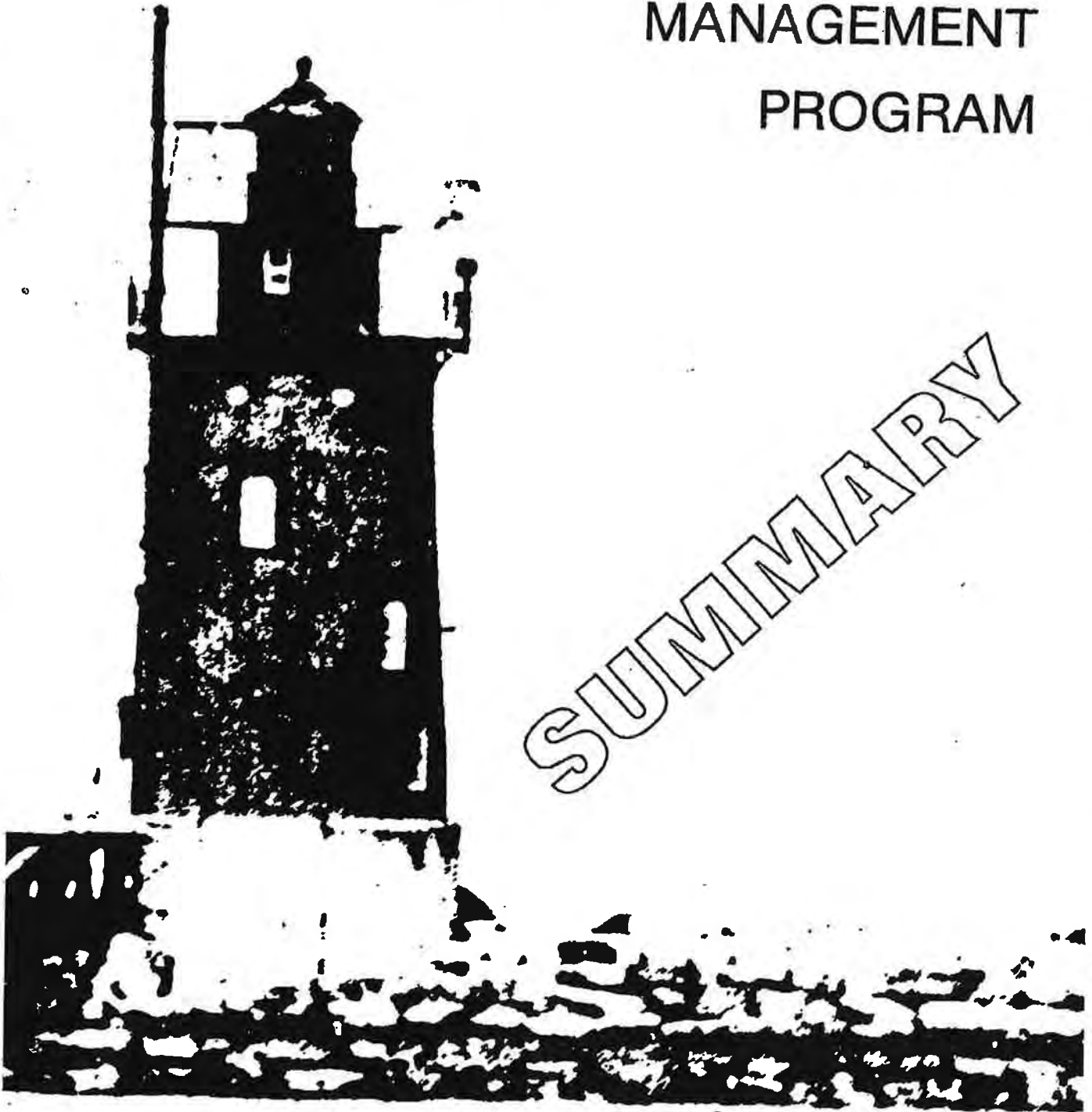
1143.  
Pg. 212 (paragraph 2) - The last 2 sentences assume that there is adequate water to support the energy facility inland and that an inland location will not result in coastal air and water quality degradation. It appears that N.J. could very well approach inland alternatives to coastal sites through the memorandum of Understanding between DEP and DOE and the N.J. Energy Act.

It would not be appropriate to address alternative inland sites in the GU which only addressed conflicts between DOE and DEP over interpretation of the coastal policies or need requirements.

\* U. S. GOVERNMENT PRINTING OFFICE : 1978 272-443/6378

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DELAWARE COASTAL  
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PROGRAM



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DE29867

**DELAWARE COASTAL MANAGEMENT  
PROGRAM**

**(DISCUSSION DRAFT)**

# **SUMMARY**

**September, 1978**

**DELAWARE COASTAL MANAGEMENT PROGRAM  
OFFICE OF MANAGEMENT, BUDGET & PLANNING  
Dover Delaware**

**DE29868**



## PREFACE

This document is a summary of the Delaware Coastal Management Program, Discussion Draft, dated September 1978. It is intended to provide an overview of the program in a format which will facilitate public review. The Summary contains all of the policies included in the Discussion Draft; however, much of the background discussions and appended material has been omitted. Reviewers are cautioned that the Summary may not cover all aspects of program development and compliance with federal approval requirements.

Public review and comment on the Delaware Coastal Management Program is encouraged. In addition to this Summary, the Program is comprised of the following documents:

1. "Discussion Draft, Delaware Coastal Management Program", September 1978.
2. Working Paper Number 7, "The National Interest in Resources and Facilities of the Delaware Coastal Zone", March 1978.
3. Working Paper Number 8, "Beach Erosion Control and Shoreline Access Planning", September 1978.

Additional program review and approval steps are required by federal regulation, and include the preparation of both a draft and final environmental impact statement. Public hearings will be held following release and public notice of these documents in accordance with the requirements of the National Environmental Policy Act.

Comments on any aspect of the Program should be sent to: Delaware Coastal Management Program, Office of Management, Budget and Planning, Townsend Building, P.O. Box 1401, Dover, Delaware 19901.

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## 6. UNDERWATER LANDS AND THE COASTAL STRIP

### SIGNIFICANCE OF UNDERWATER LANDS AND THE COASTAL STRIP

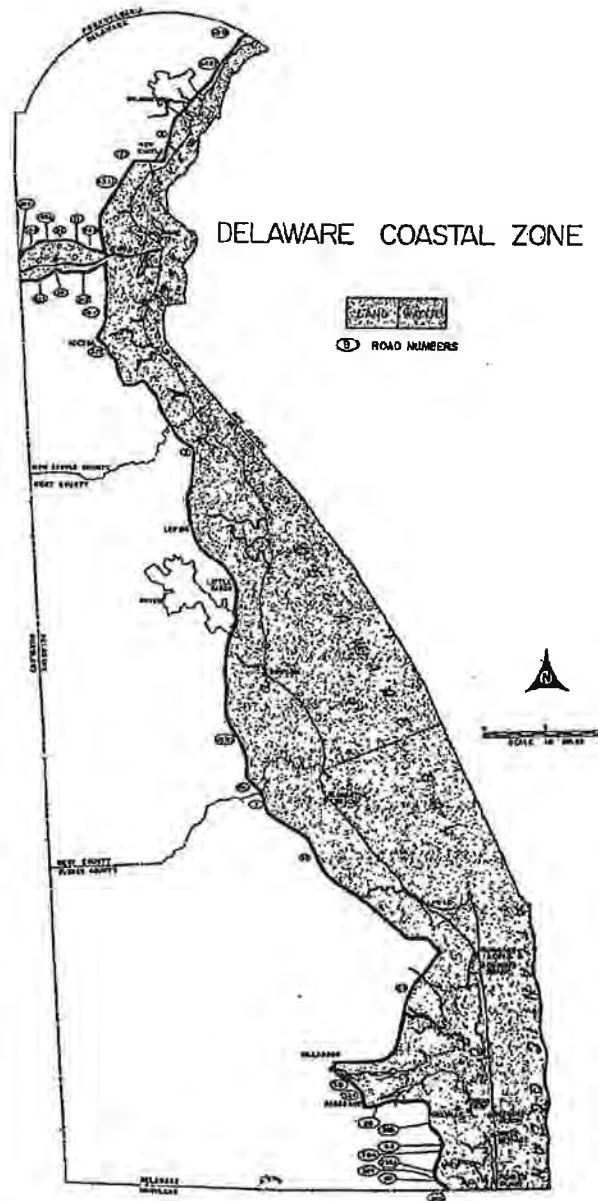
Underwater lands refers here to those lands in Delaware which lie below the high tide line. These include lands beneath the Atlantic Ocean to the three-mile limit, as well as lands beneath the Delaware side of the Delaware-New Jersey border. Underwater lands overlap the Coastal Strip, which is a strip of land and water located between Delaware's seaward territorial limits and a landward boundary delimited by a series of roads and highways. The land portion of the Strip varies in width from a few hundred yards north of Wilmington to about 12 miles wide in the southeastern part of the State. The Coastal Strip corresponds to the Coastal Zone Act's definition of the "Coastal Zone." The CMP uses the former term to avoid confusion with the Coastal Zone boundary adopted by the program, which encompasses the entire State.

Underwater Lands and the Coastal Strip are significant State resources, in part, because of their proximity to other coastal resources. About eighty percent of Delaware's tidal wetlands, all of the beaches and summer resort areas, five of ten State Parks, six of nine State Wildlife Areas, two federal Wildlife Refuges, nearly all of the fish and shellfish spawning and nursery areas, a substantial number of State's historic and archaeological sites, and over one-fourth of the significant natural areas identified by the Delaware Nature Education Center are located in the Coastal Strip. The use of land and water in the Coastal Strip may impact any or all of these resources and the uses — recreation, tourism, fishing, etc. — that they support. Underwater Lands in the Delaware Bay and the Little Bays of South-eastern Sussex County are particularly important to the fishery. In early 1978, for example, 13 lessees held a total of 7,960 acres of State subaqueous lands for oyster cultivation.

Underwater Lands and Coastal Strip are also important because of the commerce that they support. Piers, docks, boat slips, etc. are built on Underwater Lands. These lands are also dredged to keep shipping channels open. The Port of Wilmington, in the Coastal Strip, contributes significantly to the Delaware Valley port complex, the second busiest Atlantic Coast port. In fiscal year 1977 nearly 2.4 million tons of cargo, about one-half of it crude oil, were handled at the Port.

Much of the Coastal Strip is attractive from industry's viewpoint because of the nearby water supply — useful for industrial processes and for the transportation of supplies and products. Power plants, for example, typically need large quantities of supplies.

AREA REGULATED UNDER CHAPTER 70, TITLE 7, DELAWARE CODE — THE COASTAL ZONE ACT OF 1971. (CALLED THE "COASTAL STRIP" IN THE DISCUSSION DRAFT)



Nearly one-fourth of the land in the portion of the Coastal Strip lying north of the Chesapeake and Delaware Canal is already occupied by industry.

Delaware Underwater Lands and Coastal Strip are also important to the Nation. The recreational opportunities afforded by the management of these resources, for example, extend to hundreds of thousands of U.S. citizens residing outside Delaware. Further, some of the Nation's energy problem is addressed in the Coastal Strip. The Getty Oil Refinery at Delaware City makes oil products for use outside the State. A natural shipping channel up to 70 feet deep lies about four miles off southeastern Kent County in lower Delaware Bay, and serves as an anchorage to oil tankers for lightering to barges and smaller tankers. There is year-round daily use of this anchorage. In 1975, 850,000 barrels of crude oil per day were shipped into the Delaware Valley, most of this being lightered in the lower Bay.

Moreover, if large quantities of oil or gas are discovered offshore near Delaware, it is possible that a pipeline through the Underwater Lands and the Coastal Strip will be the most desirable means of transporting the mineral resources. Finally, preliminary evaluations of the hydrocarbon potential of Delaware's Underwater Lands have been promising. If oil or gas can be economically recovered from these lands, the State will be in a position to help the rest of the Nation meet its energy needs.

### **PROBLEMS OF UNDERWATER LANDS AND COASTAL STRIP UTILIZATION AND MANAGEMENT**

Heavy industrial uses and recreational pursuits, as well as other uses which rely on maintenance of the natural environment, cannot be accommodated near each other. The possibility of human error or equipment failure in the operation of certain facilities, such as, LNG terminals or deepwater ports, poses grave risks in or near areas used for high density recreation and commercial fishing. Moreover, such facilities and certain heavy industrial uses not only threaten the fragile coastal environment directly, but also typically generate pressure for additional development with negative impact of its own. Finally, many "lighter" manufacturing activities are better suited at inland locations where the economic, aesthetic, and other impacts are more favorable.

On the other hand, Underwater Lands or the Coastal Strip sometimes offer the only sites for certain important activities. If oil or gas is discovered under Delaware waters, for example, it may be impossible to develop the resources from land. Likewise, an oil pipeline from the Outer Continental Shelf oil and gas lease tracts must pass through State waters if it is to reach refineries and gas plants.

Problems of utilization and management of Underwater Lands and the Coastal Strip also raise the following specific issues: (1) what controls over the

location, extent and type of industry should be exerted; (2) should specific uses with a high potential for environmental degradation be absolutely prohibited; (3) what exceptions, if any, are appropriate; (4) if a case-by-case approach is used, what factors should be considered in the decision to prohibit or permit industry; (5) if offshore industrial uses are allowed, how will navigation, national defense, and the environment be protected; and (6) how will the impact of offshore development on the fishery be minimized?

### **GENERAL CMP POLICIES FOR UNDERWATER LANDS AND COASTAL STRIP MANAGEMENT**

1. *The natural environment of the Coastal Strip shall be protected for recreation, tourism, fishing, crabbing, and gathering other marine life useful in food production.*
2. *The need for protection of the natural environment in the Coastal Strip shall be balanced with the need for new industry in the State.*
3. *The location, extent and type of industrial development in the Coastal Strip that is most likely to pollute Delaware's bays and coastal areas shall be controlled.*
4. *The development and use of offshore oil, gas, and other mineral resources of the State shall be managed to make the maximum contribution to the public benefit and so as to effectuate their full utilization, conservation, and protection.*

### **SPECIFIC CMP POLICIES FOR UNDERWATER LANDS AND COASTAL STRIP MANAGEMENT**

5. *New heavy industrial uses shall be prohibited in the Coastal Strip. Such uses are ones characteristically involving more than 20 acres, and characteristically employing smokestacks, tanks, distillation or reaction columns, chemical processing equipment or waste-treatment lagoons. Heavy industrial uses shall not only be defined by their physical characteristics, however, but also by their potential to pollute in the event of human error or equipment failure. Examples of heavy industry are oil refineries, basic steel manufacturing plants, basic cellulosic pulp-paper mills, and chemical plants such as petrochemical complexes. For purposes of this policy, public sewage treatment or recycling plants shall not be deemed heavy industry uses.*
6. *New manufacturing uses or the expansion of existing manufacturing uses shall be allowed in the Coastal Strip by permit only, although in no case shall new manufacturing uses be allowed in wetlands or where inconsistent with local zoning regulations. Manufacturing uses are ones which mechanically or chemically transform substances into new products, and characteristically employ power-driven machines and materials*

handling equipment. Manufacturing uses typically include establishments engaged in assembling components of manufactured products, provided the new products are not fixed improvements. Examples of manufacturing uses include garment factories, automobile assembly plants, and jewelry and leather goods manufacturing establishments.

7. The following factors shall be considered in passing on requests for permission to construct or operate a manufacturing use in the Coastal Strip:
  - (A) Environmental impact, including but not limited to, probable air and water pollution likely to be generated by the proposed use under normal operating conditions as well as during mechanical malfunction and human error; likely destruction of wetlands and flora and fauna; impact of site preparation on drainage of the area in question, especially as it relates to flood control; impact of site preparation and facility operations on land erosion; effect of site preparation and facility operations on the quality and quantity of surface, ground and subsurface water resources, such as the use of water for processing, cooling, effluent removal, and other purposes; in addition, but not limited to, likelihood of generation of glare, heat, noise, vibration, radiation, electromagnetic interference and obnoxious odors.
  - (B) Economic effect, including the number of jobs created and the income which will be generated by the wages and salaries of these jobs in relation to the amount of land required, and the amount of tax revenues potentially accruing to State and local government.
  - (C) Aesthetic effect, such as impact on scenic beauty of the surrounding area.
  - (D) Number and type of supporting facilities required and the impact of such facilities on all factors listed in this subsection.
  - (E) Effect on neighboring land uses including, but not limited to, effect on public access to tidal waters, effect on recreational areas, and effect on adjacent residential and agricultural areas.
  - (F) County and municipal comprehensive plans for the development and/or conservation of their areas of jurisdiction.
8. New offshore gas, liquid, or solid bulk product transfer facilities shall be prohibited in the Coastal Strip. Such facilities are docks or port facilities, whether artificial islands or attached to shore, for the transfer of bulk quantities of any substance from vessel to onshore facility or vice versa. However, a docking facility or pier for a single industrial or manufacturing facility and docking facilities located in the city of Wilmington for the Port of Wilmington, shall not be prohibited.
9. Offshore pipelines which transfer bulk quantities of gas, oil or other liquids to terminals within the Coastal Strip shall be prohibited. Such pipelines generally shall be allowed if they transit the Coastal Strip and environmental safeguards are observed. However, if such pipelines represent a significant danger of pollution to the Coastal Strip and generate pressure for construction of industrial plants in the Coastal Strip, they shall be prohibited.
10. Underwater lands of the State shall not be surveyed geologically, geophysically, or seismically unless and until the water quality of the State which may thereby be affected is adequately assured.
11. No operations or activities shall be commenced on the drilling, deepening or plugging back of any offshore oil or gas wells located on underwater lands of Delaware without the permission of the State, and unless in conformance with the rules for such operations and activities adopted by the Delaware Department of Natural Resources and Environmental Control.
12. Permission to develop underwater lands shall not be granted without the prior approval of the U. S. Department of the Defense, and shall be subject to any restriction or limitation imposed by the Department.
13. Easements for mineral exploration and exploitation underlying that part of the surface of the Atlantic shore owned by the State may be permitted at such times and places as necessary to permit the extraction and transportation of oil, gas, sulphur or other minerals from State, federal or private lands, but permanent interference with the surface of the Atlantic shore shall be prohibited.
14. The following factors shall be considered prior to the leasing of underwater lands for possible mineral development:
  - (A) The health, safety, or welfare of persons residing in, owning real property, or working in the neighborhood of such areas;
  - (B) Potential interference with the residential or recreation areas to an extent that would render such areas unfit for residential or recreation uses or unfit for park purposes;
  - (C) Potential interference with the aesthetic and scenic values of the Delaware coast;
  - (D) Potential water pollution problems;
  - (E) Endangerment to marine life or wildlife;
  - (F) Potential interference with commerce or navigation; and
  - (G) Protection of State lands from drainage of oil, gas or other minerals or objectionable substances.

15. *The lessee of underwater lands shall be required to exercise a high degree of care to avoid impairment of and interference with the enjoyment and use of such lands, the water above them and neighboring land and water. Such uses include bathing, boating, fishing, fish and wildlife production, and navigation. The lessee shall also exercise a high degree of care to prevent oil, tar, residuary products of oil, or refuse of any kind from any well or works to be deposited on or pass into the waters of the ocean, any bay or inlet thereof, or any other waters covering submerged lands.*

## 7. THE "PUBLIC LANDS"

### SIGNIFICANCE AND VALUE

The Delaware Coastal Management Program, in its first year of program development, recognized the significance of the crucial issues relating to certain lands along the coast. The lands involved are those properties along the Atlantic Coast between Cape Henlopen and Fenwick Island which have never been transferred from the public domain. They currently include the Cape Henlopen and Delaware Seashores State Parks and portions of the Assawoman Wildlife Area.

The lands, commonly called the "public lands" because a Public Lands Commission established in 1913 was the first State agent to manage them, are extremely valuable as vacation areas. During the first nine months in 1977 alone over three million people, a great many of them from out-of-state, enjoyed these lands.

### PUBLIC LANDS MANAGEMENT ISSUES

The territory which is now Delaware was given to William Penn by the Duke of York (later King) of England. Penn and his heirs made many land grants from the territory prior to the American Revolution. Delaware made additional grants after the Colonies achieved independence. The State Supreme Court has determined that Penn and his heirs owned the land as sovereigns, not as individuals. Therefore, any land not granted by the time the State gained its independence became State property.

Land was plentiful and precise boundaries were of little consequence. Some areas were considered of little value. In many cases, there was a dearth of geographical knowledge of the area conveyed. Land transfers were sometimes made without a writing. Deeds were not routinely recorded and deed descriptions, when they were recorded, used mortal markings, such as "the old white oak." Geological processes altered earlier boundaries.

In 1913, the General Assembly expressed its con-

cern over the State public lands by establishing a Public Lands Commission to ascertain State boundaries. The Commission engaged Thomas B. Pepper to conduct a survey of the public lands from the lighthouse on Fenwick Island to the old lighthouse at Lewes, a stretch encompassing virtually all of Delaware's Ocean front. Mr. Pepper's survey included extensive historical research of the patent records in Delaware and Maryland, as well as physical measurement of the property. The survey was recorded in Georgetown in 1929.

In 1955, the State Highway Department caused the 1929 Pepper boundaries to be resurveyed and reconfirmed. The survey was supervised by Fred Ruyter who was assisted by Mr. Pepper. The Ruyter survey crews drove steel casings into the ground and implanted concrete markers on top of the casings in order to mark the boundaries.

In 1971, a Delaware Chancery Court ruled that the Pepper plot, as confirmed by Ruyter, constituted a true and accurate survey of the lands portrayed thereon to the extent that State land titles were disputed in the subject case which applied only to the lands between South Bethany and Fenwick Island.

Much of monumenting work accomplished in 1955 was destroyed by the great storm of 1962. Some monuments were removed, perhaps illegally.

The loss of the monuments, the lack of an effective monitoring program, and lingering title disputes inevitably led to encroachment. In some cases, State land is falsely claimed under bogus deeds, or deeds are obtained through tax sales.

Finally, in some cases when litigation has offered the promise of restitution of State coastal property, the General Assembly has legislatively relinquished State claims in order to protect private investments. This "solution", of course, would be unnecessary if protection of State coastal lands precluded private development of State lands.

In order to address these issues a comprehensive survey was undertaken with Coastal Management Program support to establish the location of the public lands and fully monument them. That step completed, it is now necessary to prescribe policies to assure that these irreplaceable resources will be managed properly.

### GENERAL CMP POLICY FOR "PUBLIC LANDS" MANAGEMENT

1. *DNREC shall supervise, control and care for Delaware's "Public Lands."*

### SPECIFIC CMP POLICIES FOR "PUBLIC LANDS" MANAGEMENT

2. *The State shall pursue all necessary and appropriate remedies to address encroachments upon State "Public Lands" and to protect their integrity from further claim.*

management program.

The national interest will be considered in the amendment of any State rule or regulation used to implement the CMP and in the planning for and siting of the facilities identified in Working Paper No. 7, entitled *The National Interest in Resources and Facilities of the Delaware Coastal Zone*. The lead agency may add facilities if it determines that there is a national interest in such facilities. The federal Office of Coastal Zone Management (OCZM) and other federal agencies are invited to assist the lead agency in making that determination.

The lead agency will submit timely written comments addressing the national interest in proposed facilities to the appropriate State departments and agencies with planning or siting authority. The comments will balance the national interest in the proposed facility with the national interest in preservation of resources. Sources used in that balancing process will include Working Paper No. 7; policy statements from the President; federal laws; statements from federal agencies; testimony from public hearings or other public input; or plans, reports, or studies from federal, State, interstate agencies or local government.

The appropriate State agency will respond in writing to the lead agency's comments in its planning action or siting decision. Such response will summarize the comments and explain how the action or decision reflects the consideration thereof. The lead agency will review that response as part of its responsibility to monitor and evaluate the management of the State's coastal resources pursuant to Executive Order No. 60. In the event that the lead agency determines that the response inadequately reflects consideration of the national interest, it will so notify the Governor and re-submit its comments to the appropriate agency, which will then respond anew.

Executive Order No. 60 requires the lead agency to submit comments addressing the Coastal Management Program policies and concerns to local land and water use decision makers. The above cited policy which requires consideration of the national interest, will be implemented by the Executive Order and the Land Use Planning Act. Pursuant to Title 29, Section 92 of the Act, the lead agency will make the same types of comments to decision-making of local government as it will to State agencies, as discussed above. The Act requires a written rationale for the local government's decision, which must include a discussion of the lead agency's comments or recommendations, if any. A State review board may require reconsideration of the local decision if the local government fails to adequately consider the comments. It is also important to note that, under the Land Use Planning Act, interested federal agencies must be (1) notified of proposed land use planning actions of greater than local significance; (2) afforded an opportunity to participate in local decision programs; and

(3) allowed to submit comments and recommendations on such actions.

The CMP recognizes that the national interests in facilities and resources may change over time. Inasmuch as many of the broad policies in the program cannot be readily reviewed on a case-by-case basis, the national interest in such policies will be reconsidered at least once a year by the lead agency in the annual report to the Governor, the General Assembly, and OCZM.

An additional mechanism for ensuring federal input on projects will be the establishment of joint permit review and processing steps by federal and State agency staffs prior to formal permit action by either party. Initial efforts have been undertaken between State agencies and some federal agencies relative to State/Corps of Engineers approvals, and further action will be taken to institutionalize such processes. Informal coordination, of course, already takes place between many State and federal agencies on a broad range of CMP concerns.

Finally, the "federal consistency" provisions of the CMP will also be used to make sure that federal actions are consistent to the extent practicable with the CMP.

## REGIONAL COORDINATION

Coordination among the localities and states in Delaware's region has been of primary concern since the program development effort began. Actions by neighboring states can directly affect Delaware and the value of its coastal resources. In order to provide an opportunity for the states to identify problems of a regional nature and to ensure that compatible approaches to the management of regional resources are being used by the states, Delaware hosted the first of what has become a more or less regular meeting of State CMP staffs. Included in these meetings are Delaware, New Jersey, Pennsylvania, Maryland, Virginia and, more recently North Carolina, South Carolina, and Georgia.

A higher level of coordination mechanism is the Mid-Atlantic Governors' Coastal Resources Council (MAGCRC), an organization formed by the Governors of the states in the region for the purpose of exchanging information, developing policy, and preparing responses to federal agencies on major coastal issues, primarily those relating to outer continental shelf (OCS) development and energy. This group, which involves the Governors and their officials primarily responsible for development of State OCS and energy policy, has met on a somewhat regular basis and has been particularly successful in raising the level and scope of state participation in many federal OCS leasing and regulatory processes.

Another effort, currently only in the development stage, is the establishment of a Regional Coastal Information Center (RCIC). This proposal emanates from a concern of coastal managers and concerned

citizens who, on one hand, lack information and, on the other hand, are concerned that research and information gathering programs and projects may be duplicative or fail to address clearly perceived problems. A definite need for a *quick response* information delivery system has been identified. The information needs are quite diverse, ranging from highly specific environmental data to more general background information on the coastal law. To date, the national Coastal Zone Information Center of OCZM has worked to supply some of the information, but a national center cannot begin to provide the specialized coverage needed at state and local levels.

The Delaware CMP made an initial attempt at closing this gap by funding a Research Clearinghouse effort based on work done by the University of Delaware which related to coastal management. This start was useful, but limited in scope.

New England and the Pacific Northwest have responded to the need for more localized coastal information through the formation of RCIC. The RCIC approach was first suggested at the national level by OCZM and the Sea Grant Marine Advisory Service. The Mid-Atlantic States have proposed a more decentralized and state-specific system, sharing information through common formatting.

The overall goal of this system will be to provide a readily accessible quick-response coastal information capability for (1) state coastal planning programs and other state and local agencies; (2) scientists and technical personnel needing environmental data and/or bibliographic information; (3) Sea Grant programs; (4) regional fishery management; and (5) the general public.

Delaware's CMP will work with the Delaware Sea Grant Program in support of this proposed system.

Another issue involving regional coordination is more limited in scope and involves the Delaware-New Jersey boundary along the upper Delaware River, particularly as it affects Salem County, New Jersey. As a result of a 1933 U.S. Supreme Court ruling, Delaware's jurisdiction extends to the low water mark on the New Jersey shore. Salem County officials contend that Delaware law, particularly the Delaware Coastal Zone Act, unduly precludes development along the Delaware River in New Jersey. While Delaware understands Salem County's concerns, there is no clear evidence that New Jersey has suffered any adverse effects. The creation of a "no-man's zone" in the River would raise serious administrative and legal problems. Thus, a cooperative exchange of information between the parties is deemed the best solution for avoiding potential problems. To facilitate the exchange of information, Delaware has agreed to share information on Coastal Zone Act applications, where appropriate, with Salem County and has asked Salem County to notify it whenever an impending development in their county could raise the jurisdictional difficulty. In any event,

only a few possible uses would cause problems. For example, single purpose (use) piers extending into the Delaware River, the most likely regulatory issue, would require a Delaware Coastal Zone Act application permit, but experience under the Act involving Delaware and Pennsylvania indicates that such applications can be processed to the satisfaction of all parties.

Finally, a long-standing mechanism for coordination in the Wilmington area, the Wilmington Metropolitan Area Planning Coordinating Council (WILMAPCO), is significant to the CMP. Municipal, county, and State representatives from Delaware, Maryland, and New Jersey work together in WILMAPCO to resolve interstate and intrastate issues affecting the Wilmington area.

## OVERALL CMP IMPLEMENTATION

Executive Order will establish a Coastal Management Committee to be comprised of private citizens and officials from State, county and local governments to provide oversight and coordination regarding program implementation. The duties of the Committee may include:

- 1) Advice regarding applications for Section 306 funding, including review of proposed annual work plan, etc;
- 2) Where required under CEIP Intrastate Allocation Process, approval of applications for CEIP grants and loans;
- 3) Monitor CMP implementation on a regular basis to ensure that the Program is achieving stated objectives;
- 4) Review and offer recommendations on federal actions subject to consistency determinations and certifications;
- 5) Provide an informal mechanism, as appropriate, for the review of plans, major development projects, capital programs, etc., covered by the Land Use Planning Act (this would not substitute for the process established by the Act but would allow for informal discussions of issues which are subject to the Act's provisions);
- 6) Recommendation and approval of CMP amendments, including designation of Areas of Particular Concern/Special Management areas, etc; and
- 7) Function as a special problems advisory group where major development projects, changes in federal, state or other law or regulation, variations in funding levels, or other matters necessitate coordination, comprehensive review, and mutual action.

This mechanism, combined with those listed above, provides a comprehensive framework for intergovernmental and interagency coordination, and on-going private sector participation, which will ensure that Delaware's Coastal Management Program is effective and meaningful.



## COORDINATION POLICIES

1. *State and local units of government responsible for implementing the CMP should provide an opportunity for each other, federal agencies, and other interested parties to review and comment on proposed actions which may affect each other, federal agencies or other interested parties.*
2. *State and local units of government responsible for implementing the CMP should actively consult with other local, state, federal, regional and private entities to the extent necessary to provide for adequate coordination, as well as informed and reasoned program decisions.*
3. *State agencies responsible for implementation of the CMP shall coordinate their CMP-implementation responsibilities with each other to the extent necessary to assure well-informed and reasoned program decisions.*
4. *All state agencies and local units of government shall consider, prior to any CMP decisions, the national interest in (1) the planning for and siting of facilities which are necessary to meet other than local requirements, and, in conjunction with such planning and siting, (2) coastal resource and conservation and preservation.*

## 26: PROGRAM OVERVIEW

The need for a Coastal Management Program became apparent after several land use problems arose which were caused largely by increases in both the year-round and seasonal coastal populations. It became obvious that, if uncontrolled growth were to continue unchecked, the already recognized problems — traffic congestion, failing waste disposal systems, sand dune destruction, storm damage vulnerability, etc. — would be intensified. Further, it was almost a certainty that new problems would arise unless some management programs were designed to guide development near and at coast. The Coastal Management Program, the mechanism which was chosen to resolve coastal problems, has adopted policies (some are enforceable; many others are of the encouragement type) to allow orderly growth while protecting the coastal resources.

Perhaps "conflict resolution" is the key term in the reasons for having a program. For example, a parcel of marshland may be filled, thereby exterminating the plants and animals that occupied that part of the marsh. However, increased knowledge of the geography and biology of the coastal areas has shown that some uses of land irreversibly change the character of the land. Thus, there is a conflict between someone wanting to make a property suitable for some specific use and someone who is concerned about the continuous loss of wetlands and its effects on the life cycles of the marshland wildlife. Other

coastal-related, controversial and conflicting practices include: indiscriminate dredging of lagoons and channels; pollution of the bays and groundwater; and the effects of inappropriate land uses (e.g., strip development on already overcrowded roads). It should be realized that often there is no deliberate intention on the part of the landowners to create environmental problems; sometimes problems occur because people continue to do things the way they always have done them. Because of increased public awareness of environmental deterioration and because of the recognition of the cumulative impacts of many small but unsound projects, it became necessary for the State to take a good objective look at what was happening in the coastal areas.

As the program developed, certain themes became noticeable. The conflicts seemed to center around progress (development) versus environmental protection. It is now believed that we can have the best of both extremes. However, the local units of government must carefully analyze their desires and the options that are available. Again, it becomes a case of "conflict resolution". For example, growth may be desired in a community but there is no more undeveloped land available except wetlands or beach lands. The best option in such a case may very well be to reuse derelict or underutilized land that already has utilities and roads in place. An approved program would provide the framework for policy development at all levels of government.

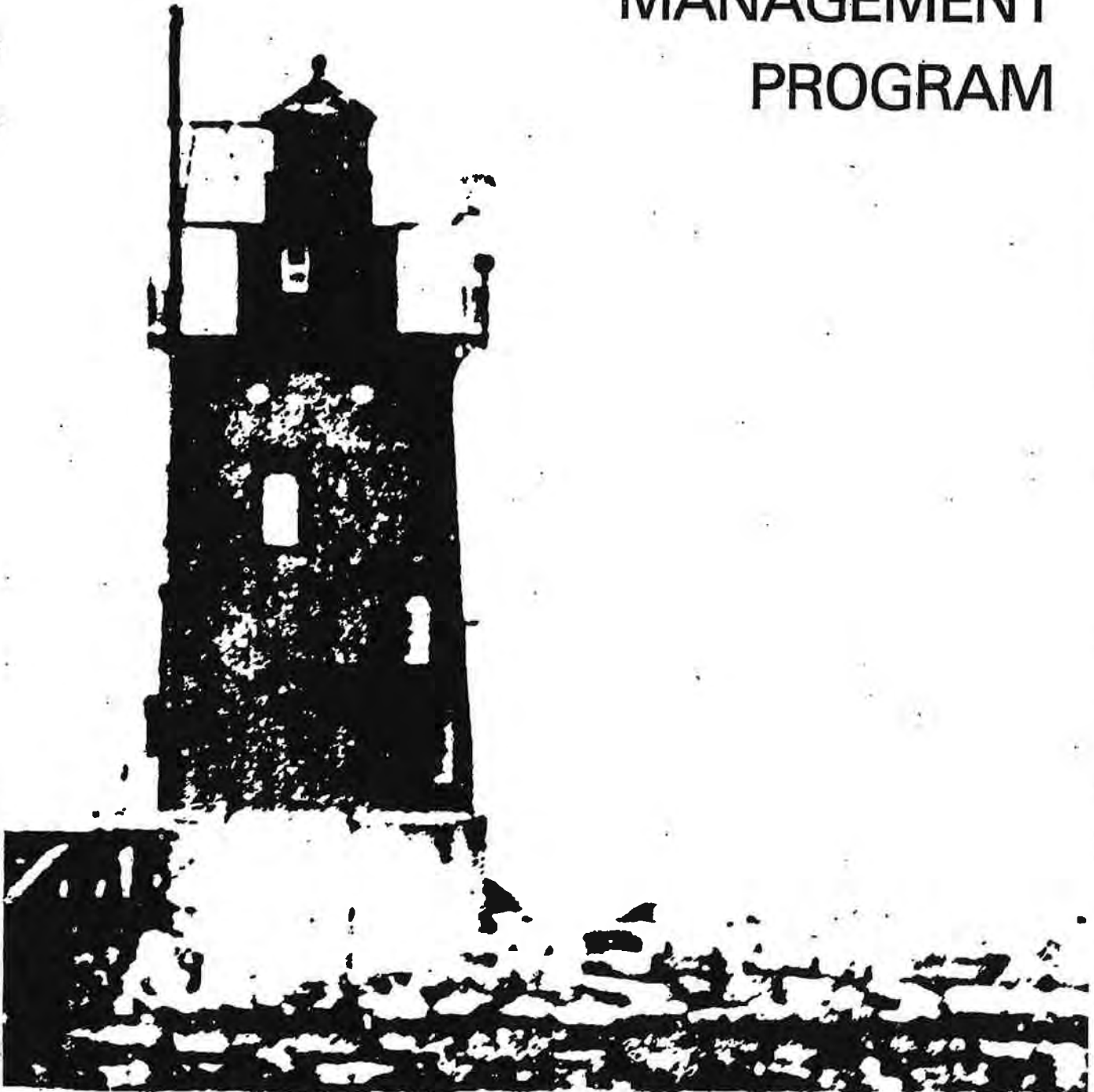
An approved program would benefit Delaware in several ways, including:

- Unified policies would be used in dealing with land use decisions.
- Federal activities would have to be consistent with the Coastal Management Program (with some exceptions).
- The Federal government would pay most of the administrative costs of the CMP.
- The public information and education parts of the CMP would increase public awareness of the coastal resources and their related problems.

Thus, it can be seen that the Coastal Management Program can be used as a vehicle to guide growth in a way that is environmentally sound. Perhaps, if growth is discouraged along beach fronts and the undamaged natural areas, we can continue to enjoy the beaches and wetlands of Delaware in an almost natural setting.



# DELAWARE COASTAL MANAGEMENT PROGRAM



DISCUSSION DRAFT

SEPTEMBER  
1978

DE29939

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ERRATA SHEET

Page 5.A.4-1, paragraph 1, line 11. "It is mapped on the following page." should read "It is mapped on the page that follows page 5.A.4-11."

Page 5.A.4-1, paragraph 1, line 13. Appendix letter is "E".

Page 5.B.2-3, paragraph 2, line 4, and Page 5.B.2-4, paragraph 1, line 10. "Section V.A." should read "Section 5.A."

Page 5.C.3-4, paragraph 4, lines 6 and 7. Sentence should read "Agricultural activities indirectly introduce herbicides and pesticides, thereby threatening living resources."

Page 5.D.3-10, paragraph 2, line 7. Executive Order number is "61."

Page 5.D.7-1. "Interstate Highways" heading near bottom of page should read "Highways."

Page 5.D.7-7, paragraph 2, line 12. Sentence should read, "The deposition of dredge spoils in water is an aggravated form of water and bottom disturbance. Unfortunately, the natural state of land sites used for dredge spoils is also typically destroyed by such deposition."

Page 5.D.7-9, paragraph 1. The first eleven lines are redundant. The page should start with "State Office of,..."

Page 5.D.7-9. Insert heading "C. Railroads" after second paragraph, and reduce the policy numbers that follow by one so that they range from 3-8 instead of from 4-9.

Page 5.D.8-1, paragraph 2, line 3. The line should read "increase in mortality or serious irreversible or incapacitating "

Page 5.D.10-1, paragraph 3, line 9. Executive Order number is "61."

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DELAWARE COASTAL MANAGEMENT  
PROGRAM

(DISCUSSION DRAFT)

September, 1978

DELAWARE COASTAL MANAGEMENT PROGRAM  
OFFICE OF MANAGEMENT, BUDGET & PLANNING  
Dover, Delaware

DE29942



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF MANAGEMENT, BUDGET, AND PLANNING  
DOVER, DELAWARE 19901

OFFICE OF THE  
DIRECTOR

PHONE: (302) 678-4271

August 31, 1978

The Honorable Pierre S. du Pont  
Governor  
Legislative Hall  
Dover, Delaware 19901

Dear Governor du Pont:

It is my pleasure to transmit to you the Discussion Draft of the Delaware Coastal Management Program. This document represents many years of research, analysis, discussion, debate and review by many private citizens, State and local government representatives, and our staff. It has been prepared as a policy framework for the proper management of land and water resources of this State, cognizant of the need to balance environmental concerns with economic needs.

With publication of this Discussion Draft, we are beginning a process of public reviews, workshops, and hearings which we hope will lead to approval of the Delaware Coastal Management Program by the U. S. Department of Commerce. As you know, approval brings financial assistance for program implementation, assures Delaware of continued Coastal Energy Impact Assistance, and provides an important mechanism to require that federal actions be conducted in a manner consistent with Delaware's needs, objectives and policies.

We appreciate your continued support of our efforts in this area and hope that the Delaware Coastal Management Program meets with your approval.

Sincerely,



Nathan Hayward, III  
Director

NH/DSH/jad

III

DE29943

## PREFACE

This document is a draft of the Delaware Coastal Management Program prepared by the Office of Management, Budget and Planning (OMBP) for review and discussion with interested citizens, federal agencies, interest groups, and affected State, county and local entities. It is being made available in anticipation of a series of public workshops to be held throughout the State beginning in October. At least two public hearings will be held during the review processes which begin in October. Copies are being placed in libraries, public buildings and governmental offices throughout the state. As long as the supply lasts, single copies are available free of charge by contacting the Delaware Coastal Management Program, Office of Management, Budget and Planning, 3rd Floor, Townsend Building, P.O. Box 1401, Dover, Delaware 19901 (Phone: (302) 678-4271).

In accordance with federal review and approval requirements set forth in the Federal Coastal Zone Management Act (P.L. 92-583), the Delaware Coastal Management Program and supportive documents will be submitted to the Office of Coastal Zone Management (OCZM), NOAA, U.S. Department of Commerce. OCZM, upon submission of the State's draft program, will review it to determine if program requirements have been met. Assuming major revisions are not needed to satisfy federal requirements, OCZM and OMBP will jointly prepare a Draft Environmental Impact Statement (DEIS). A combined DEIS-Program document will then be published and distributed to principally affected federal agencies, State, local and regional agencies, national interest groups, and interested individuals. Notice of the availability of the DEIS-Program Document and the public hearing will be given in the Federal Register, in local newspapers, and through other media (at least thirty (30) days' notice will be given prior to the hearing).

From the time of notice of availability in the Federal Register (and local media) of the DEIS-Program Document, each federal agency, other person or entity normally has forty-five (45) days pursuant to Council on Environmental Quality guidelines to provide comments, if any, on the management program and/or the DEIS to the Associate Administrator of OCZM. During this period a public hearing(s) will be held in one or more locations in the State. Following the public hearing(s) the comment period normally will remain open for fifteen days.

Following the close of the DEIS-Program Document comment period, OCZM and the State will review and evaluate the comments received. Preparation of response to comments, revisions to the program (if appropriate), submission of a final program document, and preparation and printing of the Final Environmental Impact Statement (FEIS) will then take place.

Notice of the FEIS will be given in the Federal Register (and local media) and a thirty (30) day review and comment period provided. Following this review, the Associate Administrator



of OCZM may approve or disapprove the program. Notice of such action and the reasons therefore will be published in the Federal Register and in local media.

The review and approval processes listed above normally take up to seven months, hence, considerable opportunity for detailed public input and program modification are provided.

The reviewer of this Discussion Draft is advised that typographical errors, missing references, and certain other deficiencies may be present. These will be corrected prior to preparation of the DEIS-Program Document. More importantly, this document is incomplete in certain sections:

- (a) Summary - a separate program summary will be prepared and distributed. A summary section will be included in the DEIS and FEIS documents.
- (b) Section 5.E./Coordination and Appendix E - a Coastal Management Committee will be established by Executive Order to monitor program implementation, advise on other program matters, participate in consistency determinations, and have other duties. The Committee will be composed of both private citizens and officials from State, county and local governments.
- (c) Appendix E - interim erosion and sediment control regulations have not been finalized at this time.
- (d) Appendix F - the lists of federal actions, licenses and permits, grant-in-aid programs subject to the consistency provisions are being finalized and will be made available separately.

Comments, questions, requests for additional information, etc., should be sent to the Delaware Coastal Management Program at the address listed above.

## ACKNOWLEDGEMENTS

The Delaware Coastal Management Program has been prepared by the staff of the Environmental Policy and Coordinative Planning Section of the Office of Management, Budget and Planning, Executive Department, Dover, Delaware.

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\*Agency affiliation during period of participation in program development.

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5.C.3.

## LIVING RESOURCES

### SIGNIFICANCE AND VALUE

Delaware has an abundance of wild birds, fish and fur bearing animals. The State is inhabited by approximately 37 species of waterfowl, 91 species of other water birds, four upland game birds, 24 species of birds of prey, 160 different song birds and 45 species of mammals. In addition, Delaware's waters are home for numerous species of freshwater and saltwater fish.

The State's coastal wetlands provide attractive habitats for mallards, black duck, least terns, blue-winged teal, gadwall, wood duck and snow and Canadian geese. Coastal waters in the Delaware Bay are inhabited seasonally by sea ducks. Fall migrations of waterfowl along the Atlantic flyway bring hundreds of thousands of waterbirds to Delaware's coastal areas. During the winter, the State supports more than 125,000 Canadian geese. This represents one of the largest overwintering concentrations of the species on the East Coast. These resources are enjoyed by the general public for their scenic value and hunting opportunities.

The majority of salt and brackish water sport fishing in Delaware occurs in the Delaware Bay, but there are also important sport fisheries in the Atlantic Ocean, Inland Bays and the many tidal streams feeding into these waters. The principal salt and brackish water fish caught in Delaware include weakfish, flounder (summer and winter), bluefish, striped bass, sea bass, perch, sturgeon, spot and drum.

Crabbing and clamming are popular salt and brackish water-based sports along the Delaware Coast, and large numbers of crabs and clams are taken in the State's bays and tidal estuaries.

A great deal of fresh water fishing occurs on old mill ponds. Once there were 130 mill ponds in Delaware, but only 60 remain today. Twenty-five of the 60 remaining ponds have been restored and maintained over the last two decades for public use, providing recreation for Delaware's 20,000 fresh water anglers.

The value of these resources is well documented in the State Comprehensive Outdoor Recreation Plan (SCORP) and in numerous studies prepared by the Division of Fish and Wildlife of the Delaware Department of Natural Resources and Environmental

5.C.3-1

DE30117

5.C.3.

Control (DNREC). Additionally, the National Marine Fisheries Service (NMFS) had underscored the importance of State Fisheries management in a letter to the Delaware CMP which says, "approximately two-thirds of our commercial species are dependent upon estuarine waters that are under State control."

As Working Paper No. 7 discusses in detail, these resources are of considerable national value for recreation and commerce. The Congress declared, in the Fishery Conservation and Management Act of 1976, that "commercial and recreational fishing constitute a major source of employment and contribute significantly to the economy of the Nation." NMFS has pointed out that "in this ... age of growing populations and growing demands for food ... the sea remains both a frontier and a storehouse of living resources of immense value."

The Congress has also expressed the Nation's interest in maintenance of wildlife with the passage of such legislation as the Dingall-Johnson Act, the Land and Water Conservation Fund Act, the Wild and Scenic Rivers Act, the Wilderness Act, the National Wildlife Refuge Administration Act, the Federal Aid in Wildlife Restoration Act, the Fish and Wildlife Coordination Act, the Migratory Bird Conservation Act, the Endangered Species Act, and the Federal Land Management Policy Act. Indeed, there are over 100 treaties, international agreements, federal statutes and executive orders which provide wildlife protection in this country.

The national interest in endangered fauna and flora is reflected in several federal statutes, particularly the Endangered Species Act of 1973, wherein Congress "finds and declares" that species of fish, wildlife, and plants in danger of or threatened with extinction "are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people."

Federally listed endangered and threatened animal species, which are "resident" (as defined by the Endangered Species Act of 1973) in Delaware, include: the southern bald eagle; the brown pelican; the american peregrine falcon; the arctic peregrine falcon; the leatherback turtle; the Atlantic ridley turtle; the shortnose sturgeon; and several whales, including the blue, bowhead, finback, humpback, right, sei, and sperm. Of these, only the bald eagle, which nests in the Bombay Hook National Wildlife Refuge, is sighted more than rarely.



### 5.C.3.

The following plants found in the State of Delaware have been proposed for inclusion on the national endangered and threatened list by the Smithsonian Endangered Flora Project: Cyperaceae-Phynochospora knieskernii (Family-species), endangered; Ranunculaceae-Trollius laxus, endangered; Spiaceae-Oxypolis canbyi, threatened; Betulaceae-Alnus maritima, threatened; Orchidaceae-Platanthera peramoena, threatened; Poaceae-Muhlenbergia torreyana, threatened; and Scrophulariaceae Micranthemum micranthemoides, threatened.

#### CMP LIVING RESOURCES MANAGEMENT CONCERNS

The CMP is concerned primarily with five aspects of living resources management, namely: (1) habitat preservation; (2) species diversity and population maintenance; (3) program funding needs; (4) regional coordination; and (5) public awareness.

The importance of habitat preservation is obvious. Activities which completely destroy or even slightly alter living resources habitats can seriously upset the fragile ecosystem which supports these resources. Inland clearing for development eliminates wildlife cover, causing many species to leave the area or perish. If an endangered species can utilize only a specific area, the preservation of that area is generally of much greater concern than other areas.

Particularly important, however, are the estuarine areas because they are especially productive. Until recently, however, these areas were not well protected. Between 1950 and 1969, four percent of the Nation's estuarine areas were lost through dredging and filling. That low a percentage may not seem serious, but in absolute figures a great deal of wildlife habitat has been lost. Moreover, 20 years is a short period of time, cumulative losses over longer periods could be drastic.

Development pressures are typically keen due to the recreational opportunities afforded by estuaries. In Delaware's inland bays, a 1969 study showed that 25%, 44% and 10% of the shorelines of Rehoboth Bay, Indian River Bay, and Assawoman Bay, respectively, were developed. Although these changes were documented from 1938 and 1969, almost all of the development took place between 1958 and 1969.

Slight changes in water quality also can be critical. Dissolved, suspended and floating waste materials in water use up oxygen either directly by oxidation or indirectly by causing "plankton blooms", which die and remove oxygen from the water as they decompose. The quantity of dissolved oxygen in the water is extremely important to the economics of the commercial and sport fisheries.

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Declines in many species of both finfish and shellfish can be correlated with declines in water quality. Seventy years ago, shad and sturgeon were major commercial fish in Delaware. Throughout the 19th century the annual shad catch weighed between 10 and 19 million pounds. Today, only a few Delaware gill net fishermen seek the relatively rare shad or sturgeon for commercial purposes. Their low population is attributed to the high pollution level in the lower Delaware River which contributes to mortality and curtails up-river migration for the purpose of spawning.

There are, of course, several activities which pose water quality problems. Sewage disposal systems can pollute the water and devastate living resources when such systems malfunction or when the systems are inadequate to handle the quantities or components of the sewage. Ninety-two percent of the fish kills reported in the Nation in 1974 were attributed to such problems.

The development and transportation of energy resources in estuaries threaten fish and wildlife because of oil spill possibilities, although Delaware's experience with oil traffic in the Delaware River and Bay so far has been remarkably trouble-free. Petrochemical complexes, of course, also present oil pollution hazards. A 1961 study by the Delaware Game and Fish Commission contends that such complexes are simply incompatible with wildlife, concluding, "Which shall it be? Heavy petrochemical industry or the benefit and use of Delaware's most valuable natural resource."

Finally, spoil disposal and certain agricultural practices constitute serious threats to habitat. Benthic organisms, those animals living on beds of mud under water, are smothered by spoil disposal operations. In the past, most spoil disposal took place on wetlands which were thereby destroyed. Agricultural activities indirectly introduce herbicides and living resources. The State's own mosquito control program has in the past relied substantially on pesticides or other practices which have harmful side effects on desirable living resources.

Habitat preservation is only one factor which bears on the diversity, population, and health of living resources. Excess fishing and hunting can reduce species population far beyond the maximum sustainable yield. On the other hand, overly strict hunting and fishing prohibitions prevent the resources from being utilized and may adversely affect the health of the resources which compete for limited food supplies. To determine and provide for the appropriate amount of fishing and hunting, data must be gathered and analyzed, access to the resources must be possible, and enforcement of the appropriate levels of hunting and fishing must be assured.

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Unfortunately, past hunting and fishery management planning activities have been somewhat hampered by lack of financial support. Typically, the bulk of the money appropriated for natural resources management has been spent on protecting air and water quality, with relatively little left over for living resources management.

Interstate regulations have also posed problems in the past, particularly the restrictions imposed by the New Jersey-Delaware Fisheries Compact of 1907. This Compact calls for the formulation of identical fishery laws by New Jersey and Delaware for the Delaware Bay. Once these laws are agreed upon by the States they cannot be changed without the approval of both States. For a long time the two states believed the Compact had been properly implemented and that they could not change their respective laws without each other's approval. This arrangement proved unsatisfactory because it was difficult to reach a consensus on how the laws should be modified to reflect changing fishery technologies. Under the auspices of the CMP, the Compact was examined by the Delaware Department of Justice and an opinion was issued which declared that the key provision in the Compact was never implemented. This action will be of considerable value in allowing Delaware to update its fisheries statutes and regulations, an action now underway. However, the need for some sort of regional fishery planning still exists because fish stocks do not recognize jurisdictional boundaries and because fishermen from different states must be regulated at least somewhat alike if they are to be competitive with each other.

Finally, as with many of the resources considered by the CMP, the program is concerned that the public be fully aware of the significance and value of living resources so that it can enjoy them without endangering the resources or themselves. Hunter safety is an important concern in this regard.

#### CMP LIVING RESOURCES POLICIES

1. THE QUANTITY AND QUALITY OF LIVING RESOURCES HABITAT SHOULD BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE.

Several sections of the document describe CMP habitat preservation measures. Most important are the wetlands policies (Sec. 5.A.1.), the water quality policies (Sec. 5.A.3.), the coastal strip policies (5.A.4.), the nature preserves policies (Sec. 5.B.2.), and the State-owned conservation lands policies (Sec. 5.C.5.). Also noteworthy is DNREC's Endangered Species Program, discussed under Policy No. 6.

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## ENERGY FACILITIES

### A. Introduction

This section incorporates by reference Working Paper No. 7--"The Natural Interest in Resources and Facilities of the Delaware Coastal Zone." That paper presents a detailed analysis of the national, regional, and Statewide energy resources and energy facility needs; the siting criteria for such facilities; the impacts of energy facilities on coastal resources; the balancing of the need for energy facilities with the interest in resource preservation; and a discussion of the CMP policies which reflect that balancing.

Although this section briefly highlights the working paper discussion, its main purpose is to describe the CMP planning process for energy facilities likely to be located in, or which may significantly affect the coastal zone. That process recognizes that current CMP energy policies may be modified during program implementation, depending on a host of unpredictable factors described in the working paper. Thus the siting process provides for review of the energy policies, and a method for their alteration, if appropriate. It also provides for the coordination of energy facility planning and siting with federal, regional, State, and local agencies as these activities may affect the Delaware Coastal Zone. In addition, the process establishes a procedure for assessing the suitability of specific sites for energy facilities. That procedure is also used to anticipate and manage the impacts of energy facilities. Finally, the energy facility planning and siting process considers the national interest in energy facility siting, as well as the national interest in resource preservation. The policies in other sections of the document, most notably the B.A. sections, directly affect energy facility siting and are, in fact, energy siting policies. The legal authorities relied upon to implement the energy facility siting policies are referenced throughout this section and are discussed in detail in Appendix E (Legal Authorities and Organization).

### B. Current CMP Energy Policies

#### 1. Conservation

According to the President, the Nation's economic security and the American way of life will be gravely endangered unless the United States makes a timely adjustment of its use of energy. Oil and gas provide about 75 percent of the country's energy needs, but constitute less than 8 percent of its energy resources. In early 1977, the Nation imported 9 million barrels of oil per day, one-half of the domestic supply. During an 8-month period

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in that year, oil imports were reportedly worth \$23 billion. Moreover, oil and gas supply disruptions have already caused temporary unemployment of more than one million American workers--some of them Delawareans. Finally, most of the known oil and gas supplies are owned by Nations which have uncertain relationships with the United States, a situation which jeopardizes foreign policy and the reliability of future energy imports.

As oil and gas supplies continue to dwindle--one projection estimates that World supplies of recoverable oil and gas will be exhausted by the year 2000--the problems of the adverse balance of trade, energy shortage-induced unemployment, and a weakened foreign policy posture may be aggravated unless the country learns to change its energy consumption habits. Ultimately, new sources of energy must be developed. In the meantime, conservation measures are needed to mitigate the impacts of the energy crisis.

In response to the federal Energy Conservation and Production Act (P. L. 94-385), Delaware's Office of Management, Budget and Planning has developed an Energy Conservation Plan for the State of Delaware. That plan has been approved by the Federal Energy Administration and is hereby incorporated into the CMP by reference. The objective of the plan is to reduce energy consumption in the State by more than 5 percent by 1980. Measures which will be utilized to achieve that goal include, but are not limited to: increased thermal and lighting efficiency in State buildings; industrial and commercial energy audits; homeowner energy audits; legislation allowing right turns on red stoplight signals; strict enforcement of highway speed limits; promotion of the use of carpools and mass transit; waste oil recycling; and several energy conservation educational programs.

The Governor not only has supported energy conservation measures with the development and adoption of the Energy Conservation Plan, but also with two Executive Orders. Executive Order No. 15 restricts the use of air conditioning in State buildings and encourages homeowners to do likewise. Executive Order No. 9 establishes the Governor's Energy Resource Management Commission which, among its other duties has assisted in the development and updating of the Energy Conservation Plan.

By virtue of House Joint Resolution No. 11 (1977), the Delaware General Assembly has also adopted energy conservation as an official State policy. Moreover, the Delaware Energy Act of 1978 implements many of the program steps adopted by the Delaware Energy Conservation Plan, as well as several other energy conservation measures.

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Finally, the CMP reduces the demand for energy by encouraging more energy efficient land-use patterns. Several recent studies have demonstrated that substantial energy savings can result from the clustered form of land development, which is encouraged by the program's public investment policies.

#### 2. Oil Refineries

Oil refinery facilities in the Delaware Valley appear to be ample for the anticipated short-term and, possibly, long-term needs of the region. The Getty Oil Co. refinery capacity at Delaware City exceeds State demands, and makes Delaware a net exporter of refined petroleum products.

Several federal agencies have pointed out that if new sites become necessary, coastal locations are not necessarily required. The coastal resources in Delaware are the State's most important asset. Development near or in such resources may affect: recreation and tourism; fish and wildlife; water quality; wetlands; historical and cultural sites; floodplains; and other resources of national, regional, and Statewide significance. Because of the substantial impact of refineries on coastal resources, the CMP prohibits the construction of new oil refineries in wetlands or in a coastal area defined as the "coastal zone" by the Delaware Coastal Zone Act. That area, hereinafter referred to as the "coastal strip" to avoid confusion with the CMP coastal zone boundary, which is the entire State, lies between a series of inland roads and the Delaware River and Bay. The coastal strip varies from a few hundred yards wide in northern Delaware to a maximum of 12 miles in the south, and is mapped on page

New oil refineries are not prohibited inland by the CMP, provided certain State and local standards discussed below, are maintained.

#### 3. Gas Plants

Outer continental shelf (OCS) development off the Atlantic coast may create a demand for new gas plants in the Mid-Atlantic region of the country. Although there are several types of gas plants, the type with which the CMP is concerned is one which constitutes a "heavy industry use," as defined in the Delaware Coastal Zone Act. Like oil refineries, gas plants do not necessarily require a coastal location. Also like oil refineries, the environmental impact of gas plants is such that the CMP does not permit them in wetlands or the coastal strip. Inland locations are acceptable with the same qualifications as exist for oil refineries.

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#### 4. LNG Facilities

Liquefied natural gas (LNG) facilities are used primarily to make the importation of foreign gas supplies economically feasible. A typical LNG import/export facility consists of a marine unloading pier, a cryogenic pipeline leading from the pier to storage tanks, storage tanks, liquefaction units or vaporizers, and compressors and pipeline facilities to transport the gas.

The national and State interest in promoting reliance on foreign energy supplies is, at best, unclear. It is also unclear that there is any need for LNG facilities in Delaware's coastal strip--the only arguably suitable location in the State for such facilities. What is clear, however, is that LNG facilities that involve large-scale over-water transfer of LNG threaten human life and may significantly impact coastal resources. For all the above reasons, the CMP prohibits these types of LNG facilities in Delaware. Inshore natural gas facilities are permitted provided they can meet the environmental protection measures discussed in Section 5.A. and Appendix E.

#### 5. Deepwater Ports

Deepwater ports used to transfer bulk products, such as oil, are also prohibited in Delaware waters. Under certain circumstances, such ports can serve environmental and economic interests of the Nation. Unfortunately, the impact of a deepwater port within the Delaware Bay on State resources could be drastic. An oil spill from a 200,000 ton tanker in the Delaware Bay, for example, would probably be catastrophic, particularly because of the proximity to valuable wetlands and beaches. Moreover, the dredging and spoil disposal operations necessary to establish and maintain a channel and basin would be extensive in the Delaware Bay, causing certain destruction of marine life and costing millions.

Neither of those problems are presented by offshore deepwater ports sufficiently distant from shore. For that reason, and others, the CMP supports deepwater ports, provided that they meet certain minimum standards. Those standards include a location far enough offshore to minimize oil spill threats to the coast and to obviate dredging requirements; stringent environmental safeguards; and a demonstrated reduction of tanker traffic and lightering in the Bay.

#### 6. OCS Oil And Gas Development Facilities

Facilities which support OCS oil and gas development may include oil and gas platforms, platform fabrication yards, storage depots, crew and supply bases, pipelines, and tank farms.

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## COASTAL MANAGEMENT COORDINATION

### A. Background And Issues

"Coordination" is one of the most frequently used words in government. Committees, policy boards, councils, technical advisory groups (TAC's in the bureaucratic jargon), and a variety of other bodies are established by virtually every agency and unit of government. Generally, these bodies are an attempt to provide a forum for discussion of concerns, resolution of conflicts, exchange of information, the "testing" of concepts or recommendations before they are made public, sent to a legislative body, or otherwise acted upon. The CMP, for example, has its own sounding board, the Coastal Zone Management Committee.

The proliferation of such groups in Delaware once reached the point where a former Governor established a committee on committees to examine the problem and recommend the abolition of unnecessary groups at the State government level. More recently, an Intergovernmental Task Force (officially named the Intergovernmental Task Force on Overlapping Services) was established to examine the overlaps of services among various levels of government which often are the genesis for many coordinative groups.

The basic CMP issue, however, is not so much reducing the number of groups as it is the need for an effective process whereby the various groups can be heard. The CMP balances diverse and often conflicting interests. Substantive inputs into the CMP are necessary to achieve well-informed and reasoned program decisions. By obtaining information necessary for developing the CMP, as well as views on what is proposed for program implementation, many potential conflicts can be resolved before they ripen.

As Section Four (Public Participation Process) indicates, the CMP began coordination with the various units and levels of government early in the program's development. Continued coordination during program implementation will be necessary for program refinement and to avoid conflicts between agencies responsible for program implementation. In Delaware, as in nearly every sizeable coastal area, management of land and water resources is shared by various levels of government and among many separate agencies within these levels. As is noted elsewhere, planning and zoning actions, particularly those which relate to uses of individual parcels, are primarily the responsibility of local entities. Yet, the State government delivers many services generated by locally approved development, and assumes responsibility for those resources determined to be worthy of regulation for the general public's benefit. Many services and responsibilities are shared, some formally such as schools, some less formally such as economic recruitment and promotion. Where such actions complement

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each other, the benefits may accrue to everyone. Where they conflict with each other, the different levels of government often frustrate each other.

Conflicts can also occur within State government. For example, the frequent incompatibility between highways and parks can cause a conflict between objectives of the Delaware Department of Transportation and those of the Delaware Department of Natural Resources and Environmental Control (DNREC). Likewise, industrial recruitment and other development efforts can run afoul of efforts to control or reduce air or water pollution. Preservation of historic or prehistoric sites may also conflict with plans for new facility construction. Inasmuch as the CMP involves policies for both resource preservation and development, coordinative mechanisms are needed to ensure that the various State agencies responsible for implementing the policies are fully apprised of how their actions may affect other CMP objectives.

In many cases the management policies are specific enough to dictate the result without coordination. In others, however, the CMP's flexibility allows the relevant agencies to work together to determine the best approach. The CMP concern, in such cases, is that the agencies consider the CMP concerns and recommendations, as well as each other's viewpoint.

A related issue is the need to recognize and preserve the statutory or traditional separations of powers, duties and responsibilities which have been vested in the individual agencies and units of government. This fundamental issue was acknowledged by the Delaware Tomorrow Commission, a blue-ribbon Commission appointed by the Governor. The Commission recommended enactment of statewide land use planning legislation providing for participation of all levels of government in certain land use decisions, while preserving the traditional rights and powers (a recommendation which the Commission found extremely difficult to accommodate when charged by Governor du Pont with the responsibility for drafting the land use planning legislation).

Finally, coordination processes may become costly in terms of time or manpower commitments, and may impose delays in planning, regulatory, or other management processes. They may also introduce elements of uncertainty and unpredictability into on-going management processes, thereby reducing their credibility or threatening their legality. Thus the processes cannot be so unwieldy that they cause more problems than they resolve.

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B. Coordination Between State And Local Agencies

In Delaware, where local units of government exercise the primary control over land use decisions while the State government provides much of the required public services and facilities, coordination is especially important. Too often in the past a lack of such coordination has resulted in a mis-matching of development and the provision of needed facilities, or the location of major developments which conflict with the plans of local governments or State agencies. To correct this problem, the Delaware Tomorrow Commission drafted (with CMP support) and recommended the adoption of legislation calling for a process that would assure consistency and coordination between levels of government, as well as between government and private enterprise. The legislation, the Land Use Planning Act of 1978, was subsequently enacted and is discussed in detail in Appendix E (Legal Authorities and Organization). Here it is sufficient to note that the Act establishes a formal process by which State and local governments must provide an opportunity for each other to review and comment on proposed actions which may affect each other.

Although the new Land Use Planning Act provides the coordinative device which the CMP relies upon most heavily for State-local consultation, several other mechanisms established prior to development of the CMP will supplement the Act. For example, a Coastal Zone Management Committee, comprised of state, county, municipal, federal, and non-government representatives, was established by Executive Order No. 41 signed by Governor Tribbitt on May 29, 1974. This Committee served in an advisory capacity during program development. A subsequent Coastal Management Committee with specified coordination responsibilities will be established by Executive Order concurrent with program approval (See Part F of this Section). Also, most, if not all, the CMP permit decisions (discussed in Section 5.A.) are preceded by public hearings at which local governments have an opportunity to comment. Conversely, local zoning decisions at both the county and municipal levels are preceded by public hearings. Moreover, the "A-95" Clearinghouse review process discussed below also provides State-local coordination.

C. Coordination Between State Agencies

The primary State coordination mechanisms used to implement the CMP are established by an Executive Orders which will be issued concurrently with program approval. These Orders establish the program as the official management program for the State's coastal resources, require that State department and agencies, to the extent permitted by law, enforce the Program's goals, objectives and policies including the ones appearing in Part - G of this Section, and create a Coastal Management Committee. The State agency officially designated to oversee the program

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will have the responsibility for monitoring and evaluating the management activities of those agencies and departments having specified responsibilities under the program, and shall inform the Governor and the General Assembly of their performance. Executive Order 61 requires all State agencies to cooperate with the designated lead agency. Such cooperation, of course, includes sufficient coordination to ensure that CMP policies are enforced. The Governor, of course, has the authority to resolve issues resulting from possible non-compliance with the program or inter-agency conflicts with program objectives and policies.

CMP policy regarding State coordination in management and public investment is also implemented by Delaware Executive Orders Numbers 29 and 6, as amended, setting up the State and Federal Clearinghouse process and the Capital Projects Review Committee. All agencies and "jurisdictions" have the opportunity to review and comment on projects in order to maximize the achievement of goals and objectives and minimize program duplication" (E.O. #29); and it is State policy "to have measurable objectives for capital improvements and their subsequent operating cost implications." (E.O. #6, as amended).

Applications for federal grants from State agencies or from other entities which must be processed through the State are subject to the Clearinghouse Process. Included are requests for ongoing planning programs, many land use and facility plans (such as the various water quality and recreation plans), and numerous public service programs. A review process provides for input from other agencies and includes an assessment of the requests relative to the State Development Plan and its various components. The report of the Delaware Tomorrow Commission outlining broad State development policy is one component, as will be the Delaware CMP upon approval. Requests are evaluated in terms of policy conflicts, duplications of services, budgetary and public investment impacts, and overall benefits to the public.

Another coordination step occurs through the Capital Projects Management Process developed under Executive Order #6 (as amended) and through the preparation of the State's capital investment budget. The basis for review and recommendation of projects is the State Development Plan and the policies adopted as part of it along with consideration of costs/benefits; capacity and timing of the investment relative to demonstrated/expected need and general land use impacts; and the fiscal capabilities of the State.

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Finally, as indicated elsewhere in the program document, many CMP-related activities require or otherwise involve State agency coordination independent of the mechanisms described above and below. One example is the coordination provided by the Energy Siting Advisory Committee, discussed in Section 5.D.3. and which provides for coordination regarding location of new or expanded energy facilities. Likewise, State agencies consult with the Delaware Division of Historical and Cultural Affairs with respect to actions which may affect historical or cultural sites. The Delaware Office of Management, Budget and Planning consults with DNREC on permit applications filed pursuant to the Delaware Coastal Zone Act. The list goes on, and, with the aforementioned CMP State coordination mechanisms, State agency coordination should be a CMP strong point.

D. Coordination With Federal Agencies And Consideration of National Interests

State-federal conflicts have been minimized through direct involvement of key federal agencies in program development as members of the Coastal Zone Management Committee. Other federal agencies were contacted early and often in the program development process. Section Four documents such contacts. Delaware anticipates that federal interest in the program will continue after program approval and welcomes such continued participation.

The CMP will seek opportunities to invite federal participation in technical/advisory committees established to plan for and manage coastal resources, and will evaluate programs, plans, and grant requests subject to the State Clearinghouse Process for their relationship to federal concerns as well as to State policies. In the latter case, where projects before the Clearinghouse appear to be of potential concern to appropriate federal agencies, they will be notified and offered an opportunity to comment.

During program implementation the CMP will employ several means to consider the national interest in: (1) the planning for and siting of facilities which are necessary to meet other than local requirements and (2) coastal resources conservation and protection.

The designated lead agency for program implementation will assume the primary responsibility for ensuring such consideration. There are three types of occasions which will require that the national interest be considered during program implementation: (1) decisions by State government which involve the planning for or siting of facilities necessary to meet other than local requirements; (2) decisions by local units of government which

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involve the planning for or siting of facilities necessary to meet other than local requirements; and (3) the annual program review. In addition, there are various consultation mechanisms which will give federal agencies and other interested parties an opportunity to present for timely consideration an evaluation of the national interest to State and local decision makers. Some of these mechanisms are described in this section. Others appear elsewhere in the document. An especially important one is discussed in Section 5.D.3., which deals with energy facilities.

As explained above, Executive Order No.61 requires the designated lead agency to monitor and evaluate the management of the State's coastal resources by the various State agencies and local governments. It also requires all State departments and agencies to cooperate to the fullest extent possible with the lead agency. Moreover, Executive Order No.61 requires all State departments and agencies to enforce the goals, policies and objectives of the coastal management program. Thus, the policy in Part F. of this section which calls for consideration of the national interest is enforceable.

The national interest will be considered in the amendment of any State rule or regulation used to implement the CMP and in the planning for and siting of the facilities identified in Working Paper No. 7, entitled The National Interest in Resources and Facilities of the Delaware Coastal Zone. The lead agency may add facilities if it determines that there is a national interest in such facilities. The federal Office of Coastal Zone Management (OCZM) and other federal agencies are invited to assist the lead agency in making that determination.

The lead agency will submit timely written comments addressing the national interest in proposed facilities to the appropriate State departments and agencies with planning or siting authority. The comments will balance the national interest in the proposed facility with the national interest in the preservation of resources. Sources used in that balancing process will include Working Paper No. 7; policy statements from the President; federal laws; statements from federal agencies; testimony from public hearings or other public input; or plans, reports, or studies from federal, State, interstate agencies or local government.

The appropriate State agency will respond in writing to the lead agency's comments in its planning action or siting decision. Such response will summarize the comments and explain how the action or decision reflects the consideration thereof. The lead agency will review that response as part of its responsibility to monitor and evaluate the management of the State's coastal resources pursuant to Executive Order No. 60. In the event that

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the lead agency determines that the response inadequately reflects consideration of the national interest, it will so notify the Governor and re-submit its comments to the appropriate agency, which will then respond anew.

Executive Order No.60 requires the lead agency to submit comments addressing the Coastal Management Program policies and concerns to local land and water use decision makers. The above cited policy which requires consideration of the national interest, will be implemented by the Executive Order and the Land Use Planning Act. Pursuant to Title 29, Section 92 of the Act, the lead agency will make the same types of comments to decision-making of local government as it will to State agencies, as discussed above. The Act requires a written rationale for the local government's decision, which must include a discussion of the lead agency's comments or recommendations, if any. A State review board may require reconsideration of the local decision if the local government fails to adequately consider the comments. It is also important to note that, under the Land Use Planning Act, interested federal agencies must be (1) notified of proposed land use planning actions of greater than local significance; (2) afforded an opportunity to participate in local decision programs; and (3) allowed to submit comments and recommendations on such actions.

The CMP recognizes that the national interests in facilities and resources may change over time. Inasmuch as many of the broad policies in the program cannot be readily reviewed on a case-by-case basis, the national interest in such policies will be reconsidered at least once a year by the lead agency in the annual report to the Governor, the General Assembly, and OCZM.

An additional mechanism for ensuring federal input on projects will be the establishment of joint permit review and processing steps by federal and State agency staffs prior to formal permit action by either party. Initial efforts have been undertaken between State agencies and some federal agencies relative to State/Corps of Engineers approvals, and further action will be taken to institutionalize such processes. Informal coordination, of course, already takes place between many State and federal agencies on a broad range of CMP concerns.

Finally, the "federal consistency" provisions outlined in Appendix F (Section 3) will also be used to make sure that federal actions are consistent to the extent practicable with the CMP.

E. Regional Coordination

Coordination among the localities and states in Delaware's region has been of primary concern since the program development effort began. Actions by neighboring states can directly affect

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Delaware and the value of its coastal resources. In order to provide an opportunity for the states to identify problems of a regional nature and to ensure that compatible approaches to the management of regional resources are being used by the states, Delaware hosted the first of what has become a more or less regular meeting of State CMP staffs. Included in these meetings are Delaware, New Jersey, Pennsylvania, Maryland, Virginia and, more recently, North Carolina, South Carolina, and Georgia.

A higher level coordination mechanism is the Mid-Atlantic Governors' Coastal Resources Council (MAGCRC), an organization formed by the Governors of the states in the region for the purpose of exchanging information, developing policy, and preparing responses to federal agencies on major coastal issues, primarily those relating to outer continental shelf (OCS) development and energy. This group, which involves the Governors and their officials primarily responsible for development of State OCS and energy policy, has met on a somewhat regular basis and has been particularly successful in raising the level and scope of state participation in many federal OCS leasing and regulatory processes.

Another effort, currently only in the developmental stage, is the establishment of a Regional Coastal Information Center. This proposal emanates from a concern of coastal managers and concerned citizens who, on one hand, lack information and, on the other hand, are concerned that research and information gathering programs and projects may be duplicative or fail to address clearly perceived problems. A definite need for a quick response information delivery system has been identified. The information needs are quite diverse, ranging from highly specified environmental data to more general background information on the coastal law. To date, the national Coastal Zone Information Center of OCZM has worked to supply some of the information, but a national center cannot begin to provide the specialized coverage needed at state and local levels.

The Delaware CMP made an initial attempt at closing this gap by funding a Research Clearinghouse effort based on work done by the University of Delaware which related to coastal management. This start was useful, but limited in scope.

New England and the Pacific Northwest have responded to the need for more localized coastal information through the formation of Regional Coastal Information Centers (RCIC). The RCIC approach was first suggested at the national level by OCZM and the Sea Grant Marine Advisory Service. The mid-Atlantic States have proposed a more decentralized and state-specific system, sharing information through common formatting.

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The overall goal of this system will be to provide a readily accessible quick-response coastal information capability for (1) state coastal planning programs and other state and local agencies; (2) scientists and technical personnel needing environmental data and/or bibliographic information; (3) Sea Grant programs; (4) regional fishery management; and (5) the general public.

Delaware's CMP will work with the Delaware Sea Grant Program in support of this proposed system.

Another issue involving regional coordination is more limited in scope and involves the Delaware-New Jersey boundary along the upper Delaware River, particularly as it affects Salem County, New Jersey. As a result of a 1933 U.S. Supreme Court ruling, Delaware's jurisdiction extends to the low water mark on the New Jersey shore. Salem County officials contend that Delaware law, particularly the Delaware Coastal Zone Act, unduly precludes development along the Delaware River in New Jersey. Delaware officials and CMP staff members met with Salem County officials to discuss the matter. While Delaware understands Salem County's concerns, there is no clear evidence that New Jersey has suffered any adverse effects. The creation of a "no-man's zone" in the River would raise serious administrative and legal problems. Thus, a cooperative exchange of information between the parties is deemed the best solution for avoiding potential problems. To facilitate the exchange of information, Delaware has agreed to share information on Coastal Zone Act applications, where appropriate, with Salem County and has asked Salem County to notify it whenever an impending development in their county could raise the jurisdictional difficulty. In any event, only a few possible uses would cause problems. For example, single purpose (use) piers extending into the Delaware River, the most likely regulatory issue, would require a Delaware Coastal Zone Act application permit, but experience under the Act involving Delaware and Pennsylvania indicates that such applications can be processed to the satisfaction of all parties.

Finally, a long-standing mechanism for coordination in the Wilmington area, the Wilmington Metropolitan Area Planning Coordinating Council (WILMAPCO), is significant to the CMP. Municipal, county, and State representatives from Delaware, Maryland, and New Jersey work together in WILMAPCO to resolve interstate and intrastate issues affecting the Wilmington area.

## F. Overall CMP Implementation

Executive Order \_\_\_ establishes a Coastal Management Committee to be comprised of private citizens and officials from State, county and local governments to provide oversight and coordination regarding program implementation. Among the duties of the Committee are:

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- 1) Advice regarding applications for Section 306 funding, including review of proposed annual work plan, etc;
- 2) Where required under the CEIP Intrastate Allocation Process, approval of applications for CEIP grants and loans;
- 3) Monitor CMP implementation on a regular basis to ensure that the Program is achieving stated objectives;
- 4) Review and offer recommendations on federal actions subject to consistency determinations and certifications;
- 5) Provide an informal mechanism, as appropriate, for the review of plans, major development projects, capital programs, etc., covered by the Land Use Planning Act (this would not substitute for the process established by the Act but would allow for informal discussions of issues which are subject to the Act's provisions);
- 6) Recommendation and approval of CMP amendments, including designation of Areas of Particular Concern/Special Management areas, etc; and
- 7) Function as a special problems advisory group where major development projects, changes in federal, state or other law or regulation, variations in funding levels, or other matters necessitate coordination, comprehensive review, and mutual action.

This mechanism, combined with those listed above, provides a comprehensive framework for intergovernmental and interagency coordination, and on-going private sector participation, which will ensure that Delaware's Coastal Management Program is effective and meaningful.

G. Coordination Policies

1. STATE AND LOCAL UNITS OF GOVERNMENT RESPONSIBLE FOR IMPLEMENTING THE CMP SHOULD PROVIDE AN OPPORTUNITY FOR EACH OTHER, FEDERAL AGENCIES, AND OTHER INTERESTED PARTIES TO REVIEW AND COMMENT ON PROPOSED ACTIONS WHICH MAY AFFECT EACH OTHER, FEDERAL AGENCIES OR OTHER INTERESTED PARTIES.

5.E.

This general policy will be implemented by the mechanisms discussed above. The details of the most important mechanism--the process established by the Delaware Land Use Planning Act--appear in Appendix E (Legal Authorities and Organization). It will also be implemented through the Coastal Management Committee established by Executive Order \_\_\_\_.

2. STATE AND LOCAL UNITS OF GOVERNMENT RESPONSIBLE FOR IMPLEMENTING THE CMP SHOULD ACTIVELY CONSULT WITH OTHER LOCAL, STATE, FEDERAL, REGIONAL AND PRIVATE ENTITIES TO THE EXTENT NECESSARY TO PROVIDE FOR ADEQUATE COORDINATION, AS WELL AS INFORMED AND REASONED PROGRAM DECISIONS.

This policy simply recommends that the CMP implementation agencies coordinate their activities with others even if those others do not take the initiative pursuant to Policy No. 1.

3. STATE AGENCIES RESPONSIBLE FOR IMPLEMENTATION OF THE CMP SHALL COORDINATE THEIR CMP-IMPLEMENTATION RESPONSIBILITIES WITH EACH OTHER TO THE EXTENT NECESSARY TO ASSURE WELL-INFORMED AND REASONED PROGRAM DECISIONS.

This policy shall be enforced, if necessary, by the Office of the Governor pursuant to the Executive Order calling for CMP implementation. As the discussion above indicates, there are several additional State coordinative mechanisms for CMP implementation.

4. ALL STATE AGENCIES AND LOCAL UNITS OF GOVERNMENT SHALL CONSIDER, PRIOR TO ANY CMP DECISIONS, THE NATIONAL INTEREST IN (1) THE PLANNING FOR AND SITING OF FACILITIES WHICH ARE NECESSARY TO MEET OTHER THAN LOCAL REQUIREMENTS, AND, IN CONJUNCTION WITH SUCH PLANNING AND SITING, (2) COASTAL RESOURCE CONSERVATION AND PRESERVATION.

Again, the preceding discussion and Appendix E. provide the details of how this policy will operate in practice, as well as the authority for it. The facilities and resources to which the policy applies appear in Working Paper No. 7.

## APPENDIX D - BOUNDARIES

The federal Coastal Zone Management Act (CZMA) requires that the CMP identify the boundaries of the coastal zone subject to the management program.

Working Paper No. 2 provides background information on the requirements, and the various options considered during the course of program development. These options included biophysical boundaries -- such as wetland drainage areas, flood hazard areas, watersheds, and the ten foot elevation contour; and institutional boundaries, such as the coastal counties, the Delaware River Basin Commission Boundary, and the areas delineated under Section 208 of the Federal Water Pollution Control Act of 1972.

There are four elements to the CMP boundary: (1) the inland boundary; (2) the seaward boundary; (3) excluded lands; and (4) interstate boundaries.

### 1. The Inland Boundary

According to the CZMA, the inland boundary must include those lands, "the uses of which have a direct and significant impact on coastal waters." "Coastal Waters" are those waters which contain a measurable quantity or percentage of seawater. In Delaware, there are no lands more distant than eight miles from coastal waters. Inasmuch as the primary purposes in defining the boundary are (1) to assist coastal residents and property owners as well as resource users and governmental entities to understand the geographic scope of the management program and (2) to identify areas eligible for Coastal Energy Impact Program assistance, an inland boundary which can be described in a manner which is sufficiently clear and exact for such purposes is obviously preferable over one that is not. By defining the inland boundary in terms of existing political jurisdictions, the objectives of clarity and exactness can be realized. Thus the Delaware CMP has elected to utilize its county boundaries to define the inland boundary.

The federal Office of Coastal Zone Management (OCZM) has suggested that the utilization of county boundaries which border coastal waters is an acceptable option for many of the coastal states, including Delaware where such boundaries encompass the entire State. Defining the CMP inland boundary in terms of landward boundaries of the State has several advantages.

One, that small area in the State which is relatively distant from coastal waters does not have to be precisely identified and mapped for exclusion. Two, the CMP does not have to struggle with the definition of what constitutes a "direct and significant impact on the coastal waters." Instead the CMP recognizes that certain large-scale uses within eight miles of coastal waters may have such impacts and that the inland boundary should therefore include the entire State. Three, by including all the State in the inland boundary, anyone in Delaware who may be adversely affected by energy development will be eligible to apply for assistance under the Coastal Energy Impact Program.

It is noteworthy that, during the course of program development, several comments were received which advocated adoption of a relatively small inland boundary. Given the pervasive influence of coastal waters in Delaware, however, OCZM and OMBP mutually concluded that such a boundary would not satisfy the legal mandates of the CZMA. At best, only a small portion of the State could be rationally excluded pursuant to the requirements, and such exclusion was deemed not worth the attendant administrative difficulties.

It should also be pointed out that most of the CMP regulatory controls apply only in those areas traditionally viewed as coastal areas, not the entire State. Such areas include the wetlands, beaches, coastal strip (the Delaware Coastal Zone Act's "coastal zone"), and underwater lands. The entire State will be subject only to the provisions of the broader program - - primarily coordination, information systems, and the water and air quality programs.

## 2. The Seaward Boundary

The seaward boundary is clearly defined in the CZMA. It is the three mile outer limit of the United States territorial sea. The lateral seaward boundaries between New Jersey and Delaware, and Delaware and Maryland have not been determined yet. The boundary in the Delaware River and Bay however, has been fixed according to a United States Supreme Court decision and is approximately the mid-channel of the River and Bay. It is anticipated that the States may have difficulty agreeing upon the remaining boundaries, and that OCZM may have to delimit them, subject to court review.

Regardless of what seaward boundaries are ultimately used, it is important to bear in mind that they will be used for purposes of this program only and represent the area within which the CMP may be authorized and financed. These seaward limits are irrespective of any claims the State may have by virtue of the Submerged Lands Act or any changes that may occur as a result of the Fisheries Conservation and Management Act of 1976.

### 3. Excluded Lands

States must exclude from their coastal management zone those lands owned, leased, held in trust or whose use is otherwise by law subject solely to the discretion of the federal government. These lands are identified on the following page.

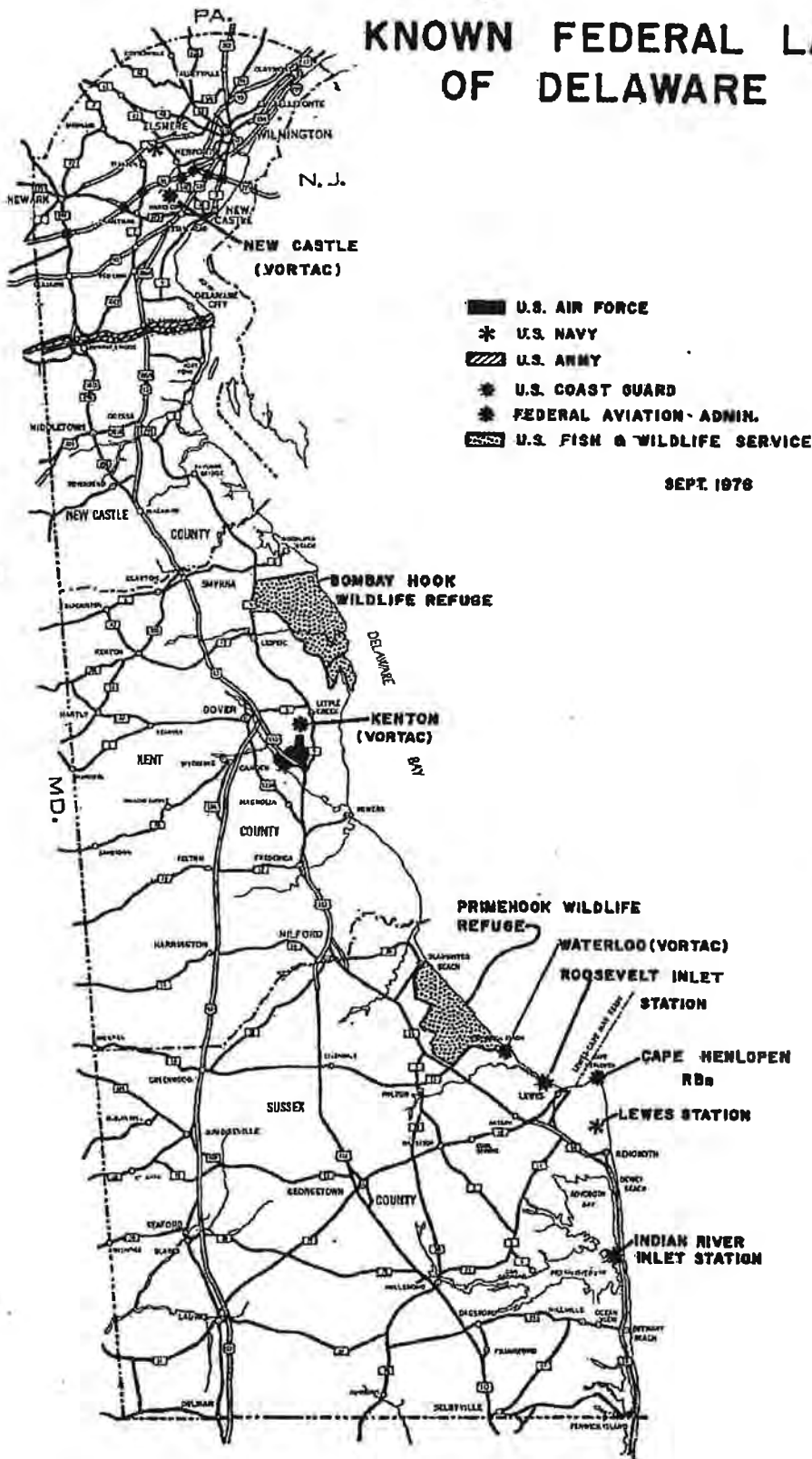
The exclusion of federal lands does not remove federal agencies from the obligation of complying with the consistency provisions of Section 307 of the CZMA when federal actions on these excluded lands have spillover impacts that significantly affect coastal areas, uses or resources within the purview of the CMP. Nor does such exclusion impair in any way any rights or authorities that the State may have over federal lands that exist separate from this program.

### 4. Interstate Boundaries

Although inland coastal management boundaries of contiguous States need not be coterminous, Delaware has consulted with adjoining coastal States during program development to minimize the possibility of incompatible uses occurring at the juncture of the boundaries. Several meetings were attended by the CMP managers and staffs of Delaware and the adjoining States to discuss a myriad of program development issues, including resource use compatibility. In addition, WILMAPCO, which is comprised of representatives from Delaware, Maryland and New Jersey, has addressed various CMP-related issues, including the boundary situation in Salem County created by the United States Supreme Court decision alluded to above. That decision subjects parts of waters bordering Salem County, New Jersey to the Delaware Coastal Zone Act. Inasmuch as coastal resources of Delaware may be affected by certain uses of such waters, the Delaware CMP has opposed Salem County efforts to waive the Act's regulatory provisions which may impair development in Salem County.

Two other specific interstate boundary issues taken up by the CMP with adjoining states include (1) the development and implementation of a statewide sediment and erosion control program which is based on a similar program in Maryland, and (2) the review of a New Jersey-Delaware fisheries compact. The latter action generated a Delaware Attorney General's Opinion which has afforded the State increased and needed flexibility in managing its fishery resources.

# KNOWN FEDERAL LANDS OF DELAWARE



SEPT. 1978





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# OPTIONS FOR NEW JERSEY'S DEVELOPED COAST

A PREVIEW OF A STATE COASTAL  
MANAGEMENT PROGRAM FOR  
PARTS OF:

SALEM, GLOUCESTER,  
CAMDEN, BURLINGTON,  
MERCER, MIDDLESEX,  
SOMERSET, UNION,  
HUDSON, ESSEX,  
PASSAIC, AND BERGEN  
COUNTIES

MARCH 1979



DEPARTMENT OF ENVIRONMENTAL PROTECTION

Brendan Byrne  
Governor

Daniel J. O'Hern  
Commissioner

**OPTIONS FOR NEW JERSEY'S DEVELOPED COAST:**

**A Preview of a State Coastal Management Program for Parts of  
Salem, Gloucester, Camden, Burlington,  
Mercer, Middlesex, Somerset, Union, Hudson,  
Essex, Passaic and Bergen Counties**

**March 1979**

**New Jersey Department of Environmental Protection  
Division of Marine Services  
Office of Coastal Zone Mangement  
P.O. Box 1889  
Trenton, New Jersey 08625**

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STATE OF NEW JERSEY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DANIEL J. O'HERN, COMMISSIONER  
P. O. BOX 1390  
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609-292-2885

MAR 1 1979

Dear Reader,

This report addresses one of New Jersey's most valuable and least recognized resources—the waterfront areas along the Hudson and Delaware Rivers and their tributaries. We refer to these areas as the "Developed Coast" for convenience, although they do contain many relatively natural sites, in addition to parts of the State's largest cities. These areas offer New Jersey dramatic opportunities to develop unique recreational, commercial and industrial waterfront activities, while contributing to efforts to revitalize urban areas.

In recent years, increased national attention has been focused on the waterfront both through the passage and subsequent use of the federal Coastal Zone Management Act, and through a growing recognition that urban waterfront areas have the potential to make a significant contribution to more general urban redevelopment. This attention has led to remarkably similar recommendations from a variety of interested groups. The major, and most challenging issue facing us now is how these recommendations can be turned into reality.

Options for New Jersey's Developed Coast is a preview of the second part of the State's coastal management program being prepared under the federal Coastal Zone Management Act. The first part, for the Bay and Ocean Shore Segment, received federal approval in September, 1978. We have deliberately kept this report as short as possible. A significant amount of background material is included in a separate volume of Appendices which is also available from this Department.

As the title implies, this report provides alternatives which require public discussion and debate. Preferences are expressed for certain options in some sections, but that by no means indicates that the issue is closed. I urge you to comment upon the options described and to suggest ideas which we may not have yet considered. Comments received by July 2, 1979 will be accepted and fully considered. If you have received this report in time to submit initial comments by April 2, that would be particularly helpful.

We make no pretense of having all the answers. This report and the coastal management program we plan to design from it can, however, be the beginning of a coordinated effort by public and private groups and individuals to appreciate and use the resources of New Jersey's Developed Coast.

Very truly yours,

Daniel J. O'Hern  
Commissioner

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## CHAPTER ONE: INTRODUCTION: COASTAL MANAGEMENT IN NEW JERSEY

The Department of Environmental Protection has prepared this report to help New Jersey design a coastal management program for the tidally influenced waterfront areas in the northeastern part of the state along the Hudson River and related waters, and in the Hackensack Meadowlands, and in the southwestern part of the state along the Delaware River and its tributaries. These areas are referred to as the "Developed Coast".

New Jersey, along with other coastal states, is using the federal Coastal Zone Management Act of 1972, as amended, to prepare a program intended to promote the wise use of its coastal areas. The Governor has assigned this responsibility to the Department of Environmental Protection (DEP). The New Jersey program is being developed in two parts. The first part, called the Bay and Ocean Shore Segment, includes the area from the Cheesequake Creek in Middlesex County, then south of Sandy Hook to the tip of Cape May and then north along the Delaware Bay to the Delaware Memorial Bridge. The coastal program for this area received federal approval on September 28, 1978. The second and final part of the program will be the Developed Coast and will integrate both phases of the effort into a single program.

This report, as its name implies, describes the major options available to the State as DEP develops the state's management program for the Developed Coast. Although there are a large number of theoretical program options, the Department has given greatest emphasis to the alternatives which appear to be most desirable and feasible. DEP will build upon the information presented here and in a companion volume of appendices, and the public responses they evoke, to prepare a draft coastal management program for the Developed Coast, expected by Spring 1979. DEP then expects to revise the draft program, based upon public comment on both it and on this preview, to complete a final program by Summer 1979.

The phrase "Developed Coast" is used because the areas discussed in the report are, in general, more developed than much of the Bay and Ocean Shore Segment. The reader should remember, however, that this phrase does not provide a complete picture of the region since some of the areas, along the Delaware and Raritan Rivers, for example, are quite undeveloped. Once New Jersey's entire coastal program receives federal approval, the distinction between the two regions should be unnecessary. In the interim, DEP will refer to the "Developed Coast" while welcoming suggestions for a more accurate name for the area.

This report raises more questions and problems than can be directly answered or solved by the coastal management program. This approach risks the raising of false expectations and ultimate disappointment even if the program does make significant, though only partial, progress towards the defined objectives. DEP has chosen this approach, however, in an effort to address honestly the problems and opportunities presented by New Jersey's more developed coastal areas.

This document represents the second step of a five step process the Department of Environmental Protection is using to prepare the State's coastal management program for the Developed Coast, and thus obtain federal approval for its statewide

program. The first step was the Department's efforts to collect data and viewpoints, and meet with interested individuals and groups during the last four years. These activities are summarized in Appendix A.

The next step will be preparation by DEP of a draft environmental impact statement (DEIS) of the coastal management program for the entire state. Publication of this document in early May will begin the formal review process for the approval of state coastal programs employed by the federal Office of Coastal Zone Management in the National Oceanic and Atmospheric Administration (NOAA-OCZM). The DEIS will combine into one document the program approved in September 1978 for the Bay and Ocean Shore Segment with the proposed program for the Developed Coast. This will provide an opportunity to consider changes to the Segment program, in addition to leading toward the completion of the entire State's coastal program.

The fourth step will be the public review and comment on this Options report and the DEIS. Between the publication of this report and July 2, 1979, DEP will schedule public meetings with many interested public agencies and interest groups. Also, people representing residents, federal, state, county or municipal elected representatives or agencies, regional planning groups, or interest groups with environmental, civic, residential or industrial development, or other concerns are invited to contact DEP to arrange other meetings. The Department will also accept written comments during this period. In addition, following publication of the Draft Environmental Impact Statement expected in May, DEP, in coordination with NOAA-OCZM, will hold formal public hearings on the state's proposed coastal management program.

DEP will then use the public comments to refine and, where necessary, rewrite the State's proposed coastal management program. This is the fifth and final step in the coastal program completion process. The product of this effort will be a final environmental impact statement. DEP will then ask the Governor to submit the coastal program to NOAA-OCZM for federal approval. DEP expects to seek this federal approval by September 1979.

Assuming that NOAA-OCZM approves New Jersey's program, the State will then become eligible to receive an estimated annual grant of \$1.4 million beginning in September, 1979, to implement the coastal program, and an estimated \$1.8 million in grants and \$4 million in credit assistance under the Coastal Energy Impact Program. In addition, the Federal Consistency provision of the federal Coastal Zone Management Act will apply throughout New Jersey's coastal zone. These provisions are described in the end of Chapter III.

A major part of the program implementation grant New Jersey receives will be used to administer the State's coastal permit programs which would otherwise be funded from the State budget. In addition, however, DEP intends to use part of the grant to initiate or promote specific state, county or municipal projects which would help further the Suggested Basic Coastal Policies described later in this Chapter. Thus, a municipality could apply to DEP for up to \$25,000 to conduct a feasibility study for a specific project which would increase recreational, commercial, or industrial use of the waterfront in a manner consistent with the State's coastal policies. DEP expects that these small grants could also be used, in combination with funds available from other public and private programs, to stimulate larger projects.

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years.

In effect, this report is an outline of the state's coastal management program for the Developed Coast. Substantial additional information is included in a separate volume of Appendices. Many sections of the report include preliminary recommendations based on the knowledge and judgement of DEP staff. These recommendations are included both in the interest of candor and to help stimulate and focus public discussion and debate.

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The next section of this Chapter describes the Suggested Basic Coastal Policies which indicate the recommended direction of the state coastal management program. Chapter II then describes the current character of the different regions within the Developed Coast. The descriptions also identify major issues related to the waterfront, and explore in general terms the direction the coastal management program could take in each region.

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Chapter III describes the proposed boundary of the coastal zone and how the coastal policies can be carried out in New Jersey's developed coast. In many ways, this is the most complicated and potentially controversial part of this report. The boundary must be considered in the context of the management system and of the suggested Coastal Policies, since the boundary eventually selected will be the area within which the coastal policies and management system are applied. DEP recommends that the program be implemented through existing laws. This means that the current process for making land and water use decisions will be largely unchanged, except that state decisions will be based on the Basic Coastal Policies and on the policies described in Chapter IV and in the Appendices, and municipalities and other decision-making agencies will be offered the policies as advisory input to their decisions. This Chapter also describes an alternative based upon proposed new legislation which would dramatically alter the decision-making process if it was chosen and approved by the Legislature and Governor. This option is presented to stimulate thought and discussion, but is not recommended at this time because it would be difficult to enact given the deadlines for federal approval of New Jersey's coastal management program.

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The fourth chapter contains a summary of the Suggested Specific Coastal Policies found in the Appendix volume and a discussion of major land and water use issues in the more developed parts of the coastal zone.

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The last section of this report is a detailed table of contents of the separate volume of Appendices. The eight appendices address important coastal issues and will be supplied by DEP to any interested reader. They are being distributed in a separate more lengthy document so that this report, of probable interest to more people, could be kept relatively short. Two appendices of particular interest are Appendix B which defines the proposed coastal zone boundary and includes 35 maps, and Appendix H which includes the entire set of Coastal Resource and Development Policies adopted for the Bay and Ocean Shore Segment, with suggested revisions.

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#### Suggested Basic Coastal Policies

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The eight Suggested Basic Coastal Policies summarize the major choices and the basic direction recommended by DEP for New Jersey's coastal management program. The first four basic policies were adopted for the Bay and Ocean Shore Segment and are proposed here, with one modification, for the entire coastal zone. DEP is proposing four additional basic policies which would also apply to the entire coastal zone, but would highlight issues of particular importance in the Developed Coast.



1. Protect and Enhance the Coastal Ecosystem

Note: As adopted for the Bay and Ocean Shore Segment, this basic policy said only "Protect the coastal ecosystem". The added words are intended to make the policy applicable to the entire coastal zone.

Although severely stressed by centuries of use as a waste disposal area, the estuarine complex which makes up the Developed Coast is showing some signs of recovery under the influence of recent federal and state water quality legislation and resulting waste treatment facility construction. Portions of the Hackensack Meadowlands, for example, are witnessing a return of species absent for many years due to poor water quality. While the industrial and commercial nature of the waterfront together with high population densities preclude reattainment of the pristine conditions of the distant past, it is not unreasonable to expect that ambient standards set under the Federal Clean Air Act and Federal Clean Water Act can be attained, that certain natural areas can be restored, and that the urban waterfront can once again provide recreational and employment opportunities for area residents.

The ecosystem of the Bay and Ocean Shore Segment is fragile and special, and is characterized by a combination of beaches and the ocean, tidal and inland wetlands, flood plains, estuarine areas, bays, stream and stream corridors, vegetation communities and wildlife habitats. These natural features make the area a desirable place to visit, which in turn fosters the state's tourist industry. The same features make the coastal region a productive area for agriculture and commercial and recreational fishing. If the ecosystem is not protected, not only will natural resources and processes be harmed, but the economy of the area and of the state will suffer.

2. Concentrate Rather than Disperse the Pattern of Coastal Residential, Commercial, Industrial and Resort Development and Encourage the Preservation of Open Space

The special characteristics of the coast attract many different types of development to an area which is limited in size. The concentration of development is the most efficient way to use this limited space because it allows a large variety of activities to be located in the Coastal Zone while minimizing conflicts which could occur between activities such as industry and housing if they were located near each other. In addition, the concentration of development can provide large expanses of open space which can, in some areas, be more useful to the public than a similar amount of open space scattered among many small private parcels. The policy to concentrate development does not apply to nuclear generating stations and liquefied natural gas (LNG) facilities.

3. Employ a Method for Decision-Making Which Allows Each Coastal Location to be Evaluated in Terms of Both the Advantages and the Disadvantages It Offers for Development

Traditionally, land and water use planning has focused exclusively on environmental features which offer disadvantages for development or which should be preserved. Each location, however, can also be evaluated in terms of the advantages it offers for development. A site near existing roads, for example, could be developed with less coastal and environmental disturbance than a more isolated site. This policy insures that both types of factors will be considered in decision-making under the Coastal Management Program.

4. Protect the Health, Safety and Welfare of People who Reside, Work and Visit in the Coastal Zone

This basic policy is a reminder that people use the coast for different purposes and have different needs and expectations. The quality of human life improves if needed development is built in a manner which respects the natural and built environment.

5. Promote Public Access to the Waterfront and At Least One Waterfront Park in Each Waterfront Municipality

Along much of the Developed Coast, highways or underutilized private property prevent residents from being able to walk, fish or otherwise enjoy the shores of rivers and bays. In some locations, high-rise buildings immediately adjacent to the waterfront block visual access to the water. Discouraging new highways and high-rise buildings adjacent to the waterfront, providing pedestrian bridges over existing highways, publicly purchasing selected waterfront properties, and obtaining easements for public access over other properties can increase the value of the waterfront to the surrounding communities.

The waterfront in much of the coastal zone does provide sites where urban and suburban residents can relax, walk, fish, or play, even in areas where swimming is not currently advisable. The waterfront offers views of boats and shorelines, fresh breezes and a sense of openness not otherwise available in most urban areas. Waterfront parks, by bringing people to the waterfront, also help raise public consciousness about water quality and waterfront use and development.

Waterfront parks do not have to be large or elaborate. The success of Liberty State Park in Jersey City has demonstrated that an attractive, green area by the water can attract many people. It has also proved that a park can be extremely beneficial in a location which many believed was unsuited to a park. Nevertheless, for some municipalities in the Developed Coast, a waterfront park may make little sense due to the lack of an appropriate site or too small a nearby population. The specific policies on recreation, therefore, will exempt such areas from the policy.

6. Maintain Active Port and Industrial Facilities, and Provide for Necessary Expansion in Adjacent Sites

The Developed Coast includes thriving port and industrial facilities along both the Northern Waterfront and the Delaware River Areas. The continued vitality of these facilities is important to the state's economy and helps New Jersey contribute to several national interests.

7. Maintain Existing Energy Facilities, and Site Additional Facilities Determined to be Necessary by the N.J. Department of Energy in a Manner Consistent with the Policies of this Coastal Management Program

The Northern Waterfront and Delaware River Areas of the Developed Coast contain many of the East Coast's energy facilities. These have helped New Jersey achieve its preeminence as an industry leader and will contribute to meeting the national need for energy in the future. Provided these facilities conform with federal air and water quality standards, they will be unaffected by the coastal management program.

The New Jersey Department of Energy (DOE) is responsible for determining what new energy facilities are needed in the State. DEP will use the specific policies of the coastal management program to ensure that the facilities determined to be necessary by NJDOE are located on sites where they can operate efficiently without threatening the health or welfare of area residents or natural resources.

8. Encourage Residential, Commercial, and Recreational Mixed-Use  
Redevelopment of the Developed Waterfront

Sections of abandoned and deteriorating waterfront property are suitable for residential, commercial or recreational reuse depending on their location. DEP will aid counties, municipalities, and developers in design of plans and programs to redevelop these lands to more beneficial uses.

The waterfront in or near urban areas can be creatively designed and used to accommodate diverse activities which might, at first glance, be considered infeasible or incompatible. Waterfront projects will be encouraged which include, for example, commercial development such as restaurants and stores, housing, and public open space.

Others have suggested combining industry and ports with recreation and education. If safely constructed, for example, a bike path could follow the outskirts of an industrial facility to a park, or a public area near a port could be designed to give people a view of the port in action, much the way the more familiar "nature interpretative trails" offer ecological understanding.

This Basic Policy is a recognition that developed waterfront areas in New Jersey, because of the views they offer and the large nearby population, provide unique opportunities for nontraditional, as well as traditional, forms of development and redevelopment.

## CHAPTER II: DESCRIPTION AND VISIONS OF THE DEVELOPED COAST

This Chapter describes the character of the geographic area addressed by this report and presents visions of the future which either appear likely or which staff of the Department of Environmental Protection believe are both desirable and achievable. It should be noted at the outset that the visions represent subjective judgements based upon visits to the areas, discussions with local residents and officials, and review of previously prepared reports, studies and plans.

The length and diversity of the developed coast suggests that it be described in segments. In this Chapter, the Northern Waterfront area is discussed first, followed by the Delaware River Area, and then the Hackensack Meadowlands.

### The Northern Waterfront Area

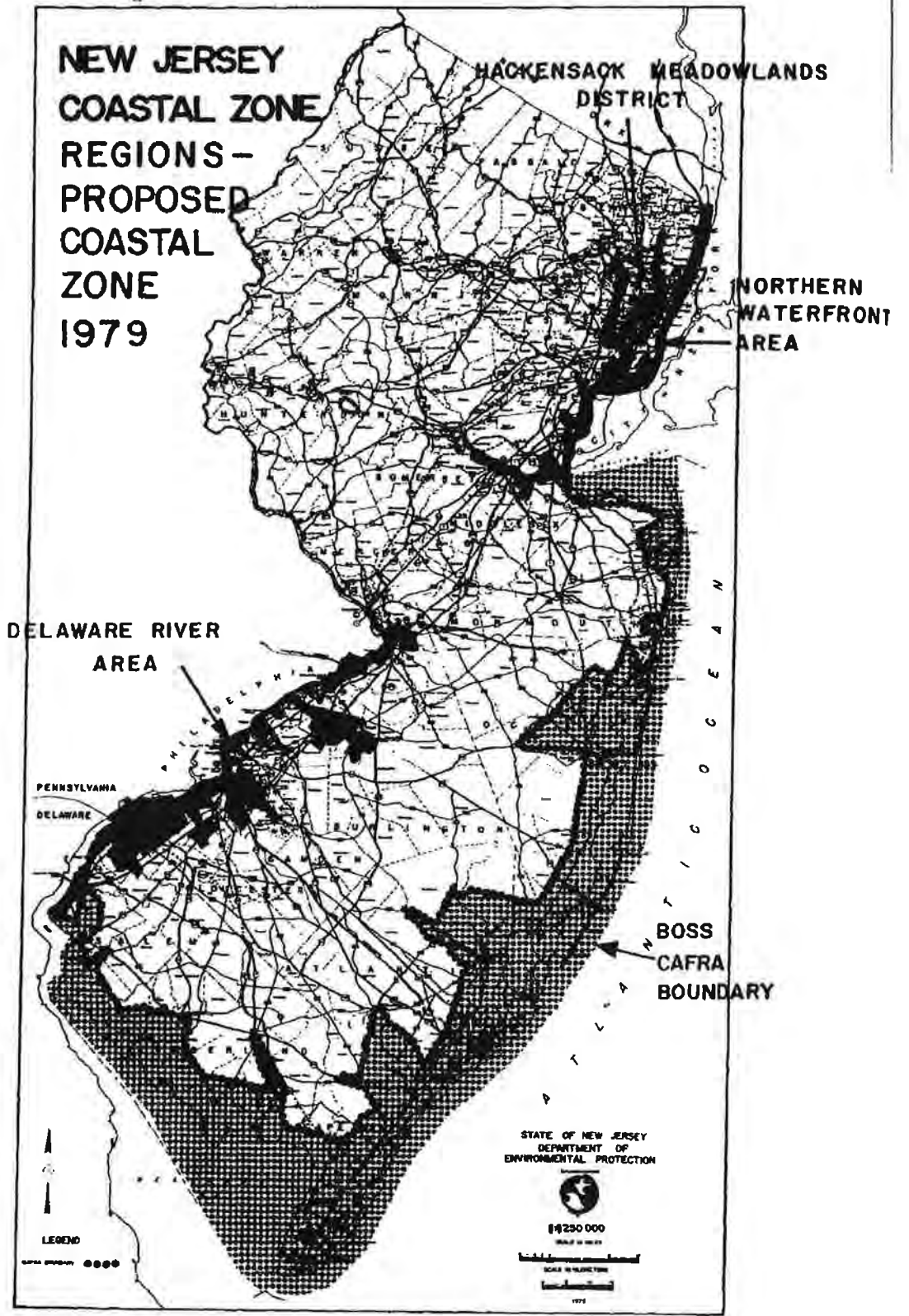
The Northern Waterfront is marked by diversity in its 60-mile stretch from Piscataway Township in Middlesex County to Alpine Borough in Bergen County. Present vistas of the waterfront range from high-rise apartments above the Palisades to broad tidal wetlands along the Raritan and South Rivers. The only common feature of the Northern Waterfront is that it has all been touched by human activity. A Coastal Management Program for the Northern Waterfront will seek to maintain the diverse character which sets apart the different sections of the waterfront, but it will also promote some changes in the use of the waterfront.

Much of the waterfront is currently occupied by underutilized or abandoned industrial or transportation facilities. Some of these sites could be assembled for new labor-intensive industrial uses while others could be redeveloped as park land or for commercial use. Much more of the waterfront could be made accessible to the public, while water quality could be improved to allow recreational boating at many points. Residential areas near the waterfront would then become more desirable places to live, both because of improved access to a cleaner waterfront and because of buffering from industrial and transportation facilities.

The Northern Waterfront will be addressed in this section by first traveling down the outer waterfront from the Palisades to Raritan Bay and then moving up the tidal portions of the region's rivers. Although the character of the northern waterfront can change dramatically in a short distance, segments of different rivers often show similar characteristics. The Upper New York Bay and Arthur Kill-Newark Bay regions -- the core area of the Northern Waterfront -- are similar industrial port districts which have known better days, but they are physically separated by the residential waterfront of Bayonne. The Upper Hackensack, Passaic and Rahway River segments, likewise, have similar urban/suburban waterfronts, while the Elizabeth and Perth Amboy Waterfronts have a similar urban residential character.

The Hudson River Region - The Hudson River shoreline from the New York State line to the George Washington Bridge, a distance of ten miles, is protected from development as part of the Palisades Interstate Park. In the future, it will remain unspoiled and continue to provide a spectacular vista of the Palisades Cliffs as they rise from the river.

Figure 1



Below the George Washington Bridge, the northern waterfront takes on a two-tiered character, with uses on top of the Palisades entirely different from those below. For the twelve miles from the Bridge to Liberty State Park in Jersey City, the narrow waterfront between the cliffs and river is in large part the scene of railroad yards and docks, many of them underutilized or abandoned. At the top of the cliffs are suburban-type residential neighborhoods with an increasing number of high-rises. Because not all of the waterfront area is needed for rail and ship transportation facilities or for new industrial facilities, the creation of waterfront parks to meet the recreational needs of the densely populated neighborhoods atop the cliffs is both desirable and feasible. Because of severe traffic congestion on top of the cliffs and the lack of a mass transit system, an end to the indiscriminate construction of high rises in this area may be desirable. In particular, some have suggested that no new high rises should be constructed between Route 505 (Boulevard East) and the River, as such construction would further limit public access to the waterfront.

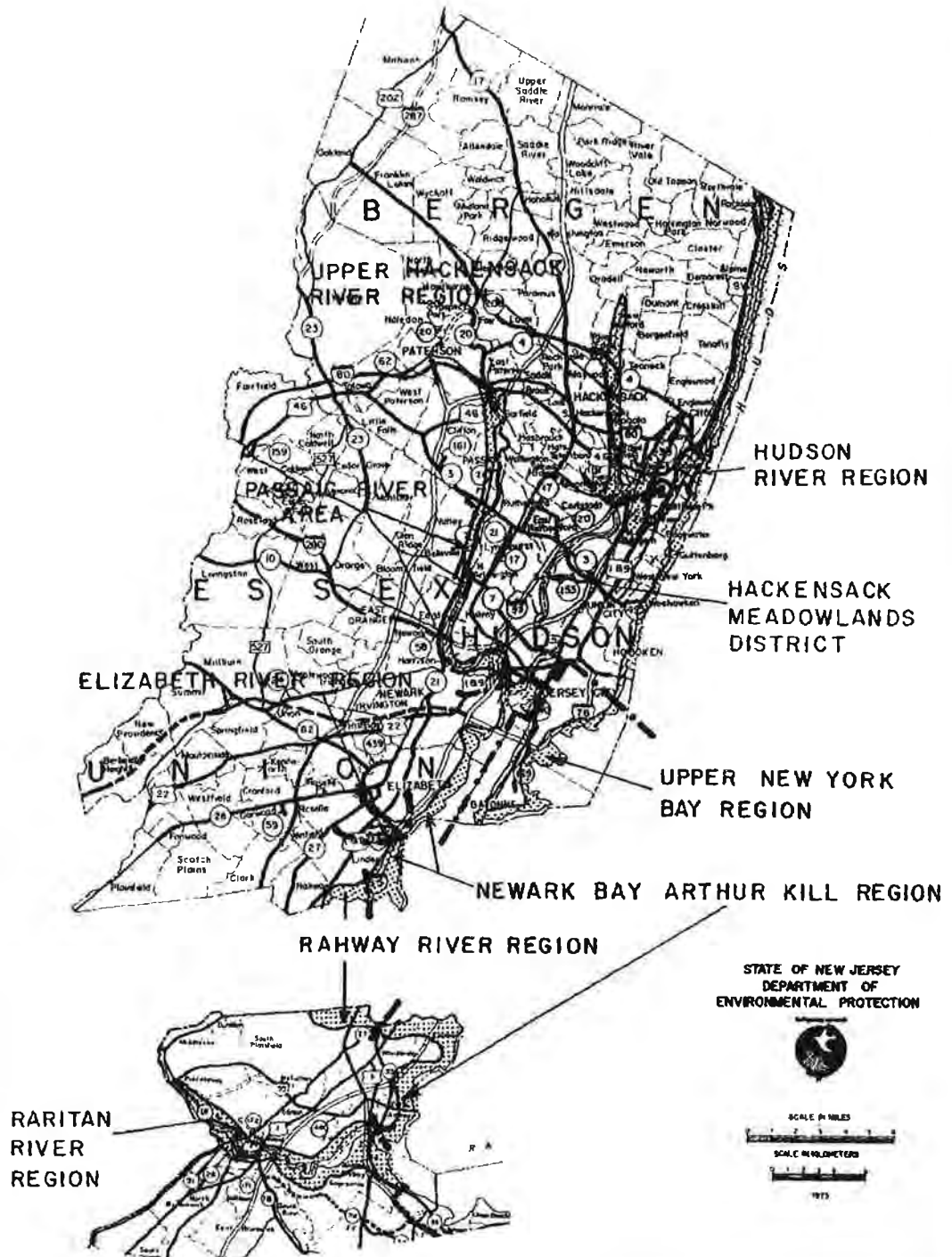
Liberty State Park in Jersey City, already the most popular facility of the state park system, will continue to be a chief recreational facility for the inner core of the Northeast New Jersey Metropolitan Region. Planning is underway for future recreational development of the park and for the transformation of the abandoned Central Railroad of New Jersey terminal within the Park into an activity center, as part of the revitalization of surrounding residential development in Jersey City. The City of Hoboken is pursuing similar plans for the Erie-Lackawanna terminal.

Upper New York Bay Region - South of the Park, the waterfront is much the same as it is to the north except that the transportation-oriented waterfront area is wider and the residential sections of Jersey City are separated from the waterfront by the New Jersey Turnpike. For these reasons, this segment of the waterfront may be an appropriate area for industrial redevelopment as suggested by the Port Authority of New York and New Jersey. Further south, in Bayonne, industrial facilities and oil storage tanks occupy the Kill Van Kull waterfront, with residential neighborhoods in close proximity. In this area, buffering of residential from industrial uses may be the best way to improve the quality of the urban neighborhood. Along Bayonne's western waterfront of Newark Bay and also along part of Kill Van Kull, residential neighborhoods are adjacent to the water's edge. Also, two parks line the bayfront. This area is likely to be little changed in the future, although the parks, which offer a place to watch the busy commercial activities of Newark Bay, may be improved and possibly expanded. At the northern end of Newark Bay in Jersey City, a regional shopping center and other business occupy the waterfront. As the water quality of the Bay is improved, the waterfront might change from a parking lot to an asset attracting people to these businesses.

Newark Bay-Arthur Kill Region - Newark Bay divides into the Hackensack and Passaic Rivers between Jersey City and Newark. Along the two-mile stretch before both rivers enter the Hackensack Meadowlands District, the shorelines are heavily industrialized with the exception of the half-mile waterfront of Lincoln Park in Jersey City. Because of the proximity of these rivers to the Newark and Jersey City labor force, this area should continue to be a good location for industry.

**PROPOSED COASTAL ZONE :  
NORTHERN WATERFRONT AREA**

Figure 2



On the western shore of Newark Bay is the City of Newark. Most of its bay frontage consists of the rundown vestiges of an industrial waterfront. The waterfront is separated from Newark's residential neighborhoods by several blocks but is near enough to the City's labor force to make it a prime location for industrial redevelopment. At the southern end of Newark's waterfront and the northern end of Elizabeth's is a modern container port. It is a major employer and an example of the potential of a modernized waterfront. South of the container port in Elizabeth is a large tract of vacant waterfront served by rail. This land is being considered by the Port Authority of New York and New Jersey for promotion under its industrial park development program.

Continuing south, Newark Bay gives way to Arthur Kill. The northernmost three-fourths of a mile of the Kill is bordered by an old, urban residential neighborhood within the City of Elizabeth. Creation and enhancement of public open space in the narrow sector between homes and the Kill could enhance this neighborhood and encourage its preservation. From Elizabeth south to the Middlesex County boundary (City of Linden), the shoreline of the Kill has considerable amounts of wetlands which have been developed. Petroleum tank farms are the most prevalent developed use. In the future, this portion of waterfront is likely to have continued industrial use, but stronger measures to preserve those wetlands which are undeveloped (all the undeveloped coastal wetlands in Linden are owned by adjacent industries) may be desirable.

Moving into Middlesex County, there are docks and warehouses, but about as much vacant land as in Union County. Wetlands are found primarily along Woodbridge Creek, a small tidal tributary. Also, as in Union County, water dependent industry is probably the best use for the waterfront, but lands not needed by industry should be preserved for the sake of preserving the estuarine ecosystem. In the City of Perth Amboy is a site which is being evaluated for its potential as a support base for offshore oil and gas operations. Further south in Perth Amboy, residential neighborhoods extend to the waterfront. Here emphasis could be placed on public open space, as in the residential waterfront of Elizabeth.

Across the Raritan River, the entire Raritan bayfront, with the exception of a residential neighborhood in South Amboy, consists of vacant land separated from residential neighborhoods by the North Jersey Shore rail line. Because of its proximity to existing residential neighborhoods and public transportation, this land has potential for residential, commercial or industrial development (if properly buffered from residences), as well as for public open space.

At the end of this sector of vacant land along Raritan Bay is the beginning of the Bay and Ocean Shore Segment. We will therefore turn our attention to the tidal portions of the rivers which flow into this "outer" northern waterfront.

Upper Hackensack River Region - Beginning in the north, the first river is the Hackensack which is tidal to Oradell, Bergen County. For the first 4 1/2 miles from Oradell to Hackensack, the river is surrounded by suburban residential neighborhoods with some commercial uses. Some have suggested a cycling or hiking path in this area, and Bergen County is considering plans for impoundment of the river at Hackensack to create a lake-park complex.



Where the Hackensack River enters the Meadowlands District it is joined by the Overpeck Creek, a tributary which is tidal for the four miles to Leonia. For the upper two miles, the shoreline is public open space -- Overpeck Park. From the park to the river's juncture with the Hackensack, land uses along the creek include industry, a small amount of commercial and residential property and a large percentage of vacant land. This vacant land, like vacant land on the nearby portion of the Hackensack, could provide for recreation such as boat launching or fishing provided that water quality is brought up to state standards. It could also be a site for water-oriented commercial uses, or minimally polluting industries.

Passaic River Region - The Passaic River is tidal from the Dundee Dam at Clifton to Newark Bay. North of Newark the river is bordered by suburban and urban residential neighborhoods, but much of the immediate waterfront is given over to industries, especially textiles and related printing and dyeing. On the west bank, public access is also denied by State Highway 21. Wherever possible along this stretch of river, public access could be acquired, and where feasible a foot or cycling path system could be developed to enhance the recreational opportunities of the densely populated cities and towns along the banks, while water-dependent industries would continue to provide employment. The Saddle River which flows into the Passaic at the Garfield-Hasbrouck Heights border is tidal for about two miles. The shores of this river are largely undeveloped although residential and commercial uses do encroach certain sections. Because of its less developed shoreline, this river segment has more potential than the Passaic for ecologically sound, planned development, which might encompass a number of different but compatible uses. As the Passaic River reaches Newark, industrial uses become dominant although much of the immediate waterfront is vacant or is occupied by abandoned structures. Revitalization of industry and commerce where possible, and development of small parks or river access paths elsewhere appears to be a desirable future for the Passaic as it passes between Newark on the west and Kearny, East Newark and Harrison on the east.

Elizabeth River Region - In the City of Elizabeth, the Elizabeth River is tidal for two miles as it flows into Arthur Kill, although the length of tidal waters may be diminished by a current U.S. Army Corps of Engineers flood control project. There is some riverfront park land as well as vacant land along the shore, but for the most part homes and apartments line its banks, limiting the potential for public access. In the future, parks could be improved and public access provided where feasible, although greater improvement in the river's environment will be a result of improvement in water quality.

Rahway River Region - The Rahway River is tidal for five miles from Grand Avenue in Rahway to the Arthur Kill. Above Grand Avenue on the non-tidal portion of the river, Union County has acquired the river corridor for public open space, and the river provides opportunities for canoeing, hiking and other forms of recreation. In the tidal portion of the river, however, there is a wide assortment of land uses, few of which take advantage of the river. In Rahway itself, single-family homes, commercial establishments, and a marina line the river, while closer to the Arthur Kill the shoreline becomes marshy and vacant with the exception of some tank farms which do not appear to be water dependent. In the future, the wetlands near the Kill could be preserved, and improvements could be made along the riverfront in Rahway to make it more of an asset to adjacent neighborhoods and businesses.

Raritan River Region - The Raritan River's tidal reach extends inland to Interstate Route 287 in Piscataway Township. From Route 287 to New Brunswick, the Raritan is paralleled on the south by the Delaware and Raritan Canal. On the north, much of the land is park land, although in some areas the riverfront is residential. Under the direction of the Delaware and Raritan Canal Commission, DEP and the Middlesex County Park Department, the canal should be restored and the Park maintained. Access to the riverfront will, however, be limited in some areas by construction designed to make State Highway 18 a limited access highway. In New Brunswick, the riverfront has already been separated from urban neighborhoods by Route 18, but a pedestrian bridge provides access to public open space along the banks. Public and private emphasis could be placed on assuring continued public access despite highway construction.

East of New Brunswick is the most extensive river wetland area in the northern waterfront. This area extends along the Raritan and up its tributary, the South River. Preservation of these wetlands could be desirable as an open space resource for surrounding residential neighborhoods, as well as for a source of nourishment for the Raritan estuary system. Further east, the south bank of the Raritan is the scene of shipping and industrial facilities, many of them abandoned. On the north bank is a former arsenal which is being redeveloped as an industrial park. Industry is likely to remain the dominant use of the area near the mouth of the Raritan in this vision of the future Northern Waterfront.

The Delaware River Area

The Delaware River Area resembles the Northern Waterfront Area in size and diversity in its 60 mile stretch from Trenton to Pennsville. Like the Northern Waterfront, it has an urban center with densely populated residential areas, industry and shipping; it has abandoned piers and factories; it has residential suburbs; and it has undeveloped land and undisturbed wetlands. The difference between this area and the Northern Waterfront lies in the proportion of land devoted to different uses. The urban/industrial area centered in Camden is relatively limited, while the amount of undeveloped land is relatively large. The Delaware River Area also tends to be wider than the Northern Waterfront Area, due to the greater penetration of tidal water up the numerous creeks which flow into the Delaware. The Coastal Zone extends several miles up such major streams as Crosswicks Creek, Rancocas Creek, Cooper River, Big Timber Creek and Oldmans Creek.

The same basic policies will be applied to the Delaware River Area as to the Northern Waterfront Area. These policies will be designed to maintain the present diversity of uses with each use in its optimal location. The following analysis examines what this means for the specific regions of the Delaware River Area, starting at Trenton and moving southward.

The Burlington-Mercer Region - The Burlington-Mercer Region includes all of the coastal zone along the Delaware River north of the Camden-Philadelphia metropolitan area. This region, traversed by Route 130, Interstate 295 and the N.J. Turnpike, has been extensively suburbanized.

The waterfront is primarily residential, with the most intensive residential areas in Trenton and from Burlington City southward. Much of the coastal zone here is a narrow strip of shoreland rising from the river to the first road.

increased public access to the riverfront, provided the public is not endangered and access does not interfere with other legitimate activities. The preservation of the few remaining areas still relatively open and undisturbed in the Region could also be a goal of the Coastal Program. These include the lower reaches of Big Timber Creek, the marina area on the Cooper River, and Fisherman's Cove, which could be maintained as natural areas for carefully managed recreational activities.

The Gloucester - Salem Region - This region extends south from the Big Timber Creek to the boundary of the Bay and Ocean Shore Segment in Salem County. Most of the riverfront area in this region is industrially owned. The northern part of Gloucester's coastal zone includes two major refineries, extensive bulk storage facilities and large petro-chemical complexes. Further south, a few heavy industries are located intermittently along the riverfront, including large DuPont and Monsanto facilities in Gloucester and another DuPont complex in Salem County.

Yet this region is by far the least developed and most sparsely populated area outside the Bay and Ocean Shore Segment. Between National Park in Gloucester County and Penns Grove in Salem County, the active energy and industrial complexes are typically separated by large tracts of vacant land including extensive wetlands and lowland forests. Although the Delaware River lies within one to three miles of Interstate 295, road access to the waterfront is almost non-existent. In the entire stretch from Paulsboro in Gloucester County to Penns Grove in Salem County, there are no public sewer systems in place immediately adjacent to the Delaware River, although the region's areawide waste treatment management plans call for sewerage a two-mile stretch of riverfront in Greenwich Township.

The central area of this region, for the most part, contains industrial activities and vacant undeveloped tracts. The region's population, focused at the two ends, can be seen as extensions of two large metropolitan areas -- the Camden-Philadelphia Area to the north and the Wilmington area to the south. Parts of the southern area, which includes Penns Grove, Pennsville and Salem City, have recently lost industry -- creating high unemployment and leaving behind vacant or underutilized facilities. New waterfront industry and port development would be most appropriate in those areas where there are existing infrastructure, an available labor force and underutilized industrial facilities. Vacant land along the waterfront and close to the population centers must also be evaluated in terms of its potential for meeting the recreational needs of the people living in these areas.

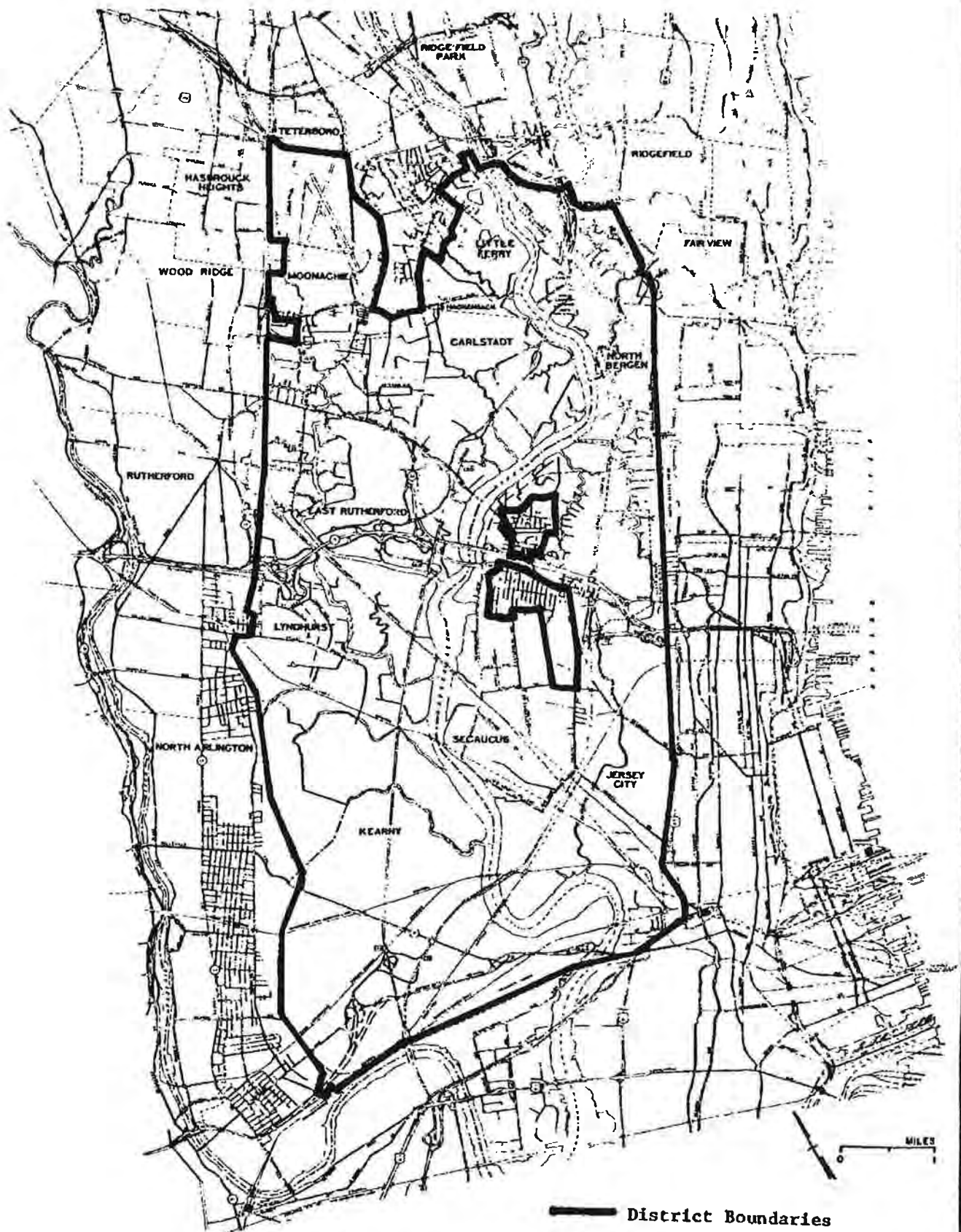
The central area is quite wide due to the inland penetration of coastal streams. Demand for industrial, residential and commercial development is expected a few miles inland of the waterfront along Routes 130 and 295. The Suggested Coastal Policies propose that this development take place in concentrated form and as infill rather than sprawling the entire length of the Camden/Philadelphia to Salem/Wilmington corridor. In addition, the many stream corridors, wetlands and the lowland forests in this region could be preserved. The stream corridors, the undeveloped portion of the Delaware River waterfront and other undeveloped lands may be suitable for parks, campgrounds and perhaps new marinas, while wetlands, lowland forests and other sensitive areas could be preserved as natural areas.

### The Hackensack Meadowlands District

The Hackensack Meadowlands District is a 33 square mile area of tidal wetlands, fresh water wetlands and upland located along the Hackensack River 2 1/2 miles west of midtown Manhattan. Until 1968, the District was largely undeveloped except for huge landfills, warehouses, and some light industry and electrical generating facilities. In that year, the Legislature created the Hackensack Meadowlands Development Commission (HMDC), a state agency intended to direct the orderly and comprehensive development of this area. In the ten years of the Commission's existence, the Meadowlands Sports Complex, consisting of a football/soccer stadium and a racetrack, and new commercial and light industrial buildings have been erected on the west bank of the Hackensack River. On the east bank, the Harmon Cove area, including a planned unit residential development, the Meadowlands Hilton Hotel and several office and industrial buildings have been developed. Much of the Meadowlands, however, still remains undeveloped.

A vision for the Meadowlands has already been created by the HMDC, which was given full planning and zoning authority for the District by its enabling legislation. In 1972, the HMDC introduced a master plan which foresees the development of additional planned residential-commercial-office complexes designed to both take advantage of the wetlands environment and preserve it to the maximum extent possible. The plan also calls for the preservation of several large wetlands preserves and the creation of one major and several smaller parks. The Commission's Open Space Plan calls for the preservation of 6,210 acres of open space, of which 3,160 acres are wetlands.

The Master Plan was substantially amended in 1977 and will no doubt be amended in the future. Rather than offer an alternative vision, DEP proposes the adoption of this evolving vision, which must be based on the HMDC Act and is defined specifically by the Commission, as the vision of the State's Coastal Management Program.



**HACKENSACK MEADOWLANDS DISTRICT**

Figure 4

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## INTRODUCTION

The Coastal Zone Boundary and Management System determine the parts of New Jersey which will be affected by the coastal program. The boundary describes the areas which are distinctive because of the presence of, or proximity to tidal waters. The Management System indicates how DEP proposes to implement the Coastal Policies summarized in Chapters I and IV within this boundary.

This Chapter discusses two possible frameworks for a boundary and management system. The first alternative is based upon existing state authority while the second would require that new legislation be passed by the New Jersey Legislature and signed by the Governor. DEP-OCZM has developed the two alternatives after public comment on, and further analysis of options presented in the September 1977 issue of its newsletter, The Jersey Coast. Several possible variations within each alternative are noted, and DEP welcomes other suggestions.

The next section of this Chapter describes the proposed boundary of the coastal zone. This boundary would be similar under each of the options, but activities within would be regulated differently depending upon which option is chosen.

The following section describes the Existing Authority Option by examining the broad range of existing state, regional, county and municipal programs that affect land and water uses in the coastal zone. Each is described, and its utility for coastal management purposes assessed. This examination is intended to do three things: 1) Identify the nature of decisions that affect land and water uses in the coastal zone; 2) Identify the levels of government and agencies that make these decisions; and 3) Propose techniques that will coordinate this decision making with the policies of the coastal program.

The fourth section describes the New Legislation Option. This option is described because DEP believes it would allow the Department to carry out coastal responsibilities previously delegated to it by the Legislature in a more efficient and straight forward manner than is now possible. The New Legislation Option, in its present definition, could not form the management system of the coastal management program without action by the Legislature and Governor. Because of the time required for deliberation and passage of legislation, the Legislature would be unlikely to pass a new law in time for federal approval of New Jersey's Coastal Management Program even if they were favorably inclined towards the concept. DEP is, therefore, recommending the Existing Legislation Option. This would give the State a coastal management program with a somewhat more cumbersome regulatory system, but it would allow the State to receive the federal funding available under the Coastal Zone Management Act, and to consider adoption of the proposed new legislation in the following legislative session.

The final section of this Chapter briefly describes the significance to New Jersey of the "Federal Consistency" provision of the federal Coastal Zone Management Act which will be the same regardless of which option is chosen.

BOUNDARY

DEP's preliminary suggestion for the coastal zone is the areas now defined by CAFRA and the Wetlands Act, lands along all other tidal water bodies inland to the first public road, the Hackensack Meadowlands Development Commission District, and all coastal waters to the head of tide and seaward to the three mile limit. (See Figure 1). In addition, the land on top of the Palisades is included in the boundary under the New Legislation Option. This area is not included in the boundary proposed under the Existing Authority Option because the State currently lacks jurisdiction to regulate high rise housing in the area.

The proposed boundary is defined in detail, with 35 maps, in Appendix B. One possible variation which is not included on the maps, would be to set the maximum inland distance of the coastal zone boundary as 1,000 feet from the water in the Developed Coast. This would restrict the size of the coastal zone along some tributaries, but would have no effect along the Hudson and Delaware Rivers and other major water bodies, where the first road is generally located much less than 1000 feet from the water.

The boundary would include all land with a significant impact on coastal waters. The coastal zone would include narrow areas inland of the area currently regulated under the Wetlands Act, Waterfront Development Law, and riparian statutes. In these areas, the only applicable coastal policies would be those which can be enforced under other existing regulatory or funding programs.

The proposed boundary is discussed in greater detail throughout the Existing Authority Option and New Legislation Option Sections of this Chapter, and is further defined in Appendix B.

MANAGEMENT SYSTEM - EXISTING AUTHORITY OPTION

Summary

The Existing Authority Option is designed to allow the Department of Environmental Protection to use its administrative authority to obtain for New Jersey the benefits available under the federal Coastal Zone Management Act (CZMA) by insuring that state actions which affect the coast are consistent, equitable, predictable, and in the long-term interest of the people of New Jersey. Implementation of this option would not dramatically change the way in which coastal decisions are currently made.

State actions to be considered involve regulatory, funding and planning programs which are already operating. Two major changes could be afforded by the Management Program under this option: First, these state programs would, for the first time, be united by a publicly stated, binding set of substantive policies. Second, New Jersey could make greater use of the authority already available under the Delaware River Basin Commission to review development proposals in the Delaware River Area. (Under either option, New Jersey would receive other benefits from the federal CZMA including funding for coastal planning and projects, and consistency between Federal and state actions.)



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The coastal zone boundary, under this option, would have two parts. A Regulatory Tier would include all land and water now subject to state riparian laws, including the Waterfront Development Permit, and the Wetlands Act of 1970. In this relatively narrow area, composed only of lands now or formerly flowed by the tide and regulated wetlands, all new development would have to conform with the Coastal Policies to be adopted. DEP would apply the policies to entire proposals, even if only parts of the project were to be located in this Regulatory Tier.

The remaining, upland sections of the Developed Coast would be referred to as an Administrative Tier. In these areas, DEP would insure that new development: a) would not have a direct and significant negative impact on coastal waters; b) would not harm air quality, and c) would not lead to soil erosion. DEP would accomplish this through existing programs which: Regulate point source discharges into navigable waters, development or construction in stream channels, development or construction in designated flood hazard areas, collection and disposal of solid wastes, and development in designated river areas; Regulate air emissions from stationary sources; and Establish and enforce soil erosion and sedimentation standards respectively.

The line between the first and second tiers under this option depends upon the inland boundary of the State's riparian jurisdiction, which, in most cases, has not yet been mapped. Until this mapping is completed by DEP's Office of Environmental Analysis, determinations of whether a site is within the riparian parts of the first tier, would be made on a case by case basis. The wetlands areas of the first tier have been delineated and are shown on publicly available DEP maps.

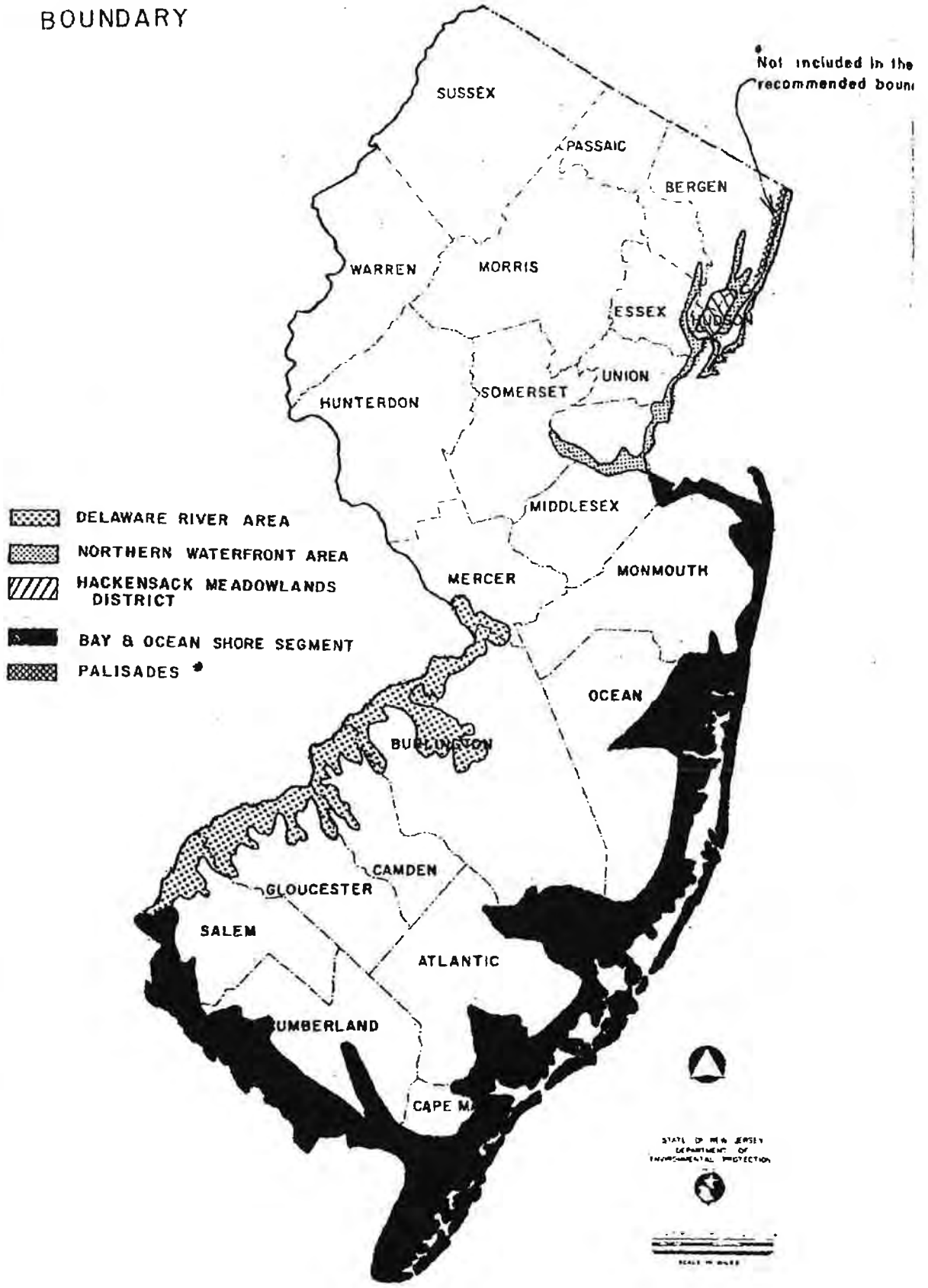
In addition, in the Delaware River Area, which contains more open and environmentally sensitive land than the Northern Waterfront Area, DEP would work with the Delaware River Basin Commission (DRBC) to have that agency consider appropriate Coastal Policies in its review of projects in New Jersey. This review by the DRBC would be a formal part of the Management System through a memorandum of understanding between DEP and the Commission.

In the Hackensack Meadowlands District, the State's coastal zone management would be the Hackensack Meadowlands Development Commission. Coastal policies would be the policies already adopted by the State in the form of the District Master Plan, Open Space Plan and other policy documents.

DEP would fund it expects to receive after the coastal program to support activities which are consistent with the coastal policies. It would use some of the funds to make small grants to municipalities for public projects within the defined coastal zone. In addition, DEP would award grants from the other funding programs it has available for projects which would help further the coastal policies. It would provide advice to municipalities and counties in the coastal zone and to individual land owners and developers, on projects or plans it

DEP would conduct an analysis of the decision-making framework which would be used in the Authority Option. Three kinds of governmental decisions which affect land and water uses: planning decisions, regulatory decisions, and funding decisions. These activities take place on

STATE OF NEW JERSEY  
 PROPOSED COASTAL ZONE  
 BOUNDARY



the municipal, county, regional, state, and interstate levels. The available management options in each of these three areas have been grouped as follows: Regulatory and funding programs administered by DEP; Regulatory and funding programs administered by other state agencies; County and municipal regulatory and planning authority; and Regional and interstate regulatory and planning authority.

#### Department of Environmental Protection

##### A. Organization

The Department of Environmental Protection (DEP) is responsible for planning and implementing the New Jersey Coastal Management Program. Created by the Legislature in 1970, the Department was given broad authority to "formulate comprehensive policies for the conservation of the natural resources of the State... (N.J.S.A. 13:1D-9). Specific authority for preparation of the coastal program was delegated by the Governor when he designated DEP as New Jersey's coastal planning agency under Section 305 of the federal Coastal Zone Management Act. DEP also serves as New Jersey's lead agency to administer the Federally approved program under Section 306 of the Act.

The Department is divided into nine operating units: the Commissioner's Office; Division of Marine Services; Division of Water Resources; Division of Environmental Quality which includes the Bureau of Air Pollution Control; Division of Fish, Game and Shellfisheries; Solid Waste Administration; Division of Parks and Forestry; the Green Acres Administration and the Division of Administrative Operations. The Offices of Coastal Zone Management, Riparian Lands Management, and Wetlands Management are all located in the Division of Marine Services.

The core of the management system under this option will be the adoption by DEP of the coastal policies for the Developed Coast as administrative rules. This means that the actions of every Division in the Department will be legally bound to be consistent with the coastal policies to the extent statutorily permissible. This last phrase means that a DEP permit review may not exceed the scope established by the permit program's enabling legislation. This is the process New Jersey has already adopted for the Bay and Ocean Shore Segment, in which every DEP division is bound to act consistently with the Coastal Resource and Development Policies to the extent statutorily permissible. If this practice is repeated for the policies of the Developed Coast, each of the activities listed below will be exercised in a coordinated manner, consistent with the coastal policies described in Chapter IV and Appendix H.

##### B. Regulatory Programs - Regulatory Tier

DEP's authority in the Regulatory Tier of the Developed Coast would be based on the Wetlands Act, the riparian statutes, and the Waterfront Development Law. These laws apply to virtually all aspects of all development within this first tier. Their administration would be unchanged with an approved coastal management program, except that decisions made under each program would be made on the basis of the codified coastal policies, which in some cases would represent a change in policy.

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1. Wetlands Act - New Jersey will continue to regulate activities on wetlands with authority derived from the Wetlands Act of 1970 (N.J.S.A. 13:9A-1 et seq.) and the Procedural Rules and Regulations adopted in 1972. The Act, which is administered by the Office of Wetlands Management in the Division of Marine Services, gives the state broad discretion in regulating virtually any form of development or disturbance on mapped coastal wetlands, except for mosquito control and continued commercial production of salt hay or other agricultural crops or activities.

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The Act defines coastal wetlands as those wetlands subject to tidal action along specified water bodies. They are not regulated under the Act until they have been mapped and the maps promulgated, following notice to affected property owners and a public hearing.

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In the Developed Coast, there is a considerable amount of wetland acreage, located primarily along the Delaware River, and also including approximately twenty acres of mapped wetlands located on the Raritan River, in and near Perth Amboy. The Act specifically exempts the Hackensack Meadowlands District from its coverage. Small wetlands areas in the Delaware River Area have not yet been delineated and are therefore not now regulated by DEP. The Department will use the funds available under the Federal Coastal Zone Management Act to complete the delineation.

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Since enactment of the Wetlands Act in 1970 and adoption of the Wetlands Regulations in 1972, the annual amount of wetlands filled in New Jersey has been reduced from 1900 to .55 acres.

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Riparian Statutes - In New Jersey, the use of "tide-flowed" (or riparian) lands which are defined as those lands now, formerly or hereafter flowed by the mean high tide (including filled lands), is based on the ownership of land adjacent to the waterway. All those lands that are flowed by the tide, up to the high water mark, and located within the State of New Jersey, except where already conveyed. The State exercises control over riparian land in two ways: through its proprietary role as owner, and through its regulatory role under the Waterways Development Law.

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The State's jurisdiction extends to the mean high water mark, which is defined as the average of a theoretical 18.6 year tide. DEP's Office of Riparian Lands Management (a branch of the Commissioner's Office) is presently conducting a delineation program throughout the State. Until the delineation program is completed, the Office of Riparian Lands Management is determining the State's jurisdiction on a case-by-case basis. Landowners proposing to develop a project, as well as DEP's Marine Services, are referred to the attention of the Department. The State's control is exercised through the Natural Resource Council, which is composed of twelve members, with the advice and consent of the N.J. State Council on Natural Resources. The Council is to be created to oversee the use of State-owned Riparian lands provided for the public interest. The Council, which is composed of twelve members, with the advice and consent of the N.J. State Council on Natural Resources, is to be created to oversee the use of State-owned Riparian lands provided for the public interest. The Council, which is composed of twelve members, with the advice and consent of the N.J. State Council on Natural Resources, is to be created to oversee the use of State-owned Riparian lands provided for the public interest. The Council, which is composed of twelve members, with the advice and consent of the N.J. State Council on Natural Resources, is to be created to oversee the use of State-owned Riparian lands provided for the public interest.

The Council may make any decision it believes to be in the public interest. DEP's Commissioner and Director of Marine Services, however, have the authority to veto any Council action inconsistent with state policy by virtue of their right to approve all Council meeting minutes and instruments of conveyance. Should a veto occur, the application is returned to the Council for reconsideration. Consideration of the State's Coastal Policies in riparian decision-making is also assured by the fact that the Division of Marine Services serves as staff to the Natural Resource Council.

The owners of land immediately upland of the tideland have the first right to purchase riparian lands, and must receive notice before any other party applies for a conveyance. The Council will not consider an application for a riparian conveyance without first examining the intended use of the land. Where, for example, an applicant seeks to purchase riparian land for a use which requires a bulkhead, the Council will examine the use of the land behind the bulkhead in order to determine if such a use is appropriate for the site. The Council conducted such an analysis in 1976, when it rejected the Steuber Chemical Company's application for a dock in Jersey City. The dock was required for a bulk oil storage facility which was, in the view of the Council, both unneeded and inappropriate for the location. It is through reviews of this kind that the State's riparian authority will function as an essential element of the management system.

3. Waterfront Development Law - Persons proposing to build on the waterfront, including persons applying for a riparian grant, lease or license from the Natural Resource Council and persons already having title to, or interest in riparian lands, must obtain a Waterfront Development permit from the Office of Riparian Lands Management before any new development takes place on such land (N.J.S.A. 12:5-3). Development includes, but is not limited to, dredging, or construction or alteration of a dock, wharf, pier, bulkhead, bridge, pipeline, cable crossing.

Waterfront Development permits for activities in the Bay and Ocean Shore Segment are now granted or denied on the basis of the Rules on Coastal Resource Development Policies (N.J.A.C. 7:7E-1.1 et seq.). Approval of a coastal management program for the Developed Coast will result in the same uniform administration of the program based on policies appropriate for that area.

The extent of the state's regulatory jurisdiction for Waterfront Development permits is subject to interpretation. The law states in part that "All plans for the development of any waterfront upon any navigable water or stream of this state or bounding thereon . . . shall be first submitted to the Department of Environmental Protection". (N.J.S.A. 12:5-3). It is the phrases "waterfront" and "or bounding thereon" which have never been formally defined and are subject to interpretation.

The language of the Waterfront Development Law suggests that the Legislature intended the State's regulatory authority to include an inland strip of land of undetermined width in addition to the land flowed by the tide. Past administrative practices by DEP, however, has restricted the program's application only to the land flowed by the tide. DEP does not currently require upland land owners to obtain a Waterfront Development permit for development solely on uplands. Many upland projects are, however, brought under DEP jurisdiction because some element of the project, such as a dock or outfall pipe, extends into the area where Waterfront Development permits have traditionally been required.

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Regulatory Programs - Administrative Tier

Development in the Administrative Tier, as well as in the Regulatory Tier, of the Coastal Zone will have to honor existing laws which require new development to meet regulations concerning the enhancement of water and air quality, the regulation of soil erosion, and the protection of flood hazard areas, wild and scenic rivers, and the Delaware and Raritan Canal. Programs in these areas are already being administered by various sections of DEP and will be unchanged by the Coastal Management Program. They are described here because they contribute to New Jersey's coastal management efforts and because, if the jurisdiction of the Waterfront Development permit is not reinterpreted, they could help the state receive Federal approval for its coastal program by fulfilling various requirements of the federal Coastal Zone Management Act.

The policies of these programs appear to be consistent with the proposed coastal policies and, in several cases, are in fact identical. For water and air quality, for example, the coastal policies adopt the policies being developed by the divisions of the Department with greatest expertise in each field. In the course of preparing the draft and final EISs of the Coastal Program, and through the public review process, DEP-OCZM will more closely examine the policies of each program. DEP-OCZM will continue to monitor and review proposed changes to these policies through the rule-making process. If a change were to violate the coastal policies eventually adopted, the DEP Commissioner could refuse to allow the change.

Water Quality Programs - The Federal Clean Water Act of 1977 (33 USC 466 et seq.) sets a framework for eliminating the discharge of pollutants into navigable waters by 1985. This is to be accomplished by Federal-state partnerships under which EPA sets increasingly strict effluent standards for wastewater discharges and the states set quality standards for rivers, bays and the ocean, and develop a strategy for their attainment. The key regulatory element is the National Pollutant Discharge Elimination System (NPDES) and the key planning element is the statewide Water Quality Management Plan (208 Plan). These elements, as well as state wastewater treatment facility requirements, are the key programs for attaining the State's water quality goals in the coastal zone and throughout the state.

Attainment and maintenance of water quality is the responsibility of the Division of Water Resources, but the Division of Marine Services also has a role in water quality enhancement through the enforcement of water quality standards in decision-making under the Wetlands Act and riparian rights legislation. In the administration of these two laws, water quality is but one of many factors considered in decision-making, while in the administration of the Coastal Management Program, the Division of Water Resources is primarily concerned with water quality, but will consider other coastal policies to the extent they affect water quality.

Any point source of discharge into the waters of the United States or territorial sea, must receive a National Pollutant Discharge Permit (NPDES) from either EPA or the State. There are 1,396 NPDES permits issued by NPDES in New Jersey. Perhaps as many as half are located in the coastal zone. In New Jersey, permits are issued under the Coastal Management Act (N.J.S.A. 58:10A-1 et seq.) which allows DEP

to take over the permitting function. Under the present arrangement, DEP's Division of Water Resources must certify that a proposed discharge will not prevent the attainment of the State's water quality standards before EPA may issue a NPDES permit. This certification, based on Section 401 of the Federal Clean Water Act, focuses on the chemical and biological impact of the proposed discharge on attainment of the water quality standards for the receiving body of water. For example, waters classified as TW-1, the highest classification for tidal waters, must be suitable for shellfish harvesting where permitted. If a proposed discharge would threaten the shellfish beds in TW-1 waters, the Division of Water Resources would have to withhold Section 401 Certification, and thus preclude EPA from issuing a NPDES permit. The NPDES permit process could be used to implement many of the proposed coastal policies for point sources of discharges.

When EPA approves a State program for issuing NPDES permits, the requirements remain the same -- compatibility with Federal effluent guidelines, and state water quality standards -- but, in New Jersey, DEP rather than EPA would make the initial permit determination. EPA would then have the authority to overrule DEP concerning any permit, just as DEP can currently prevent EPA from issuing a permit by not providing the Water Quality Certificate.

The State's Water Pollution Control Act (Section 6(b)) also authorizes the Division of Water Resources to adopt regulations placing pre-construction requirements on anyone planning to build a new facility which would discharge wastewater. If such Preliminary Facility Approval Regulations were to be drafted, a person proposing to build a facility could be required to first examine its potential impact on water quality, and DEP could prevent construction or require modifications in the plan until it was satisfied that the completed facility would be compatible with State water quality requirements. Thus, DEP could control water pollution through control over the siting and construction of facilities instead of having to wait for the facility to be built, and then placing treatment requirements upon it. Preparation and adoption of such regulations could significantly increase the types of development which DEP could require to follow the coastal policies.

The coastal program will adopt by reference the State's water quality standards as its standards; and DEP-OCZM will comment on any proposed revisions. This is the same procedure adopted for the Bay and Ocean Shore Segment which recognizes and relies upon the Division of Water Resources expertise. The Division of Marine Services will use its permitting authority, in consultation with the Division of Water Resources, to approve projects which will not prevent attainment of State water quality standards.

#### Areawide Water Quality Management (208) Plans

A Water Quality Plan developed according to Section 208 of the Clean Water Act is a comprehensive and implementable strategy for the control of water pollution in a county or multi-county area. Federal and State legislation require that the Coastal Management Program and 208 Plans be consistent. Through a Federal agreement between the Department of Commerce and the Environmental Protection Agency, and through a working relationship at the state level between the Divisions of Marine Services and of Water Resources, the policies of the two programs are being coordinated and made consistent for both point and non-point sources of pollution.

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Each 208 plan is to consist of a set of policies and a management system detailing how and by which agencies these policies will be enforced. The Developed Coast is to be addressed by five separate 208 Plans:

<u>Counties</u>	<u>Planning Agency</u>	<u>Status as of 12/78</u>
1. Middlesex	Middlesex County Planning Board	Certified by Governor
2. Mercer	Mercer County Planning Board	Awaiting Governor's certification
3. Burlington/Camden/Gloucester	Delaware Valley Regional Planning Commission	Awaiting Governor's certification
4. Salem	DEP-Division of Water Resources	Draft Plan expected shortly
5. Bergen/Hudson/Essex/Passaic/Union/Somerset	DEP-Division of Water Resources	Draft Plan expected shortly

The Division of Marine Services will not issue riparian or wetlands permits to development proposals which conflict with a State certified 208 Plan. Similarly, all other regulatory programs in DEP will not issue permits to projects in conflict with a certified plan (N.J.S.A. 58:11A-10). DEP-OCZM has been participating in the 208 planning process to assure that the plans are not only consistent with coastal policies, but also contain policies and strategies designed to protect water-related coastal resources. Thus, in implementing 208 plans through regulatory and other strategies, DEP, the counties and other agencies will also be implementing elements of the coastal program.

Wastewater Treatment Facilities - Under the State Water Pollution Control Act, a permit from the Division of Water Resources is required for the construction, modification or operation of any wastewater treatment facility, including but not limited to sewage treatment plants, sewage collection systems including interceptors, sewer outfalls, industrial wastewater treatment plants, and pollution abatement facilities. Furthermore, the Division may place a ban on new construction of a sewerage system when that system is found to be receiving flows in excess of the capacity of or discharging inadequately treated sewage.

and Sewer Systems in Realty Improvements Act (N.J.S.A. 52:27-10). The Division must certify the adequacy of the proposed water supply and sewerage system for any development involving fifty or more units producing wastewater, before a municipality may give approval. This requirement assures that proposed major developments and the entire state which employ on-site sewage disposal systems the disposal system is adequate "with respect to water supply, topography, existing individual sewage treatment facilities, water table, soil characteristics, availability of sewage" and meets State standards regarding design and construction. This requirement will be of importance primarily in areas without sewerage systems. On the Developed Coast, this would include portions of the following counties:



#### 4. Stream Encroachment Permits

No structure or alteration within the natural and ordinary high-water mark of any stream may be made without a permit from DEP's Division of Water Resources. The Stream Encroachment Act is intended primarily for flood protection "to safeguard the public against danger from waters impounded or affected by such structures" (N.J.S.A. 58:1-26). Administration of this program tends to result in the preservation of stream channels in their natural state, which are biologically productive areas offering important recreational opportunities. Of 500 stream encroachment permit applications received in 1978, DEP granted 450. Very few however, were in the proposed coastal zone because the Division of Water Resources practice is to waive Stream Encroachment Permit review for projects requiring Waterfront Development Permit. The Coastal Policies related to hydrology and flood hazard areas can be implemented through the Stream Encroachment Permit program.

#### 5. Flood Hazards

The Flood Hazards Act, N.J.S.A. 58:16A-55, authorizes DEP to adopt land use regulations for delineated floodways "designed to preserve (their) flood carrying capacity and to minimize the threat to the public safety, health and general welfare". This Act is also administered by the Division of Water Resources.

Floodways are considerably wider than the stream channels regulated under the Stream Encroachment Act. DEP has adopted, or proposed for adoption, floodway delineations in various parts of the Developed Coast. (See Appendix H) Under the Act, municipalities may conduct the delineation and adopt regulations concerning their use in zoning ordinances, provided that they meet the minimum standards of the DEP regulations.

Like the Stream Encroachment Law, administration of this Act directly results in the preservation of valuable stream corridors and flood plains.

#### 6. Wild and Scenic Rivers

The purpose of the Wild and Scenic Rivers Act of 1977 (N.J.S.A. 13:8-45 et seq.) is to preserve, protect and enhance the natural and recreational value of some of the State's most significant river segments. The Act allows the Commissioner of DEP to designate river segments as "wild", "scenic", "recreational", or "developed recreational". In any river segment so designated, all construction activities would be either prohibited or regulated within the river's flood hazard area. This would expand upon DEP's authority under the Flood Hazard Act in the areas designated, by permitting a much wider range of considerations as criteria for DEP's regulatory decisions. The types of development that are controlled will depend on which designation is applied to the segment, with "wild" rivers having the strictest prohibitions and "developed recreational" the most lenient. DEP has proposed regulations to be promulgated under this Act which would allow the creation of municipal Wild and Scenic River Commissions to decide on permits for regulated uses. These regulations are expected to be adopted in 1979.

The Act requires that DEP-owned land within the designated river area be managed consistent with the purposes of designation. The geographic extent of the river areas includes only the flood hazard area delineated by DEP jurisdiction and in effect, the geographic scope of the delineated river area would be less than the coastal zone boundary. The Green Acres Administration is the DEP agency responsible for rule making and for recommending rivers for designation.

The Office of Coastal Zone Management intends to work with the Green Acres Administration to nominate one or more river segments in the Developed Coast for Wild and Scenic designation. The two types of river designation which appear most applicable to the Developed Coast are "recreational" and "developed recreational". The characteristics of these two river types as found in the Act are as follows:

Recreational river areas are those rivers, or sections thereof, that are readily accessible, that may have some development along their shorelines, and that may have undergone some impoundment or diversion prior to their inclusion in the New Jersey Scenic River System.

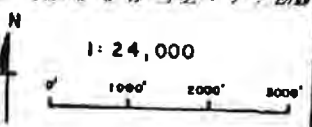
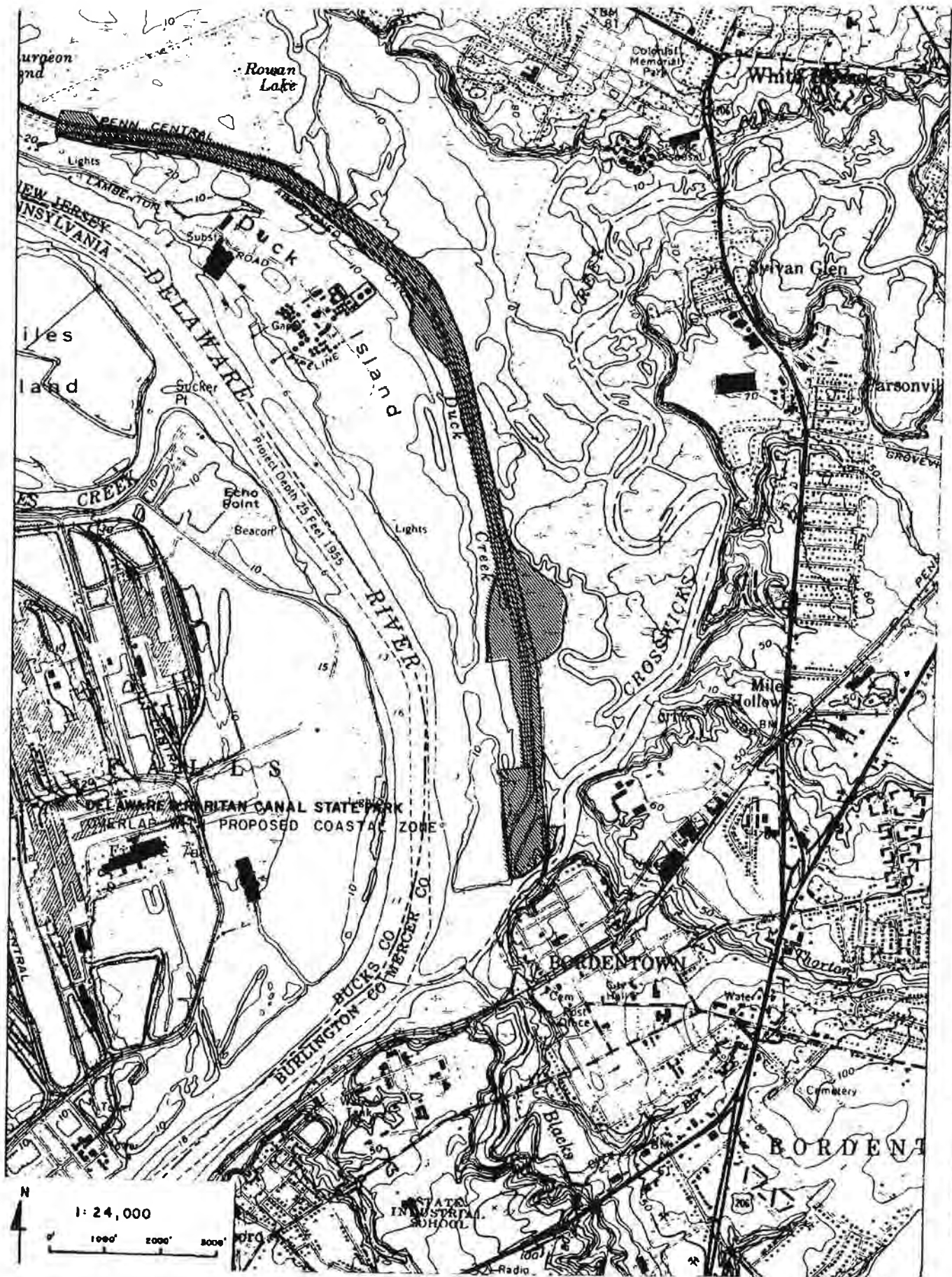
Developed recreational rivers are those rivers, or sections thereof, that are readily accessible, that may have some development along their shorelines, that may have undergone substantial impoundment or diversion, but which remain suitable for a variety of recreational uses (N.J.S.A. 13:8-48).

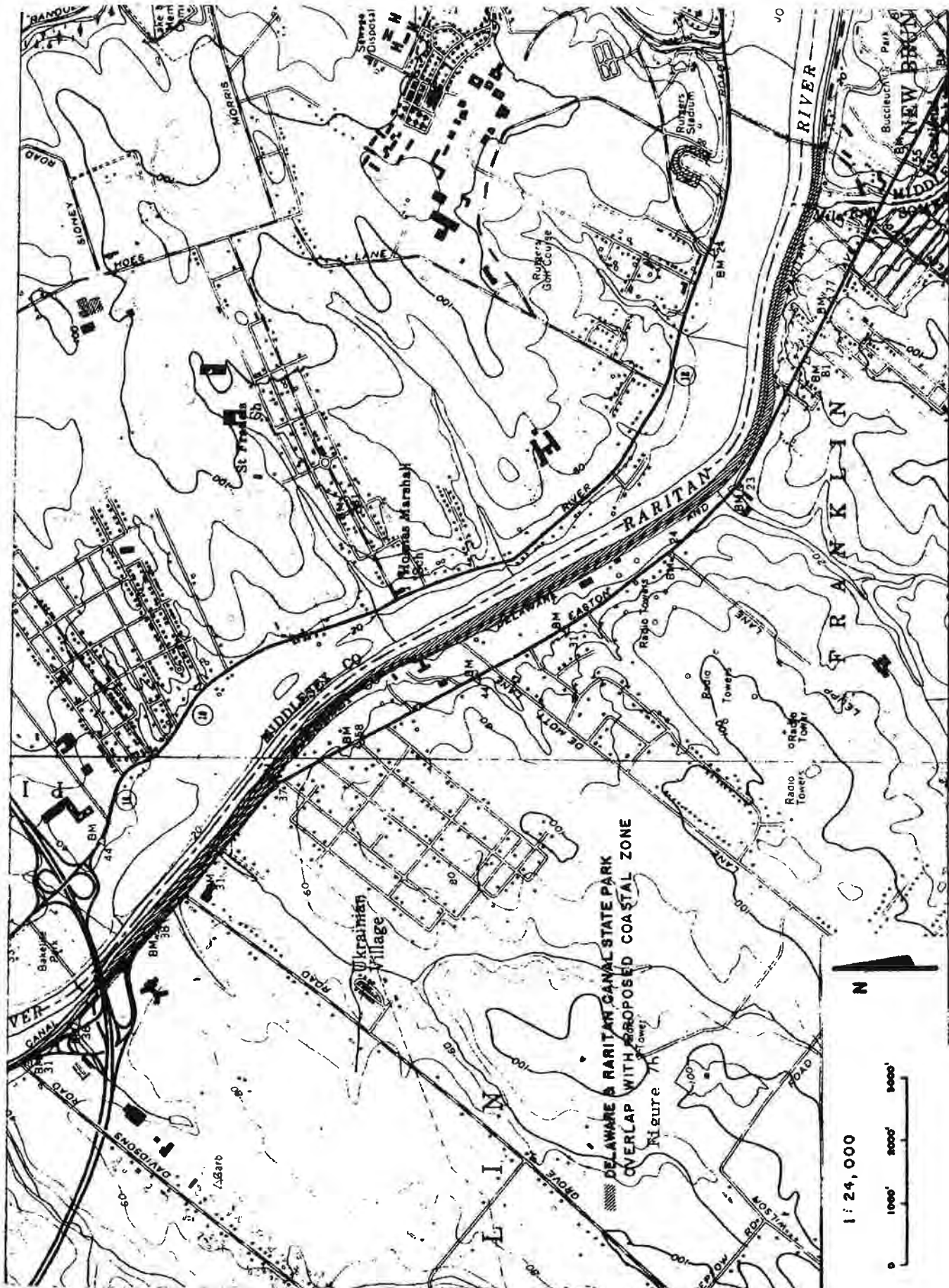
DEP-OCZM has drafted the set of criteria listed in Appendix G, and interested readers are invited to comment on these proposed criteria, and/or use them to evaluate the relative merits of different river segments. A nominated river segment should be a stretch of several miles of a tidal river, possibly including tributaries. The flood hazard area around the river segment must be delineated before the nomination as a Wild and Scenic River area can be considered. The area must be bounded by significant natural or man-made features. Examples of river segments that could be designated include: Hudson River from George Washington Bridge to the Raritan State Park (only characteristics of the New Jersey side, including New York and Manhattan, would be considered), or the Rancocas Creek from head of the creek to its confluence with the Delaware. DEP has proposed for adoption the flood hazard area in the former region, but has not yet delineated it in the latter.

Raritan Canal State Park Law  
(et seq.)

Three years before the State's Wild and Scenic Rivers Act, the Delaware and Raritan Canal Commission was established by law. Preservation of the sixty mile Delaware and Raritan Canal Commission, in, but largely administered by the Department of Environmental Protection. The Department is required by the law to administer all projects on the Canal as a State park, in accordance with a master plan adopted in May, 1977. The Commission is given project review authority within a delineated review zone which includes the Canal and a buffer zone on each side of it in which development will have drainage or runoff into the Canal. Within this zone, the Commission has the authority to approve, deny, or modify any project ... (N.J.S.A. 13:13a-14c), and its decisions will be final and binding.

The criteria established by the Commission are set by the following provisions: Within a half mile of the Canal Park, all projects will be reviewed for visual, noise or other ecological impacts. Outside this zone, on streams that enter the Canal Park, projects will be reviewed for impacts. Projects to be reviewed in this latter area include construction or redevelopment of twenty-five or more acres of land which will cover one or more acres of land with impervious





surfaces, and projects with any of the following uses: livestock pens, corrals or feed lots; pipelines, storage or distribution systems for petroleum products or chemicals; liquid waste, storage, distribution or treatment facilities; solid waste storage, distribution or incineration or landfill; quarries, mines or borrow pits; land application of sludge or effluents. Hearings on the proposed regulations took place in December 1978, and adoption is expected.

Two small segments of the canal park, totalling approximately 288 acres, lie within the proposed coastal zone. (See Figure 7) In the Northern Waterfront area, the Canal extends along the Raritan River from New Brunswick to the limits of tidal water. In the Delaware River area, it begins at Crosswicks Creek, Hamilton Township, and then leaves the coastal zone as it turns away from the river in Trenton. The policies proposed by the Commission are consistent with the proposed Coastal Resource and Development Policies.

#### 8. State Owned Land

The Natural Areas System Act, N.J.S.A. 13:1B-15.12a et seq., calls for the Department to designate and regulate state owned lands of natural value for the purpose of protecting and enhancing those values. The natural area regulations govern state agencies administering lands designated as part of the system, and ensure that any critical areas purchased by the state for preservation or conservation purposes are adequately protected.

There is one existing designated Natural Area in the proposed developed coast: Liberty Park Natural Area, which covers 60 acres in Liberty State Park. The Natural Areas System Act is a regulatory adjunct to those coastal policies encouraging the preservation of open space and the protection of critical environmental areas.

In addition to Liberty State Park, there are other state parks in the Developed Coast including part of Rancocas State Park in Burlington County, and parts of the Delaware and Raritan State park in Middlesex and Mercer Counties. These parks and any other State-owned lands managed by DEP within the coastal zone, including forests and fish and wildlife management areas, will be managed consistent with coastal policies. Development proposed on DEP managed lands is reviewed by DEP-OCZM to assure consistency, if it requires one or more coastal permits. All such development would be reviewed under a proposed Administrative Order clarifying the relationship between the divisions of DEP with coastal responsibilities.

The coastal resources along the Hudson River north of the George Washington Bridge, most notably the Palisades, are protected by inclusion within the Palisades Interstate Park. The park is managed by the Palisades Interstate Park Commission, a bi-state agency of New Jersey and New York.

Federally owned land is excluded from the coastal zone (see Appendix C).

#### 9. Air Quality Programs

As the New Jersey agency designated to administer the Federal Clean Air Act, DEP's Division of Environmental Quality conducts the planning for, and monitoring of air quality. The Division's Bureau of Air Pollution Control has promulgated, and is further developing programs by which the National Ambient Air Quality Standards (NAAQS) will be attained. In compliance with the 1977 Amendments to the Federal Clean Air Act, New Jersey has submitted to the Environmental Protection Agency a State Implementation Plan outlining strategies for attainment and maintenance of the Standards.

The Bureau of Air Pollution Control has an extensive permitting program which reviews proposals for any operation which would result in air pollution emissions. Thus, any proposal to construct or operate manufacturing facilities, non-commercial fuel burning equipment, storage tanks to hold fuel and other organic substances, and commercial fuel burning equipment with a heat output rate of one million BTU/hour or more must receive a permit from DEP. In addition, the Bureau requires permits to install any incinerator unless it will serve a multi-family dwelling of six units or less.

The purpose of requiring permits under the State's Air Pollution Control Act is to impose controls necessary to meet established standards on potential sources of new air pollution. The Act, therefore, will serve to implement the coastal policies on air quality. Permits are granted when the Bureau has ascertained that the application complies with Federal and State air pollution regulations, and that its emissions control system reflects "Best Available Control Technology", also considered "state of the art" technology. In any year, the Bureau reviews 6,000 to 7,000 applications and approves all but about 120 of these.

#### 10. Solid Waste

The Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. authorizes DEP to supervise the collection and disposal of all solid wastes and related operations, including the location of disposal sites. Proposed facilities and sites are to be reviewed with reference to the quality of groundwater, erosion control, and "such other measures as shall be deemed necessary to protect the public health and safety of the environment "(N.J.S.A. 13:1E-6). Because numerous environmental impacts may be considered under this Act, DEP would apply all of the proposed coastal policies as criteria for site selection for solid waste collection and disposal facilities.

#### C. Funding Programs - Entire Coastal Zone

In addition to regulating selected land and water uses, DEP also administers funding programs which can help to ensure effective coastal management. These programs have been created by both state and federal laws.

#### 1. Green Acres and Recreation

The Green Acres Administration determines where and how state funds should be spent for park and open space acquisition, development, and maintenance. DEP can purchase land under this program by condemnation if necessary. DEP-OCZM reviews proposed expenditures of Green Acres funds in the Bay and Ocean Shore Segment of the coastal zone, for consistency with the Coastal Resource and Development Policies and can suggest modifications or block inconsistent proposals. The same procedure will be followed in the Developed Coast. In addition, the Use Policies for Recreation suggest that Green Acres funds be withheld from municipalities with recreational plans or ordinances which are inconsistent with the State Coastal Policies.

The State Comprehensive Outdoor Recreation Plan (SCORP), prepared by the Green Acres Administration, addresses the adequacy of open space for existing and projected demands, and the accessibility of recreation resources for all segments of the population. The plan qualifies New Jersey for funding under the Federal Land and Water Use Conservation Fund Program. In addition to studying recreation needs and uses, SCORP also includes inventories of federal, state, county, municipal and private recreation resources. The major policies in SCORP, which are

also proposed for adoption in the Coastal Management Program, include an emphasis on open space in urban areas, recreation facility development, increasing public access to recreation resources through mass transit, and developing barrier free recreation facilities.

In November 1978, the voters of New Jersey approved a \$200 million Green Acres Bond issue, with \$100 million earmarked for the acquisition of park land in urban areas. This brings to \$540 million the amount of money approved by the voters for Green Acres funding since 1961. The Green Acres Administration will be spending this money in accord with SCORP priorities. Some of the money will be used for direct state acquisition, while the majority will be channeled through local governments. This money will help to significantly expand public access to the waterfront in the developed coast.

New Jersey is also likely to receive additional funds for park rehabilitation in selected urban areas under the federal Urban Parks and Recreation Recovery Act, passed in 1978. These funds could be used by an eligible municipality to fill the local matching share of a state Green Acres grant.

## 2. Harbor Clean-Up

The "New York Harbor Collection and Removal of Drift Project" is a joint State/Federal undertaking supervised by the U.S. Army Corps of Engineers and administered at the state level by the Bureau of Capital Improvements in DEP's Division of Administrative Operations. The plan calls for the Corps to remove all abandoned sources of drift from both public and private property from mean high water seaward to a distance of 300 feet. Disposal methods include burning at sea, landfill, and land incineration, with burning at sea found preferable. Some dredging may be required to reach structures scheduled for removal. Local governments are to be responsible for subsequent maintenance of facilities, and no funds are provided for the revitalization of cleared areas.

New Jersey's share of the project's cost, \$10 million, was authorized by the voters of the state as part of the \$30 million Beaches and Harbors Bonds Act of 1977. The Act states in part that "the state's growing population, expanding commercial development, and tourist industry all require and should have a clean, adequate, and accessible shoreline" (Section 2b).

The program, which has to date been planned only in the Northern Waterfront area, has been administered with the removal of navigation hazards as the sole criteria for distribution of funds. Once coastal policies for this area are developed and adopted, however, and in keeping with the policy stated in the Act, Harbor Clean-up grants could be given only to those municipalities whose master plans and zoning ordinances are in substantial agreement with the coastal policies.

## 3. Waste Treatment Facilities

The State Public Sanitary Sewerage Facilities Assistance Act of 1965, N.J.S.A. 26:2E-1 et seq., authorizes the Department of Environmental Protection to grant funds to two or more local government units, and under certain specified conditions to a single municipality, for preparation of a feasibility study and report, for construction or extension of a sewerage system. The program is administered by the Division of Water Resources. The Act also authorizes DEP construction grants for up to 30 percent of the State-local cost of water pollution control projects which

qualify for the 75 percent Federal construction subsidy available from EPA under Section 201 of the Federal Water Pollution Control Act Amendments of 1972. The State sewerage treatment plant construction aid program is designed to complement the federal sewerage construction grants, and DEP's funding priorities are in accordance with Federal priority guidelines and Areawide Water Quality Management (208) Plans. This funding program will help to carry out coastal policies related to secondary impacts and the protection of environmentally critical or sensitive areas.

#### 4. Federal Coastal Program Pass-Through Funds

##### Coastal Zone Management Implementation (306) Funds

Upon federal approval of the coastal program, New Jersey is eligible to receive implementation funds under section 306 of the federal Coastal Zone Management Act. DEP received \$800,000 in September 1978, for example, after approval of the program for the Bay and Ocean Shore Segment. The Department has made available \$50,000 of this implementation money to selected county and municipal governments included within the Bay and Ocean Shore Segment boundary by inviting them to submit proposals for up to \$15,000 for projects which would help to fulfill the objectives of the coastal program.

After New Jersey receives Federal approval for the coastal program for the Developed Coast, which together with the Bay and Ocean Shore Segment will make up the complete coastal program for New Jersey, the State will be eligible for increased 306 funds to implement the entire program. DEP intends to make a part of this money available for county and municipal governments to assist with projects which will help to carry out the goals and objectives of the coastal program. Other States have, for example, granted funds to local governments for the development of beach access plans or projects, land use analyses, zoning ordinance revisions, and downtown revitalizations.

DEP has also been receiving funds for the past four years, under Section 305 of the federal Coastal Zone Management Act, to develop the coastal management program. In 1977, DEP passed through \$180,000 of these planning funds to twelve coastal counties, and in 1978 the Department granted \$75,000 to eleven of the counties to enable them to write specific reports contributing to DEP's development of a coastal program. DEP is currently receiving its last year of 305 federal coastal planning funds and will not be eligible to receive additional 305 funds.

##### Coastal Energy Impact Program (308) Funds

The Coastal Energy Impact Program, Section 308 of the Coastal Zone Management Act, provides funds to assist states in dealing with impacts from new or expanded energy facilities. These funds also can be passed through to county and municipal governments, or be used directly by the State. New Jersey has received \$37 million to be used for energy impact planning grants this year. Also this year, the State expects to receive \$1.3 million in formula grants to spend over the next two years. In New Jersey, the Department of Energy is the lead agency for this program. The CEIP is explained in more detail in the section below which discusses the Department of Energy.



## OTHER STATE AGENCIES

A number of state agencies, in addition to DEP, make decisions affecting land and water uses in coastal areas.

Unlike the operating divisions of DEP, these agencies are not bound by DEP rules concerning coastal policies, unless their activities require a DEP permit. Only the Department of Energy (DOE) is specifically obligated to follow the adopted Coastal Resource and Development Policies. This was accomplished through a memorandum of understanding between DEP and DOE which was signed August 22, 1978, and applies to the entire coastal zone. Similar memoranda could be arranged with the other departments, or the Governor could issue an executive order binding other departments to follow the coastal policies. DEP, however, anticipates being able to implement the State's coastal program without additional such agreements.

The sections which follow indicate those activities of other state agencies which affect coastal land or water uses and which could, if conducted consistently with the coastal policies, enhance the program's effectiveness.

All major construction projects will be consistent with the coastal policies by virtue of the Governor's Executive Order 53 of 1973 which requires that any state project costing one million dollars or more, or state projects costing less than one million dollars which by reason of their nature or location have the potential for substantial adverse environmental impacts, be first reviewed by DEP for environmental impacts.

### 1. Department of Energy

The Department of Energy (NJ DOE), created in July 1977 (N.J.S.A. 52:27F-1 et seq.), has broad planning and implementation authority over energy-related matters, including facility siting.

The Departments of Energy and Environmental Protection, recognizing their coextensive jurisdiction over energy facility siting in the coastal zone, and also recognizing the importance of such siting decisions to a successful coastal management program, entered into the memorandum of understanding mentioned above. The memorandum has three important features: a procedure for DOE review of coastal permit applications, a commitment by DEP and NJDOE to make their findings on the basis of the State's Coastal Resource and Development Policies as well as on the State Energy Master Plan, and a procedure for resolving disagreements between the two agencies. The policies proposed for the Developed Coast will be considered amendments to the adopted Coastal Resource and Development Policies for the Bay and Ocean Shore Segment. These policies too will not be adopted until they are agreed to by NJ DOE, and they will then also be subject to the signed Memorandum of Understanding.

The New Jersey Department of Energy is also the lead agency for the Coastal Energy Impact Program (CEIP). The 1976 Amendments to the federal Coastal Zone Management Act created Section 308, the CEIP, to provide financial assistance to help coastal states respond to the growth and impacts of new energy exploration and development. A second objective of the CEIP is to balance the two national goals of encouraging development of domestic energy resources to further energy self-sufficiency, and to protect and manage the nation's coast in a manner consistent with the objectives of a state's Coastal Management Program. To be eligible for

assistance under the CEIP, a coastal state must be receiving a grant under Section 305 of the Act, have a coastal management program which has been approved under Section 306, or be making satisfactory progress which is consistent with the policies set forth in Section 303 of the Act. New Jersey currently meets these criteria. Ensuring New Jersey's continued eligibility through federal approval of a complete statewide coastal management program, is one key incentive for completing the program.

As the lead agency for CEIP, the New Jersey Department of Energy is responsible for administering the program, including soliciting applications, providing technical assistance, and evaluating and approving project applications to distribute funds according to the program's intrastate allocation process. DOE and DEP coordination is required by the federal CEIP regulations which state that CEIP assistance cannot be granted without DEP-OCZM certification of compatibility with the goals and policies of the developing Coastal Management Program or consistency with the approved Coastal Management Program.

To facilitate such a finding, and to satisfy the requirement that the state's coastal planning agency review CEIP applications, the memorandum of understanding provides that all such applications will be forwarded to DEP for consistency review.

Another major responsibility of the Department of Energy is preparation and updating of the State Energy Master Plan. This plan considers the production, distribution, consumption and conservation of energy in the state and surrounding region. The Plan and the more specific reports it promises will become a primary resource for energy facility siting decisions by DEP. The State Energy Master Plan was formally adopted in October 1978.

The Board of Public Utilities, which is in, but not of, the Department of Energy, has broad regulatory authority over public utilities. Included in this authority is the power to supercede local zoning decisions when necessary if the service conveniences the welfare of the public (N.J.S.A. 40:55D-19). This authority comes into play only when a proposed utility facility has received required state permits (including coastal permits) and is denied a required local permit. This provision helps New Jersey fulfill a section of the federal CZMA requiring that local governments not be able to unreasonably restrict uses of regional benefit.

## 2. Department of Agriculture

The Department of Agriculture shares with DEP the regulatory responsibility of the Soil Erosion and Sediment Control Act (N.J.S.A. 4:24-39 et seq.). The Act is administered by the State Soil Conservation Committee, which includes the Commissioners of the two Departments, and local Soil Conservation Districts. The law controls erosion and sediment during the construction phase of development.

It mandates site plan review of proposed sediment control practices for all construction, excluding individually developed single family homes, resulting in a soil disturbance of at least 4,000 square feet and requiring a municipal building permit. Reviews are conducted according to 1972 guidelines which describe standards for techniques to establish ground protection and control of runoff, such as diversions, sediment basins, slope protection structures and channel stabilization. The Coastal Resource and Development Policies pertaining to soil are based on the Act, thereby assuring conformity between the two.

### 3. Department of Community Affairs

The Department of Community Affairs (DCA) is responsible for the administration of a broad range of social programs, including those affecting housing. The Department does not, however, play a significant role in the formal management system of the Coastal Program, with the possible exception of the activities of its Housing Finance Agency.

Under Section 701 of the Federal Housing and Community Development Act, DCA has prepared a State Development Guide Plan (Preliminary Draft - September 1977). The major policies of the Guide Plan are: Maintain the quality of the environment, preserve the open space necessary for an expanding population, provide space and services to support continued economic expansion, and enhance the quality of life in urban areas. These policies and the regulatory and funding decisions made pursuant to them are consistent with the proposed coastal policies.

DCA's Housing Finance Agency (HFA) provides financing for both public and private housing, and makes its decision on the basis of the Guide Plan. DEP will explore development of a more specific statement of consistency between DCA's housing policies and DEP's coastal policies which would expand the coastal program's impact.

### 4. Department of Labor and Industry and Economic Development Authority

The Department of Labor and Industry's (DLI) regulatory programs are, for the most part, not land-use related. However, the Department through its Office of Business Advocacy and the Economic Development Authority (EDA), plays important roles in siting and financing business and industry in the State. As part of this effort, DLI assists industrial developers in obtaining the State permits necessary for siting and operating plants, and will therefore work with DEP on industrial siting decisions. In addition, the Department can speed the development review process by steering potential developers towards sites on which development would be consistent with the coastal policies.

The Economic Development Authority is governed by a seven member board including the Commissioner of DEP. The Authority works closely with the Division of Economic Development within the Department of Labor and Industry. The EDA arranges low-interest, long-term financing for industrial projects and is authorized to enter into contracts and buy and sell land and buildings. In 1977, it provided \$265 million for low interest loans throughout the State. DEP is working with EDA to explore the opportunity for consistency between EDA funding criteria and the proposed coastal policies. This could lead to coordinated planning for industrial development.

### 5. Department of Transportation

The Department of Transportation (DOT) is responsible for the planning, construction, and maintenance of state highways, the review and funding of local highway projects, the planning of state and regional transportation strategies, and the regulation of some transportation facilities. DOT construction projects affecting DEP-regulated lands or resources are subject to DEP regulatory authority, thus insuring their conformity with the coastal policies. As part of their planning responsibilities, DOT and DEP have a working relationship for planning in coastal areas.

## COUNTY AND MUNICIPAL LAND USE AUTHORITY

### County Authority

The major role of counties in the coastal program management system under this Existing Authority Option is as planners. County land use authority is limited to the review and approval of subdivision and site plans for traffic impacts on county roads, and for drainage impacts on county facilities. This authority is derived from the state through the County and Regional Planning Enabling Act (N.J.S.A. 40:1-55). To guide county decision making, most counties have prepared master plans or studies analyzing county issues and concerns. The Municipal Land Use Act (N.J.S.A. 40:55D-1 et seq.) mandates coordination between county and municipal authorities by requiring that municipal master plans include a statement concerning the relationship between the municipal plan and the county master plan.

Other county functions which could help to carry out a coastal program include the 208 water quality planning responsibility some counties have undertaken and the counties' responsibility to prepare Solid Waste Management plans. Under the County Environmental Health Act of 1978, each county can formulate and enforce environmental health ordinances to control air pollution, solid waste, noise and water pollution. These ordinance must be consistent with applicable state laws, rules and regulations. The Act gives the Commissioner of DEP authority to delegate administration of the environmental health laws it administers to the counties. To date, this authority has not been exercised.

Most coastal counties have been actively involved in the planning and development of the state's coastal program. For two years, DEP has sponsored a state-county coastal coordination project with every county in the Bay and Ocean Shore Segment and Salem, Camden, Gloucester, Burlington (for one year), Middlesex, Hudson and Union counties in the proposed Developed Coast. Using funds made available under the federal Coastal Zone Management Act, DEP contracted with the counties for the provision of information and analysis which is being used in the development of the coastal program. The counties have generated ideas, and in some cases, suggested a boundary and policies for their section of the coastal zone.

Through continued work with the counties during program development, DEP can prepare a program which addresses the needs and concerns of all levels of government. DEP could choose to adopt county and municipal plans which adequately address coastal issues and do not conflict with state policy as specific elements of the state coastal program.

### Municipal Authority

New Jersey's municipalities, through their power to enact and enforce zoning ordinances, possess extensive regulatory authority over land uses. The Municipal Land Use Law, (NJSA 40:55D-1 et seq.), requires municipal planning boards to prepare master plans to guide municipal land use. It requires that all municipal zoning ordinances be consistent with or designed to carry out the land use element of the master plan.

The state and municipality act as a check on each other in areas subject to State land use regulatory authority. A locally approved proposal cannot be constructed without receipt of relevant state approvals, and a state-approved project with certain exceptions in which the state has eminent domain authority, must receive appropriate local approvals.

DEP-OCZM has been soliciting municipal participation in the development of the coastal program by sharing draft documents with municipal officials and holding public meetings throughout the state. In addition, DEP-OCZM will continue to encourage municipalities to review and comment on State coastal permit applications. Active involvement of the municipalities and consistency between local plans, ordinances and policies and state coastal policies is important for the successful development and implementation of the coastal program.

#### REGIONAL LAND USE AUTHORITY

##### Delaware River Area

In the Delaware River Area, the Delaware River Basin Compact, a 1961 agreement between the states of New Jersey, Delaware, New York and Pennsylvania, and the federal government creating the Delaware River Basin Commission, may complement and enhance New Jersey state authority to implement the coastal policies. The Commission's responsibilities include planning, conservation, utilization, development, management and control of the water resources of the Delaware Basin. The Commission consists of the governors of the four Basin states (the respective environmental commissioners serve as their representatives) and a designee of the federal government.

Section 3.8 of the Compact states in part that "No project having a substantial effect on the water resources of the basin shall hereafter be undertaken by any person, corporation or governmental authority unless it shall have been first submitted to and approved by the commission ...".

DEP has entered into a small contract with the DRBC to help determine how this project review authority can best be used to implement New Jersey's coastal policies. The first step in this project is to assure consistency between the state's evolving coastal policies for the Delaware River Area and DRBC's Comprehensive Plan. Once consistency is achieved, it will be possible for DRBC to require that proposed developments be consistent with coastal policies as well as with its Comprehensive Plan. Some of the questions still to be answered involve the types of development that DRBC will review for consistency with the New Jersey coastal policies, the review of proposed development that could impact more than one state, and DEP oversight of DRBC's project review activity.

##### Hackensack Meadowlands District

Implementation of coastal policies in the Hackensack Meadowlands District will be a joint venture of DEP and the Hackensack Meadowlands Development Commission (HMDC). The HMDC is composed of the Commissioner of the Department of Community Affairs and three residents each from Bergen and Hudson Counties. It is responsible for developing and implementing a plan for ecologically sound development of the Meadowlands District. For this purpose, it has been given planning and zoning powers for the District, which were previously exercised by the individual municipalities. In 1972, the Meadowlands Commission adopted a master plan, which, as revised in 1977 and 1978, is to guide future development of the District. The HMDC will be the State agency responsible for implementing the coastal program in the Meadowlands District, and the coastal policies for the District will be those presently or hereafter adopted by the HMDC in their Master Plan and other policy documents.

## Northern Waterfront Area

In most of the northern waterfront, coastal policies can be enforced directly only through the riparian statutes. Near the Raritan Bay, DEP also has regulatory authority over development in mapped wetlands. In addition, DEP can channel funds it administers to projects consistent with coastal policies.

The coastal policies can be further implemented through coordination with several interstate and regional agencies having jurisdiction in the area. One of these agencies, the Port Authority of New York and New Jersey, is a self-supporting corporate agency formed in 1921 by the States of New York and New Jersey "to deal with the planning and development of terminal and transportation facilities, and to improve and protect the commerce of the Port District". The Port District is a large area surrounding New York harbor and includes all of the Northern Waterfront coastal zone. Because of the Port Authority's active involvement in the development and management of port, transportation and industrial facilities, DEP-OCZM is working closely with the Authority in policy development. Management of large areas of the northern waterfront by this interstate agency could be an important element of the management system.

In 1978, legislation was enacted in New Jersey and New York to enable the Port Authority to undertake an industrial park development program to revitalize the inner cities of the Port District and create an estimated 30,000 jobs over the next ten years. The Port Authority program to develop sites for manufacturing plants in the hard-pressed central cities would require an investment of more than \$1 billion in public and private funds over the next ten years, of which the Port Authority would invest up to \$400 million on a self-supporting basis.

The Interstate Sanitation Commission was formed in 1936 by the states of New Jersey, New York and Connecticut to control pollution in the tidal waters of the New York metropolitan area. More recently the Commission has become concerned with air pollution as well, and monitors and conducts research concerning both air and water quality. Under its compact (Article 17 as revised October 1970), the Commission may "develop and, after public hearing place in force ... classifications of waters and effluent standards within the District". A NPDES permit may not be issued for any discharge which would violate the Commission's standards.

In addition, planning in the Northern Waterfront Area may also benefit from the newly created Hudson River Waterfront Study and Planning Commission. This Commission, established by Governor Byrne in Executive Order No. 69 on January 11, 1979, is to "conduct a thorough study and investigation of the various alternatives for the planning and redevelopment of the Hudson River Waterfront South of the George Washington Bridge". The Commission will be composed of State Legislators, representatives of Hudson and Bergen Counties, the Mayors of 15 waterfront municipalities in those counties and other citizens appointed by the Governor. Although the Commission's membership and specific work program has not yet been established, it should provide a valuable source of comments and contributions to the State's Coastal Management Program for the Northern Waterfront Area.

## NEW LEGISLATION OPTION

### Summary

The people of New Jersey, through the Governor and Legislature, have given the Department of Environmental Protection responsibility for implementing a significant number of laws and programs directed towards the State's waters and coastal

lands. In the course of administering these laws, however, certain potentially desirable changes have been suggested by interested citizens or have become apparent to DEP staff, which could not take effect without enactment of a new law. Such a law would be designed to address three major issues: The multiple and overlapping state coastal permit programs; the regulatory gaps in the current coastal permit programs; and the unclear, and often duplicative relationship between state and local coastal planning and regulatory procedures.

In brief, the new law would abolish the current CAFRA, Wetlands and Waterfront Development permit programs, creating instead one coastal permit. The coastal permit program would be administered by municipal governments if their adopted plans were consistent with the state coastal policies. In areas where the local government plans were not consistent, DEP would be responsible for the permit program. Participation of local governments in this program would be assisted in part with funds available under the federal Coastal Zone Management Act.

The Department of Environmental Protection has taken steps in recent years to address these issues through administrative action. The institution of the pre-application conference for projects requiring permits, the publication in 1976 of the Interim Land Use and Density Guidelines for the Coastal Area, and the adoption of the Coastal Resource and Development Policies in 1978 as Administrative Rules have all added efficiency, effectiveness and clarity to DEP's processing of coastal permits. As is discussed in the Existing Authority Option Section, the Department has identified additional revisions which it could explore in future years. The new law, however, would provide much greater potential for quickly improving and simplifying the regulatory process.

Discussion of this new legislation option is divided into three sections: Consolidation of State Permits; Activities Subject To The New Law; and State/County/Municipal Authority Under The New Law.

#### 1. Consolidation of State Permits

As a result of the passage of the Wetlands Act of 1970, the Coastal Area Facility Review Act of 1973 and the statute creating waterfront development permits in 1914, New Jersey now has three coastal permits. While each permit program made sense when it was initiated, the result is that one project often requires two or even three of the permits. This is particularly unnecessary now that the state is adopting one set of policies to direct decisions under all three programs.

The new law would repeal the statutes creating the three permit programs and substitute one "Coastal Permit" applying to specified types of projects in one state "Coastal Zone". As the next two sections discuss, the law could be written so that different types of development, or different types of areas, such as wetlands, could continue to be distinctly addressed. The law would have to recognize the remaining riparian statutes so that a coastal permit application for use of riparian lands would only be accepted from persons who had established their right to use the lands.

#### 2. Activities Subject to the New Law

The types of activities to be managed by the proposed law would vary within three tiers of the coastal zone. The first tier, or Water's Edge Area, would include all tidal and non-tidal wetlands, beaches, dunes, flood prone areas and all other land between the water and the first inland road. Development in this area

**COASTAL ZONE BOUNDARY  
UNDER NEW LEGISLATION  
OPTION**




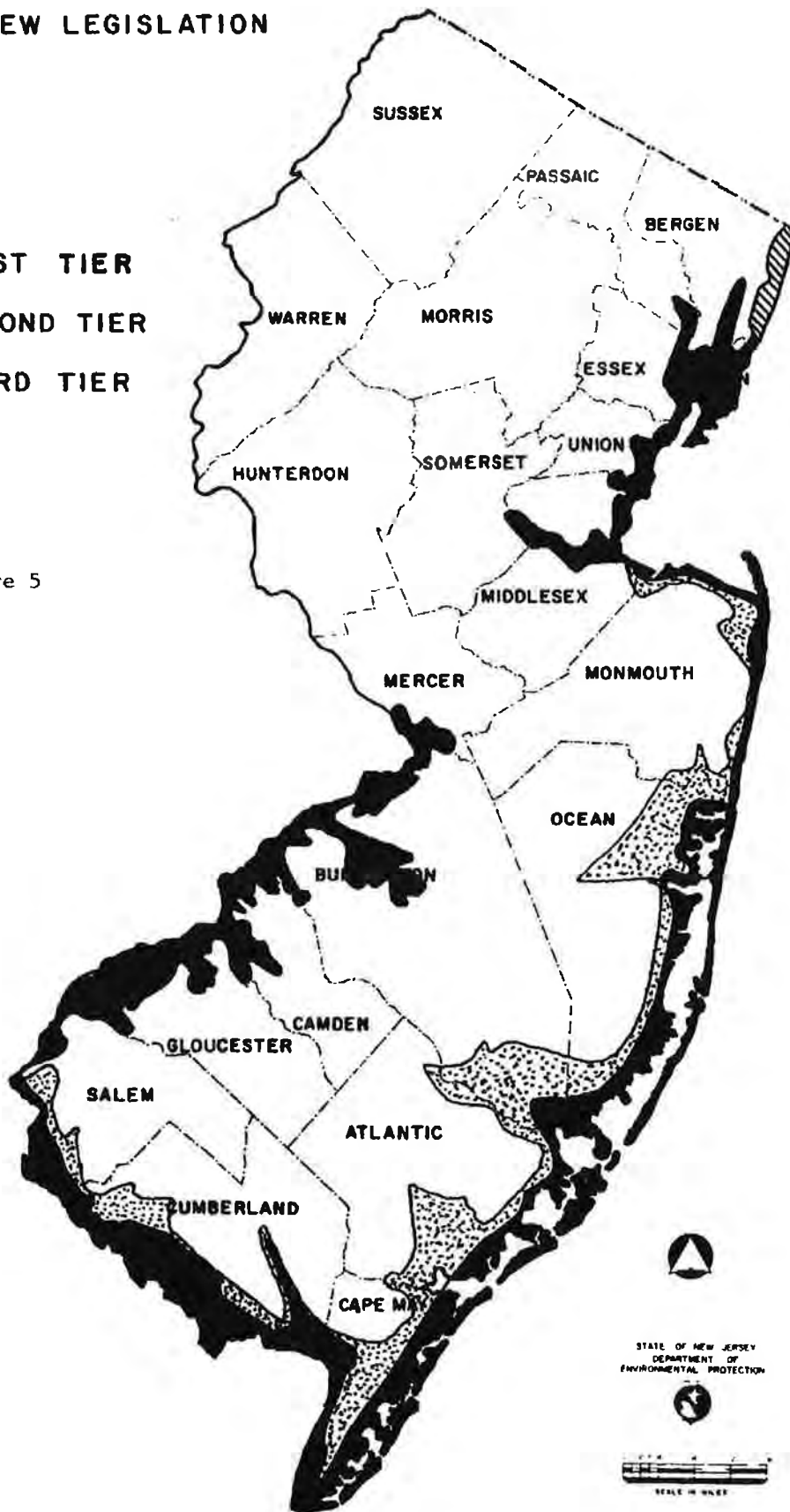
-  **FIRST TIER**
-  **SECOND TIER**
-  **THIRD TIER**

Figure 5



STATE OF NEW JERSEY  
DEPARTMENT OF  
ENVIRONMENTAL PROTECTION



SCALE IN MILES

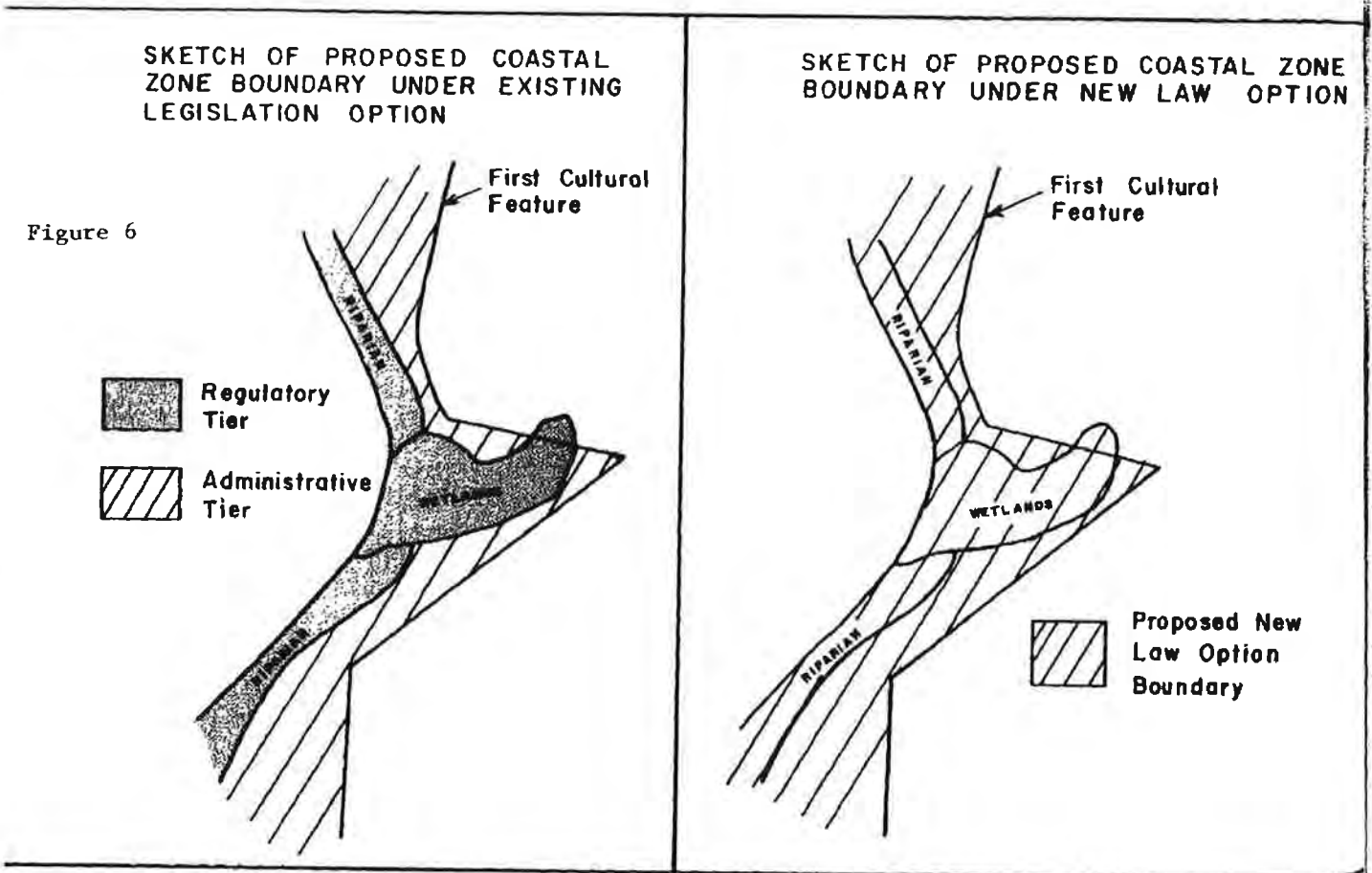


with the exception of minor repairs to existing facilities, would require a Coastal Permit due to the high environmental sensitivity of these areas, and the need to protect life and property from erosion, flooding and storms.

In the second tier, which would include the remainder of the coastal zone except the Palisades area, only major development would require a Coastal Permit. The activities to be regulated would be similar to those regulated under CAFRA, including housing developments of more than 25 units, energy facilities, landfills and major industrial, commercial, transportation, and wastewater treatment facilities.

The third tier would include the Palisades area where the only regulation would be that new development not obstruct the view of the Palisades or the ability of people to enjoy the view from the Palisades. The Palisades area would be defined as the area from the New York-New Jersey boundary on the south and from the Hudson River shoreline on the north to Palisade Avenue in Englewood Cliffs on the south and from the Hudson River shoreline on the east to the 250 foot contour line on the west.

The changes represented by this regulatory system would be that most development immediately adjacent to the water, as well as that now subject to waterfront development, Wetlands and CAFRA authority, would require a coastal permit. Additional protection would thereby be afforded to life and property near the shore-front through stronger management of dune areas and other areas subject to flooding. Also, high rise structures on top of the Palisades would be prohibited.



### 3. State/County/Municipal Authority Under the New Law

Development which requires a CAFRA, Wetlands, or Waterfront Development permit currently must be reviewed by both state and municipal governments for essentially the same factors. The two reviews have the benefit of requiring a developer to conform with both local and state regulations and standards before building, but they have the disadvantages of sometimes delaying and adding expense to the development approval process and resulting in a generally cumbersome and confusing regulatory maze.

The new law would reform this system by requiring DEP to delegate its responsibility to issue coastal permits to municipalities with plans and ordinances consistent with the state coastal program. This system would be adopted as follows:

- a) After the new law was enacted, DEP would contact each municipality in the coastal zone, inviting them to apply for certification to issue coastal permits.
- b) DEP would then meet with those officials who expressed interest and compare their plans and ordinances with the policies of the state coastal program.
- c) If the plans of a municipality were consistent, DEP would give the municipality authority to issue, conditionally approve, or deny coastal permits. Building applicants then would no longer have to approach DEP for a coastal permit.

If necessary, DEP would make small grants available to a local government for administration of the coastal permits. The funds would be passed through from Federal grants New Jersey receives under the Coastal Zone Management Act, and priority would be given to areas with the most intense development pressure.

DEP would delegate this authority to a municipality with three conditions: Amendments, modifications, or variances to local plans or ordinances would have to be approved by DEP; Municipal decisions could be administratively appealed to the Commissioner of DEP; and DEP would review, and could rescind, each certification every two years.

- d) Until the plans of a municipality were reviewed by DEP, or if the plans were not consistent with the state coastal program, DEP would continue to review the coastal permit applications. At the same time, DEP would make grants available to a municipality in which the governing body voted to undertake studies or in other ways work with DEP to seek consistent state-local coastal plans.

#### Alternatives

If a new coastal law is considered by the Legislature, it could include the provisions described or a wide variety of options. The coastal zone boundary, for example, could be smaller, although for New Jersey to continue to be eligible

for funding under the Federal Coastal Zone Management Act, at least all coastal waters and their adjacent shorelands must be included. The coastal zone could also be larger, including, for example, large inland areas along the Delaware or Hudson Rivers.

As with the boundary, many alternatives to the list of activities to be regulated are possible. First, the tiers could be defined differently, using as a criteria, for example, depth to seasonal high water table or soil classifications. Second, a 1,000 foot buffer around sensitive areas could be included as part of the first tier. Third, the first and second tiers could be combined, with the same activities regulated in both areas. Fourth, additional activities could be regulated, such as the destruction of buildings on the New Jersey State Register of Historic Places.

A new law could also be much more limited in scope, addressing only one of the issues described above. The "Dune Management Act" proposed by Governor Byrne in his "State of the State" address in January 1979, for example, would fill what is probably the most significant gap in the existing set of coastal laws.

The law could also allow DEP to delegate the responsibility for issuing coastal permits to counties as well as to municipalities. If the plans and ordinances of a county were consistent, DEP could then grant the county authority to issue, conditionally approve, or deny the coastal permits in all municipalities in the county which DEP had not yet certified. Building applicants would no longer need a coastal permit from DEP, but they would still need to receive two levels of approval: county and municipal. As DEP certified additional municipalities in the county, the municipalities would take over the permit granting authority for the county.

Another possible approach to managing urban waterfront areas would be the establishment of a regional commission. The Legislature and Governor could create such a commission as an entirely new body, or they could give additional decision-making authority to existing agencies. In the Northern Waterfront, for example, the Port Authority of New York-New Jersey or the Tri-State Regional Planning Commission could be given some or all of the regulatory responsibility for land and water use decisions currently exercised by State, County and municipal governments. The same type of authority in the Delaware River Area could be delegated to the Delaware Valley Regional Planning Commission or the Delaware River Basin Commission.

The creation of a new regional agency has been publicly proposed only for the Northern Waterfront Area. The Waterfront Coalition of Hudson and Bergen, made up of some of the area's environmental and civic groups, has for the past several years suggested creation of a temporary waterfront planning commission to assess the needs of the area and make recommendations concerning its reclamation. The duties of the commission would include preparing inventories of present land ownership and use, along with proposed development goals. The commission would be charged with devising a permanent institutional mechanism for carrying out the plan. The Coalition suggests that such a regional approach is appropriate for stimulating the redevelopment needed in the Northern Waterfront area. The regional agency would be similar to the Hudson River Waterfront Study and Planning Commission recently established by the Governor, except that it would include a greater representation of local citizens involved with environmental issues, representatives of neighborhood and ethnic groups, business and industry representatives and local elected officials.

The concept of a regional commission could also be applied to the Delaware River Area. A commission for either area could also be established as a decision-making agency, with power to supercede or replace current state and municipal responsibilities. If the Legislature gave such a permanent commission power to allocate tax benefits and burdens throughout the region, as it has to the Hackensack Meadowlands Development Commission, the commission could decrease municipal competition for tax ratables, and thereby increase cooperation and sound planning.

#### FEDERAL CONSISTENCY

The meaning of Federal Consistency has been subject to much debate since it was first included in the Coastal Zone Management Act in 1972. At a minimum, it leads to increased coordination between DEP and federal agencies near the coast. It increases opportunities for more efficient and effective review of coastal projects which require both state and federal approvals and it establishes a formal process for resolution of differences.

In addition, federal consistency appears to allow the state to block or modify most projects in the coastal zone which require federal permits or funding and would violate parts of the coastal program. This could be particularly important for activities which are either undertaken by a federal agency or require their approval, and do not require permits from DEP. The two major examples of such activities are federally licensed and permitted activities described in OCS plans, and activities affecting navigable waters which are regulated by the U.S. Army Corps of Engineers.

Once the State has an approved coastal management program, any OCS plan for exploration, development or production from any tract impacting New Jersey's coast would have to be certified as consistent with the State Coastal Program. As opposed to past procedures which only allowed the State to exercise review and comment authority over OCS plans, the consistency provisions go one step further by allowing the state to enforce its coastal policies through a consistency certification process.

The second major area in which federal consistency could supplement state authority is in dredging, filling and other activities regulated by permits issued by the U.S. Army Corps of Engineers. The Corps, under Section 10 of the Rivers and Harbors Act of 1899, regulates the obstruction or alteration of, the construction of any structure in or over, and the excavation from or depositing of material in any navigable water of the United States. Under federal law "navigable waters" include adjacent wetlands. The discharge of dredged or fill materials into U.S. waters is also regulated by the Corps under Section 404 of the Water Pollution Control Act of 1972, which requires that such activities take place only at approved disposal sites.

Federal Consistency would allow the state to participate in the regulation of coastal wetlands that have not been delineated, fresh water wetlands, and the wetlands of the Hackensack Meadowlands. At present, none of these areas are covered by the New Jersey Wetlands Act.

Whether the state may exercise this indirect regulatory authority in the manner described above is a subject of some debate, on both state and national levels. Proponents of the more expansive view (including DEP-OCZM) contend that the language of Section 307 clearly indicates that any Federal activity which

significantly affects the coastal zone is subject to review. Proponents of the more restrictive view argue that Federal consistency applies only to activities which are also subject to state regulation. This approach is based on the view that Congress cannot expand the regulatory authority of a state agency when the state legislature has not authorized such an expansion, and on the belief that any land or water use not regulated under an approved coastal management program does not significantly affect the coastal zone. This debate is, as of this date, still unresolved.

In any case, federal consistency applies only after a State's coastal program is approved and cannot be used by a state to help demonstrate that it has sufficient authority to meet the standards of the federal Coastal Zone Management Act. It is, however, a benefit to the State, and DEP is continuing efforts to determine the limits of its potential.

CHAPTER IV: SELECTED MAJOR ISSUES AND COASTAL POLICIES

Introduction  
Coastal Location Acceptability Method  
Selected Major Issues in the Developed Coast

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The Coastal Policies will be the heart of New Jersey's Coastal Management Program. They will articulate the State viewpoint of the best ways to use and manage the more developed parts of the coastal zone. As such, they will provide the substantive rules by which the state legal authorities affecting the coast are administered. In addition, the Coastal Policies will offer a sense of direction to residents, land owners and other governmental agencies for decisions they make which may not fall within the state coastal management system.

In this Chapter, the framework for the policies is described, the proposed decision-making method is summarized, and major uses of the Developed Coast are discussed. In the draft coastal program, DEP will propose one set of policies for New Jersey's entire proposed coastal zone including both the Bay and Ocean Shore Segment and the Developed Coast. The framework will be the policies adopted for the Bay and Ocean Shore Segment.

COASTAL LOCATION ACCEPTABILITY METHOD SUMMARY

DEP proposes to use the same three step coastal decision-making process in the Developed Coast that has already been adopted for the Bay and Ocean Shore Segment. This process is called the Coastal Location Acceptability Method (CLAM). CLAM, involving Location, Use and Resource Policies, increases the predictability and specificity of decisions while providing flexibility sufficient to respond to changing events and new information. The Location Policies are summarized below while the Use and Resource Policies are discussed in the following section. The complete text of the proposed policies is printed in Appendix H.

The Coastal Location Acceptability Method includes a large number of suggested specific policies, in an effort to anticipate and address most coastal resources and proposed activities. Only a small number of the policies will apply to any given proposal. The generally different characters of the Bay and Ocean Shore Segment and the Developed Coast will be respected through this process. Thus, for example, DEP proposes to follow a "Special Area" policy protecting "endangered or threatened wildlife or vegetation" throughout the coastal zone, but it is likely to be an issue primarily though not exclusively on sites in the Bay and Ocean Shore Segment. Similarly, a "Basic Coastal Policy" to concentrate the pattern of coastal development and a Use Policy to locate ports in existing port areas will result in a greater amount of development in the Developed Coast.

DEP plans to propose this set of policies for the entire coastal zone as a revision to the Administrative Rules adopted for the Bay and Ocean Shore Segment on September 28, 1978 (N.J.A.C 7E-1.1 et seq.), after incorporating changes based on public review of both this document and the Draft Program Document and Environmental Impact Statement to be prepared this spring.

## Location Policies

The Location Policies are designed to classify the variety of land and water features found in the coastal zone, and assign appropriate policies for the use of each feature. The recommended coastal policy for a particular location can be determined, therefore, by reference to the policies for the combination of features of which the site is composed. The Location Policies are divided into four broad categories: Special Areas (discussed in the Environmental Resources section of this Chapter), Water, Water's Edge and Land Areas.

Water Areas - Areas below the mean high water line, including intertidal areas, and nontidal permanent surface water features are classified as "Water Areas". The sensitivity of water areas to environmental impacts depends primarily on the assimilative capacity of the specific water area and the present levels of stress placed upon it. Assimilative capacity indicates the amount of adverse impact or pollutants that a water body can absorb and neutralize before it begins to display a significant reduction in biological diversity, chemical, or physical water quality. Two factors -- water volume and flushing rate (the rate that water in a channel or basin is replaced) -- are used in the Coastal Location Acceptability Method to determine the approximate assimilative capacity of water basins and water channels respectively. Water volume depends upon the surface area and depth of a water body. Other factors may also be important in reaching a specific decision.

The Location Policy for coastal Water Areas varies according to the depth of the water basin, flow of the water channel, and proposed use of the water areas. For this reason, the Coastal Management Program will define specific water basin and water channel types and specific uses of water areas. These specific coastal policies are summarized in a Water Acceptability Table. In addition to the Water Areas policies presented in the Coastal Management Program, proposed coastal development must also comply with applicable state and federal surface and ground water quality statutes and regulations.

The Water Acceptability Table presents policies for 19 types of uses in six types of water channels and two types of bays. The uses are: Aquaculture, Boat Ramps, Retaining Structures, Docks and Piers, Dredging-Maintenance, Dredging-New, Spoil Disposal, Dumping, Filling, Piling, Mooring, Sand and Gravel, Bridges, Cable Routes, Overhead Lines, Pipeline Routes, Dams and Impoundments, Pipes, and Miscellaneous.

The water body types are: Ocean, Open Bay, Semi-Enclosed and Back Bay, Inland Basin, Man-Made Harbor, Large Rivers, Medium Rivers, Creeks, and Streams, Intermittent Streams, Guts, Inlets and Canals.

Water's Edge Areas - The Water's Edge is a strip of natural or disturbed land and water areas at the interface between Water Areas (both tidal and non-tidal) and Land Areas. The Water's Edge includes four broad categories: Natural Water's Edge, Retained Water's Edge, Filled Water's Edge, and Existing Lagoon Areas. In general, the Water's Edge extends from the mean high water line to either the landwater limit of soils with a seasonal high water table at the surface or the cultural feature closest to the Water Area, whichever is the lesser distance. Below, the complete text of the proposed water's edge policies is printed.

In general, development is discouraged in the Natural Water's Edge, unless the development satisfies all of the following conditions:

- (a) Requires water access or is water-oriented as a central purpose of the basic function of the activity (this condition applies only to development proposed on or adjacent to waterways),
- (b) Has no prudent or feasible alternative on a non-Natural Water's Edge site,
- (c) Is immediately adjacent to existing Water's Edge development, and
- (d) Would result in minimal feasible alteration of on-site vegetation.

Development is acceptable in Retained Water's Edge Areas providing that: (a) the development is water dependent or the proposed development is for a public recreation or resort use (this latter category would include waterfront parks); (b) the development is compatible with adjacent land uses; or (c) the existing retaining structure is adequate to protect the proposed development or appropriate improvements are proposed for the retaining structure.

Development is conditionally acceptable on Retained Water's Edge Areas along existing non-developed, man-made lagoons providing that: (a) the development is compatible with adjacent land uses, and (b) the structural condition of the existing retaining structure is adequate to protect the proposed development or the proposed development provides for adequate repair or replacement of the structure.

Development is acceptable in Filled Water's Edge Areas provided that: (a) the development is water dependent (this condition applies only to development proposed on or adjacent to waterways); (b) reclamation of the site to its natural state is infeasible; and (c) the development is compatible with adjacent land and water uses.

Development of Existing Lagoon Areas is acceptable provided that: (a) reclamation of the site to its natural state is infeasible; (b) the proposed development is compatible with adjacent land and water uses; (c) existing unstabilized slopes are stabilized using natural materials, to the maximum extent practicable; and (d) existing retaining structures are adequate to protect the proposed development, or appropriate improvements are proposed for the retaining structure.

Land Areas - Land Areas include all features not on a barrier island located upland of the Water's Edge, which is defined by the limit of soils with a seasonal high water table at the surface.

The acceptability for development of Land Areas is defined in terms of three levels of acceptable development intensity. Three factors determine the acceptable development intensity for various locations in Land Areas: (a) Coastal Region, (b) Environmental Sensitivity, and (c) Development Potential. Assessment of these three factors indicates the appropriate pattern of development from a broad, regional perspective and provides a method for determining the acceptable intensity of development of specific sites, as well as entire regions.

Determination of the specific Land Areas policy for a site is a four step process. First, the Coastal Region in which the site is located is determined. Second, the Environmental Sensitivity and Development Potential of the site are determined. Third, the Land Acceptability Table for the appropriate region is



consulted to determine the acceptable intensity of development of the site, given the Development Potential and Environmental Sensitivity factors for the site or parts of the site. Fourth, the proposed intensity of development of the site is compared with the acceptable intensity of development for the site.

Coastal development which does not conform with the acceptable intensity of development of a site is discouraged.

Coastal Regions - The coastal zone is classified into twelve different regions on the basis of the varied patterns of coastal development and resources. For these regions, DEP uses three broad regional growth strategies: (a) High Growth, (b) Moderate Growth, and (c) Low Growth. High Growth means that infill, extension, and some scattered development patterns are acceptable. Moderate Growth means that infill and some extension development patterns are acceptable. Low Growth means that only infill development is acceptable.

The Developed Coast's two major regions, Northern Waterfront Area and Delaware River Area, are both proposed as High Growth areas. (The Hackensack Meadowlands are subject to the HMDC Master Plan rather than the Coastal Location Acceptability Method.) The other ten regions are in the Bay and Ocean Shore Segment. (See Figure 8) The "High Growth" classification indicates the generally acceptable pattern of development, but does not exempt a proposal in such an area from the Special Area and other Location Policies, or the Use and Resource Policies. A development proposal in a wetlands site along the Raritan River in the Northern Waterfront Area, for example, would have to meet the Wetlands Special Area Policy to obtain any necessary DEP approvals, even though the site was in a "High Growth" area.







Environmental Sensitivity - Environmental Sensitivity is a composite indication of the general suitability of a land area for development based on three factors -- (a) vegetation, (b) fertility of soils, and (c) percolation rate of soils -- that are combined to indicate High, Moderate, or Low Environmental Sensitivity on a site or parts of a site. The Draft Proposed Amendments to the Coastal Rules in Appendix H first define these rankings and then define specifically the three factors.

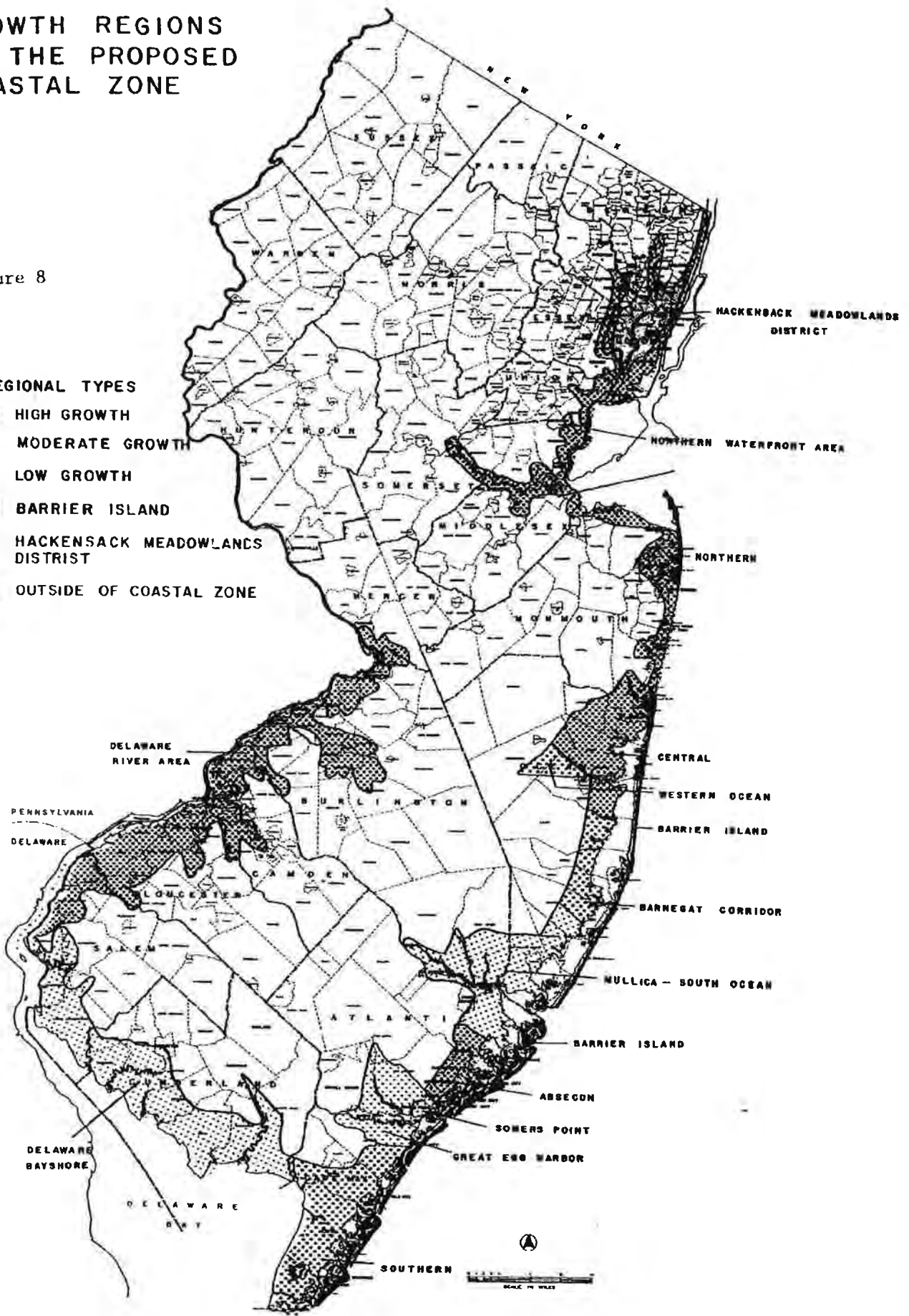
Development Potential - Development Potential has three levels -- High, Medium, and Low -- depending upon the presence or absence of certain development-oriented elements at or near the site of the proposed development. These elements include direct access to roads and sewers, and the extent to which the proposal will contribute to infill of the immediately surrounding pattern of development. The Development Potential rating applies to the entire site. Different sets of Development Potential criteria are defined in the Draft Proposed Amendments for residential, commercial, industrial and campground development. Also, some of the criteria vary, depending upon the regional growth classification. If a specific set of Development Potential criteria is not defined for a particular category or type of development, then the Location Policy assumes a Medium Potential for that category until specific criteria are adopted by DEP. Recommended criteria from an applicant or the public may be considered in the course of the permit application process for a particular development prior to adoption by DEP of specific criteria.

Definition of Acceptable Intensity of Development - The Location Policy for Land Areas is expressed in terms of three acceptable intensities of development of the site or parts of a site, as determined by consulting the Land Acceptability Tables for the appropriate region in Appendix H. The acceptable intensities of

# GROWTH REGIONS OF THE PROPOSED COASTAL ZONE

Figure 8

- REGIONAL TYPES**
-  HIGH GROWTH
  -  MODERATE GROWTH
  -  LOW GROWTH
  -  BARRIER ISLAND
  -  HACKENSACK MEADOWLANDS DISTRICT
  -  OUTSIDE OF COASTAL ZONE



development are expressed in terms of maximum and minimum acceptable percentages of the site, or of different parts of a site, that may be or must be used for structures, herbs and shrubs, or forests. Permeable paving provides a 10% bonus over the permitted maximum level of structures and impervious paving.

High Intensity Development, for example, permits extensive development of paving and structures. Typically, if analysis showed that most of a large area was acceptable for intensive development, the landscape that would be produced would be urban or heavily industrialized. At a Moderate Intensity Development, between 30 and 40 percent of an area can be developed in paving and structures. Typically, if analysis showed that most of a large area was acceptable for moderate intensity development, the landscape that would be produced would be suburban. Low Intensity Development means that the existing conditions of the site would not be disturbed, with removal of vegetation for clearing or maintenance purposes, and no grading, paving or structures. Typically the landscape of Low Intensity Development areas would be rural, agricultural, or forest.

Land Acceptability Tables - The Land Acceptability Table for High Growth Regions indicates the acceptable intensity of development of a site or parts of a site, for each of the nine possible combinations of Environmental Sensitivity and Development Potential factors. The Draft Proposed Amendments to the Coastal Rules contain additional Land Acceptability Tables for the Moderate and Low Growth Regions located in the Bay and Ocean Shore Segment.

The Land Acceptability Tables represent a striking of balances between the environmental sensitivity and development potential of sites, and balances among regions, in order to indicate both which land areas are appropriate locations for development and how the design of the development should use the land features of the site.

Environmental Sensitivity is weighed more heavily in Low Growth Regions than in High Growth Regions. Development Potential is weighed more heavily in High Growth Regions. The general policy in High Growth Regions is to promote growth through infill and lightly limited extension. In this high growth category, the criteria of both high and low development potential are changed to make it easier to obtain a high or medium ranking. For example, proposals that have adequate access to roads and sewers that have been approved but not built may qualify for high development potential status. Proposals that are within 1,000 feet of roads and sewers that have been approved but are not built, qualify for medium development potential. In these areas of planned growth, the requirement that a site must be infill to qualify for medium development potential does not apply. This definition identifies areas where growth is currently planned and then assigns acceptable development intensities as if the infrastructure were in place, which allows non-sequential development. The definition of levels of environmental sensitivity is the same throughout the tables.

Determination of Location Acceptability - Lastly, the location acceptability of a proposed coastal development is determined by comparing the site plan of the proposed development, and the proposed percentages of the site to be used for structures, paving, herb and shrub vegetation, and forest vegetation, with the acceptable minimum and maximum percentages for the site as specified in the three levels of acceptable development intensity that apply to the site or parts of the site according to the Land Acceptability Tables. The percentages of the proposed development's site plan shall conform with the percentages determined using the Land Acceptability Tables, to the maximum extent practicable.

## SELECTED MAJOR ISSUES IN THE DEVELOPED COAST

This section first describes how DEP proposes to address the protection of important resources in the Developed Coast and then describes air quality issues and seven major activities which take place in the Developed Coast. The Coastal Resource and Use Policies are noted in this Section. Together with the Location Policies, these policies constitute the Coastal Location Acceptability Method, which is presented in full in Appendix H.

### Resource Protection

The coastal zone contains numerous special Water, Water's Edge, or Land Areas that merit more focused attention because they constitute a highly valued natural resource, are important for human use, or form a significant hazard. The policies for the Special Areas supplement the other more general Location Policies, and take precedence in case of policy conflict.

The Coastal Resource and Development Policies proposed for the Developed Coast, identify 26 classes of Special Areas in which development should be restricted, modified, or, in some cases, prohibited to insure their protection. The areas are: Oyster Beds, Surf Clam Areas, Prime Fishing Areas, Finfish Migration Pathways, Submerged Vegetation Beds, Navigation Channels, Shipwrecks and Artificial Reefs, Marine Sanctuaries, Beaches, Wetlands, High Risk Beach Erosion Areas, Dunes, Central Barrier Island Corridor, Historic Resources, Specimen Trees, White Cedar Stands, Endangered or Threatened Wildlife or Vegetation Species Habitat, Critical Wildlife Habitats, Public Open Space, Steep Slopes, Farmland Conservation Areas, Ephemeral Stream Corridor, Special Hazard Areas, Excluded Federal Lands, Borrow Pits and Bluffs.

Coastal Resources would also be protected by the suggested Resource Policies. These policies involve a review of a proposed development in terms of its effects on various resources of the built and natural environment of the coastal zone, both at the proposed site as well as in its surrounding region. These policies serve as standards to which proposed development must adhere.

The Resource Policies address Marine Fish and Fisheries, Shellfisheries, Water Quality, Surface Water Use, Groundwater Use, Runoff, Soil Erosion and Sedimentation, Vegetation, Wildlife, Air, Public Services, Public Access to the Shorefront, Scenic Resources and Design, Secondary Impacts, Buffers and Compatibility of Uses, Solid Waste, Energy Conservation, Neighborhoods and Special Communities, Traffic, High Percolation Wet Soils, Wet Soils, Fertile Soils, Flood Hazard Areas, Decommissioning of Projects, Noise Abatement, and Barrier Free Design.

### Air Quality in the Developed Coast

Air Pollution is a particularly critical issue in much of New Jersey's Developed Coast, since the region includes many of the State's most densely developed and congested areas. The coastal management program will help improve air quality by supporting and, where possible, enforcing standards and policies prepared in accordance with the federal Clean Air Act. Because of the importance of this issue to the future of the Developed Coast, the State's air quality program is described in some detail below. Readers wishing greater elaboration may request copies of the State Implementation Plan (SIP) from DEP's Division of Environmental Quality.

Congress passed the Clean Air Act of 1970 and its 1977 amendments in response to public recognition of the harmful health effects of air pollution. The Act gave the federal government the authority to set National Ambient Air Quality Standards (NAAQS), or threshold levels for five pollutants: sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), oxidants or ozone (O<sub>3</sub>), and total suspended particulates (TSP). A "primary standard", designed to protect the health of the people, was to be attained by 1977, while the more stringent Secondary Standard, aimed at protecting vegetation and wildlife, is to be attained by 1982.

The Act assigns responsibility for developing policies to attain these standards, or more stringent standards if it is deemed necessary, to the individual states. The 1977 amendments to the CAA stipulated that each state submit to the federal Environmental Protection Agency (EPA) no later than January, 1979, a State Implementation Plan providing for the attaining, maintaining, and enforcing of the secondary as well as the primary standards by 1982. Exceptions may be granted allowing for a 1987 attainment date for the ozone and carbon monoxide standards.

In New Jersey, the Bureau of Air Pollution Control within DEP's Division of Environmental Quality is responsible for administering the Clean Air Act requirements. The Bureau made available a summary of its proposed SIP in November, 1978, and submitted its final SIP to the federal Environmental Protection Agency at the end of December 1978.

In all twelve counties within the proposed developed coastal zone, carbon monoxide and ozone primary standards are being violated. In addition, the secondary standards for Total Suspended Particulates have not yet been attained in portions of Middlesex, Union, Essex, and Hudson Counties in the Northern Waterfront, and in the City of Camden in the Delaware River Area.

New Jersey's SIP proposes several strategies for controlling air pollutants which will have a direct effect on the Developed Coast. Ozone production will be limited by imposing more stringent emissions limitations on industrial and commercial facilities. The hydrocarbons and organic compounds these facilities produce, tend to react in the atmosphere in the presence of sunlight to form ozone. Carbon monoxide, produced primarily by motor vehicles, and ozone will be controlled through the State's vehicle inspection and maintenance program, and through the eventual replacement of older vehicles with newer, better controlled ones. In addition to vehicle control, the Plan calls for better coordination of local, regional and state transportation planning, the upgrading of the public transit system and equipment, and the development of ride-sharing, other commuter systems, and other programs designed to reduce air pollution emissions. The problem of excess particulates in New Jersey exists mainly in the Northern Waterfront section of the Developed Coast and will be minimized by controls imposed on industrial and commercial sources, and on motor vehicle design and performance.

One of the major strategies of the Clean Air Act is called Prevention of Significant Deterioration (PSD) and is aimed at the control of further pollution in areas which are currently attaining the NAAQS for particulates and sulfur dioxide. Areas in compliance with the Standards for sulfur dioxide and total suspended particulates are classified as Class I, II or III, depending on the extent to which further degradation of the air with these pollutants will be permitted. In the near future, similar policies will be developed for the other NAAQS - regulated pollutants. The EPA classifies these areas, but the States may redesignate areas within their borders with the approval of the EPA Administrator.

Class I areas, which are to be maintained in pristine condition, will be allowed the least incremental increase, while Class III areas are granted the largest increase in allowable pollution. Most of New Jersey and all of the Developed Coast's areas are Class II, which enables moderate growth. Any new major source, defined as a facility with more than 100 tons of emissions per year, is thus subject to preconstruction review and other requirements in order to determine that the new emissions will not cause or contribute to the exceeding of the maximum allowable increments.

In order to maintain acceptable sulfur dioxide levels within the State, New Jersey has chosen to approach the problem at a regional level by mandating the sulfur content of stored, sold and burned coal and fuel oil. The sulfur-in-coal regulations place the most stringent requirements in the State on the Northern Waterfront and the Delaware River Area, allowing a sulfur content of no more than .2% (by weight) in anthracite and bituminous coal. Sulfur-in-fuel regulations place the Northern Waterfront and the Delaware River Area in the second and third strictest categories in the State. Salem County to the south, however, is treated as a more rural zone with less stringent sulfur-in-fuel standards.

Further development in the Developed Coast, all of which presently exceeds the Standards for at least one pollutant and is therefore classified, "nonattainment", will be dealt with through a combination of strategies. One is the federal policy called "Emissions Offset". This provides a means to allow development in an area which does not meet the Standards for one or more of the pollutants. DEP will issue permits to construct or operate new major sources if the total emissions, within the area at the time the source's operation is to commence, will be sufficiently lower than those existing prior to the time of permit application. To accomplish this, the applicant must obtain offsetting reductions from another major source. The offsets might be achieved by the closing of an older, poorly controlled facility, or by the adoption of more efficient emissions controls by another facility within the area or another operation within the same industry. The initiative for the offset reduction comes from the applicant and another cooperating company. The regulations further specify that any other major sources within the State which are owned by the applicant must be in compliance with emissions regulations.

The operation of the Emissions Offset Policy has inherent problems. By definition, the Policy mandates trade-offs between major sources on a stack-specific basis. Thus, there is presently no system which addresses the contribution to air pollution levels made by the collective influence of non-major sources. The Emissions Offset Policy also could be said to favor applicants which are large sources since offset reductions can be made by another source within the same industry or "corporate complex". Finally, the case-by-case system makes it difficult to perfect the coordination in dispersion modeling and emissions monitoring that is necessary to achieve reliable predictions and results.

In the State Implementation Plan, New Jersey proposes to discontinue the use of this policy for allowing development. The State is working to replace "Emissions Offset" with development of an emissions inventory of commercial and industrial sources which could be used to determine the capacity of the State or area to absorb emissions generated by any new development. The emissions inventory will reflect how much "room" is available for a specific type of development with specific amounts of a pollutant to be generated. Since the emissions of all

sources will be stored in the inventory, the pollutants generated by non-major and major sources will be accounted for collectively, and a more realistic representation of air pollution levels will be provided. The inherent bias towards large industries and trust-type agreements between corporations will not exist since applicant-initiated negotiations in order to obtain offset reduction will not be necessary.

Several issues are referred to in the SIP which express New Jersey's concern with the equity issue among states. In legal action against the EPA and Pennsylvania concerning sulfur-in-fuel standards in the Philadelphia region, New Jersey called for and succeeded in bringing about revised sulfur-in-fuel standards in the Philadelphia region which hold adjacent states responsible for controlling their share of emissions imposed upon the air quality of neighboring states. Since both the Northern Waterfront and the Delaware River areas of the Developed Coast are distinguished by their proximity to congested metropolitan areas of New York, Pennsylvania and Delaware, any other such equity policies would affect these coastal areas of New Jersey.

In addition, the SIP states that the federal government should impose standards of performance at the national level in order to avoid the imposition of local hardship. The "Byrne Amendment" of the 1977 Clean Air Act requires EPA to develop New Source Performance Standards (NSPS) within the next three years for new major industrial installations. Each new source must comply with regulations for the type of industry, must monitor emissions continuously, and must conform with the Best Available Control Technology (BACT). The State is also considering requesting the federal government to limit motor vehicle sales to the California-type emission controlled automobiles.

#### Housing in the Developed Coast

The coastal program for the developed coast emphasizes revitalization of the urban waterfront. Upgrading existing housing to reduce abandonment and provide housing near existing transportation, infrastructure and places of employment is one step toward rebuilding healthy center-city neighborhoods. In light of the increased cost of new housing, utilization of existing housing through rehabilitation is the key to providing adequate housing opportunities, particularly for low and moderate income families.

Parts of several major cities, typical of the older urban centers of the Northeast which used to be the hubs of industrial, commercial and residential activity, are located in the Developed Coast. In the Northern Waterfront, these include Newark, Jersey City, Elizabeth, Bayonne, West New York, North Bergen, Passaic, Hoboken, Rahway, Perth Amboy and New Brunswick, and in the Delaware River Area, Trenton and Camden. Each of these thirteen municipalities are eligible to receive state urban aid because of their weak economic status. Most of these cities have a stock of structurally sound but abandoned housing as well as vacant lots which can become the focus of rehabilitation, so that the cities can once again become residential centers for all ages and income groups.

At the same time, the proposed coastal zone waterfront includes parts of the growing areas of Southern New Jersey, particularly areas in Burlington and Gloucester Counties. Demand for housing units is expected to continue to grow in the coastal zone in these southern counties.

Outside the urban centers, demand for new housing will continue to be delineated by transportation routes and new industrial and commercial centers. Single and multi-family housing will cluster around existing infrastructure, utilize public transportation to the maximum extent feasible and locate as close to places of work as possible.

The Suggested Specific Coastal Policies found in Appendix H address Water's Edge Housing, Cluster Development, Residential Mix, Fair Share Housing, Housing and Public Transportation, Housing Rehabilitation, High Rise Housing, and Large Scale Planned Residential Developments.

#### Resort/Recreational Uses in the Developed Coast

Recently, recreation has gained acceptance as a basic need rather than just a leisure time activity. Recreation covers a broad range of activities including swimming, sunbathing, boating and all the activities which use the coastal resources of the Jersey Shore. Recreation also includes walking, picnicking, bicycling and other activities which can be enjoyed anywhere in the state.

To meet the needs of the people of New Jersey, more and varied recreational opportunities must be made available. Experience has shown that people make greater use of recreational facilities located near where they live than those to which they must travel. This observation argues for acquiring and developing parks in or within close proximity to urban areas. Traditionally, cities have not always been anxious to reserve land for a recreational use, because land, when acquired for recreation, may not provide a monetary return to the municipality. In addition, the cost of designing and maintaining parks has often led to unimaginative or dilapidated facilities.

The waterways which cross the Developed Coast, such as Newark Bay and the Passaic, Hudson, Raritan and Delaware Rivers, provide potential for desperately needed recreation areas in urban centers. Until recently, few people have considered these waters as a recreational resource, either because the water bodies are polluted or because they are not accessible to the public. In some cases, present industrial use of the waterfront precludes public use of the water's adjacent shoreline. However, in many areas, industry has abandoned the waterfront locations leaving expanses of waterfront property vacant and in need of renewal. Where urban areas formerly had no open spaces available for recreation, the vacant waterfront land can be developed to provide opportunities for recreational activities.

Also, the recent creation and immediate popularity of Liberty State Park in Jersey City has demonstrated the great benefits and potential for additional waterfront recreation in urban areas.

The Suggested Specific Coastal Policies found in Appendix H would require at least one waterfront park in most municipalities and would encourage all residential, industrial and commercial developments to be designed to include recreational areas.

#### Energy Uses in the Developed Coast

The energy use policies articulated in the Coastal Management Program for the Bay and Ocean Shore Segment already address the siting of energy facilities in the Developed Coast. Only few changes are proposed, therefore, to make the



policies applicable to the entire coastal zone. The policies for the Segment were adopted by both DEP and the New Jersey Department of Energy, and revisions or additions will not be made without similar agreement.

The Developed Coast is already the home of most of the state's non-nuclear energy facilities. The proposed policies suggest that needed new facilities locate in or near the same areas subject to meeting air and water quality standards and the other relevant coastal policies.

New Jersey will probably need to accommodate additional energy facilities to continue contributing to the national production of energy. At this time, however, it is impossible to determine how many different types of energy facilities will be required, due to uncertainty regarding the ultimate output of oil and gas from the Baltimore Canyon, the amount of energy needed in the short and long term particularly considering increased energy conservation activity, and the extent to which the output of existing facilities can be increased. The Hess refinery in Woodbridge, for example, has been idle since 1974, and could be reactivated if the need arose.

Many new energy facilities have been proposed for location in the Developed Coast in recent years, such as LNG facilities in Logan and West Deptford Township. Recently, DEP issued a Waterfront Development permit to GATX Corporation for a liquid bulk loading facility in West Deptford. A few proposals, including petroleum and chemical storage tanks in Jersey City, Bayonne, and Bordentown, have been abandoned after strong public opposition. Many more facilities are discussed, often in the media, but appear to be in an early speculative stage.

The only energy company or utility believed to hold land along the Developed Coast is Public Service Electric & Gas which owns Newbold Island on the Delaware River on which it may one day propose to build a fossil fuel (oil/coal) power plant. This site was disapproved for a nuclear facility in 1971 because of its proximity to a large population.

At least two energy projects which have recently begun in the Developed Coast make use of renewable fuel resources. The Elizabethtown Gas Company, serving 183,000 customers in six counties, has initiated an experimental program to install solar heating and cooling systems to its customers. In addition, Exxon's Bayway Refinery in Linden has been pursuing cogeneration by using waste steam heat from other industrial operations for energy.

The Suggested Energy Use Policies found in Appendix H, include a procedure already in use by DEP and the Department of Energy for the review of energy facility proposals. Other policies address OCS Oil and Gas Exploration and Development, Onshore Support Bases, Platform Fabrication Yards and Module Construction, Repair and Maintenance Facilities, Pipe Coating Yards, Pipelines and Associated Facilities, Oil Refineries, and Petrochemical Facilities, Gas Processing Plants, Storage of Oil, Gases and Other Potentially Hazardous Liquid Substances, Tanker Terminals, Electric Generating Stations, and Liquefied Natural Gas Facilities.

#### Transportation in the Developed Coast

Transportation planning is a statewide issue and is not specifically related to the coast. It is, nevertheless, important to consider existing, proposed and desirable transportation facilities and networks in the preparation of a coastal program and in determining the locations of specific facilities, since transportation has a major impact on air quality, energy consumption, and growth patterns.

The northern waterfront area and Hackensack Meadowlands, and the Delaware River waterfront area are served by relatively distinct transportation systems. The following discussion examines the two areas independently, but recommends policies that can be applicable to both.

Northern Waterfront and Hackensack Meadowlands Areas - Northern New Jersey, highly urbanized and industrialized, is served by major highways, passenger and freight railroads, shipping lines, and by Newark Airport and smaller airfields in Linden and Teterboro.

Major limited-access highways cover most of the region and provide access to New York and South Jersey as well as enabling travellers from New England and Canada to pass through to the South. In spite of the relatively large number of major highways and other local roads, the routes are often severely congested, particularly during rush hours, when traffic is frequently at a standstill. In addition to being overloaded, the local road system is in poor condition, most of it constructed several decades ago.

The public transportation system only provides a competitive alternative to the automobile in limited areas. Express buses for commuters to Manhattan have the use of special lanes which provide an added incentive for commuters to leave their cars behind. The commuter rail system in North Jersey is composed of the Port Authority Trans-Hudson Corporation (PATH) line, connecting Newark with Manhattan, the Conrail-operated New York-Long Branch Railroad which goes down the Jersey shore to Bay Head in Ocean County, and several other Conrail lines terminating in Hoboken or Manhattan, and the Newark City subway.

An alternative form of transport would be the use of a ferry service between New Jersey and Manhattan. In summer 1978, a daily ferry service from Liberty Park in Jersey City took visitors to Ellis Island and Battery Park in New York City. This service will be expanded during Summer 1979 to include stops at the Statue of Liberty.

A number of additions to this existing transportation network are currently under review by various government agencies or the subject of discussion by interested people. Several new roads, for example, have been proposed, including a Hudson River route between Jersey City and Bayonne in Hudson County, which has been approved by the Federal Highway Administration, as part of the Federal highway program, a new route between Linden and Carteret, and a link to the Turnpike from Elizabeth and Newark Airport in Union County. In Bergen County, the completion of Route 21 along the Passaic River to connect with I-80, is the major construction contemplated under the County's transportation improvement program. Construction is scheduled to begin in 1980. In Middlesex County, the extension of Route 18 to Piscataway is under construction, while a proposed alignment of an extension of I-95 to connect with I-287 is still under discussion. In addition, the Garden State Parkway is presently being widened to form an extra lane from the Raritan River Bridge north to Route 22.

The sponsorship of car and van pools through the use of computer origin and destination mapping, by the Departments of Transportation and Energy has met with limited success, but additional special lanes for multi-passenger vehicles, may increase their use. DEP, together with the Departments of Energy and Transportation, has recommended that the new lane on the Garden State Parkway be a High Occupancy Vehicle lane for the use of car and van pools only, but no final decision has yet been made.

The major anticipated rail transportation improvement is the Department of Transportation's plan to upgrade and electrify the New York-Long Branch Railroad. The Urban Mass Transportation Authority has given concept approval for limited electrification of the line from South Amboy to Matawan as Phase 1 of a proposal to extend electrification to Long Branch. The project is expected to be completed by 1982. Although these improvements themselves are outside the Northern Waterfront area, they may reduce the automobile traffic in the area.

In Hoboken, the railroad terminal, which was built in 1907 and is a switching point for 38,000 commuters on PATH trains, is being refurbished by grants from the U.S. Departments of Commerce, Interior, and Transportation and the State Economic Development Authority. In the Hackensack Meadowlands, commuters have a new link to rail travel since the June 1978 opening of the Harmon Cove Station.

An alternative to dependence on the private automobile, is the ferry service between Sandy Hook and Manhattan, suggested by the Gateway National Park Service in its draft management plan. The ferry service is contemplated as an additional way to bring people to Sandy Hook, since the Park Service believes the limited parking space currently prevents the park from being utilized to its full capacity. Ferries could also be used to transport commuters between Monmouth County and New York.

At a time when energy conservation is becoming part of transportation planning, the increased use of bicycles for short journeys can provide an alternative means of transportation. The extension to Route 18 in Middlesex County will include a bikeway as part of its construction. This will connect with a new bikeway across the Raritan River in Johnson Park. Bikeways have also been proposed along the Palisades Interstate Parkway, and along the Hoboken Waterfront, but these schemes are still in the early stages of discussion.

Delaware River Area - The Delaware River waterfront is heavily built up and industrialized. Trenton and Camden grew to be major cities because of their dependence on river traffic, which subsequently declined as new transportation routes displaced to water. The New Jersey Turnpike and I-295 run parallel to each other along the Delaware River with many smaller local roads connecting them to the waterfront. Rail service along the Delaware is almost exclusively for freight. Lines run from Camden, east to Mount Holly, north to Trenton, and south to Cumberland and Salem Counties. Only the Port Authority Transit Corporation (PATCO) line between Philadelphia, Camden and Lindenwold, a high-speed semi-automated select line, carries passengers.

There is regular bus service all along the Delaware River Corridor, with connections to Atlantic City and New York, and both Camden and Trenton have urban bus services.

Although the Delaware Valley Regional Planning Commission's (DVRPC) proposed plan for the year 2000 shows no new major road building programs, a few small projects are contemplated. In Camden County, the DVRPC proposed completing I-76 to connect with I-76, and in Burlington County, the environmental impact statement for the connection of I-295 between Trenton and Route I-195 has been completed.

In rail transportation, PATCO has approved extensions of the line south from Camden to Atco and North to Maple Shade and Moorestown. Completion of the extension will take at least five years, using existing Conrail tracks. All lines would pass through Camden and then into Philadelphia.

The Transportation Use Policies suggested for the Coastal Program found in Appendix H address Roads, Public Transportation, Bicycle and Foot Paths, and Fishing Platforms.

#### Public Facilities in the Developed Coast

Public facilities such as wastewater treatment and solid waste recovery facilities are necessary to meet public needs.

In most areas in the Developed Coast, an infrastructure is well in place. However, in some cases, facilities constructed years ago are obsolete, inadequate or not well maintained so that new or expanded facilities which use modern technology need to be built. Also, new public facilities will be needed as new methods of sewage and wastewater treatment are employed in New Jersey. For example, the composting facility, recently completed in Camden, provides an alternative to Camden City's past practice of offshore sludge disposal. Other types of facilities might be needed in the Delaware and Northern Waterfront Area for New Jersey to comply with EPA's goal to phase out ocean dumping by the end of 1981.

As part of the effort to rehabilitate the urban areas, public facilities may need to be improved to adequately serve the rehabilitated and redeveloped areas. Recognizing that an infrastructure already exists in urban areas, redevelopment and any new development should locate near existing public facilities. This will minimize the need to build new facilities and where feasible, enhance efforts to upgrade existing facilities.

The Suggested Specific Coastal Policies for Public Facilities in the Developed Coast (see Appendix H) generally encourage upgrading existing facilities to meet development and redevelopment needs. The policies also address Solid Waste and Wastewater Treatment.

#### Industry in the Developed Coast

In the Coastal Management Program for the Bay and Ocean Shore Segment, Industry and Commerce were listed together under Section 4.6 of the Use Policies. In this document, DEP addresses them separately so that the distinct demands and benefits of both industry and commerce can be more specifically recognized.

Industrial uses are among the most controversial and complicated activities occurring in the Developed Coast, because of the diverse and often conflicting effect industry can have on an area. While industry can mean jobs, new tax revenues and the provision of goods and services for the local or regional economy, it can also mean more pollution, safety hazards and increased congestion. Industrial use of the waterfront can also preclude other uses in the limited amount of land along the waterfront in urban areas.

New Jersey is an important industrial center, ranking seventh among all states in industrial output. Because of its proximity to major markets, within overnight trucking distance to 31 percent of the nation's population, New Jersey offers facilities to reach mass markets quickly and cheaply. Major rail, air and

ship lines which converge at deepwater ports in the New York-New Jersey Port District and the Philadelphia-Camden area have made New Jersey's waterfronts very desirable, accessible waterfront sites. Changes in transportation and technology, however, have caused changes in patterns of industrial development along New Jersey's waterfronts.

The early development of the Hudson Waterfront as a major marine transport center and the convergence of the railroads in Jersey City, West New York and South Amboy spurred economic growth of the northern waterfront areas. The emergence of truck transport caused a shift in industrial development away from the waterfront to outlying areas leaving large tracts of vacant land and abandoned railroad property near the water. In the northern waterfront, some of these areas have been redeveloped into container port facilities which provide automated cargo handling facilities.

Much of the Northern Waterfront Area along the Hudson River, Arthur Kill and Newark Bay is either in, or zoned for, industrial warehousing or railroad use. Some municipal ordinances in these areas include restrictions on noxious industrial uses such as rendering plants, oil refineries and tank farms.

The Delaware River waterfront has experienced industrial development at a slower pace than the Northern Waterfront. The southern portion of the Delaware Waterfront has attracted chemical and petrochemical industries. Much of the remaining area along this part of the Delaware is privately owned vacant land which has been zoned for industrial use. Industry is also a major user of the Delaware Waterfront north of Burlington City.

Industry in the Developed Coast would be conditionally acceptable, according to the Suggested Specific Coastal Policies found in Appendix H, if it meets the Location and Resource Policies. In addition, new or expanded coastal dependent industrial or commercial development is encouraged at or adjacent to existing sites, to the maximum extent practicable. Marine resource dependent industry, such as commercial fishing, is encouraged and shall have priority over other waterfront uses, except for recreation.

#### Ports in the Developed Coast

Parts of the Northern Waterfront Area and parts of the Delaware Waterfront Area are included in two of the nation's largest port areas; the Port of New York and New Jersey and the Port of Philadelphia. The Port Authority of New York and New Jersey was created in 1921 to promote and protect commerce in the New York-New Jersey Port District. The New York-New Jersey port is the nation's largest, both in terms of total tonnage and the dollar value of freight handling. More than three-fourths of this total is handled in the Newark-Elizabeth container port facilities. The other large public port facility in the northern waterfront area is the Hoboken Port Authority Marine Terminal.

In the Delaware River Area, the South Jersey Port Corporation has been responsible for port development. The Corporation owns two large general cargo and dry bulk terminals in Camden. The Camden Port Authority, formed in 1978, will now share some of the port responsibilities in the city of Camden. The Delaware River Port Authority (DRPA) owns and operates four bridges which span the Delaware River, and maintains responsibility for the Lindenwold High Speed Line. Although the DRPA does not own or operate any port facilities along the Delaware, it promotes trade and commerce in the Port of Philadelphia.

The deepest ship channels in the northern waterfront and the Delaware area are maintained at 40 feet depths. This allows port facilities in these areas to accommodate large cargo, tanker and container ships. Over the past few years, as shipping technology and the type of cargo being handled has changed, new and different types of port facilities have replaced old cargo piers and lighterage terminals. Now new container port terminals need sites which can provide wide expanses of waterfront land with good road and rail access away from congested urban centers. Attractive facilities for cargo carriers can accommodate large vessels, provide good equipment, ample storage space and offer a quick turnaround. Bulk cargo is increasingly being carried in large superships which need specialized terminals to accommodate the transfer of oil, ore or other types of liquid or dry bulk cargo.

The port facilities along New Jersey's waterfronts have changed to meet the demands of the new shipping practices. However, while the changes allow New Jersey to have the largest container terminal in the world in Elizabeth, the changes have also been costly to New Jersey's older port areas. The older single ports which have been vacated are now the site of rotting piers, abandoned buildings and vacant land. Where stevedores used to be busy loading coal from rail cars to boats, abandoned railroads and rotting wharves and docks sit idly at the waterfront.

DEP seeks to use the coastal program to help the Northern and Delaware Waterfront Areas remain healthy port areas by keeping pace with new shipping technologies while providing for redevelopment of the existing outmoded and obsolete docks and terminals. In some cases, unused and underused docks and piers can be rehabilitated to accommodate port needs. However, in many cases, dilapidated wharves and piers need to be removed to provide for more appropriate uses of the sites compatible with surrounding redevelopment and community needs.

It is easy to see that port activities have changed considerably over the past ten years. The Port Authority of New York-New Jersey recognizes the changes which have been made recently to accommodate new needs, but predicts little need for construction of new or expansion of existing port facilities in the New York-New Jersey area over the next ten years. The Port Authority has, however, expressed interest in new industrial development in the Port area.

The need for new or expanded port facilities in the Delaware area is also uncertain. South Jersey Port Corporation has indicated that they foresee no need for new facilities over the next few years. On the other hand, the Delaware River Port Authority has been following OCS operations in the Baltimore Canyon and has suggested the Delaware River area as a likely site for new OCS support facilities. Although the recently formed Camden Port Authority hopes to promote facilities in the City of Camden, it has not determined whether there will be a need for additional port facilities.

In summary, specific needs for additional port facilities in the Delaware River Area and Northern Waterfront Areas have not been demonstrated. DEP, however, wishes to insure that sufficient suitable sites for further port developed are available to meet reasonably anticipated future need. The somewhat general nature of the policies proposed in Appendix H reflect the absence of publicly presented, specific, realistic plans by any of the relevant port authorities. DEP will continue working with the port authorities to propose more specific alternatives to these policies based on analyses of future demand.

The Suggested Port Use Policies are intended to insure that needed port operations and expansion are promoted in established port areas as much as possible.

Commercial Facilities in the Developed Coast

Commercial development along the urban waterfronts could serve as a catalyst to attract people and services to central cities. Views of the Manhattan and Philadelphia skylines offered from the New Jersey shores of the Hudson and Delaware Rivers make the waterfronts in New Jersey's cities appropriate locations for riverfront restaurants, cafes, concert pavillions, markets and promenades.

A concentration of commercial and retail establishments at the waterfront would be consistent with the state's urban renewal efforts. Visitors and residents could use public transportation to reach the waterfront and in most cases, the waterfront area is within walking distance of other areas of the city. Allowing a mix of commercial development which would include shops, restaurants, cultural and recreational facilities and other services would create a magnet which would pull people to the waterfront as well as to the cities.

The Suggested Specific Coastal Policies for Commercial Uses found in Appendix H address Hotel-Motel Development, Hotel-Casino Development, Retail Trade, Convention Centers, Arenas and Cultural Facilities and Parking Facilities.

## INTRODUCTION TO THE APPENDICES

A companion volume to this report includes eight appendices with more detailed information related to preparation of New Jersey's coastal management program. The lengthy report will be quickly sent to any individual who writes or calls DEP's Office of Coastal Zone Management.

The Appendices are listed and briefly summarized below.

- A. THE COASTAL PLANNING PROCESS - This appendix is a summary of DEP's coastal planning activities from 1973 to the present which laid the groundwork for this Options report and for New Jersey's approved Coastal Management Program for the Bay and Ocean Shore Segment. Sections of the Appendix address Major Planning Documents, Public Shorefront Access and Erosion, Energy, Legal Framework, Economics and Land Use, Information Systems, Nominated Areas of Public Concern, Coastal Awareness, Mapping and Public Participation.
- B. THE COASTAL ZONE BOUNDARY - This appendix explores the selection of a boundary for the Developed Coast. Included are 35 maps indicating the proposed boundary and a list of the municipalities with land within this part of the proposed coastal zone. The appendix also includes a description of the criteria DEP used to select this proposal.
- C. EXCLUDED FEDERAL LANDS - The federal Coastal Zone Management Act requires that states exclude lands owned, leased, or held in trust by the Federal Government. This appendix lists the 20 federal land holdings of greater than 100 acres which are within the proposed boundary of the Coastal Zone.
- D. OTHER PLANS AFFECTING THE COAST - An array of regional authorities, agencies, and commissions, both public and private, have prepared plans or proposed development policies for parts of the developed coastal zone. These regional organizations proved to be rich sources of data and ideas which DEP-OCZM will continue to tap throughout the development of the coastal management program.

DEP-OCZM has met with representatives of each regional group and has reviewed the published reports most relevant to the coastal zone. This appendix summarizes the most important findings and recommendations found in these publications. It is divided into five sections: Statewide reports, the Northern Waterfront, the Hackensack Meadowlands District, the Delaware River Area, counties and municipalities, and programs of other states.

The Appendix addresses reports prepared by the N.J. Department of Community Affairs, N.J. Cabinet Committee on Urban Policy, Tri-State Regional Planning Commission, Port Authority of New York and New Jersey, Jersey City Planning Commission, Liberty State Park Study and Planning Commission, Delaware and Raritan Canal Commission, Regional Plan Association, Stevens Institute Center for Municipal Studies and Services, Hackensack Meadowlands Development Commission, Delaware Valley Regional Planning Commission, Wilmington Metropolitan Area Planning Coordinating Council, Delaware River Basin Commission, a selection of counties and municipalities, and coastal programs prepared by New Jersey's nearest neighbors -- New York, Pennsylvania and Delaware.



E. HISTORY AND REQUIREMENTS OF THE FEDERAL COASTAL ZONE MANAGEMENT ACT - This appendix summarizes the provisions of the Federal Act passed in 1972 and amended in 1976.

F. THE DELAWARE - NEW JERSEY BOUNDARY - The Delaware Coastal Zone Act of 1971 precludes, or at least impedes, major waterfront industrial development along the shoreline of Salem County, New Jersey, as a result of the peculiar interstate boundary between the States of New Jersey and Delaware along the Delaware River. As a result of a U.S. Supreme Court decision in *New Jersey v. Delaware* (291 U.S. 361) in 1933, the interstate boundary between New Jersey and Delaware extends north at the mean low water line on the New Jersey shoreline, from a point near the northern tip of Artificial Island, in Lower Alloways Creek Township, Salem County, until the Delaware-Pennsylvania boundary, almost at the Salem County-Gloucester County boundary. Consequently, major development extending in some parts of Salem or Gloucester Counties which extends into the Delaware River could require approval from the State of Delaware, in addition to approvals from the State of New Jersey. This appendix describes the background of this issue and the requirements and policies of Delaware's Coastal Zone Act and Underwater Lands Act.

G. DRAFT CRITERIA FOR NOMINATION OF RIVER AREAS UNDER THE STATE WILD AND SCENIC RIVERS ACT - DEP-OCZM has developed the draft set of criteria included in this Appendix to aid itself and other interested parties in nominating river segments which would benefit from inclusion within the State's wild and scenic river system. Interested readers are invited to comment on the individual criteria, rank their importance (high, medium, or low), suggest additional criteria, and use the criteria in evaluating river segments. It would be especially helpful if individuals or groups with local knowledge compared river segments using these criteria (or a set of criteria they developed themselves) and made the results available to DEP-OCZM. DEP-OCZM will work with the Green Acres Administration to aid that Office in making recommendations for designation of river segments.

H. DRAFT PROPOSED AMENDMENTS TO RULES ON COASTAL RESOURCE AND DEVELOPMENT POLICIES - This last appendix reprints the entire set of Coastal Resource and Development Policies which DEP adopted for the Bay and Ocean Shore Segment of the Coastal Zone. Included are revisions DEP proposes to include so that the policies will appropriately address resources and development throughout the entire proposed coastal zone. The proposed changes are highlighted in the text.

The full text of this Appendix, with revisions based upon public comment, will form a chapter of the proposed coastal management program and draft environmental impact statement which DEP will prepare with NOAA-OCZM this Spring.

### ACKNOWLEDGEMENTS

Options for New Jersey's Developed Coast was prepared by staff of the Office of Coastal Zone Management, under the direction and principal authorship of John R. Weingart, Assistant Chief. Contributing researchers and writers were Helga Busemann, Allan Campbell, Michael Hochman, Wendy Johnston, Richard Kantor, Amanda Kirkpatrick, David N. Kinsey, Stewart McKenzie, Michael Multari, Andrea Topper, Saul Wiener, and Neil Yoskin. Graphics were designed by Michael Hochman and Saul Wiener, and drafting was performed by Marvin Atwood and James Azzinaro. Typing was by Vicky Posluszny. Additional assistance was provided by Joan Cavaino and Wilma DeFazio in OCZM and Dan Hughes in the Office of Shore Protection.

Please send your comments on this report, or requests for additional copies or the Appendices to:

State of New Jersey  
Department of Environmental Protection  
Division of Marine Services  
Office of Coastal Zone Management  
P.O. Box 1889  
Trenton, New Jersey 08625

# OPTIONS FOR NEW JERSEY'S DEVELOPED COAST

A PREVIEW OF A STATE COASTAL  
MANAGEMENT PROGRAM FOR  
PARTS OF:

SALEM, GLOUCESTER,  
CAMDEN, BURLINGTON,  
MERCER, MIDDLESEX,  
SOMERSET, UNION,  
HUDSON, ESSEX,  
PASSAIC, AND BERGEN  
COUNTIES

MARCH 1979



## APPENDICES A-G

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Brendan Byrne  
Governor

Daniel J. O'Hern  
Commissioner

WilmarVezio

APPENDICES  
TO  
OPTIONS FOR NEW JERSEY'S  
DEVELOPED COAST

March 1979

New Jersey Department of Environmental Protection  
Division of Marine Services  
Office of Coastal Zone Management  
P.O. Box 1889  
Trenton, New Jersey 08625

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This volume contains eight appendixes to Options for New Jersey's Developed Coast. The Appendixes are briefly summarized below.

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APPENDIX A: THE COASTAL PLANNING PROCESS: 1973-1979

The New Jersey Coastal Management Program is based on DEP-OCZM staff research, contractual studies by private consultants, university research teams, and state and local government agencies, and considerable public debate, suggestions, questions, and comments over the past six years. The most tangible evidence of the coastal planning process are the federally-approved Coastal Management Program - Bay and Ocean Shore Segment, together with numerous studies and Options for New Jersey's Developed Coast and other reports published by DEP-OCZM. Many of the planning reports produced and widely distributed by DEP-OCZM are available upon request, while others, intended as in-house working documents, are available for review by interested people. Other evidence of the coastal planning process may be less visible, but just as significant as printed documents. This appendix sketches some of the highlights of the coastal planning process to date, both the clearly tangible reports and the public participation efforts.

The coastal program has been prepared in two segments. The first, addressing the Bay and Ocean Shore Segment, received approval from the National Oceanic and Atmospheric Administration in September 1978. The second segment, the Developed Coast, is based on studies prepared for the entire coast during the past six years. Some previous documents which focused on the Bay and Ocean Shore Segment also provided a basic framework for the planning of the Developed Coast, while others specifically addressed issues more prevalent in the Developed Coast.

In addition, DEP-OCZM has held numerous public meetings in the Developed Coast, throughout the planning process. Meetings were held in Trenton to discuss the proposed coastal zone boundary (January 1977), and major planning documents including the Coastal Management Strategy (November 1977) and the Coastal Management Program - Bay and Ocean Shore Segment (May 1978). In the Delaware River Area of the Developed Coast, DEP-OCZM has held public meetings in Camden, in 1976, 1977, and 1978, and in Gloucester in 1978. Speakers from OCZM have attended additional meetings in Gloucester County and Burlington County. DEP-OCZM has shared drafts of documents with the Delaware River Port Authority throughout the planning process and has a contract for joint coastal planning with the Delaware River Basin Commission.

In the Northern Waterfront Area of the Developed Coast, DEP-OCZM held public meetings in Hoboken in 1976, New Brunswick in 1976 and 1978, Jersey City in 1977 and 1978, and Hackensack, Edison and Elizabeth in 1978. In 1977, DEP-OCZM met with municipal officials in Hudson and Bergen counties. DEP-OCZM staff have also spoken to environmental, civic and business groups in the area. Drafts of documents have been shared with the New York and New Jersey Port Authority, and DEP-OCZM has a working arrangement with the Hackensack Meadowlands Development Commission to exchange views on planning efforts.

As an additional method of adding local input and perspectives to planning for the Developed Coast, DEP-OCZM passed through two small grants of federal funds available under the Coastal Zone Management Act to coastal counties to conduct studies on energy facility siting, and to provide county suggestions and comments on the direction and content of the State Coastal Management Program. The participating counties in the Developed Coast were Salem, Gloucester, Camden, Burlington (for one year), Middlesex, Union and Hudson.

## Major Planning Documents

Since 1975, DEP-OCZM has prepared seven major coastal planning reports which were widely shared with public groups, individuals, and agencies. These reports and the reaction to them have shaped the direction and policies of the Coastal Program.

In September 1975, DEP published an Inventory of the New Jersey Coastal Area which defines and discusses the diverse resources, problems and opportunities of New Jersey's coast in order to indicate the range of issues that constitute the agenda for coastal zone management.

In July 1976, DEP released Interim Land Use and Density Guidelines for the Coastal Area of New Jersey, prepared with the assistance of Rivkin Associates of Washington, D.C. This document classifies land and water features in the coastal area in terms of relative suitability for development. The Interim Guidelines and the companion publication, Guiding the Coastal Area of New Jersey -- The Basis and Background for Interim Land Use and Density Guidelines, provided an advance indication to developers, municipal officials, and others, of the likely decision on CAFRA permit applications, and have also served as a focal point for discussion and debate in the development of the Coastal Management Strategy (September 1977) and the Coastal Management Program - Bay and Ocean Shore Segment.

In October 1976, Alternatives for the Coast - 1976 was published to indicate the scope of policy alternatives DEP-OCZM was evaluating for the coastal zone, their implications and the principles that helped shape them. DEP-OCZM expanded upon the policy alternatives in twenty-two issue papers published between November 1976 and early 1977. The topics covered were: Agriculture and the Coast, Air Resources, Cultural Resources, Flooding, Groundwater Quantity and Quality in the New Jersey Coastal Zone, Housing, Ocean Resources (Living, Mineral, and Physical Resources), Sand Movement and the Shoreline, Solid Waste and the Coast, Surface and Coastal Water Resources of New Jersey, Upland Living Resources (Endangered, Threatened and Rare Animals, Endangered and Rare Vegetation, and Upland Wildlife Habitats), and Upland Mineral Resources and the Coast. A separate paper on the value of Atlantic White-Cedar Stands was completed in May 1976.

In December 1976, DEP-OCZM released Alternative Boundaries for New Jersey's Coastal Zone. This report presented ten possible coastal zone boundaries and served as a basis for debate on the issue.

DEP submitted the Coastal Management Strategy, for New Jersey-CAFRA Area to the Governor, Legislature, and public in the fall of 1977. The Strategy introduced the Coastal Location Acceptability Method (CLAM), a method of coastal resource management developed by DEP-OCZM in 1976-1977 using a pilot study area in lower Cape May County. Prepared in part to satisfy the statutory mandate of the Coastal Area Facility Review Act of 1973 that called for the selection of an environmental management strategy for the coastal area in four years, the document also served as a discussion draft of the Coastal Management Program for the Bay and Ocean Shore Segment. DEP distributed 3,000 copies of the Coastal Management Strategy, conducted eight public meetings throughout the state to discuss and debate the coastal program, held twenty additional informal meetings with public agencies and received nearly one hundred written statements with comments on the Strategy. DEP then revised the Strategy substantially in the course of preparing the Draft EIS for the Bay and Ocean Shore Segment document.



The formal federal approval process for New Jersey's coastal program began in May 1978 with the publication of the Coastal Management Program - Bay and Ocean Shore Segment and Draft Environmental Impact Statement. DEP distributed more than 3,000 copies of the draft document, and held numerous meetings with various interest groups to discuss and debate the coastal program. In addition, DEP with NOAA-OCZM convened three public hearings to receive testimony on the DEIS. The final Environmental Impact Statement was the result of revisions made to the May 1978 document, based on public comment gathered at the hearings, in informal meetings, and in written statements, and was approved by NOAA in September 1978.

#### Public Shorefront Access and Erosion

DEP's Office of Coastal Zone Management served as staff to the Commissioner of DEP in his capacity as an active ex-officio member of the New Jersey Beach Access Study Commission. In 1976-1977, DEP-OCZM staff helped prepare the Commission's report to the Governor and Legislature on beach access in April 1977. This report, entitled Public Access to the Oceanfront Beaches, examined beach use, budgets, and fees and ownership.

A study on shoreline erosion was prepared under contract to DEP-OCZM by Rutgers University - Center for Coastal and Environmental Studies. The Coastal Geomorphology of New Jersey, in two volumes printed in December 1977, deals with the management techniques, strategies, and the technical basis and background for shoreline erosion management strategies. The study was a large step forward in understanding how to make decisions regarding development along the shoreline. Its influence is seen in many of the policies (high risk erosion, shore protection, dune protection) of the Coastal Resource and Development Policies (See Appendix H).

#### Energy

In December 1975, the Department of Environmental Protection invited energy industry representatives to provide basic information on coastal energy siting to be used in preparing the energy facility element of New Jersey's coastal zone management program. The results of this "Call for Information" were published by DEP-OCZM in March 1977. The state's three major electric utilities responded in considerable depth to the "Call".

DEP-OCZM's concern with the development of energy facilities is further reflected in two contractual studies undertaken by research groups at Princeton and Rutgers Universities. The study by Princeton's Center for Environmental Studies, entitled Who's in Charge? - Governmental Capabilities to Make Energy Siting Decisions in New Jersey, received financial support from the Federal Energy Administration, which sponsored a similar effort in each of the states associated with the Mid-Atlantic Governors Coastal Resources Council (New York, New Jersey, Delaware, Maryland and Virginia). It was published in September 1977. The Rutgers study, prepared by the Center for Coastal and Environmental Studies and entitled Onshore Support Bases for Offshore Oil and Gas Development: Implications for New Jersey, was released in February 1978. In addition, DEP-OCZM staff completed a report entitled Energy Facility Siting Issues in New Jersey's Coastal Zone, which was released for distribution in December 1977. DEP-OCZM staff also prepared a brief "Fact Sheet on Offshore Drilling in New Jersey" in June 1978.

### Legal Framework

In June 1976, DEP-OCZM compiled "An Inventory of Environmental Law in New Jersey", which includes a description of major New Jersey land use, water quality, air pollution, and living resources laws related to coastal zone management. This is an in-house document which is continually updated.

In June 1977, DEP-OCZM completed "Areawide (208) Water Quality Planning and the New Jersey Coastal Zone Management Program: Opportunities for Interagency Coordination," a paper detailing the relationship between coastal zone management planning and water quality planning being conducted in New Jersey under Section 208 of the Federal Water Pollution Control Act.

### Economics and Land Use

DEP-OCZM had contracts in 1975 and 1976 with the New Jersey Department of Community Affairs (DCA) and the Department of Labor and Industry (DLI) to prepare background land use and socio-economic studies about the coast. DCA produced information concerning: "Coastal Zone Housing Issues", County Land Use Issues in Atlantic, Cape May, Cumberland, Monmouth, Ocean and Salem Counties (six papers), "Growth Centers and Their Implications", "Sewerage Facilities", "Transportation Systems", and "Water Supply".

The Department of Labor and Industry prepared the following papers: "Background Paper: Economic Perspectives on New Jersey Tourist Industry", "Economic Inventory", "Economic Issues and Problems in Northeastern Region of New Jersey Coastal Zone", "Some Taxes", "Economic Profiles" on Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Monmouth, Ocean, and Salem Counties (nine papers), and "Municipalities in Burlington and Middlesex Counties".

### Information Systems

In February, 1975, in cooperation with the American Arbitration Association, DEP began an experiment to validate the environmental data for the Coastal Program. This experiment involved two large public meetings and several subsequent workshops. By January 1976, agreement was reached on data in nine natural resource categories. The categories are: bathymetry, flood areas, geology, groundwater, land use, slope, soils, tidal wetlands and vegetation.

DEP-OCZM also tested the development of information packages on an automated basis, in cooperation with the American Arbitration Association, Rockefeller Foundation, Rutgers University, and Princeton University. The 1976-1977 project, called the "Intuitive-Interactive Model", produced draft information packages on air pollution, construction noise, physical impact, industrial energy demand, odor pollution, residential energy demand, solid waste and waste demand, and urban runoff. One distinctive feature of the model is the ability of interested users such as developers or municipal officials to work directly, or "interact", with the computer. The findings of the project are being used by DEP in considering the ultimate design of an information system to assist coastal and perhaps statewide land and water use decision-making.

### Nominated Areas of Public Concern

In December 1977, DEP-OCZM completed a report for public release entitled Nominated Areas of Public Concern in the New Jersey Coastal Zone. The report describes 176 areas of the state nominated by 140 interested individuals and organizations in 1976-1977, in response to DEP's invitation that the public suggest sites and areas for preservation, development, historic, recreation, visual, or other purposes.

The enthusiastic public response to this invitation led to detailed and wide ranging nominations, which were used in part to confirm and refine the DEP-OCZM staff recommendations on Special Land Areas and Special Water Areas in preparing the Location Policies in the Coastal Management Program - Bay and Ocean Shore Segment and this document. DEP also distributed its report describing the nominations to other state, county and municipal agencies which can make decisions affecting the sites. Finally, the information DEP-OCZM gained about specific sites through the Nominated Areas of Particular Concern program has been used in the past and will be used in the future as supplemental information to be reviewed in individual coastal permit decisions.

### Coastal Awareness

Rutgers University Center for Coastal and Environmental Studies, under contract to DEP-OCZM, produced four booklets on coastal issues for public distribution in 1976-1977. The booklets, which are available from DEP are: "State Government and Coastal Zone Management", "Coastal Zone Legislation", "Oil Spills Reaction and Responsibility in New Jersey", and "New Jersey's Fishing Industry".

### Mapping

During 1976-1978 DEP-OCZM published several map series, which are available to the public. The Inventory of the New Jersey Coastal Area - 1975 describes where these maps are located and how to use them. The Third Year Coastal Zone Management Program Development Grant Application provides a detailed list of the mapping in the first two years of the program. During the third year (1976-1977), extensive mapping was also done as part of DEP-OCZM's pilot study in lower Cape May County. Samples can be found in Appendix Four of the Coastal Management Strategy (September 1977).

The Interim Land Use and Density Guidelines also includes maps of developed and selected environmentally sensitive areas in the Bay and Ocean Shore Segment. Wetlands maps are on file with each county recording officer and are also available for public inspection or purchase in DEP's Office of Wetlands Management. Flood hazard area maps, as delineated by DEP's Division of Water Resources, are available for public inspection.

In addition, DEP-OCZM funded a study by Rutgers University - Center for Coastal and Environmental Studies to develop an underwater aerial photographic methodology suitable for surveying submerged vegetation in the coastal estuaries of New Jersey. The study culminated in the report, entitled Analysis and Delineation of the Submerged Vegetation of Coastal New Jersey: A Case Study of Little Egg Harbor (January 1978), which describes the aerial underwater photographic method, identifies and maps distributions of species, and discusses the ecological functions and associated problems of each of the dominant species.

In July 1978, DEP-OCZM released a staff working paper entitled Definition of the Preliminary Coastal Zone Boundary for the Delaware River and Northern Waterfront Regions of New Jersey's Coastal Zone. This paper identifies the process used by DEP-OCZM to prepare an initial boundary for the coastal zone outside of the Bay and Ocean Shore Segment.

In September 1978, DEP-OCZM held an all day mapping workshop to begin planning a coordinated effort by state agencies and other interested groups to identify mapping and other data needs, and to devise a system for obtaining, storing, and using the information.

#### Public Participation

DEP's Office of Coastal Zone Management is committed to wide public participation by law, by practicality, and by principle. DEP-OCZM's involvement efforts have two objectives, to raise the level of public awareness regarding both threats to, and attributes of the coast, and to identify and meet with individuals and groups who can contribute knowledge and opinions to coastal planning efforts.

DEP-OCZM works to involve people early in the planning process and continues to encourage such involvement. Draft documents are made available. Possible policies are discussed in public long before they are even formally proposed, much less adopted. The objective is for the DEP-OCZM staff to be exposed to as much information as possible, and for initial staff ideas and work products to receive a wide and critical reading. The reason is simple: a coastal zone management program cannot be prepared just from Trenton. The state's coastal zone is too large and too diverse. Public input and feedback is critical. Ideas which appear attractive on a planner's desk may be impossible to apply.

DEP-OCZM uses varied forums and publications to hear and explore varied information and viewpoints. To attract coastal residents, DEP-OCZM convened several series of public meetings in coastal counties during 1975-1978. The first meetings, held in Toms River and Trenton in February and May 1975, were focused on introducing the program and DEP's Data Validation Project. A second series of meetings were held in the summer of 1976 following publication of the Interim Land Use and Density Guidelines for the Coastal Area. A third series of seven meetings were held in the early winter of 1976 after release of Alternatives for the Coast. A fourth series of eight public meetings took place around the state in November-December 1977, following public release of the Coastal Management Strategy. These public meetings often began with a slide presentation and talk by a DEP-OCZM staff member and then turned to the specific concerns of the assembled. Discussion at these meetings flows from the questions, and many topics are each discussed relatively briefly. In addition, DEP-OCZM holds periodic workshops focused on specific, pre-announced subjects. Workshops on Agriculture, for example, were held in October 1976 in two locations (Bridgeton and New Brunswick). Additional workshops were held in February 1977 in Trenton and Toms River on Biological Resources, Physical Resources, Housing, Air Resources and Transportation, and Recreation and Boating.

Upon publication and distribution of the Draft Environmental Impact Statement on the Bay and Ocean Shore Segment in May 1978, DEP-OCZM held numerous workshops throughout the state with municipal officials, environmentalists, and industry and trade representatives prior to the document's more formal review at public hearings in June. The workshops were held primarily to further acquaint participants with

the Coastal Location Acceptability Method (CLAM). DEP staff used a step-by-step process with illustrations to work through a CLAM case study. The workshops also provided a forum for additional comments about the document, so that interested parties could receive clarification on specific points within the document, or suggest and discuss particular issues in greater detail than is possible at hearings. DEP-OCZM, in conjunction with NOAA-OCZM, then held three public hearings on the Coastal Management Program in June 1978 in Bridgeton, Toms River, and Trenton. Approximately 180 people attended the hearings at which a total of 35 persons offered testimony. DEP presented a slide show at the start of each hearing to serve as an introduction to the coastal program.

DEP also meets regularly with representatives of builders and environmental groups. DEP-OCZM has shared and discussed with these groups early drafts of several coastal reports including the Interim Land Use and Density Guidelines, CAFRA Procedural Rules and Regulations and the Coastal Management Strategy. Prior to the May 1978 publication of the Coastal Management Program - Bay and Ocean Shore Segment and Draft Environmental Impact Statement, DEP-OCZM distributed 150 copies of a pre-publication version of the document for quick review and comment by other state agencies, coastal county planning boards, builders, and energy, industry and environmental group representatives who had been active in the coastal planning process. Recipients of the pre-publication draft were also invited to a special Saturday review working session.

Since November 1976, DEP-OCZM has held monthly meetings with an Environmental Advisory Group composed of leaders of statewide civic and environmental groups. These meetings have been regularly attended by representatives of the American Littoral Society, American Association of University Women, League for Conservation Legislation, Sierra Club, Association of New Jersey Environmental Commissioners, Natural Resources Defense Council, and the League of Women Voters, and occasionally by the Citizens Association to Protect the Environment, New Jersey Audubon Society, New Jersey Conservation Foundation, New Jersey Public Interest Research Group, and the Youth Environmental Society.

DEP-OCZM also convened a series of workshops on energy involving oil and gas industry representatives from Louisiana and Texas, as well as from the New Jersey Petroleum Council and the American Petroleum Institute in Washington, D.C., county energy planning representatives, researchers from Rutgers and Princeton, fishing groups, representatives from several state agencies and representatives from environmental groups. As the Newark Star Ledger noted on April 24, 1977, "It comes as somewhat of a surprise to find many of the combatants meeting across tables to discuss the issue informally, almost casually, in New Jersey."

The hearings held by DEP-OCZM on each CAFRA permit application provide another forum for public input in the Bay and Ocean Shore Segment. The hearings are held near the site proposed for development, and range, depending on the interest aroused by the application, from five minute meetings attended only by the applicant to four hour sessions with up to 300 people.

The coastal meetings and workshops are announced primarily through The Jersey Coast, the DEP-OCZM newsletter. This periodical is mailed to all interested persons and organizations known to DEP-OCZM. The mailing list currently includes more than 5,000 names. Meetings are also announced through press releases and the DEP Weekly Bulletin.

DEP-OCZM recognizes that reliance on a mailing list may neglect many potentially interested persons. To expand interest and knowledge of coastal management issues, the DEP-OCZM staff have spoken before a wide variety of municipal, county, state, and regional agencies, and civic, interest and professional groups in New Jersey and in other states. This provides an opportunity to talk with many people who may be well aware of some of the problems, but unaware of the coastal zone management program and possible solutions. Through these meetings, proposed policies are debated, interested individuals identified, and new people added to the mailing list who may later contribute to an element of the program.

DEP-OCZM also participates in other events to raise public awareness of coastal issues and again to identify more people who are interested in participating in the coastal management process. In June, 1976, for example, the DEP Commissioner led federal, state and local officials, interested citizens, and reporters on a six day walk along New Jersey's 125 mile ocean shoreline. This innovative event sparked considerable publicity and interest in the coast both in New Jersey and nationally. The Beach Shuttle experiment operated by DEP in the summer of 1977, and the return of the service in 1978, have provided another vehicle for probing public views on selected coastal management issues. In addition, DEP-OCZM has had exhibits at boat shows and county fairs. In May 1978, DEP developed a portable display describing New Jersey's coastal management program. This display can be easily updated as DEP progresses through the Federal approval process and begins to emphasize different areas of the State's coastal zone. The exhibit has been placed at several environmental and ecological fairs around the state, in libraries, and in the rotunda of the State House.

## APPENDIX B: THE COASTAL ZONE BOUNDARY

### Introduction

This appendix explores the selection of a boundary for the Developed Coast. The area eventually recommended by DEP, combined with the previously defined Bay and Ocean Shore Segment, will constitute New Jersey's Coastal Zone. A "metes and bounds" description of the proposed boundary indicating the roads followed by the boundary line is available from DEP.

It must be stated at the outset that DEP does not propose to regulate all, or even most activities within the selected coastal zone boundary. Rather, the coastal management program will regulate those activities described in the Management System Chapter.

The federal Coastal Zone Management Act provides general standards which states must meet in selecting a coastal zone boundary.

"Coastal Zone" means the coastal waters (including lands therein and thereunder) and the adjacent shorelands influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends ... seaward to the outer limit of the United States territorial sea. The zone extends 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. 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." (Section 304 (1))

In addition to meeting these standards, DEP seeks a coastal zone boundary which will include all areas in which proximity to the waterfront presents special problems or opportunities, and which is easily recognizable.

DEP is proposing a coastal zone boundary for the Developed Coast which includes all tidal waters and their adjacent shorelands inland to the first road or cultural feature. The effect of this boundary will depend upon the management system chosen to administer New Jersey's coastal management program (See Chapter III).

This Appendix provides a definition of the proposed boundary, lists the specific areas within the boundary, presents maps of the proposed coastal zone, and describes the criteria DEP used to delineate the boundary. Using this information, readers can easily determine whether or not areas about which they are concerned are within the proposed coastal zone.

DEP first publicly analyzed the selection of the coastal zone boundary in December 1976 in a staff working paper entitled "Alternative Boundaries for New Jersey's Coastal Zone". This 55 page paper, which was widely circulated and discussed, described possible boundaries and included a preliminary recommendation.

The coastal zone boundary DEP proposes in this Chapter is a detailed refinement of the preliminary recommendation. Comments by interested individuals and groups, particularly County Planning Boards, suggested specific modifications, some of which have been incorporated into the proposal. The most major change has

been the proposed division of the coastal zone into two tiers in the Existing Authority management system option (See Chapter III). In addition, the inland boundary has been adjusted to avoid cutting through pieces of property. Other suggestions, which have been incorporated, are noted as alternatives throughout the Appendix.

The next section describes the criteria DEP used in determining the proposed boundary and notes alternative suggestions.

#### Criteria of Delineating the Proposed Boundary

The proposed "coastal zone" is based on a definition of coastal waters, an inland boundary drawn along easily-recognized public roads and railroads immediately landward of the defined coastal waters, and the jurisdiction of the Hackensack Meadowlands Development.

Coastal Waters include tidal portions of the Hudson River, Passaic River, Hackensack River, Raritan River, Delaware River, Newark Bay, Upper New York Bay, Raritan Bay, Arthur Kill, Kill Van Kull and their tidal tributaries, and other tidal streams of the Coastal Plain.

The landward extent of coastal waters can be defined either by the limit of waters containing a specified percentage of salinity, the extent of the salt wedge, or tidal influence. DEP has chosen the landward penetration of tidal influence in a watercourse because this provides a readily measurable dividing line for coastal and non-coastal waters. (The tidal limit also coincides with the extent of State-owned tidelands and permit regulation under the riparian lands management program). Salinity levels are highly variable geographically throughout the seasons and from year-to-year, and therefore not appropriate for fixed boundaries, given the complexity and diversity of New Jersey's estuaries.

Two methods have been used to define the upstream limit of tidal activity. First, the approximate tidal limits specified in the annual Compendium of New Jersey Fish Laws, published by DEP's Division of Fish, Game and Shellfisheries have been used where available. These limits are typically defined as bridges or dams. Second, the point where the 20 foot contour interval crosses the water course is used to define the approximate limit of tidal influence along other tidal water courses. The 20 foot contour line criterion was suggested by DEP's Office of Environmental Analysis, since most of tidal influence is within the first 20 foot elevation.

The Office of Environmental Analysis is currently working to precisely and legally define New Jersey's tidal limits. When this work is completed, DEP will consider amendments to the coastal zone boundary.

The inland boundary was drawn along easily recognized public roads and railroads immediately landward of the defined coastal waters. Possible cultural features to be used were identified on the United States Geological Survey (U.S.G.S.) Topographic Quadrangle Maps. These cultural features were cross-checked with recent aerial photographs to eliminate "paper" streets and false information. If no recent aerials were available for the area, the coincidence of data between the quadrangle maps, tax maps, and street maps warranted the assumption that the cultural features in question did exist. At no point, were set distances or



natural land features used to better approximate the tidal water. The boundary only follows the path of those cultural features which intersect or cross over another.

This "chain" of cultural features was mapped on overlays using the U.S.G.S. quadrangle maps (1:24,000) as base maps. All points where the boundary meets political boundaries were encircled and coded to enable easier identification of the boundary in specific counties or municipalities.

A narrative was prepared detailing the exact location of the boundary. The text was organized by major water bodies and their tributaries (i.e. Hudson River, Newark Bay, Arthur Kill). The coded points on the maps, indicating points where the coastal zone boundary crossed political boundaries, were included in the text to locate more readily the boundary description for specific municipalities and to create reference between the text and the maps.

This proposed coastal zone includes at least a small part of a total of 237 municipalities in seventeen of New Jersey's twenty-one counties, including municipalities in the Bay and Ocean Shore Segment. The next section of this appendix lists the municipalities in the proposed Developed Coast. Only Hunterdon, Morris, Sussex, and Warren counties have no coastal waters and are entirely excluded from the coastal zone. This relatively large zone, united by the presence of coastal waters, is quite diverse, stretching from the port at Camden to the vast wetlands along Delaware Bay, to the beaches of the barrier islands along the ocean, to the industrialized waterfront of northern New Jersey.

Tidal influence makes the Delaware River region immediately adjacent to these waters "coastal" in the sense intended by the federal Coastal Zone Management Act. Although the Coastal Area Facility Review Act (CAFRA) boundary stops south of the Delaware Memorial Bridge, the tidal influence on the Delaware River extends 60 miles further north to Trenton. Because of the flat topography of the Coastal Plain, tidal tributaries from the Delaware River extend up to 10 miles inland. NOAA-OCZM does not require inclusion of the Delaware River within New Jersey's coastal zone as the quantity of seawater is less than five parts per thousand. However, the State of New Jersey does today manage the wetlands and riparian lands along this part of the coast and DEP recommends inclusion of these areas within the proposed coastal zone for the second phase of New Jersey's coastal management program under federal law.

As part of their contract with DEP-OCZM, several coastal county planning boards suggested a coastal zone boundary for their county. The Hudson County Office of Planning recommended a preliminary coastal zone boundary which closely matches the boundary recommended by DEP. The county used the following six indicators: 1) existing local and county land use maps, 2) land ownership tax records, 3) USGS topographic maps, 4) existing local, county and state transportation maps, 5) land use and transportation surveys, and 6) susceptibility to coastal development or coastal development potential. Other areas were included in the coastal boundary as areas susceptible to coastal development. Several areas of this type exist along the Hudson River where large areas of underutilized railroad land dominate the waterfront.

The Salem County Planning Staff suggested that the Delaware River Area of the coastal zone be limited to the Delaware River shoreline and adjacent portions of its tributaries and their wetlands. The land buffer areas suggested were of minimal width, rather than what they consider the large area included within the current proposed boundaries. Gloucester County's recommendations, presented in the form of a resolution from the County Planning Board, is similar except that they do not recommend any buffer areas, believing the boundary should be confined to wetlands and riparian lands now regulated by DEP.

The Camden County Environmental Agency found OCZM's criteria used to designate the upstream limits of tidal influence on the tributaries to the Delaware River acceptable and, consequently, did not recommend any alternative. Two specific suggestions regarding the boundary in Pennsauken Township were accepted by DEP-OCZM:

1. At the northwestern end of the Township, instead of following the Industrial Highway Remington Avenue out to Route 73, the boundary now follows Hylton Road until it intersects with Route 73. The boundary then continues southeast along Route 73.
2. In the vicinity of the Pennsauken-Cherry Hill municipal line (Maple Avenue), the boundary follows from Maryland Avenue (or an extension of Maryland) to the Penn Central tracks west of Sorrell Horse Road.

One other comment on the boundary is worthy of note. That is the boundary modification suggested by the Wave Hill Center for Environmental Studies and others, to include the Palisades area in the coastal zone. This area extends from the New York-New Jersey boundary on the north to Palisade Avenue in Englewood Cliffs on the South, and from the Hudson River shoreline on the east to the 250' contour line on the west. DEP-OCZM has not included this area under the Existing Authority Option, because it lacks authority to regulate or manage development affecting the view presented by the Palisades. This area is, however, included as part of the recommended coastal zone under the New Legislation Option (See Chapter III).

DEP intends to review and consider additional revisions to the boundary which may be suggested as a result of public review of this document. In addition, several agencies including the Delaware River Basin Commission and the Hackensack Meadowlands Development Commission are currently reviewing the section of the boundary of concern to them and plan to provide DEP with detailed comments for use in preparation of the draft EIS of the coastal program.

#### Municipalities Within the Preliminary Boundary of the Coastal Zone of the Entire State

All or part of 238 of New Jersey's 567 municipalities are included in the preliminary state-wide coastal zone. The municipalities in the Developed Coast are listed below, by county, by regions, either Delaware River Area or Northern Waterfront Area (which includes the Hackensack Meadowlands District). It is important to note that this is only a proposal at this stage.

DELAWARE RIVER AREA

Burlington County

Beverly City  
Bordentown City  
Bordentown Township  
Burlington City  
Burlington Township  
Chesterfield Township  
Cinnaminson Township  
Delanco Township  
Delran Township  
Edgewater Park Township  
Fieldsboro Borough  
Florence Township  
Hainesport Township

Lumberton Township  
Mansfield Township  
Maple Shade Township  
Medford Township  
Moorestown Township  
Mount Holly Township  
Mount Laurel Township  
Palmyra Borough  
Riverside Township  
Riverton Borough  
Southampton Township  
Westhampton Township  
Willingboro Township

Camden County

Audubon Borough  
Barrington Borough  
Bellmawr Borough  
Brooklawn Borough  
Camden City  
Cherry Hill Township  
Gloucester City  
Gloucester Township  
Haddon Township  
Hi-Nella Borough

Hi-Nella Borough  
Laurel Springs Borough  
Lindenwold Borough  
Magnolia Borough  
Mount Ephraim Borough  
Pennsauken Township  
Runnemede Borough  
Somerdale Borough  
Stratford Borough

Gloucester County

Deptford Township  
East Greenwich Township  
Greenwich Township  
Mantua Township  
National Park Borough  
Paulsboro Borough

Swedesboro Borough  
Wenonah Borough  
West Deptford Township  
Westville Borough  
Woodbury City  
Woolwich Township

Mercer County

Hamilton Township

Trenton City

Salem County

Oldmans Township  
Penns Grove Borough

Pennsville Township  
Pilesgrove Township

NORTHERN WATERFRONT AREA

Bergen County

Alpine Borough  
Bogota Borough  
Carlstadt Borough  
East Rutherford Borough  
Edgewater Borough  
Englewood Cliffs Borough  
Fairview Borough  
Fort Lee Borough  
Garfield City  
Hackensack City  
Little Ferry Borough

Lyndhurst Township  
Moonachie Borough  
New Milford Borough  
North Arlington Borough  
Oradell Borough  
Ridgefield Borough  
River Edge Borough  
Rutherford Borough  
Teaneck Township  
Teterboro Borough  
Wallington Borough

Essex County

Belleville Town  
Newark City

Nutley Town

Hudson County

Bayonne City  
East Newark Borough  
Guttenberg Town  
Harrison Town  
Hoboken City

Jersey City  
Kearny Town  
North Bergen Township  
Secaucus Town  
West New York Town

Middlesex County

Carteret Borough  
East Brunswick Township  
Edison Township  
Highland Park Borough  
New Brunswick City  
Old Bridge Township

Perth Amboy City  
Piscataway Township  
Sayreville Borough  
South Amboy City  
South River Borough  
Woodbridge Township

Passaic County

Clifton City

Passaic City

Somerset County

Franklin Township

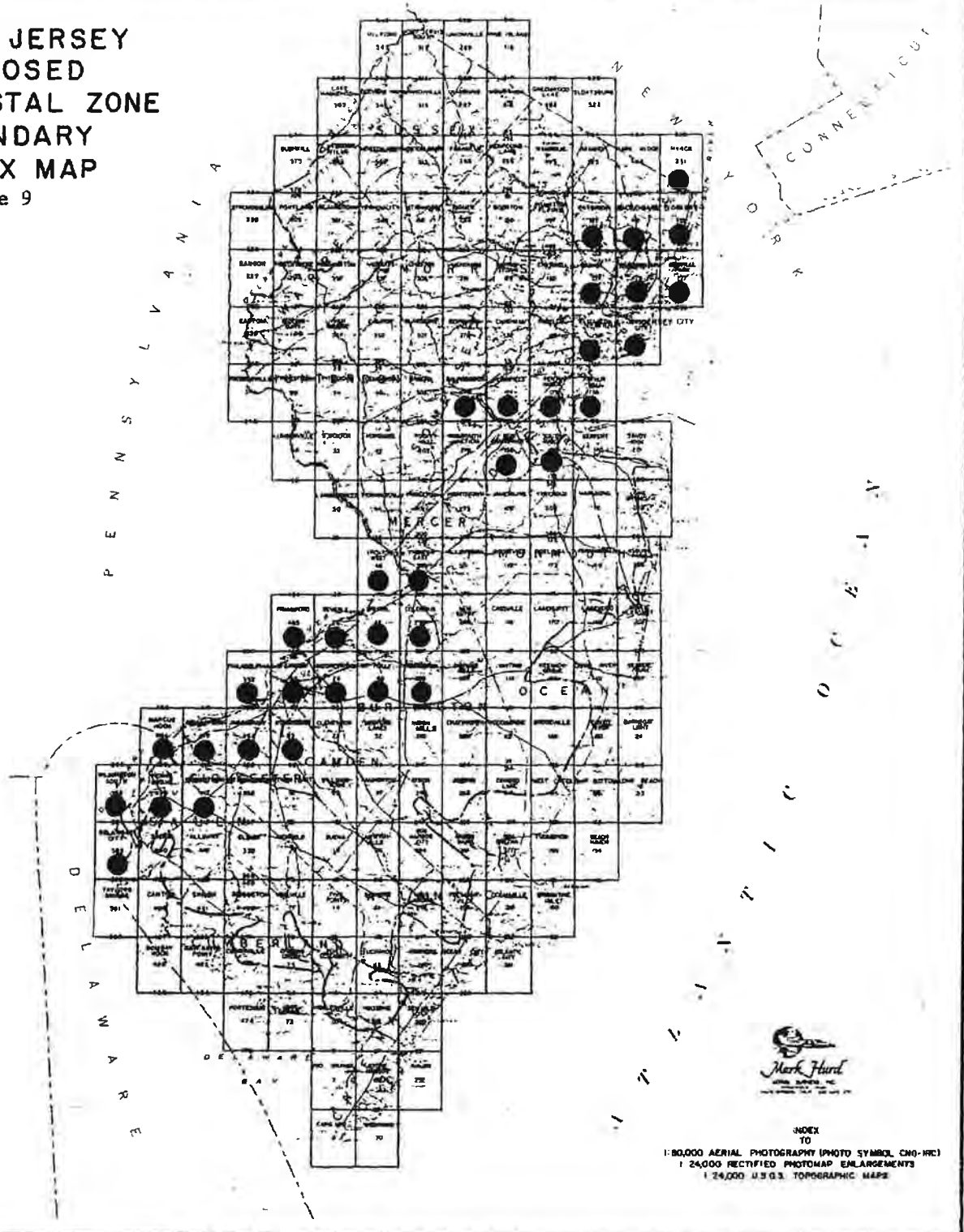
Union County

Elizabeth City  
Linden City

Rahway City

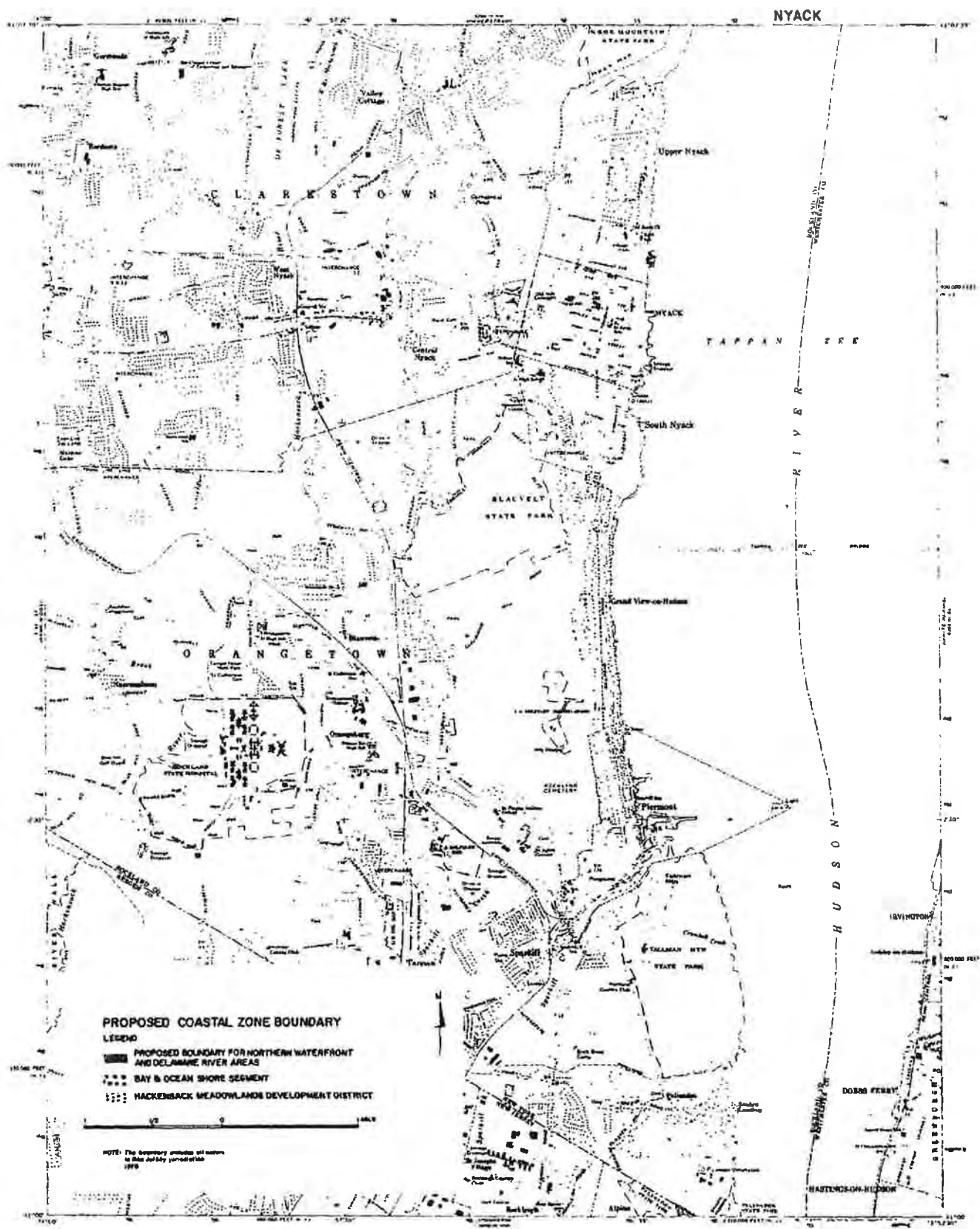
# NEW JERSEY PROPOSED COASTAL ZONE BOUNDARY INDEX MAP

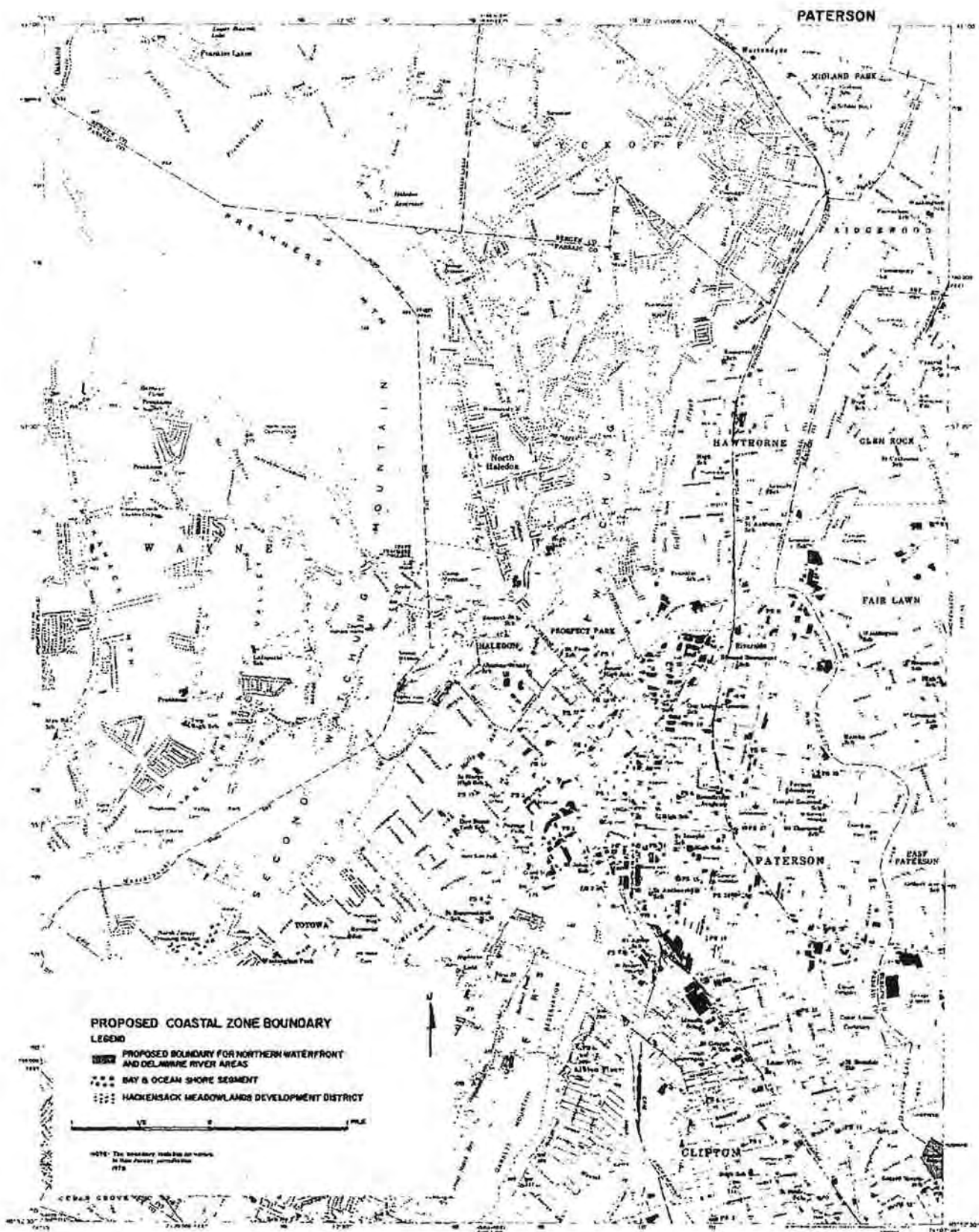
Figure 9

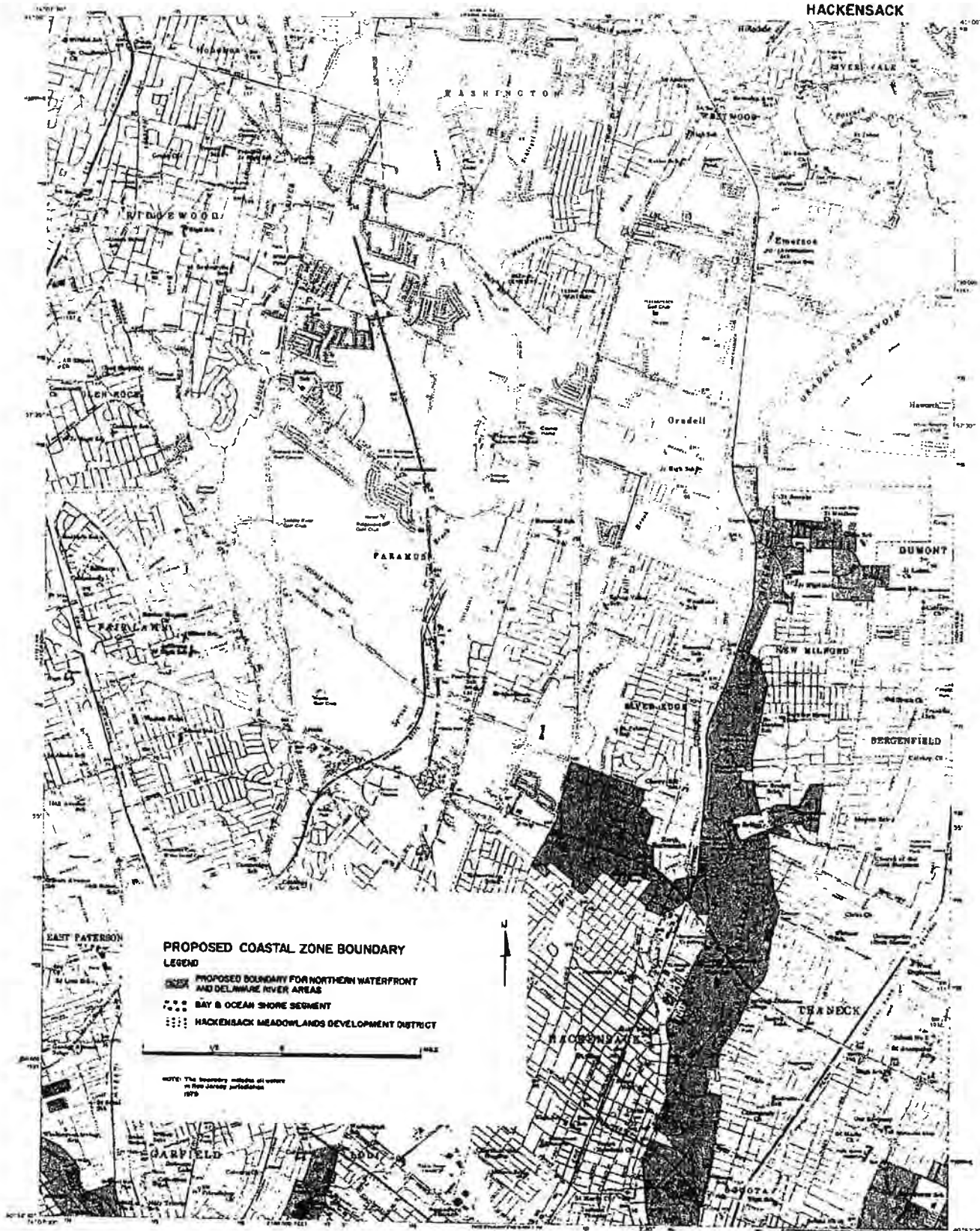


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1:24,000 U.S.G.S. TOPOGRAPHIC MAPS

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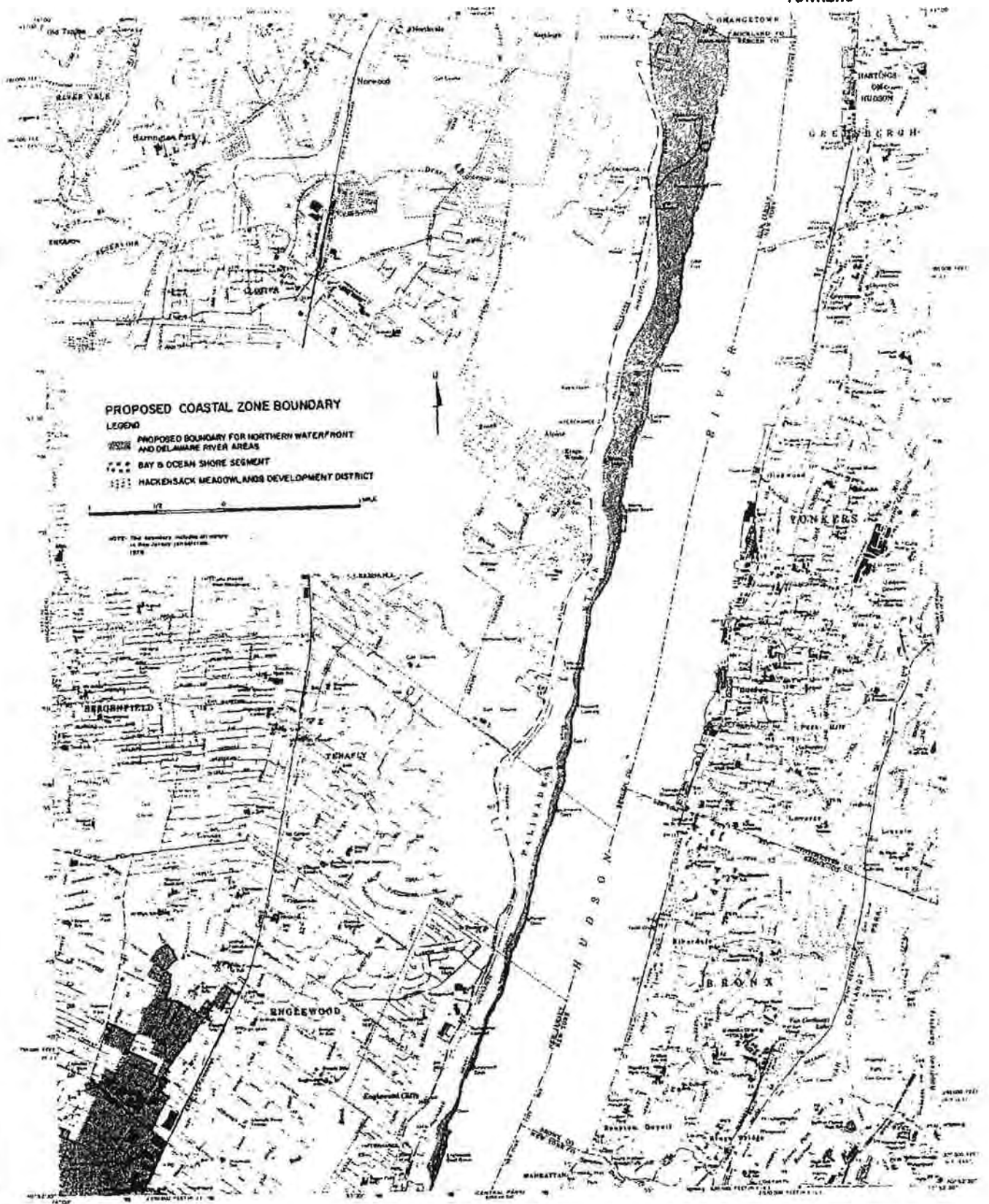




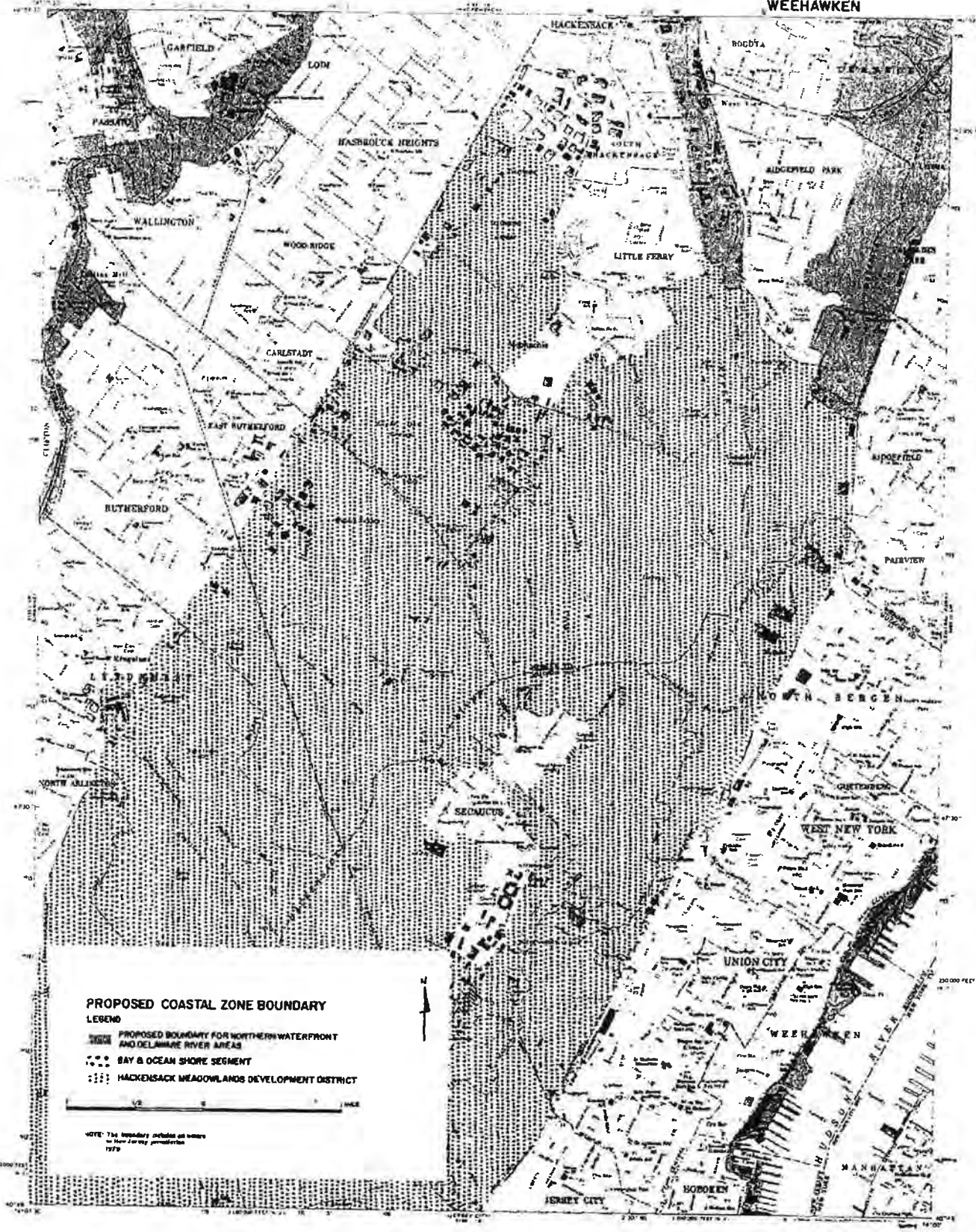




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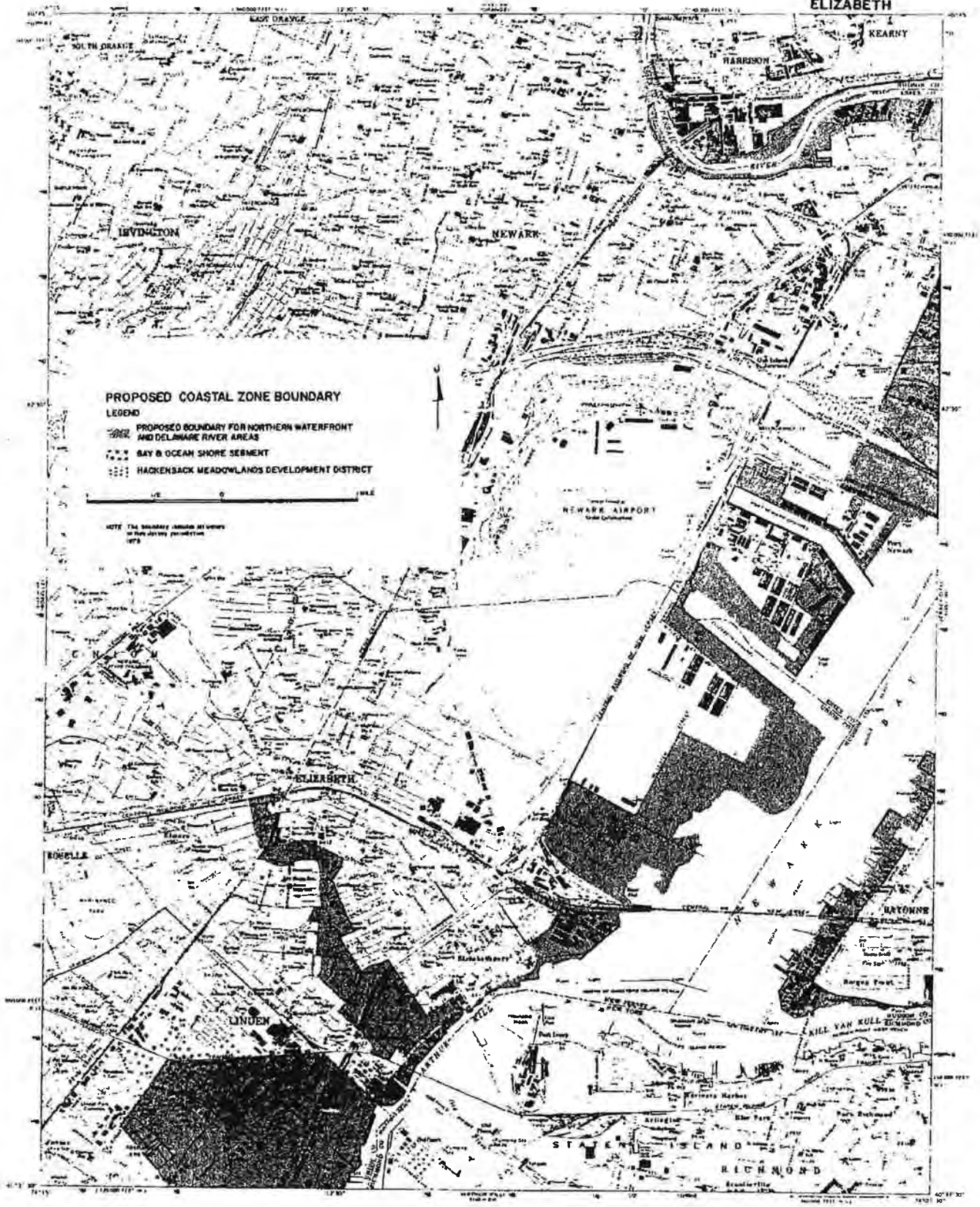
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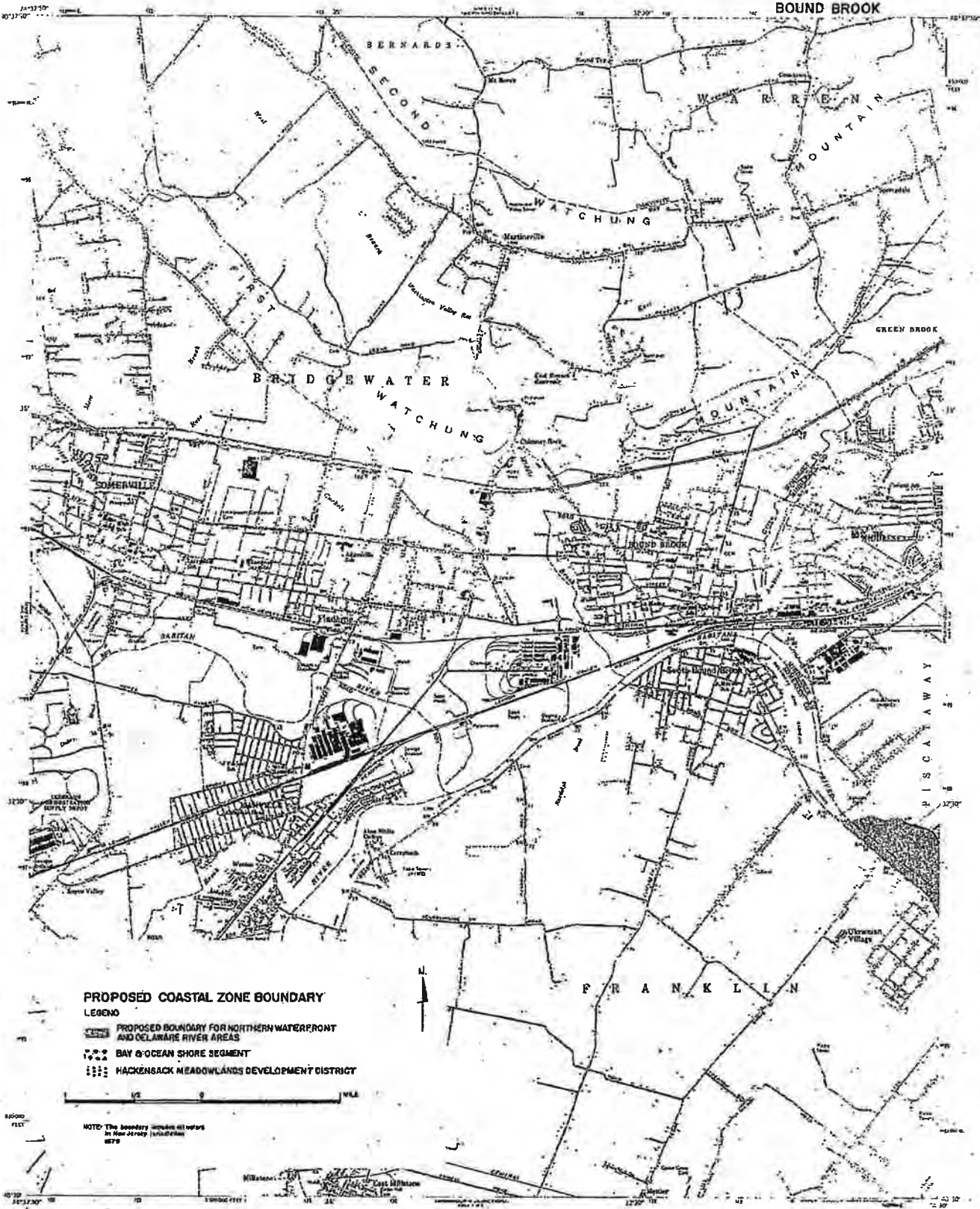
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· · · · HACKENSACK MEADOWLANDS DEVELOPMENT DISTRICT

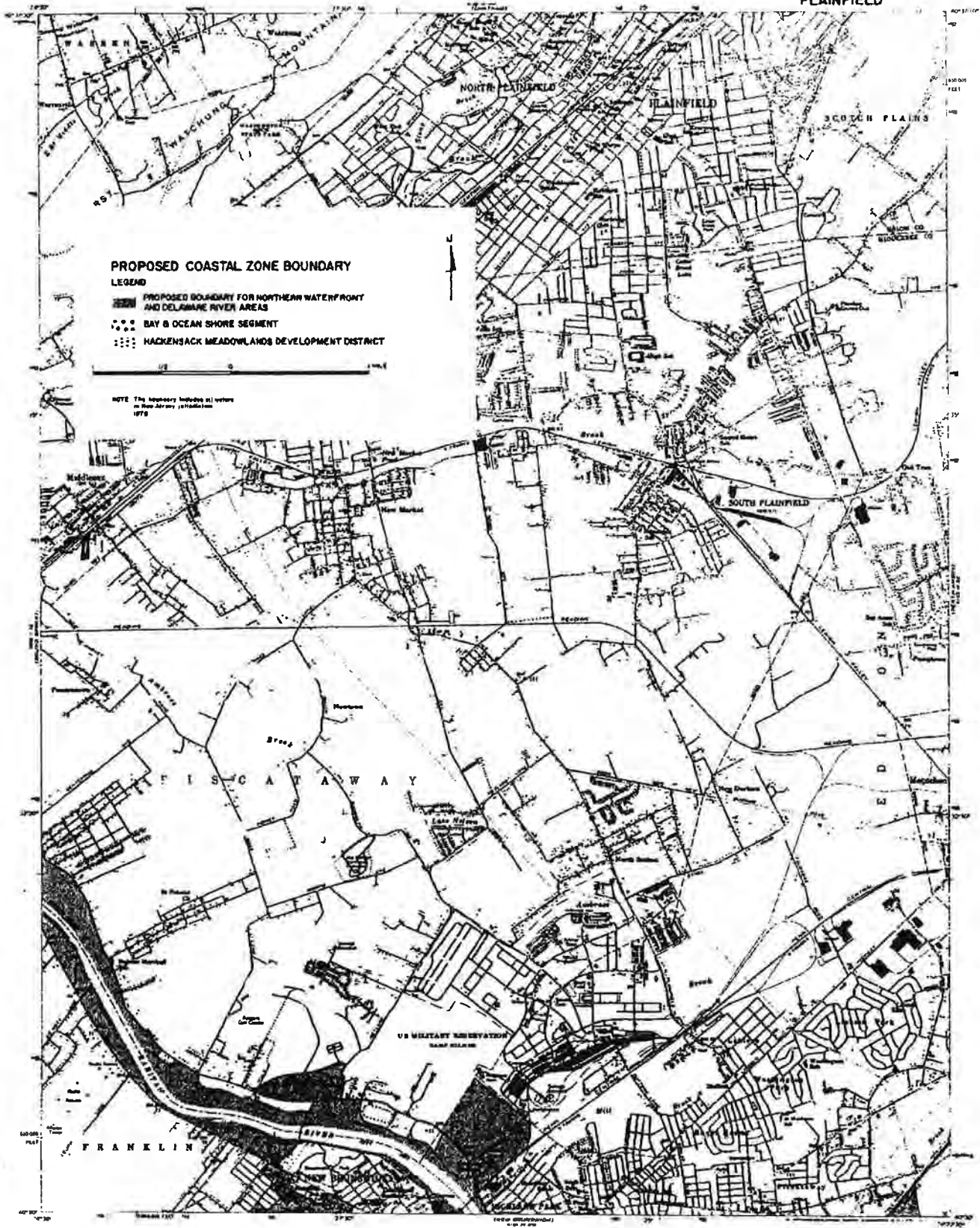
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NOTE: The boundary includes all water  
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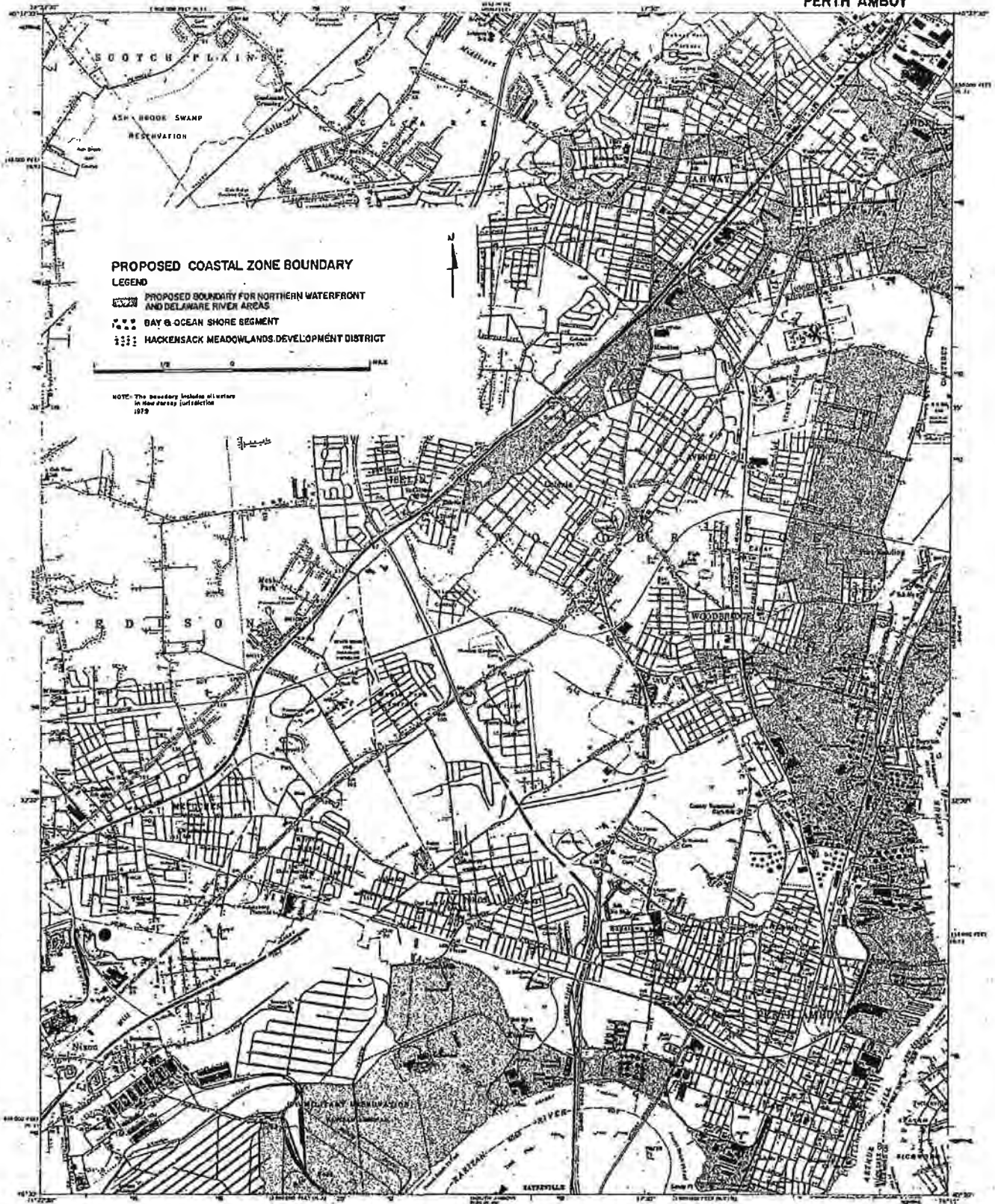
PROPOSED COASTAL ZONE BOUNDARY

LEGEND

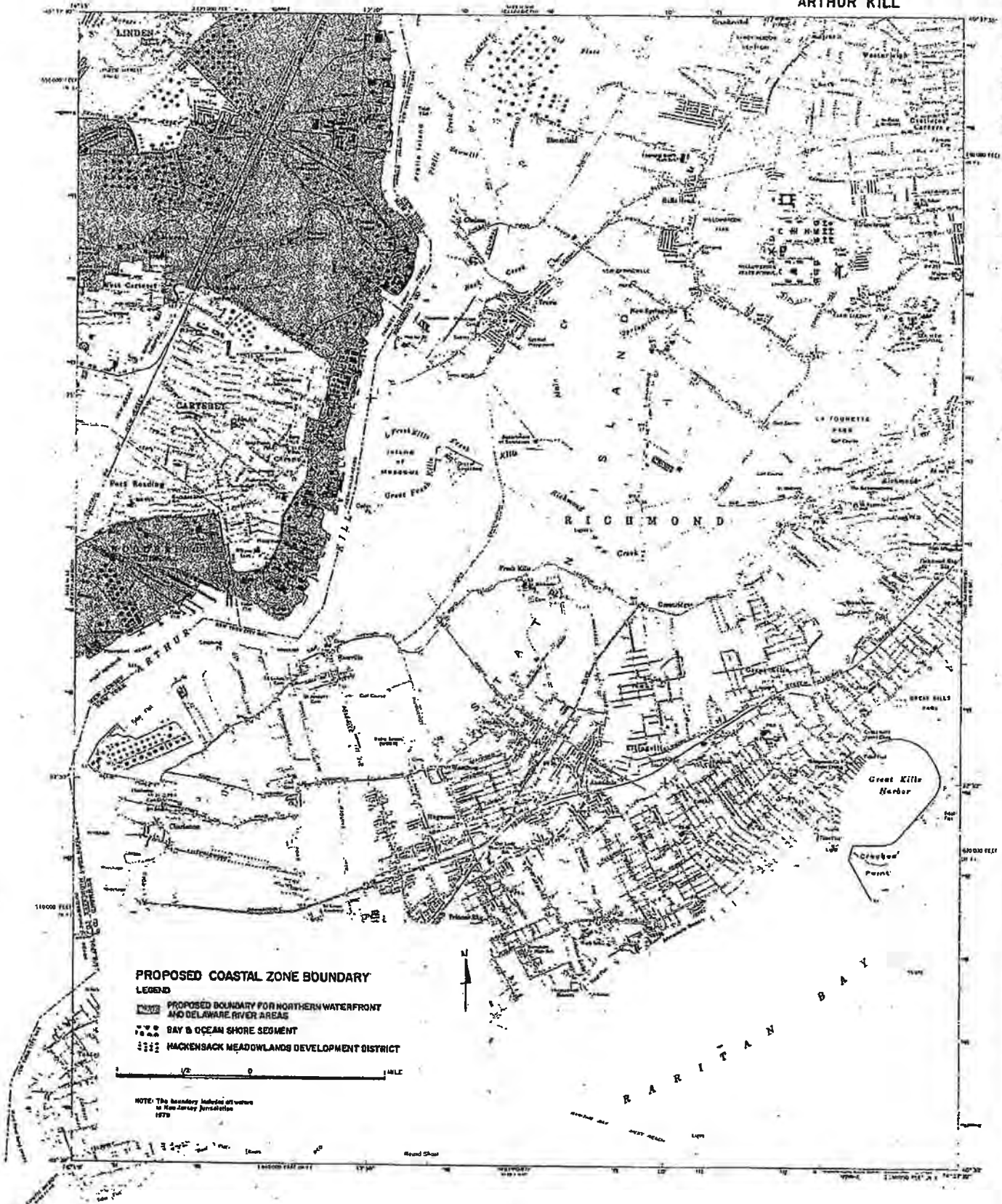
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- - - BAY & OCEAN SHORE SEGMENT
- · · HACKENSACK MEADOWLANDS DEVELOPMENT DISTRICT

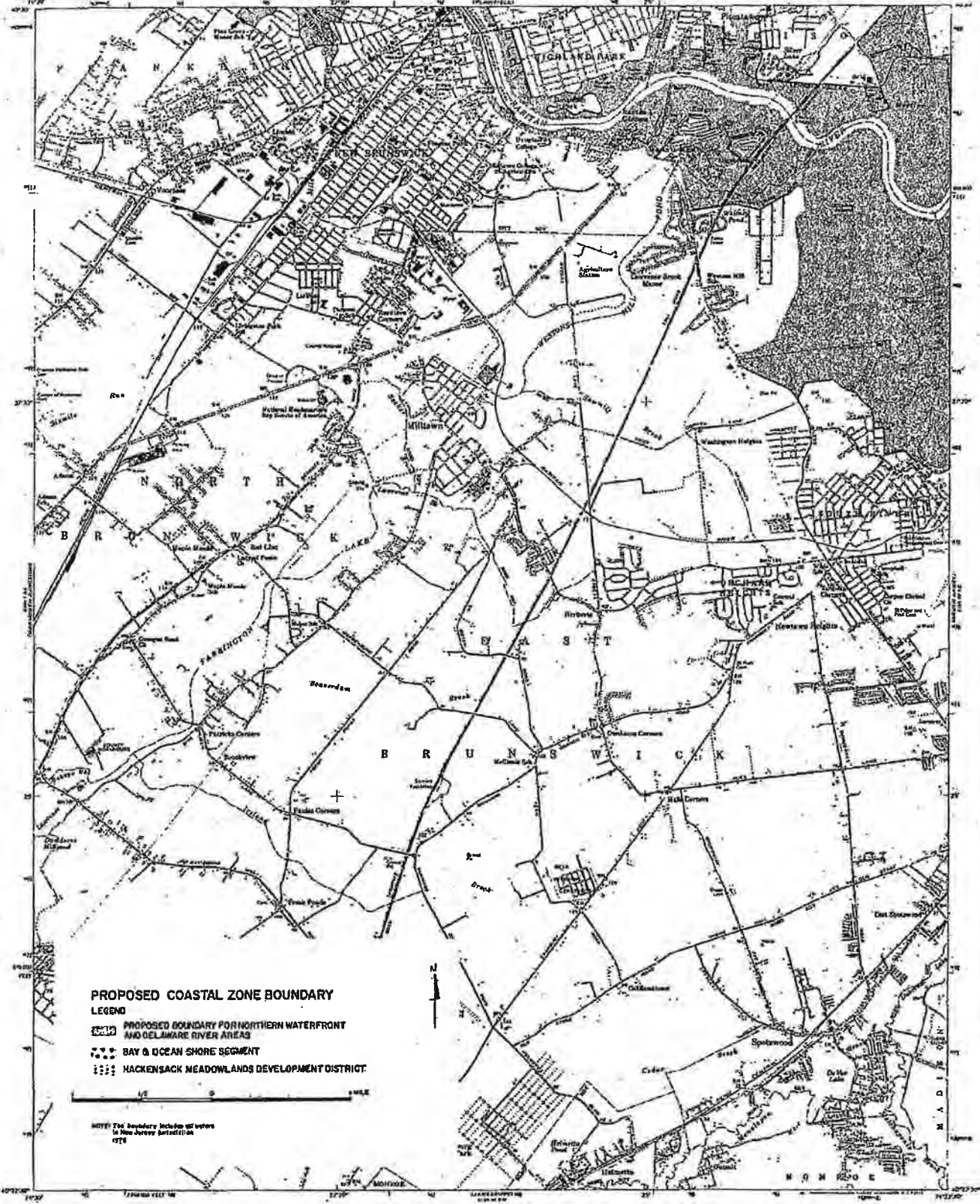
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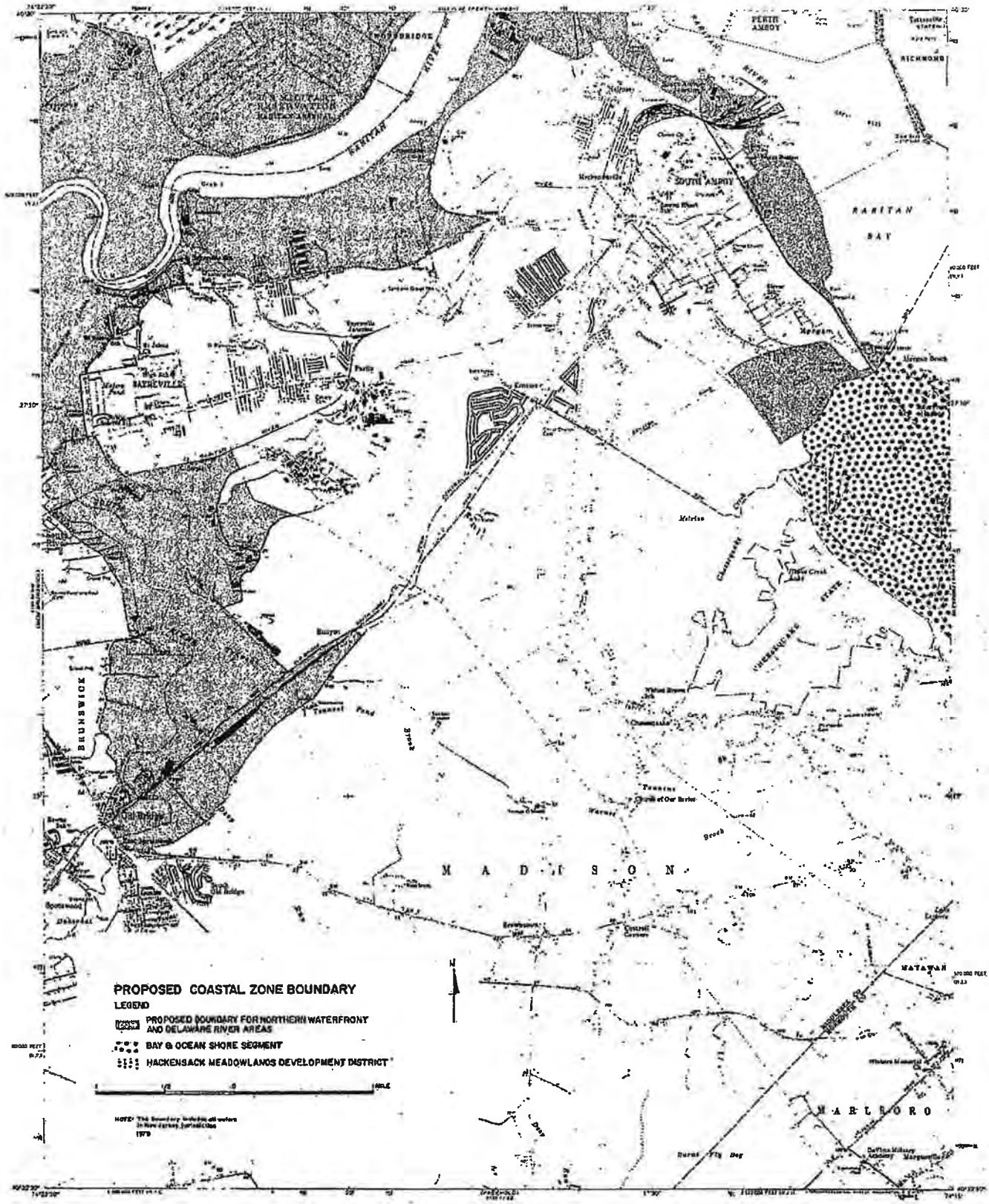


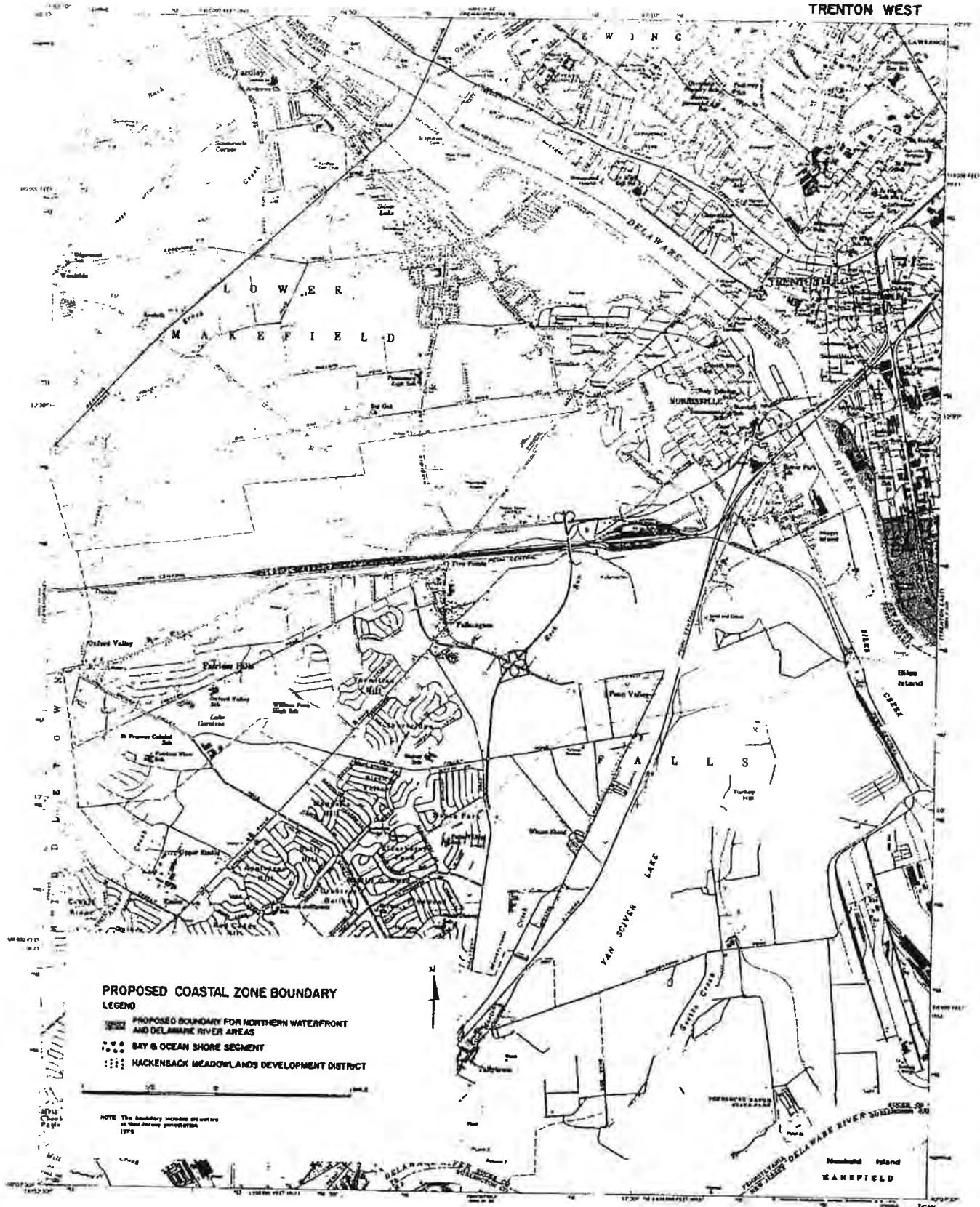
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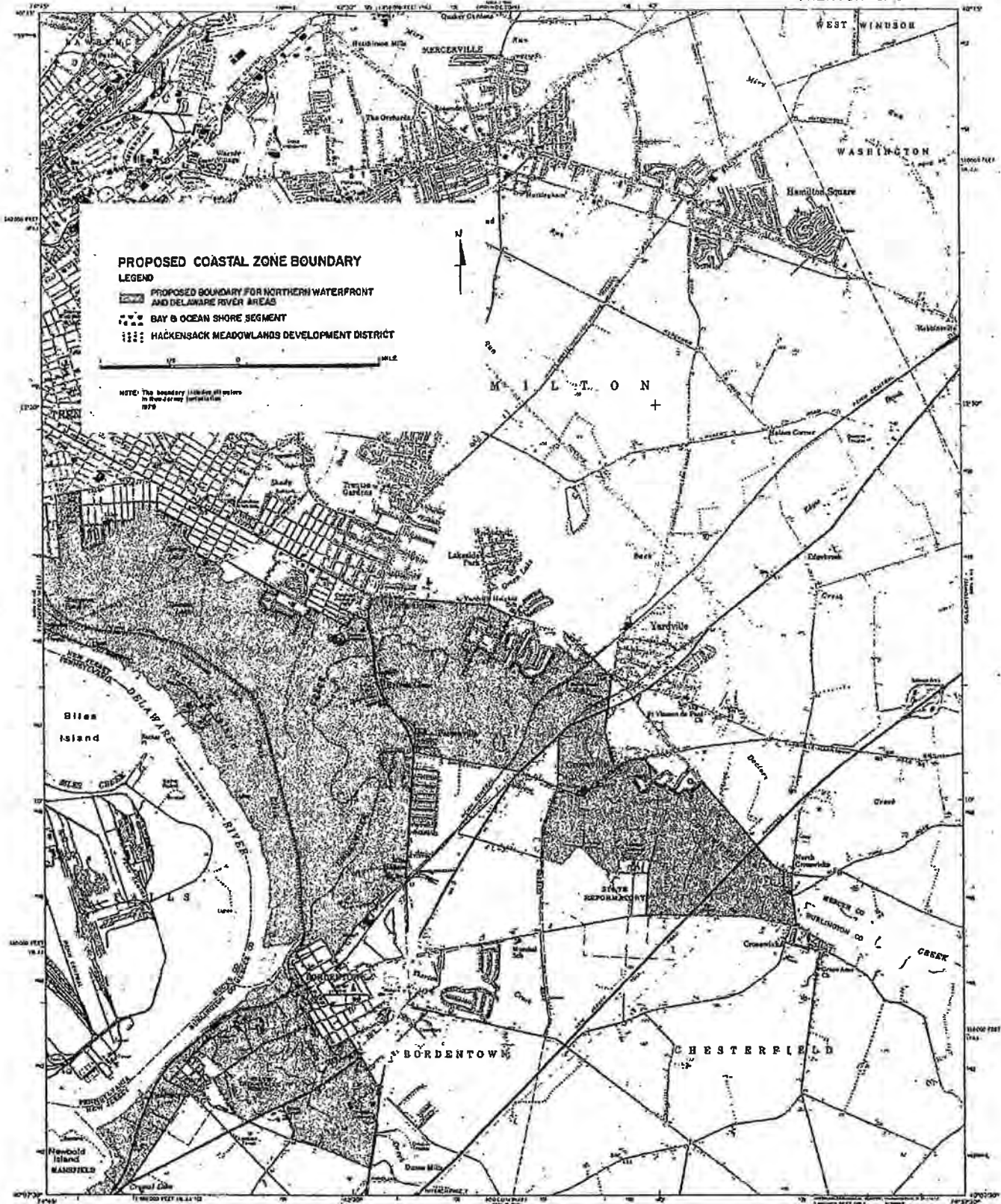
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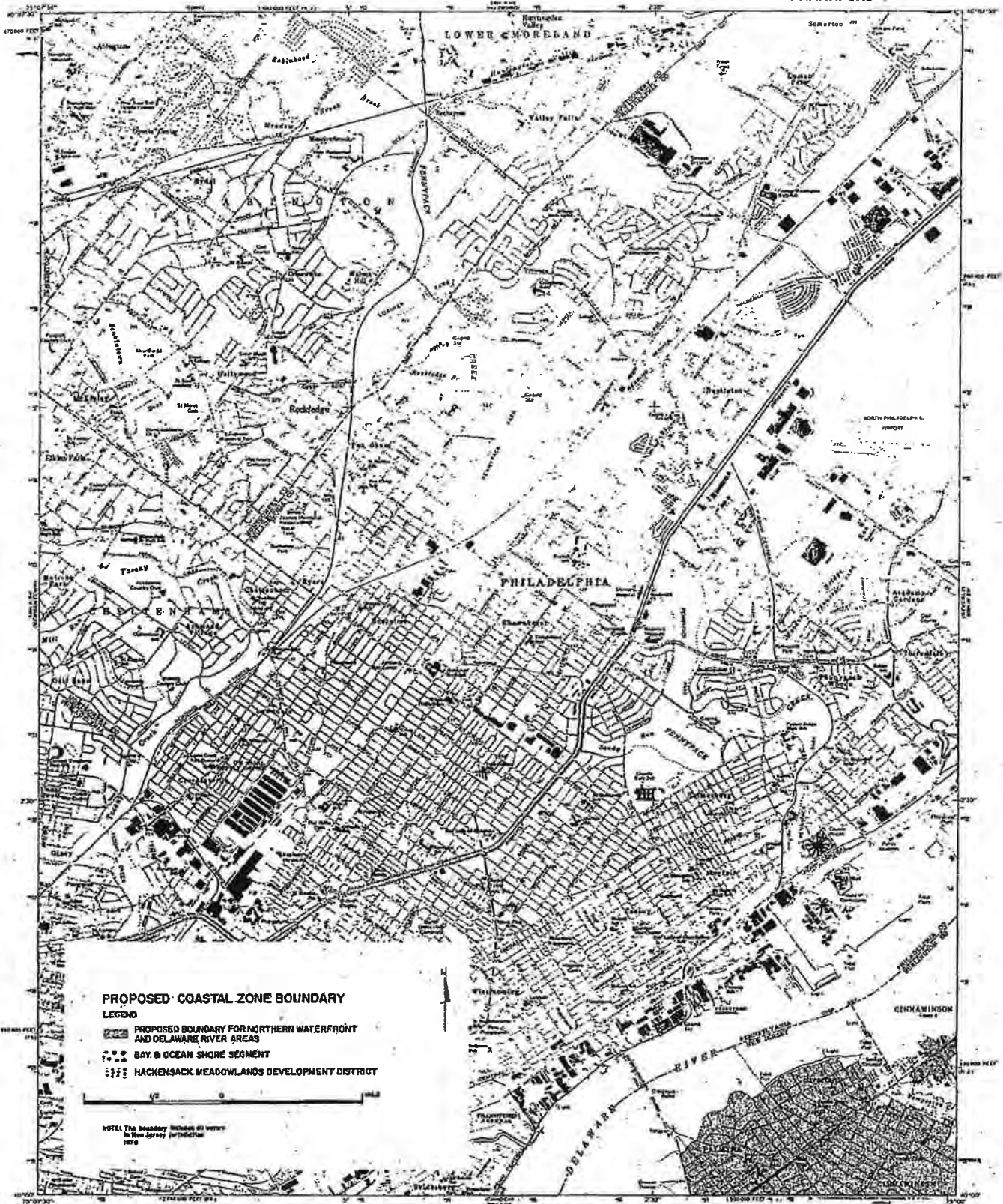




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 [Symbol] HACKENSACK MEADOWLANDS DEVELOPMENT DISTRICT

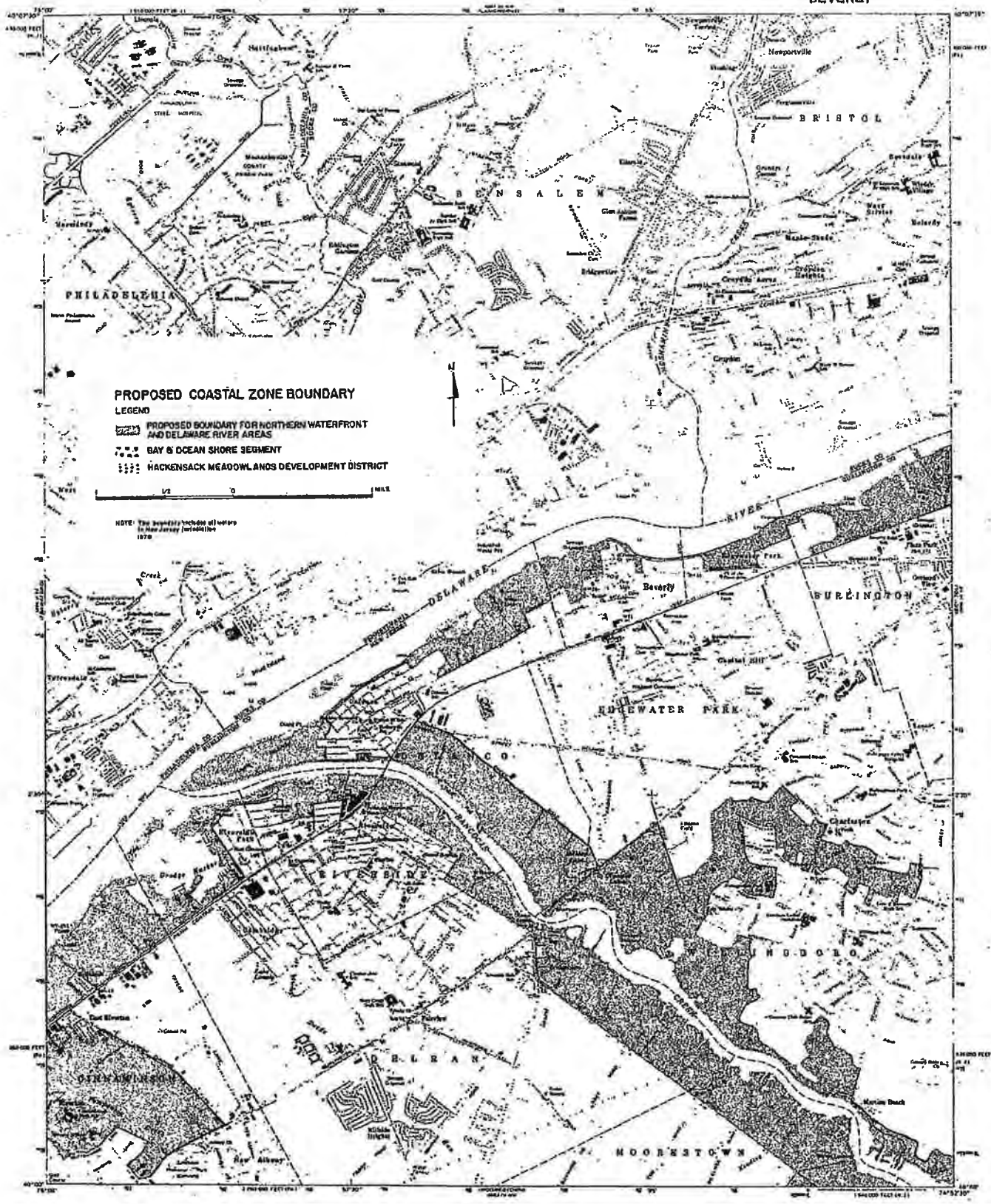
NOTE: The boundary shown on this map is based on the 1976 aerial photography.



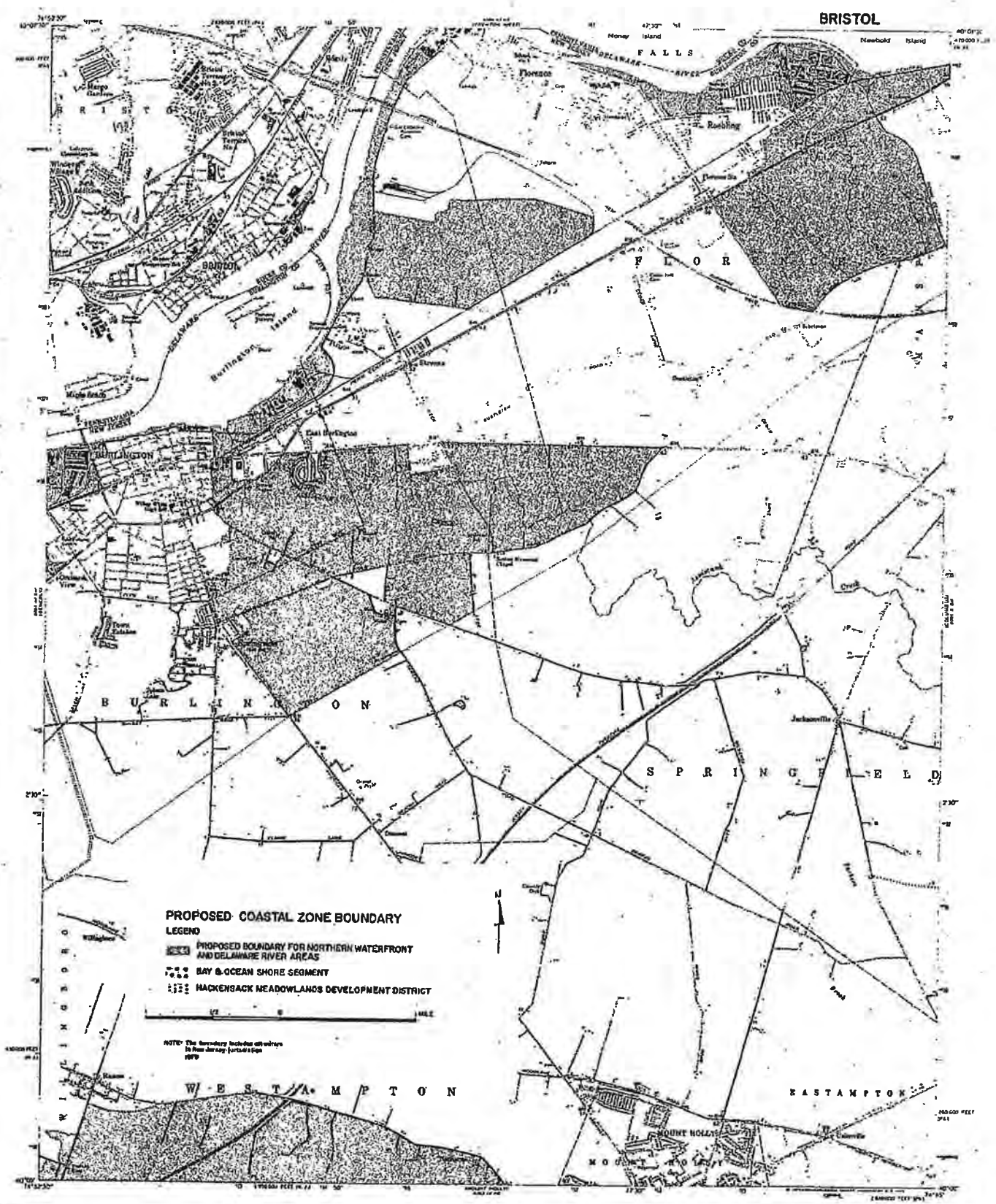


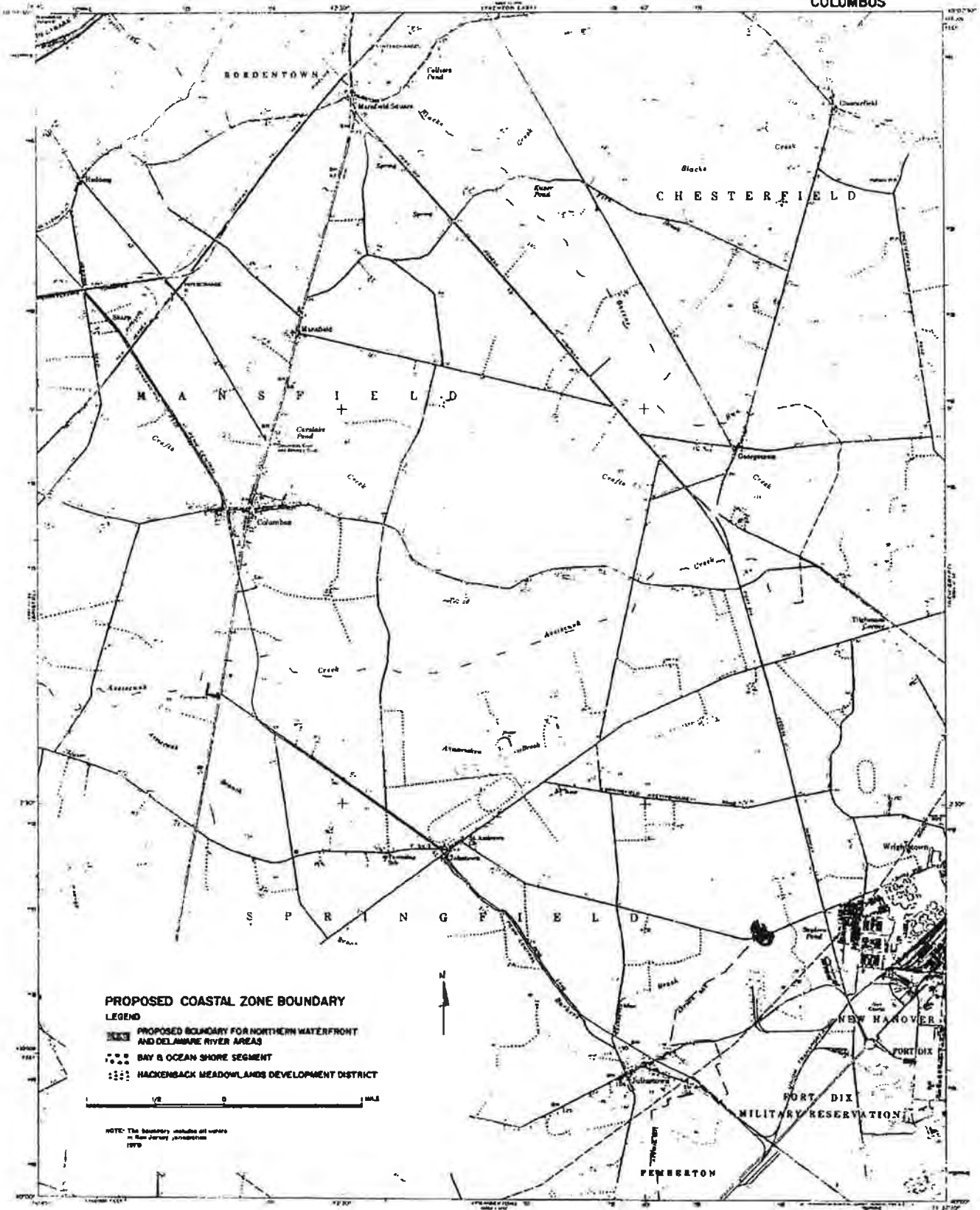
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 [Symbol] BAY & OCEAN SHORE SEGMENT  
 [Symbol] HACKENSACK MEADOWLANDS DEVELOPMENT DISTRICT

NOTE: The boundary between all waters in New Jersey jurisdiction 1876







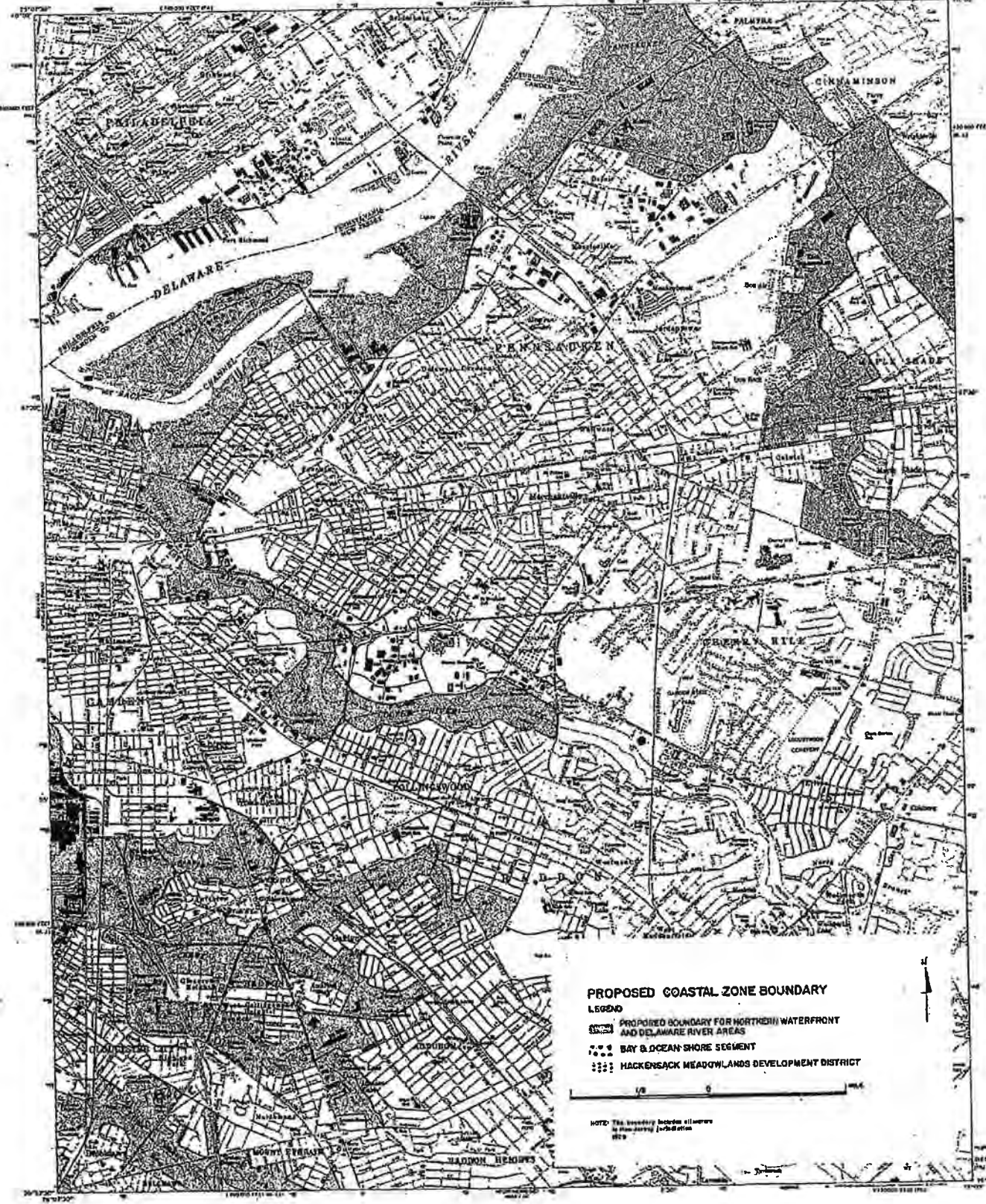




**PROPOSED COASTAL ZONE BOUNDARY**  
**LEGEND**  
 — PROPOSED BOUNDARY FOR NORTHERN WATERFRONT AND DELAWARE RIVER AREAS  
 - - - BAY & OCEAN SHORE SEGMENT  
 ···· HACKENSACK MEADOWLANDS DEVELOPMENT DISTRICT

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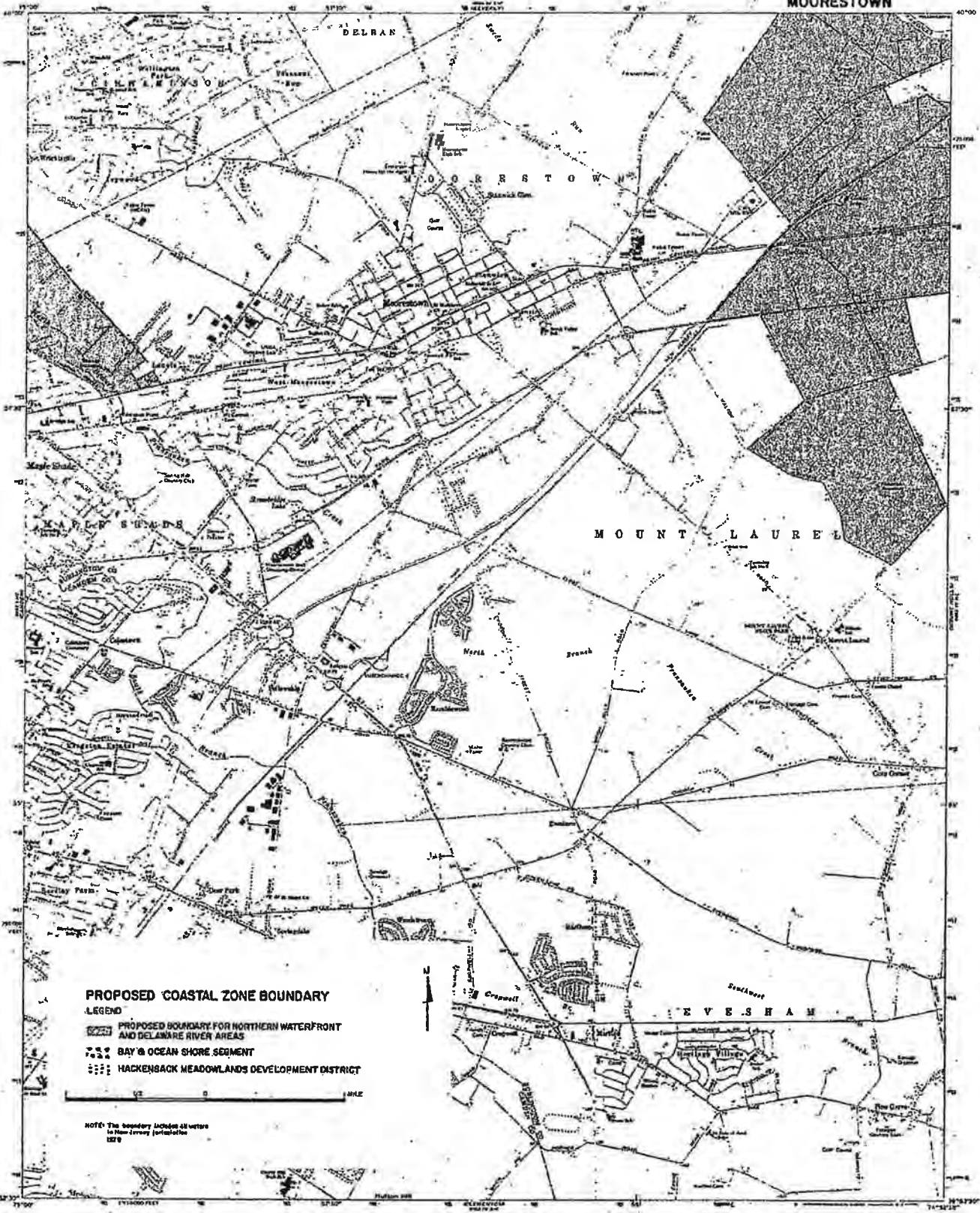
NOTE: The boundary includes all waters in New Jersey jurisdiction 1876



**PROPOSED COASTAL ZONE BOUNDARY**  
**LEGEND**  
 - - - - - PROPOSED BOUNDARY FOR NORTHERN WATERFRONT  
 AND DELAWARE RIVER AREAS  
 . . . . . BAY & OCEAN SHORE SEGMENT  
 x x x x x HACKENSACK MEADOWLANDS DEVELOPMENT DISTRICT



NOTE: This boundary includes all waters  
 & shorelands jurisdiction  
 etc.



**PROPOSED COASTAL ZONE BOUNDARY**

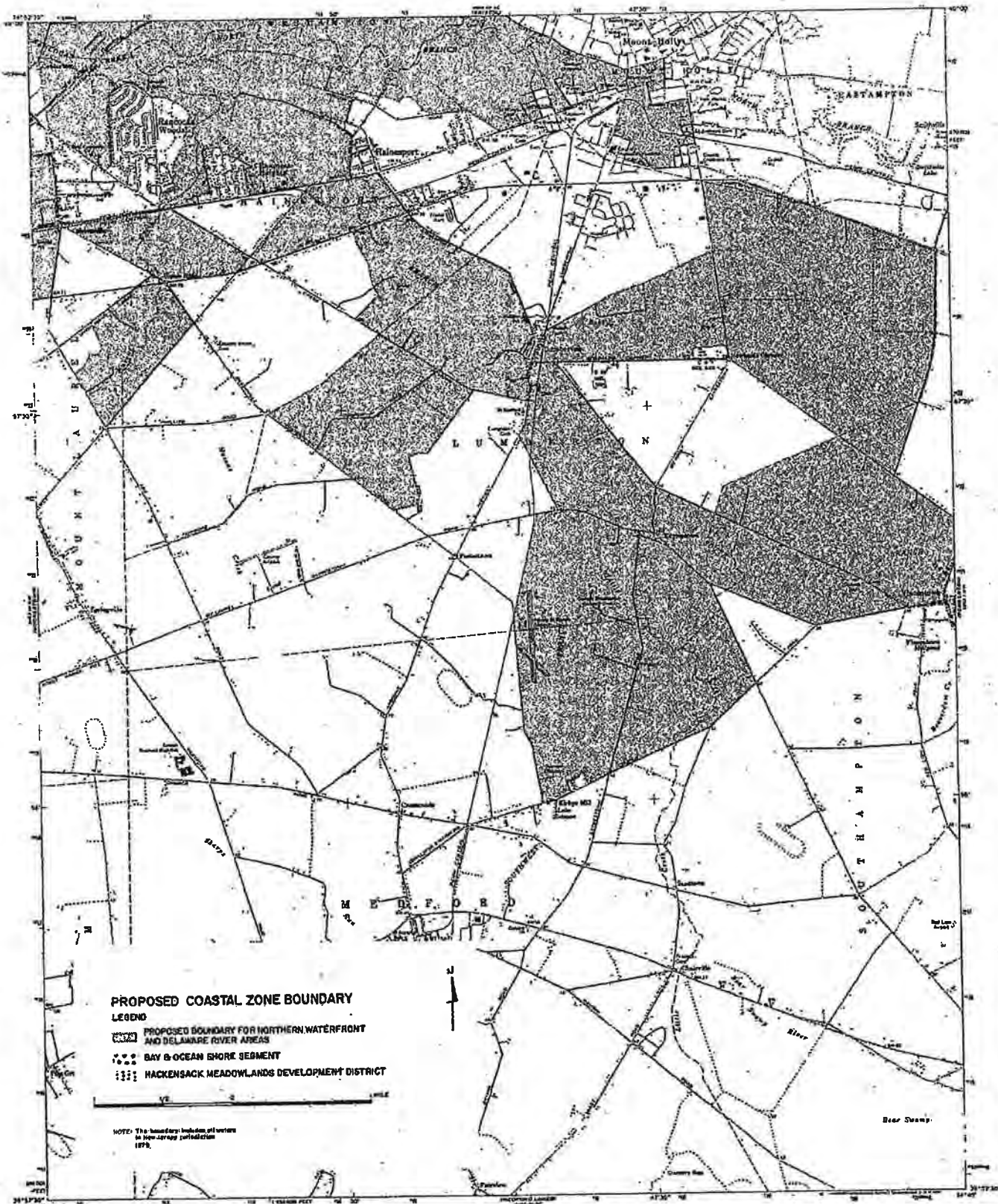
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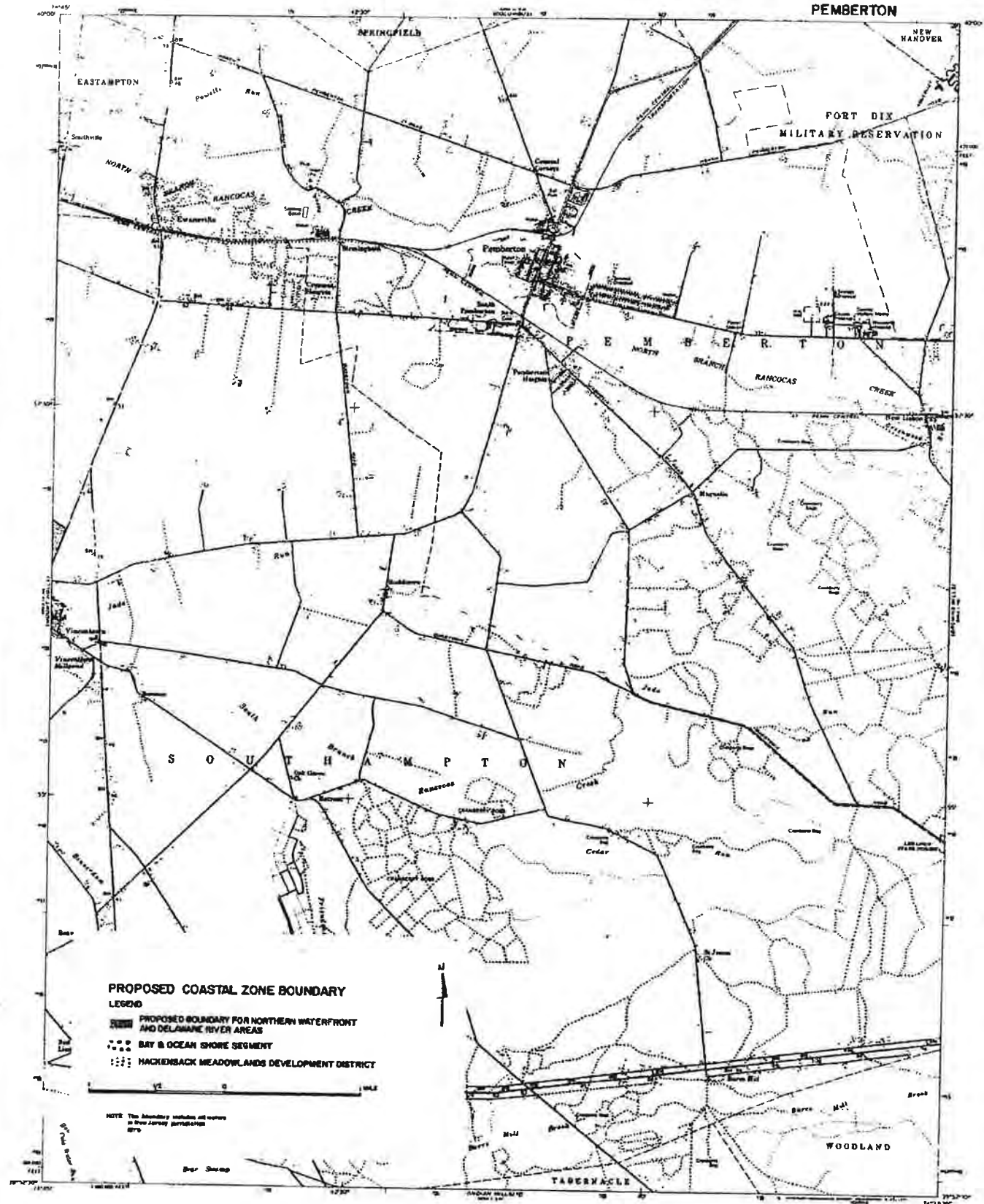
-  PROPOSED BOUNDARY FOR NORTHERN WATERFRONT AND DELAWARE RIVER AREAS
-  BAY & OCEAN SHORE SEGMENT
-  HACKENSACK MEADOWLANDS DEVELOPMENT DISTRICT



NOTE: The boundary includes all waters in New Jersey jurisdiction.

MOUNT HOLLY



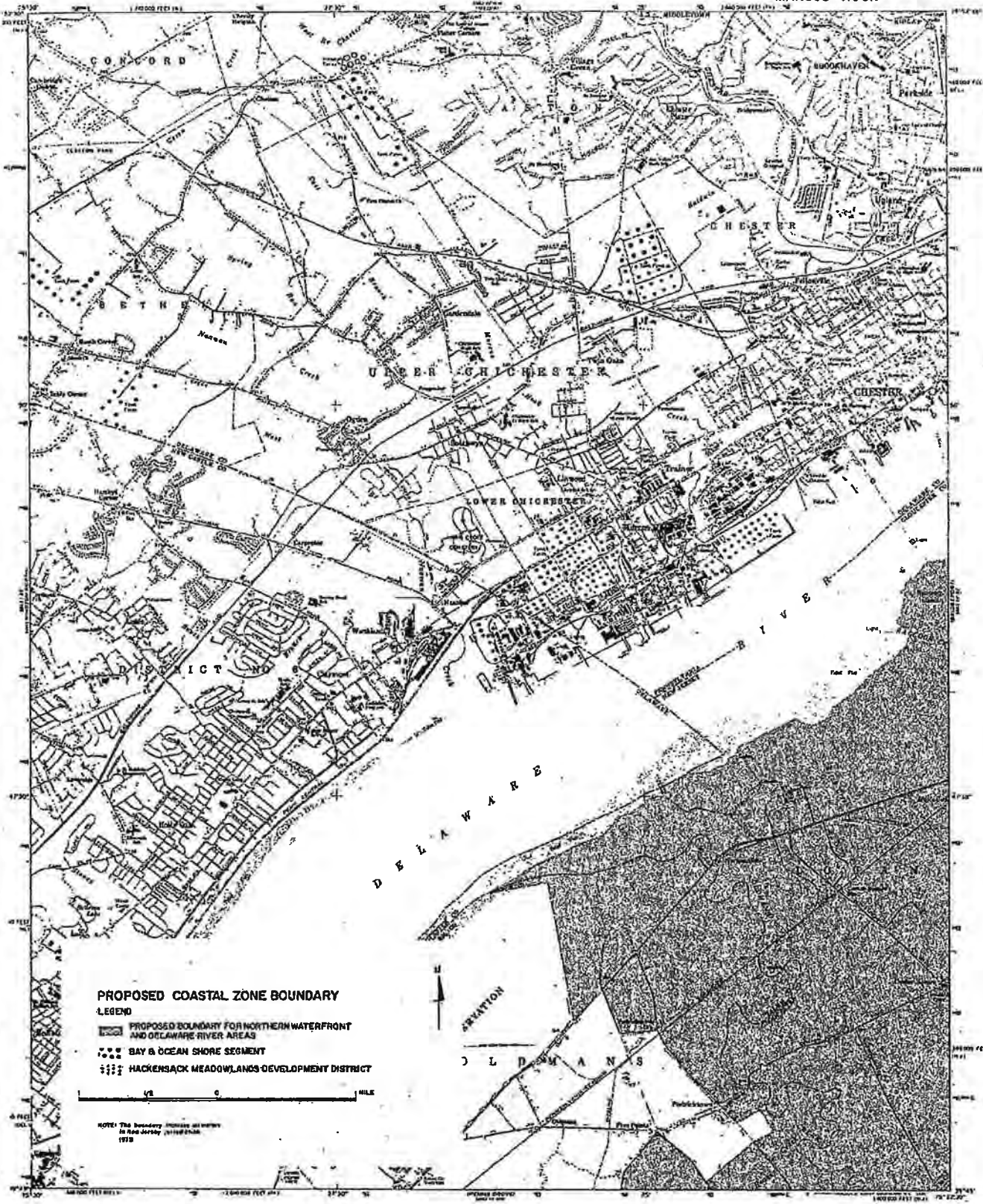


**PROPOSED COASTAL ZONE BOUNDARY**

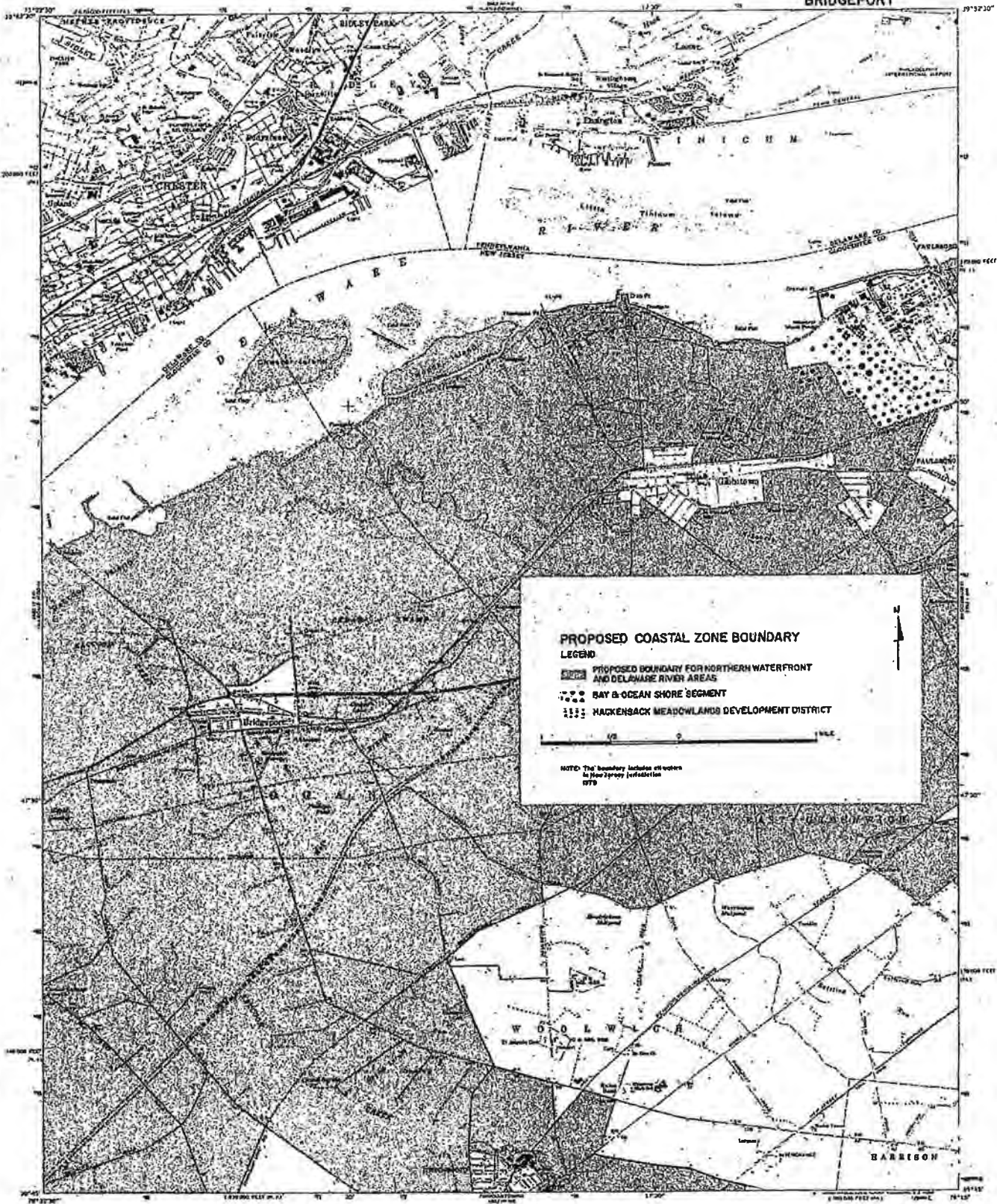
- LEGEND**
- PROPOSED BOUNDARY FOR NORTHERN WATERFRONT AND DELAWARE RIVER AREAS
  - BAY & OCEAN SHORE SEGMENT
  - HACKENSACK MEADOWLANDS DEVELOPMENT DISTRICT

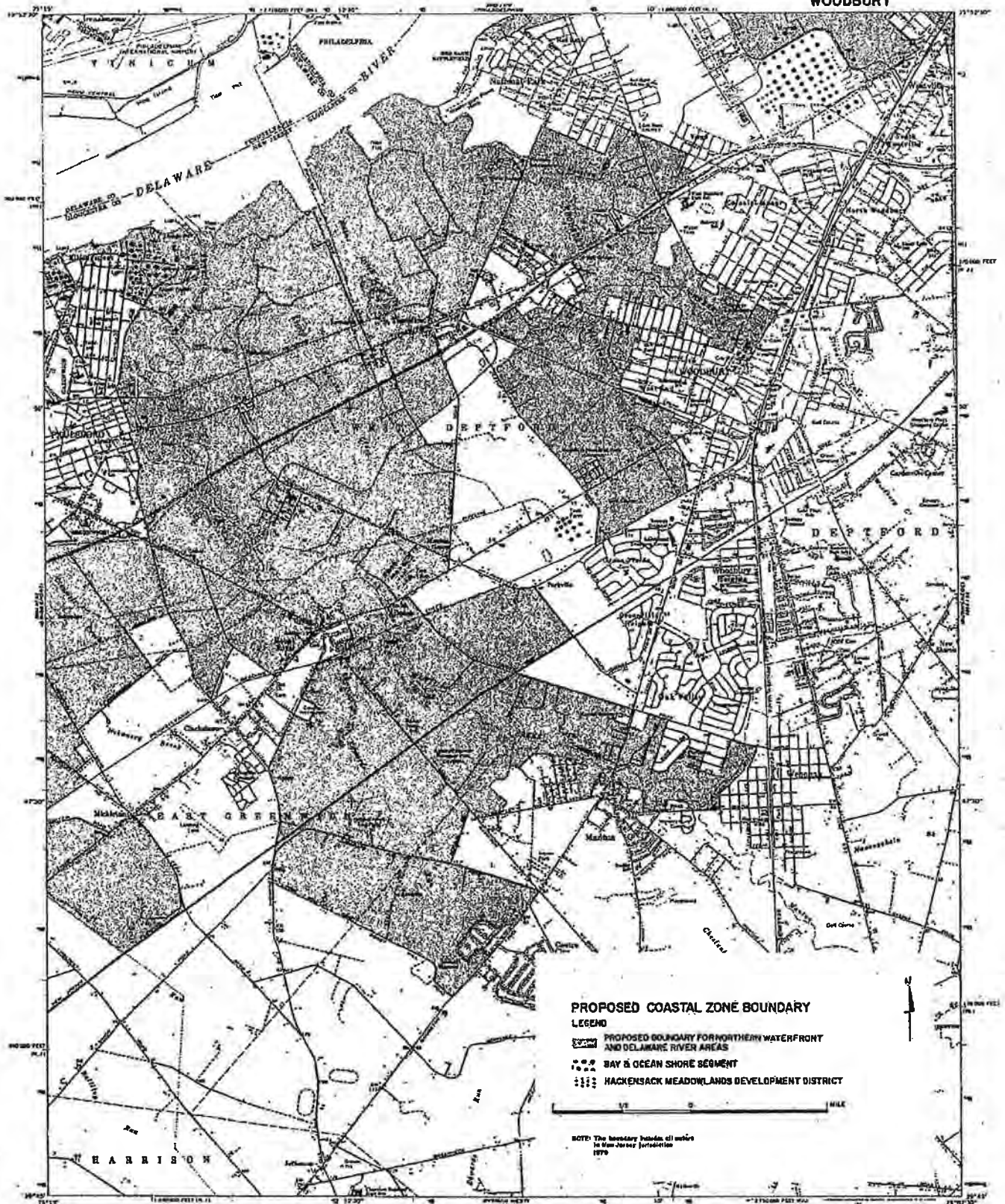
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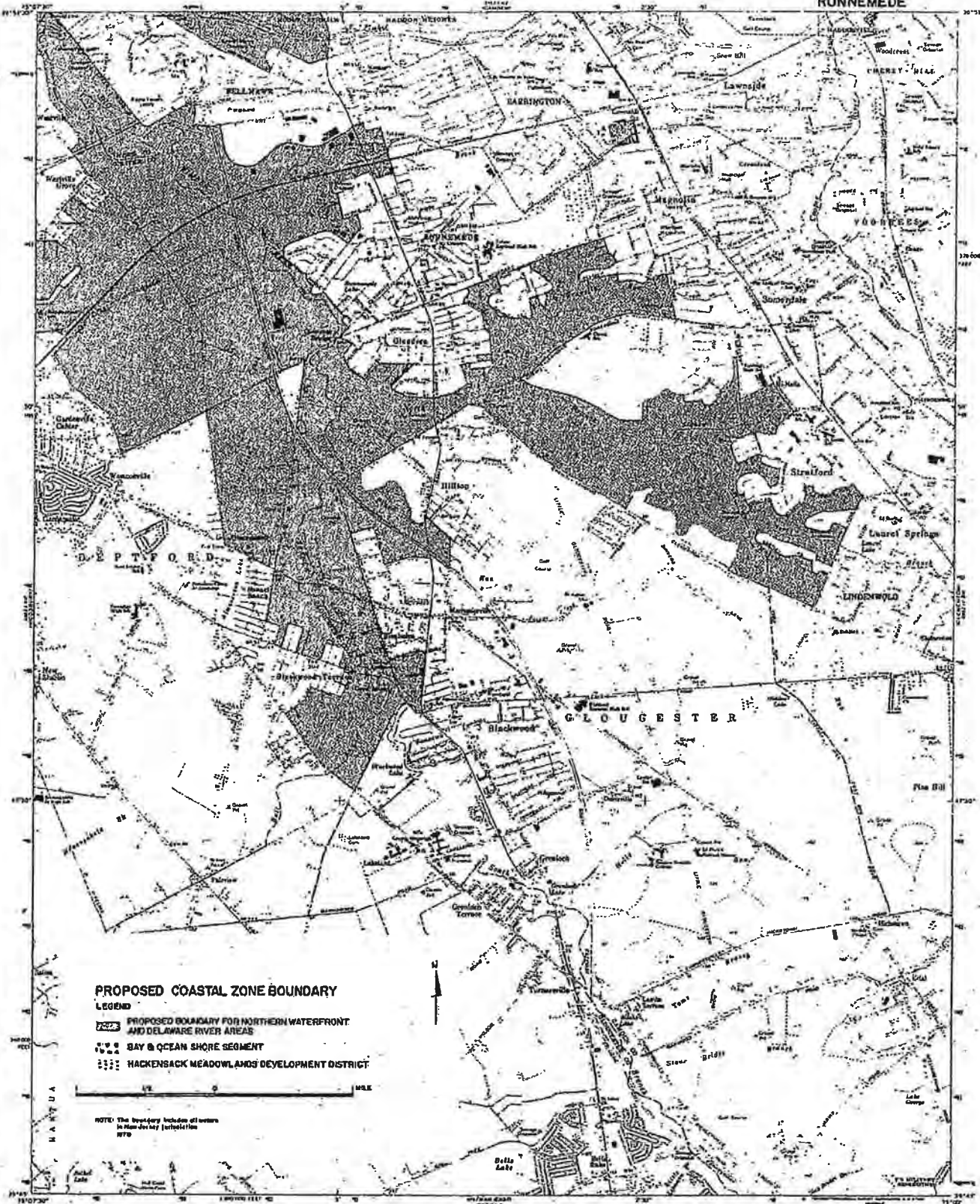
NOTE: This boundary includes all waters in New Jersey jurisdiction 8/79









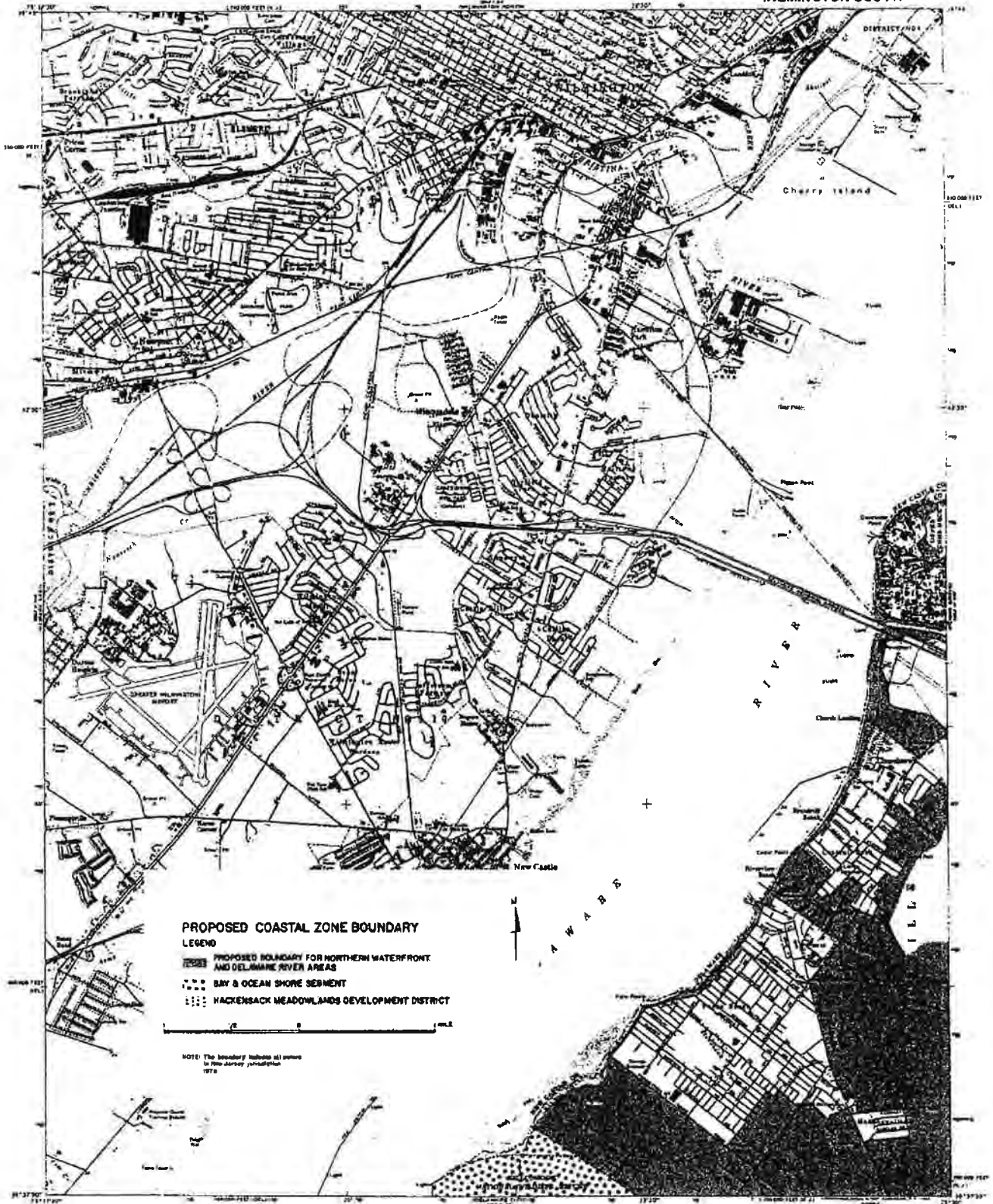


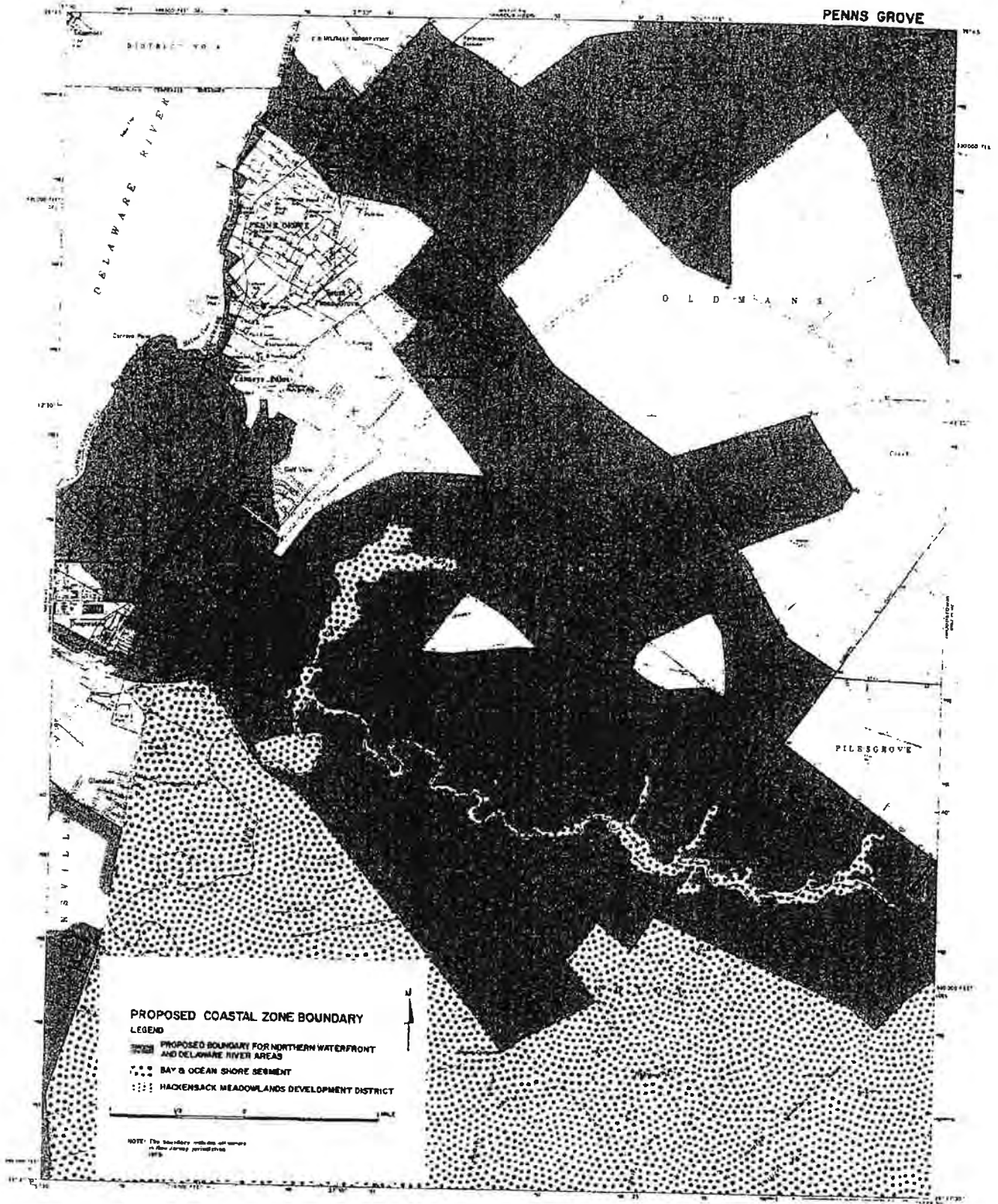
**PROPOSED COASTAL ZONE BOUNDARY**  
**LEGEND**  
 - - - - - PROPOSED BOUNDARY FOR NORTHERN WATERFRONT AND DELAWARE RIVER AREAS  
 . . . . . BAY & OCEAN SHORE SEGMENT  
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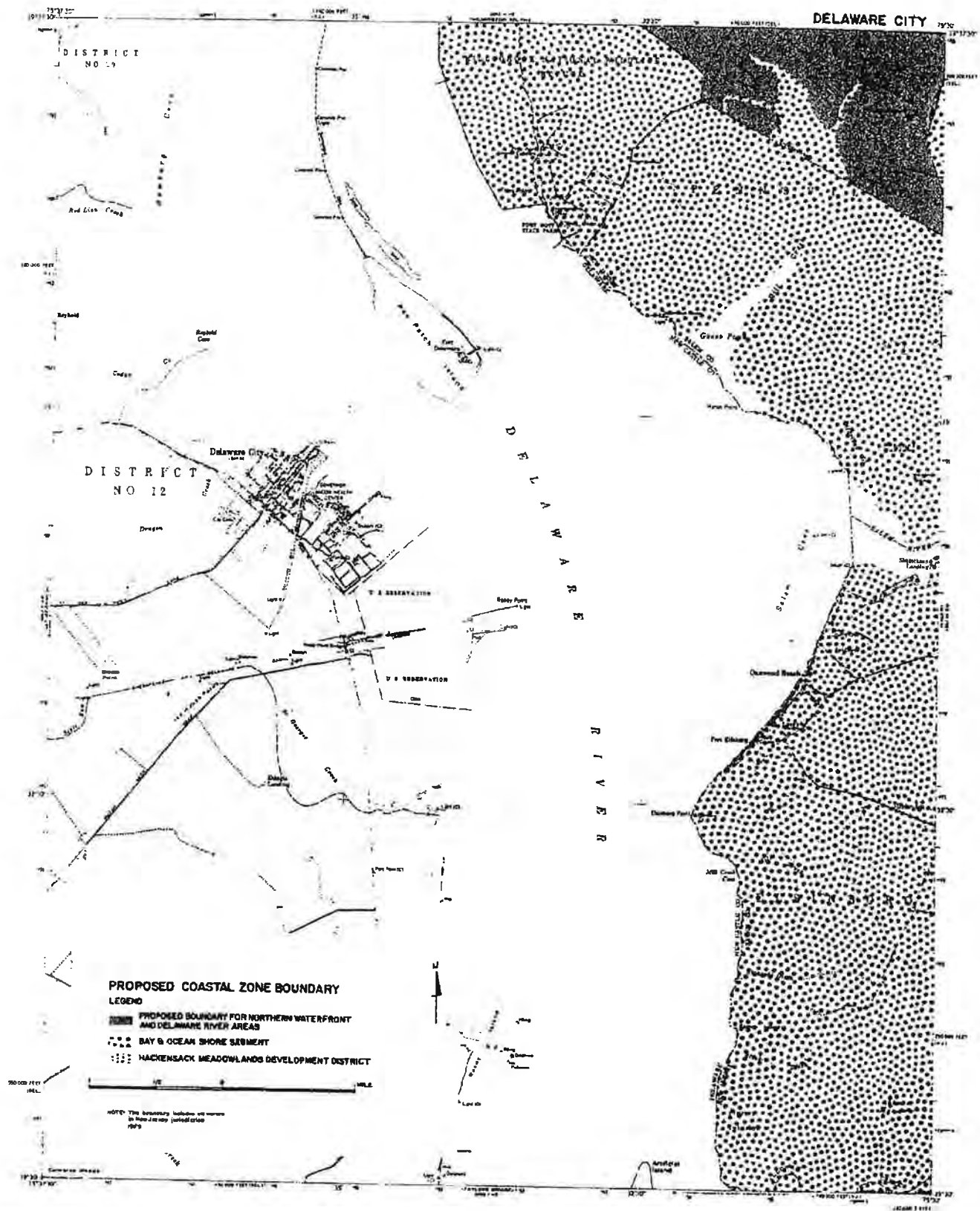
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NOTE: The boundary includes all waters in New Jersey jurisdiction.

WILMINGTON SOUTH







APPENDIX F: THE DELAWARE-NEW JERSEY BOUNDARY AND INTERSTATE COASTAL MANAGEMENT  
ALONG THE SALEM COUNTY SHORELINE

Issue

The Delaware Coastal Zone Act of 1971 precludes, or at least impedes, major waterfront industrial development along the shoreline of Salem County, New Jersey, as a result of the peculiar interstate boundary between the State of New Jersey and the State of Delaware along the Delaware River. As a result of a U.S. Supreme Court decision in New Jersey v. Delaware (291 U.S. 361) in 1933, the interstate boundary between New Jersey and Delaware extends north at the mean low water line on the New Jersey shoreline, from a point near the northern tip of Artificial Island, in Lower Alloways Creek Township, Salem County, until the Delaware-Pennsylvania boundary, almost at the Salem County-Gloucester County boundary. Consequently, major development extending into the Delaware River could require approval from the State of Delaware, in addition to approvals from the State of New Jersey.

Background

In 1933, the United States Supreme Court held that the interstate boundary between the State of Delaware and the State of New Jersey, through Delaware Bay and the Delaware River, generally followed the ship channel in the middle of Delaware Bay. However, at the point near the northern tip of Artificial Island, in Lower Alloways Creek Township, Salem County, the U.S. Supreme Court held that the interstate boundary between New Jersey and Delaware extended north along the mean low water line on the New Jersey side of the River to the Delaware-Pennsylvania border. (See Figure 11 for a sketch showing the New Jersey-Delaware border along the shoreline.)

In 1971, the State of Delaware enacted a stringent Coastal Zone Act, which prohibited heavy industrial development in a defined coastal zone. Since the boundary between New Jersey and Delaware extends to the New Jersey shoreline, the restrictive provisions of this coastal management law applied to development that would be proposed for sites involving land and water along the Salem County Waterfront. In particular, the Delaware law prohibits heavy industry such as oil refineries, steel manufacturing plants and chemical plants. The law also prohibits offshore "bulk product transfer facilities" which include port or dock facilities for the transfer of bulk quantities of any substance, such as oil. However, the law has two exemptions to the bulk product transfer prohibition. New offshore bulk product transfer facilities used solely by the industrial or manufacturing facility to which it is connected, and any bulk product transfer facility within the Port of Wilmington are exempt from the Act.

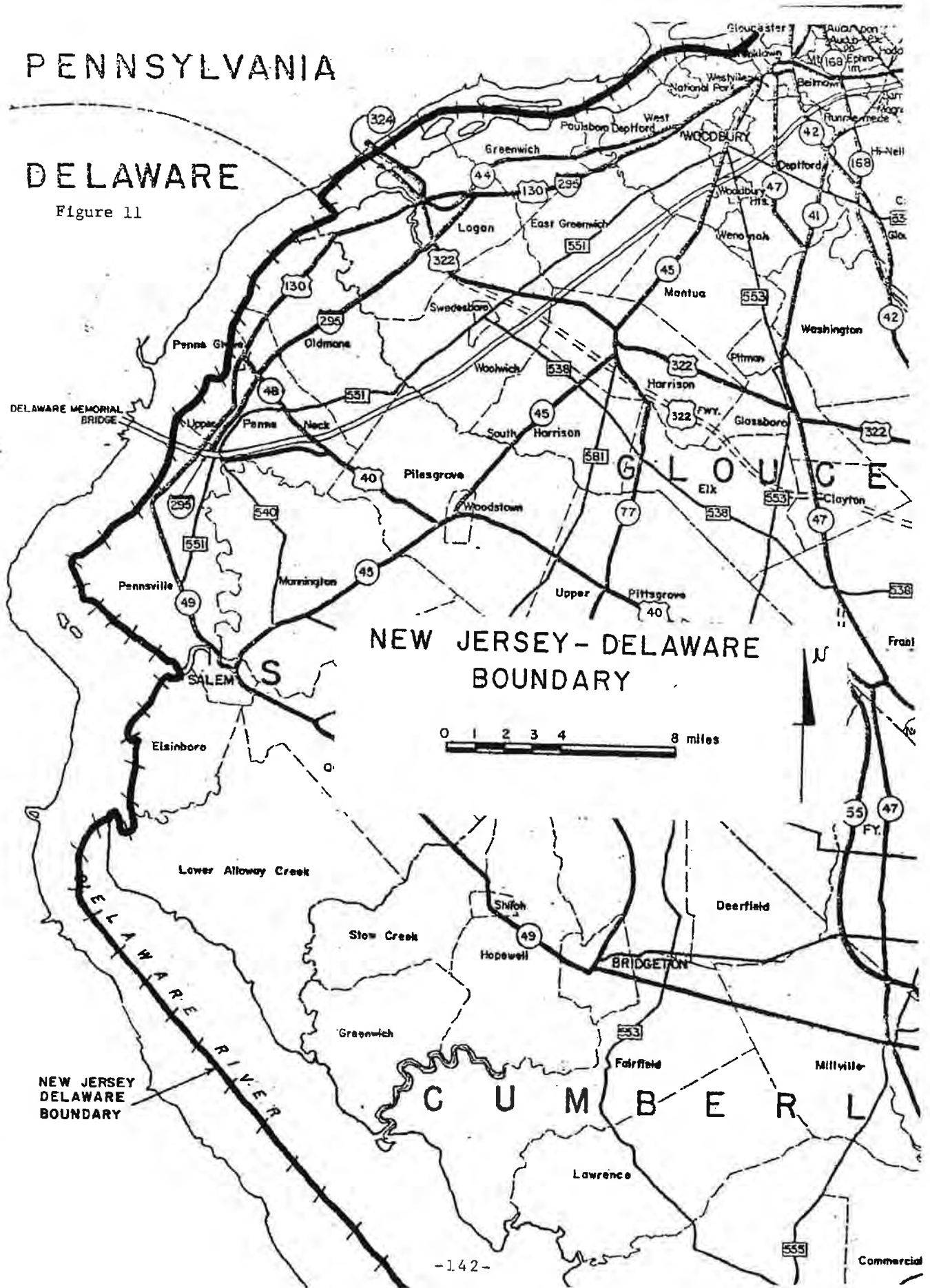
Manufacturing activities are permitted in Delaware's coastal zone by permit only. Examples of manufacturing uses include automobile assembly plants. For more detailed definitions, refer to the Coastal Zone Act, 7 Del. C. Chapter 70.

Consequently, under Delaware law, some types of activities would be prohibited from locating along the Delaware River in Salem County, while other facilities desiring to locate along the river would need to obtain permit approval from the State of Delaware.

PENNSYLVANIA

DELAWARE

Figure 11



NEW JERSEY-DELAWARE BOUNDARY





Because the State of Delaware exercises jurisdiction along the Salem County shoreline from the mean low water line waterward, projects involving the use of public submerged lands would require approval under Delaware's Underwater Lands Act. This Act authorizes Delaware to exercise authority over state lands lying below Delaware's mean high waterline. Projects requiring approval include: (1) erection of any structure on such lands, (2) dredging or filling of such land, (3) the excavation of any channel, lagoon, turning basin, or ditch on public or private lands which will make connection with public submerged lands, (4) the filling of lands adjacent to public submerged lands and (5) laying of any pipeline, transmission line or telephone line in, on, over or under the beds of public submerged lands.

In addition, New Jersey maintains jurisdiction over a narrow strip of tidelands between the mean high water line and the mean low water line in Salem County. Under the waterfront development permit law enacted in 1919, the New Jersey Department of Environmental Protection, Division of Marine Services, requires a construction permit for any construction along the waterfront of navigable waterways. Therefore, certain development along the Delaware River in Salem County could require approval from both the State of Delaware and the State of New Jersey.

#### Delaware Jurisdiction in Salem County

Delaware Coastal Zone Act - Since the Delaware Coastal Zone Act took effect in 1971, no activity has taken place along the Salem County shoreline which would come under the jurisdiction of the Act.

While the regulatory experience under the Delaware Coastal Zone Act has been non-existent, the Delaware Coastal Management Program - Discussion Draft, September 1978 suggests that experience under the Act involving a facility in Pennsylvania extending into Delaware waters was handled to the satisfaction of all parties.

Successful interstate cooperation between New Jersey and Delaware can be achieved by sharing information concerning any proposed development in Salem County which could fall under the jurisdiction of Delaware's Coastal Zone Act. Delaware has agreed to notify Salem County of any proposed activity along the Delaware or Salem County shoreline which is subject to the provisions of Delaware's Coastal Zone Act. In return, Delaware has asked Salem County to notify Delaware of any proposed development in Salem County which would fall under the Delaware Coastal Zone Act jurisdiction. Activities along the Delaware Shoreline and the Salem County shoreline within the Port of Wilmington, will be coordinated through the Wilmington Metropolitan Area Planning Coordinating Council (WILMAPCO).

Delaware Underwater Lands Act - The extent of Delaware's jurisdiction along the Salem County shoreline under the Delaware Underwater Lands Act and the mechanisms to create interstate coordination under the Act are not well defined. Lack of experience with development along Salem County's shoreline which could be subject to the provisions of the Underwater Lands Act, is partially responsible for the uncertainty as to how Delaware would exercise its authority along the Salem County shoreline. The only experience with the Delaware Underwater Lands Act and development in New Jersey was in 1971 when Delaware granted a lease to the Dupont Chambers Works in Deepwater to use subaqueous lands in the Delaware River. Dupont

received the lease to dredge, fill and bulkhead the area to locate an oil tank. Experience at Dupont indicates that Delaware chooses to exercise its authority under the Underwater Lands Act on a case-by-case basis. Right now, Delaware and Salem County have not arranged any coordinative mechanisms or means to notify each other of proposed activities along the river which would come under the jurisdiction of the Delaware Underwater Lands Act.

#### Applicable Delaware Coastal Policies

The Delaware Coastal Management Program - Discussion Draft (September 1978) presents 14 policies that would be particularly relevant to development proposals along the Salem County shoreline. These policies address the use of underwater lands on the coastal strip. In general, new heavy industries, including refineries, are prohibited. New major manufacturing proposals are, however, permissible subject to permit approval. For the specific policies, see Appendix D and also consult the Delaware Coastal Management Program - Discussion Draft; September 1978; pages 5.A.4-1 through 5.A.4.12).

#### Potential Development Proposals and Regulatory Problems

The Delaware Coastal Management Program - Discussion Draft (September 1978) suggests that the most likely proposal in Salem County would be for a single or multi-purpose pier extending into the Delaware River. The Delaware Attorney General issued an advisory opinion concerning the effect of the provisions of Delaware's Coastal Zone Act on industrial development activities in Salem County, which attempted to clarify questions regarding permissible uses. According to an interpretation of the opinion, a new offshore bulk product transfer facility used solely by the manufacturing use to which it is physically connected and not to be used as a common facility by more than the manufacturing use, would not be regulated by the Delaware Coastal Zone Act. However, a new offshore bulk product transfer facility used as a common facility or a bulk transfer facility used by more than the manufacturing use to which it is physically connected would be prohibited under the Act. Manufacturing uses are permitted by permit and would be subject to the policies of Delaware's coastal program.

APPENDIX G: DRAFT CRITERIA FOR NOMINATION OF RIVER AREAS UNDER THE  
STATE WILD AND SCENIC RIVERS ACT

DEP-OCZM has developed the following draft set of criteria to aid itself and other interested parties in nominating river segments which would benefit from inclusion within the State's wild and scenic river system. Interested readers are invited to comment on the individual criteria, rank their importance (high, medium, or low), suggest additional criteria, and use the criteria in evaluating river segments. It would be especially helpful if individuals or groups with local knowledge compared river segments using these criteria (or a set of criteria they developed themselves) and made the results available to DEP-OCZM. DEP-OCZM will work with the Green Acres Program to aid that Office in making its recommendations for designation of river segments.

A nominated river segment should be a stretch of several miles of a tidal river, possibly including tributaries. It should be bounded by significant natural or man-made features. Examples of river segments which could be designated would include the Hudson River from the George Washington Bridge to Liberty State Park (only characteristics of the New Jersey side, including views of Manhattan, would be considered), or the Rancocas Creek from head of tide to confluence with the Delaware. The Hudson River would be evaluated for its potential as a developed recreational river because it has a highly developed and modified shoreline, but also a great recreational potential for the large number of people who are within walking distance of the river. Rancocas Creek would be evaluated as a recreational river because although developed in some areas, it has sections of undisturbed natural beauty accessible to large numbers of people by public transportation or automobile.

## DEVELOPED RECREATIONAL RIVER AREAS

According to the New Jersey Wild and Scenic Rivers Act, Developed Recreational rivers "are those rivers or sections thereof, that are readily accessible, that may have substantial development along their shorelines, that may have undergone substantial impoundment or diversion, but which remain suitable for a variety of recreation uses". N.J.S.A. 13:8-48(d).

Readers are invited to rank the importance of these criteria for developed recreational rivers as high, medium or low.

### Importance

#### ACCESS CRITERIA

\_\_\_\_\_ Population living within 3/4 mile (15 minutes walking distance)

\_\_\_\_\_ Population living within 1 1/2 miles (30 minutes walking distance).  
Walking distance is distance to waterfront at nearest point on segment.

\_\_\_\_\_ Population living within 30 minutes by public transportation.

\_\_\_\_\_ Percentage of water frontage publicly owned.

\_\_\_\_\_ Percentage of water frontage accessible to the public (this will include some private land, e.g. waterfront restaurant, and exclude some public land, e.g. a limited access highway).

\_\_\_\_\_ Percentage of segment which is public open space.

#### RECREATIONAL OPPORTUNITIES CRITERIA

\_\_\_\_\_ Water quality classification.

\_\_\_\_\_ Present fishing opportunities.

\_\_\_\_\_ Potential fishing opportunities given attainment of water quality standards and provision of access points for fishing from publicly owned land.

\_\_\_\_\_ Present opportunities for water contact sports (swimming, wading, tubing, water skiing, skin or scuba diving)

\_\_\_\_\_ Potential opportunities for water contact sports given attainment of water quality standards and provision of access points on publicly owned land.

\_\_\_\_\_ Present picnicking opportunities.

\_\_\_\_\_ Potential picnicking opportunities given provision of picnic facilities on publicly owned land.

Importance

- \_\_\_\_\_ Length of longest segment of uninterrupted waterfront walking path open to the public as a percentage of length of segment.
- \_\_\_\_\_ Potential of the segment for waterfront walk paths (subjective judgement).
- \_\_\_\_\_ Length of longest segment of uninterrupted path suitable for cycling as a percentage of length of the segment.
- \_\_\_\_\_ Potential of the segment for cycling (subjective judgement).
- \_\_\_\_\_ Length of longest segment suitable for uninterrupted small craft navigation as a percentage of length of the segment.

AESTHETIC, CULTURAL, EDUCATIONAL CRITERIA

- \_\_\_\_\_ Vistas of exceptional grandeur or interest (this could be provided by a natural feature, e.g. the Palisades, an urban skyline, other feats of engineering, e.g. a suspension bridge, or labor-oriented cultural features, e.g. an active port. Judgements of viewshed value should consider the waterfront vistas from both sides of rivers, including interstate rivers.
- \_\_\_\_\_ Presence of historic sites, state or national register structures, period structures or archaeological sites.
- \_\_\_\_\_ Unique opportunities for learning about ecological, geologic or hydrological systems.
- \_\_\_\_\_ Variety of views from different points in the segment, such as distant background as well as foreground visible from most points.

## RECREATIONAL RIVER AREAS

According to the New Jersey Wild and Scenic Rivers Act, recreational rivers "are those rivers or sections thereof, that are readily accessible, that may have substantial development along their shorelines, and that may have undergone improvement or diversion prior to their inclusion in the New Jersey Scenic River System". N.J.S.A. 13:8-48(c).

Readers are invited to rank the importance of these criteria for developed recreational river areas as high, medium or low.

### Importance

#### ACCESS CRITERIA

\_\_\_\_\_ Population living within 1 1/2 miles (30 minutes walking distance) of nearest point on waterfront of segment.

\_\_\_\_\_ Population living within 60 minutes by public transportation.

\_\_\_\_\_ Population living within 60 minutes by automobile.

\_\_\_\_\_ Percentage of water frontage accessible to the public. (This will include some private land, e.g. a waterfront restaurant, and exclude some public land, e.g. a limited access highway).

\_\_\_\_\_ Percentage of segment which is public open space.

\_\_\_\_\_ Percentage of water frontage publicly owned.

#### RECREATIONAL OPPORTUNITIES CRITERIA

\_\_\_\_\_ Water Quality Classification.

\_\_\_\_\_ Present fishing opportunities.

\_\_\_\_\_ Potential fishing opportunities given attainment of water quality standards and provision of access points for fishing on publicly owned land.

\_\_\_\_\_ Present opportunities for water contact sports (swimming, wading, tubing, water skiing, skin or scuba diving).

\_\_\_\_\_ Potential opportunities for water contact sports given attainment of water quality standards and provision of access points on publicly owned land.

\_\_\_\_\_ Present recreational boating opportunities.

\_\_\_\_\_ Potential boating opportunities given attainment of water quality standards and provision of docks and launch ramps on publicly owned land.

Importance

- \_\_\_\_\_ Present picnicking opportunities.
- \_\_\_\_\_ Potential picnicking opportunities given provision of picnic facilities on publicly owned land.
- \_\_\_\_\_ Present camping opportunities given provision of campsites on publicly owned land.
- \_\_\_\_\_ Opportunity for waterfowl hunting.
- \_\_\_\_\_ Length of longest segment of uninterrupted waterfront walking path open to the public as a percentage of length of the segment.
- \_\_\_\_\_ Potential of the segment for waterfront walking paths (subjective judgement).
- \_\_\_\_\_ Length of longest segment of uninterrupted path suitable for cycling as a percentage of length of the segment.
- \_\_\_\_\_ Potential of the segment for cycling (subjective judgement).
- \_\_\_\_\_ Length of longest segment suitable for uninterrupted small craft navigation as a percentage of length of segment.

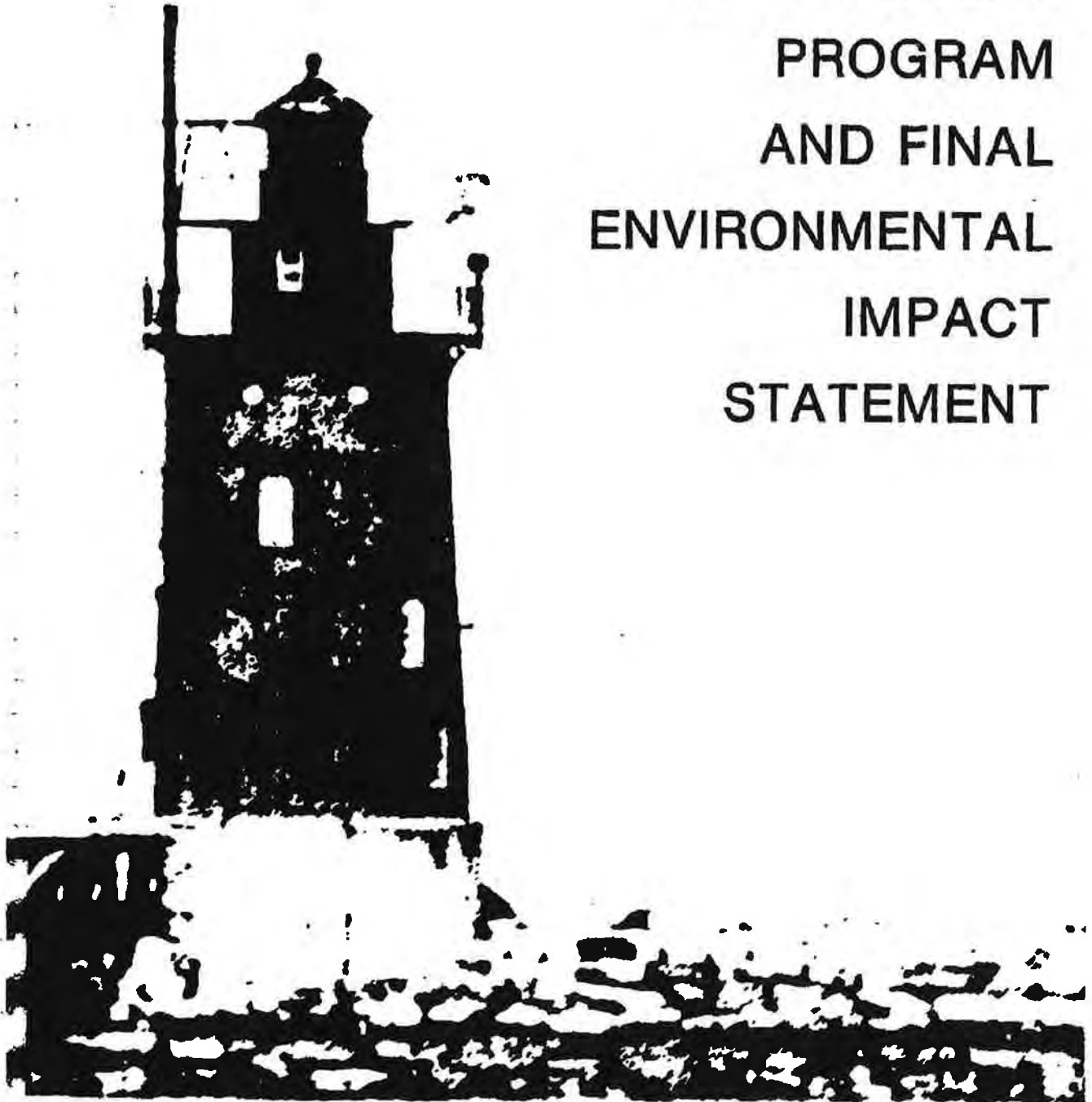
AESTHETIC, CULTURAL, EDUCATIONAL CRITERIA

- \_\_\_\_\_ Vistas of exceptional grandeur or interest (this could be provided by a natural feature, e.g. the Palisades, an urban skyline, other feats of engineering, e.g. a suspension bridge, or labor-oriented cultural features, e.g. an active port. Judgements of viewshed value should consider the waterfront vistas from both sides of rivers, including interstate rivers.
- \_\_\_\_\_ Variety of views available from different points in the segment including distant background as well as foreground visible from most points.
- \_\_\_\_\_ Presence of historic sites, state or national register structures, period structures or archaeological sites.
- \_\_\_\_\_ Unique opportunities for learning about ecological or hydrological systems.
- \_\_\_\_\_ River corridor contains diverse flora and fauna, especially rare or endangered species.
- \_\_\_\_\_ Extensive sections of the shoreline have no visible signs of human activity.
- \_\_\_\_\_ Road and rail crossings of the river are limited.





DELAWARE COASTAL  
MANAGEMENT  
PROGRAM  
AND FINAL  
ENVIRONMENTAL  
IMPACT  
STATEMENT



**U.S. DEPARTMENT OF COMMERCE**  
National Oceanic and Atmospheric Administration  
Office of Coastal Zone Management



DE22181



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Assistant Secretary for Science and Technology**  
Washington, D.C. 20230

In accordance with the provisions of Section 102(2)(C) of the National Environmental Policy Act of 1969, we are enclosing for your review and consideration the Final Environmental Impact Statement prepared by the Office of Coastal Zone Management on the proposed Delaware Coastal Management Program.

If you have any questions about the enclosed statement, please feel free to contact

John Phillips  
South Atlantic Regional Manager  
Office of Coastal Zone Management  
3300 Whitehaven Street, N.W.  
Washington, D. C. 20235  
Phone: 202/254-7494

Thank you for your cooperation in this matter.

Sincerely,

*Sidney R. Galler*  
Sidney R. Galler  
Deputy Assistant Secretary  
for Environmental Affairs

Enclosures

DE22182

Reprint Notice  
March, 1980

This is the second printing of the DCMP/FEIS. The Summary Section and Parts I, III, IV, V and IV of the original edition were printed on buff (gold) paper; these portions are reprinted on white stock in order to reduce costs. Both editions are identical except for the last sentence on page 10, Summary which contained an error.

UNITED STATES  
DEPARTMENT OF COMMERCE  
  
FINAL  
ENVIRONMENTAL IMPACT  
STATEMENT  
  
PROPOSED  
COASTAL MANAGEMENT PROGRAM  
  
FOR  
THE STATE OF DELAWARE

Prepared by:

Office of Coastal Zone Management  
National Oceanic and  
Atmospheric Administration  
Department of Commerce  
3300 Whitehaven Street, N.W.  
Washington, DC 20235

and

Delaware Coastal Management  
Program  
Office of Management, Budget  
and Planning  
P.O. Box 1401  
Dover, DE 19901

This publication is financed in part through a federal grant from the Office of Coastal Zone Management, NOAA under the provision of Section 305 of the Coastal Zone Management Act of 1972 (Public Law 92-583)

This publication is available in microfiche from the Bureau of Archives and Records, Hall of Records, P.O. Box 1401, Dover, Delaware 19901

Printed in U.S.A.  
DOCUMENT NO. 1003-79-05-01

DE22183

**DESIGNATION:** Final Environmental Impact Statement

**TITLE:** Proposed Federal Approval of the Delaware Coastal Management Program

**ABSTRACT:** The State of Delaware has submitted its Coastal Zone Management Program to the Office of Coastal Zone Management for approval. Approval would permit implementation of the proposed program, allow program administration grants to be awarded to the state, and require that federal actions be consistent with the Program. This impact statement includes a copy of the Program (Part II) which is a comprehensive management program for land and water use activities. It consists of numerous policies on diverse management issues which are enforced by various state laws, discusses areas of special interest to the state, and is the culmination of several years of program development.

Approval and implementation of the program will enhance governance of the state's coastal land and water areas and uses according to the coastal policies and standards. The effect of these policies is to condition, restrict or prohibit some uses in parts of the coastal zone, while encouraging development and other uses in other parts. This Program will improve decision-making processes for determining appropriate coastal land and water uses in light of resource considerations and increase public awareness in coastal resources. The Program will result in some short-term economic impacts on coastal users, but will lead to increased long-term protection of the state's coastal resources.

Alternatives include delaying or denying approval if certain requirements of the Coastal Zone Management Act have not been met, or the state could modify parts of the Program or withdraw their application for Federal approval.

**APPLICANT:** Delaware State Office of Management, Budget & Planning

**LEAD AGENCY:** U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
Office of Coastal Zone Management

**CONTACT:** Mr. John Phillips  
South Atlantic Regional Manager  
Office of Coastal Zone Management  
3300 Whitehaven St., N.W.  
Washington, D.C. 20235 (tele. 202/254-7494)

DE22184

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Department of Justice  
Department of Labor  
Department of Transportation  
U.S. Coast Guard  
Environmental Protection Agency  
Federal Energy Regulatory Commission  
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Marine Mammal Commission  
Nuclear Regulatory Commission

National Interest Groups

A.M.E.R.I.C.A.N.  
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American Bar Association  
American Bureau of Shipping  
American Farm Bureau Federation  
American Fisheries Society  
American Forest Institute  
American Gas Association  
American Hotel and Motel Association  
American Industrial Development Council  
American Institute of Architects  
American Institute of Merchant Shipping  
American Institute of Planners  
American Littoral Society  
American Mining Congress  
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Other Delaware Agencies  
Coastal Zone Management Committee  
Coastal Zone Industrial Control Board  
Council on State Planning  
Delaware Tomorrow Commission and Committees  
All Public Libraries  
School Libraries  
Energy Facilities Siting Liaison Committee  
College of Marine Studies, University of Delaware  
WILMAPCO (Region Clearinghouse)  
Delaware State Clearinghouse Committee  
Mini Workshops Participants  
    Industrial  
    Environmental - Conservation  
    Agriculture  
    Resort/Tourist/Recreation  
Delaware Solid Waste Authority  
All Municipalities in Delaware  
New Castle County Council, Planning Department, and Water Quality Agency  
Kent County Levy Court and Planning Department  
Sussex County Council and Planning Department  
DelMarVa Power and Light Company  
Nature Resources Defense Council  
Delaware Nature Education Society  
League of Women Voters of Delaware  
Delaware Oil Men's Association  
Watch Our Waterways  
Sierra Club (Delaware)  
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## FISH AND WILDLIFE

### SIGNIFICANCE AND VALUE

Delaware has an abundance of wild birds, fish and fur bearing animals. The State is inhabited by approximately 37 species of waterfowl, 91 species of other water birds, four upland game birds, 24 species of birds of prey, 160 species of song birds and 45 species of mammals. In addition, Delaware's waters are home for numerous species of freshwater and saltwater fish.

The State's coastal and freshwater wetlands provide habitats for mallards, black duck, least terns, blue-winged teal, gadwall, wood duck and snow and Canada geese. Coastal waters in the Delaware Bay are inhabited seasonally by sea ducks. The fall migration of waterfowl along the Atlantic flyway brings hundreds of thousands of waterbirds to Delaware's coastal areas. During the winter, the State supports more than 125,000 Canada geese. This represents one of the largest winter concentrations of the species on the East Coast. These waterfowl are enjoyed by the general public for their scenic value and for hunting.

Most of the salt and brackish water sport fishing in Delaware occurs in the Delaware Bay, but there are also important sport fishing areas in the Atlantic Ocean, Inland Bays and the tidal streams feeding these waters. The principal salt and brackish water fish caught in Delaware include weakfish, flounder (summer and winter), bluefish, striped bass, sea bass, perch, commercial and sport sturgeon, spot, drum, Atlantic croaker and shad.

Crabbing and clamming are popular activities along the Delaware Coast. Large numbers of crabs and clams are taken in the State's bays and estuaries.

A great deal of fresh water fishing occurs on mill ponds. Once there were 130 mill ponds in Delaware, but only 60 remain today. Twenty-five of the 60 remaining ponds have been restored and maintained over the last two decades for public use, and provide recreation for Delaware's 20,000 fresh water angler.

The value of fish and wildlife is documented in the State Comprehensive Outdoor Recreation Plan (SCORP) and in numerous studies prepared by the Division of Fish and Wildlife of the Delaware Department of Natural Resources and Environmental

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Control (DNREC). In addition, the National Marine Fisheries Service (NMFS) has confirmed the importance of State fisheries management in a letter to the Delaware CMP which says, "approximately two-thirds of our commercial species are dependent upon estuarine waters that are under State control."

As Working Paper No. 7 discusses in detail, fish have national value for recreation and commerce. The Congress declared, in the Fishery Conservation and Management Act of 1976, that "commercial and recreational fishing constitute a major source of employment and contribute significantly to the economy of the Nation." NMFS has pointed out that "in this ... age of growing populations and growing demands for food ... the sea remains both a frontier and a storehouse of living resources of immense value."

The Congress has also expressed the Nation's interest in maintenance of fish and wildlife with passage of such legislation as the Federal Aid in Fisheries Restoration Act, the Federal Aid in Wildlife Restoration Act, the Land and Water Conservation Fund Act, the Wild and Scenic Rivers Act, the Wilderness Act, the National Wildlife Refuge Administration Act, the Fish and Wildlife Coordination Act, the Migratory Bird Conservation Act, the Endangered Species Act, the Federal Land Management Policy Act. Indeed, there are over 100 treaties, international agreements, federal statutes and executive orders to protect wildlife in this country.

The national interest in endangered fauna and flora is stated in several federal statutes, particularly the Endangered Species Act of 1973, wherein Congress "finds and declares" that species of fish, wildlife, and plants in danger of or threatened with extinction "are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people."

Endangered and threatened animal species listed by the federal government which are "resident" (as defined by the Endangered Species Act of 1973) in Delaware, include: the southern bald eagle; the brown pelican; the American peregrine falcon; the arctic peregrine falcon; the leatherback turtle; the Atlantic ridley turtle; the shortnose sturgeon; and several whales, including the blue, bowhead, finback, humpback, right, sei, and sperm. Of these, only the bald eagle, which nests near the Bombay Hook National Wildlife Refuge, is sighted more than rarely.

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The following plants found in the State of Delaware have been proposed for inclusion on the national endangered and threatened list by the Smithsonian Endangered Flora Project: Cyperaceae-Phynochospora Knieskernii (Family-species), endangered; Ranunculaceae-Trollius laxus, endangered; Spiaceae-Oxypolis canbyi, threatened; Betulaceae-Alnus maritima, threatened; Orchidaceae-Platanthera peramoena, threatened; Poaceae-Muhlenbergia torreyana, threatened; and Scrophulariaceae Micranthemum micranthemoides, threatened.

CMP LIVING RESOURCES  
MANAGEMENT CONCERNS

The CMP is concerned primarily with five aspects of fish and wildlife management, namely: (1) habitat preservation; (2) species diversity and population maintenance; (3) program funding; (4) regional coordination; and (5) public awareness.

The importance of habitat preservation is obvious. Activities which destroy or even slightly alter habitats can upset the fragile ecosystem. Inland clearing for development eliminates wildlife cover, causing many species to leave the area or perish. If an endangered species can utilize only a specific area, the preservation of that area is of much greater concern than other areas.

Particularly important, however, are the estuaries because they are especially productive. Until recently, however, these areas were not protected. Between 1950 to 1969, four percent of the Nation's wetlands were lost by dredging and filling. That low percentage may not seem serious, but in acreage a great deal of wildlife habitat had been lost. Moreover, 20 years is a short period and cumulative losses over longer periods would be significant.

Development pressures are intense due to the recreational amenity of estuaries. A 1969 study showed that 25%, 44% and 10% of the shorelines of Rehoboth Bay, Indian River Bay, and Assawoman Bay, respectively, were developed. Although these changes were observed from 1938 to 1969, most of the development took place between 1958 and 1969.

Slight changes in water quality can also be important. Dissolved, suspended and floating waste consume oxygen either directly by oxidation or indirectly by causing "plankton blooms" when plankton die oxygen is removed from the water by the process of decomposition. The quantity of dissolved oxygen is important to the economics of the commercial and sport fishery.

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The decline of many species of finfish and shellfish has been correlated with the decline in water quality. Seventy years ago, shad and sturgeon were important commercial fish in Delaware. Throughout the 19th century the annual shad catch weighed between 10 and 19 million pounds. Today only a few Delaware gill net fishermen seek the shad or sturgeon for commercial purposes. Their small number is attributed to pollution in the lower Delaware River which contributes to mortality and curtails up-river spawning migration.

There are, of course several activities which cause water quality problems. Sewage disposal systems can pollute the water and devastate living resources when such systems malfunction or when the systems are inadequate to handle the quantity or components of the sewage. Ninety-two percent of the fish kills reported in the Nation in 1974 were attributed to such problems.

The transportation of petroleum through estuaries threatens fish and wildlife because of the possibility of an oil spill although oil tanker traffic in the Delaware River and Bay so far has been free of trouble. Petrochemical complexes, of course, also present oil pollution hazards. A 1961 study by the Delaware Game and Fish Commission contends that such complexes are incompatible with wildlife, concluding, "Which shall it be? Heavy petrochemical industry or the benefit and use of Delaware's most valuable natural resource."

Finally, spoil disposal and certain agricultural practices constitute threats to habitat. Benthic organisms, those animals living on the bottom of a body of water, are smothered by spoil deposits. In the past, most spoil disposal took place on wetlands which were thereby destroyed. The State's mosquito control program has in the past relied on pesticides and other practices which also have harmful side effects on aquatic life. Agricultural activities can affect fish and wildlife through the introduction of pesticides and herbicides into the ground and water. However, agricultural lands can provide multi-use recreation and important contributions to wildlife through crop and cover planting practices.

Habitat preservation is only one factor which bears on the diversity, population, and health of fish and wildlife. Excess fishing and hunting can reduce species population far beyond the maximum sustainable yield. On the other hand, overly strict hunting and fishing prohibitions prevent the resources from being utilized and may adversely affect the health of the resources through competition for limited food supplies.

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Unfortunately, past game and fish management has been hampered by lack of funds. Usually, the bulk of the money appropriated for natural resource management has been spent on protecting air and water quality, and relatively little was spent on fish and wildlife management.

Interstate regulations have also caused problems, particularly the restrictions contained in the New Jersey-Delaware Fisheries Compact of 1907. This Compact requires the adoption of identical fishery laws by New Jersey and Delaware for the Delaware Bay. Once these laws were agreed upon by the States they could not be changed without the approval of both States. For a time the two states believed that the Compact had been properly implemented and that they could not change their respective laws without each other's approval. This arrangement proved unsatisfactory because it was difficult to reach a consensus on how the laws should be modified to deal with changing fishery technology. Under the auspices of the CMP, the Compact was examined by the Delaware Department of Justice and an opinion was issued which declared that an important provision in the Compact was not implemented. This will allow Delaware to update its fishery statutes and regulations, an action now underway. However, the need for regional fishery planning still exists because fish do not recognize jurisdictional boundaries and because fishermen from the two states must be regulated in a similar manner if they are to be competitive with each other.

Finally, as with many of the resources considered by the CMP, the program is concerned that the public becomes aware of the value of fish and wildlife.

#### CMP LIVING RESOURCES POLICIES

1. THE QUANTITY AND QUALITY OF FISH AND WILDLIFE HABITAT SHALL BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE.

Several sections of the document describe CMP habitat preservation measures. Most important are the wetlands policies (Sec. 5.A.1.), the water quality policies (Sec. 5.A.3.), the coastal strip policies (5.A.4.), the nature preserves policies (Sec. 5.B.2.), and the State-owned conservation lands policies (Sec. 5.C.5.). Also noteworthy is DNREC's Endangered Species Program discussed under Policy No. 6.



## ENERGY FACILITIES

### Introduction

This section includes a number of subjects centering on energy facilities. It examines national, regional and State-wide energy resources and needs. It describes energy facility siting criteria. It identifies effects of such facilities on coastal resources. It discusses the need to balance the need for energy facilities with protection and conservation of natural resources. It also describes Coastal Management Program energy activity policies. And it presents the CMP planning process for energy facilities located in or likely to affect the coastal zone.

The format for this section is different than that used for most of the CMP because of the variety of subjects and the detailed treatment of them required by the Federal Coastal Zone Management Act. Accordingly, each consideration of a particular energy facility includes discussions of the national interest, potential demand, siting criteria, and CMP policy. The discussions contained in this section are more extensive than those previously contained in the CMP Discussion Draft (September 1978). Many reviewers of the September Draft felt that the commentary related to energy facilities contained in a CMP Working Paper (Number 7, The National Interest in Resources and Facilities of the Delaware Coastal Zone, March 1978) should be included in the CMP document.

### ENERGY AND THE NATIONAL INTEREST

#### WORLD AND NATIONAL SUPPLY AND DEMAND

The President's National Energy Plan states that:

"The diagnosis of the U.S. energy crisis is quite simple: demand for energy is increasing, while supplies of oil and gas are diminishing. Unless the U.S. makes a timely adjustment before world oil becomes very scarce and very expensive in the 1980's, the nation's economic security and the American way of life will be gravely endangered."

Cheap energy has enabled the Nation to produce food and other goods and services at a low enough cost to permit general prosperity and a relatively high standard of living. The economic importance of energy to the Nation cannot be overstated. The United States consumed approximately 60 quadrillion

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(60,000,000,000,000,000) Btu--one btu is the amount of heat required to raise the temperature of one pound of water one degree Fahrenheit--of energy in 1970. In 1975, the United States consumed 73 quadrillion Btu. At current consumption levels, the national use of energy is projected to reach 125 quadrillion Btu by the year 2000. If the cost of all that energy rises appreciably, the economic consequences will obviously be profound.

Unfortunately, rising costs seem almost inevitable. The cost of energy will, to a large extent, be determined by the familiar principle of demand and supply. As demand increases and supply dwindles, prices will escalate. The world-wide demand for energy has been projected to jump from 250.4 quadrillion Btu in 1973 to 406.1 quadrillion Btu in 1990, an average annual growth rate of 2.9 percent. Supplies, on the other hand, are expected to become more scarce. Of the 250.4 quadrillion Btu consumed in 1973, only 15.1 quadrillion Btu were from other than non-renewable fossil fuels. As the world runs out of those fuels, the price of energy will rise unless alternative energy sources can fill the void.

Like the rest of the world, the United States depends on fossil fuels almost exclusively. About 95 percent of the Nation's energy is supplied by non-renewable fossil fuels. Oil and gas provide 75 percent of the country's energy needs, although they constitute less than 8 percent of its energy resources. In 1975, the Nation used more than 16 million barrels of oil per day, compared to less than 7 million barrels per day in 1947. Oil is used heavily in the residential, commercial and transportation sectors, but is needed most for transportation, where no substitute is currently available. In early 1977, the United States imported 9 million barrels of oil per day, one-half of the domestic supply.

The impact on the Nation's balance of trade--an important measure of the country's economic health--has been substantial. The impact, of course, has been aggravated by rising prices. World-wide oil prices increased four-fold in 1973-1974 alone. In 1974, the United States imported \$15.2 billion worth of petroleum crude, \$6 billion worth of fuel oil, and \$.5 billion worth of natural gas; while it exported only \$13 million worth of crude oil, \$46 million worth of fuel oil, and \$68 million worth of natural gas. During an 8 month period in 1977, oil imports were reportedly worth \$23 billion.

Energy-induced economic vulnerability jeopardizes the country's position in the world and may adversely influence foreign policy. The distribution of the remaining oil in the

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world is such that OPEC and the Soviet bloc together control approximately 85 percent of the remaining potential recoverable resources. It has been estimated that by the year 2000, about 73 percent of world's oil production will probably come from OPEC and the Soviet bloc. In addition, the Mid-east Nations and the Sino-Soviet bloc combined, hold more than 1.3 quadrillion cubic feet of the less than 2.2 quadrillion cubic feet remaining estimated world reserve of natural gas. United States holdings amount to only 237.1 trillion cubic feet, about one-third of the amount in the Sino-Soviet bloc.

A report by the U. S. Central Intelligence Agency predicts that the United States' demand for oil imports in 1985 could reach between 12 and 15 million barrels per day, most of which will be sought from OPEC countries. The Federal Energy Administration--now part of the Department of Energy--has reported that oil imports could reach 13.5 million barrels per day in 1985 if oil and gas prices are regulated, but that gradual deregulation could drop the figure to 5.9 million barrels per day. However, the Federal Energy Administration has also warned that imports could increase again in 1990 as domestic production declines. Finally, the National Energy Plan projects a 12-16 million barrel per day import figure for 1985.

Natural gas constitutes only 4 percent of domestic energy reserves, but, in 1976, furnished 27 percent of national energy needs--the equivalent of 10 million barrels of oil per day. The National Energy Plan declares that "the growing imbalance between America's domestic natural gas resources and its annual consumption is of particular concern."

Projections of the national gas supply vary. The U. S. Bureau of Mines has predicted that domestic supplies will decrease steadily between now and 2000. A Federal Energy Administration forecast of gas supplies is more optimistic, and estimates that there will be a small increase, until at least 1985. On the other hand, more dire predictions have been made. The National Research Council, for example, has reportedly warned that the United States will completely run out of both oil and natural gas by 2000.

Coal is unlikely to be exhausted in the near future. Coal constitutes 90 percent of the country's conventional energy reserves, but supplies only 18 percent of energy consumption. Within the lower 48 states, the United States has about one-third of the known economically recoverable coal reserves in the world. Full utilization of America's coal resources has been hampered by constraints on demand, rather than lack of supply. Demand has been curtailed by government regulations designed to minimize adverse environmental and health effects of coal operations.

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as well as equipment and transportation limitations.

According to the National Energy Plan, the country must overcome such problems. The Plan states that "Expansion of U. S. coal production and use is essential if the Nation is to maintain economic growth, reduce oil imports, and have adequate supplies of natural gas for residential use."

The Federal Energy Administration has projected a coal production increase from 603 million tons in 1974 to 1040 million tons in 1985. Most of the coal will be used in the generation of electricity. The Federal Energy Administration expects that coal's use in electric generation could increase by 77 percent from 1975 to 1985. In 1974, coal was already used to generate more electricity than any other source.

The demand for electricity--currently greater than 20 quadrillion Btu annually--may more than double by 1990. Accordingly to the Federal Energy Administration, nuclear energy could represent about 26 percent of electric generation in 1985, as compared with 8.6 percent in 1975. Nuclear plants now supply about 10 percent of the Nation's electricity, or 3 percent of the total energy output.

New technology, of course, will also play a role in meeting national and world energy needs, but major contributions from solar, geothermal, and synthetic fuels are not expected to be felt until after 1990. For the near-term, the Nation must rely primarily on oil, gas, coal, and nuclear fuel.

#### REGIONAL AND STATEWIDE ENERGY SUPPLY AND DEMAND

Even with adequate national energy resource reserves there may be regional or state energy shortages in the U. S. due to the geographic distribution of resources and to factors affecting receipt of energy fuels by particular regions. Although the Middle Atlantic region, however defined, is both an important consumer and processor of energy fuels, this part focuses on Delaware's demand and supply issues. To summarize a Delaware regional energy situation is very difficult due to the way statistics are compiled and the lack of a consensus on a Middle Atlantic region. In some reports, Delaware is considered in the "Northeast"; other reports place it with its immediate neighbors in the "Middle Atlantic"; and still other reports claim Delaware as a "Southeastern" state including it with states as far off as Georgia and Florida. In some cases, regional terminology does not clearly identify component states. Use of data from Delaware's neighboring states is suspect because parts

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of those states are distant from Delaware and share few, if any, commonly identifying characteristics and interests. Thus, the focus here is necessarily on Delaware rather than some ill-defined region.

The Federal Energy Administration has prepared energy forecasts to 1980 for each of the states. The Delaware Energy Resources Conservation and Development Commission, created by Executive Order No. 106 and discussed below, has independently predicted State energy needs based on State population projections and national economic growth forecasts. With no allowance for energy conservation, the Commission prediction shows a 19 percent increase in demand between 1975 and 1980, a 33 percent increase between 1975 and 1985, and a 50 percent increase between 1975 and 1990. The Federal Energy Administration forecasts show slightly higher consumption rates, in part because it uses higher population projections. Inasmuch as the State anticipates substantial savings from implementation of energy conservation measures, both projections are probably pessimistic.

Delaware, like other states along the East Coast, has already experienced gas shortages. In the winter of 1976-1977, several industries in the State were forced to close temporarily because of a 1.8 billion cubic feet shortage.

The long-term energy situation for both the State and the Nation is equally uncertain. The next part discusses efforts at the federal level for addressing such uncertainties.

#### FEDERAL ENERGY INITIATIVES

The Congress has expressed its concern over energy resources in several statutes. One of those, the Federal Energy Administration Act of 1974, states that:

"The Congress hereby declares that the general welfare and the common defense and security require positive and effective action to conserve scarce energy supplies, to insure fair and efficient distribution of, and the maintenance of fair and reasonable consumer prices for, such supplies, to promote the expansion of readily usable energy sources, and to assist in developing policies and plans to meet the energy needs of the Nation."

The Coastal Zone Management Act, of course, also addresses energy problems. In it, the Congress finds that:

"The national objective of attaining a greater degree of energy self-sufficiency would be

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advanced by providing Federal financial assistance to meet state and local needs resulting from new or expanded energy activity in or affecting the coastal zone."

Energy activities are broadly defined in the Act and must be considered during Coastal Management Program development. Substantial sums of money are appropriated under Section 308--the Coastal Energy Impact Program--for energy impact assistance.

More recently, the Department of Energy Organization Act, of August 4, 1977, created a Department of Energy to carry out a comprehensive national energy policy. Among the major programs under the new Department are conservation, resource development and production, research and development, data information management, and regulation.

Purposes of the Federal Energy Policy and Conservation Act are:

1. to grant specific standby authority to the President, subject to congressional review, to impose rationing, to reduce demand for energy through the implementation of energy conservation plans, and to fulfill obligations of the United States under the international energy program;
2. to provide for the creation of a Strategic Petroleum Reserve capable of reducing the impact of severe energy supply interruptions;
3. to increase the supply of fossil fuels in the United States through price incentives and production requirements;
4. to conserve energy supplies through energy conservation programs, and, where necessary, the regulation of certain energy use;
5. to provide for improved energy efficiency of motor vehicles, major appliances, and certain other consumer products;
6. to reduce the demand for petroleum products and natural gas through programs designed to provide greater availability and use of this Nation's abundant coal resources; and

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7. to provide a means for verification of energy data to assure the reliability of energy data."

Among other things, the Act provides federal funding and technical assistance to state conservation programs. To qualify, states must prepare and implement energy conservation plans to achieve conservation energy savings of at least 5 percent by 1980.

The Energy Policy and Conservation Act also authorized the Federal Energy Administration to require power plants and other major fuel-burning installations to convert to coal. This authority extends powers conferred in the Energy Supply and Environmental Coordination Act of 1974, and may impact energy facility siting choices, as well as the environment.

The potential conflict between energy needs and environmental quality is acknowledged in a number of statutes, including the Clean Air Act, as amended in 1977. That Act provides that the Governor may petition the President to determine that a national or regional energy emergency exists of such severity that air quality standards may be temporarily suspended. Suspension is permissible only if there exists in the vicinity of the pollution source a temporary energy emergency involving loss of necessary energy supplies for residential dwellings or high levels of unemployment.

Part of the solution to energy problems, of course, is the siting of facilities which make efficient use of energy resources. Those facilities are discussed in the following discussion of CMP energy facility issues and policies.

#### CMP ENERGY FACILITIES ISSUES AND POLICIES

##### CONSERVATION

The Nation's economic security and the American way of life will be gravely endangered unless the United States makes a timely adjustment of its use of energy. Oil and gas provide about 75 percent of the country's energy needs, but constitute less than 8 percent of its energy resources. In early 1977, the Nation imported 9 million barrels of oil per day, one-half of the domestic supply. During an 8-month period in that year, oil imports were reportedly worth \$23 billion. Moreover, oil and gas supply disruptions have already caused temporary unemployment of more than one million American workers--some of them Delawareans. Finally, most of the known oil and gas supplies are owned by nations which have uncertain relationships with the United States, a situation which jeopardizes foreign policy and the reliability of future energy imports.

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As oil and gas supplies continue to dwindle, the problems of the adverse balance of trade, energy shortage-induced unemployment, and a weakened foreign policy posture may be aggravated unless the country learns to change its energy consumption habits. Ultimately, new sources of energy must be developed. In the meantime, conservation measures are needed to mitigate the impacts of the growing energy crisis.

In response to the Federal Energy Conservation and Production Act (P. L. 94-385), Delaware's Energy Office has developed an Energy Conservation Plan for the State of Delaware. That plan has been approved by the Federal Energy Administration and is hereby incorporated into the CMP by reference. The objective of the plan is to reduce energy consumption in the State by more than 5 percent by 1980. Measures which will be utilized to achieve that goal include, but are not limited to: increased thermal and lighting efficiency in State buildings; industrial and commercial energy audits; homeowner energy audits; legislation allowing right turns on red stoplight signals; strict enforcement of highway speed limits; promotion of the use of carpools and mass transit; waste oil recycling; and several energy conservation educational programs.

The Governor not only has supported energy conservation measures with the development and adoption of the Energy Conservation Plan, but also with two Executive Orders. Executive Order No. 15 restricts the use of air conditioning in State buildings and encourages homeowners to do likewise. Executive Order No. 9 establishes the Governor's Energy Resource Management Commission which, among its other duties has assisted in the development and updating of the Energy Conservation Plan.

By virtue of House Joint Resolution No. 11 (1977), the Delaware General Assembly has also adopted energy conservation as an official State policy. Moreover, the Delaware Energy Act of 1978 implements many of the program steps adopted by the Delaware Energy Conservation Plan, as well as several other energy conservation measures.

Finally, the CMP encourages the reduction of demand for energy by recommending more energy efficient land-use patterns. Several recent studies have demonstrated that substantial energy savings can result from the clustered form of land development, which is encouraged by the Program's public investment policies.

## ENERGY FACILITIES SITING

### 1. Petroleum Refineries



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a. The National Interest

Oil which the country needs for energy and other purposes will have to be refined at petroleum refinery facilities. Petroleum refineries serve the national interest by converting crude oil, natural gas liquids or synthetic crude into gasoline, jet fuels, kerosene, diesel fuel, fuel oils, lubricants, waxes, petrochemical feedstocks, etc. Refineries also provide tax revenues and jobs, although few jobs on a per acre land use basis.

b. Potential Demand

As of November 1976, there were approximately 140 refining companies operating 276 refineries in the United States. The total national refining capacity that year was about 16.0 million barrels per day, slightly less than the 16.4 million barrels per day of total domestic demand for petroleum products.

Private industry typically initiates the siting process for petroleum refineries and associated facilities when the demand for facilities is such that there is a reasonable opportunity for profit. The public knows less about the demand for petroleum refineries than for electric generating plants because government is not as actively involved in assessing the need for the former, or in providing for their siting. Private industry, of course, is reluctant to release data on its analysis of the demand for facilities in specific areas. Thus, it is difficult to quantify the potential demand for additional petroleum refineries in Delaware to the extent that the future demand for power plants can be quantified, for example.

Representatives of the American Petroleum Institute and the U. S. Department of Energy have previously acknowledged that there was no current need for new petroleum refineries in the region. Recently, the Department of Energy has endorsed increased refining capacity along the Atlantic Coast.

Major refineries in New Jersey--at Linden, Perth Amboy, Bayonne, Port Reading/Sewaren, Westville, and Paulsboro/Greenwich; Pennsylvania--at Philadelphia and Marcus Hook; and Delaware--at Delaware City--give the Mid-Atlantic area a total refining capacity of more than one and a quarter million barrels per day. Petroleum refineries in the Delaware Valley alone had a capacity in 1976 of nearly one million barrels per day. Eight hundred-fifty thousand barrels of crude oil per day were shipped into the Delaware Valley during 1975, and the growth rate of imported oil from all sources into the entire Delaware Valley indicates that the total regional refining capacity should expand at a very gradual rate. With the replacement of old

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equipment and increases in refining capability of presently operating refineries, the need for new sites will be reduced. Industry officials have explained that refining capacity in the Delaware Valley Region could be almost doubled by upgrading equipment.

A large oil find on the outer continental shelf (OCS) off the East Coast could, on the other hand, increase the demand such that industry will seek new refinery sites. New refineries may also be in demand if the type of OCS crude varies substantially from the type presently refined, although it may be cheaper to modify existing refineries.

That OCS development will create new demand for refineries is not clear, however. The Council on Environmental Quality has pointed out that:

"In some outer continental shelf frontier areas, the refinery siting problem may not arise at all. Insofar as outer continental shelf oil simply replaces imports, there will be no call for new refineries to handle it."

That possibility, perhaps, accounts for the methodology of a study conducted for the American Petroleum Institute--Mid-Atlantic Regional Study - An Assessment of the Onshore Effects of Offshore Oil and Gas Development--which assumes no new refineries or petrochemical plants will result from OCS development.

In any event, the oil industry is undoubtedly mindful that one principle of the National Energy Plan is that "resources in plentiful supply must be used more widely, and the nation must begin the process of moderating its use of those in short supply." As oil reserves dwindle, so likely, will the need for new sites for oil refineries.

c. Siting Criteria

Direct waterfront access is not an absolute requirement for a refinery. The Federal Energy Administration has offered oil refineries as an example of energy facilities which are not coastal dependent. National Oceanic and Atmospheric Administration regulations, which "implement" the Coastal Zone Management Act, do likewise. Finally, the Council on Environmental Quality notes that refineries are energy facilities that have been "especially" suggested for inland siting. Competitive aspects, crude availability, total environmental impact, energy efficiency, and land availability also are essential determinants of refinery site selection.

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Cheap and convenient transportation of crude oil by pipeline makes it feasible to site refineries inland. Mobil Oil Company, for example, operates a 175,000 barrel per day refinery in Illinois which utilizes crude oil transported by pipeline from fields as far away as 1500 miles.

Nonetheless, many elements work together to favor coastal sites, including good markets in populous coastal cities, access to crude oil from abroad, and cheap water transportation. With OCS development, and possibly, superports looming on the horizon, the pressure to locate refineries in the coastal zone will probably continue.

Oil refineries are land extensive. Refineries with a capacity of at least 100,000 barrels a day are able to yield different products to meet seasonal--for example, gasoline in the summer, fuel oil in the winter--geographic, and marketing variations in demand. This flexibility encourages the siting of large refineries, with attendant demands for land. A new domestic refinery in the 250,000 barrel per day range requires roughly 1,000 to 1,500 acres of clear, flat, industrially zoned land. The site should have a maximum slope of 5 degrees, moderately well-drained soil and the capability to support large storage tanks and processing units.

Being largely automated and having substantial acreage of storage tanks and pipelines, a petroleum refinery requires few employees per acre, that is, the employee: acre ratio is low. The capital investment per acre of actual refinery area (operating area excluding buffer and unused acreage) is, however, very high.

Water in large quantities is essential to petroleum refinery operations. The amount of water used depends upon the size of the refinery, the complexity of the product mix, the processing and cooling system technology, and water quality. With an efficient mix of water and air cooling, a 250,000 barrel per day refinery uses between 5 and 15 million gallons of water per day.

Finally, oil refineries require substantial amounts of energy. Electricity, fuel oil, and gas are the major power sources, with purchased electricity typically providing nearly 80 percent of the refinery's energy needs. Heavy-duty transmission lines and electrical substations are, therefore, normally necessary adjuncts to a refinery complex.

#### d. Impact on Natural Resources

The potential of a refinery for adverse impact on natural resources is directly related to its product mix and the processes

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employed; the refinery size; and the sulfur content of the crude or intermediate feedstock being processed. Potential refinery pollutants include heat released either to the atmosphere or to a nearby water body; atmospheric contaminants from combustion required to generate heat and from the safety flare(s); from the evaporation of hydrocarbons and from catalyst regeneration; liquid contaminants resulting from contact of process streams with water; and solid and semi-solid contaminants which occur as bottom sediment from tank cleaning, sludges from waste treatment processes, and spent catalysts.

Noxious-smelling sulfur is potentially a serious source of air, land, and water pollution requiring special attention. Several hundred tons of elemental sulfur may be disposed of each day.

Air emissions of a 250,000 barrel per day refinery have been estimated at the levels shown in the following table. As the table indicates, emission levels vary according to the quality of fuel oil utilized.

Estimated Air Emissions  
From a 250,000 Barrel Per Day Refinery  
(lbs/day)

<u>Type of Emission</u>	<u>Fuel Oil Yield</u>	
	<u>Low</u>	<u>High</u>
Particulates	20,820	17,220
Sulfur Dioxide	97,420	83,950
Carbon Monoxide	5,640	5,750
Nitrogen Oxides	42,082	35,145
Hydrocarbons	90,130	91,870

Source: Modular Results, "Effects on New England of Petroleum-Related Industrial Development," Vol. 2, (Arthur D. Little, Inc., April 1975), pp. II-35.

Hydrocarbons are a principal emission of petroleum refineries and are difficult to control regardless of fuel quality. These chemicals escape from storage tanks, pipes and valves and are transformed by atmospheric processes into oxidants, harmful to human health according to the Council on

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Environmental Quality. Unfortunately, Delaware, along with most other Atlantic coast states, is in violation of federal oxidant level standards.

Liquid refinery wastes include: wastes containing feedstock or process product; process by-products; spills and tank cleaning wastes; non-process effluents, such as blowdown, water treatment and sanitary wastes, ballast from tankers, etc.; and storm water, where the degree of contamination depends on the nature of the drainage area.

Undesirable components of refinery wastewater include: floating and dissolved oil, suspended solids; dissolved solids; phenol and other dissolved organics; cyanide; chromate; organic nitrogen; phosphate; sulfides and mercaptans; and caustics and acids.

A 100,000 barrel per day refinery typically produces the following effluents which may require land disposal: 225 barrels per day of waste treating unit sludge; 325 barrels per day of raw water sludge; 700 barrels per day of spent caustic, which may contain sodium hydroxide, sodium sulfate and sodium sulfide; 20 barrels per day of settling pond sludge; 3 barrels per day of tank cleaning sludge; 4.8 tons per day of electrostatic precipitator output; 6 tons per day of cyclone separator output; 35 tons per day of coke fines from bag filters; 0.3 ton per day of coke chunks; 0.3 ton per day of waste catalysts; and 0.2 ton per day of spent sulfur plant catalyst.

If a coastal location is chosen for an oil refinery, environmental disturbances will occur primarily to marine or estuarine communities. A coastal refinery is usually co-located with a marine terminal. Jetties, piers, and crude oil delivery and oil product transshipment facilities typically comprise a marine terminal for refineries. The construction impacts of those structures can be significant.

More critically, oil transfer operations pose accidental spillage risks. The impacts of oil spills on coastal resources is discussed most thoroughly in the deepwater ports section.

The severity of impact on fauna and flora will depend in part on their tolerance, the toxicity of the wastewater discharge, the size of the receiving waters, the flushing rates of the receiving waters, and the physical-chemical characteristics of the receiving waters. Also important, of course, is the amount and nature of habitat destroyed or disrupted by the construction or operation of the refinery or associated transportation facilities.

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In sum, oil refineries may impact natural resources substantially. The next part describes how the Coastal Management Program mitigates such impacts and provides for the siting of oil refineries in Delaware

e. Petroleum Refineries in Delaware

1. THE CMP ABSOLUTELY PROHIBITS THE CONSTRUCTION OF NEW PETROLEUM REFINERIES IN WETLANDS OR IN THE COASTAL STRIP LYING BETWEEN A SERIES OF INLAND ROADS AND THE DELAWARE AND BAY -- A STRETCH OF LAND WHICH VARIES FROM A FEW HUNDRED YARDS WIDE IN NORTHERN DELAWARE TO A MAXIMUM OF 12 MILES IN THE SOUTH.

This coastal strip is the Delaware Coastal Zone Act's "coastal zone." It averages approximately 4 miles in width and comprises about 20 percent of the State's total land area, as well as all of its territorial salt waters. This coastal zone is termed the "coastal strip" in the CMP document and is described and mapped in Section 5.A.4 (Coastal Strip and Submerged Lands). This coastal strip for State regulatory purposes should not be confused with the coastal zone for CMP purposes, which is the entire State.

The Coastal Management Program prohibits new refineries in the coastal strip in order to protect the quality of the natural environment and the coastal uses which that quality permits. The resource section of the Program document describes the national and State interests in preserving natural resources and also briefly discusses the impacts of facilities, including oil refineries. Protection of those resources is, of course, part of the basis for excluding refineries from the coastal strip. Resources within the coastal strip are accorded more protection than in inland areas primarily because they are generally either more valuable, or more fragile.

The examples are evident. An oil refinery near the Atlantic beaches is incompatible with the recreational uses of that resource--air and water quality, visual impact, and additional demands on limited water supply are all problems. The potential difficulties of a coastal oil refinery near a wetlands area has previously been noted in the resources section of the CMP. Inland sites pose lesser threats to wetlands and the fish and wildlife these support. In addition, inland sites are usually farther from floodplains.

Most of the State's wetlands are within the coastal strip. Large-scale construction of any kind is prohibited in wetlands. The Coastal Management Program designates wetlands as Geographic

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Areas of Particular Concern and a full discussion of this invaluable resource is presented in the Program document. In brief, wetlands serve the national interest in many ways including contributing to food production, flood protection, recreational opportunities, water quality, coastal shoreline stabilization, the economy, and education.

Comparing the value of wetlands with the value of oil refineries or other energy facilities is to compare unlike things with highly dissimilar values. Although it may be impossible to state with certainty that a given wetlands area is more valuable to the State or the Nation in its natural state than it would be if it were utilized for a refinery site, the Coastal Management Program policy against wetlands destruction is justified on several grounds. First, and most important, alternate sites with less natural value are available and suitable for industrial development, but the reverse is not true. An existing wetland area cannot be relocated whereas an unbuilt energy facility can be readily relocated. As the President has pointed out, the Nation is losing wetlands at the rate of 300,000 acres per year and "must now protect against the cumulative effects of reducing (its) total wetlands acreage.

Another reason for excluding refineries from the coastal strip is that refineries have the capacity to stimulate additional industrial development in the same area because they produce products which are useable by other related industries. As one study points out, "...industries which use refined products either as fuel or as raw materials, particularly the petrochemical industry, will find it desirable to locate near refineries." The Council on Environmental Quality supports that statement:

"With offshore production, the petro-chemical development (in the Mid-Atlantic Region) is expected to increase roughly in proportion to refinery development..."

Thus, the secondary environmental impacts of an oil refinery in the coastal strip, if permitted, could be substantial.

A further reason for this exclusion of petroleum refineries is the principle expressed in 1971 with the enactment of Delaware's Coastal Zone Act that industrial land uses in the coastal strip should maximize employment per acre whenever possible and, as noted previously, petroleum refineries have a very low employee per acre ratio.

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2. NEW PETROLEUM REFINERIES ARE NOT PROHIBITED INLAND PROVIDED STATE AND LOCAL ENVIRONMENTAL, LAND USE AND SITE DEVELOPMENT STANDARDS ARE MET.

The prohibition of new refineries set forth in Policy No. 1 eliminates, for now, some of the most attractive sites in Delaware, namely those fronting the Delaware River and Bay, where waterfront access is assured. As mentioned above, however, direct waterfront access is not absolutely necessary. Moreover, the northern portion of the prohibited strip is very narrow, which means that nonrestricted areas are close to the River and Bay.

It is difficult to compare, for example, the national and State recreational value of beaches with the interest in the products processed by oil refineries. From a national perspective, Delaware's beaches seem to be a rarer, and perhaps more valuable, resource than existing oil refinery sites, which dot the Mid-Atlantic region, or potential sites, which occur in many more locations.

Some of those potential sites are in Delaware, outside the coastal strip, and, as provided in Policy No. 2, new refineries could be permitted, provided specified environmental quality standards are assured. Those standards, such as air emission standards, are described in the Program document. Those and other standards establish criteria by which industry can predict State approval of specific sites. An Energy Facilities Siting Liaison Committee, whose functions are described in the Program document, assists industry in site selection and understanding the various regulatory requirements.

The Coastal Management Program provides a means to assure a continuous evaluation during Program implementation of the need for new facilities, and to allow for amendment of policies for compelling reasons. If there is a critical need in the future for a new petroleum refinery in Delaware to serve national or regional energy needs, the CMP provides for it.

It is a fact that decisions to develop are more irreversible once put into effect than are decisions not to develop. To the extent that there exists uncertainty about the highest value use, a "waiting" policy makes sense. This may account, in part, for President Carter's statement to The Congress that he is "...pleased at the number of states taking positive action to protect their natural resources."

The U. S. Department of Energy has unofficially expressed its concern that the prohibition may indicate a regulatory process



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which does not give reasonable assurance of due consideration to allowing petroleum refineries in the coastal strip. That view is erroneous for several reasons.

First, the future siting of petroleum refineries in the coastal strip has already been considered. If the rationale for any standard of conduct must be re-examined each time the standard is applied to a set of circumstances, then the standard serves little purpose and outcome predictability is negligible.

The second factor bearing on the Department of Energy's concern is, as mentioned above, that the Coastal Management Program will continue to examine the viability of the policy and include in that examination consideration of the national interest in the facility.

It is possible, after adequate consideration of the national interest, that a given oil refinery will not be permitted at a specific site under the Coastal Management Program. The Federal Power Commission informed the Delaware Coastal Management Program during program development that the Commission had to be certain that each program "provided" for its own future energy needs and its fair share of regional and national needs."

The Federal Energy Regulatory Commission in July 1978 added that the FERC has "no interest in defining the energy future (including energy conservation) of any State, but we consider it necessary and realistic that State officials and the public demonstrate an understanding of the energy supply consequences of their coastal management program."

There are several flaws in those views. The states represent a diversity of resources that must be recognized. It is unlikely that energy production is the best course of action for each coastal state. In some states, wisest resource management may favor energy production. In other states, the national and state interest in natural resource preservation may be best served by precluding the siting of energy facilities.

In any event, the current oil refinery capacity in Delaware exceeds State demands, and makes Delaware a net exporter of petroleum products. The Getty Oil Company's 140,000 barrel per day capacity refinery in Delaware City is larger than either refinery on the New Jersey side of the Delaware River, and contributes substantially to the total refining capacity in the Mid-Atlantic region. That region--comprised of New Jersey, Pennsylvania, Maryland and Delaware--receives far more crude oil than any other East Coast area. New England, despite its heavy demand for heating oil, is without refineries, and, with the exception of a medium-sized plant near Norfolk, Virginia, there is no refining capacity on the Atlantic coast south of Delaware.

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It is also noteworthy that Delaware's prohibition does not apply to the expansion of existing refinery facilities.

The only oil refinery in Delaware, located within that area where new refineries are prohibited, may be allowed to expand its operations, provided a coastal zone and all other permits are obtained.

The Coastal Energy Impact Program (CEIP), established by the amended Coastal Zone Management Act, may help compensate for State and local environmental losses due to new petroleum refineries and other energy facilities sited in the coastal zone. The federally funded CEIP is designed to protect State and local, not national interests. However, State and local environmental losses and public expenditures due to coastal energy activities may or may not be fully covered by available CEIP funds.

## 2. Deepwater Ports

### a. National Demand

There is no port in the contiguous 48 states with deep enough water to accommodate the 60-foot draft of the standard 200,000 ton "very large crude carriers," the so-called supertankers; and no East Coast port can handle anything larger than 80,000 tons fully loaded--most are restricted to tankers of no more than 50,000 tons. Yet, because of economies of scale, supertankers are carrying an increasingly large part of petroleum in world trade. In 1966 there was only one tanker in the world over 200,000 deadweight tons (dwt). By the end of 1975, there were over 583 supertankers this size in service, and 205 more were under construction or on order. Only 10 percent of the world's fleet, those 583 ships carried 40 percent of the crude oil shipped in world commerce.

The cost advantage of supertankers is demonstrated by comparing a 250,000 dwt tanker and a 50,000 dwt tanker. The latter normally serves Delaware Bay and New York Harbor and averages 40 feet in draft. A 250,000 dwt requires 70 feet of water, but can carry oil over long distances at about half the cost-per-barrel of the smaller tankers.

The U. S. Maritime Administration believes that deepwater ports can help keep the Nation's industry competitive, and, accordingly, has informed the Coastal Management Program that the exclusion of a deepwater terminal could affect the United States economy.

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The Congress has also acknowledged the national interest in deepwater ports. The Deepwater Port Act of 1974 establishes a federal program to license ownership, construction, and maintenance of ports located outside the states' territorial limits to unload oil for transportation to onshore receiving facilities by pipeline or shallow draft lighter. The Act includes provisions for environmental review, public access to information, citizen civil actions, and strict liability for oil pollution. It also recognizes state and local concerns, and requires the prior approval of the Governors of coastal states adjacent to proposed deepwater ports.

One consideration in any gubernatorial approval or rejection undoubtedly will be the possibility of oil spills. Deepwater ports are generally regarded as safer than lightering, assuming equal amounts of oil are transferred. For example, the U. S. Office of Technology Assessment has estimated that a hypothetical deepwater port 30 miles off the New Jersey coast would spill half as much oil as small tankers based on the probable total spillage within 50 miles of shore.

A deepwater monobuoy-pipeline system avoids some of the hazards which have given tankers a questionable oil pollution record. Tanker groundings and collisions, oil transfer operations, oil ballast water discharges, and tank cleaning discharges are some of the tanker pollution sources which, to date, have been difficult to control.

Four factors make the risks of oil spills from deepwater port operations generally lower than the risks from small tanker operations: (1) a deepwater port reduces the number of tankers that must be used to move the oil; (2) close surveillance of oil transfer and handling is possible, allowing stricter enforcement of safety standards; (3) oil tanker traffic can avoid crowded harbors; and (4) the distance between the port and the shoreline may reduce damage to valuable coastal areas.

On the other hand, stricter tanker operation standards, improved communications technology and tanker design, and more intensive training of crews, combine to raise the hope that oil transport by tanker will become appreciably safer in the future. Stricter ballast regulations, computer and radar assisted marine traffic managements systems, double bottom hulls and twin screws, and training and licensing of crews will reduce tanker accidents and the risks associated with their operation.

#### b. Potential Demand

In early 1977, the United States imported 9 million barrels of oil per day. According to a recent study by the College of

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Marine Studies at the University of Delaware, approximately 70 percent of all the oil that is delivered to the East Coast moves by water up the Delaware Bay and River.

Despite the high volume of crude oil traffic in the Delaware Bay and the relatively cheaper cost of supertankers vs. smaller tankers for long haul trips, recent studies being done for the State indicate that economics have not yet justified construction of a deepwater port in the Mid-Atlantic region. A 1975 study by the maritime industry oriented Penjerdel Corporation (Oil Port Update) of the feasibility of a deepwater port in the Delaware Bay concluded that a port-pipeline system, sepecially if modest in size, was not economically competitve with a lightering operation.

Rapidly rising construction costs have dissipated the advantages a deepwater port may have enjoyed in past years. The costs of a port inside Delaware Bay range from \$193 million to more than \$400 million. Moreover, the estimated direct cost of dredging some 15 million to 20 million cubic yards of Bay bottom for a channel to handle 250,000 dwt tankers is estimated at an additional \$40 million.

In 1971, the Delaware Bay Transportation Company calculated that oil could be transferred through its proposed port for 12 cents a barrel. At 1975's inflated construction costs, the price would have been 25 cents, even without imposition of a State tax. By comparison, the 1975 lightering charge was between 8 and 11 cents per barrel.

Only large supertankers on the longest trips between the Persian Gulf and the Mid-Atlantic region could take economic advantage of the port at such inflated prices. For tankers less than 100,000 dwt, lightering would be cheaper. Since most oil imported in the Delaware Valley is not brought from long haul distances, a deepwater port today would seem to be economically untenable.

If future oil imports to the Mid-Atlantic region increase dramatically, or if the source of imports changes, there may be greater demand for a deepwater port in the Delaware Bay or off the Atlantic Coast. In the former case oil refinery capacity will have to be sufficiently large to make a port attractive. However, opposition to oil refineries, federal air quality regulations, inflated construction costs, and federal tax policies and import quotas are some of the factors which may deter industry from expanding refinery capacity in the Mid-Atlantic.

On the other hand, if oil consumption increases dramtically, there may be pressure for more refineries, more oil imports, and a

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deepwater port. The Federal Energy Administration has, perhaps pessimistically, predicted that oil consumption in New York, New Jersey, Delaware and Pennsylvania will climb from 2.7 million barrels a day in 1975 to 3.8 million barrels a day by 1985. Based on that estimate, the Federal Energy Administration has also predicted that crude oil imports supplied through New York Harbor and the Delaware Bay will increase from 1.2 million barrels a day to 2 million barrels a day. Moreover, a lone deepwater port on the East Coast could attract supertankers which would otherwise head for other eastern harbors. Finally, a large find on the outer continental shelf and a pipeline hook-up to the port might make the port profitable.

Those speculations probably account, in part, for the current interest in a proposed monobuoy port to be located about 30 miles east of the Delaware shore. Still in the planning stages, private industry has contacted Delaware with proposals to operate a fixed monobuoy. Under these proposals, the State would be the licensee of the port and exert direct control over it.

#### c. Siting Criteria

The least expensive, most versatile, and most likely deepwater port design is the monobuoy. There are different types of monobuoys, but generally they consist of a floating platform anchored to the sea bottom, with a hose which connects to a buried pipeline. During the construction phase of the port, about 20 acres of waterfront land is required for support. Onshore tank farms--typically storing 10 times the port's daily capacity to assure refineries of a continuous crude supply in the event of a bad weather induced port shutdown--could require an additional 125 acres to 300 acres.

New refineries, of course, would need still more space. Several years ago, the Delaware Bay Transportation Company purchased 1,800 acres of coastal land at Big Stone Beach for storage tanks, landside headquarters, and a supply base for a deepwater port which the company had hoped would be sited in the Delaware Bay.

The economic advantages of a Bay site include the relative proximity to energy consumers and processors, as well as shelter from high seas; the chief advantage of a deep ocean site is the lack of dredging requirements.

Bad weather can temporarily close an ocean offshore port because seas higher than 6 to 8 feet make tanker mooring operations impossible. Only on rare occasions does weather stop tanker

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traffic in the Delaware Bay and off-loading in the Bay is restricted only on an average of 30 days per year.

The reported depth of the channel in the Delaware River and Bay varies according to the source and location reported. It is clear, however, that the channel is not deep enough to justify a port near the refineries on either side of the Delaware River. The estimated cost of dredging the 40 foot authorized River channel to 45 feet has been estimated at \$300 million, 50 feet would cost \$750 million. Moreover, maintenance costs, spoil disposal and salt water intrusion into fresh water aquifers all present additional difficulties.

Portions of the Delaware Bay north of Cape Henlopen are between 58 and 65 feet deep in places. One study concludes that with some dredging an area from Cape Henlopen approximately 12 miles long and one mile wide could sustain operating depths of 70 to 80 feet. However, it would be expensive. A 1969 feasibility study by the United States Coast Guard estimated that the then annual direct cost for deepening the Bay as far as Big Stone Beach to a 72 foot depth would be in excess of \$13 million.

Finally, other important deepwater port siting considerations are its possible effect on navigation, on national defense, or on other uses of the sea.

#### d. Impact on Resources

The Deepwater Port Act requires that the ports be constructed and operated "using best available technology, so as to prevent or minimize adverse impact on the marine environment." U. S. Coast Guard regulations, however, do not specify standards for site selection with criteria such as water depth, dredging requirements, proximity to spawning areas, or sea bottom characteristics. Nor do the regulations include requirements for specialized tanker design to reduce the risk of oil spills. Absent those provisions and probably even with them, the most serious threats to resources posed by deepwater ports are oil spills, dredging operations, and onshore support activities.

Most oil spilled in the ocean floats long enough for wind and water forces to distribute the petroleum hydrocarbons into the water column, sediments, atmosphere, and organisms. The immediate and lethal effects of large oil spills have been demonstrated repeatedly.

In some cases, marine communities can recover remarkably fast. For instance, the biological recovery after a year and a half of the Santa Barbara oil spill was just about complete.

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However, the Santa Barbara spill was in an open ocean channel and never reached wetlands.

Both Delaware and New Jersey contain miles and miles of wetlands which are located immediately behind the Bay sand beaches. Access to the wetlands is through small creeks and rivers, which are more plentiful on the Delaware side of the Bay. Moved by tides and winds through those waterways, a massive oil spill would be disastrous.

Oil spills kill birds in several ways. The natural buoyancy and insulation provided by feathers are removed by oil, causing hapless birds to freeze and drown. The Torrey Canyon oil tanker spill reportedly killed 40,000 to 100,000 birds, a tragedy compounded by the slow capacity of birds to recoup population losses. The Wildlife section of this document describes the very large number of waterfowl that rely on clean Delaware wetland and waters.

The number of people relying on Delaware beaches for recreational enjoyment is also described in this document. The impact of a spill near beaches was illustrated in a supertanker spill close to Chilean beaches. In that spill, oil, sand and pebbles combined to make something that resembled asphalt paving on 40 miles of beaches. One remedy for that type of disaster, utilization of detergents, introduces into the environment chemicals frequently more toxic than the oil itself.

It is not clear, of course, that the oil spill threat posed by deepwater ports is graver than the lightering threat. Indeed, the higher probability of total oil spillage of the latter's operations would seem to indicate the opposite. Several considerations, however, detract from a Delaware Bay deepwater port vis-a-vis lightering. One, despite probability analysis to the contrary, there have been no reported serious accidental spills in the Delaware Bay from lightering since its inception in 1959 although some minor spills have occurred. Two, the potential impact of a grounding, collision, or other accident by a barge or small tanker does not compare to that of a 225,000 ton capacity supertanker. Three, any deepwater port site on the Delaware side of the Bay would have to be in close proximity to valuable wetlands and/or beaches. A large spill in that area would be catastrophic. Four, a deepwater port in the Delaware Bay would likely result in an increase of the total volume of oil entering the Bay's fragile ecosystem. Thus, while the spillage might theoretically be less for a port than for an equal amount of lightered imports, a port could in fact mean more total spillage due to the higher volume of oil imports generated by a port.

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A deepwater port in the ocean fares better by comparison. The likelihood of collision is probably less, but the greatest advantage is that a supertanker accident 20 or 30 miles offshore would be easier on coastal resources than a Bay port. Even if spilled oil reached shore from that distance, its toxicity would be substantially reduced. A report to the National Science Foundation estimates that whatever oil from a 30,000 ton spill 20 miles off the Delaware coast reached the Bay would be roughly one-sixth as concentrated as it would be were it spilled directly in the Bay. Moreover, oil spill models indicate that oil slick trajectories would disperse much of the oil in the ocean, an unlikely result in the confined Delaware Bay. As the report of the Delaware Bay Oil Transport Committee to a former Governor puts it, "A massive spill of 100,000 or more barrels of crude oil would remain in the Bay for several weeks. The general counterclockwise circulation pattern would distribute the oil throughout the Bay..." That result is very unlikely with a port 20 or 30 miles offshore. Closer to shore, the spills have a more likely chance of reaching the beaches and possibly wetland.

The adverse impact of dredging operations also gives ocean ports a considerable environmental advantage over Bay alternatives. The Council on Environmental Quality reports:

"the dredge spoil for a nearshore Delaware Bay location at Cape May, New Jersey, would amount to 150 to 200 million cubic yards--enough to cover 10 square miles to a depth of 14.5 to 19 feet...

In all likelihood repeated dredging would also be necessary to keep a Delaware Bay channel and port open. An important direct effect of dredging would be the destruction of sea floor (or benthic) creatures, which are food for the valuable finfish of the Bay. Indirectly, dredging new deep channels could lead to higher salinity farther up the Bay, inviting such salt water predators as the oyster drill to the southern edge of the Cape May flat, which is one of the finest oyster setting areas in the United States."

Although the Delaware side of the Bay would require less dredging than the Cape May site, a Governor's Task Force on Marine and Coastal Affairs has concluded that the potential environmental harm is "incalculable."



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Even eight miles offshore in the Atlantic Ocean, a fair amount of dredging would be necessary. As much as 8 to 10 miles of surf clam habitat would be affected in the building and maintenance of a deepwater port at such a site. Farther out, 20 miles offshore where the water is more than 90 feet deep, no dredging would be necessary.

Regardless of where the terminal is built, nearly everyone seems to agree that impacts induced by support activities would be very substantial. One scientist expects a deepwater port to produce:

"enormous secondary environmental effects which perhaps would dwarf primary ones (construction, single massive spill, regular low level spills). Probably the minimum amount of onshore development would be extensive tracts of tank farms in the lower bay area."

The Delaware Bay Oil Transport Committee report concurs:

"The Committee believes that the most serious consideration from Delaware's point of view is the potential for uncontrolled development of refineries and other heavy industry in the Coastal Zone."

Still another study conducted by Arthur D. Little, Inc. in 1973 concludes:

"Whether a deepwater terminal in the Delaware Bay handles a low-level or high-level crude import volume, the effect upon the Mid-Atlantic Belt will be specific and noticeable, not only from an economic standpoint, but from visual psychological and physical standpoints as well."

The same study envisioned a port in the Delaware Bay transferring approximately 6.6 million barrels per day to new refineries in Cumberland and Cape May Counties of New Jersey. The study said that 14 square miles of the counties--now devoted to farming and resort activities much like southern Delaware--would be required for at least 9 new refineries and 13 new petrochemical plants. As a result of the port and associated industries, the two counties would become "a new industrial center" with employment doubling to 300,000 workers by the year 2000.

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The Delaware Bay Transportation Company proposal was more modest, with a planned 2 million barrel per day capacity. Nonetheless one new refinery, expansion of existing refineries, and other onshore facilities, mentioned above, were anticipated.

One method for alleviating onshore impacts in developed areas is to run the pipeline directly to existing storage and refinery facilities. Such a pipeline already connects the Raritan Bay-New York Bay region with southern refineries along the Delaware River. Thus, those two Bays have been considered "logical possible locations for the importation of large crude volumes via VLCC (very large crude carriers)." Another possibility, discussed below, is construction of a new pipeline either up the Delaware Bay or on either side of it.

e. Deepwater Ports in Delaware

3. DEEPWATER PORTS ON THE DELAWARE SIDE OF THE DELAWARE RIVER AND BAY ARE PROHIBITED BY THE COASTAL MANAGEMENT PROGRAM. SUCH PORTS ARE ALSO PROHIBITED WITHIN DELAWARE'S THREE MILE JURISDICTION ALONG THE ATLANTIC OCEAN.

The program recognizes that deepwater ports may serve the national interest under certain economic and environmental conditions. At present, however, those conditions do not exist in the Delaware Bay.

Not only does there appear to be no current economic justification for a Bay port, but the environmental problems seem insurmountable. The Delaware Bay already receives more than twice as much crude oil as all the other East Coast bays, rivers, harbors, and ports combined. A deepwater port would probably increase the Bay's imports substantially, placing a grossly disproportionate share of the burden on the region, and possibly, through sheer volume, raising the probability of an oil spill.

That spill, because of the enormity of today's super-tankers could be catastrophic. The long and clean "track record" of lightering in the Bay raises additional doubts about a substitute method. Finally, there is no guarantee that a deepwater port in the Bay would preclude lightering.

All those factors take on added significance when the critical and fragile Bay environment is considered. The national interest in wetlands, wildlife, beaches, and other resources--detailed in other sections of the Management Program deserve as much protection as can be reasonably afforded. Although the Nation is assured that oil will

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reach the refineries on the Delaware River without a deep-water port, it is not assured that some of its most productive, but dwindling, coastal resources can tolerate the blow such a port could deliver.

At the State level, the geographic boundaries of Delaware are of such small proportions that a coastal disaster is much more difficult to bear than is the case in larger states, the federal Coastal Energy Impact Program notwithstanding. Delaware's situation is substantially dissimilar from that of Texas or Louisiana.

The Coastal Management Program prohibition of a Delaware Bay deepwater port also takes into account that other sites appear more suitable. As one author puts it, "Based on environmental criteria, a (Delaware) bay site would be the worst place for a deepwater port." For its part, the Council on Environmental Quality, after a course of research on superports that involved five university reports, special Coast Guard studies, work with the Department of Transportation, and a comprehensive report on shoreside effects from a private contractor, evolved two principles for siting deepwater ports: "keep them away from shore and disperse them in a number of locations." The first of those principles has to do with protection of the coastal environment from oil spills and dredging operations; the second concerns social, economic, and environmental stresses onshore due to oil-related development.

4. NOTWITHSTANDING THE COASTAL MANAGEMENT PROGRAM OBJECTIONS TO A DELAWARE BAY DEEPWATER PORT, THE PROGRAM SUPPORTS THE CONCEPT OF A PORT OFFSHORE THE ATLANTIC COAST, PROVIDED IT MEETS CERTAIN ENVIRONMENTAL STANDARDS INCLUDING A LOCATION FAR ENOUGH OFF SHORE TO MINIMIZE OIL SPILL THREATS TO THE COAST AND TO OBVIATE DREDGING REQUIREMENTS; STRINGENT CONSTRUCTION AND OPERATION SAFEGUARDS; A DEMONSTRATED REDUCTION OF TANKER TRAFFIC AND LIGHTERING IN THE BAY; AND ASSURANCES THAT STATE FINANCIAL INTERESTS ARE PROTECTED.

An offshore port 20 or 30 miles off the coast could handle supertankers that a Bay port could not. Hopefully, the economies of scale would offset the additional transportation costs occasioned by a more distant site, however the CMP recognizes that economic considerations may constrain the development of such a facility in the near future and that such far offshore facilities have to overcome significant problems associated with their exposure to severe weather and sea conditions encountered in the open ocean. The coastal resource savings, although difficult to quantify, are more certain.

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The Congress intended that coastal states be given a clear and loud voice in deepwater port siting decisions. Under the Deepwater Port Act, it is conceivable that a coastal state Governor could veto a deepwater port in federal waters offshore from that state. It is not conceivable that the Congress would abrogate that authority for sites within state waters and in close proximity to its valuable and vulnerable coastal resources. Thus, it is apparent, at least from the perspective of the Nation's legislative body, that the national interest in deepwater ports does not necessarily over-ride the national interest in coastal resources.

### 3. OCS Oil and Gas Support Facilities

#### a. The National Interest

The national interest in OCS development can be inferred in large part from the prior discussion of energy and the national interest.

With the country's onshore oil and gas supplies dwindling, there are only four ways to satisfy national energy demands: (1) reduce consumption; (2) switch to other energy sources; (3) import oil and gas from foreign countries; or (4) develop new national sources. The first two alternatives are not expected to solve projected short-term energy shortages, the third choice is unattractive politically and economically. Indeed, as the U. S. Department of Interior's OCS Office has informed the Delaware Coastal Management Program, the primary objective of the national OCS development program-- the fourth option--is to decrease dependency on oil imports.

No one knows for certain whether any recoverable oil and gas lies off the Atlantic Coast, however, the U. S. Geological Survey has estimated that between 5 and 14 trillion cubic feet of recoverable gas resources have been estimated at nearly one-third of total U. S. oil reserves and oil and gas development may reach 2-4 million barrels a day in 10 or 15 years, a substantial increase from the one million barrels a day now produced. With the Nation already using about 18 million barrels of oil daily, half of it imported, the OCS contribution will not by itself make the United States energy independent. It can, however, reduce the degree of dependency.

Some feel that it is important to develop the OCS resources as quickly as possible. For example, in its 6th Annual Report, the National Advisory Committee on Oceans and Atmosphere advises the President and the Congress that worldwide energy trends

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have made the exploration and development of OCS oil and gas an urgent element in a national energy program, and that "delay could turn out to be a grave mistake." The Report also says that "concerns about the environment and about possible adverse impacts on the coastal States" may cause such delay.

Evidently, the President did not share the Committee's view, for the National Energy Plan (1977) states:

"it is essential that they (OCS resources) be developed in an orderly manner, consistent with national energy and environmental policies. The Congress is now considering amendments to the OCS Lands Act, which would provide additional authorities to ensure that OCS development proceeds with full consideration of environmental effects and in consultation with States and communities . . . The Administration strongly supports passage of this legislation.

The lead time for major offshore oil and gas development is long enough to enable proper planning for the inevitable OCS development impacts, provided the President's advice is heeded.

Amendments in 1978 to the Outer Continental Shelf Lands Act establishing a new section to the Coastal Energy Impact Program have set-up a system, including up to 80 percent federal grants, to assist coastal states in meeting their administrative costs of participating in OCS energy resources management and development policy and planning decision. For five fiscal years beginning in FY 1979 these OCS grants are authorized at a 5 million per year with each affected coastal state to receive a minimum annual grant not exceeding \$100,000. Unfortunately, for fiscal 1979 The Congress has appropriated no grant money. Nevertheless, assuming that this program does receive authorized funding in future years, the OCS State Participation program will encourage improved cooperation and coordination between federal agencies and state governments, and provide an important role for states to participate in formulating the OCS leasing program, reviewing federal actions affecting OCS development, making recommendations regarding development and production plans, and having access to OCS oil and gas information provided by the Secretary of the Interior, among other things. This new CEIP 308(c)(2) program is a practical step forward furthering the National interest in offshore energy production while providing a means for coastal states to express their concerns and have a meaningful input to the leasing, development and production programs.

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Apart from the national interest in supplementing national oil and gas supplies with minimal environmental damage, OCS development is in the national interest because of the revenue it generates. Offshore oil and gas royalties of approximately \$848 million made up the bulk of revenues collected in fiscal 1977 from mineral operations on federal land.

b. Potential Demand

OCS development related facilities may include oil and gas platforms, fabrication yards, pipeline coating yards, storage depots, crew and supply bases, pipelines, and tank farms.

The potential demand for the first of these--oil and gas platforms--is a function of where the oil and gas may be recovered. Although there are no known economically recoverable quantities of oil and gas onshore in Delaware, there is a fairly good possibility that there may be natural gas in Delaware's offshore lands.

The potential demand for Delaware facilities to support OCS operations depends on five factors: (1) the quantity of production estimated from exploratory drilling results; (2) the composition of the find--all oil, all gas or a mixture; (3) the rate of production; (4) the suitability of Delaware sites; and (5) the availability of alternative sites.

The first of those factors, estimated production, is presently the most important unknown in the entire Atlantic OCS development equation. A very large strike will create demand for many support facilities. If nothing is found, onshore support facilities will not be needed.

Exploratory oil drilling in the lease sale #40 area off the southern New Jersey coast as of February 1979 has produced little evidence of significant hydrocarbons. One company's test well found some natural gas; six other test wells of various oil companies have come-up dry. Other test wells are being drilled and lease sale #49 for tracts off the Delaware, Maryland, and Virginia coasts is scheduled for late February 1979.

Despite initial disappointing test drilling results Delaware's proximity to promising lease tracts makes the State a possible location for a variety of onshore support facilities.

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c. Siting Criteria

Absent guidance from State and local government, oil producers ordinarily make their siting decision on the basis of least cost. Oil industry representatives state a strong preference to locate their onshore bases as close as possible to their lease tracts because of transportation costs. Thus, while some OCS support facilities are not absolutely coastal dependent, the coast is usually a preferred site.

Pipe coating yards generally use less space than platform fabrication yards, but still require from 100 to 150 acres of waterfront land. A marginal wharf of 750 feet on water 20 to 30 feet deep; 150,000 gallons of water per day; and one million kilowatt hours of energy are also typically needed. Pipe coating yards are in demand for relatively short periods of time, thus a site easily adapted to another use at the termination of the pipe coating activity is indicated. Access to rail and major highways is desirable for transporting cement and other supplies.

The siting of a new fabrication yard depends on a significant oil or gas discovery because platforms can be towed from the Gulf region at less cost if many platforms are not required. If the find is of sufficient size to warrant new fabrication facilities, industry spokesmen believe only one fabrication yard will be needed on the East Coast.

Two sites in the Chesapeake Bay area are under consideration. One is on Sparrows Point in Baltimore City, the other is a 1000 acre site acquired by Brown and Root Company north of Cape Charles, Virginia. The combined land and waterfront requirements of the facilities make Delaware an unlikely site particularly since Brown and Root has recently announced a curtailment of their plans.

Storage depots also benefit from nearby transportation networks. They vary in size according to the operation requiring support, the facilities available, and the materials requiring storage. The typical area occupied by a storage depot used only to store pipes may be between 10 and 20 acres; a large number of such depots could result in a cumulative land requirement which would be difficult to meet in Delaware's coastal strip.

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The OCS operations base also generally includes facilities used for the storage, handling, and shipment of supplies whose next and final destination is at the site of the OCS operation. Temporary bases are used during exploratory drilling and require limited acreage--usually existing facilities are leased. A 15-20 foot channel, uncongested harbor and easy ocean access are desirable port characteristics.

Permanent service bases are used during the OCS development stage. They are larger, typically utilizing between 25 to 50 acres; a 200 foot wharf, with 15-20 feet of water depth at the pier; and 8.2 million gallons of water per platform per year. As with temporary service bases, the location is influenced by distance, cost, land availability, harbor facilities, and even entertainment facilities. The facility may include storage warehouses, open storage yards, oil storage tanks, limited construction facilities, oil spill containment equipment, crew boats, supply barges, and a heliport. In Louisiana, where over 400 helicopters service the Louisiana offshore area, a single helicopter base occupies over 200 acres by itself.

Repair and maintenance yards may be associated with the operations base. Many firms use these areas to provide repair services for vessels and equipment. Fast and efficient service by highly skilled labor are primary requirements of the oil industry for this type of work. Depending on the vessel type, flotation barge, mobile lift, haul out, or slide-way facilities may be required. Quick access to road, rail, and air transport is necessary for fast delivery of supplies and parts.

Steel platform and pipeline installation bases require approximately five acres of waterfront land, with 200 feet of wharf space and a water depth of 15-20 feet at the pier. Distance is the most important siting consideration once those requirements are satisfied.

The marine pipelines themselves generally use a landfall site closest to the production area. The offshore route likewise follows the shortest path possible, but may be modified by anchorages, active faults, shifting bottom sediments, rock outcrops, environmentally sensitive areas or other features. A gently sloping sand or shingle shore approach is preferred, and shifting currents and sediments are avoided if possible. For gas, proximity to the nearest transmission line is important. For oil piped for transshipment, the landfall site will be influenced by the availability of a terminal and tank farm site.

The marine terminal typically includes a berthing system for vessels; loading and unloading equipment; storage tanks; terminal control and safety equipment; and navigational facilities.



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Transshipment terminals load crude oil received by pipeline from offshore platforms onto tankers for refining elsewhere. Crude oil receiving terminals receive crude from tankers for delivery to a nearby refinery, with off loading facilities either onshore depending on depth requirements of the crude carriers.

If oil produced offshore is loaded directly onto tankers or barges, a new marine terminal is unlikely in the Mid-Atlantic region because existing facilities can accommodate such oil. Even with a pipeline, a new marine terminal is usually not needed unless new refineries are planned or the distance to the refineries is very far, as in Alaska, for example. Neither exception currently applies in the Mid-Atlantic region.

The size of a terminal depends on the throughput from offshore, the number of berths at the terminal, the size and frequency of tankers, and the extra storage required for loading downtime. For a 250,000 barrel per day throughput with a storage capacity of one million barrels, the site would need approximately 30 waterfront acres--mostly for the storage tanks, 50 to 60 feet of sheltered water at a mid-depth pier or mooring buoy; and roughly 11 million kilowatt hours per year of energy.

d. Impact on Resources

Offshore exploration development, and production may impact commercial fishing, navigation, defense facilities, long-term ecosystem equilibrium, aesthetics, and so on.

Offshore exploration drillships, and development and production platforms use an area between two and five acres although semi-submersibles require much larger areas.

There are three major potential sources of water pollution: (1) drill cuttings and muds; (2) water brines; and (3) oil spillage caused by blowouts, fires, explosions, or transportation accidents. Offshore oil production contributes only a small percentage of ocean oil pollution. Gas well blowouts and other gas mishaps do not generally pollute water.

Drill cuttings are produced when the wells are drilled, and contain pulverized rock, sediment, and--possibly--harmful metals. Drilling muds are circulated through the wellbore to provide pressure control, lubrication of the drill bit, and removal of drill cuttings from the hole.

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When oil and gas are produced, waters associated with oil and gas pools are often produced also. Those waters are characterized by mineral contamination and require treatment under the Federal Water Pollution Control Act before they can be discharged back into receiving waters.

Relative to the likely impacts of these OCS characteristics, at least in the areas leased offshore in OCS Sale 40, EPA has determined that there will be no significant impacts. The State remains concerned about the likely impacts of such activities in shallow areas, particularly relative to impacts on shellfish beds and intertidal areas of particular value as spawning and nursery areas.

Despite the potential for offshore impact problems, the major environmental impacts of OCS development occur onshore from the construction and operation of the support facilities. Most of those use waterfront sites, the construction or improvement of which may impact wetlands, marine biota, water quality, air quality, beaches, and so forth. If dredging is required, the impact on marine organisms in the dredge area or at the spoils disposal site may be extensive.

Air emissions in platform fabrication yards can result from pipe and metal cleaning by sand blasting; painting; and the transportation emissions of cranes, trucks, trains, tugs, barges, and automobiles. Because of the large land requirements, sedimentation and runoff, problems may be substantial. Soil compaction caused by the constant movement of heavy equipment may decrease groundwater recharge. Wastewater contaminants--from cooling water, process water, and sewage--include heavy metals, and may be lethal to animal and plant life. Moreover, fabrication yards produce large quantities of solid waste, some of which is contaminated with hazardous substances. Noise pollution generated by heavy machinery may be noticeable by communities more than one-half mile from the site. Finally, 24 hour lighting and 200 foot high platforms cause aesthetic impacts.

The impacts of pipe coating yards and fabrication yards are similar. Air emissions from the former include carbon monoxide, sulfur oxides, nitrogen oxides, hydrocarbons, and particulates. Wastewater contaminants consist of thermal effluent, anti-fouling chemicals, and a variety of polluted process waters. Noise generally presents less difficulty than with fabrication yards, but solid waste and aesthetic problems do exist.

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Temporary service bases have much less impact than any of the foregoing facilities, especially if the bases are located at or near existing facilities. Air emissions include hydrocarbons from fuel storage tanks and vehicle operations. Wastewater contaminants from bilge and ballast water consist of hydrocarbons and heavy metals. Twenty-four hour noise and up to 6 tons per day of solid waste cause additional impacts. Platform and pipeline installation service bases have about the same impacts as a temporary service base.

Permanent service bases have the same types of impacts, but on a larger scale. The land requirements for the larger service bases impose substantial impacts if undeveloped land is chosen.

Offshore pipelines are buried, except in very deep waters. The trenching method used removes sediments under the pipeline and causes temporary localized increases in turbidity which may affect benthic organisms. Impacts are greater near industrial areas where sediments are polluted. At the shore approach and landfall, site special construction procedures are necessary to protect the integrity of beaches and wetlands.

Onshore pipeline construction temporarily disrupts soil, vegetation, and animal habitats and can permanently disrupt natural drainage systems. According to the Office of Technology Assessment "...most biologists and other scientists agree that pipelines should be routed to avoid marshlands..." The same agency reports that pipeline networks have not been subject to stringent regulatory standards in the past. U. S. Coast Guard pollution incident records on oil spills in 1974, show that a major source of spills was pipelines. Pipelines can leak because of faulty pipe seams, external corrosion, damage from other sources, and improper operation by personnel.

Secondary impacts from pipelines may be the most significant. As the Delaware Bay Oil Transport Committee has explained, "A pipeline running through Delaware would have the highest potential for changing land use." According to another report:

"a large onshore crude oil storage facility would presumably be erected close by the point where the pipelines come ashore... because of the economies involved, industry would wish to locate new refining or refinery-related processing facilities as close to the storage area as possible."

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Although that reasoning may be somewhat circular, a pipeline terminus far from existing storage and refining facilities may stimulate heavy industrial development at the terminus or at the terminals of lateral pipelines fed from the main lines.

If storage tanks are built near the pipeline outfall, the inducement to add refineries may be irresistible. Even where present regulatory prohibitions exist, the law-making authority may yield to the combined pressures of industry, management and labor unions, real estate operators, and others.

A storage tank facility, by itself, can cause serious environmental harm. In 1970, for example, onshore storage tanks were the principle source of oil spills. Oil spill impacts in coastal areas are described in the previous deepwater ports discussion.

The land requirements for storage tank facilities, as mentioned above, can be substantial. The impact of site alteration depends on the characteristics of the site and the surrounding area prior to alterations. Drainage, runoff and erosion patterns are likely to be affected. Moreover, the welding, riveting, sand blasting, and other metal fabrication required in building the storage facilities may contaminate runoff with heavy metals. The day-to-day operations of a marine terminal may also generate the following types of wastewater: domestic; bilge water; ballast water; cooling water; boiler water; process water; and stormwater runoff.

If associated with transshipment facilities, the site may require channel dredging and maintenance. Those activities impact marine biota, and may change coastal water circulation and sediment supply--thereby affecting shoreline and beach erosion and accretion patterns.

Air emissions from storage tanks are caused by evaporation. Estimated leakage from one proposed storage facility with a capacity of more than one million barrels of crude oil was 115.3 tons per year. Evaporative emissions also result when oil is transferred from a tanker to the storage tank. The impact of hydrocarbons on air quality is substantial. Here, it is sufficient to note that they are partially responsible for photochemical smog and directly affect human health.

There are also other problems. Although small fires can usually be contained, the heat may cause explosions of adjacent stored oil. Highly toxic chemical wastes are found in the large quantities of sludge associated with storage facilities. Finally,

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marked visual deterioration of the area around the site cannot be avoided in flat open areas with little industrial development, which are common in most of Delaware.

e. OCS Oil and Gas Facilities in Delaware

5. THE CMP GENERALLY SUPPORTS OCS DEVELOPMENT FACILITIES DUE TO THE COMPELLING NATIONAL INTEREST AND LACK OF VIABLE ALTERNATIVES.

The Coastal Management Program recognizes the importance of OCS development to the Nation, the Mid-Atlantic region, the State and local communities. It acknowledges that the potential for adverse environmental impact is, in some instances, comparable with that of facilities which the program is less inclined to support--although the potential impact of OCS development facilities is not as catastrophic as some other facilities.

The Coastal Management Program supports OCS development for two additional reasons. One, such development affords the State and the Mid-Atlantic coastal region an opportunity to contribute to the national supply of vital energy resources which the State and region use, but heretofore have been unable to produce. Two, with proper coordination--among State, federal and local governments, as well as industry--and vigorous environmental safeguards, most of the problems associated with OCS development can be overcome. Coastal Management Program coordination efforts as they relate to OCS development are described elsewhere in the program document, and subscribe to the President's recommendation to the Congress that federal consultation with states and communities improve "to assure that they have a real role in decisions which affect them."

Although demand for a Delaware platform fabrication or pipeline yard is unlikely, the Coastal Management Program provides for their consideration. Because those facilities are land extensive, require locations near the State's most important coastal resources, may cause severe and unacceptable effects, and may be sited in other coastal regions with less serious effects, the Coastal Management Program provides for review of proposed sites on a case-by-case basis. Approval of the sites is conditioned on meeting State environmental standards as well as local zoning approval. In addition, the following criteria are used to judge the suitability of the site: (1) applicable county and municipal comprehensive plans; (2) the effect on neighboring land uses; (3) the number and type of supporting public facilities and services required and their effects; (4) the economic effect; (5) environmental effects; and (6) aesthetic considerations. In addition, no major onshore facilities are allowed in wetlands for reasons explained elsewhere in the program document.

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Storage depots and service bases are permitted provided State environmental standards and local zoning codes are complied with. There appears to be little potential demand for Delaware service bases during exploratory drilling operations. American Petroleum Institute members informed the Coastal Management Program that the Davisville, Rhode Island facility would probably be used exclusively for exploratory operations in the Mid-Atlantic.

Both State and Sussex County officials are actively promoting Lewes as a supply base. Lewes is the primary location of active industry in coastal Sussex County. About 12 industrial firms occupy 75 acres of land in and around Lewes, which is the closest Delaware port to the OCS activity. However, the water depth at the port may not be adequate to accommodate supply boats without dredging. Moreover, New Jersey locations--especially Atlantic City--appear to enjoy the closest proximity to the OCS activity in the Mid-Atlantic and industry spokesmen have previously expressed a preference for the Atlantic City area should commercial quantities of oil and gas be discovered. Rising real estate costs, a shift in the location of OCS activity, and inadequate facilities may make the Atlantic City site less attractive.

In that case Lewes or other Delaware sites such as the Port of Wilmington may be selected. Wilmington has the capability of handling large quantities of supplies; is served by major rail, airport, and highway facilities; can provide public and commercial services; has a skilled labor force which may be needed for quick repair operations; and is the closest port to much of the OCS activity that can provide all these services. State and city officials are also promoting the Port as a possible supply base and industry has expressed interest.

The Coastal Management Program encourages the siting of supply bases at Wilmington, Lewes or wherever else they are compatible with (1) the preservation of environmental resources in accordance with the resource protection measures described in the document, and (2) any legal constraints established by the State or local governments.

A wide array of federal, State, and local measures provide pollution controls for OCS development operations. The Outer Continental Shelf Lands Act and the Federal Water Pollution Control Act allow the federal government to impose strict off-shore operation standards. The Underwater Lands Act, Environmental Protection Act, and other Delaware statutes give the

State similar powers to control offshore and onshore operations in Delaware territory. Local zoning ordinances, building codes, and other devices can protect local interests, although--as the program document explains--those devices cannot be used to arbitrarily exclude OCS development support facilities.

6. THE COASTAL MANAGEMENT PROGRAM PERMITS OFFSHORE OIL AND GAS EXPLORATION AND DEVELOPMENT IN DELAWARE WATERS, ON A CASE-BY-CASE BASIS, PROVIDED ADHERENCE TO STRICT ENVIRONMENTAL SAFEGUARDS IS ASSURED.

A wide array of federal, state and local measures provide pollution safeguards for OCS operations. The OCS Lands Act and the Federal Water Pollution Control Act provide for strictly imposed federal standards. The State's Environmental Protection Act, Underwater Lands Act and other statutes give the State control over many OCS related activities both in the water and on land. The extensive array of authorities has been documented in a report done by Delaware for the Federal Energy Administration.

The following criteria are among those to be used in the siting of offshore drillships and platforms in Delaware Waters: (1) the number and size of the facilities should be as small as possible; (2) sensitive environmental areas, such as important fishery habitat, should be avoided whenever possible; (3) coordination shall be pursued with New Jersey officials responsible for fishery management, the Mid-Atlantic Fisheries Resources Council, the National Marine Fisheries Service, and the U.S. Department of the Interior; and (4) the desirability and availability of alternative sites must be considered, as well as the probability of oil or gas recovery.

7. OFFSHORE AND ONSHORE PIPELINES ARE PERMITTED BY THE CMP, PROVIDED THAT STATE AND LOCAL ENVIRONMENTAL CONTROL AND LAND USE STANDARDS ARE MET AND THAT STATE-DESIGNATED WETLANDS ARE AVOIDED WHERE EVER PRACTICAL. HOWEVER, THE TERMINUS OF OFFSHORE PIPELINES FROM BOTH OCS OPERATIONS AND DEEPWATER PORTS IS PROHIBITED IN THE COASTAL STRIP.

The Delaware Coastal Zone Act (7 Delaware Code, Chapter 70) prohibits offshore bulk product transfer facilities in the coastal strip unless they are located in the Port of Wilmington or unless the facility serves a single industrial or manufacturing facility for which a permit is granted or which is a nonconforming use. Offshore pipelines have been defined as an "offshore bulk product transfer facility" under prior permit applications and Attorney General's opinions. Such facilities (offshore pipelines) which merely cross (transit) the strip, however, are not subject to prohibition if they have no terminus within the coastal strip.

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The discussion of deepwater ports explains some of the problems associated with pipelines landfalls in the coastal strip and the rationale for exclusion. In any event, the refineries and associated industries likely to be serviced by a Delaware pipeline are in Delaware City and Pennsylvania and the Coastal Management Program prohibition, therefore, is unlikely to create a problem.

Neither offshore nor onshore pipelines are likely to confront insurmountable regulatory obstacles. Unlike many coastal states, Delaware has a mechanism for leasing its offshore lands for pipeline right-of-way. The State Division of Highways procedures for granting onshore right-of-ways are clear, inexpensive, and expeditious. Further, State law provides condemnation powers to oil and gas corporations to acquire private property for the purpose of transporting oil and gas, if necessary. Finally, some local officials appear enthusiastic about an OCS pipeline.

The State, of course, is also interested in an OCS pipeline possibility. State representatives are working with the College of Marine Studies, University of Delaware, to identify sensitive Bay areas unlikely to be impacted by oil spills at specified locations and seasons. That work may be used to define low risk areas where pipelines would be acceptable environmentally.

8. NEW STORAGE TANKS CONNECTED TO OCS FACILITIES ARE PERMITTED OUTSIDE THE COASTAL STRIP PROVIDED STATE AND LOCAL ENVIRONMENTAL AND LAND USE STANDARDS ARE MET.

The inland siting of storage tanks is encouraged to avoid impacts on sensitive coastal/environmental areas and the possibility of induced impacts, as discussed previously. New storage tanks in the southern portion of Delaware's coastal strip could, for example, generate political and economic pressure for oil refineries or petrochemical plants. If pipelines are not used to transport OCS resources, dredging would likely be required to provide access to a coastal located storage facility.

Due to the potentially severe environmental impacts, both direct and induced, new storage tanks connected to offshore bulk cargo transfer facilities are not permitted in the coastal strip, with two exceptions. One, the Port of Wilmington (the entire river shoreline of the city) is exempt from the prohibition. Two, bulk cargo transfer-related tanks are also allowed in the coastal strip if they serve only a single industrial facility. Transshipment facilities are not included in the exception.

With the exception of oil storage facilities in Seaford, Delaware's storage facilities are located in the northern part



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of the State near the Delaware Valley refineries. The siting of new oil storage tanks to accommodate OCS production will not be needed if such production merely replaces foreign imports, and may be unnecessary in any case.

4. Gas Plants

a. The National Interest

Crude oil production is usually associated with the production of substantial quantities of natural gas. Gas processing plants are designed to recover liquefiable hydrocarbons not removed by normal separation methods from the raw gas stream before it enters commercial transmission lines. Gas treatment plants are designed to remove impurities, such as sulfur, from the gas. Any one facility may include processing and treatment plants.

Gas plant products are liquefied petroleum gases; including propane, butanes, and propane-butane mixtures; natural gasolines; ethane; plant condensate; and small amounts of other hydrocarbon mixtures. The Nation's dependence on gas products is noted previously in the discussion of national energy needs and supply.

b. Potential Demand

According to a 1977 U. S. Bureau of Mines Report, there were 768 gas processing plants in the United States in 1974, with a total capacity of 73,874 million cubic feet per day. Only three of those plants were in East Coast states--two in Pennsylvania and one in Florida. Two coastal states, Louisiana and Texas, produced roughly three-quarters of the marketed natural gas production in 1974, and 40 of the lower 48 states consumed more natural gas than they produced.

The eastern states, particularly those in colder climates, are heavily dependent on natural gas. Should large amounts of natural gas be available from the Atlantic outer continental shelf, nearby onshore gasification plants will probably become cost effective, since the price of shipping gas west for processing and then transporting it back east for consumption is prohibitive.

The level of gas production, if there is any, from the Atlantic OCS is highly uncertain inspite of recent evidence of natural gas fround in OCS exploration efforts in the Mid-Atlantic. If, however, gas is produced at an offshore platform, it likely will be separated from the oil and water contained in the well stream; piped to shore; treated at a gas plant to remove impurities and processed to recover valuable liquid hydrocarbons;

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and delivered to a commercial gas transmission line at a specified pressure and quality. The pipeline, if there is one, may dictate where the gas plant(s) is needed. Pipeline siting in Delaware is discussed in the deepwater port and OCS activity parts of this section.

#### c. Siting Criteria

Gas processing plants, like oil refineries, are not absolutely dependent on a coastal location. Gas company representatives have indicated that such facilities can be located as far as 10 miles from an OCS gas pipeline landfall. Difficulties arise at greater distances because of pipeline construction costs; the interference with telemetrics, which enable onshore control of offshore production wells; and the cooling of gas as it passes through the line from production to shore, which causes liquids to form in the pipelines. On the other hand, the high cost of some coastal land may outweigh the advantages of a coastal site. Assuming, however, that a gas processing plant is needed in Delaware because of OCS development, a coastal location obviously would be the closest point to the gas field.

There are no standard designs or sizes for gas plants, each plant is specifically designed for the particular gas stream that it processes. The amount of land required is related but not directly proportional to throughput capacity. A typical billion cubic foot per day plant may require 75 acres of land, of which 20 may be used for building and structures. For planning purposes, a 50 to 75 acre site would be required for a gas plant processing between 200 and 1,000 million cubic feet per day.

The land, preferably flat and well-drained, is needed for buildings, storage facilities, pipes, towers, compressors, buffer zones, and parking lots.

Onshore partial processing facilities may be used to process natural gas or oil. A combined partial processing facility requires approximately 15 acres of land per 100,000 barrels of oil and associated gas processed.

Gas plant products are transported by rail, truck, pipeline, or barge, according to the transportation available and the location of markets for a particular product. Small plants may have products shipped by truck, but pipelines or rail are usually more economical for large product volumes.

Most gas processing plants use less than 200,000 gallons of water daily, but water demand can range from zero to 750,000

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gallons depending on the cooling process used. A modern design would probably utilize an air cooled system with minimal water requirements.

d. Impact on Resources

Gas plants generally pollute the environment less than oil refineries. Accidents occur more frequently in natural gas operations than in corresponding crude oil operations, but gas operation accidents usually cause far less environmental damage. For example, water pollution resulting from pipeline leaks or other malfunctions is less severe than for similar oil mishaps.

Wastewater contaminants include sulfuric acid, chromium, zinc, and chlorine from cooling water; phosphates, sulfite, and bases from boiler water; and dissolved hydrocarbons from diverse sources. Lubricating oils and caustics may also be discharged in the course of plant operations. In addition, the U. S. Department of Energy has pointed out that gas processing plants may cause thermal pollution by lowering or raising the water temperature several degrees before the water is returned to its source.

Substances concentrated in the effluent and heat, according to a comprehensive report by the New England Basin Commission, "can produce serious impacts on the receiving waters." The same report states that the chemicals added to the cooling stream to reduce corrosion and fouling within the condenser system may be "extremely toxic to aquatic organisms." Finally, the report points out that "If a waterfront location is chosen, environmental disturbances due to dredging, filling, channel alteration, and spoil disposal may result. If an inland location is chosen, such disturbances would be non-existent or minimal. Since a wide selection of potential inland sites is usually available, environmentally sensitive regions can be avoided."

Sources of air emissions at gas plants include: processing, evaporation, flares, and combustion from machinery and vehicles. Major air emissions are noxious smelling hydrogen sulfide, sulfur oxides, and hydrocarbons. Nitrogen oxides may also be significant. The estimated, though disputed, process emissions from one plant with a 1.3 billion cubic feet per day throughput was 6.63 tons per day of sulfur dioxide and 1.65 tons per day of hydrogen sulfide. The magnitude of impacts from such emissions is determined by ambient air conditions at and near the site.

Noise can also be a problem. Gas plant compressors, boilers, scrubbers, and flare stacks are all 24-hour noise makers. In developed areas, noise from a gas plant can be serious. A flare stack emitting 81 decibels of noise, for example, exceeds ambient noise levels as far as .7 mile from the stack.

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Aside from environmental effects, gas plants are visually unattractive with their tall smokestacks, 24-hour lighting, and denuded landscape. Adequate landscaping in a buffer zone can mitigate that problem.

Finally, solid wastes generated by a gas plant include scale and sludge from boiler and cooling tower cleanouts; tank cleaning sludge; spent dessicants; filtration media and oil absorbents. Also included are hazardous materials, which are defined in the Federal Water Pollution Control Act as:

"such elements and compounds which, when discharged in any quantity into or upon the navigable waters of the United States or adjoining shorelines or the waters of the contiguous zone, present an imminent and substantial danger to the public health and welfare, including, but not limited to fish, shellfish, wildlife, shorelines, and beaches."

Hazardous waste materials from gas plants may include accidentally spilled liquid gas or other hydrocarbons, and processed sludge containing chemicals and residuals from brine evaporation.

e. Gas Plants in Delaware

9. THE ENVIRONMENTAL IMPACT OF GAS PLANTS IS SUCH THAT THE CMP PROHIBITS THEM IN WETLANDS AND THE COASTAL STRIP. INLAND LOCATIONS ARE ACCEPTABLE ON A CASE-BY-CASE BASIS PROVIDED ALL STATE AND LOCAL ENVIRONMENTAL AND LAND USE STANDARDS ARE MET.

The Delaware Coastal Management Program, for regulatory purposes, treats gas plants like oil refineries. Although the real and potential impacts of the former are generally less severe than those of refineries, they are, nonetheless, serious enough to warrant exclusion from the coastal strip and all wetlands.

The Coastal Management Program recognizes that many of the environmental problems associated with gas processing plants can be overcome with proper planning, careful waste treatment, and strict operational standards. Unfortunately, human error, at diverse levels, often defeats the best laid plans and intentions. To minimize the possible implications of such error for coastal recreation, natural habitat, and other unique values in the coastal strip, the Coastal Management Program allows gasification plants only outside of that area.

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## 5. LNG Facilities

### a. National Interest

Liquefied natural gas (LNG) is formed by cooling natural gas to -260 degrees Fahrenheit, to reduce it to one six-hundredth of its original volume, enabling large volumes of gas to be transported by tankers especially designed to handle LNG.

An LNG export-import system includes the following components: a source of natural gas; transportation from the source to the liquefaction plant; the liquefaction plant; storage, loading, and port facilities at the exporting site; transportation by ocean tanker; a regasification plant; and transmission facilities from the regasification plant to a major pipeline. Given the gas demand and supply situation of the Delaware region, only LNG import facility sites are within the scope of this paper.

As noted above, that demand-supply situation is uncertain. Because of its clean-burning and handling characteristics, natural gas demand in the United States and the Delaware region may outstrip natural gas supply. The world's greatest gas reserves lie overseas, which for purposes of gas transport, can be reached economically only by LNG tankers. For that reason, LNG facilities are essential if the Nation is to receive substantial help towards meeting its gas needs from overseas.

Imported LNG accounted for about one-twentieth of one percent of the natural gas consumed in this country during 1977, but LNG is expected in some quarters to make up between 5 and 15 percent of the total U. S. natural gas consumption in 1985. If a pipeline is used to transport Alaskan gas to the continental United States, the percentage will probably be in the lower range of that estimate.

It is important to note, however significant the contribution of LNG may prove to be, that it is not a new source of energy which will allow unrestrained use of natural gas or solve the long-term national or regional gas supply problems. LNG could satisfy a portion of the U. S. energy demand for at least the next 20 years, but the world's limited natural gas supply serves as an uncompromising constraint on continued utilization.

Rather, LNG is seen--even by its proponents as a "stop-gap" measure. The Federal Power Commission, for example, has stated that LNG projects:

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"must be operational soon to assure smooth transition from a petroleum and natural gas economy to an economy operating at its full conservation potential and under alternate energy technologies." (emphasis supplied)

That view is consistent with the National Energy Plan, which says:

"Due to its extremely high costs and safety problems, LNG is not a long-term secure substitute for domestic natural gas. It can, however, be an important supply option through the mid-1980's and beyond, until additional gas supplies may become available."

The "extremely high costs" to which the Plan refers are attributed to the gas price, royalties, taxes and other payments in the exporting country; production, transmission, liquefaction, storage, and loading costs in the exporting country; tanker transportation costs from the exporting country to the United States; and unloading, storage, revaporization, and transmission costs in the United States. Energy conversion inefficiencies also tend to drive the cost upward. The liquefaction, storage and vaporization of natural gas requires about 23 percent of the energy of the gas, with liquefaction alone consuming 17 percent. A study prepared for the U. S. Energy Research and Development Administration concludes that "their (LNG) imports will be very costly, perhaps more than \$4 per million Btu...and their...cost will be reflected in the ultimate price paid by the consumer."

The study also points out, in 1976, that "The importation of natural gas, like that of oil is counter to the national policy of energy independence." Although current national policy seems to be drifting away from the principle of energy independence, the dangers of dependence are as real as ever. Economic drain and the ever present threat of a crippling embargo are salient and alarming features of substantial reliance on foreign imports.

That the national interest in promoting LNG is unclear, was underscored in a December 1977 report by the U. S. General Accounting Office. The report charges that the President's LNG policy falls short of what is needed on several grounds, including the following: (1) the LNG policy is not related to "the over-all national energy plan so as to identify LNG import goals;" (2) the policy "does not adequately address the concerns of vulnerability"--that is, criteria defining "overdependence" are not established; and (3) the policy contains "numerous

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obscure statements which only add to the confusion regarding LNG's future role in supplying U. S. energy needs."

b. Potential Demand

Uncertainties make it difficult to evaluate the potential demand for LNG facilities in Delaware. Potential safety hazards and low economic returns, as well as uncertainties in the market, here and abroad, make investment risky. In 1973, when the Nation imported 4 billion cubic feet of LNG, the Federal Power Commission estimated there would be a 1500-fold increase in the amount of LNG imported into the United States between 1973 and 1980. In 1974, the Commission reported zero LNG imports, and importation has continued to lag behind the projection. A 1976 study concludes that uncertainties make it difficult to estimate LNG imports, if any, to the Northeast in 1985 and 2000, and that the year 2000 supply can be estimated "only in the crudest way." The quantity of imports, of course, is also largely a function of the capacity of facilities to receive it. Thus, utilizing LNG supply projections to determine the potential demand for facilities is a non sequitor in some respects.

Another factor laden with uncertainty and bearing on the demand for LNG facility sites is regulatory attitudes. Under the Department of Energy Organization Act, the Federal Energy Regulatory Commission now has the lead federal role in LNG facility siting. Uncertain federal policy, already discussed, clouds the predictability of the Commission's actions.

In 1973, the Federal Power Commission identified 19 potential LNG receiving areas based on at least some of the criteria discussed below. One of those areas was along the Delaware River, where several sites are in high gas demand areas and also near major transmission lines. Two New Jersey sites near the Delaware River not far from Philadelphia (oil refineries and power plants) were proposed. The Federal Power Commission's environmental staff recently concluded, however, that there were "unacceptable risks" in carrying LNG by tanker up the crowded Delaware River, and recommended that approval be denied.

The report, however, emphasized safety hazards that are less prominent southward along the River and Bay. Should the New Jersey sites be abandoned, the southward areas might be considered potential sites for meeting the demand evidently present near Philadelphia. On the other hand, those areas might also be too distant from the metropolitan markets to the north.

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Some, if not all, of the regional demand can be met by the new import facility at Cove Point, Maryland, which went into operation in late 1977. The Cove Point terminal has two tanker berths, four storage tanks and several process areas. The initial operating plans call for about 140 ship arrivals per year, delivering the daily equivalent of two-thirds of a billion cubic feet of gas. Other major LNG terminals in the Northeast are located in Everett, Massachusetts and Staten Island, New York.

With all the above caveats in mind, a study by the National Center for Analysis of Energy Systems estimates that imports of LNG into the Virginia to Maine area in 1985 will be from .8 to 1.1 trillion cubic feet per year. Assuming that the terminals complete or nearly complete will be fully operable in 1985, the frequency of deliveries of LNG tankers will be roughly 2 per week per terminal.

c. Siting Criteria

The site selection process for LNG facilities is currently conducted by the company or consortium proposing the project. The company make its application to the federal authority only after it has done as much preliminary work as possible, which includes at least gaining control over, if not outright ownership of, the proposed site. Thus, neither the public nor the federal government becomes involved in the site selection decision until it has already been made by the company. There are no officially adopted federal siting criteria (although FERC and DOT have proposed siting safety standards), and the currently proposed projects are located in a variety of sites, ranging from remote coastal and riverine areas with 1,000-acre buffer zones to as little as a 90-acre site on Staten Island.

Most proposed LNG plant sites occupy at least 200 acres of shorefront land, which include a buffer zone. Larger areas are usually needed to accommodate all the associated facilities. Generally there are three or more storage tanks containing 300,000 to 600,00 barrels at each plant, with each tank surrounded by deep dikes to contain the liquid gas if it spill. Present technology dictates that the tanks be no more than two or three miles from the marine terminal where ships unload, and some of this distance is likely to be over water because terminals may be sited a mile or more from land in order to have deep water anchorage.

Along the Delaware shore the Delaware River and Bay depth is too shallow in most places to accommodate the large, bulky LNG tankers with their 40 foot drafts. Wilmington may be the only exception, but, because of its population density, is not desirable site for an LNG terminal. A recent study, for reasons, discussed below, recommends, that population near proposed sites be "zero or very low" density within a one-mile



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radius, and low within a 6-mile radius.

Also recommend is a 450 foot wide, relatively straight and unobstructed approach channel. A turning basin of at least 2000 feet is desirable near the berth. For those reasons LNG facilities need land space near the marine tanker terminal, and the Federal Energy Administration has identified such facilities as absolutely coastal dependent.

Offshore terminals have been suggested as a means of reducing safety risks in populated areas or congested harbors. At the present time, preliminary offshore terminal designs limit site selection to locations with water depth of 60 feet or more.

Onshore LNG terminal sites must be on solid bedrock or other geological formations which will support the facilities. The site should avoid earthquake and climatic hazards and allow year-round operation.

A report prepared for the U. S. Energy Research and Development Administration, says the site

"should be so located to minimize disruption to the environment of the area during the construction phase. This includes the ability to control runoff erosion and the ability to limit damage to the area wildlife and foliage. As an example, a rocky shoreline or stable sand beach is preferable to a tidal marsh land whose ecology is more susceptible to disruptions. Deep water close to shore is desirable to minimize dredging."

The same report recommends a site where there is little local maritime traffic because such traffic can be expected to be interrupted to insure the safe passage of LNG tankers. At the Cove Point, Md. LNG terminals the Coast Guard intends to establish a permanent safety zone to restrict ship movement near the terminal.

Proximity to local utilities is also important in order to support construction and operations activities. Water demand is minimal for operations, but supplies are needed to satisfy fire protection regulations.

The site also should be in proximity to transportation systems, especially an existing major natural gas pipeline. The major line through Delaware is closest to the Delaware

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River and Bay at a point in New Castle County, in the Wilmington vicinity. In Sussex County the pipeline is closer to Maryland than it is to the Bay. On the other side of the Delaware Bay, in New Jersey, there is an existing major gas pipeline near Cape May. On neither side, however, do the line approach the shore as closely as several other pipelines elsewhere the East Coast.

An alternative to pipelines, once the LNG is landed, is trucks. As of September, 1977, it was estimated that there were 75 LNG trucks in operation in the United States. Railroads and barges have also been proposed as means for transporting LNG, but have been defeated by economics or opposition.

Such opposition suggests that one of the most important criterion for the siting of LNG facilities should be safety considerations.

d. Impact on Resources

As the Office of Technology Assessment puts it,

"Postulating an LNG disaster scenario is clearly an almost limitless task. There are countless combinations of events which could lead to an accident...to infer, as most LNG safety reports do, however inadvertently, that all the important possibilities have been "covered," may be short-sighted."

One of the possibilities that has been analyzed involves the result of LNG spillage on water in a large-scale accident. In such a case the water would warm the floating LNG, vaporize it, and form cold, low-lying "gas cloud". The heavy cloud would continue to hug the earth until the gas becomes so dilute as to be no longer flammable, and eventually, warms enough to rise and dispense. Researchers disagree on the shape, size movement, and compositions of the cloud, but it is generally agreed that if the vapor ignites, it would be beyond the capability of existing firefighting methods to extinguish it.

Thus, from a safety perspective, the key issue is how far and how broadly a vapor cloud travels before it ignites.

There has never been a massive LNG spill on water. Estimated distance vary from less than one mile to more than 50 miles, depending on different assumptions. Work by the U. S. Bureau of

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Mines has indicated that a 25,000 cubic meter spill--the contents of one the cargo tanks in a big LNG tanker-- could produce a 1500 foot long plume, the major part of it is highly flammable. With stable weather conditions and a steady wind of about 7 miles and hour, the plume could theoretically travel some 19 to 38 miles according to the BLM study. More recent studies by the Coast Guard suggest that the impacted area would be from 1.25 to 3.2 miles under normal weather conditions and no more than 10.5 miles under extreme conditions. As one commentator points out, however, "it is highly probable that the cloud would encounter a source of ignition soon after touching land, if not before." In Delaware that land could well be a densely populated area if an accident were to occur in the upper Delaware Bay or the Delaware River.

The Naval Weapons Center at China Lake, California is re-searching the hazard from an LNG pool fire, which some experts believe is worse than a vapor cloud. The Council on Environmental Quality describes the danger:

The characteristics of these fires on water, like the behavior of vapor clouds, are subject to great uncertainties and estimates of the safe distance from their intense radiant heat vary significantly. According to a recent FPC (Federal Power Commission) analysis, a generally safe distance from a 25,000-cubic-meter pool fire would be about 8,300 feet or 1.6 miles. People standing 3,600 feet away would blister in 5 seconds, and exposure for longer times--perhaps 10 seconds -- would be fatal. Estimates based on Bureau of Mines figures indicate that the danger might extend farther. According to these figures, on a windless day when thermal radiation is greatest, unsheltered people at a distance of 9,600 feet, or nearly 2 miles, could suffer fatal burns."

The world's worst LNG accident occurred in 1944 when a storage tank in Cleveland ruptured, spilling 6,200 cubic meters of LNG into adjacent streets, sewers, and storm basements. In those confined spaces vapor and air combined in an explosive mixture which ignited and demolished sizeable buildings. Intensely hot fire burst into 2,800 foot flames, and combustible material 1000 feet away caught fire by radiation. The accident resulted in 130 deaths, between 200 and 400 injuries, and approxi-

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mately \$10 million is property damage. It is recognized that this accident did not involve an import facility nor was the technology fully developed at that period to prevent the widespread damage which occurred.

In 1973, a second significant accident occurred at a Staten Island LNG storage facility, where 40 workmen repairing and "empty" LNG tank were killed.

The hazards of LNG operations call for extremely strict safety controls. In some respects, the LNG industry and government have successfully met the challenge. LNG tankers are now equipped with double bottom hulls, special navigation equipment, and other safety features not normally present on other ships; dikes are used to contain the LNG in the event a storage tank ruptures; and better materials are used in all LNG handling equipment.

Many problems remain, however. A major one, already discussed, is the "countless combinations of events which could lead to an accident." Coupled with the uncertainty about whether all the "important possibilities have been covered", doubt emerges.

Despite years of planning and utilization of the best technology available, the proposed terminal sites in New Jersey were considered "unacceptable risks" by members of the Federal Power Commission. Part of the conclusion was based on the location of the shipping channel and the history of tanker accidents near the site.

A standard LNG tanker is a high-powered ship, with an optimum service speed in the 20-knot range--about five knots faster than most oil tankers--and a capacity so large that an 8-story building could fit inside each of its five cargo tanks. By the end of 1975, there had been only 31 LNG shipments to the United States. At that time, there were only 34 LNG tankers in operation worldwide, a minuscule number compared with the 6800 oil tankers in service. Thus, experience with transporting and unloading the behemoth tankers is not extensive, and researchers do not have enough data with which to predict the likelihood that a major LNG spill will occur, how the spilled liquid and resulting vapors will behave, or what impacts will result.

Historically, oil tankers' casualty data have indicated a need for improved marine traffic safety in U.S. ports and waterways. The Delaware River handles 5000 ships per year. By comparison, Boston Harbor handles only 1500 ships per year, while 4000 ships visit

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Chesapeake waters yearly. Most of those ships are not equipped with special navigational aids or with crew versed in the LNG threat. Although the U.S. Coast Guard has proposed regulations setting minimum standards for persons employed on United States flag LNG carriers, foreign flag ships entering United States harbors are not subject to the regulations. The U.S. Office of Technology Assessment, accordingly, has questioned the training and competence of foreign crews.

The Council on Environmental Quality has pointed out that there are no formal safety criteria for LNG facility siting and that no broad programmatic environmental impact statements have been prepared for LNG terminals or storage facilities. Those deficiencies led, in 1976, to a petition by Delaware, New York, New Jersey, Pennsylvania, and others for a court order directing the Federal Power Commission to develop uniform and comprehensive standards for site selection and operation of LNG facilities. As of September, 1977, the petition was set for hearing and the standards were not in force.

Other evidence of the continuing national concern and uncertainty over the safety of LNG facilities and adequate measures to control their siting and operations is found in The Congress. A number of bills were introduced in 1978 to establish improved regulation of LNG facilities; the testimony of the bills' sponsors in the Congressional Record emphasizes safety considerations.

Representative Mario Biaggi (D-N.Y.) introduced a bill to amend the Ports and Waterways Safety Act to improve safety regulation of LNG import terminals, storage facilities and reclassification plants. Specific safety considerations in Mr. Biaggi's bill included (among other things):

- (1) required buffer zones around terminal facilities;
- (2) maximum population density standards for areas around LNG facilities;
- (3) consideration of safe navigation in onshore terminal siting;
- (4) consideration of synergistic risks in locating LNG facilities adjacent to other hazardous activities or natural hazards; and
- (5) adequacy of local firefighting and other disaster services

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The bill included a provision for a Governor's veto over siting an offshore LNG terminal adjacent to his state.

In the 1978 Congress the House subcommittee on energy and power heard testimony that there is no clear, written, coordinated Federal regulation policy toward LNG facilities. The subcommittee chairman, John D. Dingell (D-Mich.) expressed concern over vessel collisions and explosions in the vicinity of LNG terminals and difficulties in providing and enforcing vessel traffic restricted zones around busy LNG terminals such as the Cove Point, MD., terminal.

Representative John M. Murphy (D-N.Y.) also proposed in 1978 to amend the Ports and Waterways Safety Act to establish strict controls over LNG facility siting and operations in order to protect public health, safety and property, and the environment from "unique threats" posed by this highly volatile and explosive fuel. The Secretary of Transportation would be required to set minimum standards for LNG facility design, construction and operations taking into consideration, among other things:

- (1) alternative more remote terminal sites;
- (2) minimum distances from terminal sites and residential areas, power plants, and recreational areas; and
- (3) site meteorological, topographic, and other natural features.

Regulatory emphasis would be on preventing and containing discharges of liquified gas. Each affected state with an approved Coastal Management Program would have the primary role in determining LNG siting, once the Department of Transportation issues minimum (Federal) standards for siting and licensing, States would have the authority to supercede these Federal standards.

In the U.S. Senate, Senator John A. Durkin (D-N.H.) expressed concern over the hazards of LNG (and LPG) facilities and present inadequate regulation of these and he sponsored a bill in the 1978 session titled the Comprehensive Liquified Energy Siting Safety and Liability Act. In addition to describing the flammable and explosive hazards of LNG and the difficulties of safely transporting and handling it, Senator Durkin noted the vulnerability of LNG facilities to sabotage.

This enumeration of expressions of Congressional concern over LNG facilities could go on, but these few examples emphasize the concern at the Federal level over the potential for catastrophic consequences of siting and operating LNG facilities and the need for severely strict regulation of LNG operations by government at all levels.

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Although human safety hazards pose the pre-eminent LNG facilities "impact" problem, resource impact may also be significant. Approximately 800 to 1200 acres of land may be necessary for docks, storage, and vaporization facilities, depending on the terminal's daily capacity. Landmass compaction can re-route aquifers and underwater streams. Onsite wetlands, wildlife and wildlife habitat, historical and archaeological areas, agricultural land, forest, and so on may all be destroyed or damaged. Pipeline corridors can have similar impact, at least temporarily.

The effect of dredging, fill and waste disposal upon the aquatic environment may be a problem. In addition, movement of LNG carriers in shallow areas may disturb bottom life both from the turbulence generated by propellers and the ship's wake. Water circulated through the revaporization plant at 300,000 gallons per minute catches fish in its flow and kills them at intake streams, much in the same manner as power plants. Biocides, used to kill small organisms that pass through the screens, may also kill organisms outside the screen. Thermal pollution--water returned to the water supply source comes out 12 degrees colder than it came in--is still another source of disturbance to aquatic life.

Air and noise problems are usually minimal after construction of the terminal is completed, but aesthetic considerations and the safety hazard may drive surrounding property values down.

e. LNG Facilities in Delaware

The Draft Environmental Impact Statement contained a policy prohibiting LNG facilities in Delaware. The Federal Energy Regulatory Commission (FERC) objected to the prohibition particularly as derived from the siting criteria developed by the CMP. Accordingly, siting criteria supplied by FERC were applied to Delaware. These criteria included: 1) Population - location which provides a buffer between the facility and residential areas; 2) Climate - well sheltered site with a minimum of adverse climate conditions; 3) Navigational Suitability for Tanker Traffic - 'shortest practical approach channel, avoidance of interference with navigation at any time, minimum depth of 40' for smaller tankers and greater depths for large LNG carriers, minimum concentrations of other vessel traffic, and well established traffic safety systems; 4) Seismic Considerations - avoidance of areas subject to ground movement or subsidence; 5) Topographic Conditions - minimal slopes and well drained lands are desired;

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6) Foundation Conditions - stable soils and subsurface, avoidance of wet, marsh soils; 7) Terminal Area - areas with at least 40 foot depths or more if subject to wave action, shortest distance to shore, protection from waves and strong currents; 8) Anchorage Suitability - available anchorage in the vicinity of the terminal site and away from vessel maneuvering areas or channels; 9) Land Use Conflicts - locations should avoid severe conflicts with nearby existing or planned industrial, recreational or conservation-oriented land uses; 10) Existing Environment - avoid rare or endangered species habitats and/or breeding grounds, unique ecosystems, productive marshlands, biologically sensitive areas, wildlife sanctuaries, or high quality habitats; 11) New Pipeline Requirements and Right-of-Way Availability - minimize new pipeline construction; and 12) Sea-water Exchange Systems - seek opportunities to combine LNG vaporization facilities with power plants or other industries to minimize the effects of thermal pollution.

These siting criteria were applied throughout Delaware's coastal area in conformance with the provisions and policies set forth in the appropriate sections.

The State's best transportation systems, including a major natural gas pipeline, occur near its highest area of population density--Wilmington. The undeveloped shorefront is vulnerable to storm damage in many places, soft-bottomed in nearly all places, and much of it is geologically unstable. Finally, the closest point of the main shipping channel to Delaware's shore, which might be suitable for LNG tankers, lies near Wilmington - a Port with considerable ship traffic and within a major population center.

The main shipping channel up the Delaware River and Bay also passes, in places, within a mile or two, of Lewes, and not much farther from Rehoboth Beach--both densely populated in the summer. A tanker accident near either city could spell disaster. The U.S. Energy Research and Development Administration informed the Coastal Management Program that its environmental and safety programs are mandated by the requirement that the Nation's energy be provided in a way that is safe, clean, adequate, and acceptable to society. The Coastal Management Program concurs with that requirement, and finds that Delaware sites are neither safe nor acceptable.

Further, the land requirements of LNG facilities, coupled with their tendency to induce additional development, make LNG facilities unsuitable for the area they would otherwise occupy--the Delaware coastal zone. The CMP's discussion of oil refineries, as it pertains to the balancing of the need to protect coastal resources with the need for the facility also applies here.



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10. THE CMP FINDS THAT THERE IS NO SITE IN DELAWARE SUITABLE FOR THE LOCATION OF ANY LNG IMPORT-EXPORT FACILITY.

6. Electric Power Plants

a. The National Interest

The first subsection discusses the Nation's reliance on energy and dependence on foreign energy resources, as well as the national importance of providing a continuous supply of energy with as little foreign assistance as possible. Power plants and their associated facilities can contribute significantly to that objective because electricity can meet a great variety of energy needs without necessarily consuming oil or gas.

Ninety percent of the Nation's conventional energy reserves are coal, a fuel which can be used to generate electricity but which currently accounts for only 18 percent of the country's energy consumption. The National Energy Plan urges that the use of coal be increased to maintain economic growth, reduce the quantity of oil imports, and save gas for residential use. Although coal is used to generate nearly half of the Nation's electricity, new or expanded coal-fueled power plants can further promote essential national energy policies.

Nuclear power plants also decrease reliance on oil imports. Nuclear energy accounts for only 3 percent of all the energy used by the Nation and less than 10 percent of the electricity. New nuclear facilities are expected to increase the latter figure to as much as 26 percent by 1985. If the risks associated with nuclear facilities can be reduced by new technology, the contribution of nuclear power plants may become more significant.

Finally, geothermal facilities can produce electricity from previously untapped natural resources. The national interest in utilizing such resources--as well as coal and nuclear fuel--with the siting and construction of new power plants and associated facilities is underscored in the next part.

b. Potential Demand

Electric power consumption in the United States has grown much more rapidly than total energy consumption during the last several years. The national demand for electricity--now more than 20 quadrillion Btu annually--may double by 1990, and some projections indicate that electricity production will account for 40 percent of total United States energy consumption by the year 2000. On the other hand, most recent consumption patterns show that the rate is slowing down. As a result, long-term projections of the average annual electric demand growth have declined steadily in each of the recent years.

COASTAL MANAGEMENT  
COORDINATION

**SECTION 5**

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## COASTAL MANAGEMENT COORDINATION

### A. Background And Issues

"Coordination" is one of the more frequently used words in government. Committees, policy boards, councils, technical advisory groups, and a variety of other bodies have been established by virtually every agency and unit of government. Generally, these bodies result from an attempt to provide a forum for discussion of concerns, resolution of conflicts, exchange of information, the "testing" of concepts or recommendations before they are acted upon. The CMP, for example, has its own advisory group - the Coastal Zone Management Committee.

The number of such groups in Delaware once reached the point where a former Governor established a "committee on committees" to examine the problem and recommend the abolition of unnecessary groups. Recently, an Intergovernmental Task Force on Overlapping Services was established to examine the overlaps of services among levels of government.

As Chapter Four (Public Participation Process) states, the CMP began coordination early in the program's development. Coordination during program implementation will be necessary to refine the program and to avoid conflicts between agencies responsible for program implementation. In Delaware, as in most states, management of land and water is divided among several agencies within each level. Planning and zoning actions, in particular those which relate to uses of individual parcels, are primarily the responsibility of local government. Yet, the State government provides many services required by locally approved development. These development decisions often require the State to spend money for facilities which would have been unnecessary had the State and local governments worked together to resolve conflicts.

Conflicts can also occur within State government. For example, the frequent incompatibility between highways and parks can cause a conflict between objectives of the Department of Transportation and those of the Department of Natural Resources and Environmental Control (DNREC). Likewise, industrial recruitment and other development programs can hamper efforts to control or reduce air or water pollution. Preservation of historic or pre-historic sites may also conflict with plans for new construction. Inasmuch as the CMP contains policies for both resource preservation and development, coordination is needed to ensure that those

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State agencies responsible for implementing the policies are made aware of how their actions may affect other CMP objectives.

In many cases the management policies are detailed enough to result in the proper decision without coordination. In others, however, the CMP's flexibility allows agencies to work together to determine the best solution to a problem. The CMP encourages consideration of different viewpoints.

Related to this is the need to recognize and preserve the powers, duties, and responsibilities which have been vested in the individual agencies and units of government. This need was acknowledged by the Delaware Tomorrow Commission. The Commission recommended enactment of state land use planning legislation providing for participation by each level of government in certain land use decisions, while preserving each other's traditional rights and powers. (The Commission found this recommendation difficult to accommodate when charged later by Governor du Pont with the responsibility for drafting the legislation).

Coordination, however, could become costly and cause delays in planning, regulatory, or other management processes. Thus it cannot be allowed to become unwieldy and cause more problems than it resolves.

### B. Coordination Among State and Local Agencies

Because local governments exercise the primary control over land use, and because the State government provides much of the required public services and facilities, coordination is very important. To provide this coordination the Delaware Tomorrow Commission drafted (with CMP staff help) and recommended legislation which provided for a process to assure coordination between the two levels of government, as well as between government and private enterprise. The legislation, the Land Use Planning Act of 1978, was subsequently enacted and is discussed in detail in Appendix E (Legal Authorities and Organization). Here it is sufficient to note that the Act establishes a formal process by which State and local governments provide an opportunity for each other to review and comment on proposed actions affecting them.

Although the Land Use Planning Act provides the method which the CMP relies upon most for State-local consultation, several other methods established prior to completion of the CMP will supplement the Act. For example, the Coastal Zone Management Committee, comprised of state, county, municipal, federal, and non-government representatives, was established by Executive Order No. 41 signed by Governor Tribbitt on May 29, 1974. This Committee served in an advisory capacity during program development.

5.E.

A subsequent Coastal Management Committee with specified coordination responsibilities will be established by Executive Order concurrent with program approval (See Part F of this Section). Also, all of the CMP permit decisions, discussed in Section 5.A. are preceded by an opportunity for a public hearing. If a hearing is either requested or required then local governments may comment. Local zoning decisions are preceded by public hearings at which State agencies may comment. Moreover, the "A-95" review process discussed below also provides State-local coordination.

C. Coordination Among State Agencies

The primary State coordination methods used to implement the CMP are established by three Executive Orders which will take effect upon program approval. These Orders establish the program as the official management program for the State's coastal resources; require that State departments and agencies, to the extent permitted by law, enforce the Program's goals, objectives, and policies including those in Part G of this Section; and create a Coastal Management Committee. OMBP, the State agency officially designated to oversee the program, will have the responsibility for monitoring and evaluating the management activities of those agencies and departments which have particular responsibilities under the program, and shall inform the Governor and the General Assembly of their performance. Executive Order 61 requires all State agencies to cooperate with OMBP. Such cooperation includes sufficient coordination to ensure that CMP policies are enforced. The Governor, of course, has the authority to resolve issues resulting from possible non-compliance with the program or inter-agency conflicts with program objectives and policies.

CMP policy regarding State coordination in management and public finance will also be implemented by Executive Orders 29 and 6, as amended, which establish the State and Federal Clearinghouse process and the Capital Projects Review Committee. All agencies and jurisdictions "have the opportunity to review and comment on projects in order to maximize the achievement of goals and objectives and minimize program duplication" (E.O. #29); and it is State policy "to have measurable objectives for capital improvements and their subsequent operating cost implications." (E.O. #6, as amended).

All state or local agencies or private groups which receive state or federal grants are subject to the Clearinghouse process. This review process provides for comment from other agencies

5.E.

and includes an assessment of the effects of the request on the State Development Plan. The report of the Delaware Tomorrow Commission which outlined broad State development policy, is one component of that plan, as will be the Delaware CMP upon approval. Requests for grants are evaluated for policy conflicts, duplication of services, budgetary and capital improvement impacts, and benefits to the public.

Another coordination step occurs through the capital projects management process developed under Executive Order #6, as amended, and through the preparation of the State's capital improvements program. The basis for review and recommendation of projects is the State Development Plan, the policies adopted as part of it, as well as consideration of costs and benefits, need for the project, general land use impacts, and the financial condition of the State.

Finally, as stated elsewhere in the program document, many CMP-related activities require or otherwise involve State agency coordination independent of the methods described above and below. One example is the coordination provided by the Energy Facilities Siting Liaison Committee, discussed in Section 5.D.3, which provides for coordination among agencies and governments regarding location of new energy facilities. Likewise, State agencies consult with the Delaware Division of Historical and Cultural Affairs before doing anything which may affect historical or cultural sites. The Delaware Office of Management, Budget, and Planning consults with DNREC on permit applications filed pursuant to the Delaware Coastal Zone Act.

D. Coordination With Federal Agencies and Consideration of National Interests

State-federal conflicts have been lessened through direct involvement of some federal agencies in program development as members of the Coastal Zone Management Committee. Other federal agencies were contacted for their comments early and often during program development. Section Four documents those contacts. The participation by some federal agencies in the CMP's advisory committee during program development was beneficial to both levels of government and will be continued.

The CMP will invite federal agency participation in technical or advisory committees established to plan for and manage coastal resources, and will evaluate programs, plans, and grant requests subject to the State Clearinghouse Process for their relationship to federal concerns as well as to State policies. In the latter case, where projects before the Clearinghouse appear to be of concern to certain federal agencies, these agencies will be notified and offered an opportunity to comment.

5.E.

During program implementation, the CMP will consider the national interest in: (1) the planning for and siting of facilities which are necessary to meet other than local requirements; and (2) coastal resources conservation and protection. OMBP will assume the responsibility for ensuring such consideration. There are three types of decisions which will require that the national interest be considered during program implementation: (1) decisions by State government which involve planning for or locating facilities necessary to meet other than local requirements; (2) decisions by local units of government which involve planning for or locating facilities necessary to meet other than local requirements; and (3) the annual program review. In addition, federal agencies and other interested parties will be given an opportunity to present their evaluation of the national interest to State and local decision makers. Some of the methods for doing this are described in this section. Others appear elsewhere in the document. An especially important one is discussed in Subsection 5.D.3., which deals with energy facilities.

As explained above, Executive Order 61 requires OMBP to monitor and evaluate the management of the State's coastal resources by State agencies and local governments. It also requires all State departments and agencies to cooperate to the maximum extent possible with OMBP. Moreover, Executive Order 61 requires all State departments and agencies to enforce the goals, policies and objectives of the Coastal Management Program. Thus, the policy in Part F. of this section which calls for consideration of the national interest is enforceable.

The national interest will be considered in the amendment of any State rule or regulation used to implement the CMP and in planning for and locating the facilities identified in Working Paper No. 7, entitled The National Interest in Resources and Facilities of the Delaware Coastal Zone. OMBP may add facilities to this list if it determines that there is a national interest in them.

OMBP will submit written comments addressing the national interest in proposed facilities to the appropriate State departments and agencies with planning or siting authority. The comments will attempt to balance the national interest in the proposed facility with the national interest in the preservation of resources. Sources of information used in that balancing process will include Working Paper No. 7; policy statements from the President; federal laws; statements from federal agencies; testimony from public hearings or other public comment; or plans reports, or studies from federal, State, or interstate agencies or local government.

5.E.

The appropriate State agency will respond in writing to OMBP's comments on its planning action or siting decision. This response will summarize the comments and explain how they were considered in the decision to monitor and evaluate the management of the State's coastal resources pursuant to Executive Order No. 60. In the event that OMBP determines that the response inadequately considers the national interest, it will so notify the Governor and resubmit its comments to the appropriate agency, which will then respond anew.

Executive Order No. 60 requires OMBP to submit comments relating to local land and water use decisions and the relationship to Coastal Management Program policies and concerns to local officials. The above cited policy which requires consideration of the national interest will be implemented by Executive Order 60 and the Land Use Planning Act. The Act requires a written rationale for the local government's decision, and it must include a discussion of OMBP's comments or recommendations. A State review board may require reconsideration of the local decision if the local government fails to consider the comments. It is also important to note that under the Land Use Planning Act interested federal agencies must be: (1) Notified of proposed land use planning actions of greater than local significance; (2) afforded an opportunity to participate in the local decision process; and (3) allowed to submit comments and recommendations on such actions.

The CMP recognizes that the national interests in facilities and resources may change. Inasmuch as many of the broad policies in the program cannot be easily reviewed on a case-by-case basis, the national interest in such policies will be reconsidered once a year by OMBP in the annual report to the Governor, the General Assembly, and OCZM.

An additional method to ensure federal and State coordination will be the establishment of joint permit review prior to formal permit action by either party. A coordination process between State agencies and some federal agencies has been established relative to State/Corps of Engineers approvals, and additional steps will be taken to institutionalize this process. Informal coordination, of course, already takes place between many State and federal agencies on a range of CMP concerns.

Finally, the federal consistency provisions outlined in Appendix F will also be used to make sure that federal actions are consistent to the extent practicable with the CMP.



5.E.

E. Regional Coordination

Coordination among the localities and states in Delaware's region has been of concern since the program began. Actions by neighboring states can affect Delaware and its coastal resources. In order to identify regional problems and to ensure that compatible approaches to the management of regional resources are being used by the states, Delaware hosted the first of a series of meetings among State CMP staffs. Included at these meetings are Delaware, New Jersey, Pennsylvania, Maryland, Virginia and, more recently, North Carolina, South Carolina, and Georgia.

A higher level of coordination is the Mid-Atlantic Governors' Coastal Resources Council (MAGCRC), an organization formed by the Governors of the states in the region for the purpose of exchanging information, developing policy, and preparing responses to federal agencies on coastal issues, primarily those relating to outer continental shelf (OCS) oil and gas exploration and development. This group, which involves the Governors and the officials responsible for development of State OCS and energy policy, has met on a somewhat regular basis and has been successful in raising the level and scope of state participation in many federal OCS leasing and regulatory processes.

Another regional coordination effort, currently only in the developmental stage, is the establishment of a Regional Coastal Information Center (RCIC). This proposal is in response to concerns of coastal managers and concerned citizens who lack information and are concerned that research and information gathering programs and projects may be duplicative or fail to address clearly perceived problems. A definite need for a quick response information delivery system has been identified. The information needs are quite diverse, ranging from highly specific environmental data to more general background information on coastal law. The National Coastal Zone Information Center of OCZM has supplied some of the information, but a national center cannot begin to provide the specialized coverage needed at state and local levels.

The Delaware CMP made an initial attempt at closing this gap by funding a Research Clearinghouse based on work done by the University of Delaware which related to coastal management. This start was useful but limited in scope.

New England and the Pacific Northwest have responded to the need for more localized coastal information through the formation of RCICS. The RCIC approach was first suggested at the national level by OCZM and the Sea Grant Marine Advisory Service. The mid-Atlantic States have proposed a more decentralized and state-specific system.

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This system will provide a readily accessible quick-response coastal information capability for state coastal planning programs and other state and local agencies, scientists and technical personnel needing environmental data and/or bibliographic information, Sea Grant programs, regional fishery management, and the general public. Delaware's CMP will work with the Delaware Sea Grant Program in support of this proposed system.

Another issue involving regional coordination is limited in scope and involves the Delaware-New Jersey boundary along the upper Delaware River, in particular as it affects Salem County, New Jersey. As a result of a 1933 U.S. Supreme Court ruling, Delaware's jurisdiction extends to the low water mark on the New Jersey shore. Salem County officials contend that Delaware law, in particular the Delaware Coastal Zone Act, unduly restricts development along the Delaware River in New Jersey. Delaware officials and CMP staff members met with Salem County officials to discuss the matter. While Delaware understands Salem County's concerns, there is no evidence that New Jersey has suffered any adverse effects. Thus, an exchange of information between the parties is deemed the best way to avoid problems. Therefore, Delaware has agreed to share information on Coastal Zone Act applications, where appropriate, with Salem County, and has asked Salem County to notify Delaware whenever an impending development in their county could raise the jurisdictional difficulty. In any event, only a few possible uses would cause problems. For example, single purpose (use) piers extending into the Delaware River, the most likely regulatory issue, would require a Delaware Coastal Zone Act permit, but experience under the Act involving Delaware and Pennsylvania shows that such applications can be processed to the satisfaction of all parties.

Finally, a long-standing, regional coordinating group in the Wilmington area, the Wilmington Metropolitan Area Planning Coordinating Council (WILMAPCO), is significant to the CMP. Municipal, county, and State representatives from Delaware, Maryland, and New Jersey work together in WILMAPCO to resolve interstate and intrastate issues affecting the Wilmington Area.

F. Coastal Management Committee

An Executive Order to be issued prior to program approval will establish a Coastal Management Committee to be comprised of private citizens and officials from State, county, and local governments to provide oversight and coordination regarding program implementation. Among the duties of the Committee may be:

- 1) To advise OMBP on applications for Section 306 grants, including review of OMBP's annual work plan;

5.E.

- 2) To approve applications for CEIP grants and loans where required under the CEIP Intrastate Allocation Process;
- 3) To monitor CMP implementation to ensure that the Program is achieving stated objectives;
- 4) To review and offer recommendations on federal actions subject to the provisions of Section 307 of the CZMA (federal consistency);
- 5) To provide an informal forum, where appropriate, for the review of plans, large development projects, capital programs, etc., covered by the Land Use Planning Act (this would not substitute for the process established by the Act, but would allow for informal discussions of issues which are subject to the Act's provisions);
- 6) To recommend and approve CMP amendments, including the designation of Areas of Particular Concern/Special Management areas, etc.; and
- 7) To function as a special problems advisory group when needed for review of projects; changes in federal, state, or local law or regulation; or other matters of interest to coastal management.

This method, combined with those listed above, provides for intergovernmental and interagency coordination which will ensure that Delaware's Coastal Management Program is effective.

#### G. Coordination Policies

1. STATE AND LOCAL GOVERNMENTS RESPONSIBLE FOR IMPLEMENTING THE CMP SHALL PROVIDE AN OPPORTUNITY FOR ONE ANOTHER, FEDERAL AGENCIES, AND OTHER INTERESTED PARTIES TO REVIEW AND COMMENT ON PROPOSED ACTIONS WHICH MAY BE OF MORE THAN LOCAL INTEREST.

This general policy will be implemented by the methods discussed above. The details of the most important method--the process established by the Delaware Land Use Planning Act--appear in Appendix E (Legal Authorities and Organization). It will also be implemented through the Coastal Management Committee.

2. STATE AGENCIES RESPONSIBLE FOR IMPLEMENTATION OF THE CMP SHALL COORDINATE THEIR CMP IMPLEMENTATION RESPONSIBILITIES WITH EACH OTHER TO THE EXTENT NECESSARY TO ASSURE WELL-INFORMED AND REASONED PROGRAM DECISIONS.

5.E.

This policy will be enforced, if necessary, by the Office of the Governor pursuant to Executive Order 61.

3. ALL STATE AGENCIES AND LOCAL UNITS OF GOVERNMENT SHALL CONSIDER, PRIOR TO ANY CMP DECISIONS, THE NATIONAL INTEREST IN: (1) PLANNING FOR AND LOCATING FACILITIES WHICH ARE NECESSARY TO MEET OTHER THAN LOCAL REQUIREMENTS; AND (2) COASTAL RESOURCE CONSERVATION AND PRESERVATION.

The preceding discussion and Appendix E. provide the details of how this policy will operate, as well as the authority for it. The facilities and resources to which the policy applies are further described in Working Paper No. 7.

## APPENDIX D - BOUNDARIES

The federal Coastal Zone Management Act (CZMA) requires that the CMP identify the boundaries of the coastal zone subject to the management program.

Working Paper No. 2 provides background information on the requirements, and the various options considered during the course of program development. These options included biophysical boundaries -- such as wetland drainage areas, flood hazard areas, watersheds, and the ten foot elevation contour; and institutional boundaries, such as the coastal counties, the Delaware River Basin Commission Boundary, and the areas delineated under Section 208 of the Federal Water Pollution Control Act of 1972.

There are four elements to the CMP boundary: (1) the inland boundary; (2) the seaward boundary; (3) excluded lands; and (4) interstate boundaries.

### 1. The Inland Boundary

According to the CZMA, the inland boundary must include those lands, "the uses of which have a direct and significant impact on coastal waters." "Coastal Waters" are those waters which contain a measurable quantity or percentage of seawater. In Delaware, there are no lands more distant than eight miles from coastal waters. Inasmuch as the primary purposes in defining the boundary are (1) to assist coastal residents and property owners as well as resource users and governmental entities to understand the geographic scope of the management program and (2) to identify areas eligible for Coastal Energy Impact Program assistance, an inland boundary which can be described in a manner which is sufficiently clear and exact for such purposes is obviously preferable over one that is not. By defining the inland boundary in terms of existing political jurisdictions, the objectives of clarity and exactness can be realized. Thus the Delaware CMP has elected to utilize its county boundaries to define the inland boundary.

The federal Office of Coastal Zone Management (OCZM) has suggested that the utilization of county boundaries which border coastal waters is an acceptable option for many of the coastal states, including Delaware where such boundaries encompass the entire State. Defining the CMP inland boundary in terms of landward boundaries of the State has several advantages.

One, that small area in the State which is relatively distant from coastal waters does not have to be precisely identified and mapped for exclusion. Two, the CMP does not have to struggle with the definition of what constitutes a "direct and significant impact on the coastal waters." Instead the CMP recognizes that certain large-scale uses within eight miles of coastal waters may have such impacts and that the inland boundary should therefore include the entire State. Three, by including all the State in the inland boundary, any jurisdiction in Delaware which may be adversely affected by energy development will be eligible to apply for assistance under the Coastal Energy Impact Program.

It is noteworthy that, during the course of program development, several comments were received which advocated adoption of a relatively small inland boundary. Given the pervasive influence of coastal waters in Delaware, however, OCZM and OMBP mutually concluded that such a boundary would not satisfy the legal mandates of the CZMA. At best, only a small portion of the State could be rationally excluded pursuant to the requirements, and such exclusion was deemed not worth the attendant administrative difficulties.

It should also be pointed out that most of the CMP regulatory controls apply only in those areas traditionally viewed as coastal areas, not the entire State. Such areas include the wetlands, beaches, coastal strip (the Delaware Coastal Zone Act's "coastal zone"), and underwater lands. The entire State will be subject only to the provisions of the broader program -- primarily coordination, information systems, and the water and air quality programs.

## 2. The Seaward Boundary

The seaward boundary is clearly defined in the CZMA. It is the three mile outer limit of the United States territorial sea. The lateral seaward boundaries between New Jersey and Delaware, and Delaware and Maryland have not been determined yet. The boundary in the Delaware River and Bay however, has been fixed according to a United States Supreme Court decision and is approximately the mid-channel of the River and Bay from the mouth of the Bay to the southern edge of a circle drawn 12 miles around the City of New Castle. North of that point to the Delaware northern boundary, the boundary is the low water mark on the New Jersey side of the River. It is anticipated that the states may have difficulty agreeing upon the remaining boundaries, and that OCZM may have to delimit them, subject to court review.

Regardless of what seaward boundaries are ultimately used, it is important to bear in mind that they will be used for purposes of this program only and represent the area within which the CMP may be authorized and financed. These seaward limits are irrespective of any claims the State may have by virtue of the Submerged Lands Act or any changes that may occur as a result of the Fisheries Conservation and Management Act of 1976.

### 3. Excluded Lands

States must exclude from their coastal management zone those lands owned, leased, held in trust or whose use is otherwise by law subject solely to the discretion of the federal government.

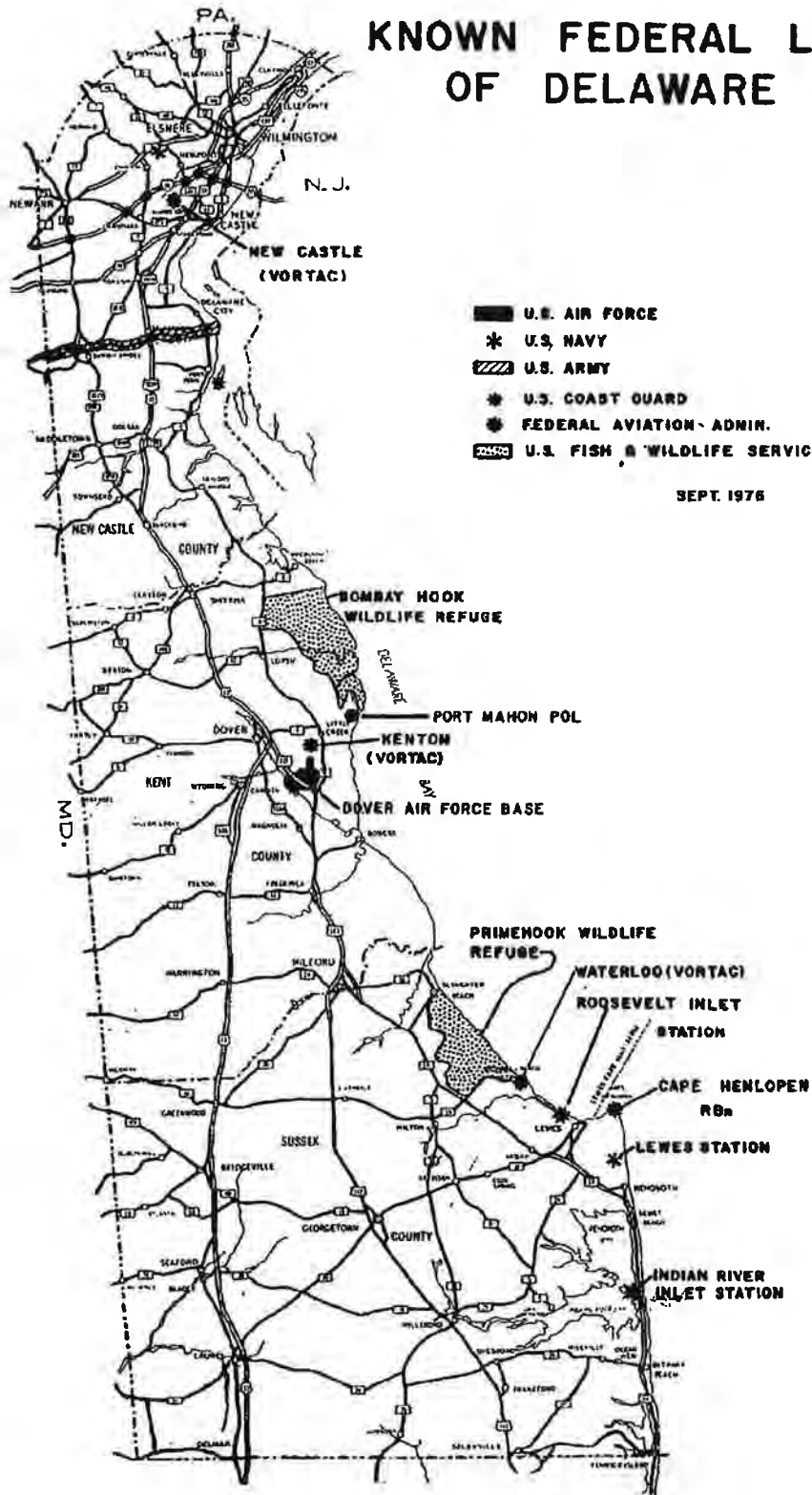
The exclusion of federal lands does not remove federal agencies from the obligation of complying with the consistency provisions of Section 307 of the CZMA when federal actions on these excluded lands have spillover impacts that significantly affect coastal areas, uses or resources within the purview of the CMP. Nor does such exclusion impair in any way any rights or authorities that the State may have over federal lands that exist separate from this program. Hence, as identified in Appendix F, federal development activities and projects on federal lands may be subject to a consistency review. Also, while federal agencies are exempt from "state permitting authority" they must comply with permits issued by a state pursuant to federal authority such as those required under the Clean Air and Clean Water Acts.

### 4. Interstate Boundaries

Although inland coastal management boundaries of contiguous States need not be coterminous, Delaware has consulted with adjoining coastal States during program development to minimize the possibility of incompatible uses occurring at the juncture of the boundaries. Several meetings were attended by the CMP managers and staffs of Delaware and the adjoining States to discuss program development issues, including resource use compatibility. In addition, WILMAPCO, which is comprised of representatives from Delaware, Maryland and New Jersey, has addressed various CMP-related issues, including the boundary situation in Salem County created by the United States Supreme Court decision mentioned above. That decision subjects parts of waters bordering Salem County, New Jersey to the Delaware Coastal Zone Act and other Delaware authority. Inasmuch as coastal resources of Delaware may be affected by certain uses of such waters, the Delaware CMP has opposed Salem County efforts to waive the Delaware's regulatory provisions which may relate to development in Salem County.

Two other specific interstate boundary issues taken up by the CMP with adjoining states include (1) the development and implementation of a statewide sediment and erosion control program which is based on a similar program in Maryland, and (2) the review of a New Jersey-Delaware fisheries compact. The latter action generated a Delaware Attorney General's Opinion which has afforded the State increased and needed flexibility in managing its fishery resources.

# KNOWN FEDERAL LANDS OF DELAWARE





# CZIC COLLECTION

PROPOSED NEW JERSEY COASTAL MANAGEMENT PROGRAM

AND

DRAFT ENVIRONMENTAL IMPACT STATEMENT

## COASTAL ZONE INFORMATION CENTER

May 1980

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Prepared by:

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Office of Coastal Zone Management

HT 393, N5 P 763 1980 C.Z.

MAR 13 1987



STATE OF NEW JERSEY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF THE COMMISSIONER  
P. O. BOX 1390  
TRENTON, N. J. 08625  
609-292-2885

Dear Friend of the Coast:

I am proud to submit to you the Proposed New Jersey Coastal Management Program and Draft Environmental Impact Statement. Preparation of this document begins the last phase of the review process under Section 306 of the federal Coastal Zone Management Act.

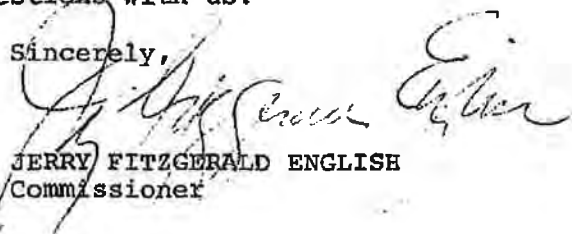
This proposed program is based upon our experience administering the Coastal Management Program approved by the National Oceanic and Atmospheric Administration for the Bay and Ocean Shore Segment in September 1978, and more than five years of coastal management and planning. The program will provide the substantive framework for Governor Byrne's Riverlands Renaissance Program, while also enabling New Jersey to continue balancing the many coastal interests and pressures to both protect sensitive resources and promote necessary development. New Jersey has already demonstrated that these two objectives need not be mutually exclusive.

The Department of Environmental Protection (DEP), as New Jersey's lead coastal agency, will undertake a series of public hearings and informal workshops throughout the State to discuss this Proposed Program with a wide range of federal, state and local agencies, interest groups and citizens to help identify the revisions that may be appropriate before the Governor's formal review and request for federal approval of the program.

While the responsibility for this document rests with DEP, the Proposed Program is already much better than it would otherwise have been because of the time taken by hundreds of New Jersey residents, elected officials, public agencies, and other interested people to review and comment upon earlier drafts and papers, and to attend public meetings we have held during the past five years.

I invite you to carefully review this Proposed Program and to discuss your comments and suggestions with us.

Sincerely,

  
JERRY FITZGERALD ENGLISH  
Commissioner

NOTE TO READER/NEPA SUMMARY

The National Environmental Policy Act of 1969 (NEPA) mandates that an environmental impact statement be prepared as part of the review and approval process of major actions by Federal agencies. The action contemplated is approval of the Proposed New Jersey Coastal Management Program under Section 306 of the Federal Coastal Zone Management Act of 1972, as amended (CZMA). An immediate effect of approval is the qualification of the State for Federal matching funds for use in administering the Coastal Management Program. In addition, New Jersey will be eligible for continued funding under the Coastal Energy Impact Program (CEIP). The federal Coastal Zone Management Act stipulates that Federal activities affecting the coastal zone shall be, to the maximum extent practicable, consistent with an approved State coastal management program.

This document is organized as follows:

Part I - Summary

Part II - New Jersey Coastal Management Program - Description of the Program

Part III - Description of the New Jersey Coastal Zone - Affected Environment

Part IV - Environmental, Economic and Institutional Consequences

Part V - Alternatives to the Proposed Action

Appendices A-I - The appendices are also part of the Program.

For purposes of reviewing this proposed action, the key concerns are:

- whether the Coastal Management Program is consistent with the objectives and policies of the national legislation,
- whether the State management authorities are adequate to implement the program,
- whether the award of Federal funds under Section 306(h) of the Federal Act will help New Jersey to meet those objectives, and
- whether there will be a net environmental gain as a result of Program approval and implementation.

The Federal Office of Coastal Zone Management believes the answers to these key questions are affirmative. The Office is widely circulating this document to all interested agencies and parties in order to receive the fullest expression of opinion on these questions. The Federal Office of Coastal Zone Management thanks those participating in the review of the Proposed New Jersey Coastal Management Program and this draft environmental impact statement.

This Program is of major significance, not only to New Jersey, but to the Nation. New Jersey is the nation's most densely populated state and the resources of its coastal zone are under intense pressure from development decentralizing out of the nation's first and fourth largest cities, from exploration and potential

development of offshore oil and gas reserves, and from development attracted to the Atlantic City area by casino gambling. Yet New Jersey still has miles of undeveloped tidal marsh along the shore of Delaware Bay and undisturbed beaches and dunes in Island Beach State Park. In no other state do coastal planners face a greater challenge in achieving the national interest in providing for the wise use of coastal resources while preserving the sensitive ecology of the coastal zone.

NEPA Summary

Draft Environmental Impact Statement                       Final Environmental  
Impact Statement

Department of Commerce, National Oceanic and Atmospheric Administration,  
Office of Coastal Zone Management. For additional information about this proposed  
action or this statement, please contact:

Office of Coastal Zone Management  
National Oceanic and Atmospheric Administration  
Attn: Ms. Kathryn Cousins  
Regional Manager, North Atlantic Region or  
David R. Duncan  
Program Assistant, North Atlantic Region  
3300 Whitehaven Street, N.W.  
Washington, D.C. 20235  
Phone: 202-634-4126

1. Type of Action

Proposed Federal approval of Proposed New Jersey Coastal Management Program

Administrative                       Legislative

2. Brief Description of Action

It is proposed that the Secretary of Commerce approve the Coastal Management Program of the State of New Jersey pursuant to P.L. 92-583. Approval would permit implementation of the proposed Program, allowing program administration grants to be awarded to the State, and require that Federal actions be consistent with the Program, to the maximum extent practicable.

3. Summary of Environmental Impacts and Adverse Environmental Effects

Approval and implementation of the Program will allow the State to implement more effectively existing State management within the coastal zone. The State will condition, restrict, or prohibit selected land and water uses in some parts of the New Jersey coast, while encouraging development in other parts. Each coastal municipality will retain primary responsibility for managing land use along its coast. The impacts of the New Jersey Coastal Management Program will be generally beneficial, although there may be some adverse, short-term economic impacts on some coastal users, and the Program will entail the irreversible commitment of coastal resources.

4. Alternatives Considered

A. Federal Alternatives

The Assistant Administrator could delay or deny approval of the New Jersey Coastal Management Program under the following conditions if:

1. The authorities necessary to implement the Coastal Management Program were not in place at the time of Program approval.
2. The Program does not adequately achieve the goals of the Coastal Zone Management Act as expressed by Congress in Section 303 of the Act.
3. The national interest in the siting of facilities in the coastal zone were not adequately considered.

B. State Alternatives

1. The State could withdraw its application and not seek Federal assistance.
2. The State could wait until new legislation is adopted before submitting a final EIS for federal approval.
3. The State could choose not to reinterpret the Waterfront Development Law to encompass an upland jurisdiction.
4. The State could designate DEP as the management agency for the coastal zone part of the Hackensack Meadowlands District.

5. A list of all Federal, State and Local Agencies and other parties from which comments were requested is listed in the Appendix H.
6. This DEIS was submitted to EPA on \_\_\_\_\_, 1980.
7. The Final Environmental Impact Statement (FEIS) will be sent during the thirty-day review period only to persons commenting on this DEIS and persons who specifically request it.

**DESIGNATION:** Draft Environmental Impact Statement

**TITLE:** Proposed Federal Approval of the New Jersey Coastal Management Program

**ABSTRACT:** The State of New Jersey has submitted its Coastal Management Program to the Office of Coastal Zone Management for approval. Approval would permit implementation of the proposed Program, allow program administration grants to be awarded to the State, and require that federal actions be consistent with the Program. This impact statement includes a copy of the Program (Part II) which is a comprehensive management program for land and water use activities. It consists of numerous policies on diverse management issues which are enforced by various state laws, discusses areas of special interest to the State, and is the culmination of several years of program development.

Approval and implementation of the Program will enhance governance of the state's coastal land and water areas and uses according to the coastal policies and standards. The effect of these policies is to condition, restrict or prohibit some uses in parts of the coastal zone, while encouraging development and other uses in other parts. This Program will improve decision-making processes for determining appropriate coastal land and water uses in light of resource considerations and increase public awareness of coastal resources. The Program will result in some short-term economic impacts on coastal users but will lead to increased long-term protection of the state's coastal resources.

Alternatives include delaying or denying approval if certain requirements of the Coastal Zone Management Act have not been met, or the State could modify parts of the Program or withdraw or delay their application for Federal approval.

**APPLICANT:** New Jersey Department of Environmental Protection, Division of Coastal Resources, Bureau of Coastal Planning and Development

**LEAD AGENCY:** U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
Office of Coastal Zone Management

**CONTACT:** Mr. David R. Duncan  
North Atlantic Regional Manager  
Office of Coastal Zone Management  
3300 Whitehaven Road, N.W.  
Washington, D.C. 20235 (Tele. 202/634-4126)

**COMMENTS:** Comment period on this statement ends July 7, 1980

PROPOSED NEW JERSEY COASTAL MANAGEMENT PROGRAM

AND

DRAFT ENVIRONMENTAL IMPACT STATEMENT

Commissioner's Letter  
Note to Reader  
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CHAPTER TWO - BOUNDARY

Summary  
Inland Boundary  
Seaward and Interstate Boundaries

\*\*\*\*\*

Summary

New Jersey's proposed coastal zone extends from the New York border south to Cape May Point and then north to Trenton. It encompasses the waters and waterfronts of the Hudson River and related water bodies south to the Raritan Bay, the Atlantic Ocean and some inland areas from Sandy Hook to Cape May, the Delaware Bay and some inland areas, and the waterfront of the Delaware River and related tributaries. This Chapter describes the proposed boundary, while Appendix B provides more detail and maps of the boundary, and the process for its delineation.

The proposed coastal zone encompasses areas in which the State, through the Department of Environmental Protection and the Hackensack Meadowlands Development Commission, has the authority to regulate land and water uses that have a significant impact on coastal waters. These authorities include the Coastal Area Facility Review Act (CAFRA), the Wetlands Act, the Waterfront Development Law, Tidelands statutes, and the Hackensack Meadowlands Reclamation and Development Act.

Inland Boundary

The inland boundary for the portion of the coast from Raritan Bay south to Cape May Point and then north along the Delaware Bay (consisting of parts of Middlesex, Monmouth, Ocean, Burlington, Atlantic, Cape May, Cumberland and Salem Counties), is defined as:

the landward boundary of the Coastal Area as defined in the Coastal Area Facility Review Act (CAFRA, N.J.S.A. 13:19-4), or the upper boundary of coastal wetlands located landward of the CAFRA boundary along tidal water courses flowing through the CAFRA area, whichever is more landward, including State-owned tidelands.

In the more developed portions of the State (including portions of Salem, Gloucester, Camden, Burlington, Mercer, Middlesex, Somerset, Union, Hudson, Essex, Passaic and Bergen Counties), the coastal zone boundary is defined as:

the landward boundary of the State's jurisdiction under the Waterfront Development Act (N.J.S.A. 12:5-3)\* or Wetlands Act (N.J.S.A. 13:9A-1), or the landward boundary of State-owned tidelands, whichever extends farthest inland.

---

\* The proposed definition of the inland jurisdictional boundary of the Waterfront Development Law is: the first public road, railroad right-of-way, or property line generally parallel to any navigable waterway, but in no case more than 500 feet or less than 100 feet inland from mean high water.

This boundary (discussed below in "Principal Program Authorities") ensures that the State will regulate at least the first 100 feet inland from all tidal waters. The State will consider all land within 500 feet of tidal water to be within this boundary unless demonstrated otherwise. This represents a substantial reduction from the coastal zone boundary DEP proposed in several publications between December 1976 and March 1979, which would have extended the coastal zone inland to the first road or railroad, regardless of its distance from the water (See Appendix B).

The boundary of the Hackensack Meadowlands region is defined as:

the boundary of the area defined as the Hackensack Meadowlands District by the Hackensack Meadowlands Reclamation and Development Act. (N.J.S.A. 13:17-4)

A generalized map of the Statewide Coastal Zone Boundary is shown in Figure 1 in Part I of this document, and Figure 2 is a sketch of the boundary in different parts of the State.

The proposed boundary encompasses approximately 1,792 miles of tidal coastline, including 126 miles along the Atlantic Oceanfront from Sandy Hook to Cape May. It ranges in width from one hundred feet to twenty-four miles (near Batsto and the Mullica River, in Burlington County). The total land area of the Bay and Shore region is approximately 1,376 square miles or 17 percent of New Jersey's land area.

Research indicates that there has been a rising trend in the level of the ocean, relative to coastal land, along the northern East Coast of the United States. Hicks' data places the rise at about 8 inches between the 1890s and 1970. If this trend continues, tidal waters will penetrate further up the State's coastal rivers. Should this change become significant, the coastal zone boundary and the area under the jurisdiction of the Waterfront Development Law, will be redelineated accordingly.

#### Seaward and Interstate Boundaries

The seaward boundary of the coastal zone is the three nautical mile limit of the United States Territorial Sea, and the interstate boundaries of the States of New York and Delaware and the Commonwealth of Pennsylvania.

In most of Salem County, the Delaware-New Jersey State boundary is the mean low water line on the eastern (New Jersey) shore of the Delaware River. The New Jersey and Delaware Coastal Management agencies have discussed this issue and have concluded that any New Jersey project extending beyond mean low water must obtain coastal permits from both states. New Jersey and Delaware, therefore, will coordinate reviews of any proposed development that would span the interstate boundary to ensure that no development is constructed unless it would be consistent with both state coastal management programs.

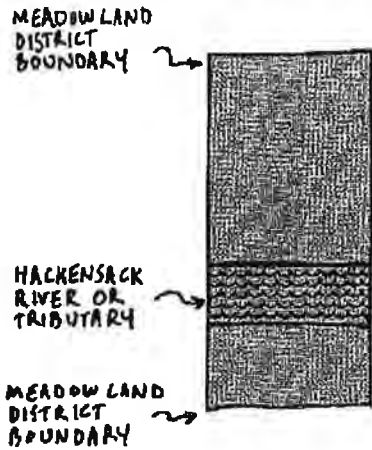
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\* S.D. Hicks, "As the Oceans Rise", National Ocean Survey, NOAA, Vol. 2, No. 2, pp. 22-24, 1972.

Figure 2

# PROPOSED NEW JERSEY COASTAL ZONE-BOUNDARY SKETCH

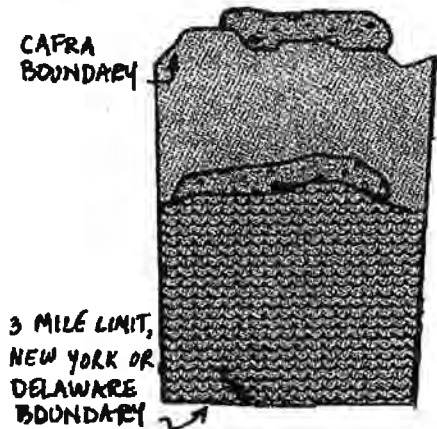
## 1 HACKENSACK MEADOWLANDS GENERALIZED CZ BOUNDARY



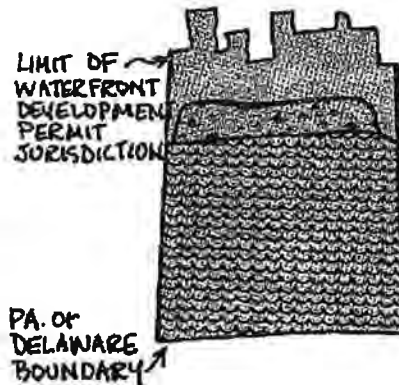
## 2 NORTHERN WATERFRONT GENERALIZED CZ BOUNDARY






## 3 BAY & OCEAN SHORE SEGMENT GENERALIZED CZ BOUNDARY



## 4 DELAWARE RIVER AREA GENERALIZED CZ BOUNDARY



-  REGULATED WETLANDS
-  TIDAL WATERS
-  PROPOSED COASTAL ZONE

New Jersey also recognizes that most electric generating facilities may not be coastal-dependent but do require access to vast quantities of cooling waters, a siting factor that, from the perspective of utilities, increases the attractiveness of coastal locations. This siting policy strikes a balance among various competing national, regional, and state interests in coastal resources, and recognizes some of the differences in the siting requirements of fossil fuel and nuclear generating stations.

The policy directs fossil fuel stations toward built up areas in order to preserve and protect particularly scenic and natural areas important to recreation and open space purposes. New Jersey has articulated this policy with a conscious recognition of the state's progress in attaining and maintaining high air quality. Given the use of appropriate control technology, coal-fired generating stations, for example, appear feasible at various coastal locations. The siting of coal-fired power plants in urban areas also promotes efficient energy use due to the proximity of power plants to load centers.

The nuclear siting policy recognizes public concern for the disposal of spent fuel, as mandated in 1973 by the New Jersey Legislature in CAFRA.

(n) Liquefied Natural Gas (LNG) Facilities

1. Policy

(i) New marine terminals and associated facilities that receive, store, and vaporize liquefied natural gas, and serve base load demand [for transferring, transforming and storing liquefied natural gas, prior to distribution by pipeline,] are discouraged in the coastal zone [Bay and Ocean Shore Region] unless the proposed facility is located or constructed so as to neither unduly endanger human life nor property nor otherwise impair the public health, safety and welfare, as required by N.J.S.A. 13:19-10f, and complies with the Coastal Resource and Development Policies. In determining the acceptability of proposed LNG facilities, DEP shall also consider siting criteria such as: (a) applicable federal siting criteria, (b) the risks inherent in tankering LNG along New Jersey's water ways and rivers, (c) the risks inherent in transferring LNG onshore, and (d) the compatibility of the facility with surrounding land uses, population densities, and concentrations of commercial or industrial activity.

(ii) New LNG facilities that liquefy, store and vaporize LNG to serve demand during peak periods shall be located in generally remote, rural, and low-density areas where land use controls and/or buffer zones are likely to be maintained.

## 2. Rationale

New Jersey's policy on LNG facility siting recognizes the responsibilities of various federal agencies, including the Coast Guard and Office of Pipeline Safety Operations in the U.S. Department of Transportation, the Economic Regulatory Administration in the U.S. Department of Energy (US DOE), and the independent Federal Energy Regulatory Commission within USDOE, for management of various aspects of the siting and operations of LNG facilities. New Jersey seeks and welcomes rigorous and consistent federal LNG siting standards. In fact, the State of New Jersey petitioned the former Federal Power Commission in May 1976 for the issuance of such siting criteria. The petition (RM76-13) is still under consideration by the Federal Energy Regulatory Commission.

LNG facilities have been proposed in the 1970's in New Jersey's coastal region along the Delaware River at sites in Logan Township (Transco) and West Deptford Township (Tenneco) in Gloucester County, as well as on Staten Island, New York (Distrigas and Eastcogas), with a proposed natural gas pipeline connection to New Jersey under the Arthur Kill. [As of mid-1978] To date, none of these proposals have received the required federal approvals. The former New Jersey policy on LNG policy is based in part on the results of the Federal Power Commission staff alternative LNG terminal site analysis and recommendation that the West Deptford site not be approved (see Federal Power Commission, Bureau of Natural Gas, Draft Environmental Impact Statement for the Construction and Operation of a Liquefied Natural Gas Import Terminal in West Deptford, New Jersey, Docket No. CP 76-16, Tenneco LNG, Inc., December 1976). The tankering, transfer, and storage of LNG pose significant risks to public health, safety and welfare and may cause serious adverse environmental impacts which may not be restricted to one state, given the likely potential locations of LNG terminals along interstate waterways. New Jersey therefore recommends that the siting of LNG facilities be treated as a regional issue on an interstate basis, ideally by the adoption of consistent federal siting criteria. At the same time, NJDEP and NJDOE will continue to explore the potential and likely impacts of onshore and offshore sites for LNG facilities.

### 7:7E-7.5 Transportation Use Policies

#### (a) Roads

##### 1. Policy

New road construction shall be limited to situations where:

(i) a clear need exists, taking into account the alternatives of upgrading existing roads and of using public transportation to meet the need,

(ii) provision is made to include construction of bicycle and foot paths, except where these would not be feasible,



APPENDIX I - PREPARERS OF THE PROPOSED NEW JERSEY COASTAL MANAGEMENT PROGRAM AND DRAFT ENVIRONMENTAL STATEMENT

The Bureau of Coastal Planning and Development in the Division of Coastal Resources, Department of Environmental Protection prepared this document with the assistance of present and former staff of the entire Department, other state, federal and local agencies, interest groups and citizens. The preparers are listed below and, as required by regulations of the Council on Environmental Quality (1502.17), academic degrees and the number of years of relevant experience of the primary authors are listed in parentheses.

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This report was typed primarily by Vicky Posluszny of the DEP Word Processing Center under the leadership of May Stevens.

Special thanks to Assistant Commissioner for Natural Resources Donald T. Graham and Deputy Commissioner Betty Wilson. Thanks also to Chester Mattson of the Hackensack Meadowlands Development Commission, Assistant Commissioner Charles Richman and Administrator Edward J. Linky of the Department of Energy, and Deputy Attorney General John Van Dalen.

# **PROPOSED NEW JERSEY COASTAL MANAGEMENT PROGRAM**

## **PUBLIC HEARINGS**

TRENTON	JUNE 11, 1980 10:00 a.m.	State Museum Auditorium 204 West State St.
JERSEY CITY	JUNE 11, 1980 7:30 p.m.	Five Corners Library 678 Newark Ave.
CAMDEN	JUNE 12, 1980 10:00 a.m.	Rutgers University Law School-Room 207 5th and Penn Sts.
TOMS RIVER	JUNE 12, 1980 7:30 p.m.	Ocean County Courthouse Courtroom 1 Washington St.

**PUBLIC COMMENTS WILL BE ACCEPTED UNTIL JULY 7, 1980**

**TO TESTIFY AT THE PUBLIC HEARINGS OR TO OBTAIN FURTHER INFORMATION,  
WRITE THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, BUREAU OF  
COASTAL PLANNING AND DEVELOPMENT, P.O. BOX 1889 TRENTON, N.J. 08625  
OR CALL (609) 292-9762.**

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# NEW JERSEY COASTAL MANAGEMENT PROGRAM

AUGUST 1980

FINAL ENVIRONMENTAL IMPACT STATEMENT

U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
Office of Coastal Zone Management

*Nation's Oceanic and Atmospheric Administration*



DEPARTMENT OF ENVIRONMENTAL PROTECTION

Brendan Byrne  
Governor

Jerry Fitzgerald English  
Commissioner

The New Jersey Coastal Management Program and Final Environmental Impact Statement was prepared in part with financial assistance from the National Oceanic and Atmospheric Administration, Office of Coastal Zone Management, under the provisions of Section 305 of the federal Coastal Zone Management Act (P.L. 92-583, as amended).

Cover photo by David N. Kinsey

NEW JERSEY COASTAL MANAGEMENT PROGRAM

AND

FINAL ENVIRONMENTAL IMPACT STATEMENT

August 1980

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U.S. Department of Commerce  
National Oceanic and Atmospheric  
Administration  
Office of Coastal Zone Management  
3300 Whitehaven Street, N.W.  
Washington, D.C. 20235

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STATE OF NEW JERSEY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF THE COMMISSIONER  
P. O. BOX 139C  
TRENTON, N. J. 08625  
609-292-2885

July 31, 1980

Dear Friend of the Coast:

I am proud to submit to you the New Jersey Coastal Management Program and final Environmental Impact Statement. Approval of this document completes the review process under Section 306 of the Federal Coastal Zone Management Act.

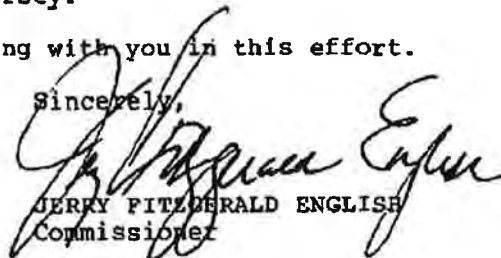
This program is based upon our experience administering the Coastal Management Program approved by the National Oceanic and Atmospheric Administration for the Bay and Ocean Shore Segment in September 1978, and six years of coastal management and planning. The program provides the substantive framework for Governor Byrne's Riverlands Renaissance Program, while also enabling New Jersey to continue balancing the many coastal interests and pressures to both protect sensitive resources and promote necessary development. New Jersey has already demonstrated that these two objectives need not be mutually exclusive.

The Department of Environmental Protection (DEP), as New Jersey's lead coastal agency, will continue to prepare publications and to hold public hearing and workshops throughout the state with a wide range of federal, state and local agencies, interest groups and citizens so that this Coastal Management Program is understood and fully used. In addition, I am committed to reviewing the Coastal Resource and Development Policies at least once each year to make necessary revisions and additions.

While federal approval of this coastal management program is a major accomplishment, it by no means concludes our coastal work. Rather, it provides a detailed framework through which we can all focus our efforts to address the range of crucial and complex coastal issues facing New Jersey.

I look forward to working with you in this effort.

Sincerely,



JERRY FITZGERALD ENGLISH  
Commissioner



**DESIGNATION:** Final Environmental Impact Statement

**TITLE:** Proposed Federal Approval of the New Jersey Coastal Management Program

**ABSTRACT:** The State of New Jersey has submitted its Coastal Management Program to the Office of Coastal Zone Management for approval. Approval would permit implementation of the proposed Program, allow program administration grants to be awarded to the State, and require that federal actions be consistent with the Program. This impact statement includes a copy of the Program (Part II) which is a comprehensive management program for land and water use activities. It consists of numerous policies on diverse management issues which are enforced by various state laws, discusses areas of special interest to the State, and is the culmination of several years of program development.

Approval and implementation of the Program will enhance governance of the state's coastal land and water areas and uses according to the coastal policies and standards. The effect of these policies is to condition, restrict or prohibit some uses in parts of the coastal zone, while encouraging development and other uses in other parts. This Program will improve decision-making processes for determining appropriate coastal land and water uses in light of resource considerations and increase public awareness of coastal resources. The Program may result in some short-term economic impacts on coastal users but will lead to increased long-term protection of the state's coastal resources.

Alternatives include delaying or denying approval if certain requirements of the Coastal Zone Management Act have not been met, or the State could modify parts of the Program or withdraw or delay their application for Federal approval.

**APPLICANT:** New Jersey Department of Environmental Protection, Division of Coastal Resources, Bureau of Coastal Planning and Development

**LEAD AGENCY:** U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
Office of Coastal Zone Management

**CONTACT:** Ms. Kathryn Cousins  
North Atlantic Regional Manager  
Office of Coastal Zone Management  
3300 Whitehaven Road, N.W.  
Washington, D.C. 20235 (Tele. 202/634-4126)

**COMMENTS:** Comment period on the Draft Environmental Impact Statement ended July 7, 1980.

NEW JERSEY COASTAL MANAGEMENT PROGRAM

AND

FINAL ENVIRONMENTAL IMPACT STATEMENT

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SUMMARY

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PART I - SUMMARY

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Program Summary

The New Jersey Coastal Management Program has been prepared to determine and describe New Jersey's strategy to manage the future protection and development of the coast. The State of New Jersey is seeking approval of the Program by the U. S. Department of Commerce to obtain the benefits of the federal Coastal Zone Management Act, which will aid State efforts to manage the often conflicting pressures facing the coast.

This document serves as a combined Coastal Management Program and as a Final Environmental Impact Statement, because federal approval of a state coastal management program is considered a "major action" requiring an environmental impact statement under the National Environmental Policy Act (NEPA). The New Jersey Department of Environmental Protection, Division of Coastal Resources (DEP-DCR) is preparing the Coastal Management Program in part with funding provided by the National Oceanic and Atmospheric Administration, Office of Coastal Zone Management (NOAA-OCZM).

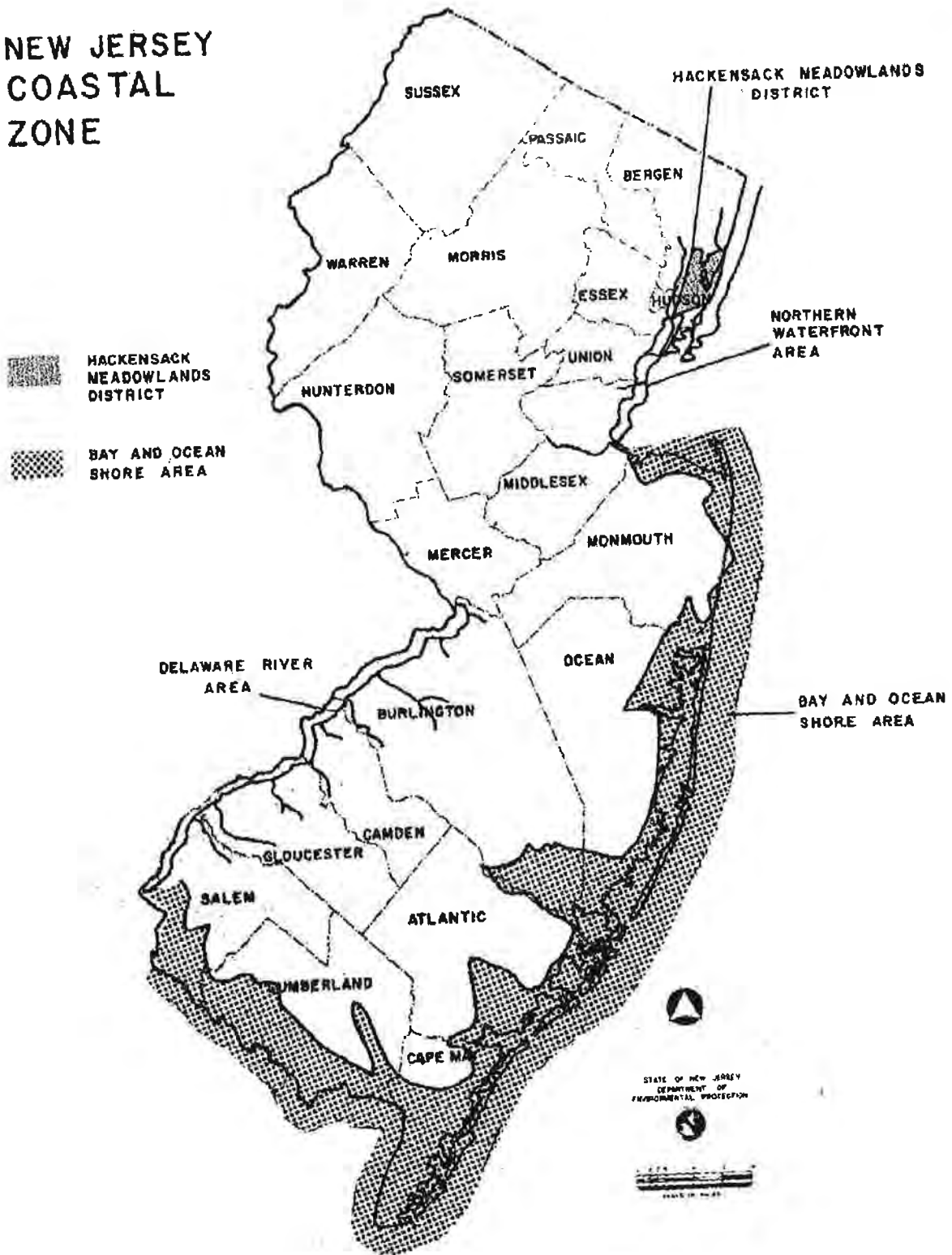
New Jersey, along with other coastal states, is using the federal Coastal Zone Management Act of 1972, as amended, to prepare a program intended to promote the wise use of its coastal areas. The Governor has assigned this responsibility to the New Jersey Department of Environmental Protection (DEP). The New Jersey program was developed in two parts. The first part, called the Bay and Ocean Shore Segment, begins at the Cheesequake Creek in Middlesex County, and includes the area south of Sandy Hook to the tip of Cape May and then north along the Delaware Bay to near the Delaware Memorial Bridge. The Coastal Management Program for this area received federal approval on September 29, 1978.

This Coastal Management Program and Final Environmental Impact Statement addresses New Jersey's entire coastal zone. It integrates the Coastal Management Program approved for New Jersey's Bay and Ocean Shore Segment by NOAA, with proposals for New Jersey's other tidally influenced waterfront areas in the northeastern part of the State along the Hudson River and related waters, and in the Hackensack Meadowlands, and in the southwestern part of the State along the Delaware River and its tributaries. These areas have been referred to as the "Developed Coast", a term which does not fully connote their diversity. While the coastal management program is designed to recognize regional as well as site specific differences, this document will avoid use of the phrase "Developed Coast", referring instead to the "Bay and Ocean Shore area", "Delaware River Area", "Northern Waterfront Area", and "Hackensack Meadowlands", the specific counties, municipalities or water bodies of concern, or to "the coastal areas outside of the Bay and Ocean Shore Segment" (See Figure 1).



Figure 1

# NEW JERSEY COASTAL ZONE



This document defines and explains the Coastal Resource and Development Policies and the management system the New Jersey Department of Environmental Protection, the New Jersey Department of Energy (NJDOE), and the Hackensack Meadowlands Development Commission (HMDC) will use in managing activities in this Coastal Program. The Coastal Policies are divided into three groups: (1) Location Policies evaluate specific types of coastal locations, such as wetlands and prime farm land; (2) Use Policies are directed at different uses of the coastal zone, such as housing and energy facility development; and (3) Resource Policies focus on controlling the effects of development, such as water runoff and soil erosion, and on the protection of natural and cultural resources. The use of these three groups of policies to evaluate a proposed development is termed use of the Coastal Location Acceptability Method (CLAM).

The Coastal Management Program will be implemented through existing laws and agencies. The principal legal authority will be the coordinated use of the Coastal Area Facility Review Act (CAFRA), Wetlands, and Waterfront Development permit programs, shore protection program, tidelands management program, the regulatory activities of the Department of Energy and the Hackensack Meadowlands Development Commission, and the funding programs available under the federal Coastal Zone Management Act and through the New Jersey Green Acres Administration.

#### Program History

New Jersey's interest in its tidal waters precedes the American Revolution, for under the public trust doctrine of English common law, tidal waters and the lands thereunder belonged to the sovereign for the common use of all the people. With the Revolution, the royal rights to the State's tidelands became vested in the people of New Jersey. In 1821, the State Supreme Court in Arnold v. Mundy (6 N.J.L. 1) articulated the State's right to convey, regulate, improve and secure the tidelands for the common benefit of every individual citizen, but also determined that neither the State nor the purchaser or licensee of tidelands could impair the public's common rights of fishing and navigation in tidal waters. In 1869, the General Riparian Act was passed setting forth the procedure by which an administrative agency, then the Riparian Commissioners, could alienate State-owned tidelands. Subsequent State Supreme Court decisions have declared that because tidal lands are held in public trust, the State must consider the broad public interest and must receive adequate compensation for these lands.

In 1914, the State Legislature showed its first interest in regulating the land areas along tidal waters when it passed the Waterfront Development Law. The Law requires that prospective developers obtain State agency approval for "all plans for the development of any water-front upon any navigable water or stream of this State or bounding thereon ..." (N.J.S.A. 12:5-3).

The next major law affecting the State's coastal area was the Hackensack Meadowlands Reclamation and Development Act passed 55 years later in 1969. To ensure the orderly development of the Meadowlands District, the law created the Hackensack Meadowlands Development Commission, provided it with authority to regulate all forms of development within the District, and instructed it to develop a master plan for the District.

Concern about the environment of the State's coastal zone was reflected in the Wetlands Act of 1970. The Wetlands Act delegated authority to the newly created Department of Environmental Protection to delineate and regulate development in all coastal wetlands of the State from the Raritan River Basin southward.

The next major legislative advance in coastal zone management occurred in 1973 when the State passed the Coastal Area Facility Review Act (CAFRA) giving DEP authority to regulate major development in the Bay and Ocean Shore Segment of the coastal zone to preserve environmentally sensitive sites and ensure a rational pattern of development, and also requiring the Department to prepare a strategy for the management area by September, 1977.

In 1972, the U.S. Congress passed the Coastal Zone Management Act, declaring a national interest in the effective management, beneficial use, protection and development of the coastal zone, and encouraging and assisting the states to develop and implement management programs to achieve wise use of the land and water resources of the coastal zone. In response to this federal initiative, the State has been working since 1974 to prepare and obtain federal approval for a statewide coastal management program.

Because DEP, under CAFRA, had already prepared a coastal management strategy for the Bay and Ocean Shore area in 1977, DEP elected to seek federal approval of this segment first, and to then complete the boundary, policy and management system suitable for the remainder of the State's coastal zone. Between 1974 and 1978, the Department collected data and viewpoints, and met with interested groups throughout the State, which provided a foundation for the coastal management program for the segment and for the rest of the State. One end result was a comprehensive set of Coastal Resource and Development Policies to be used by the Department to ensure consistent and predictable permit decision-making in the coastal zone. These were adopted as Departmental rules effective September 28, 1978 and the Coastal Management Program for the Bay and Ocean Shore Segment received federal approval the next day.

The first step toward continuing the coastal management program into the more developed portions of the State was publication of Options for New Jersey's Developed Coast in March 1979. In the report, DEP candidly discussed the opportunities and choices available to New Jersey under the federal Coastal Zone Management Act, with a particular emphasis on the state's more developed coastal areas. This report served as a basis for public comment and discussion in the Spring and early Summer of 1979.

Publication of the Proposed New Jersey Coastal Management Program and Draft EIS was the second step. The third step was the public review and comment on it and on the Options report. DEP staff met with, and received comments from many residents and people representing federal, state, county and municipal elected representatives and agencies, regional planning groups, and interest groups with environmental, civic, residential, industrial development, and other concerns. In addition, NJDEP and NOAA-OCZM jointly held four formal public hearings on the State's proposed coastal management program on June 11 and 12 in Camden, Jersey City, Toms River and Trenton.

NJDEP and NOAA-OCZM used the public comments to refine and, where necessary, rewrite the State's proposed coastal management program. This was the fourth and final step in the coastal program completion process. The product of this effort is this coastal management program and final environmental impact statement, which the Governor is submitting to NOAA-OCZM for federal approval.

#### Changes the Program Will Make

Federal approval of the New Jersey Coastal Management Program will not cause any dramatic immediate effects. Rather, the changes that will occur stem from the beginning of concerted coastal planning in New Jersey in the early 1970's, and will be realized gradually as the results of that planning are accepted and applied. A description of the proposed coastal zone as it is today and as it will become through implementation of a Coastal Management Program may be found in Part III. Federal approval is a major step toward the acceptance of the state's coastal planning activities which will help accelerate those changes which have begun in recent years.

Three general areas of change are being produced by the coastal program. In each case, these changes have already been brought about in the Bay and Ocean Shore Segment of the coast and will be realized in the remainder of the coastal zone with implementation of a Coastal Management Program. The first change caused by the proposed coastal management program is improved procedures for coastal land and water use decision-making. The adoption of the Coastal Resource and Development Policies as administrative rules will result in greater predictability of DEP coastal decisions. These rules substitute publicly debated and refined written policies for case-by-case decision making. The largely federally funded coastal planning effort has enabled New Jersey to employ a professional coastal planning staff for the past five years which has been able to incorporate new, as well as previously underused, information into State coastal policies. In some cases, the policies codify what had become administrative practice, while in others they will result in different decisions. The major change caused by these policies will be better use of New Jersey's coastal resources. The policies are summarized at the end of this Chapter and presented in full in Chapter Three.

In addition, DEP has adopted procedural rules for CAFRA and the Wetlands Act, established innovations such as the pre-application conference, and most recently reorganized the former Division of Marine Services into a Division of Coastal Resources, with a single permit office (instead of three) and increased monitoring and enforcement capabilities. These actions, coupled with the Legislature's enactment of the "90 Day Construction Permit Law", are creating a regulatory process in which developers and others can make their own plans on the basis of binding, and increasingly predictable, beneficial and efficient policies and procedures.

The second change caused by the coastal management program will be the availability of increased funding in New Jersey for coastal management. The State is currently receiving \$800,000 a year to implement the coastal program in the Bay and Ocean Shore Segment. Upon Federal approval of New Jersey's statewide program, the State will then become eligible to receive an estimated fourteen-month grant of \$2.1 million to implement the coastal program, and an estimated \$1.8 million in grants and \$4 million in credit assistance under the federal Coastal Energy Impact

Program. Part of the program implementation grant New Jersey receives will be used to administer the State's coastal permit programs and to increase the Department's monitoring and enforcement of coastal activities and decisions. The funds will also be used for research projects and continued planning to refine the Coastal Resource and Development Policies as necessary and to focus on additional issues and information which could improve the state's coastal management program. In addition, DEP intends to use part of the grant to initiate or promote specific state, county or municipal projects which would help further the Coastal Resource and Development Policies described in Chapter Four. Thus, a municipality could apply to DEP for funding to conduct a planning study for a specific project which would increase recreational, commercial, or industrial use of the waterfront in a manner consistent with the State's coastal policies. DEP expects that these small grants will be used in conjunction with funds available from the CETP program administered by the Department of Energy. These planning funds are intended as seed money to enable local governments to obtain larger implementation grants from other State, federal and private funding sources. Federal approval of the state-wide program will extend these benefits to 244 municipalities in seventeen counties.

Lastly, the coastal management program is bringing increased public focus on the coast. This is the change which makes other more specific changes possible. As people become more aware of the resources of the coast, and of the problems and opportunities the resources present, they become willing to devote more attention, support and money to various coastal issues. Issues such as public access to the waterfront, high rise construction, energy facility siting, and the use of urban waterfronts have all been subject to recent public discussion and debate. The Coastal Management Program has certainly not been the only cause of this concern, but it has sponsored, and will continue to promote, educational programs and publications, research, pilot projects, and revisions to State policies to increase public awareness and use of the coast.

#### Changes the Program will make Outside of the Bay and Ocean Shore Segment

Federal approval of a Statewide Coastal Management Program will bring the remainder of the coast the same benefits of consistent and predictable coastal permit decision making, federal funding for planning and permitting, and increased public awareness to coastal issues that is now enjoyed in the Bay and Ocean Shore Segment.

In addition, completion of the management program beyond the Bay and Ocean Shore Segment will entail a defining of DEP's jurisdiction under the Waterfront Development Law. This law gives the Department authority to regulate construction in the navigable waters of the State and the adjacent "waterfront". The inland extent of the "waterfront" has never been defined formally in the sixty-five year history of this law. Based upon its legislative history, the Department (with the agreement to the Attorney General) has decided that a boundary ranging from 100 to 500 feet inland of mean high water is consistent with the intent of the legislation. This change will be accomplished through the adoption of an administrative rule which will take effect September 26, 1980. This rule will entrust DEP with project review responsibility over all upland development along a narrow strip of land along coastal waters in the Delaware River Area and Northern Waterfront Area. It would cause no change in the CAFRA area. This proposal is not an extension of the CAFRA boundary. It is discussed in detail in Part II, Chapter Two, and the text of the proposed rule is included in Appendix D.

In the Hackensack Meadowlands District, the Coastal Management Program will not replace the adopted Meadowlands District Master Plan and associated policy documents as the guiding policies for the District. What the program will do is bring about closer coordination between the HMDC and the Department, provide federal funds to improve planning and program implementation in the District, and bring greater public awareness to the coastal resources of the Meadowlands District.

#### Changes the Program will make in the Bay and Ocean Shore Segment

The Coastal Management Program for the Bay and Ocean Shore Segment is in place and has received federal approval. Continuation of the program into the remainder of the State's coastal zone will have little impact on the Bay and Ocean Shore Segment. The one change that will be made is that the Coastal Resource and Development Policies will be amended to make them applicable statewide. There are some substantive changes in the policies affecting the Bay and Ocean Shore Segment. These changes were suggested by staff planning activities, public comment and project review experience, which would be deemed advisable even if the Coastal Management Program were not being extended beyond the Segment. The changes are included in the amended rules on Coastal Resource and Development Policies found in Chapter Four of Part II which will take effect September 26, 1980.

#### Integration of the Two Segments

Upon federal approval of a statewide coastal management program there will no longer be any distinction between the Bay and Ocean Shore Segment and the remainder of the coastal zone, except that the Segment will be a wider zone in which CAFRA is the principal regulatory authority. The Coastal Resource and Development Policies will be a unified set of policies to guide Departmental policies throughout the statewide coastal zone. The policies will, however, recognize site specific and regional differences, and will be more restrictive of new development in land areas in certain "limited growth" regions, all of which are in the Bay and Ocean Shore Area, than in "extension" or "development" regions, which are located both within and without the segment. In the Hackensack Meadowlands District, development will be regulated by the Hackensack Meadowlands Development Commission as lead agency, in accordance with its adopted Master Plan Zoning Regulations.

The overall result will be a comprehensive state-wide coastal management program in which environmentally sensitive "special areas" receive special protection wherever they are found, but in which the regulation of development in land areas will be most restrictive in the relatively pristine area near the shores of the Mullica River, Great Egg Harbor and Delaware Bay, and least restrictive in urban areas, and in the urban/suburban areas along the Delaware River, in northeastern New Jersey, and in the Hackensack Meadowlands District. Planning, funding and permitting will be carried out in a uniform statewide manner, except that different laws will be used to implement coastal objectives in different portions of the coastal zone.

#### Major Issues and Opportunities

This section of the Summary describes major coastal issues in New Jersey, including areas of controversy. The conflicting interests and viewpoints held by different groups on coastal issues demand that a meaningful coastal program be

controversial, while the complexity of the issues together with the dynamic quality of the coast itself suggest that no coastal program will ever be "complete" in the sense of having resolved all outstanding issues.

Sand dunes, power plants, surf clams, and the State's largest cities all share the resources of New Jersey's coast. Over the years numerous competing and often conflicting activities have converged on the Jersey Shore. New Jersey residents and tourists from all regions of the country spend their vacations at the Jersey Shore, which accounts for the vitality of New Jersey's second largest revenue-producing industry, tourism. Boaters, fishermen, divers, young and old enjoy the ocean breezes and salt air. Rapid development of the Shore area to accommodate those seeking relief from hot summers in the city, as well as those desiring permanent residence in a healthy environment, however, has created many competing pressures for the coast's fragile resources. New Jersey's wetlands were disappearing rapidly until the passage of the Wetlands Act in 1970. The barrier islands are overbuilt. The shoreline is eroding. Fish and shellfish resources are under intense pressure from recreational, commercial and industrial interests. The energy industry continues to examine the coast for potential sites for energy facilities. How can the New Jersey coast be maintained as a healthy ecosystem and guarded against the depletion of natural resources, while accommodating those resort-oriented and other activities and facilities which belong on the coast?

Away from the shore, the New Jersey coast is even more diverse and in demand for a wider range of activities. Despite, and in some cases because of, the more built up nature of the waterfront along the state's rivers and bays, the maintenance of existing natural areas and the restoration of spoiled areas is of great concern. In addition, the economic revitalization of New Jersey's cities is an increasingly recognized coastal issue, as urban waterfronts are seen to offer opportunities for rejuvenating and creating attractive residential and commercial areas. The more developed areas also support the state's ports and considerable industrial development which contribute to the state and national economy. A need to facilitate and in some cases expand these operations is likely, and will need to be considered in terms of the multiple coastal issues.

One of the major issues the Coastal Program addresses is water quality. The water bodies in the coastal area are crucial to the vitality of the coastal ecosystem and the protection of the health and safety of coastal and many inland residents. Proper management can alleviate problems of contaminated ground and surface water, stream turbidity and land and bank erosion. Good water quality is also essential to the fish and shellfishing industry, as well as to sport fishermen and boaters.

Recent storms and increased development have contributed to New Jersey's eroding shoreline. Beach restoration and preservation are essential for maintaining New Jersey's thriving tourist industry. Construction along the beach and waterfront areas can also limit public access to the shore. High-rises built in the past have obstructed some panoramic vistas, and some beachfront development has interfered with passive and active coastal recreation.

The coast does not just include pristine areas. Many of the once thriving urban waterfronts in New Jersey are now vacant land and unused, poorly maintained docks. Atlantic City and its region faces a unique set of development pressures from casino gambling and offshore oil and gas exploration. Camden, Jersey City, Newark and other cities face more traditional urban problems while possessing greatly underused waterfront areas.

Energy is one of the most complex issues facing the entire country. The Jersey coast currently has two operating nuclear plants and four more are under construction. Oil and gas exploration off New Jersey's coast is now a reality, and development is still a possibility. New Jersey will have to grapple with the new demands which will be placed on the coast's resources by these activities and associated facilities.

Public concern for prudent coastal management reflects a general concern for the quality of life. People want to live in a healthy environment, and provide a healthy environment for all the other living resources which are part of the coastal ecosystem. However, the public often expresses concern over the morass of regulations at all levels of government directed toward management of public goods and resources. Often, the applications, fees, permits and time delays appear to overshadow the intended benefits of a resource management program.

Despite the federal and state legislation for coastal management in New Jersey, the coastal program faces several constraints. New Jersey's coastal laws, while progressive by national standards, are not perfect. By relying primarily upon laws passed in 1914, 1968, 1970, 1973 and 1977, the state's coastal management program is faced with both regulatory duplication, so that development proposals may require more than one coastal permit, and regulatory gaps which prevent the State from fully protecting potentially valuable natural resources and developments. DEP has addressed some of those issues through the reorganization of the Division of Coastal Resources. The Coastal Management Program will provide a focus for additional steps in this direction. The result is that New Jersey has adequate legal authority for federal approval of its coastal management program but also faces challenges for future legislative and administrative reform.

In addition, the real property tax system has led to inter-municipal rivalry for ratable-producing property. Construction and development often take precedence over concern for open space in some financially hard pressed municipalities. New Jersey's strong tradition of home rule has meant that some municipalities make individual development decisions with little regard for regional impacts, posing severe constraints for the proper management of coastal regions. Also, the actions, or lack of action, of neighboring states can affect New Jersey's coast.

Coastal management in New Jersey is a delicate process, balancing fragile and sensitive environmental resources with development essential to the economy of the state. The public wants to work, live, and play, in the coastal zone, as well as to develop, restore and protect the coast. The agenda of coastal zone management ranges from dredge spoil disposal to rehabilitation of urban neighborhoods, from protection of surf clam beds to preservation of dunes. This requires a program that is dynamic and flexible to change, and, most important, responsive to the concerns of the citizenry, while being sufficiently specific to indicate to public officials and private interests the implications of the program.



This Coastal Management Program is a tool for making decisions, but it is not a panacea. It is important to understand that this document is not a detailed, rigid plan indicating only one activity which can or should take place on each site, block, or acre in the coastal zone. New Jersey has deliberately designed a program which accommodates the creativity, interests, and initiative of individual land owners, developers, citizens, and others, and recognizes the State's historic commitment to a strong role for local governments in land use decision-making. The Program, therefore, focuses on coastal resource management decisions with greater than local significance that the Legislature has entrusted to State agencies. The Coastal Program provides enforceable policies to form predictable and consistent decisions which will best manage New Jersey's coast.

#### Major Conclusions - Basic Coastal Policies

The major conclusions of the New Jersey Coastal Management Program are summarized by eight proposed basic coastal policies. These policies are recommended objectives for all public and private land and water use decision-making in the coastal zone, and they summarize the direction of the legally binding, specific Coastal Resource and Development Policies included in Chapter Four of the description of the New Jersey Coastal Management Program (Part II of this FEIS).

##### 1. Protect and Enhance the Coastal Ecosystem

Although severely stressed by centuries of use as a waste disposal area, the estuarine complex in developed coastal areas is showing some signs of recovery under the influence of recent federal and state water quality legislation and resulting waste treatment facility construction. Portions of the Hackensack Meadowlands, for example, are witnessing a return of species absent for many years due to poor water quality. While the industrial and commercial nature of the waterfront together with high population densities preclude reattainment of the pristine conditions of the distant past, it is not unreasonable to expect that ambient standards set under the Federal Clean Air Act and Federal Clean Water Act can be attained, that certain natural areas can be restored, and that the urban waterfront can once again provide recreational and employment opportunities for area residents.

The coastal ecosystem is fragile and special, and is characterized by a combination of beaches and the ocean, tidal and inland wetlands, flood plains, estuarine areas, bays, streams and stream corridors, vegetation communities and wildlife habitats. These natural features make the area a desirable place to visit, which in turn fosters the state's tourist industry. The same features make the coastal region a productive area for agriculture and commercial and recreational fishing. If the ecosystem is not protected, not only will natural resources and processes be harmed, but the economy of the area and of the state will suffer.

##### 2. Concentrate Rather than Disperse the Pattern of Coastal Residential, Commercial, Industrial, and Resort Development and Encourage the Preservation of Open Space

The special characteristics of the coast attract many different types of development to an area which is limited in size. The concentration of development is the most efficient way to use this limited space because it allows a large variety of activities to be located in the coastal zone while minimizing conflicts which could occur between activities such as industry and housing if they were

located near each other. In addition, the concentration of development can provide large expanses of open space which can, in some areas, be more useful to the public than a similar amount of open space scattered among many small private parcels. The policy to concentrate development does not apply to nuclear generating stations and liquefied natural gas (LNG) facilities.

3. Employ a Method for Decision-Making Which Allows Each Coastal Location to be Evaluated in Terms of Both the Advantages and the Disadvantages It Offers for Development

Traditionally, land and water use planning has focused exclusively on environmental features which offer disadvantages for development or which should be preserved. Each location, however, can also be evaluated in terms of the advantages it offers for development. A site near existing roads, for example, could be developed with less coastal and environmental disturbance than a more isolated site. This policy insures that both types of factors will be considered in decision-making under the Coastal Management Program.

4. Protect the Health, Safety and Welfare of People who Reside, Work and Visit in the Coastal Zone

This basic policy is a reminder that people use the coast for different purposes and have different needs and expectations. The quality of human life improves if needed development is built in a manner which respects the natural and built environment.

5. Promote Public Access to the Waterfront Through Linear Walkways and At Least One Waterfront Park in Each Waterfront Municipality

Along much of the waterfront, particularly in developed areas, highways or underutilized private property prevent residents from being able to walk, fish or otherwise enjoy the shores of rivers and bays. In some locations, high-rise buildings immediately adjacent to the waterfront block visual access to the water. Discouraging new highways and high-rise buildings adjacent to the waterfront, providing pedestrian bridges over existing highways, publicly purchasing selected waterfront properties, and obtaining easements for public access over other properties can increase the value of the waterfront to the surrounding communities, by making possible linear walkways, bikeways and vita courses along the waterway.

The waterfront in much of the coastal zone does provide sites where urban and suburban residents can relax, walk, fish, or play, even in areas where swimming is not currently advisable. The waterfront offers views of boats and shorelines, fresh breezes and a sense of openness not otherwise available in most urban areas. Waterfront parks, by bringing people to the waterfront, also help raise public consciousness about water quality and waterfront use and development.

Waterfront parks do not have to be large or elaborate. The success of Liberty State Park in Jersey City has demonstrated that an attractive, green area by the water can attract many people. It has also proved that a park can be extremely beneficial in a location which many believed was unsuited to a park. Nevertheless, for some municipalities, a waterfront park may make little sense due to the lack of an appropriate site or too small a nearby population. The specific policies on recreation, therefore, will exempt such areas from the policy.

6. Maintain Active Port and Industrial Facilities, and Provide for Necessary Expansion in Adjacent Sites

The proposed New Jersey coastal zone includes thriving port and industrial facilities along both the Northern Waterfront and the Delaware River Areas. The continued vitality of these facilities is important to the state's economy and helps New Jersey contribute to several national interests.

7. Maintain and Upgrade Existing Energy Facilities, and Site Additional Energy Facilities Determined to be Needed by the N.J. Department of Energy (DOE) in a Manner Consistent with the Policies of this Coastal Management Program

The Northern Waterfront and Delaware River Areas of the proposed coastal zone contain many of the East Coast's energy facilities for crude oil refining, petrochemical manufacture and electricity generation. Crude oil refining and petrochemical manufacture serve national needs. Electricity is generated for regional needs. Provided these facilities comply with federal air, water, toxic substance and other applicable regulations, the continued operation and needed expansion of existing petrochemical and oil refining facilities are expected to be acceptable under the New Jersey Coastal Management Program. Electric generating facilities must be in compliance with the same federal standards, and also must be determined to be needed by the N.J. Department of Energy.

The New Jersey Department of Energy (DOE) is responsible for determining what new energy facilities are needed in the State. DEP will use the specific policies of the coastal management program to ensure that the facilities determined to be necessary by NJDOE are located on sites where they can operate efficiently without threatening the health or welfare of area residents or natural resources.

8. Encourage Residential, Commercial, and Recreational Mixed-Use Redevelopment of the Developed Waterfront

Sections of abandoned and deteriorating waterfront property are suitable for residential, commercial or recreational reuse depending on their location. DEP will aid counties, municipalities, and developers in design of plans and programs to redevelop these lands to more beneficial uses.

The waterfront in or near urban areas can be creatively designed and used to accommodate diverse activities which might, at first glance, be considered infeasible or incompatible. Waterfront projects will be encouraged which include, for example, housing, public open space and commercial developments such as restaurants and stores.

Others have suggested combining industry and ports with recreation and education. If safely constructed, for example, a bike path could follow the outskirts of an industrial facility to a park, or a public area near a port could be designed to give people a view of the port in action, as the more familiar "nature interpretative trails" offer ecological understanding.

This Basic Policy is a recognition that developed waterfront areas in New Jersey, because of the views they offer and the large nearby population, provide unique opportunities for nontraditional, as well as traditional, forms of development and redevelopment.

## Federal Coastal Zone Management Act (FCZMA)

In response to intense pressure, and because of the importance of coastal areas of the United States, Congress passed the Coastal Zone Management Act (P.L. 92-583) which was signed into law on October 27, 1972. The Act authorized a Federal grant-in-aid program to be administered by the Secretary of Commerce, who in turn delegated this responsibility to the National Oceanic and Atmospheric Administration's (NOAA) Office of Coastal Zone Management (OCZM). The Coastal Zone Management Act of 1972 was substantially amended on July 26, 1976 (P.L. 94-370). The Act of the 1976 amendments affirm a national interest in the effective protection and development of the coastal zone by providing assistance and encouragement to coastal states to voluntarily develop and implement rational programs for managing their coastal areas.

Broad guidelines and the basic requirements of the CZMA provide the necessary direction to States for developing coastal management programs. These guidelines and requirements for program development and approval are contained in 15 CFR Part 923 as revised and published, March 28, 1979, in the Federal Register. In summary, the requirements for program approval are that a State develop a management program that:

- (1) Identifies and evaluates those coastal resources recognized in the Act that require management or protection by the State;
- (2) Re-examines existing policies or develops new policies to manage these resources. These policies must be specific, comprehensive and enforceable, and must provide an adequate degree of predictability as to how coastal resources will be managed;
- (3) Determines specific uses and special geographic areas that are to be subject to the management program which should be based on resources capability and suitability analyses, socio-economic considerations and public preferences;
- (4) Identifies the inland and seaward areas subject to the management program;
- (5) Provides for the consideration of the national interest in the planning for and siting of facilities that meet more than local requirements; and
- (6) Includes sufficient legal authorities and organizational arrangements to implement the program and to insure conformance to it.

In arriving at these substantive aspects of the management program, States are obliged to follow an open process which involves providing information to and considering the interests of the general public, special interest groups, local government, and regional, State, inter-state and Federal agencies.

Section 305 of the CZMA authorizes a maximum of four annual grants to develop a coastal management program. After developing a management program, the state may submit it to the Secretary of Commerce for approval pursuant to Section 306 of the CZMA. If approved, the state is then eligible for annual grants under Section 306 to implement its management program. If a program has deficiencies which need to be remedied or has not received approval by the time Section 305 program development grants have expired, a state may be eligible for preliminary approval funding under Section 305(d).

Section 305 of the Act stipulates that Federal agency actions shall be consistent, to the maximum extent practicable, with approved State management programs. Section 307 further provides for mediations by the Secretary of Commerce when a serious disagreement arises between a Federal agency and a coastal State with respect to a Federal Consistency Issue.

New Jersey's Department of Environmental Protection discusses the purpose of developing a comprehensive program through participation in the Federal Coastal Zone Management Program and its desire to seek approval of its Program under Section 306 of the CZMA in Part I of this document.

Approval of the New Jersey Coastal Management Program is considered a major action which significantly affects the quality of the human environment. An immediate effect of approval is the qualification of the State for Federal matching funds for use in administering the program. In addition, the CZMA stipulates that Federal activities affecting the coastal zone shall be consistent to the maximum extent practicable with an approved management program.

It is the general policy of OCZM to issue a combined final environmental impact statement (FEIS) and program document. Parts III, IV, and V of this FEIS were prepared by OCZM. Parts I and II of this FEIS is a description of the State's program and was prepared by the New Jersey Department of Environmental Protection.

For purposes of reviewing the proposed action, the key questions are:

- whether the New Jersey Program is consistent with the objectives and policies of the national legislation.
- whether the award of Federal funds under Section 306 of the Federal act will help New Jersey to meet those objectives.
- whether the State's management authorities are adequate to implement the Program, and
- whether there will be a net environmental gain as a result of program approval and implementation.

OCZM has made an assessment that the answers to these questions are affirmative. OCZM wants the widest possible circulation of this document to all interested agencies and parties. OCZM thanks those participating in the review of the New Jersey Program and this Final Environmental Impact Statement.

DESCRIPTION OF THE PROPOSED NEW JERSEY  
COASTAL MANAGEMENT PROGRAM

- Chapter 1: Introduction
- Chapter 2: Boundary
- Chapter 3: Management System

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STATE OF NEW JERSEY  
OFFICE OF THE GOVERNOR  
TRENTON  
08625

BRENDAN T. BYRNE  
GOVERNOR

Mr. Michael Glazer  
Assistant Administrator for Coastal Zone Management  
U.S. Department of Commerce  
National Oceanic and Atmospheric Administration  
3300 Whitehaven Street, N.W.  
Washington, D.C. 20235

Dear Mr. Glazer:

The State of New Jersey submits the New Jersey Coastal Management Program for approval under Section 306 of the Federal Coastal Zone Management Act.

This program is the culmination of a six year process during which a wide range of agencies, interest groups and citizens have worked together to identify issues of concern, review draft recommendations and debate public policy on the coast. In the two years since New Jersey received federal approval of the Coastal Management Program for the Bay and Ocean Shore Segment, we have been able to dramatically improve the processes for coastal decision-making as well as the substance of those decisions. We have also learned from administering that approved program and have incorporated our experience this coastal management program for the State's entire coastal zone. In addition, new policies have been added to apply specifically to the more developed areas which are now part of the coastal zone.

I have reviewed this document and approved the management program for the New Jersey coastal zone as State policy. Accordingly, I have designated the Department of Environmental Protection as the single State agency to receive and administer implementation grants under Section 306 of the Coastal Zone Management Act.

I certify that the State of New Jersey has the legal authority necessary to implement the management program, and that the organizational structure necessary to implement the program is in place.

I believe that this coastal management program will enable the wise management of one of New Jersey's greatest assets, the coast.

Sincerely,

GOVERNOR

## CHAPTER ONE - INTRODUCTION

This part of the final environmental impact statement describes the New Jersey Coastal Management Program. This is the heart of the document and the focus of the other parts and of the appendices. Unlike some EIS's, it does not repeat all the information in Part I, but rather assumes the reader is somewhat familiar with this introductory material.

The Department of Environmental Protection (DEP) has prepared the New Jersey Coastal Management Program to protect the state's coastal resources while accommodating needed future development. The Program contains the statements of policy which will be followed by DEP in making coastal decisions and which will guide other public and private actions affecting the coast. The Coastal Management Program is also designed to enable New Jersey to meet the requirements, and thereby reap the benefits of the federal Coastal Zone Management Act. These include greater consistency between state and federal actions in the coastal zone, and the provision of federal funds for New Jersey's coastal management efforts.

DEP was given responsibility for preparing and administering the State's coastal management program by the Governor. DEP's enabling legislation, the Coastal Area Facility Review Act (CAFRA), Wetlands Act, Waterfront Development Law, and tidelands and shore protection statutes provide a strong mandate and basis for direct State agency involvement in key decisions involving the coastal region. The Department of Energy Act and the Hackensack Meadowlands Reclamation and Development Act give some coastal responsibilities to other State agencies, and these are also included in the Coastal Management Program.

The Coastal Management Program also contains the standards DEP will use to determine the consistency of actions proposed in the coastal zone by federal, state, and local agencies. New Jersey's coastal policies will be used to determine the consistency with the approved program of federal activities, development projects, licenses, permits, and financial assistance to the State and local governments under Section 307 of the federal Coastal Zone Management Act. The Coastal Program will aid DEP when it is called upon to review federal domestic financial assistance applications under the A-95 Project Notification and Review Process, as well as Environmental Impact Statements prepared under the National Environmental Policy Act. From time to time, DEP is also likely to receive requests for advice or comments on the adequacy or appropriateness of plans and proposals by government agencies and private interests. The Coastal Policies provide a visible basis for offering an informed comment on the consistency of these plans and proposals.

State funding decisions that affect coastal resources will also be guided by the Coastal Program. In particular, several important State aid, and direct State financing programs administered by DEP involve decision-making in the coastal zone: (1) the Green Acres Open Space Acquisition and Outdoor Recreation program of grants to local governments and direct DEP efforts, (2) the Shore Protection program of matching grants to local governments, and (3) the pass through grants DEP will make to local governments with funds available under the federal Coastal Zone Management Act.



The strong direct State role does not mean that DEP will regulate every proposed use of coastal resources within the defined coastal zone. Local governments in the coastal zone will continue to be solely responsible for the considerable amount of land and water use decision-making in the coastal zone which has no regional impact, as defined by State law.

New Jersey's coastal management program has three interrelated, basic elements: first, a boundary defining the general geographic scope of the program; second, Coastal Resource and Development Policies defining the standards for making decisions on what activities may take place within the boundary; and third, a management system defining the types of decisions subject to the program, and the process by which those decisions will be made. The Coastal Management Program, a guide to decision-making, resembles a tripod. All three legs, or elements, must be firmly in place for the Program to stand and work. All three elements function together and must be read and understood together, especially because of New Jersey's direct state control approach.

For example, if read out of the context of the overall management program, the Coastal Resource and Development Policies could be applied to every land and water use decision in the coastal zone, from the location of a single gas station to a nuclear generating station. That is not the intent here. Rather, the Coastal Resource and Development Policies are to be applied as substantive standards for decision-making for only those selected coastal decisions defined in the management system, particularly CAFRA, Wetlands, and waterfront development permit applications. The Coastal Policies could, however, because of their comprehensive nature, be used to guide other decisions not strictly subject to the New Jersey Coastal Management Program. The heart of the program remains, however, the combination of boundary definition, policy statements, and decision-making processes that in concert spell out New Jersey's approach to managing its coastal resources.

This Part of the EIS is presented in six chapters. Chapter Two defines the boundary proposed for the coastal zone. Chapter Three describes the management system which will be used within the boundary to carry out the Coastal Resource and Development Policies. Chapter Four presents the definitions, policies and rationales for the Coastal Resource and Development Policies which describe what should and should not take place in the coastal zone.

Chapter Five addresses seven special requirements of the federal Coastal Zone Management Act: Federal Consistency, National Interests, Regional Benefit Decisions, Geographic Areas of Particular Concern, Areas for Preservation and Restoration, Shoreline Access and Protection Planning, Shoreline Erosion Mitigation Planning Process, and the Energy Facility Planning Process. These sections, for the most part, repeat information in the first four Chapters but in a format which directly addresses the specific federal requirements and which provides greater detail. The proposed inclusion of the Hackensack Meadowlands Development Commission District is discussed in detail in this Chapter at the end of the section on Geographic Areas of Particular Concern.

Finally, Chapter Six outlines the next steps in the coastal management process in New Jersey, including public review and comment on this draft coastal management program, preparation of a final program, and activities New Jersey plans to pursue once the program receives federal approval.

CHAPTER TWO - BOUNDARY

Summary  
Inland Boundary  
Seaward and Interstate Boundaries

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Summary

New Jersey's coastal zone extends from the New York border south to Cape May Point and then north to Trenton. It encompasses the waters and waterfronts of the Hudson River and related water bodies south to the Raritan Bay, the Atlantic Ocean and some inland areas from Sandy Hook to Cape May, the Delaware Bay and some inland areas, and the waterfront of the Delaware River and related tributaries.

The coastal zone encompasses areas in which the State, through the Department of Environmental Protection and the Hackensack Meadowlands Development Commission, has the authority to regulate land and water uses that have a significant impact on coastal waters. These authorities include the Coastal Area Facility Review Act (CAFRA), the Wetlands Act, the Waterfront Development Law, Tidelands statutes, and the Hackensack Meadowlands Reclamation and Development Act.

Inland Boundary

The inland boundary for the portion of the coast from Raritan Bay south to Cape May Point and then north along the Delaware Bay (consisting of parts of Middlesex, Monmouth, Ocean, Burlington, Atlantic, Cape May, Cumberland and Salem Counties), is defined as:

the landward boundary of the Coastal Area as defined in the Coastal Area Facility Review Act (CAFRA, N.J.S.A. 13:19-4), or the upper boundary of coastal wetlands located landward of the CAFRA boundary along tidal water courses flowing through the CAFRA area, whichever is more landward, including State-owned tidelands.

In the more developed portions of the State (including portions of Salem, Gloucester, Camden, Burlington, Mercer, Middlesex, Somerset, Union, Hudson, Essex, Passaic and Bergen Counties), the coastal zone boundary is defined as:

the landward boundary of the State's jurisdiction under the Waterfront Development Act (N.J.S.A. 12:5-3)\* or Wetlands Act (N.J.S.A. 13:9A-1), or the landward boundary of State-owned tidelands, whichever extends farthest inland.

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\* The definition of the inland jurisdictional boundary of the Waterfront Development Law is: the first public road, railroad right-of-way, or property line generally parallel to any navigable waterway, but in no case more than 500 feet or less than 100 feet inland from mean high water.

This boundary (discussed below in "Principal Program Authorities") ensures that the State will regulate at least the first 100 feet inland from all tidal waters. The State will consider all land within 500 feet of tidal water to be within this boundary unless demonstrated otherwise. This represents a substantial reduction from the coastal zone boundary DEP proposed in several publications between December 1976 and March 1979, which would have extended the coastal zone inland to the first road or railroad, regardless of its distance from the water (See Appendix B).

The boundary of the Hackensack Meadowlands region is defined as:

the boundary of the area defined as the Hackensack Meadowlands District by the Hackensack Meadowlands Reclamation and Development Act. (N.J.S.A. 13:17-4)

A generalized map of the Statewide Coastal Zone Boundary is shown in Figure 1 in Part I of this document, and Figure 2 is a sketch of the boundary in different parts of the State.

The boundary encompasses approximately 1,792 miles of tidal coastline, including 126 miles along the Atlantic Oceanfront from Sandy Hook to Cape May. It ranges in width from one hundred feet to twenty-four miles (near Batsto and the Mullica River, in Burlington County). The total land area of the Bay and Shore region is approximately 1,376 square miles or 17 percent of New Jersey's land area.

Research indicates that there has been a rising trend in the level of the ocean, relative to coastal land, along the northern East Coast of the United States. Hicks data places the rise at about 8 inches between the 1890s and 1970. If this trend continues, tidal waters will penetrate further up the State's coastal rivers. Should this change become significant, the coastal zone boundary and the area under the jurisdiction of the Waterfront Development Law, will be redelineated accordingly.

#### Seaward and Interstate Boundaries

The seaward boundary of the coastal zone is the three nautical mile limit of the United States Territorial Sea, and the interstate boundaries of the States of New York and Delaware and the Commonwealth of Pennsylvania.

In most of Salem County, the Delaware-New Jersey State boundary is the mean low water line on the eastern (New Jersey) shore of the Delaware River. The New Jersey and Delaware Coastal Management agencies have discussed this issue and have concluded that any New Jersey project extending beyond mean low water must obtain coastal permits from both states. New Jersey and Delaware, therefore, will coordinate reviews of any proposed development that would span the interstate boundary to ensure that no development is constructed unless it would be consistent with both state coastal management programs.

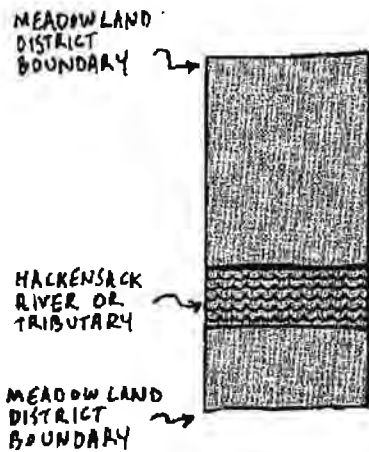
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\* S.D. Hicks, "As the Oceans Rise", National Ocean Survey, NOAA, Vol. 2, No. 2, pp. 22-24, 1972.

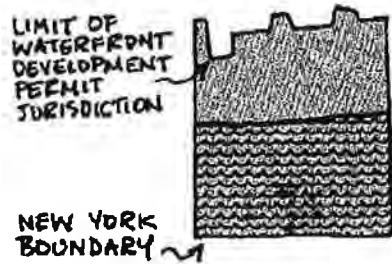
Figure 2

# NEW JERSEY COASTAL ZONE BOUNDARY SKETCH

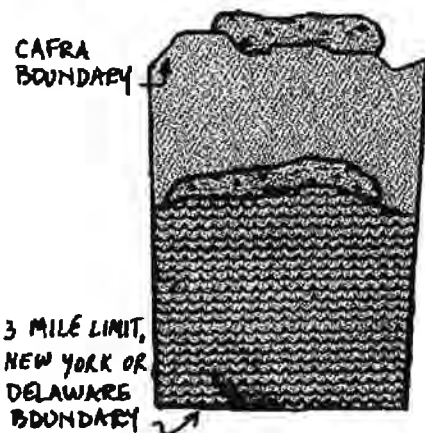
## 1 HACKENSACK MEADOWLANDS GENERALIZED CZ BOUNDARY



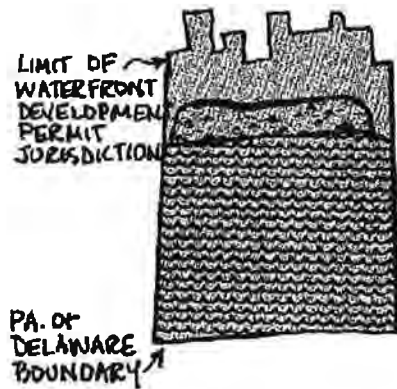
## 2 NORTHERN WATERFRONT GENERALIZED CZ BOUNDARY






## 3 BAY & OCEAN SHORE SEGMENT GENERALIZED CZ BOUNDARY



## 4 DELAWARE RIVER AREA GENERALIZED CZ BOUNDARY



-  REGULATED WETLANDS
-  TIDAL WATERS
-  PROPOSED COASTAL ZONE

CHAPTER THREE - MANAGEMENT SYSTEM

MANAGEMENT SYSTEM

- Introduction and Summary
- Administrative Framework-Department of Environmental Protection
- Principal Program Authorities
  - Introduction
  - Waterfront Development Law
  - Coastal Area Facility Review Act
  - Wetlands Act
  - Tidelands Management
  - Hackensack Meadowlands Development Commission
  - Department of Energy
  - Green Acres Funding
  - Shore Protection
  - Coastal Program Funding
- Supplementary Program Authorities
  - Water Quality Program
    - NPDES Permits
      - Areawide Water Quality Management (208) Plans
      - Wastewater Treatment Facilities: Regulation and Funding
    - Stream Encroachments and Flood Hazards
    - Wild and Scenic Rivers
    - Delaware and Raritan Canal State Park
    - Pinelands Protection
    - Regulation of State Owned Land
    - Air Quality Regulation
    - Solid Waste
    - Harbor Clean-Up
  - Other State Agencies
    - Department of Agriculture
    - Department of Community Affairs
    - Department of Labor and Industry
    - Department of Transportation
    - Department of Health
  - County and Municipal Land Use Authority
    - County Authority
    - Municipal Authority
    - Regional Land Use Authority
      - Delaware River Area
      - Hackensack Waterfront Area
      - Northern Waterfront Area
    - Federal Agency Authority
    - Public Participation
    - Conflict Resolution

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## MANAGEMENT SYSTEM

### Introduction and Summary

In passing the federal Coastal Zone Management Act of 1972 (CZMA), Congress recognized both the importance of the coastal zone and the need to strengthen existing public controls over resources and development in order to protect it. Section 302(h) of the Act states that:

The key to more effective protection and use of the land and water resources of the coastal zone is to encourage the states to exercise their full authority over the lands and waters in the coastal zone by assisting the states ... in developing land and water use programs for the coastal zone, including ... methods and processes for dealing with land and water use decisions of more than local significance.

This section of the New Jersey Coastal Management Program describes the methods and processes that New Jersey has developed to guide decision-making in the coastal zone.

Section 305 of the CZMA requires that participating coastal states demonstrate one of three methods of exercising control over those land and water uses in the coastal zone which have a direct and significant impact on coastal waters. New Jersey's approach corresponds to management technique "B" -- Direct State regulation and planning -- as described in Section 306(e)(1) of the CZMA. This is the only feasible approach under New Jersey's existing legislative framework that is in compliance with the requirements of the CZMA. It requires no new legislation.

This Chapter describes the administrative framework and program structure under which New Jersey proposes to exercise these controls. It contains a description of the three state agencies involved in significant coastal decision-making: the Department of Environmental Protection, the Hackensack Meadowlands Development Commission and the Department of Energy. It describes the principal legal authorities and programs to be used in implementing the policies found in Chapter Three, including the Coastal Area Facility Review Act (CAFRA), the Wetlands Act, the Waterfront Development Law, the authority to grant title to, or license the use of State owned tidelands (sometimes referred to as riparian lands), and the Hackensack Meadowlands Reclamation and Development Act. It also describes certain capital spending programs such as the Green Acres Program, the Shore Protection Program and the coastal management funds available under the CZMA.

Also described are other state regulatory programs, largely administered by DEP, which are not focused as exclusively on the coastal zone, but which do affect the coast and supplement the State's ability to implement specific Coastal Resource and Development Policies or categories of policies. These are described as "supplementary program authorities".

The last sections of the Chapter analyze the manner in which the programs of other state, county, municipal, regional and federal agencies function with the Coastal Management Program.

## ADMINISTRATIVE FRAMEWORK - THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

Created by the Legislature in 1970, the Department of Environmental Protection (DEP) was given broad authority to "formulate comprehensive policies for the conservation of the natural resources of the State..." (N.J.S.A. 13:1D-9). Specific authority for preparation of the coastal program was delegated by the Governor when he designated DEP as New Jersey's coastal planning agency under Section 305 of the federal Coastal Zone Management Act. DEP also serves as New Jersey's lead agency to administer the Federally approved program, under Section 306 of the Act.

The Department is divided into nine operating units: the Division of Coastal Resources (prior to July 1, 1979, the Division of Marine Services); Division of Water Resources; Division of Environmental Quality (which includes the Bureau of Air Pollution Control and the Solid Waste Administration); Division of Fish, Game and Wildlife; Division of Parks and Forestry; the Green Acres Administration; the Division of Fiscal and Support Services; Division of Employee Management and Development; and the Commissioner's Office. The Bureaus of Coastal Project Review, Coastal Planning and Development, Coastal Enforcement and Field Services, Tidelands, Coastal Engineering, and Marine Law Enforcement are all located in the Division of Coastal Resources (See Figure 3).

The core of the Coastal Management Program's management system is the adoption by DEP of the Coastal Resource and Development Policies as administrative rules. This means that the actions of every Division in the Department will be legally bound to be consistent with the Coastal Policies to the extent permitted by the enabling legislation of each program.

DEP's regulatory authority in the coastal zone is principally based on the Waterfront Development Law, the Coastal Area Facility Review Act, the Wetlands Act, and the Tidelands statutes. These laws apply to virtually all aspects of major development within this zone. Their administration will be unchanged under the coastal management program with the exception of the Waterfront Development permit program's redefined jurisdiction.

Division of Coastal Resources - On July 1, 1979, the former Division of Marine Services was reorganized and continued as the Division of Coastal Resources. The reorganization's principal features are the consolidation of three different permit offices (the former Office of Coastal Zone Management's CAFRA Permit Section, the Office of Riparian Lands Management, and the Office of Wetlands Management) into one Bureau of Coastal Project Review, the placement into one bureau of all coastal planning and development activities, and the creation of a Bureau of Coastal Enforcement and Field Services. This reorganization became permanent in 1980 when the Legislature amended the relevant portions of DEP's enabling legislation (N.J.S.A. 13:1D-1 et seq.).

The Division's new organization is described in chart form in Figure 4, and is summarized as follows:

- The Bureau of Coastal Project Review administers the CAFRA, Wetlands, and Waterfront Development Permit Programs, in conformance with the respective enabling legislation and with the Rules on Coastal Resource and Development Policies. The Bureau assumes the permit functions of the former Offices of Coastal Zone Management, Riparian Lands Management, and Wetlands Management.

Figure 3

# DEPARTMENT OF ENVIRONMENTAL PROTECTION ORGANIZATIONAL CHART JANUARY, 1980

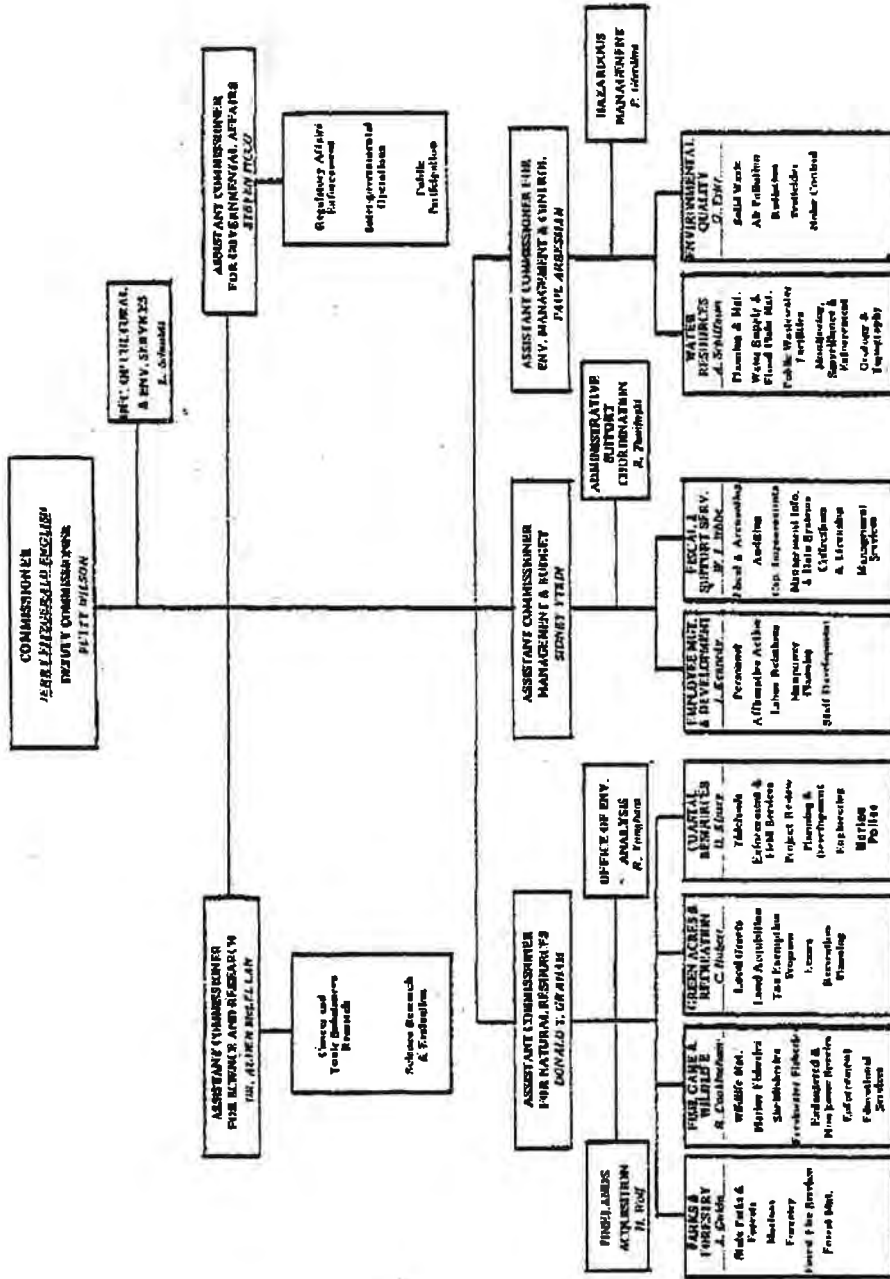
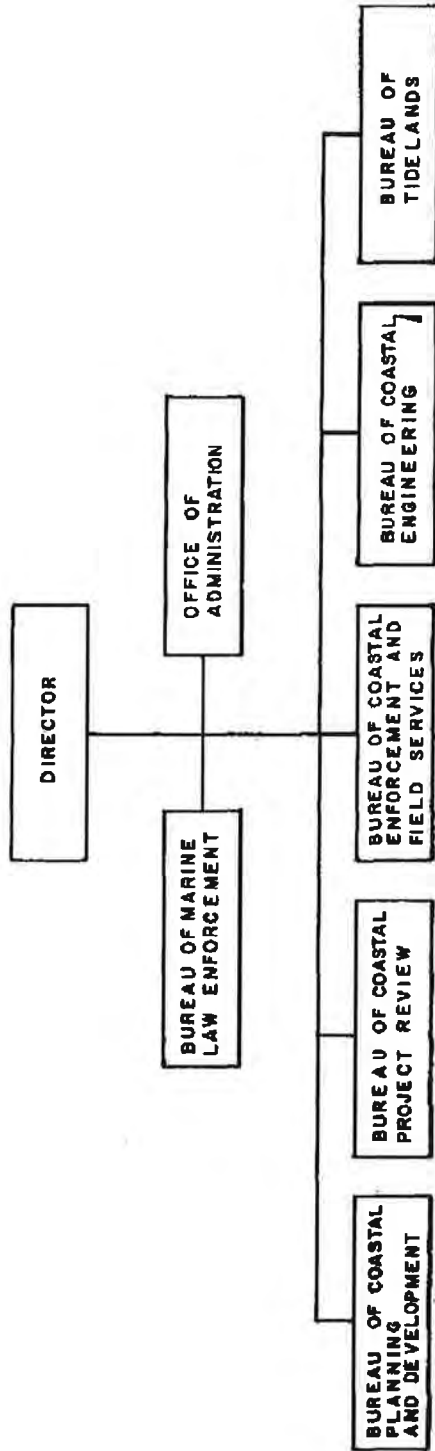




Figure 4

DIVISION OF COASTAL RESOURCES  
ORGANIZATIONAL CHART  
APRIL, 1980



- The Bureau of Coastal Planning and Development provides a single planning agency to assist in the development and refinement of a program to guide and regulate development and resource protection in the coastal zone. This office assumes the planning functions of the former Office of Coastal Zone Management.
- The Bureau of Tidelands serves as staff to the Tidelands Resource Council and aids in the protection and management of State-owned tidelands through the review of applications for conveyances for grants, leases and licenses. The Bureau assumes the functions of the former Office of Riparian Lands Management with respect to the description and valuation of State-owned tidelands.
- The Bureau of Coastal Enforcement and Field Services provides an interdisciplinary inspection team to support the functions of the Bureaus of Tidelands and Coastal Project Review. The Bureau assumes the inspection and enforcement activities of the former Offices of Coastal Zone Management, Wetlands Management and Riparian Lands Management.
- The Bureau of Coastal Engineering administers the State's shore protection and waterway maintenance programs. It assumes the functions of the former Office of Shore Protection.

Division of Water Resources - The Division of Water Resources is responsible for water quality planning and maintenance, water supply, and flood plain management. The Division is the designated water quality planning agency under Section 208 of the Federal Clean Water Act and, under the New Jersey Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.), has the authority to administer the National Pollution Discharge Elimination System (NPDES) permits once EPA delegates this responsibility to DEP. The standards set by the Division under the Clean Water Act are incorporated into the Coastal Policies, as required by Section 307(f) of the federal Coastal Zone Management Act. The Division also has the authority to regulate the building or alteration of structures within stream areas and to regulate development and land use in designated floodways under the Flood Hazard Areas Control Act, (N.J.S.A. 58:16A-50 et seq.).

Within the seventeen New Jersey counties with coastal waters, area-wide water quality planning (also known as 208) is being conducted by four county planning boards, by the Delaware Valley Regional Planning Commission in four counties, and by the Division of Water Resources in the remaining nine counties. The plans are being completed between 1979 and 1980 in different parts of the state. The water quality planning program seeks institutional and technical alternatives to control and abate water pollution. The key policies of the program are to protect the sources of potable water supply, control toxic and hazardous substances, control pollution from areawide sources, and protect environmentally sensitive areas. Water quality planning programs may utilize and refine the Coastal Location Acceptability Method for activities which need not be regulated for coastal management program approval (i.e. activities not having a direct and significant impact on coastal waters), and in parts of the state outside the coastal zone. The method could, for example, be modified and used in making land and water use decisions on and near non-tidal portions of the Delaware River and in other areas of the State where a decision-making method is needed to protect water quality.

The Division of Water Resources is also responsible for supervising the development of the State Water Supply Master Plan. The plan, financed by the State Water Conservation Bond Fund, will assess near and long-term water needs, evaluate various alternatives for meeting those needs, and provide a framework for the future planning and management of the State's water supplies. Specific recommendations will be made including those for near-term water supply development projects, conservation and management policies, interconnection programs, and drought and emergency response plans. The draft plan was completed in Spring, 1980. The Division of Coastal Resources will continue to work with the Division of Water Resources to assure consistency between the Water Supply Master Plan and the Coastal Policies.

Division of Environmental Quality - The Division of Environmental Quality is responsible for air quality planning and monitoring and is the agency designated to administer the federal Clean Air Act in New Jersey. The Division also is responsible for the State's radiation, noise, pesticide control and solid waste management programs. Under the requirements of the Clean Air Act, the Bureau of Air Pollution Control in the Division is developing programs to attain National Ambient Air Quality Standards. The attainment of standards for photochemical oxidants for the entire State, for carbon monoxide in central business districts, and for particulates in Camden and Jersey City, and the maintenance of clean air levels throughout the state are the major problems to be addressed.

The Division of Environmental Quality is also responsible for the development of a statewide plan to maximize use of resource recovery and minimize the adverse environmental impacts of solid waste. This was the responsibility of the Solid Waste Administration until August, 1979 when it was abolished and its functions transferred. The state has been divided into twenty-two districts (21 counties and the Hackensack Meadowlands Development Commission District). Each district is responsible for developing a ten-year plan to meet the solid waste needs for each municipality within the region. The SWA is responsible for coordinating the district planning through the development of a statewide plan and for providing guidelines, especially in the area of hazardous waste, for use by the twenty-two planning districts.

The Division of Coastal Resources works closely with the Division of Environmental Quality to develop programs directed toward attainment of the National Ambient Air Quality Standards, and to assure consistency between the Coastal Policies and statewide solid waste planning. In addition, attention will be given to the impact of Coastal Policies on air quality outside of the Coastal Zone. Coordination with the Division of Environmental Quality should result in the use of Coastal Policies to help attain statewide air quality and solid waste management goals as well as use of the State Implementation Plan and State and district solid waste plans to further Coastal Management Program goals.

Division of Parks and Forestry - The Division of Parks and Forestry manages the state's parks and is responsible for acquiring, operating and maintaining historic sites. The Division reviews CAFRA permit applications in addition to coordinating with Division of Coastal Resources on park and recreation policies.

Green Acres and Recreation - The Green Acres Administration develops a comprehensive recreation plan and works with the Division of Parks and Forests and the Division of Fish, Game and Wildlife to identify and rank possible sites for DEP purchase. The Division of Coastal Resources reviews all proposed expenditures of Green Acres funds, and where differences emerge, the Commissioner of DEP makes the final decision.

The New Jersey State Comprehensive Outdoor Recreation Plan (SCORP), prepared by the Green Acres Administration, addresses the adequacy of open space for existing and projected demands, and the accessibility of recreation resources for all segments of the population. The plan qualifies New Jersey for funding under the Federal Land and Water Use Conservation Fund Program. In addition to studying recreation needs and uses, SCORP also includes inventories of federal, state, county, municipal and private recreation resources. The major policies in SCORP, which are fully consistent with the Coastal Resource and Development Policies, include emphasizing open space in urban areas, developing recreation facilities, increasing public access to recreation resources through mass transit, and developing barrier free recreation facilities.

Division of Fish, Game and Wildlife - The Division of Fish, Game and Wildlife is responsible for managing the fish and wildlife resources of the State. This includes research and educational programs as well as enforcement of state fish and game laws and maintenance of state fish and wildlife management areas. The Division also administers the federal Endangered Species Act of 1973, which provides funds for the purchase or management of land for research and for other activities to protect wildlife.

Office of the Commissioner - The Office of the Commissioner conducts a number of functions relating to the Coastal Management Program.

Matters relating to Coastal Resources; Green Acres and Recreation; Fish, Game and Wildlife; Parks and Forestry; and Pinelands are supervised by the Assistant Commissioner for Natural Resources. Matters relating to water and air quality, solid wastes, and toxics are supervised by the Assistant Commissioner for Environmental Management and Control.

First, the Office of Environmental and Cultural Services coordinates the review of major development proposals likely to require more than one DEP-administered permit, applications circulated through the A-95 Project Notification and Review Process, and state agency sponsored projects costing more than one million dollars (as required by Executive Order #53 of 1973). This coordinated review helps speed the permit review process and insures the application of consistent policies. This Office also reviews coastal permit applications in terms of possible archaeological impacts. In addition, the Office evaluates the potential impact of CAFRA permit applications on cultural resources, maintains the State Register of Historic Places, and makes recommendations to the Commissioner for State nominations to the National Register of Historic Places.

DEP's Assistant Commissioner for Science administers the New Jersey Spill Control and Compensation Act (N.J.S.A. 58:1-23.11 et seq.) In addition, under his direction, the Office of Cancer-Causing and Toxic Pollutants is conducting research with the assistance of computer facilities funded by the U.S. Council on Environmental Quality. The information produced by this research will be incorporated

into the Coastal Policies, and could conceivably lead to proposed alternatives to certain siting policies. In addition, this computer project is serving as a model for DEP to test the feasibility of digitizing much of the information necessary to apply the Coastal Policies.

The Tidelands Delineation Program, conducted by the Office of Environmental Analysis (under the direction of the Assistant Commissioner for Natural Resources), is a multi-year project to map the extent of State-owned tidelands by delineating the mean high tide line. The program will require several years to complete because of the complex issues of land ownership to be resolved.

The Office of Public Participation, created in 1979, directs DEP's efforts to stimulate public interest and involvement in the development and implementation of all of the Departments management and planning programs.

## PRINCIPAL PROGRAM AUTHORITIES

### Introduction

This section describes the Coastal Management Program's principal regulatory and capital spending programs. They are described as "principal" programs since they allow the State, through a number of agencies, to implement a broad range of Coastal Policies. This is particularly true of the three coastal permit programs administered by the Division of Coastal Resources (the Coastal Area Facility Review Act, the Waterfront Development Law, and the Wetlands Act). These authorities, in and of themselves, provide authority for land and water uses in the coastal zone sufficient for program approval. In contrast, the supplementary programs which follow this section are more limited in scope and involve the implementation of only one or a few policies (e.g. air quality or water quality).

This section also describes the process by which the Tidelands Resource Council, a twelve-member citizen body, supervises the management of State-owned tidelands (sometimes called riparian lands). This section explains how the decisions of the Council are made consistent with the Coastal Resource and Development Policies contained in Chapter Three. Also described are:

**The Hackensack Meadowlands Development Commission (HMDC):** A state-level regional agency regulating development and conservation in a 31 square mile area encompassing part of the Hackensack River Estuary and associated uplands. Its master plan constitutes the proposed State Coastal Resource and Development Policies for the area, and, for the purposes of the Federal CZMA, its regulatory authority constitutes the principal management mechanism;

**The Department of Energy (DOE):** The state agency responsible for energy planning, DOE is authorized to participate with all other state departments on any regulatory decision affecting energy facilities.

**The Shore Protection Program:** A program planned and administered by the Division of Coastal Resources, and

**The Green Acres Program:** A recreation and open space funding program administered by DEP's Green Acres Administration.

1. Waterfront Development Law - The Waterfront Development Law (N.J.S.A. 12:5-3) authorizes DEP to regulate the construction or alteration of a dock, wharf, pier, bulkhead, bridge, pipeline, cable, or other "similar or dissimilar development" on or adjacent to navigable waterways and streams throughout the State.

Past and present administrative practice under the Law (passed in 1914) has been generally restricted to tide-flowed lands on or below the mean high water line, but DEP has now adopted regulations to fully implement the law by defining both its geographic scope and the types of development to which it applies. These regulations, which are reprinted in Appendix D, are intended to re-establish DEP's long neglected authority to guide development in waterfront areas. They have been reviewed by the Attorney General of New Jersey, who has issued an opinion endorsing them in terms of both geographic scope and facilities subject to the law. The Attorney General's opinion is also contained in Appendix D.

Under these regulations, the following types of development in the waterfront area will, with specified exceptions, require DEP approval:

- a. Docks, wharves, piers, bulkheads, bridges, pipelines, cables, moorings and other submerged structures (all these already require DEP approval);
- b. The construction, reconstruction, structural alteration, relocation or enlargement of any building or other structure, or of any excavation or landfill, and any change in the use of any building or other structure, or land or extension of use of land.

The waterfront area itself is defined (N.J.A.C. 7:7-2.4) as including all tidal waterways and lands adjacent thereto up to the first property line, public road or railroad right-of-way generally parallel to the waterway, provided that the boundary is between 100 and 500 feet from the waterway. This rule will apply in upland areas beyond the mean high water line only outside the CAFRA area and Hackensack Meadowlands District (see Figure 2). The waterfront boundary for a hypothetical location is illustrated in Figure 5a, and a sample map of the boundary is shown in Figure 5b.

Persons proposing to undertake waterfront development must first apply to the Division of Coastal Resources for a permit. The applicant must hold a valid grant, lease or license for the tide flowed part of the site before the application will be considered. The permit process is outlined in Figure 6.

Waterfront Development permits are subject to the requirements of the 90 Day Construction Permit Law (N.J.S.A. 13:10-29). Under its provisions interested persons who consider themselves aggrieved by the granting or denial of a Waterfront Development permit may appeal the Division's decision to the Tidelands Resource Council (a proposed amendment to the 90 Day Construction Permit Rules will transfer this function to the Commissioner). This includes the right to challenge decisions which the appealing party contends are in conflict with the Rules on Coastal Resource and Development Policies.

2. Coastal Area Facility Review Act (CAFRA) - The Coastal Area Facility Review Act (N.J.S.A. 13:19-1 et seq.) authorizes DEP to regulate and approve the location, design and construction of major facilities in a 1,376 square mile coastal region encompassing portions of Middlesex, Monmouth, Ocean, Burlington, Atlantic, Cape May, Cumberland and Salem Counties (See Figure 7). The CAFRA area

Figure 5a

### JURISDICTION OF RULE FOR WATERFRONT DEVELOPMENT LAW — CONCEPT SKETCH

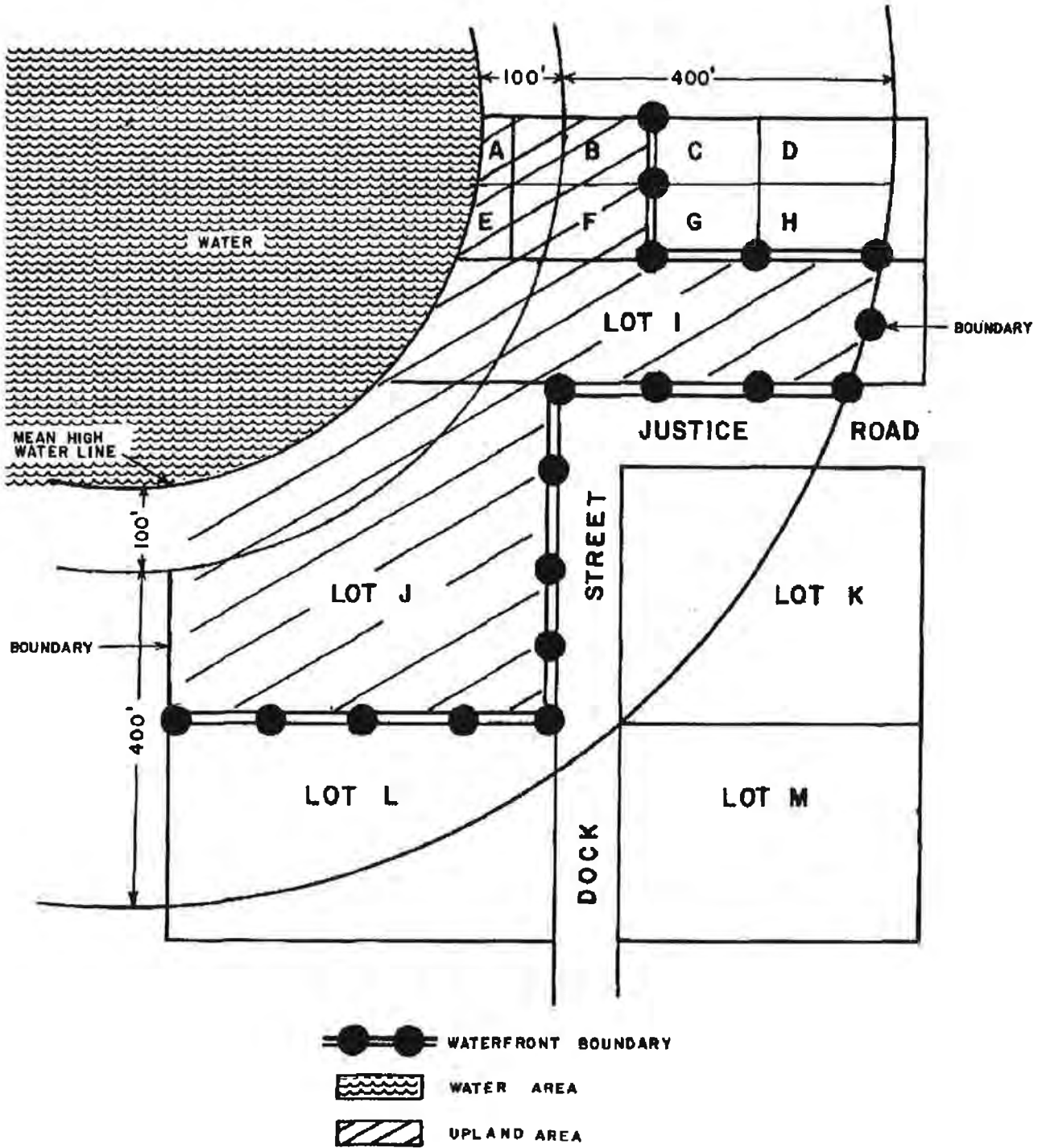


Figure 5b  
**JURISDICTION OF RULE  
 FOR WATERFRONT DEVELOPMENT  
 LAW - SAMPLE MAP**

 - JURISDICTION

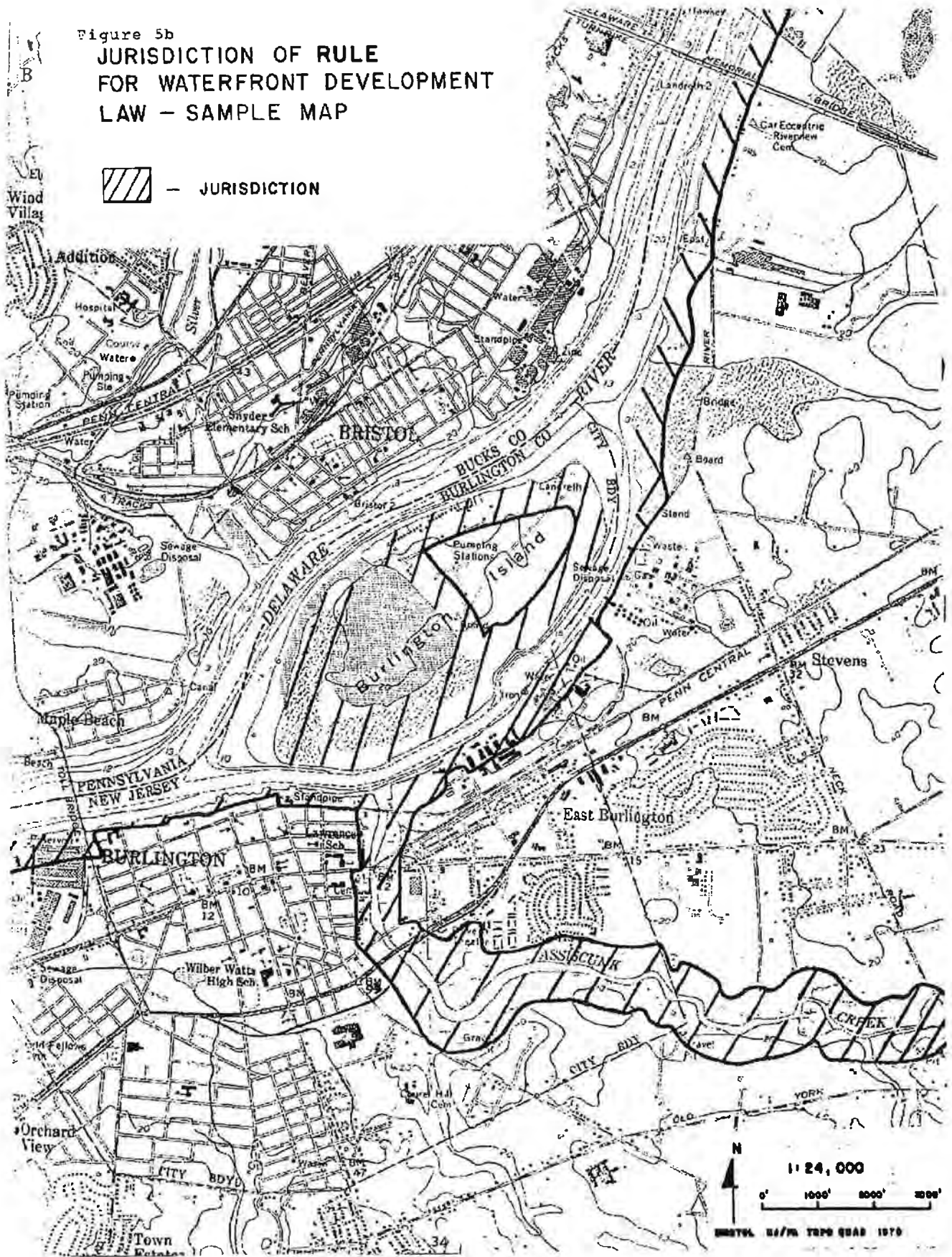
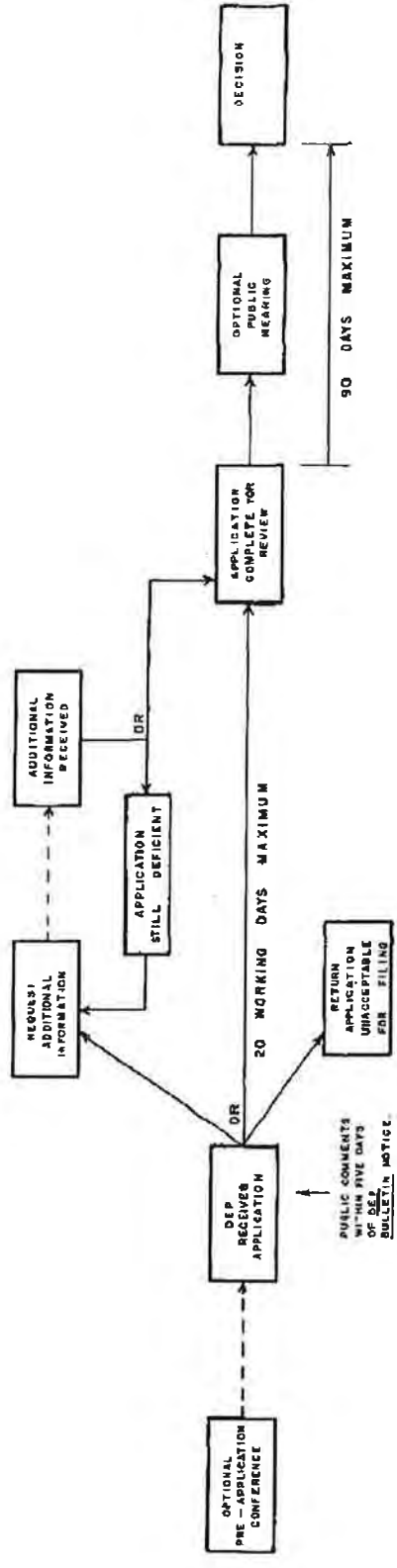




Figure 6

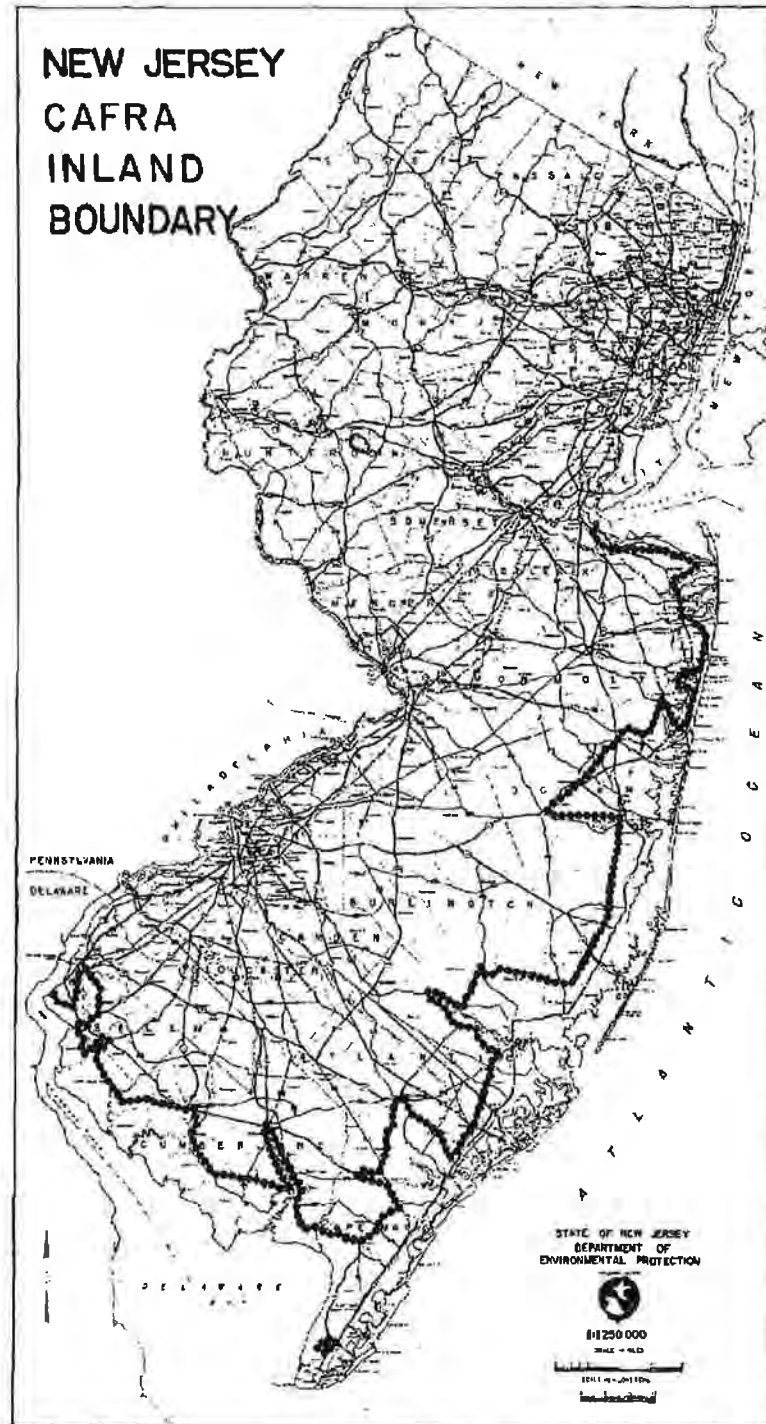
WETLANDS AND WATERFRONT (RIPARIAN) DEVELOPMENT PERMIT APPLICATION PROCESSES



NOTE: A WATERFRONT DEVELOPMENT PERMIT APPLICATION IS NOT DECLARED COMPLETE FOR REVIEW WITHOUT A LAWFUL RIPARIAN OCCUPATIONAL OR USE AGREEMENT SUCH AS A RIPARIAN GRANT, LEASE, OR LICENSE.

--- INDICATES THAT THE TIMETABLE IS SET BY THE APPLICANT.

Figure 7



also includes coastal waters. Lying within the CAFRA area are New Jersey's barrier beach islands, all of its coastal resort areas, portions of the Pinelands, large agricultural areas, and New Jersey's fastest growing county (Ocean). The Act is administered by the Division of Coastal Resources.

Facilities regulated under CAFRA include all those proposed for the following purposes:

- a. Electric power generation, including oil, gas, coal fired or nuclear;
- b. Public facilities, including housing developments of 25 or more dwelling units, roads and airports, parking facilities of 300 spaces or more, wastewater treatment systems and components, and sanitary landfills;
- c. Food and food by-products, paper and agri-chemical production;
- d. Mineral products, chemical and metallurgical processes an inorganic salt manufacture;
- e. Marine terminals and cargo handling and storage facilities.

The full list of facilities regulated under CAFRA, together with the text of the Act, is reprinted in Appendix E. A flow chart depicting the CAFRA permit application process appears as Figure 8.

Persons proposing to build CAFRA-regulated facilities must first submit an application and Environmental Impact Statement (EIS) to the Division. A public hearing and review of the EIS by other DEP divisions and state agencies are required before the decision to grant or deny the permit may be made by the Division Director.

CAFRA permit decisions may be appealed by an interested person to the Commissioner of DEP, or directly to the three member Coastal Area Review Board. Appeals to the Commissioner may also be taken to the Review Board following her decision. The broad provisions of the appeals process allow challenges to permit decisions on the basis that they are inconsistent with the Rules on Coastal Resource and Development Policies.

3. Wetlands Act - The Wetlands Act of 1970 (N.J.S.A. 13:9A-1 et seq.) authorizes DEP to regulate activities on coastal wetlands. Since its enactment and the adoption of the Wetlands Regulations in 1972, the amount of wetlands filled in New Jersey has been reduced from 1,900 to 55 acres annually. In 1978, approximately 14 acres of regulated wetlands were filled, while in 1979, less than one acre was filled. The Act, which is administered by the Division of Coastal Resources, gives the state broad discretion in regulating virtually any form of development or disturbance on mapped coastal wetlands, except for mosquito control and continued commercial production of salt hay or other agricultural crops or activities.

Coastal wetlands are defined as those wetlands subject to tidal action along specified water bodies. They are not regulated under the Act until they have been mapped and the maps promulgated, following notice to affected property owners and a public hearing. Most coastal wetlands were mapped and the maps promulgated by 1972. The Act does not affect inland or freshwater wetlands.



The greatest amount of wetlands acreage is found along the Atlantic shorefront but there is also a considerable amount of acreage along the Delaware River, and approximately twenty acres of regulated wetlands on the Raritan River, in and near Perth Amboy. The Act specifically exempts the Hackensack Meadowlands District from its coverage. Small wetlands areas in the Delaware River Area have not yet been delineated and are therefore not now regulated by DEP. They would, however, be regulated under the proposed rules for the Waterfront Development Act.

Under Administrative Order No. 12 of 1977, Wetland permit decisions are made by the Division Director and may be appealed to the Commissioner of DEP. As is the case with Waterfront Development and CAFRA permits, permit decisions may be challenged on the basis that they violate the Rules on Coastal Resource and Development Policies.

The Division of Coastal Resource's jurisdiction under each of the three coastal permits in the Bay and Ocean Shore Segment is shown in Figure 9. The Waterfront Development's proposed jurisdiction in the rest of the State is depicted in Figure 2.

4. Tidelands Management - In New Jersey, "tide-flowed" (or riparian) lands are owned by the State of New Jersey, except where already conveyed. These are lands now or formerly flowed by the mean high tide, including filled lands. The State owns the lands as trustee for the public, and must administer their use in the public interest. The State exercises control over tidelands in two ways: through its proprietary role as owner, and through its regulatory role under the Waterfront Development Law.

The State's ownership interest extends to the mean high water mark, which is determined on the basis of a theoretical 18.6 year tide. DEP's Office of Environmental Analysis is presently conducting a tidelands delineation program throughout the State. Until the delineation is complete, the Division of Coastal Resources is determining the applicability of tidelands law on a case-by-case basis. Landowners proposing to build and citizens concerned about a proposed project, as well as the Division of Coastal Resources staff of Marine Lands Inspectors, bring individual cases to the attention of the Department.

The State's ownership role is exercised through the Tidelands Resource Council, which may grant, lease, or license the use of State-owned tidelands provided such action is in the public interest. Persons seeking to purchase, lease or otherwise use these lands must first obtain the Council's approval (Figure 10). Many of the State's tidelands were sold in the nineteenth and early twentieth century, but it is the present practice of the Council only to license the use of the lands, and not to grant them outright, except in unusual cases.

The Council, which is composed of twelve citizens appointed by the Governor, with the advice and consent of the State Senate, has broad discretion concerning applications for tideland conveyances. The Council may make any decision it believes to be in the public interest. DEP's Commissioner and Director of Coastal Resources, however, have the authority to veto any Council action inconsistent with state policy. Should a veto occur, the application is returned to the Council for reconsideration. Consideration of the State's Coastal Resource and Development Policies in tidelands decision-making is also assured by the fact that the Division of Coastal Resources serves as staff to the Tidelands Resource Council.

**FIGURE 9**

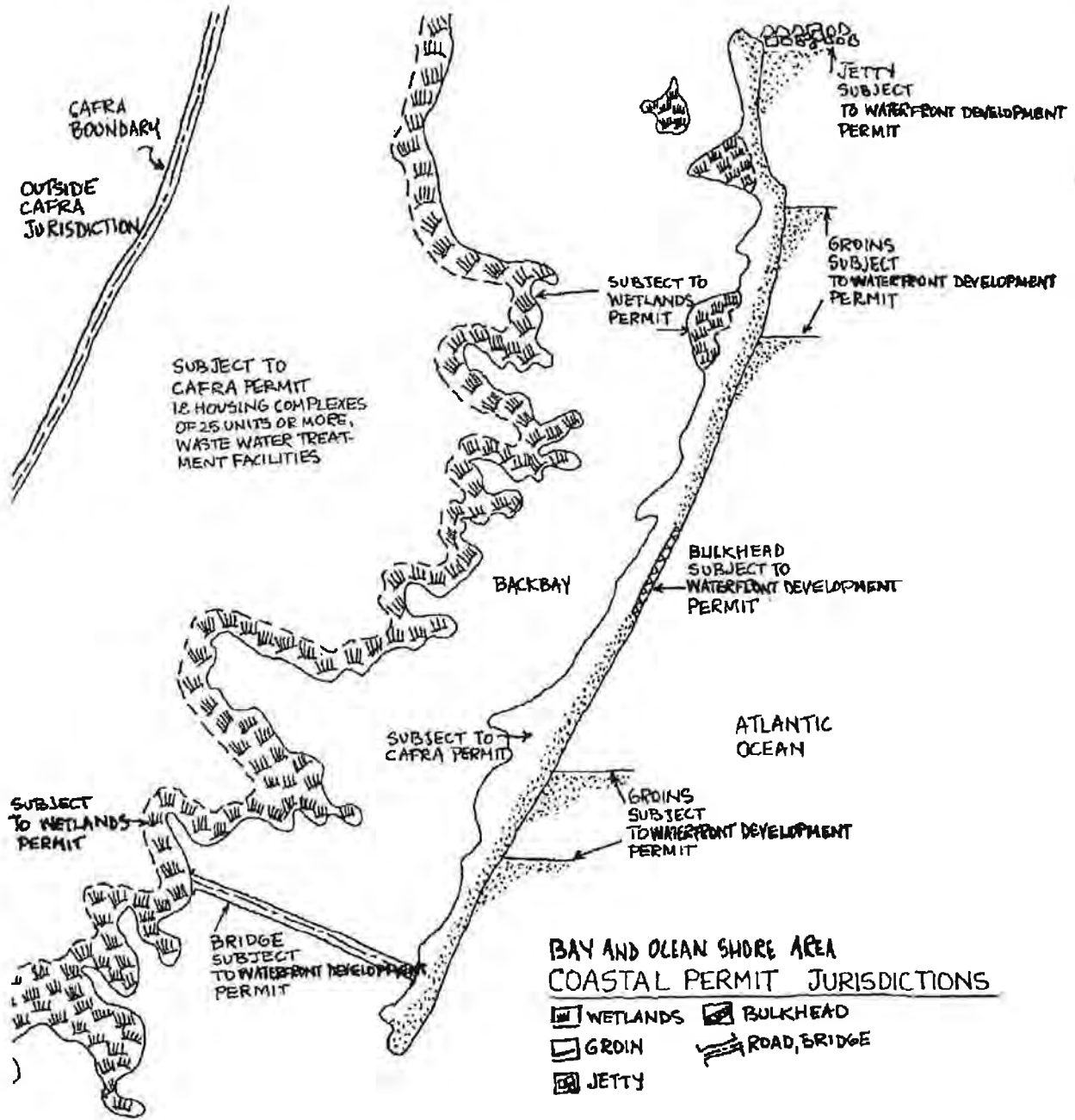
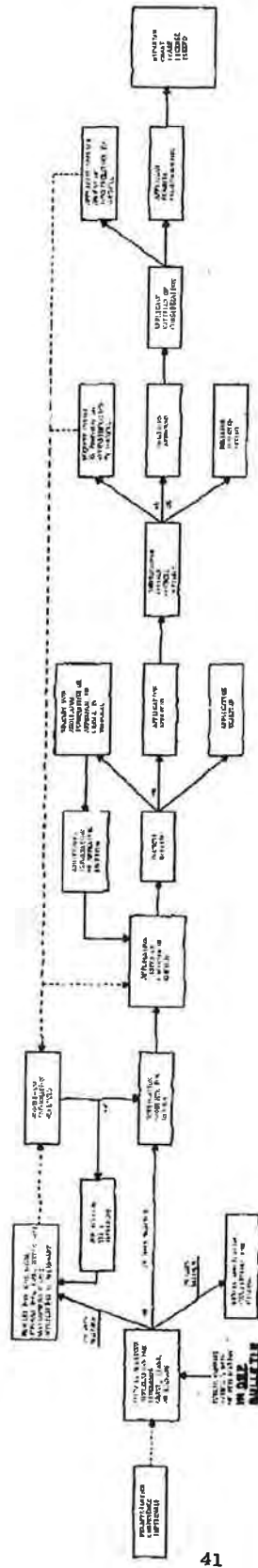


Figure 10

TIDELANDS APPLICATION PROCESS



In keeping with traditional riparian law, the owners of land immediately upland have the first right to purchase or use tidelands. But before any person may make use of tidelands, the Council requires that they obtain a Waterfront Development Permit. Since the permit may only be granted if the activity is consistent with the Coastal Resource and Development Policies, this requirement insures that the use of tidelands will conform with those policies.

5. Hackensack Meadowlands District - Implementation of coastal policies in the Hackensack Meadowlands District will be a joint venture of DEP and the Hackensack Meadowlands Development Commission (HMDC), with the Commission's plans guiding both agencies in their decisions. The HMDC is composed of the Commissioner of the Department of Community Affairs and three residents each from Bergen and Hudson Counties, appointed by the Governor, with the advice and consent of the State Senate. The Commission is responsible for developing and implementing a plan for ecologically sound development of the Meadowlands District. For this purpose, it has been given planning and zoning powers for the District, which were previously exercised by the individual municipalities. In 1972, the Meadowlands Commission adopted a master plan, which, as revised in 1977, 1978 and 1979, is to guide future development of the District. The HMDC will be the State agency responsible for implementing the State's coastal program under the CZMA in the Meadowlands District, and the coastal policies for the District will be those presently adopted by the HMDC in their Master Plan and other policy documents.

Amendments to the Zoning Regulations of the Hackensack Meadowlands District will be considered as amendments to the Coastal Management Program when they meet the definition for amendments found in 15 CFR 923.80(c):

"amendments are defined as substantial changes in, or substantial changes to enforceable policies or authorities related to:

- (1) Boundaries;
- (2) Uses subject to the management program;
- (3) Criteria or procedures for designating or managing areas of particular concern or areas for preservation or restoration; and
- (4) Consideration of the national interest involved in the planning for and in the siting of, facilities which are necessary to meet requirements which are other than local in nature."

As required by 15 CFR 923.53(a)(1), DEP-Division of Coastal Resources will make federal consistency determinations for actions affecting the Meadowlands District. However, such determinations will be made after consultation with the HMDC. The District is not subject to the requirements of the Wetlands Act.

6. Regulation and Planning of Energy Facilities - The Department of Energy (NJDOE), created in July 1977 (N.J.S.A. 52:27F-1 et seq.), has broad planning authority over energy-related matters, including the authority to participate in the decision-making of other State agencies concerning the siting of energy facilities. The fact that energy generating and petroleum refining facilities often seek to locate in the coastal zone means that NJDOE's authority is a significant element in the management system.



The Departments of Energy and Environmental Protection, recognizing their coextensive jurisdiction over energy facility siting in the coastal zone, and also recognizing the importance of such siting decisions to a successful coastal management program, entered into a memorandum of understanding in August 1978. The memorandum has three important features: a procedure for DOE review of coastal permit applications, a commitment by DEP and NJDOE to make their findings on the basis of the State's Coastal Resource and Development Policies as well as on the State Energy Master Plan, and a procedure for resolving disagreements between the two agencies. The proposed amendments to the existing Coastal Resource and Development Policies will not be adopted until agreed to by NJDOE, at which time they will be subject to the August 1978 Memorandum of Understanding. (See Appendix C)

In the case of a disagreement between DEP and DOE concerning the siting of an energy facility, the matter will be submitted to an Energy Facility Review Board for resolution. The Board was established by the Act creating DOE, and consists of the Director of DOE's Division of Energy Planning and Conservation, the Chief Executive Officer of the state instrumentality with the power of approval over the application, and a designee of the Governor. The Board has never had to meet.

The New Jersey Department of Energy is also the lead agency for the Coastal Energy Impact Program (CEIP). The 1976 Amendments to the federal Coastal Zone Management Act created Section 308, the CEIP, to provide financial assistance to help coastal states respond to the growth and impacts of new energy exploration and development. A second objective of the CEIP is to balance the two national goals of encouraging development of domestic energy resources to further energy self-sufficiency, and to protect and manage the nation's coast in a manner consistent with the objectives of a state's Coastal Management Program. To be eligible for assistance under the CEIP, a coastal state must be receiving a grant under Section 305 of the Act, have a coastal management program which has been approved under Section 306, or be making satisfactory progress which is consistent with the policies set forth in Section 303 of the Act. New Jersey currently meets these criteria. Ensuring New Jersey's continued eligibility through federal approval of a complete statewide coastal management program is one key incentive for completing the program.

CEIP grants are based in part on the amount of OCS acreage adjacent to a particular state. As specified in the FCZMA, NOAA's Assistant Administrator for Coastal Zone Management is in the process of establishing extended lateral seaward boundaries which will be used to determine New York and Delaware, and New Jersey's respective CEIP grant allocations.

As the lead agency for CEIP, the New Jersey Department of Energy is responsible for administering the program, including soliciting applications, providing technical assistance. Funds are allocated to municipal and county governments, State agencies and governmental regional planning agencies according to the program's intrastate allocation process which includes project evaluation and approval by the New Jersey Intrastate Allocation Committee, representing diverse state interests. DOE and DEP coordination is required by the federal CEIP regulations which state that CEIP assistance cannot be granted without DEP certification of compatibility with the goals and policies of the developing Coastal Management Program or consistency with the approved Coastal Management Program.

To facilitate such a finding, and to satisfy the requirement that the state's coastal planning agency review CEIP applications, the Memorandum of Understanding provides that all such applications will be forwarded to DEP for consistency review.

Another major responsibility of the Department of Energy is preparation and updating of the State Energy Master Plan. This plan considers the production, distribution, consumption and conservation of energy in the state and surrounding region. The Plan and the more specific reports it promises will become a primary resource for energy facility siting decisions by DEP. The State Energy Master Plan was formally adopted in October 1978.

The Board of Public Utilities, which is in, but not of, the Department of Energy, has broad regulatory authority over public utilities. Included in this authority is the power to supercede local zoning decisions when necessary if the service conveniences the welfare of the public (N.J.S.A. 40:55D-19). This authority comes into play only when a proposed utility facility has received required state permits (including coastal permits) and is denied a required local permit. This provision helps New Jersey fulfill a section of the federal CZMA requiring that local governments not be able to unreasonably restrict uses of regional benefit (See Chapter Four).

7. Green Acres Funding - The Green Acres Administration determines where and how state funds should be spent for park and open space acquisition, development, and capital improvements. DEP can purchase land under this program by condemnation if necessary. The Division of Coastal Resources reviews proposed expenditures of Green Acres funds in the coastal zone for consistency with the Coastal Resource and Development Policies and can suggest modifications. In addition, under the Use Policies for Recreation, Green Acres funds would be withheld from municipalities with recreational plans or ordinances which are inconsistent with the Coastal Resource and Development Policies.

The State Comprehensive Outdoor Recreation Plan (SCORP), prepared by the Green Acres Administration, addresses the adequacy of open space for existing and projected demands, and the accessibility of recreation resources for all segments of the population. The plan qualifies New Jersey for funding under the Federal Land and Water Use Conservation Fund Program. In addition to studying recreation needs and uses, SCORP also includes inventories of federal, state, county, municipal and private recreation resources. The major policies in SCORP, which are also proposed for adoption in the Coastal Management Program, include an emphasis on open space in urban areas, recreation facility development, increasing public access to recreation resources through mass transit, and developing barrier free recreation facilities.

In November 1978, the voters of New Jersey approved a \$200 million Green Acres Bond issue, with \$100 million earmarked for the acquisition and development of park land in urban areas. This brings to \$540 million the amount of money approved by the voters for Green Acres funding since 1961. The Green Acres Administration will be spending this money in accord with SCORP priorities. One top priority is the creation of waterfront parks in urban areas. Some of the money will be used for direct state acquisition, while the majority will be channeled through local governments as matching grants. This money will help to significantly expand public access and recreational opportunities through the coastal zone.

New Jersey has also received additional funds for park rehabilitation in selected urban areas under the federal Urban Parks and Recreation Recovery Act, passed in 1978. These funds could be used by an eligible municipality to fill the local matching share of a state Green Acres grant.

8. Shore Protection - Shoreline erosion is a major concern in New Jersey, and DEP is authorized to undertake any and all actions necessary to prevent and/or repair damage caused by such erosion (see N.J.S.A. 12:6A-1). In 1977, New Jersey's voters approved a \$30 million bond issue (the Beaches and Harbors Bond Act of 1977, P.L. 77-208), \$20 million of which is to fund State matching grants for beach restoration, maintenance and protection facilities, projects and programs.

The Act requires that DEP prepare a comprehensive master plan that will serve as a basis for these grants. Work on this plan has been underway since 1978, and is being conducted by the Division of Coastal Resources. Shore Protection rules, which have been proposed only in draft form, would be procedural rules which cite the Coastal Resource and Development Policies relevant to shore protection for their substantive element. These include policies on Coastal Engineering, Dunes and Dune Management, Beach Nourishment, and High Risk Beach Erosion Areas. This uniformity between programs is required by the adoption of the Coastal Resource and Development Policies as Department rules governing coastal decision-making.

In addition to guiding the state's program, the Shore Protection Master Plan and the Coastal Policies will serve as a basis for the planning of joint projects with the U.S. Army Corps of Engineers. Coastal permits will be issued only in conformity with the Policies.

#### 9. Coastal Program Funding

##### Coastal Management Program Implementation (306) Funds

Upon federal approval of the coastal program, New Jersey is eligible to receive implementation funds under Section 306 of the federal Coastal Zone Management Act. DEP received \$800,000 in FY 1979, for example, after approval of the program for the Bay and Ocean Shore Segment. The Department made available \$50,000 of this implementation money to selected county and municipal governments included within the Bay and Ocean Shore Segment boundary by inviting them to submit proposals for planning projects which would help to fulfill the objectives of the Coastal Program, and selected projects in Toms River and Bridgeton. In FY 1980, the Department received a second year implementation grant of \$840,000, of which \$86,000 is being passed through to six local governments.

After receiving Federal approval for the complete coastal program, New Jersey will be eligible for increased Section 306 funds to implement the entire program. DEP intends to continue to make a part of this money available for local governments to assist with projects which will help to carry out the goals and objectives of the coastal program. Other States have, for example, granted funds to local governments for the development of beach access plans or projects, land use analyses, zoning ordinance revisions, and downtown revitalization projects.

DEP has also been receiving funds for the past four years, under Section 305 of the federal Coastal Zone Management Act, to develop the Coastal Management Program. In 1977, DEP passed through \$180,000 of these planning funds to twelve coastal counties. In 1978, the Department granted \$75,000 to eleven of the counties to enable them to write specific reports contributing to DEP's development of a coastal program. In 1979, DEP granted \$110,000 to five municipalities in the developed coast to develop plans for projects which would further the State's coastal objectives. DEP is currently receiving its last year of Section 305 federal coastal planning funds and will not be eligible to receive additional Section 305 funds.

#### Coastal Energy Impact Program (308) Funds

The Coastal Energy Impact Program, Section 308 of the Coastal Zone Management Act, provides funds to assist states in dealing with impacts from new or expanded energy facilities, and existing, expanded or new coastal energy activities. State agencies, counties and municipal governments are eligible to receive CEIP grants and loans from the Department of Energy, which is the state's designated lead agency for CEIP. New Jersey has been allotted almost \$2 million in grants and \$3 million in loans since the program's inception in 1977. The CEIP is explained in more detail in the section above which discusses the Department of Energy.

#### Supplementary Implementation Programs in DEP

There are a number of programs in DEP which require that new development meet regulations and standards concerning the maintenance and enhancement of water and air quality, the regulation of soil erosion, and the protection of flood hazard areas, wild and scenic rivers, and specified park areas. Programs in these areas will be useful in implementing particular coastal policies. They will be subject to the Coastal Resource and Development Policies to the extent allowed by their enabling legislation. This extent is narrow in the case of programs dealing with the quality of the ambient environment (i.e. air and water quality regulation), but is broader where a program involves land use regulations.

The policies of these programs are generally consistent with and, in several cases, are identical with the proposed Coastal Policies. The Coastal Policies on Water and Air Quality and Solid Waste adopt by reference the policies being developed by the divisions of the Department with greatest expertise in each field. The Division of Coastal Resources continues to monitor and review proposed changes to these policies through the rule-making process, and if a change were to violate the adopted Coastal Resource and Development Policies, the DEP Commissioner could refuse to allow the change.

Water Quality Program - The Federal Clean Water Act of 1977 (33 USC 466 et seq.) sets a framework for achieving a national goal of restoring and maintaining the chemical, physical and biological integrity of the nation's waters and ensuring that they be fishable and swimmable. This is to be accomplished by Federal-state partnerships under which EPA sets increasingly strict effluent standards for wastewater discharges and the states set quality standards for rivers, bays and the ocean, and develop a strategy for their attainment. The key regulatory element is the National Pollutant Discharge Elimination System (NPDES), and the key planning element is the Areawide Water Quality Management (208) Plan. These elements, as well as State wastewater treatment facility requirements, are the key programs for attaining the State's water quality goals in the coastal zone and throughout the state.

The attainment and maintenance of water quality in New Jersey is the responsibility of DEP's Division of Water Resources. The Division of Coastal Resources also plays a role in water quality enhancement through the enforcement of water quality resource policies in decision-making under CAFRA, the Wetlands Act and the Waterfront Development Law. The Division of Water Resources will consider other coastal policies not related to water quality to the extent statutorily permissible.

NPDES Permits - Any point source discharge into the waters of the United States, including the territorial sea, must receive a National Pollutant Discharge Elimination System Permit (NPDES) from either EPA or the State. There are 1,396 facilities currently regulated by NPDES in New Jersey. Perhaps as many as half of these facilities are located in the coastal zone. In New Jersey, permits are issued by EPA, Region II, but the State now has enabling legislation (the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq.) which allows DEP to take over the permitting function. Under the present arrangement, DEP's Division of Water Resources must certify that a proposed discharge will not prevent the attainment of the State's water quality standards before EPA may issue a NPDES permit, and can therefore prevent the issuance of that permit. This certification, which is required by Section 401 of the Federal Clean Water Act, focuses on the chemical and biological impact of the proposed discharge on attainment of the water quality standards for the receiving body of water. For example, water classified as TW-1, the highest classification for tidal waters, must be suitable for shellfish harvesting where permitted. If a proposed discharge would threaten the shellfish beds in TW-1 waters, the Division of Water Resources would have to withhold Section 401 Certification, and thus preclude EPA from issuing a NPDES permit. The NPDES permit process could be used to implement many of the proposed coastal policies for point sources of discharges.

When EPA approves a State program for issuing NPDES permits, the requirements remain the same -- compatibility with Federal effluent guidelines and state water quality standards -- but in New Jersey, DEP rather than EPA would make the initial permit determination. EPA would then have the authority to overrule DEP concerning any permit, just as DEP can currently prevent EPA from issuing a permit by not providing the Water Quality Certificate.

Section 6(b) of the State's Water Pollution Control Act also authorizes the Division of Water Resources to adopt regulations placing pre-construction requirements on anyone planning to build a new facility which would discharge wastewater. So-called "Preliminary Facility Approval" Regulations were proposed in the summer of 1977 which would require any person proposing to build a facility to first examine its potential impact on water quality. DEP could prevent construction or require modifications in the plan until it was satisfied that the completed facility would be compatible with State water quality requirements, thereby controlling water pollution by regulating the siting and construction of facilities in addition to regulating effluents. Adopting such regulations could significantly increase the types of development which DEP could require to follow the coastal policies. The proposed rules, however, were not well accepted and are presently being studied and revised.

The Coastal Management Program will adopt by reference the State's water quality standards as its standards, and the Division of Coastal Resources will comment on any proposed revisions. This is the same procedure adopted for the Bay and Ocean Shore Segment, which recognizes and relies upon the Division of Water

Resources' expertise. The Division of Coastal Resources will use its permitting authority, in consultation with the Division of Water Resources, to approve only those projects which will not prevent attainment of State water quality standards.

Areawide Water Quality Management (208) Plans

A Water Quality Management Plan developed according to Section 208 of the Clean Water Act is a comprehensive and implementable strategy for the control of water pollution in a county or multi-county area. Federal and State legislation require that the Coastal Management Program and 208 Plans be consistent. Through a Federal agreement between the Department of Commerce and the Environmental Protection Agency, and through a working relationship at the state level between the Divisions of Coastal Resources and Water Resources, the policies of the two programs are being coordinated and made consistent for both point and non-point sources of pollution.

Each 208 plan is to consist of a set of policies and a management system detailing how and by which agencies these policies will be enforced. The Coastal Zone is to be addressed by nine separate 208 Plans:

<u>Counties</u>	<u>Planning Agency</u>	<u>Status as of July 1980</u>
1. Middlesex	Middlesex County Planning Board	Certified by Governor
2. Mercer	Mercer County Planning Board	Certified by Governor
3. Burlington/Gamden/ Gloucester	Delaware Valley Regional Planning Commission	Certified by Governor
4. Salem/Cumberland	DEP-Division of Water Resources	Certified by Governor
5. Bergen/Hudson/Essex/ Passaic/Union/Somerset	DEP-Division of Water Resources	Certified by Governor
6. Monmouth	DEP-Division of Water Resources	Certified by Governor
7. Ocean	Ocean County Planning Board	Draft Plan Completed
8. Atlantic	Atlantic County Division of Planning	Draft Plan Completed
9. Cape May	Cape May County Planning Board	Draft Plan Completed

The Division of Coastal Resources will not issue CAFRA, Waterfront Development or Wetlands permits to development proposals which conflict with a certified 208 Plan. Similarly, all other regulatory programs in DEP will not issue permits to projects in conflict with a certified plan as required by N.J.S.A. 58:11A-10. The Division of Coastal Resources has been participating in the 208 planning process to assure that the plans are not only consistent with Coastal Policies, but also contain policies and strategies designed to protect water-related coastal resources. Thus, in implementing 208 plans through regulatory and other strategies, DEP, the counties and other agencies will also be implementing elements of the Coastal Management Program.

Wastewater Treatment Facilities - DEP is actively involved in the planning, financing and regulation of wastewater treatment facilities.

The State Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.), authorizes DEP's Division of Water Resources to require a permit for the construction, installation, modification or operation of any wastewater treatment facility, including

but not limited to sewage treatment plants, sewage collection systems including interceptors, sewer outfalls, industrial wastewater treatment plants, and cooling towers and ponds. Through another program authorized by the Water Pollution Control Act, the Division may place a ban on extensions to a sewerage system when that system is found to be receiving flows in excess of design capacity or to be discharging inadequately treated sewage.

Under the Water Supply and Sewer Systems in Realty Improvements Act (N.J.S.A. 58:11-23 et seq.), the Division must certify the adequacy of the proposed water supply and wastewater disposal system for any development involving fifty or more houses, or other structures producing wastewater, before a municipality may give the necessary subdivision approval. This requirement assures that proposed major subdivisions in the coastal zone and the entire state which employ on-site sewage disposal will not be built unless the disposal system is adequate "with respect to wells or other sources of water supply, topography, existing individual sewage disposal systems on adjacent properties, water table, soil characteristics, available area and expected volume of sewage" and meets State standards regarding design (N.J.A.C. 7:9-2.5). This law is of importance primarily in areas without regional sewerage systems. In the proposed coastal zone, this includes significant portions of Cumberland, Salem, and Cape May Counties.

In September, 1979, EPA delegated administration of the Wastewater Construction Grant Program under Section 201 of the Federal Clean Water Act to the Division of Water Resources. Under this program, DEP determines the eligibility of proposed municipal facilities for federal aid for facility planning (Step I), engineering (Step II), and construction (Step III). Since all wastewater facilities require a Waterfront Development permit (and a CAFRA permit if located in the CAFRA zone), DEP and EPA in 1977 entered into an agreement which requires that applicants obtain these permits before Step II engineering funds are released. This practice will continue under the delegated program. This insures that wastewater treatment facilities are planned, funded and built in accordance with Coastal Policies.

The State Public Sanitary Sewerage Facilities Assistance Act of 1965, (N.J.S.A. 26:2E-1 et seq.), authorizes DEP to give grants of up to 30 percent of the State-local cost of construction projects which qualify for the 75 percent Federal construction subsidy under Section 201. The State construction aid program is designed to complement the federal sewerage construction grants, and DEP's funding priorities are in accordance with Federal priority guidelines and Areawide Water Quality Management (208) Plans. This funding program will help to carry out coastal policies related to secondary impacts and the protection of environmentally critical or sensitive areas.

#### Stream Encroachments and Flood Hazards

No structure or alteration within the 100 year floodplain of any stream may be made without a permit from DEP's Division of Water Resources. This permit responsibility existed under the Stream Encroachment Act (N.J.S.A. 58:1-26) until its repeal and transfer to the Flood Hazards Area Control Act (N.J.S.A. 58:16A-50 et seq., as amended, see P.L. 1979, c.359). The program is intended primarily for flood protection, "to safeguard the public against danger from waters impounded or affected by such structures".

Administration of this program supports the preservation of stream channels in their natural state, and will allow further implementation of the Coastal Policies related to hydrology and flood hazards. Of 500 stream encroachment permit applications received in 1978, DEP granted 450. The Division of Coastal Resources and Water Resources are discussing procedures for waiving the Stream Encroachment Permit requirement for projects requiring a Waterfront Development Permit.

The Flood Hazards Area Control Act also authorizes DEP to adopt land use regulations for delineated floodways "designed to preserve (their) flood carrying capacity and to minimize the threat to the public safety, health and general welfare". Under the Act, municipalities may conduct the delineation and adopt regulations concerning their use in zoning ordinances, provided that they meet the minimum standards of the DEP regulations.

DEP has adopted, or proposed for adoption, floodway delineations in various parts of the proposed coastal zone (See Resource Policy on Flood Hazard Areas in Chapter Four). The Act only applies to riverine flood hazard areas, however, so its use in coastal flood zones is extremely limited.

#### Wild and Scenic Rivers

The purpose of the Wild and Scenic Rivers Act of 1977 (N.J.S.A. 13:8-45 et seq.) is to preserve, protect and enhance the natural and recreational value of some of the State's most significant river segments. The Act allows the Commissioner of DEP to designate river segments as "wild", "scenic", "recreational", or "developed recreational". In any river segment so designated, all construction activities would be either prohibited or regulated within the river's flood hazard area. This would expand upon DEP's authority under the Flood Hazards Area Control Act in the areas designated, by permitting a much wider range of considerations as criteria for DEP's regulatory decisions.

Before any designations can be made, the flood hazard area of a river under consideration must be delineated. The geographic extent of river designation is the flood hazard area, except that DEP owned lands beyond the flood hazard area which are important to the river may also be included in the designated river area. A designation study, assessing the river's values, and the impact of designation must be prepared and will be subject to public review and hearings.

The types of development that are controlled under the Act will depend on which designation is applied to the segment, with "wild" rivers having the strictest prohibitions and "developed recreational" the most lenient. DEP's Green Acres Administration has published guidelines for designation of the State's rivers under which both the Lower Delaware River and the Hudson River could be characterized as developed recreational segments. Examples of river segments which may be designated include: Hudson River from the New Jersey-New York border to Liberty State Park (only characteristics of the New Jersey side, including views of Manhattan, would be considered), or the Rancocas Creek from head of tide to confluence with the Delaware. DEP has proposed flood hazard area delineations for the Rancocas Region under the Flood Hazard Areas Control Act.



The Delaware and Raritan Canal State Park Act  
(N.J.S.A. 13:13A-1 et seq.)

This law is similar to, but was enacted three years before, the State's Wild and Scenic Rivers Act. Preservation of the sixty mile Delaware and Raritan Canal is entrusted to the Delaware and Raritan Canal Commission, which is in but largely independent of DEP. The Department is required by the law to administer all State-owned lands along the Canal as a State park, in accordance with a master plan adopted by the Commission in May, 1977. The Commission is given project review authority over proposals within a delineated review zone which includes the Canal Park and any land on either side of it in which development will have drainage or visual impact on the park. Within this zone, the Commission has the authority to "review and approve, reject or modify any project ..." (N.J.S.A. 13:13a-14c).

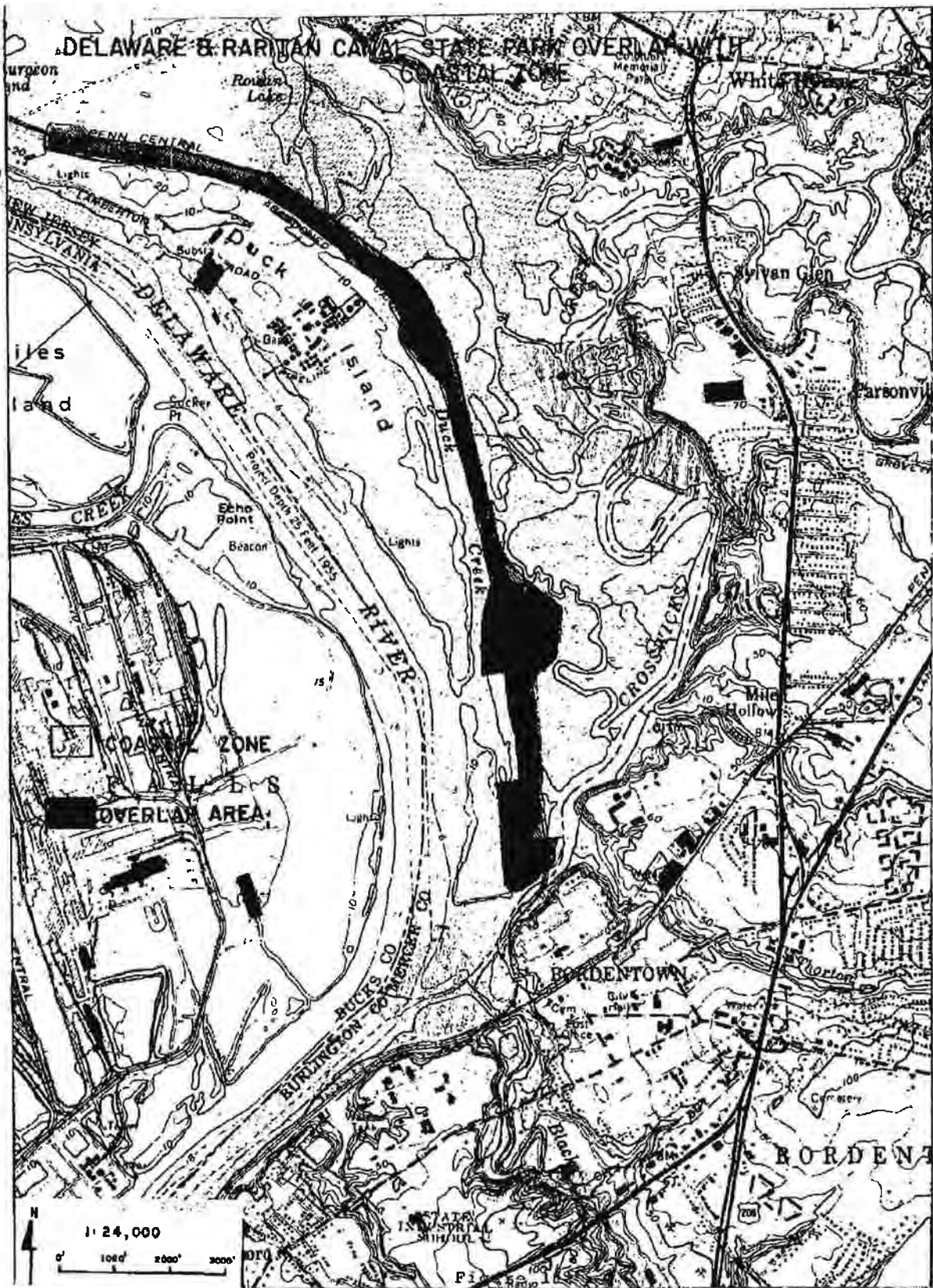
The projects to be reviewed by the Commission are set by rules adopted in 1979 (N.J.A.C. 7:45-1.1 et seq.): Within 1,000 feet of the Canal Park (the "A" zone), all projects will be reviewed for drainage, visual, noise or other ecological impacts. Outside this area, but within watersheds of streams that enter the Canal Park (the "B" zone), projects will be reviewed only for drainage impacts. Projects to be reviewed in this latter area will be those involving construction or redevelopment of twenty-five or more dwelling units, projects which will cover one or more acres of land with impervious surfaces, and projects with any of the following uses: livestock pens, corrals or feed lots; pipelines, storage or distribution systems for petroleum products or chemicals; liquid waste, storage, distribution or treatment facilities; solid waste storage, distribution or incineration or landfill; quarries, mines or borrow pits; land application of sludge or effluents.

Two small segments of the canal park, totalling approximately 288 acres, lie within the proposed coastal zone (See Figure 11). In the Northern Waterfront area, the Canal extends along the Raritan River from New Brunswick to the limits of tidal water. In the Delaware River area, it begins at Crosswicks Creek, Hamilton Township, and then leaves the coastal zone as it turns away from the river in Trenton. Within these segments, proposed development would have to meet the policy requirements of both the Canal Commission and the Coastal Management Program. The policies proposed by the Commission are consistent with the proposed Coastal Resource and Development Policies.

Pinelands Protection

The Pinelands Protection Act (P.L. 1979, Ch. 111; N.J.S.A. 13:18A-1 et seq.) establishes a framework for the comprehensive planning and regulation of development in the approximately 1,000,000 acres of fragile, highly valued pinelands that reach across central and southern New Jersey. The Pinelands Area and its sub-areas are mapped and the overlap between that area and the proposed coastal zone is shown in Figure 19 (Chapter 4).

The Act is intended to accomplish the purposes of the National Parks and Recreation Act of 1978 (P.L. 95-625), which authorized federal support for Pinelands protection through planning and land acquisition. The Federal Act directs the Department of the Interior to provide up to \$3 million in planning assistance if requested by the Governor, and up to \$26 million in implementation funds



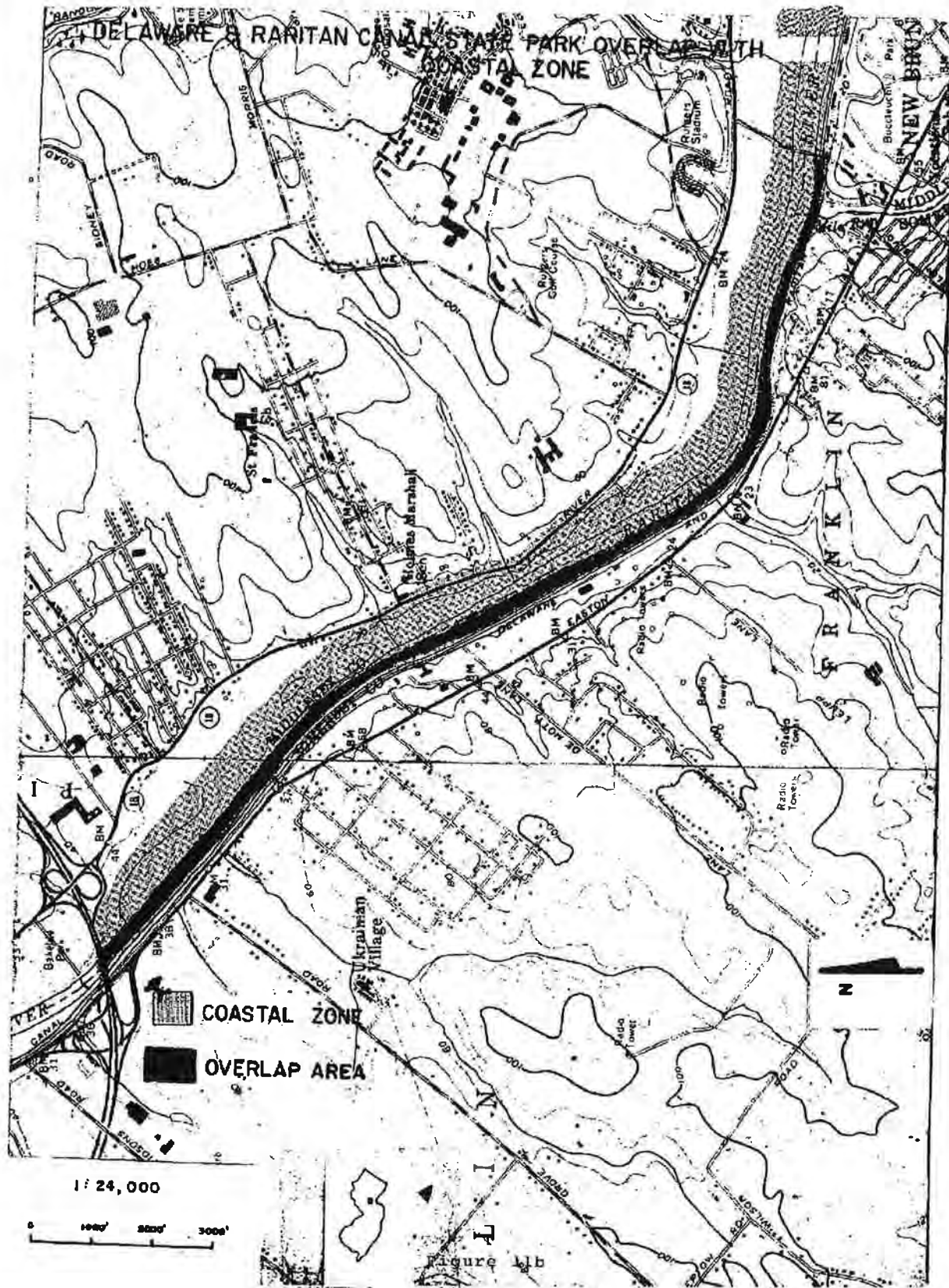


Figure 1b

following submission of an acceptable master plan. Both the planning process and a moratorium on State permit approvals and financial assistance were initiated by a Governor's Executive Order (EO No. 71, 1979) in March, 1979. The Pinelands Protection Act was subsequently passed and signed into law on June 28, 1979.

The Act establishes the following policy goals for the Pinelands:

1. The goal of the comprehensive management plan with respect to the entire pinelands area shall be to protect, preserve and enhance the significant values of the resources thereof in a manner which is consistent with the purposes and provisions of this act and the Federal Act.

2. The goals of the comprehensive management plan with respect to the protection area shall be to:

(a) Preserve and maintain the essential character of the existing pinelands environment, including the plant and animal species indigenous thereto and the habitat therefor;

(b) Protect and maintain the quality of surface and ground waters;

(c) Promote the continuation and expansion of agricultural and horticultural uses;

(d) Discourage piecemeal and scattered development; and

(e) Encourage appropriate patterns of compatible residential, commercial and industrial development, in or adjacent to areas already utilized for such purposes, in order to accommodate regional growth influences in an orderly way while protecting the pinelands environment from the individual and cumulative adverse impacts thereof.

3. The goals of the comprehensive management plan with respect to the preservation area shall be to:

(a) Preserve an extensive and contiguous area of land in its natural state, thereby insuring the continuation of a pinelands environment which contains the unique and significant ecological and other resources representative of the pinelands area;

(b) Promote compatible agricultural, horticultural and recreation uses, including hunting, fishing and trapping, within the framework of maintaining a pinelands environment;

(c) Prohibit any construction or development which is incompatible with the preservation of this unique area;

(d) Provide a sufficient amount of undeveloped land to accommodate specific wilderness management practices, such as selective burning, which are necessary to maintain the special ecology of the preservation area; and

(e) Protect and preserve the quantity and quality of existing surface and ground waters.

The Act created a 15 member Commission (in but independent of DEP), and directed the Commission to develop a comprehensive Pinelands management plan by August 8, 1980.

On June 8, 1980, the Commission released a draft Comprehensive Management Plan including a land use map and development standards. Since the plan's release, legislation has been enacted to extend the deadline for plan adoption from August 8 to December 15, 1980, to allow adequate time for comment and revision. The standards for the Preservation Area, however, will take effect on August 8, 1980 as called for in the initial legislation.

Within one year of the plan's adoption, every county and municipality located in whole or in part in the Protection Area must submit to the Commission a master plan and/or zoning ordinance which complies with the adopted policies. Also following adoption, state regulatory and capital spending decisions in the area must comply with the policies.

The Act continues and extends to county and municipal approvals the moratorium on decision-making in the Pinelands area. The construction of single family dwellings is exempted from the moratorium in the Protection Area if the building lot was owned by January 7, 1979 by the person who is to occupy the dwelling, has access to a sewer system or, where no sewer is available, is greater than one acre in area.

The Commission may grant exceptions from the moratorium when necessary to alleviate extraordinary hardship or to satisfy a compelling public need, or where it has been determined that the project is consistent with the Act's purposes and would not result in substantial impairment of the Pinelands area's resources. The Commission has not yet adopted regulations governing this process.

The Pinelands National Reserve overlaps with the coastal zone in portions of Ocean, Burlington, Atlantic and Cape May Counties (see Figure 19), and in the Mullica River watershed there is also overlap between the coastal zone and the Pinelands Area under the jurisdiction of the State Pinelands Act. In this later area, coastal permits and approval from the Pinelands Commission will both be required for new development. This area is designated a part of the Preservation Area by the Pinelands Protection Act and a Limited Growth Region by the Coastal Resource and Development Policies, indicating a consistency of policies. In the area of overlap between the coastal zone and the National Reserve which is not under the jurisdiction of the Pinelands Protection Act, the Coastal Management Program will be the principal means of implementing the Pinelands Comprehensive Management Plan. The amendment to Coastal Growth Ratings in Ocean County (Chapter 4, Section 7:7E-5.3) and revisions to the Resource Policy on Buffers and Compatibility of Uses (Chapter 4, 7:7E-8.15), are both intended to make the coastal program more consistent with the draft Comprehensive Management Plan. Similarly, Section 22 of the State Pinelands Protection Act requires that DEP review its coastal policies and make any revisions "as may be necessary to effectuate the purposes of this act and the Federal Act". DEP believes that the Coastal Resource and Development Policies, as amended in this document, are basically

consistent with Federal and State Pinelands objectives and with the draft Pinelands Comprehensive Management Plan. Nonetheless, between now and the time of adoption of the Pinelands Comprehensive Management Plan, DEP and Pinelands Commission staff will be meeting to discuss modifications to both programs to increase their consistency.

#### Regulation of State Owned Land

The Natural Areas System Act (N.J.S.A. 13:1B-15.12a et seq.) calls for the Department to designate and regulate State-owned lands for the purpose of protecting and enhancing their natural values. The natural area regulations govern state agencies administering lands designated as part of the system, and ensure that any critical areas purchased by the State for preservation or conservation purposes are adequately protected. The Natural Areas System Act is a regulatory adjunct to those coastal policies encouraging the preservation of open space and the protection of critical environmental areas.

There are ten designated Natural Areas in the proposed coastal zone. These are described in Chapter Five under Geographic Areas of Particular Concern.

Parts of Rancocas State Park in Burlington County and the Delaware and Raritan State park in Middlesex and Mercer Counties are also in the proposed coastal zone. These parks and any other State-owned lands managed by DEP within the coastal zone, including forests and fish and wildlife management areas, will be managed consistent with the Coastal Policies. Development proposed on DEP managed lands is reviewed by the Division of Coastal Resources to assure consistency, if it requires one or more coastal permits.

Coastal resources along the Hudson River north of the George Washington Bridge, most notably the Palisades, are protected by inclusion within the Palisades Interstate Park. The park is managed by the Palisades Interstate Park Commission, a bi-state agency of New Jersey and New York.

Federally owned land is excluded from the coastal zone (see Appendix B).

#### Air Quality Programs

As the New Jersey agency designated to administer the Federal Clean Air Act, DEP's Division of Environmental Quality conducts the planning for and the monitoring of air quality. The Division's Bureau of Air Pollution Control has promulgated, and is further developing programs by which the National Ambient Air Quality Standards (NAAQS) will be attained. In compliance with the 1977 Amendments to the Federal Clean Air Act, New Jersey has submitted a State Implementation Plan (SIP) to the U.S. Environmental Protection Agency outlining strategies for attainment and maintenance of the Standards.

The Bureau of Air Pollution Control has an extensive permitting program which reviews proposals for any operation which would result in air pollution emissions. Thus, any proposal to construct or operate manufacturing facilities, non-commercial fuel burning equipment, storage tanks to hold fuel and other organic substances, and commercial fuel burning equipment with a heat output rate of one million BTU/hour or more must receive a permit from DEP. In addition, the Bureau requires permits to install any incinerator unless it will serve a multi-family dwelling of six units or less.

The purpose of requiring permits under the State's Air Pollution Control Act is to impose controls necessary to meet established standards on potential sources of new air pollution. The Act, therefore, will serve to implement the Coastal Policies on air quality. Permits are granted when the Bureau has ascertained that the application complies with Federal and State air pollution regulations, and that its emissions control system reflects "Best Available Control Technology", also considered "state of the art" technology. In any year, the Bureau reviews 6,000 to 7,000 applications and approves all but about 120.

#### Solid Waste

The Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. authorizes DEP to supervise the collection and disposal of all solid wastes and related operations, including the location of disposal sites. Proposed facilities and sites are to be reviewed with reference to the quality of groundwater, erosion control, and "such other measures as shall be deemed necessary to protect the public health and safety of the environment" (N.J.S.A. 13:1E-6). Because numerous environmental impacts may be considered under this Act, DEP would apply all of the proposed Coastal Policies as criteria for site selection for solid waste collection and disposal facilities.

Under the New Jersey Solid Waste Management Act and the Federal Resource Conservation and Recovery Act (RCRA, P.L. 94-580), every county in the State as well as the Hackensack Meadowlands Development Commission must draft a solid waste management plan. After the plans are adopted, they will control the siting of solid waste disposal facilities. RCRA states that for a plan to receive EPA implementation funds, it must provide that all solid waste be recycled or disposed of in sanitary landfills meeting federal requirements. The Division of Coastal Resources will review developing solid waste management plans for consistency with coastal policies.

#### Harbor Clean-Up

The "New York Harbor Collection and Removal of Drift Project" is a joint State/Federal undertaking, supervised by the U.S. Army Corps of Engineers and administered at the state level by the Bureau of Capital Improvements in DEP's Division of Fiscal and Support Services. The plan calls for the Corps to remove all abandoned sources of drift from both public and private property, from mean high water seaward to a depth of 20 feet. Disposal methods include burning at sea, landfill, and land incineration, with burning at sea found preferable. Some dredging may be required to reach structures scheduled for removal. Local governments are to be responsible for subsequent maintenance of facilities, and no funds are provided for the revitalization of cleared areas.

New Jersey's share of the project's cost, \$10 million, was authorized by the voters of the State as part of the \$30 million Beaches and Harbors Bonds Act of 1977. The Act states in part that "the state's growing population, expanding commercial development, and tourist industry all require and should have a clean, adequate, and accessible shoreline" (Section 2b).

#### OTHER STATE AGENCIES

A number of state agencies, in addition to DEP, make decisions affecting land and water uses in coastal areas.

Unlike the operating divisions of DEP, these agencies are bound by the Rules on Coastal Resource and Development Policies only when their activities require a DEP permit. Only the Department of Energy (DOE) is specifically obligated to follow the adopted Coastal Resource and Development Policies, pursuant to a Memorandum of Understanding with DEP.

The sections which follow describe those activities of other state agencies which affect coastal land or water uses and which could, if conducted consistently with the Coastal Policies, enhance the program's effectiveness.

All major State public construction projects will be consistent with the coastal policies by virtue of the Governor's Executive Order 53 of 1973, which requires that any State project costing \$1.0 million or more, or State projects costing less than \$1.0 million which by reason of their nature or location have the potential for substantial adverse environmental impacts, be first reviewed by DEP for environmental impacts.

Department of Agriculture - The Department of Agriculture shares with DEP the regulatory responsibility of the Soil Erosion and Sediment Control Act (N.J.S.A. 4:24-39 et seq. as amended). The Act is administered by the State Soil Conservation Committee, which includes the Commissioners of the two Departments, and local Soil Conservation Districts. The Act controls erosion and sediment during the construction phase of development.

It mandates site plan review of proposed sediment control practices for all construction, excluding individually developed single family homes, resulting in a soil disturbance of at least 5,000 square feet. Reviews are conducted according to regulations (N.J.A.C. 2:90-13) describing standards for techniques to establish ground protection and control of runoff, such as diversions, sediment basins, slope protection structures and channel stabilization. The Coastal Resource and Development Policies pertaining to soil are based on the Act, thereby assuring conformity between the two.

In addition, local Soil Conservation Districts and the South Jersey Resource Conservation and Development Council, with technical assistance from the USDA-Soil Conservation Service, have worked with several municipalities on dune stabilization and dune management.

Department of Community Affairs - The Department of Community Affairs (DCA) is responsible for the administration of a broad range of social programs, including those affecting housing. The Department does not, however, play a significant role in the formal management system of the Coastal Program, with the possible exception of the activities of its Housing Finance Agency.

Under Section 701 of the Federal Housing and Community Development Act and the State law which established the Division of State and Regional Planning (N.J.S.A. 13:1B-15.50), DCA has prepared a State Development Guide Plan (Preliminary Draft - September 1977). The major policies of the Guide Plan are: Maintain the quality of the environment, preserve the open space necessary for an expanding population, provide space and services to support continued economic expansion, and enhance the quality of life in urban areas. These policies, and the regulatory and funding decisions made under them, are consistent with the proposed coastal policies.



DCA's Housing Finance Agency (HFA) provides financing for private housing, and makes its decision on the basis of the Guide Plan and other State policies. Because all HFA proposals involve projects with costs exceeding \$1.0 million, DEP is able to use Executive Order 53 to insure that they are designed consistently with the Coastal Resource and Development Policies. In addition, HFA-financed projects with 25 units or more require a CAFRA Permit, and all HFA-financed projects in the coastal zone outside the CAFRA area will require either a Waterfront Development or Wetlands permit.

Department of Labor and Industry - The Department of Labor and Industry's (DLI) regulatory programs are, for the most part, not land-use related. However, the Department, through its Office of Business Advocacy, plays an important role in siting and financing business and industry in the State. As part of this effort, DLI assists industrial developers in obtaining the State permits necessary for siting and operating plants, and will therefore work with DEP on industrial siting decisions. In addition, the Department can speed the development review process by steering potential developers towards sites on which development would be consistent with the Coastal Policies.

Economic Development Authority - The Economic Development Authority (EDA), arranges low-interest, long-term financing for projects (including commercial fisheries), and is authorized to enter into contracts and buy and sell land and buildings. It is governed by a seven member board which includes the Commissioner of DEP. The Authority works closely with the Division of Economic Development within the Department of Labor and Industry. In 1977, it provided \$265 million for low interest loans throughout the State. DEP is working with EDA to explore the opportunity for consistency between EDA funding criteria and the proposed Coastal Policies. This could lead to coordinated planning for industrial development.

Department of Transportation - The Department of Transportation (DOT) is responsible for the planning, construction, and maintenance of state highways, the review and funding of local highway projects, the planning of state and regional transportation strategies, and the regulation of some transportation facilities. DOT construction projects affecting DEP-regulated lands or resources are subject to DEP regulatory authority, insuring their conformity with the coastal policies. As part of their planning responsibilities, DOT and DEP have a working relationship for planning in coastal areas.

Department of Health - The Department of Health shares with DEP the regulatory responsibilities for shellfish control activities including depuration and for recreational sanitation. Additionally, the Department of Health is responsible for the administration of a broad range of health programs, including health facilities planning, which may impact on the development of coastal policies.

#### COUNTY LAND USE AUTHORITY

The major role played by counties in the coastal program management system is that of planners. County land use authority is limited to the review and approval of subdivision and site plans for traffic impacts on county roads, and for drainage impacts on county facilities (see N.J.S.A. 40:27-1 et seq.). Most counties have prepared master plans or studies analyzing county issues and concerns to guide their decision making. The Municipal Land Use Act (N.J.S.A. 40:55D-1 et seq.) mandates coordination between county and municipal authorities by requiring that municipal master plans include a statement concerning the relationship between the municipal plan and the county master plan.

Other county functions which could help to carry out a coastal program include the 208 water quality planning responsibility some counties have undertaken and the counties' responsibility to prepare Solid Waste Management plans. Under the County Environmental Health Act of 1978, each county can formulate and enforce environmental health ordinances to control air pollution, solid waste, noise and water pollution. These ordinance must be consistent with applicable state laws, rules and regulations. The Act gives the Commissioner of DEP authority to delegate administration of the environmental health laws it administers to the counties. To date, this authority has not been exercised, nor have the Act's programs been funded.

Most coastal counties have been actively involved in the planning and development of the New Jersey's coastal program. For two years, DEP sponsored a state-county coastal coordination project with every county in the Bay and Ocean Shore Segment and Salem, Camden, Gloucester, Burlington (one year), Middlesex, Hudson and Union (one year) counties. Using funds made available under the federal Coastal Zone Management Act, DEP contracted with the counties for the provision of information and analysis which is being used in the development of the Coastal Program. The counties have generated ideas, and in some cases, suggested a boundary and policies for their section of the coastal zone.

#### MUNICIPAL LAND USE AUTHORITY

New Jersey's municipalities derive their power to enact and enforce zoning ordinances from the State, and possess extensive regulatory authority over land uses. The Municipal Land Use Law, (NJSA 40:55D-1 et seq.), requires municipal planning boards to prepare master plans to guide municipal land use. It requires that all municipal zoning ordinances be consistent with or designed to carry out the land use element of the master plan.

The State and municipality act as a check on each other in areas subject to State land use regulatory authority. A locally approved proposal cannot be constructed without receipt of relevant state approvals, and a State-approved project, with certain exceptions in which the State has eminent domain authority, must receive appropriate local approvals.

The Division of Coastal Resources has been soliciting municipal participation in the development of the coastal program for years by sharing draft documents with municipal officials and holding public meetings throughout the state. In addition, the Division will continue to encourage municipalities to review and comment on State coastal permit applications. Active involvement of the municipalities and consistency between local plans, ordinances and policies and state Coastal Policies is important for the successful development and full implementation of the Coastal Program.

#### REGIONAL LAND USE AUTHORITY

##### Delaware River Area

In the Delaware River area, authority to implement the Coastal Policies is complemented and enhanced by the Delaware River Basin Commission (DRBC). The DRBC was created in November 1961 upon enactment of concurrent legislation by the Congress of the United States and by the respective legislatures of the States of Delaware, New Jersey, and New York, and the Commonwealth of Pennsylvania. It is charged with the responsibility for development and effectuation of plans, policies

and projects relating to the water resources of the multi-state Delaware River Basin. The members of the DRBC are the Governors of the signatory States and one commissioner appointed by the President of United States. The Governors appoint alternates to the act as their representatives. The Commission exercises its powers and duties within the limits of the Delaware River Basin, defined in the Delaware River Basin Compact as the area of drainage into the Delaware River and its tributaries, including Delaware Bay (see Figure 12).

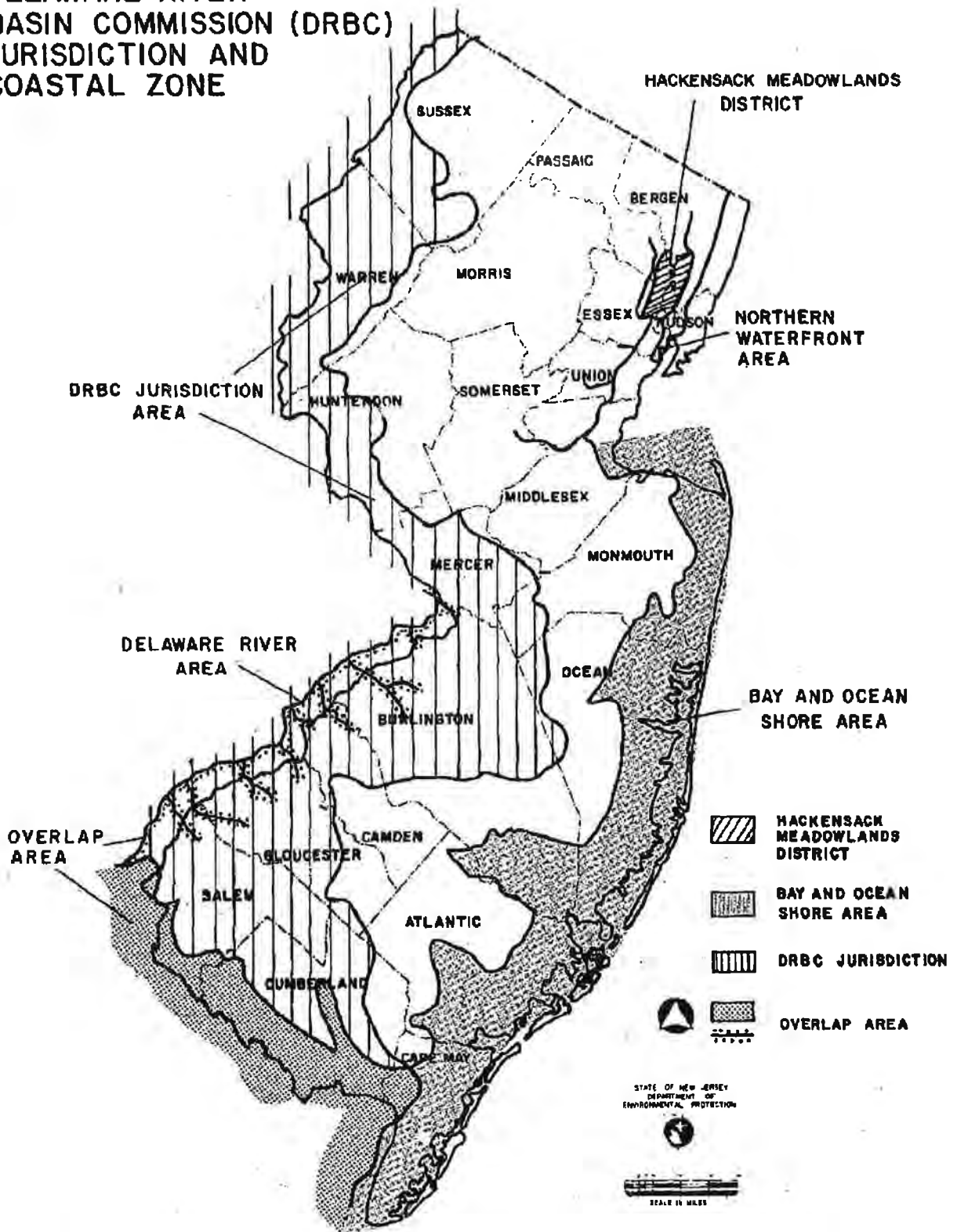
Under the provisions of the Compact, DRBC has broad powers in relation to management of water supplies, water quality, pollution control, flood protection, watershed management, recreation, fish and wildlife, hydro-electric power, and regulation of water withdrawals and diversions. Under Section 3.8 of the Compact, no project having a substantial effect on the water resources of the basin may be undertaken without the Commission's approval. Under Article 11, all public projects affecting the water resources of the Delaware Basin must be planned in consultation with the Commission.

The Delaware River Basin Compact requires that the DRBC develop and adopt a comprehensive plan for the water resources of the Basin. The Comprehensive Plan differs from the usual "master plan" in that it serves not only as a guide for development of the water resources, but also as a management and regulatory mechanism. It sets water quality standards for the basin, which together with state standards are the criteria for water quality certification of NPDES permits. It also establishes an interstate waste load allocation program for the Delaware River Estuary. In October, 1979, the DRBC produced a report titled The Delaware River Basin containing generalized recommendations and strategy for updating the Comprehensive Plan. The report was the product of a comprehensive basinwide (Level B) study of the basins' water resources.

The Comprehensive Plan includes Commission administrative actions and determinations, and the Plan continues to grow in scope as the Commission regularly adds new policies, criteria, standards and projects. For example, in 1978 the Commission adopted a wetlands policy similar in substance to the State's proposed Wetlands Special Area Policy, as part of the Comprehensive Plan. The plan, therefore, goes beyond the presentation of programs and facilities for meeting various needs; it includes a codification of administrative decisions governing water resources use, development and conservation.

DEP hopes to modify an existing administrative agreement between DRBC and DEP for the purpose of coordinating DEP coastal permit programs with DRBC project review in the Coastal Zone. Although such an agreement is not essential for federal approval of the New Jersey Coastal Management Program, it would supplement the coastal permit programs by ensuring that DRBC, upon the request of DEP, will use its authority under Section 3.8 of its Compact to review proposed projects significantly affecting the water resources of the Delaware River Basin. A recently completed coordination project between DRBC and DEP-DCR provided input to the Department in drafting the proposed Coastal Resource and Development Policies and concluded that the policies are not in conflict with the DRBC Comprehensive Plan. The administrative agreement would ensure that DRBC will consider adopted Coastal Resource and Development Policies to the maximum extent feasible as criteria in its project review decisions. The Department will also work with DRBC and the Delaware and Pennsylvania coastal management programs to develop a unified set of coastal policies for consideration for future incorporation into the DRBC Comprehensive Plan.

**OVERLAP BETWEEN  
DELAWARE RIVER  
BASIN COMMISSION (DRBC)  
JURISDICTION AND  
COASTAL ZONE**



Another regional agency in the Delaware River Area is the Delaware River Port Authority (DRPA). The DRPA is a self-sustaining bi-state public agency of Pennsylvania and New Jersey. It owns and operates four bridges which span the Delaware River connecting Southeastern Pennsylvania and Southern New Jersey, and through its subsidiary PATCO operates the Lindenwold High Speed Line. Although the Delaware River Port Authority does not own or operate any port facilities along the Delaware, it promotes trade and commerce for the ports of the Delaware River, collectively known as Ameriport.

As part of its efforts to plan for and promote the Delaware River Port area, the Delaware River Port Authority is currently working to develop a Delaware River Regional Port Planning Study which will be funded by the federal Maritime Administration. The study will make recommendations concerning development of twenty-seven sites wholly or partly within the New Jersey coastal zone. DEP has analyzed these sites and determined that under the Rules on Coastal Resource and Development Policies water dependent development would be acceptable provided Special Area, Use and Resource Policies are complied with. On two sites the presence of wetlands substantially limits the developable area. A map of the twenty-seven sites and DEP comments on their acceptability for development are available at DEP-DCR offices in Trenton. DEP will continue to coordinate closely with DRPA as their regional port planning study progresses.

Although the DRPA is specifically exempted from State regulation (N.J.S.A. 32:3-6), it must obtain permission for the acquisition or use of State-owned tidelands from the Tidelands Resource Council.

The Delaware River and Bay Authority was created by an interstate compact between New Jersey and Delaware. The Authority operates the Delaware Memorial Bridge and the Cape May-Lewes Ferry, and is empowered to operate marine terminals.

#### Northern Waterfront Area

In most of the northern waterfront, the Coastal Policies are enforceable only through the Waterfront Development and Tidelands Management programs. Near the Raritan Bay, DEP also has regulatory authority over development in mapped coastal wetlands. In addition, DEP will fund capital spending projects only when they are consistent with the Coastal Policies.

The Coastal Policies can be further implemented, however, through coordination with several interstate and regional agencies having jurisdiction in the area. One of these agencies, the Port Authority of New York and New Jersey, is a self-supporting corporate agency formed in 1921 by the States of New York and New Jersey "to deal with the planning and development of terminal and transportation facilities, and to improve and protect the commerce of the Port District". The Port District encompasses a large area surrounding New York harbor and includes all of the Northern Waterfront coastal zone.

The Authority's operations are not exempt from DEP's regulatory and tidelands authority (see N.J.S.A. 32:1-35.11 and 32:1-32.35).

Because of the Port Authority's active involvement in the development and management of port, transportation and industrial facilities and its mandate to protect and promote commerce through the Port of New York and New Jersey, the Division of Coastal Resources is working closely with the Authority in policy

development. The planning and development of large northern waterfront sites by this interstate agency could be an important step toward revitalization of urban waterfront areas.

In 1978, legislation was enacted in New Jersey and New York enabling the Port Authority to undertake an industrial park development program intended to revitalize the inner cities of the Port District and to create an estimated 30,000 jobs over the next ten years. The Port Authority program to develop sites for manufacturing plants in the hard-pressed central cities would require an investment of more than \$1 billion in public and private funds over the next ten years, of which the Port Authority would invest up to \$400 million on a self-supporting basis.

The Interstate Sanitation Commission was formed in 1936 by the states of New Jersey, New York and Connecticut to control pollution in the tidal waters of the New York metropolitan area. More recently the Commission has become concerned with air pollution as well, and monitors and conducts research concerning both air and water quality. Under its compact (Article 17 as revised October 1970), the Commission may "develop and, after public hearing place in force ... classifications of waters and effluent standards within the District". A NPDES permit may not be issued for any discharge which would violate the Commission's standards.

Waterfront planning and management in the Northern Waterfront Area may also benefit from the Hudson River Waterfront Study, Planning, and Development Commission. This Commission was established by Governor Byrne in Executive Order No. 69 on January 11, 1979 to "conduct a thorough study and investigation of the various alternatives for the planning and redevelopment of the Hudson River Waterfront South of the George Washington Bridge". The Commission is composed of State legislators, representatives of Hudson and Bergen Counties, the mayors of 15 waterfront municipalities in those counties and other citizens appointed by the Governor. The Commission has released a Working Draft Report (March 1980) and will present its recommendations, including a proposal for a permanent regional agency which will prepare a Riverfront Plan to guide the redevelopment and revitalization of the waterfront, to the Governor in September 1980. DEP's Bureau of Coastal Planning and Development serves as staff to the Commission.

#### Federal Agency Authority

Section 307 of the FCZMA allows states with approved coastal management programs to object to direct federal activities, federal permits or funding activities in or affecting the coastal zone which would violate elements of the Coastal Program. Also covered by Section 307 are federally licensed and permitted activities described in Outer Continental Shelf (OCS) exploration plans.

The meaning of "Federal Consistency" has been subject to much debate since it was first included in the Coastal Zone Management Act in 1972. At a minimum, it leads to increased coordination between DEP and federal agencies near the coast. It increases opportunities for more efficient and effective review of coastal projects which require both state and federal approvals and it establishes a formal process for resolution of differences.

Once the State has an approved coastal management program, any OCS plan for exploration, development or production from any tract affecting New Jersey's coast would have to be certified as consistent with the State Coastal Management Program. This is now in effect as a consequence of federal approval for the Bay

and Ocean Shore Segment. As opposed to past procedures which only allowed the State to exercise review and comment on OCS plans, the consistency provisions go one step further by allowing the State to enforce its coastal policies through a consistency certification process.

Federal consistency applies only after a State's coastal program is approved and cannot be used by a state to help demonstrate that it has sufficient authority to meet the standards of the federal Coastal Zone Management Act. Federal Consistency is discussed in detail in Chapter Five.

#### Public Participation

Public participation is an essential element in the development of a viable coastal management program. The New Jersey program offers opportunities for participation not only in program development, but also in regulatory decision-making and continued planning.

The three coastal permit programs (CAFRA, Wetlands, and Waterfront Development) all have public notice and hearing requirements, providing the opportunity for public participation in the implementation of the coastal policies. DEP will ensure public notice of pending applications through notification of the appropriate county planning board, county environmental commission, municipal planning board, county environmental commission, soil conservation district, and the Delaware Valley Regional Planning Commission and Tri-State Regional Planning Commission. In addition, owners of land adjacent to the site proposed for development will be informed of the application. All pending applications are listed in the DEP Bulletin which is distributed free and has a current circulation of 1,600. The Department is also cooperating with the "coast watch" program, sponsored by the American Littoral Society, to inform more people about pending coastal decisions and other events.

DEP holds a public hearing near the site of a proposal for every CAFRA permit application, and for major Wetlands and Waterfront Development permit applications. In addition, any interested person can review DEP's file on a pending application and submit written comments. Decisions to lease or sell tidelands are made by the Tidelands Resource Council at meetings which are open to the public.

DEP will continue to involve coastal residents, workers and visitors in planning for the future of the coastal zone. This involvement takes several forms, and the Department will remain open to additional public participation techniques which may be suggested. Substantive changes in the Coastal Management Program and its policies will be subject to the notice and hearing requirement of both the federal regulations and the New Jersey rule-making process.

The Division of Coastal Resources will continue to publish The Jersey Coast several times each year to inform interested people of future public meetings, available reports, and coastal planning and regulatory activities. Division staff will continue to make themselves available to meet with interested groups and the Division will continue to convene a series of public meetings throughout the coastal zone at least twice a year. In addition, Division staff will continue to meet periodically with the leaders of statewide environmental groups, builders groups, and other groups which express interest.

Part of public participation is public education, and DEP will continue to prepare and to assist others in preparing informative, understandable publications about the coast and the coastal zone management program. The Department will supplement governmental publications with the use of newspapers, magazines, radio and displays in public places such as libraries, shopping areas and conventions.

#### Conflict Resolution - Appeals

The permit decisions made under the New Jersey Coastal Management Program, as described in this Chapter, can be appealed administratively. A CAFRA permit decision can be appealed by any interested person within 21 days of the final DEP action, to the DEP Commissioner or to a Coastal Area Review Board composed of the Commissioners of Environmental Protection, Community Affairs, and Labor and Industry. The decision of the Commissioner or of the Review Board can be further appealed through the courts. A Wetlands permit decision may be appealed to the DEP Commissioner and then to the courts. A Waterfront Development permit decision may be appealed to the Tidelands Resource Council (DEP has proposed to change the procedure, so appeals will be to the Commissioner), and then to the courts.

There is no administrative process for appealing the decision of a State agency to adopt a rule, but the adoption of any rules, including the Rules on Coastal Resource and Development Policies, may be challenged by bringing an action in the Appellate Division of the New Jersey Superior Court.

The Department of Energy (DOE) may appeal decisions affecting the construction or location of an energy facility to the Energy Facility Review Board. Under the Department of Energy Act, the Board will be called into existence by the Department of Energy if it disagrees with the decision of any state agency to grant or deny a permit for an energy facility. The Memorandum of Understanding in Appendix C explains this process. It is important to note, however, that between July 1977 and the present, the DEP/DOE conflict resolution process has not been necessary.

The Management System for the Coastal Program does not appear likely to generate other conflicts which will require a resolution mechanism. If a proposal requires approval under several laws with different sets of criteria, the applicant will have to meet them all. A project subject to the Coastal Management Program and encouraged by the plans or actions of another agency could not be constructed unless it received the required coastal permits. At the same time, a project which conforms with all the Coastal Resource and Development Policies could not be constructed until the applicant received all other required state, federal, and municipal approvals.



Chapter 4: Coastal Resource and Development Policies



## CHAPTER FOUR - COASTAL RESOURCE AND DEVELOPMENT POLICIES

### Note to Reader

This chapter defines substantive coastal policies to guide public decisions about significant proposed development and management of resources of New Jersey's coastal zone. A three step decision-making process involving Location, Use and Resource Policies is used in order to increase predictability and add more specificity to the coastal decision-making process.

Coastal policies for the Bay and Ocean Shore Segment were adopted as administrative rules (N.J.A.C. 7:7E-1.1 *et seq.*, effective September 28, 1978), and appeared on pages 27-163 of the New Jersey Coastal Management Program - Bay and Ocean Shore Segment and Final Environmental Impact Statement (August 1978). As adopted, the policies applied only to the Bay and Ocean Shore Segment. The policies will be amended effective September 26, 1980, to expand their jurisdiction to the entire coastal zone.

The policies will be the criteria for permit decisions under CAFRA, the Wetlands Act and the Waterfront Development Act, and will guide DEP recommendations to the Tidelands Resource Council and management actions anywhere in the coastal zone.

These amended rules apply to all CAFRA applications found complete for review on or after September 26, 1980, and for all Wetland Act and Waterfront Development Act applications found complete for filing on or after September 26, 1980. However, these amended rules also apply to applications found complete for review or filing before September 26, 1980, at the request of the applicant.

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## SUBCHAPTER 1 - INTRODUCTION

### 7:7E-1.1 Purpose

This chapter presents the substantive policies of the Department of Environmental Protection regarding the use and development of coastal resources, to be used primarily by the Division of Coastal Resources in the Department in reviewing permit applications under the Coastal Area Facility Review Act (CAFRA), N.J.S.A. 13:19-1 et seq., Wetlands Act, N.J.S.A. 13:9A-1 et seq., and Waterfront Development Permit Program, N.J.S.A. 12:5-3. The rules also provide a basis for recommendations by the Department to the Tidelands Resource Council on applications for riparian grants, leases, or licenses.

By adopting these policies as administrative rules, according to the Administrative Procedures Act, the Department aims to increase the predictability of the Department's coastal decision-making by limiting administrative discretion, as well as to ensure the enforceability of the Coastal Resource and Development Policies of the coastal management program of the State of New Jersey prepared under the federal Coastal Zone Management Act. Further, the Department interprets the "public health, safety, and welfare" clause in CAFRA (N.J.S.A. 13:19-10f) and the Wetlands Act (N.J.S.A. 13:9A-4d) to include a full consideration of the national interests in the wise use of coastal resources.

### 7:7E-1.2 Authority

These rules are adopted under the general powers of the Department, N.J.S.A. 13:1D-9, as well as the Department's specific rule-making and coastal management powers under the Coastal Area Facility Review Act, N.J.S.A. 13:19-17, the Wetlands Act, N.J.S.A. 13:9A-1 et seq., the Waterfront Development Permit Program N.J.S.A. 12:5-1 et seq., and the riparian lands statutes (generally N.J.S.A. 12:3-1 et seq.). These rules are consistent with the purpose and intent of the 90 Day Construction Permit Law and regulations, P.L. 1975, c. 232, and N.J.A.C. 7:1C-1 et seq. These rules complement the adopted rules that implement the Wetlands Act, N.J.A.C. 7:7A-1.0 et seq., and the rules that define the permit application procedures under CAFRA, N.J.A.C. 7:7D-2.0 et seq. The Coastal Resource and Development Policies are derived from the legislative intent of the CAFRA, Wetlands, Waterfront Development, and riparian statutes, and, in the case of the Coastal Area Facility Review Act, the rules define the standards for approval, conditional approval, or denial of permit applications more precisely than the findings required by N.J.S.A. 13:19-10 and 11.

### 7:7E-1.3 Jurisdiction

#### (a) General

These rules shall apply to five categories, as defined in Section 7:7E-1.3(c) to (g), of actions or decisions by the Department on uses of coastal resources within or significantly affecting [the Bay and Ocean Shore Region of] the coastal zone: (1) coastal permits, (2) consistency determinations, (3) financial assistance, (4) DEP management actions affecting the coastal zone, and (5) DEP planning actions affecting the coastal zone.

(b) Geographic Scope of the New Jersey Coastal Zone

These rules shall apply geographically to the New Jersey Coastal Zone which is defined as the Coastal Area under the jurisdiction of the Coastal Area Facility Review Act (N.J.S.A. 13:19-4), all other areas now or formerly flowed by the tide, shorelands subject to the Waterfront Development Law, regulated Wetlands listed at N.J.A.C. 7A-1.13, and the Hackensack Meadowlands Development Commission District as defined by N.J.S.A. 13:17-4.

(c) Coastal Permits

These rules shall apply to all waterfront development permits (N.J.S.A. 12:5-3), Wetlands permits (N.J.S.A. 13:9A-1 et seq.) and CAFRA permits (N.J.S.A. 13:19-1 et seq.).

(d) Consistency Determinations

These rules shall apply to decisions on the consistency or compatibility of proposed actions by federal, state, and local agencies with the Coastal Resources and Development Policies, including but not limited to determinations of federal consistency under Section 307 of the federal Coastal Zone Management Act, determinations of consistency or compatibility under the Coastal Zone Management Act, comments on Draft and Final Environmental Impact Statements prepared under the National Environmental Policy Act, and comments on other public and private plans, programs, projects and policies.

(e) Financial Assistance Decisions

These rules shall apply to state aid financial assistance decisions by DEP under the Shore Protection Program and Green Acres Program within the Coastal Zone, to the extent permissible under existing statutes and regulations.

(f) DEP Management Actions

These rules shall apply, to the extent statutorily permissible, to the following DEP management actions in or affecting the coastal zone in addition to those noted above:

TIDELANDS RESOURCE COUNCIL

- (1) Conveyances of State owned tidelands (N.J.S.A. 12:3-1 et seq).

DIVISION OF WATER RESOURCES

- (1) Permits for use of a floodway (N.J.S.A. 58:16A-50)
- (2) Promulgation of regulations concerning land use in delineated flood hazard areas (N.J.S.A. 58:16A-50)
- (3) Permits for point source discharges under the National Pollution Discharge Elimination System (N.J.S.A. 58:10-1 et seq.) presently issued by EPA under Section 402 of the Federal Clean Water Act.

- (4) Certification under Section 401 of the Federal Clean Water Act (water quality certificates)
- (5) Approval of wastewater treatment works, sewage collection systems, and outfall sewers (N.J.S.A. 5:10A-6)
- (6) Wastewater Treatment Construction Grants (N.J.S.A. 26:2E-1 et seq.)
- (7) Sewerage connection ban exemptions (N.J.S.A. 58:10A-4)
- (8) Designation of Critical Sewerage areas (N.J.S.A. 58:11-44)
- (9) Permits for 50 or more sewerage (septic) facilities (N.J.S.A. 58:11-23)
- (10) Approval of Sewerage facilities in Critical Areas (N.J.S.A. 58:11-45)
- (11) Permit to divert surface and/or subsurface or percolating waters for public water supply (N.J.S.A. 58:1-37, 58:4A-2)
- (12) Approval of diversions for water supply (N.J.S.A. 58:1-17)
- (13) Permit to drill wells (N.J.S.A. 58:4A-14)
- (14) Permits to construct new or modified public water supply sources, treatment plants, and distribution systems (N.J.S.A. 58:11-2,3, 10)
- (15) Permits to install or maintain a physical connection between an approved public potable water supply and an unapproved supply (N.J.S.A. 58:11-9 to 9.11)
- (16) Dam Permits (N.J.S.A. 58:4-1)

#### DIVISION OF ENVIRONMENTAL QUALITY

- (1) Permit to construct, install, or alter control apparatus or equipment (N.J.S.A. 26:2C-9.2)
- (2) Certificate to operate control apparatus or equipment (N.J.S.A. 26:2C-9.2)
- (3) The Approval of a variance to exceed an air quality standard (N.J.S.A. 26:2C-9.2)

#### SOLID WASTE ADMINISTRATION

- (1) Approval of sanitary landfill sites (N.J.S.A. 13:1E-1 et seq.)

#### GREEN ACRES AND RECREATION

- (1) Adoption of regulations concerning use of state owned lands (N.J.S.A. 13:8-20 et seq.)
- (2) Designation of state owned lands for inclusion in the Natural Area system (N.J.S.A. 13:1B-15.12a et seq.)



- (3) Allocations of Green Acres Grants (N.J.S.A. 13:8A-19 et seq.)
- (4) Inclusion of and adoption of regulations concerning river areas in the Wild and Scenic Rivers System (N.J.S.A. 13:8-45 et seq.)

DIVISION OF FISH, GAME AND WILDLIFE

- (1) Adoption of regulations concerning use of land and water areas under the control of the Division (N.J.S.A. 13:1B-30 et seq., 23:1-1 et seq., 23:4-28)

ALL DIVISIONS

- (1) Management of state-owned lands by DEP.

(g) DEP Planning Actions

These rules shall provide the basic policy direction for the following planning actions undertaken by DEP in the Coastal Zone as the lead state agency for coastal management under Section 306 of the federal Coastal Zone Management Act.

DIVISION OF COASTAL RESOURCES

Coastal Zone Management  
Shore Protection

DIVISION OF WATER RESOURCES

Areawide water quality management ("208")

DIVISION OF ENVIRONMENTAL QUALITY

Air quality planning  
Solid Waste management

GREEN ACRES AND RECREATION

Planning for public acquisition of coastal lands

7:7E-1.4 Severability

If any provision of these rules or the application of these rules to any person or circumstances is held invalid, the remainder of the rules and the application of such provision to persons or circumstances other than those to which it is held invalid, shall not be affected thereby.

7:7E-1.5 Review, Revision, and Expiration

The Department shall periodically review these rules, consider the various national, state, and local interests in coastal resources and developments seeking coastal locations, and propose and adopt appropriate revisions to these rules. Under the requirements of the federal Coastal Zone Management Act, the Department expects to conduct an annual review of the rules and expects to revise, amend or readopt the rules before the five year deadline under Executive Order No. 66 of 1979 for periodic review of administrative rules.

## 7:7E-1.6 Coastal Decision-Making Process

### (a) General

Decisions on uses of coastal resources shall be made using the three step process comprising the Location Policies (Subchapters 2 through 6), the Use Policies (Subchapter 7), and the Resource Policies (Subchapter 8) of these rules. Depending upon the proposed use, project design, location, and surrounding region; different specific policies in each of the three steps may be applicable in the coastal decision-making process. The Coastal Resource and Development Policies address a wide range of land and water types (locations), present and potential land and water uses, and natural, cultural, social and economic resources in the coastal zone. DEP does not, however, expect each proposed use of coastal resources to address all Location Policies, Use Policies, and Resource Policies. Rather, the applicable policies are expected to vary from proposal to proposal. Decisions on the use of coastal resources in the Hackensack Meadowlands District will be made by the Hackensack Meadowlands Development Commission, as lead agency, and by the Department, consistent with the Hackensack Meadowlands District Master Plan, its adopted components and management programs.

### (b) Principles

The Coastal Resource and Development Policies represent the consideration of various conflicting, competing, and contradictory local, state, and national interests in diverse coastal resources and in diverse uses of coastal locations. Numerous balances have been struck among these interests in defining these policies, which reduce but do not presume to eliminate all conflicts among competing interests. One reason for this intentional balancing and conflict reducing approach is that coastal management involves explicit consideration of a broad range of concerns, in contrast to other resource management programs which have a more limited scope of concern. Decision-making on individual proposed actions using the Coastal Resource and Development Policies must therefore consider all three steps in the process, and weigh, evaluate, and interpret inevitably complex interests, using the framework established by the policies. In this process, interpretations of terms, such as "prudent", "feasible", "minimal", "practicable", and "maximum extent", as used in a specific policy or combinations of the policies, may vary, depending upon the context of the proposed use, location, and design. Finally, these principles should not be understood as authorizing arbitrary decision-making or unrestrained administrative discretion. Rather, the limited flexibility intentionally built into the Coastal Resource and Development Policies provides a mechanism for incorporating professional judgment by DEP officials, as well as recommendations and comments by applicants, public agencies, specific interest groups, corporations, and citizens into the coastal decision-making process.

In the application of administrative discretion, DEP officials will be guided by eight basic coastal policies, which summarize the direction of the specific policies.

1. Protect and enhance the coastal ecosystem.

2. Concentrate rather than disperse the pattern of coastal residential, commercial, industrial, and resort development and encourage the preservation of open space.
3. Employ a method for decision-making which allows each coastal location to be evaluated in terms of both the advantages and the disadvantages it offers for development.
4. Protect the health, safety and welfare of people who reside, work and visit in the coastal zone.
5. Promote public access to the waterfront through linear walkways and at least one waterfront park in each waterfront municipality.
6. Maintain active port and industrial facilities, and provide for necessary expansion in adjacent sites.
7. Maintain and upgrade existing energy facilities, and site additional energy facilities determined to be needed by the N.J. Department of Energy (DOE) in a manner consistent with the policies of this Coastal Management Program.
8. Encourage residential, commercial, and recreational mixed-use redevelopment of the developed waterfront.

(c) Definitions

The Coastal Resource and Development Policies are stated in terms of actions that are encouraged, required, acceptable, conditionally acceptable, discouraged, or prohibited. Some policies include specific conditions that must be met in order for an action to be deemed acceptable. Within the context of the Coastal Resource and Development Policies and the principles defined above in Subsection (b), the following words have the following meanings.

- (1) "action", "activity", "development", "project", "proposal", or "use" are used interchangeably to describe the proposed use of coastal resources that is under scrutiny using the Coastal Resource and Development Policies.
- (2) "site", "location", "area", or "surrounding region" means the geographic scope of the proposed use of coastal resources that is under scrutiny using the Coastal Resource and Development Policies. This shall include the site of a proposed use as well as the surrounding area or region that may be affected by or affects the proposed use and is therefore appropriate for evaluation as part of the coastal decision-making process, as well as alternative sites.
- (3) "prohibited" means that a proposed use of coastal resources is unacceptable and that DEP will use its legal authority to reject or deny the proposal.

- (4) "discouraged" means that a proposed use of coastal resources is likely to be rejected or denied as DEP has determined that such uses of coastal resources should be deterred and developers should be dissuaded from proposing such uses. In cases where DEP considers the proposed use to be in the public interest despite its discouraged status, DEP may permit the use provided that mitigating or compensating measures are taken so that there is a net gain in quality of the affected ecosystem.
- (5) "conditionally acceptable" means that a proposed use of coastal resources is likely to be acceptable provided that conditions specified in the policy are satisfied.
- (6) "acceptable" means that a proposed use of coastal resources is likely to be approved.
- (7) "encouraged" means that a proposed use of coastal resources is acceptable and is a use, by its purpose, location, design, or effect, that DEP has determined should be fostered and supported in the coastal zone, through favorable consideration of other aspects of the location, design, or effect of the use in terms of the weighing process of the Coastal Resource and Development Policies.
- (8) "water dependent" means development that must have direct access to the body of water along which it is proposed in order to function. Maritime activity, commercial fishing, public waterfront recreation and marinas are examples of water dependent uses, but only the portion of a development requiring direct access to the water is water dependent. The test for water dependency shall assess both the need of the proposed use for access to the water and the capacity of the proposed water body to satisfy the requirements and absorb the impacts of the proposed use. A proposed use will not be considered water dependent if either the use can function away from the water or if the water body proposed is unsuitable for the use. For example, in a maritime operation a dock or quay and associated unloading area would be water dependent, but an associated warehouse would not be water dependent. Housing, hotels, motels, casinos and restaurants are not water dependent.
- (9) "navigable" means navigable in fact, including by canoe, at mean low tide.

(d) Pre-Application Phase

At an optional pre-application conference with a prospective applicant, DEP shall employ the Coastal Resources and Development Policies as a basis for a candid, informal and non-binding evaluation of the merits of a proposed use, location and design.

(e) Application or Project Review Phase

DEP shall employ the Coastal Resource and Development Policies as the standards for issuing actual decisions, making determinations, and carrying out management and planning actions that affect the coastal

zone. Decisions may be issued with conditions or pre-conditions as permitted by the procedural rules of the Department and as reasonably necessary to carry out the spirit and intent of the Coastal Resource and Development Policies.

(f) Information Requirements

Applicants for coastal permits shall comply with the adopted procedural rules and regulations that define the information to be submitted as part of applications for Waterfront Development, Wetlands, and CAFRA Permits. Applicants shall submit information to DEP indicating and documenting how the proposed use complies with the applicable Coastal Resource and Development Policies. This information shall be submitted [at least] in a discrete section of the application, or its accompanying environmental impact statement (EIS) if applicable, that is identified by the heading "Compliance with Coastal Resource and Development Policies". At the pre-application phase, mapped information for a site and its surrounding region shall be submitted at least at a scale of 1:24,000 (1 inch = 2,000 feet). At the application phase, mapped information shall be submitted at least at a scale of 1:24,000 and at larger scale(s), such as 1:2,400 (1 inch = 200 feet), appropriate for the size and complexity of the site and its surrounding region. Information describing the site and surrounding region, including alternatives, in terms of the Coastal Resource and Development Policies, shall be mapped to the maximum extent practicable. Approximate data sources referred to in the Coastal Resource and Development Policies, such as soil surveys, shall be required to be supplemented as necessary by site-specific data presented by an applicant in the environmental impact statement.

## SUBCHAPTER 2 - LOCATION POLICIES

### 7:7E-2.1 Introduction

The coastal land and water areas of New Jersey are diverse. The same development placed in different locations will have different impacts on the coastal ecosystem and built environment as well as different social and economic implications. Different policies are therefore required for different locations. This section defines the Location Policies of the Coastal Program. These policies are also known as the Coastal Location Acceptability Method or CLAM. This presentation of the policies is lengthy and detailed because the coast is large, varied, and complex. The method of applying the policies is, however, relatively simple.

### 7:7E-2.2 Classification of Land and Water Types

The Location Policies classify all land and water locations into a General Area and some into one or more Special Areas.

Special Areas are so naturally valuable, or so important for human use, or so hazardous, or so sensitive to impact, or so particular in their planning requirements, as to merit focused attention. Special Areas are defined and given special policies in Subchapter 3. Special Area types are grouped under four broad headings: Special Water Areas; Special Water's Edge Areas; Special Land Areas; and Special Coast Wide Areas.

General Areas are general types of locations which classify the whole coastal zone with the exception of the Water's Edge, which is entirely a Special Area. Parts of General Areas may also be classified as one or more Special Areas. General Areas are defined and given general policies in Subchapters 4 and 5. General Area types are grouped under two broad headings: General Water Areas (Subchapter 4) and General Land Areas (Subchapter 5).

### 7:7E-2.3 Mapping and Acceptability Determination

The Coastal Location Acceptability Method (CLAM) is a nine step process which determines DEP policy for any proposed coastal use in any coastal location. The first six steps are the mapping and policy determination process to assess Location Acceptability, which is the subject of this section. Steps 7 and 8 refine the Location Acceptability Determinations by reviewing the proposed use in terms of Uses and Resources Policies. Step 9 is the synthesis of Location, Use and Resource Policies.

#### CLAM Location Policy Analysis:

- Step 1 - Identify and map site and surrounding region
- Step 2 - Identify and map Special Areas
- Step 3 - Determine and map Special Area Policies
- Step 4 - Identify and map General Areas

Step 5 - Determine and map General Areas Policies

Step 6 - Map Final Location Acceptability and list Location Policy conditions

CLAM Use Policy Analysis:

Step 7 - Identify applicable Use Policies, evaluate the proposed use, and, if necessary, modify the Location Acceptability Determination and list Use Policy conditions

CLAM Resource Analysis:

Step 8 - Identify applicable Resource Policies, evaluate the proposed use, and, if necessary, modify the Location Acceptability Determination and list Resource Policy conditions

CLAM Synthesis:

Step 9 - Determine final acceptability of proposed use

Summarize and synthesize the final acceptability of a proposed use at a proposed location in terms of the applicable Location, Use and Resource Policies. Approval will only be given if a proposal satisfies all three sets of policies. In particular, applicants should note that applications that do not satisfy Location Policies will not be approved even if the Use and Resource Policies are satisfied.

## SUBCHAPTER 3 - SPECIAL AREAS

### 7:7E-3.1 Introduction

Special Areas are those 39 types of coastal areas which merit focused attention and special management policies. This subchapter divides Special Areas into Special Water Areas (Section 7:7E-3.2 through 7:7E-3.16), Special Water's Edge Areas (7:7E-3.17 through 7:7E-3.27), Special Land Areas (7:7E-3.28 through 7:7E-3.30), and Coastwide Special Areas (7:7E-3.31 through 7:7E-3.41). Special Water Areas extend landward to the mean high water line. Special Water's Edge Areas extend from the mean high water line (or the level of normal flow in non-tidal streams) to one of the following: the inland limit of alluvial soils with a seasonal high water table equal to or less than one foot; the one hundred year flood hazard line, whether tidal or fluvial; the inland limit of water's edge fill; or the inland limit of coastal bluffs, whichever is the most extensive. Special Land Areas are landward of the Water's Edge. Coastwide Special Areas may include Water, Water's Edge or Land Areas.

All land or water locations, except Special Water's Edge Areas, are subject to either the Land Area or Water Area General Policies. In addition, certain locations are subject to one or more Special Area policies. All Special Water's Edge Areas are subject to one or more Special Area Policies. Where the applicable General and Special Area policies differ, the Special Area Policies shall be applied.

### 7:7E-3.2 Shellfish Beds

#### (a) Definition

Shellfish Beds are defined as estuarine bay or river bottoms (tidelands) that are productive for hard clams (*Mercenaria mercenaria*), soft clams (*Mya arenaria*), eastern oysters (*Crassostrea virginica*), bay scallops (*Argopecten irradians*), or blue mussels (*Mytilus edulis*). A productive bed is one which can be shown to have a history of natural recruitment for one or more of these species, or is leased by the State of New Jersey for shellfish culture, or is a State Shellfish Management Area.

#### (b) Policy

- (1) Any development which would result in the destruction of presently productive Shellfish Beds is prohibited. The term destruction includes actions of filling to create fast land, overboard dumping or disposal of solids or spoils which would smother present shellfish populations or create unsuitable conditions for shellfish colonization, or the creation of bottom depressions with anoxic water conditions. Development within Shellfish Beds is conditionally acceptable if the development is of national interest and no prudent and feasible alternative sites exist.
- (2) Any coastal development which would result in contamination or condemnation of Shellfish Beds is prohibited. Development which would significantly alter the salinity regime, substrate characteristics (as through runoff and sedimentation), natural water circulation pattern, or natural functioning of the Shellfish Beds, during the construction or operation of the development is prohibited.



- (3) Water dependent development which requires dredging adjacent to shellfish beds is discouraged and must be managed so as not to cause significant mortality of the shellfish resulting from increase in turbidity and sedimentation, resuspension of toxic chemicals, or to otherwise interfere with the natural functioning of the shellfish bed. New dredging within shellfish beds is prohibited. Maintenance dredging of existing navigation channels is conditionally acceptable with state managed shellfish recovery programs encouraged prior to dredging.
- (4) If there is a delay of more than one year between completion of permit application review and initiation of approved activity, the site may be required to be resurveyed as the shellfish resource value may have changed during the interim.

(c) Rationale

Estuarine shellfish are harvested by both commercial and recreational fishermen, with the sport group concentrating on hard clams. Oysters, bay scallops and soft and hard clams are predominantly commercial species. Commercial dockside landing values in New Jersey for 1978 were \$3.43 million for estuarine mollusks, with an estimated retail industry value of \$8.6 million. The commercial harvest is estimated to support employment of 1,500 persons in fishing, distribution, processing, and retail. Sport clammers numbered 21,200 in 1978. In addition to direct human consumption, shellfish play an important role in the overall ecology of the estuary. Young clams are important forage foods for a variety of finfish such as winter flounder, crabs and migratory waterfowl especially the diving species.

7:7E-3.3 Surf Clam Areas

(a) Definition

Waters within the territorial sea of the State of New Jersey which can be demonstrated to support significant commercially harvestable quantities of surf clams (*Spisula solidissima*), or areas important for recruitment of surf clam stocks. This includes areas where fishing is prohibited for research sanctuary or conservation purposes by N.J.A.C. 7:25-12.1(d)4.

(b) Policy

Development which would result in the destruction, condemnation, or contamination of Surf Clam Areas is prohibited. Development within Surf Clam Areas is conditionally acceptable only if the development is of national interest and no prudent and feasible alternative sites exist.

(c) Rationale

The surf clam fishery accounted for dock-side landing values (wholesale) of \$7.5 million during 1978 and estimated retail value of \$18.9 million. The industry annually generates monies in excess of the retail value, supports employment of over 300 full and part time people in fishing and 1,000 - 1,500 in canning, processing, distribution and industry services. Significant areas of productive water are presently closed due to water pollution. In addition, the massive marine fish kill during the summer

of 1976 was estimated to have resulted in the loss of \$65 million in sea clam stocks over a seven year period. Surf clam harvesting within New Jersey's territorial sea is regulated by NJDEP. The Mid-Atlantic Regional Fisheries Management Council regulates sea clamming within the Fishery Conservation Zone (200 mile limit). Harvesting is required to be compatible with these agencies, as appropriate. Harvest quotas and other management measures have been adopted for sea clamming (surf clams and ocean quahogs) within the Fishery Conservation Zone.

#### 7:7E-3.4 Prime Fishing Areas

##### (a) Definition

Prime Fishing Areas include tidal water areas and water's edge areas which have a demonstrable history of supporting a significant local quantity of recreational or commercial fishing activity. The area includes all coastal jetties and groins and public fishing piers or docks. Prime Fishing Areas also include all red line delineated features within the State of New Jersey's three mile territorial sea illustrated in: B.L. Freeman and L.A. Walford (1974) Angler's Guide to the United States Atlantic Coast Fish, Fishing Grounds and Fishing Facilities, Section III and IV. While this information source applies only to the Delaware Bay and Atlantic Ocean shorefronts, prime fishing areas do occur throughout the coastal zone.

##### (b) Policy

Permissible uses of Prime Fishing Areas include recreational and commercial finfishing and shellfishing, as presently regulated by NJDEP Division of Fish, Game, and Wildlife, scuba diving and other water related recreational activities.

Prohibited uses include sand or gravel submarine mining which would alter existing bathymetry to a significant degree so as to reduce the high fishery productivity of these areas. Disposal of domestic or industrial wastes must meet applicable State and federal effluent limitations and water quality standards.

##### (c) Rationale

Natural bathymetric features, such as the Shrewsbury Rocks and important sand ridges, and artificial structures act as congregation areas for many species of finfish, shellfish, and a diversity of invertebrate species which are essential to marine ecosystem functioning. These areas are heavily utilized by recreational and commercial fishermen. Commercial fishing occurs primarily along the Delaware Bay and Atlantic Ocean. Over 2.7 million people annually participate in marine sport fishing and shellfishing in New Jersey. This represents the highest number of participants in any state, from Maine to Maryland. Of that total, 1.6 million reside in New Jersey, with the remaining number coming mostly from Pennsylvania and New York (792,000 and 300,000 respectively.) The Mid-Atlantic Regional Fisheries Management Council manages fishing activities seaward of the State's coastal zone.

7:7E-3.5 Finfish Migratory Pathways

(a) Definition

Waterways (rivers, streams, creeks, bays inlets) which can be demonstrated to serve as passageways for diadromous fish to or from seasonal spawning areas, including juvenile anadromous fish which migrate in autumn and those listed by H. E. Zich (1977) "New Jersey Anadromous Fish Inventory" NJDEP Miscellaneous Report No. 41, and including those portions of the Hudson and Delaware Rivers within the coastal zone boundary are defined as Finfish Migratory Pathways. Species of concern include: alewife (river herring) (Alosa pseudoharengus), blueback herring (Alosa aestivalis), American shad (Alosa sapidissima), striped bass (Morone saxatilis), and American eel.

(b) Policy

Development, such as dams, dikes, spillways and intake pipes, which creates a physical barrier to the movement of fish along finfish migratory pathways is prohibited, unless acceptable mitigating measures such as fish ladders, erosion control, or oxygenation are used. Development which lowers water quality to such an extent as to interfere with the movement of fish along finfish migratory pathways or to violate State and Delaware River Basin Commission water quality standards is prohibited.

Mitigating measures are required for any development which would result in: lowering dissolved oxygen levels, releasing toxic chemicals, raising ambient water temperature, impinging or suffocating fish, causing siltation, or raising turbidity levels during migration periods.

Water's edge development which incorporates migration access structures, such as functioning fish ladders, will be conditionally acceptable, provided that the NJDEP, Division of Fish, Game, and Wildlife approves the design of the access structure.

(c) Rationale

Striped bass are one of New Jersey's most prized sport fish and are actively sought wherever they occur in New Jersey. This species spawns in the Delaware, Hudson and Maurice Rivers. American Shad, once much more numerous and formerly an important commercial species, continue to make an annual spawning run in the Delaware and Hudson Rivers, where there is an active sport fishery. A much reduced commercial fishery exists in the Delaware Bay and River. Herrings are important forage species and spawn annually in many of New Jersey's tidal tributaries including the Raritan and Hackensack Rivers. Herrings are fished during spring runs, for direct human consumption, garden fertilizer and for use as bait.

#### 7:7E-3.6 Submerged Vegetation

##### (a) Definition

This special area consists of estuarine water areas supporting rooted vascular seagrasses such as widgeon grass (Ruppia maritima) and eelgrass (Zostera marina). Eelgrass beds are limited to shallow portions of the Shrewsbury River, Barnegat Bay and Little Egg Harbor. Widgeon grass is for the most part limited to shallow areas of upper Barnegat Bay. Detailed maps of the distribution of the above species for New Jersey, and a method for delineation, are available from DEP in the DEP-DCR sponsored study, The New Jersey Submerged Aquatic Vegetation Distribution Atlas (Final Report) February, 1980, conducted by Earth Satellite Corporation.

##### (b) Policy

Destruction of submerged vegetation beds is prohibited. Mitigation measures are required for all upland developments which would result in erosion or increased turbidity that would adversely affect this special area. Trenching for energy pipelines and submarine cables of national significance will be conditionally acceptable, provided there is no prudent or feasible alternative site, and if the site is restored to original bathymetry and replanted with pre-development vegetation species, if these species have not colonized the site after three years.

##### (c) Rationale

New Jersey's estuarine waters are relatively shallow, rich in nutrients and highly productive. The submerged vegetation of these shallow waters serve important functions, as suspended sediment traps, important winter forage for migratory waterfowl, nursery areas for juvenile finfish, bay scallops and blue-claw crabs, and by nourishing fishery resources through primary biological productivity (synthesis of basic organic material) through detrital food webs in a similar manner to salt marsh emergent Spartina cord grasses. In addition, seagrasses absorb wave energy and the root networks help stabilize silty bay bottoms. The value of seagrasses was dramatically illustrated during the 1930's when a disease epidemic virtually eliminated eelgrass from the eastern U.S. Atlantic ocean coastline. The number of finfish, shellfish, and waterfowl drastically decreased, threatening their survival. The oyster industry of the Atlantic coast was ruined. Bays became choked with silt and new mud flats were formed.

#### 7:7E-3.7 Navigation Channels

##### (a) Definition

Navigation channels include water areas in tidal rivers and bays presently maintained by DEP or the Army Corps of Engineers and marked by U.S. Coast Guard with buoys or stakes, as shown on NOAA/National Ocean Survey Charts: 12214, 12304, 12311, 12312, 12313, 12314, 12316, 12317, 12318, 12323, 12324, 12326, 12327, 12328, 12330, 12331, 12332, 12333, 12334, 12335, 12337, 12341, 12343, 12345, 12346, and 12363. Navigation channels also include channels marked with buoys, dolphins, and stakes,

and maintained by the State of New Jersey, and access channels and anchorages. Navigation channels are approximately parallel to the river bed. Access channels are spurs that connect a main navigation channel to a terminal. Anchorages are locations where vessels moor within water at or near the water's edge for the purpose of transferring cargo, or awaiting high tide, better weather, or fuel and terminal availability.

(b) Policy

New or maintenance dredging of existing navigation channels, is conditionally acceptable providing that the condition under the new or maintenance dredging policy is met (see Section 7:7E-4.10(e) and (f)). Development which would cause terrestrial soil and shoreline erosion and siltation in navigation channels shall utilize appropriate mitigation measures. Development which would result in loss of navigability is prohibited.

(c) Rationale

Navigation channels are essential for commercial and recreational surface water transportation, especially in New Jersey's back bays where water depths are very shallow. Channels play an important ecological role in providing estuarine circulation and flushing routes, and migration pathways and wintering and feeding habitat for a wide diversity of finfish, shellfish, and waterfowl.

Navigational channels, access channels and anchorages form a network of areas that have a depth sufficient to enable marine trade to operate at the limiting depth of the channel. If one part of the system is not maintained, the entire system might be unable to function.

7:7E-3.8 Canals

(a) Definition

Canals are navigation channels for boat traffic through land areas which are created by cutting and dredging or other human construction technique sometimes enlarging existing natural surface water channels. The Cape May, Bay Head-Manasquan, and Delaware and Raritan Canals are the principal examples in the New Jersey Coastal Zone.

(b) Policy

The Cape May and Bay Head-Manasquan Canals are man-made tidal guts. Development in these canals must be consistent with the General Water Area policies for Tidal Guts (7:7E-4.7) as well as with the following policies:

1. In canals presently used for navigation, such as the Cape May and Bay Head-Manasquan canals, the following policies shall apply:

- (i) Aquaculture, filling, dams and impoundments, and any other use which would interfere with existing or proposed canal boat traffic is prohibited.

(ii) Maintenance dredging is encouraged as needed provided that an acceptable spoil disposal site is available and turbidity is controlled.

2. In the Delaware and Raritan Canal, and in the surrounding Review Zone established by the Delaware and Raritan Canal Commission, development must be consistent with the Rules and Regulations of the Review Zone of the Delaware and Raritan Canal State Park (N.J.A.C. 7:45-1.1).

(c) Rationale

Canals represent a large capital investment to create boat traffic routes. Of the coastal canals, the Cape May and Manasquan-Bay Head canal are still used extensively for their original purpose. Maintenance of this original function is encouraged.

Abandoned canals offer recreational opportunities. The Delaware and Raritan Canal is being redeveloped as a State park with recreational boating and continued use as a water supply facility. This re-use is encouraged.

7:7E-3.9 Inlets

(a) Definition

Inlets are natural channels through barrier islands allowing movement of fresh and salt water between the ocean and the backbay system.

Inlets naturally have delta fans of sediment seaward and landward deposited by the ebb and flow of the tide.

The seaward limit of an inlet is defined as the seaward extent of the ebb delta fan. The landward limit is defined as the inland extent of the flood delta fan.

If there is doubt about the extent of these fans, the applicant shall submit up-to-date bathymetric surveys and DEP staff will determine the boundary on a case-by-case basis.

(b) Policy

Inlets consists of an Ocean portion and a Semi-enclosed or Back Bay portion. Development in Inlets must be consistent with the General Water Area Policy for one of these water area types, and with the following policies.

1. Filling is prohibited.
2. Submerged Infrastructure is discouraged.

(c) Rationale

Inlets play a vital role in the estuarine ecosystem. They control patterns of backbay currents, salinity and nutrient distribution and provide migratory pathways between the ocean and the back bays for marine and estuarine species.

Submerged infrastructure is a hazard in inlets since the strong currents may expose and break the pipes or cables. There is also a possibility of anchors snagging and breaking the infrastructure.

7:7E-3.10 Marina Moorings

(a) Definition

Marina moorings are areas of water that provide mooring and boat maneuvering room as well as access to land and navigational channels for recreational boats. Typically maintenance dredging is required to preserve water depth.

(b) Policy

1. Any use that would detract from existing or proposed recreational boating use in marina mooring areas is discouraged.
2. Maintenance dredging in the marina mooring and access channel is encouraged provided that turbidity is controlled and that there is an acceptable dredge spoil disposal site.

(c) Rationale

Marinas are a key element in New Jersey's coastal resort economy. The maintenance of existing marina areas and the protection of these areas from competing uses which would detract from the recreational service they provide is, therefore, a high priority.

7:7E-3.11 Ports

(a) Definition

Ports are water areas having, or lying immediately adjacent to, concentrations of shoreside marine terminals and transfer facilities for the movement of waterborne cargo (including fluids), and including facilities for loading, unloading and temporary storage. Ports are found in Newark, Elizabeth, Jersey City, Weehawken, Hoboken and Camden.

NOTE: Policies for a docking facility or concentration of docks for a single industrial or manufacturing facility may be found under the General Water Area Policy for Docks and Piers (Section 7:7E-4.11).

(b) Policy

1. Any use which would preempt or interfere with port uses of this water area is prohibited.
2. Aquaculture and dumping of solid or semi-solid waste is prohibited.
3. Boat ramps for recreational boating are discouraged.
4. Docks and piers for cargo movement are an encouraged use.
5. Filling to create docks or quays is conditionally acceptable if docks and piers built on pilings are not feasible.

(c) Rationale

The ports of New Jersey are components of two of the nation's three largest port districts -- the New York-New Jersey Port District and the Delaware River Port District. The Port of Newark-Elizabeth is the nation's largest containerport. Shipping is a major industry in the state as well as an important contributor to the well-being of other state industries. A set of policies aimed at encouraging the use and expansion of existing ports, while discouraging the sprawl of port uses into undeveloped areas will, therefore, be an element of coastal policy.

7:7E-3.12 Submerged Infrastructure Routes

(a) Definition

A submerged infrastructure route is the corridor in which a pipe or cable runs on or below a submerged land surface.

(b) Policy

Any activity which would increase the likelihood of infrastructure damage or breakage, or interfere with maintenance operations is prohibited.

(c) Rationale

Submerged infrastructure routes are a large capital investment and much depends on the safe functioning of the infrastructure. Both human and natural systems suffer from accidental breakage, especially of large oil or gas pipelines. Activities which increase hazard for submerged infrastructure must therefore be excluded.

7:7E-3.13 Shipwrecks and Artificial Reefs

(a) Definition

This Special Area includes all permanently submerged or abandoned remains of vessels which serve as a special marine habitat and are within the ocean waters of the State of New Jersey three mile territorial sea, but outside of Navigation Channels. Known sites include those shown either on National Ocean Survey (N.O.S.) Charts listed in the definition above of the Navigation Channel Special Area, or listed in: W. Krotee and R. Krotee Shipwrecks Off the New Jersey Coast (1966) and B.L. Freeman and L.A. Walford Angler's Guide to the United States Atlantic Coast Fish, Fishing Grounds, and Fishing Facilities (1974). Also included in this category are artificial fishing reefs which serve the same natural function as a habitat for living marine resources.

(b) Policy

Acceptable uses include recreational and commercial finfishing and shellfishing, scuba diving, research and expansion of artificial reefs by the deposition of additional weighed non-toxic material, provided it can be demonstrated that additional material will not wash ashore, or interfere with either navigation as regulated by U.S. Coast Guard or commercial fishing operations.



Prohibited uses include commercial salvage of wrecks, submarine sand or gravel mining which would destroy ecological or physical stability, and sewage or industrial waste disposal.

(c) Rationale

Shipwrecks and other natural or artificial materials can serve as critical habitat for benthic finfish and lobsters, and other invertebrates which prefer shelter in hard substrates otherwise uncommon in New Jersey's marine waters. These areas function as congregation areas for migratory species and support extensive recreational fishing by private boats, commercial party boats, and commercial lobstering. Shipwrecks are also fragile historic and cultural resources. Scuba diving club members from New Jersey and other states visit these resources. This policy applies only to ocean areas and does not conflict with waterfront clean-up efforts.

7:7E-3.14 Estuarine or Marine Sanctuary

(a) Definition

An Estuarine or Marine sanctuary is a specific geographic area located within ocean waters, from the highest extent of tidal action seaward to the outer edge of the Continental Shelf, which has been designated by the Secretary of Commerce after approval by the President of the United States. Any sanctuary within New Jersey's coastal zone would not become effective if within 60 days of designation the Governor disapproved. Under Title III of the Marine Protection, Research and Sanctuaries Act of 1972 (P.L. 92-532), a marine sanctuary can be established for the purpose of preserving or restoring marine areas for various values. To date, there are no designated marine sanctuaries within New Jersey. The Office of Coastal Zone Management within NOAA is presently reviewing all recommendations, including those within the Mid-Atlantic states. DEP submitted six recommendations to NOAA in 1977, including the Hudson Canyon, Shrewsbury Rocks, Great Bay estuary, shipwrecks, inlets, and offshore sand ridges. Designation of one or more of these areas as Estuarine or Marine sanctuaries in New Jersey's nearshore and offshore areas requires joint actions by the Governor of New Jersey and the U.S. Secretary of Commerce, and could take place during 1981. New Jersey is currently pursuing the nomination of an estuarine, but not a marine sanctuary.

(b) Policy

Management principles in the selected areas will serve to preserve and protect the areas, as well as indicate what actions are not permissible in the area. Non-permissible uses will be dependent on the five basic purposes for designation, which include: habitat areas, species areas, research areas, recreational and esthetic areas, and unique or exceptional areas. After designation, activities not compatible with the basic purposes will be prohibited or restricted, but in general all other uses are allowed. Final policy in marine sanctuaries must be approved jointly by the Governor of New Jersey and the U.S. Secretary of Commerce.

(c) Rationale

Certain portions of the Atlantic Ocean and adjacent estuaries are of special national and regional value which could be adversely impacted by development likely to take place in the future, especially activities related to offshore oil and gas development. It is in the long-term interest of the people of the Nation to identify, protect, and manage these special areas.

7:7E-3.15 Wet Borrow Pits

(a) Definition

Wet borrow pits are scattered perennial man-made lakes that are the results of surface mining for coastal minerals extending below groundwater level to create a flooded depression. This includes but is not limited to, flooded sand, gravel and clay pits, and stone quarries.

(b) Policy

1. Proposed uses which would promote the wildlife habitat and scenic amenity values of wet borrow pits are encouraged.
2. Surface mining is conditionally acceptable provided the Use Policies for Mining are complied with.
3. Recreational use of wet borrow pits is acceptable provided that wildlife habitat disturbance is minimized.
4. Disposal of dredge spoil is conditionally acceptable provided that:
  - (i) the spoil is clean and non-toxic, of an appropriate particle size for the site, and will not disturb groundwater flow or quality.
  - (ii) at least half of the water area in existence at the time of the first coastal permit application for filling of the pit remains as surface water in pattern designed to maximize wildlife habitat value and create wetland areas, except that the entire lake may be filled if necessary to prevent the lake from acting as a channel for salt water intrusion into aquifers.
5. Filling of wet borrow pits for residential construction is conditionally acceptable provided that:
  - (i) the fill is clean and will not degrade groundwater quality,
  - (ii) at least half of the water area in existence at the time of the first coastal permit application for filling of the pit is left as open water,
  - (iii) land-water edges are maximized and vegetated to promote native wildlife,

- (iv) there is designation of a water quality buffer zone around water areas of at least fifty feet. Structures and paving, except at limited water access points, are prohibited in the water quality buffer. In general, the water quality buffer area shall be allowed to succeed naturally to water's edge wetland and forest with minimum disturbance and runoff,
  - (v) a program for water quality monitoring and maintenance is included with the application, and
  - (vi) that recreational uses in water and water quality buffer areas minimize wildlife disturbance.
6. Discharge of liquid or solid waste, other than clean dredge fill of acceptable particle size, is prohibited.

(c) Rationale

Wet Borrow Pits are a special category of the General Water Area type Lakes, Ponds and Reservoirs. The Special Area Policies for Wet Borrow Pits are less restrictive than the policies for other Lakes, Ponds and Reservoirs in that they allow Sand and Gravel Extraction, Dredge Spoil Disposal and Filling, under specified conditions. This is because they are already disturbed sites. Also, they are of relatively recent origin and, typically, vegetative succession is not as far advanced as along natural lakes. Wet Borrow Pits, therefore, tend to be less important as wildlife habitats than natural lakes. Finally, they are not connected to the wider estuarine system by streams.

On the other hand, their separation from streams means that they are most susceptible to water quality impacts caused by runoff. The water is still, and the only water loss is through groundwater seepage and evaporation. Sediment collects quickly, enlarging marsh areas, and the eutrophic conditions that lead to sudden oxygen loss are concentrated by evaporation. Low levels of toxicity are quickly bio-magnified to fatal levels. In general, these still waters are much more sensitive to impacts of all kinds than flowing water.

Undisturbed wet borrow pits can become wildlife habitats for aquatic, amphibian and terrestrial species, offering productive edges, shallow waters, wetland areas and important breeding and migratory habitats. Proposals that include borrow pits as wildlife preserves are, therefore, encouraged. Low intensity recreation which takes advantage of the scenic amenities of these lakes is also desirable if wildlife disturbance is minimized.

Wet borrow pits were created by mining operations. Continued mining of sand and gravel at these sites would be less environmentally disruptive than mining operations at new sites.

There is a severe shortage of dredge spoil disposal sites in New Jersey. The filling of wet borrow pits is essentially a reverse of the mining operation which created them, and is less impactful than filling natural

depressions, provided that the spoil is clean and non-toxic and the particle size matches the neighboring natural substrates closely enough as not to disturb groundwater movement. If the filling of wet borrow pits is designed to retain some surface water area, and to maximize land-water edges, much of the wildlife value can be preserved while providing needed spoil disposal sites.

The value of Wet Borrow Pits as wildlife habitat may be enhanced by limited fingers of fill to enlarge the land-water interface. Filling can also create sites for waterfront housing. Since residential construction sites near surface water are much in demand, it is desirable to allow some residential and related uses, provided that housing is consistent with Location and Use Policies, water quality is maintained, and a water quality buffer is preserved along the water's edge. The buffer would not block visual or physical access to the water, but would preserve water quality and provide wildlife habitat. Medford Lakes provides an example of an attractive residential community built around Wet Borrow Pits, but siltation and eutrophication provide evidence for the need for a water quality buffer area.

#### 7:7E-3.16 Intertidal Flats

##### (a) Definition

Intertidal Flats are extensive areas between the mean high water line and mean low water line along tidal bayshores. Intertidal flats are found along Delaware Bay in Cape May County and in other tidal bayshores.

##### (b) Policies

1. Development, filling, new dredging or other disturbance of intertidal flats is discouraged.
2. Submerged infrastructure is conditionally acceptable, provided that (i) there is no feasible alternative route that would not disturb intertidal flats, (ii) the infrastructure is buried deeply enough to avoid exposure or hazard, and (iii) all trenches are backfilled with naturally occurring sediment.

##### (c) Rationale

Intertidal flats play a critical role in estuarine ecosystems. They are a land-water ecotone, or ecological edge where many material and energy exchanges between land and water take place. They are critical habitats for many benthic organisms and are critical forage areas for many migrant waterfowl. The sediments laid down in intertidal flats contain much organic detritus from decaying land and water's edge vegetation, and the food webs in these areas are an important link in the maintenance of estuarine productivity. Preservation is, therefore, the intent of these policies, with limited exceptions to allow for needed water-dependent uses and submerged infrastructure.

# SPECIAL WATER'S EDGE TYPES – MAINLAND

(Schematic of Typical Stream Corridor Outside Bay and Ocean Shore Area)

Figure 13

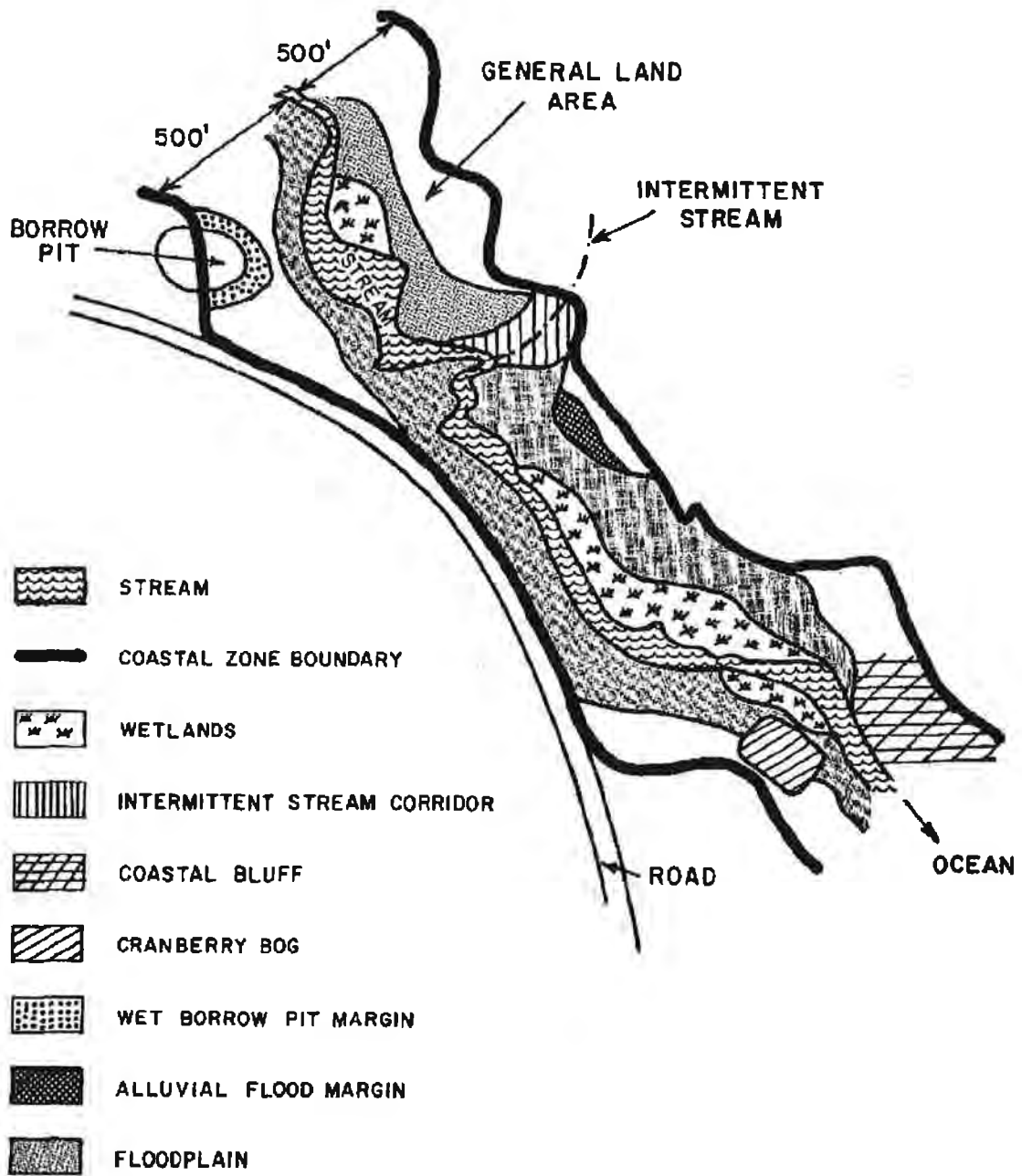
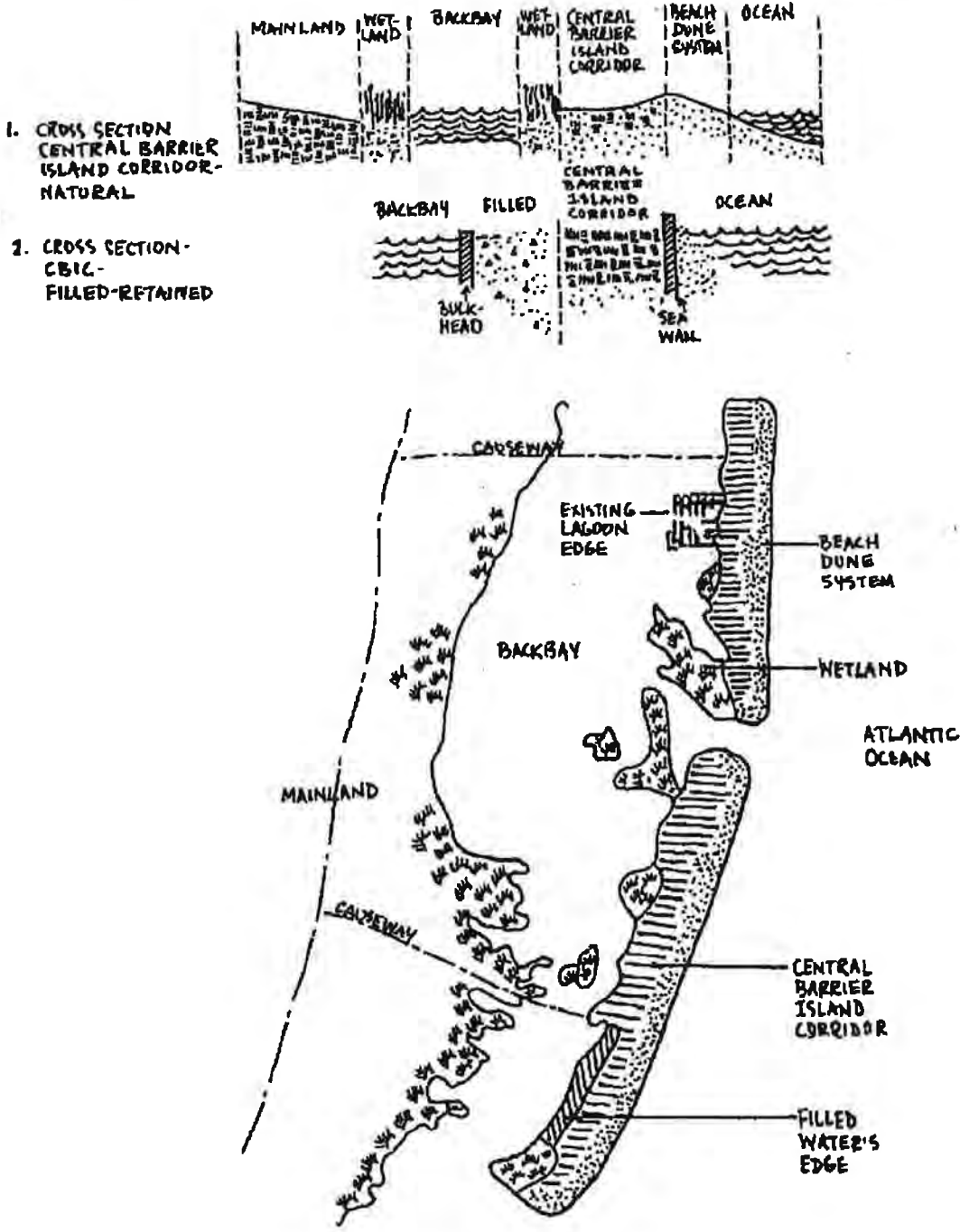


FIGURE 14: SPECIAL WATER'S EDGE TYPES - BARRIER ISLAND



7:7E-3.17 Filled Water's Edge

(a) Definition

Filled Water's Edge areas are existing filled areas lying between Wetlands or Water Areas, and either: (1) the upland limit of fill, or (2) the first public road or railroad landward of the adjacent Water Area, whichever is closer to the water. Some existing or former dredge spoil and excavation fill areas are Filled Water's Edge Area.

(b) Policies

1. Water dependent (see section 7:7E-1.6(c) for definition) uses are acceptable in the Filled Waters' Edge.
2. Non-water dependent development in the Filled Water's Edge is conditionally acceptable provided (a) it would not preempt use of the waterfront portion of the Filled Water's Edge for potential water dependent uses, and (b) it would not prevent public access along the water's edge.

(c) Rationale

Filled Water's Edge areas are of less environmental concern than undisturbed water's edge areas. The buffering functions of the water's edge have already been largely lost through excavation, filling and the construction of retaining structures. It is acceptable to allow certain kinds of development up to the limit of fill. Because the waterfront is a scarce resource, it is desirable to limit waterfront development in these areas to uses that are water dependent unless, because of their location, they do not have the potential to attract water dependent uses.

7:7E-3.18 Existing Lagoon Edge

(a) Definition

Existing Lagoon Edges are defined as existing, undeveloped, man-made land areas resulting from the dredging and filling of wetlands, bay bottom and other estuarine areas for the purpose of creating waterfront lots along lagoons for residential and commercial development. The land area may be stabilized by a retaining structure. Existing Lagoon Edges extend upland to the limit of fill, or the first public road or railroad generally parallel to the Water Area, whichever is less (Figure 15).

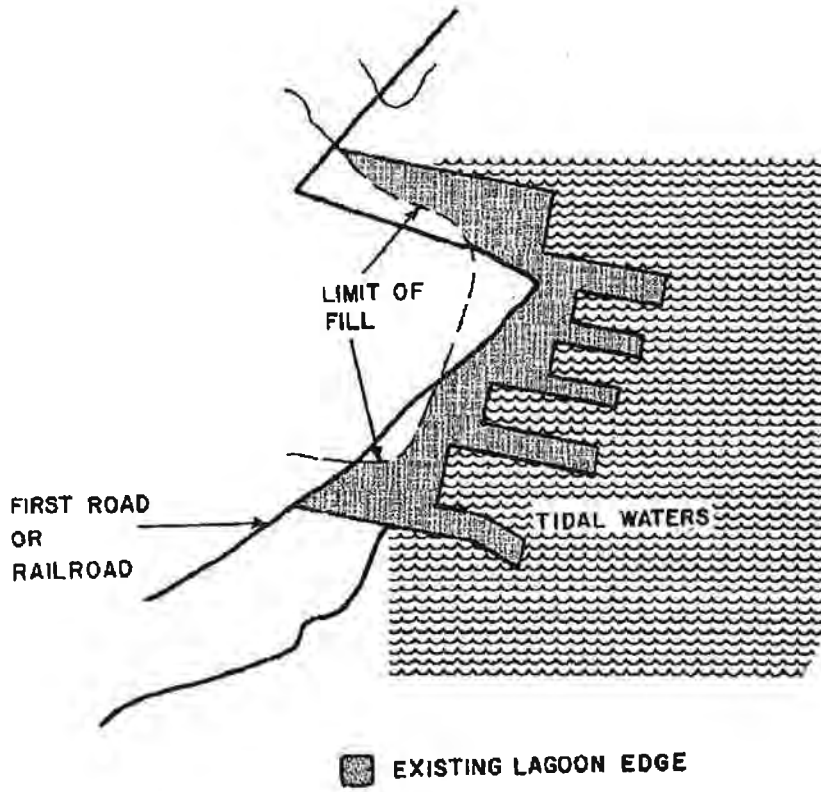
(b) Policy

Development of Existing Lagoon Areas is acceptable provided that:

1. reclamation of the site to its natural state is infeasible,
2. the proposed development is compatible with adjacent land and water uses,

Figure 15

### EXISTING LAGOON EDGE





3. existing unstabilized slopes are stabilized using vegetation, to the maximum extent practicable, and
4. existing retaining structures are adequate to protect the proposed development, or appropriate improvements are proposed for the retaining structure.

(c) Rationale

This policy is designed to promote the reclamation of as much filled land as possible. Filled lands adjacent to water areas, especially existing, undeveloped lagoons, represent potential problems for water quality. The slope must be stabilized in order to prevent erosion, turbidity and loss of estuarine productivity. These problems have been well documented in Grant F. Walton, et al., Evaluation of Estuarine Site Development Lagoons (New Brunswick, N.J.: Rutgers-Water Resources Research Institute, 1976). Thousands of undeveloped building lots exist along stabilized and unstabilized lagoons created by destroying wetlands in the 1950's and 1960's. Development of these residential lots is acceptable provided that water quality standards are met and the banks of the filled areas are revegetated, or retained, since the fundamental and near irretrievable damage to the natural environment of these areas took place a decade or more ago. State coastal policy now precludes the development of new lagoons for residential development.

7:7E-3.19 Natural Water's Edge-Floodplains

(a) Definition

Natural Water's Edge-Floodplains are the Flood Hazard Areas around rivers, creeks and streams as delineated by DEP under the Flood Hazard Area Control Act (N.J.S.A. 58:16A-50), or by the Federal Emergency Management Agency (FEMA); or the Flood Hazard Area around other coastal water bodies as defined by FEMA. Floodplains include the areas subject to both tidal and fluvial flooding. Where Flood Hazard Areas have been delineated by both DEP and FEMA, the DEP delineations shall be used. Where Flood Hazard Areas have been delineated by neither DEP nor FEMA, the 10-foot contour line shall be used as the inland boundary of the Floodplain. The seaward boundary shall be the mean high water line.

The Natural Water's Edge-Floodplain policy shall not apply on Barrier Islands, Spits or Headlands nor in portions of a Floodplain which meet the definition of another Special Water's Edge type (Filled Water's Edge, Existing Lagoon Edge, Alluvial Flood Margins, Beach and Dune Systems, Central Barrier Island Corridor, Wetlands, Cranberry Bogs, Wet Borrow Pit Margins, Coastal Bluffs, Intermittent Stream Corridors).

A complete list of streams where DEP has delineated the Flood Hazard Area can be found at N.J.A.C. 7:13-1.11 et seq.

The U.S. Army Corps of Engineers has delineated the tidal Floodplain for FEMA in most Coastal Zone municipalities. The geographic extent of the tidal flood hazard areas are indicated on USGS topographic maps at a scale of 1:24,000 as "flood prone" areas.

(b) Policies

1. Development is prohibited in the Natural Water's Edge-Floodplains within 100 feet of a navigable water body, unless the use is water dependent. NOTE: "Navigable" and "water dependent" are defined at 7:7E-1.6(c).
2. Development elsewhere in the Natural Water's Edge-Floodplains is discouraged unless:
  - (i) it has no feasible alternate site, and
  - (ii) it would not preempt use of the waterfront portion of the Floodplain for potential water dependent use.
3. Development must be consistent with all other coastal policies, in particular the performance standards found in the Flood Hazard Area Resource Policy (7:7E-8.23).
4. Detention basins are prohibited in river floodplains.

(c) Rationale

The goal of this policy is to reduce losses of life and property resulting from unwise development of floodplains, but to allow uses compatible with periodic flooding -- agriculture and forestry, recreation, and fish and wildlife habitat -- and uses which require a Water's Edge location. This policy is consistent with national objectives as expressed in the President's Executive Order 11988 on Floodplain Management. It is also consistent with the State Waterfront Development Law's objective of safeguarding port facilities and waterfront resources for the public's overall economic advantage. The policy will ensure that the State's waterfront is not pre-empted by uses which could function equally well at inland locations.

River Floodplains are subject to flooding in severe fluvial storms. They are also critical elements of the coastal ecosystem, providing flood storage capacity, physical and biochemical water filtration, primary productivity and wildlife habitats.

For these reasons, the preferred policy is to preserve these corridors in their natural state with native adapted forest vegetation, allowing limited exceptions for water dependent uses and uses for which there is no feasible alternate location.

This policy applies only to Floodplains which have not been disturbed by filling. Sites subject to this policy, therefore, tend to be in a more natural state than sites subject to the Filled Water's Edge Policy. Accordingly, this policy is more restrictive, discouraging development which has an alternate feasible location or which would unnecessarily disturb vegetation, and requiring water dependency within 100 feet of a navigable water body.

By discouraging development which has a feasible alternate location, this policy will tend to be most restrictive in undeveloped parts of the state, where there will tend to be more alternate locations for proposed development. An alternate location will not be considered feasible if it conflicts with adopted State policy. For example, if a commercial development is proposed in an urban downtown, which happens to be a Natural Water's Edge-Floodplain, a suburban location would not be considered a satisfactory feasible alternative. Development found acceptable in Floodplains would, of course, have to be found consistent with public safety objectives and would have to meet the floodproofing requirement of the Flood Hazard Area Resource Policy.

7:7E-3.20 Alluvial Flood Margins

(a) Definition

Alluvial Flood Margins are mainland areas adjacent to, and upland from, Floodplains. They extend inland to the limit of alluvial soils with a seasonal high water table equal to, or less than, one foot. Alluvial soils are those developing in recent sediment deposited by surface water and exhibiting essentially no modification of the deposited materials.

NOTE: Where an Alluvial Flood Margin is also an Intermittent Stream Corridor, only the Intermittent Stream Corridor Policies (Section 7:7E-3.27) shall apply.

(b) Policy

1. Wildlife refuge and low intensity recreational use is encouraged.
2. Development is discouraged in Alluvial Flood Margins unless no feasible alternative site exists, or it is a landward extension of a water dependent use.

(c) Rationale

Alluvial flood margins are parts of floodplains. Although above the 100 year flood level, they have been deposited by flood waters and do provide flood storage capability in the severest storms. If left undisturbed they contribute to the critical water quality buffering and wildlife habitat functions of floodplains and provide some primary productivity to estuaries through nutrients flushed to adjacent bays, rivers or streams. The high water table and compressibility of these areas make them costly for development. Conservation is the preferred use.

7:7E-3.21 Beach and Dune Systems

(a) Definition

Beach and Dune Systems include five components: Beaches, Dunes, High Risk Beach Erosion Areas, Sand Accretion Areas, and Overwash Areas (See Figure 16). These components are defined as follows:

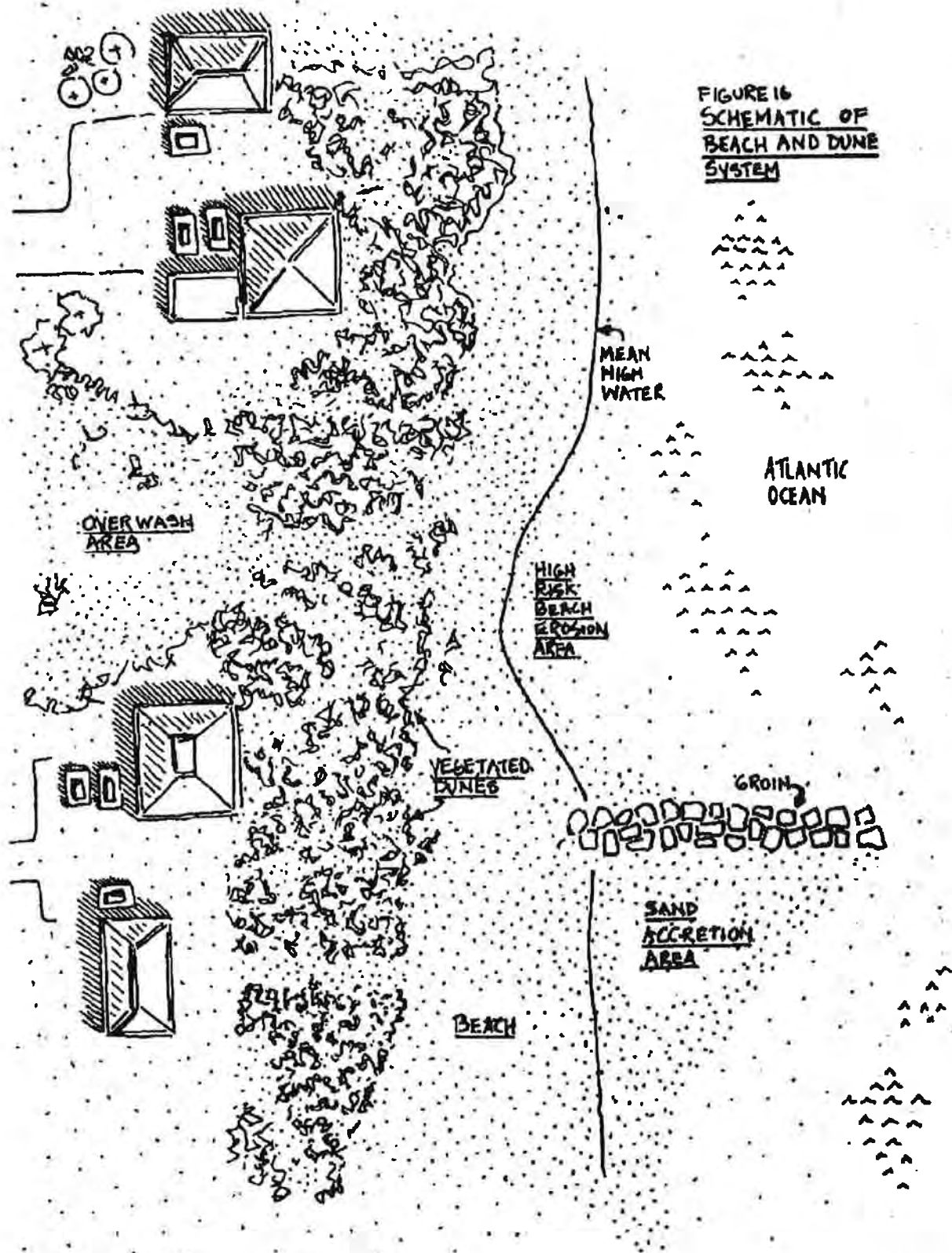


FIGURE 16  
SCHEMATIC OF  
 BEACH AND DUNE  
 SYSTEM

1. Beaches are gently sloping areas of unconsolidated material, typically sand, that extend landward from the water to the area where a definite change takes place either in material or physiographic form, or to the line of vegetation. The upland limit of beaches is typically defined by the vegetation line or the first cultural feature, such as a road, seawall, or boardwalk. Beaches are divided into the "wet beach", the area at and below the mean high water line, and the "dry beach", the area above the mean high water line. The wet beach area is impressed with the Public Trust Doctrine. While New Jersey Beaches are located primarily along the Delaware and Raritan Bays and the Atlantic Ocean, a few beach areas also exist elsewhere -- in Perth Amboy and along the Delaware River, for example.
  
2. A dune is a ridge or mound of loose wind-blown material, usually sand, sometimes vegetated, roughly parallel and upland from a beach. Its inland limit is the landward extent of the deposited material.  
Dunes include the following subcategories:
  - (i) foredunes or primary dunes. These are the front dunes immediately behind the backshore of the beach,
  - (ii) primary backdunes and secondary and tertiary dunes. These are backslope of the foredune and extend from the dune ridges immediately landward of the foredune to the inland toe of the most inland slope,
  - (iii) migrating dunes. These are dunes which have changed location through time. Coastal dunes generally migrate inland,
  - (iv) artificial dunes. These are accumulation of sediment in dune form which have been built by any non-natural process such as bulldozing or sand fencing,
  - (v) stabilized dunes. These are dunes maintained in a fixed location by artificial means,
  - (vi) dune fields. These include but are not limited to any combination of the dune types defined in this section.
  
3. High Risk Beach Erosion Areas are ocean or inlet shorelines that are eroding and/or have a history of erosion, causing them to be highly susceptible to further erosion and damage from storms. High Risk Beach Erosion Areas may be identified by any one of the following characteristics:
  - (1) Lack of beaches
  - (2) Lack of beaches at high tide
  - (3) Narrow beaches
  - (4) High beach mobility
  - (5) Foreshore extended under a boardwalk
  - (6) Low dunes or no dunes
  - (7) Escarped foredune

- (8) Gaps in dune fields
- (9) Steep beach slopes
- (10) Cliffed bluffs adjacent to beach
- (11) Insufficient dune or bluff vegetation
- (12) Exposed, damaged or breached jetties, groins or seawalls
- (13) High long-term erosion rates
- (14) Pronounced downdrift effects of groins (jetties)

High Risk Beach Erosion Areas extend inland to the limit of the area likely to be eroded in less than 50 years or to the first public paved road, whichever is less. The illustrative High Risk Beach Erosion Areas identified by DEP in 1977 may become Overwash Areas, Guts, Ocean or some other land or water type after a storm.

- 4. Sand Accretion Areas are areas where littoral offshore or other natural currents or storms have deposited sufficient sand that new land is forming. In some cases dune grasses and other water's edge vegetation may be starting to grow.
- 5. Overwash Areas consist of an overwash fan and throat. An overwash fan is a gently sloping, conical accumulation of sediment deposited landward of the beach by the overwash processes that result from storm wave activity. An overwash throat is a low narrow area through the foredune where water passes during storms and carries sediment to the overwash fan. The seaward limit of overwash sediment is the throat. The landward limit of overwash is the inland limit of sediment transport.

(b) Policies

- 1. Activities that adversely affect the natural functioning of the Beach and Dune System are discouraged unless, specifically permitted by policies 2, 3, 4, or 5.
- 2. The following activities are conditionally acceptable in the Beach and Dune System.
  - (i) Demolition and removal of paving and structures,
  - (ii) Sediment deposition to create new dunes,
  - (iii) Planting of adapted vegetation,
  - (iv) Development of limited unpaved pedestrian walkways through dunes and overwash areas to the beach,
  - (v) Shore Protection Structures which meet the Use conditions of Section 7:7E-7.11(e).
- 3. Public access to beaches is encouraged. Coastal development that unreasonably restricts public access to beaches is prohibited.
- 4. If a Sand Accretion Area obstructs a navigation channel, maintenance dredging is conditionally acceptable provided that an acceptable dredge spoil disposal site is used (See Sections 7:7E-4.10(g) and 7:7E-7.12).

5. Shore protection structures or other waterfront developments in or adjacent to High Risk Beach Erosion Areas that would contribute to significant updrift or downdrift erosion or accretion are discouraged.

(c) Rationale

1. Beaches

Undeveloped beaches are vital to the New Jersey resort economy. Unrestricted access for recreational purposes is desirable so that the beaches can be enjoyed by all residents and visitors of the state. Public access will be required for any beaches obtaining state funds for shore protection purposes. Beaches are subject to coastal storms and erosion from offshore currents. Public health and safety considerations require that structures be excluded from beaches to prevent or minimize loss of life or property from storms and floods, except for some shore protection structures and linear facilities, such as pipelines, when nonbeach locations are not prudent or feasible. Wet sand beaches have been designated a Geographic Area of Particular Concern (GAPC) by DEP under the federal Coastal Zone Management Act.

2. Dunes

Ocean and bayfront dunes are an irreplaceable physical feature of the natural environment possessing outstanding geological, recreational, scenic and protective value. Protection and preservation in a natural state is vital to this and succeeding generations of citizens of the State and the Nation. The dunes are a dynamic migrating natural phenomenon that helps protect lives and property in adjacent landward areas, and buffers barrier islands and barrier beach spits from the effects of major natural coastal hazards such as hurricanes, storms, flooding and erosion. Natural dune systems also help promote wide sandy beaches and provide important habitat for wildlife species.

Extensive destruction of dunes has taken place in this century along most of the coast. This disruption of the natural processes of the beach dune system has led to severe erosion of some beach areas, jeopardized the safety of existing structures on and behind the remaining dunes and upland of the beaches; increased the need to manage development in shorefront areas no longer protected by dunes; interfered with the sand balance that is so essential for recreational beaches and the coastal resort economy; necessitated increased public expenditures by citizens of the entire State for shore protection structures and programs; and increased the likelihood of major losses of life and property from flooding and storm surges.

The policy encourages the natural functioning of the dune system and encourages restoration of destroyed dunes, to protect and enhance the coastal beach dune areas, and to devote these precious areas to only those limited land uses which preserve, protect and enhance the natural environment of the dynamic dune system.

3. High Risk Beach Erosion Areas

As a result of continuing rising sea levels and active storm-induced sand movement and offshore currents (littoral drift), the Atlantic coastline of New Jersey is a retreating shore. Coastal erosion also affects the bayshores of New Jersey. The rate of retreat, or erosion, is not uniform, and varies locally depending upon the nature and magnitude of coastal processes operating within individual parts of the shoreline. Certain parts of the shoreline have a higher risk for further erosion. Development other than restoration measures should be sharply restricted in these areas in order to protect public safety and prevent loss of life and property.

In 1977, The Center for Coastal and Environmental Studies at Rutgers University completed a study commissioned by DEP entitled Coastal Geomorphology of New Jersey, which analyzed the problems of shoreline erosion, classified the shoreline and identified fourteen specific examples of high risk erosion areas:

1. Cumberland County - Delaware Bay Shore (developed portions along bayshore)
2. Middle Township (developed portions of bayshore), Cape May County
3. Cape May City
4. Northern Wildwood (where Hereford Inlet fronts beach)
5. Strathmere (Putnam Avenue to end of developed island)
6. Ocean City (3rd St. to 18th St.)
7. Ocean City (E. Atlantic Blvd. to Newcastle Rd.)
8. Atlantic City (where Absecon Inlet fronts beach, Oriental Ave. to Parkside)
9. Barnegat Light (8th to 4th St.)
10. Loch Arbour to Elberon
11. Long Branch
12. Sea Bright and Mocomouth Beach
13. Raritan Bay (developed portions along bayshore)
14. Sea Isle City (southern half)

4. Sand Accretion Areas

Natural shoreline processes transport sand eroding in one place and deposit it in another. The sand accretes in deposition areas to form new beaches and dunes. This process is an important part of the natural shore protection against storms and should not be hindered. The practice of bulldozing these accretion areas for beach nourishment or other purposes is specifically against the intent of this policy.

5. Overwash Areas

Overwash Areas indicate weaknesses in natural and built shore protection. Hazard has been demonstrated, often with extensive property damage. This is a natural shoreline movement process associated with storms and rising sea level and is one of the processes by which barrier islands migrate inland. Overwash Areas



are unsuitable locations for further development, and public funds should not be used to rebuild damaged shore protection structures. The return of these areas to a natural state, particularly if new dune formation is promoted is, therefore, desirable.

7:7E-3.22 Central Barrier Island Corridor

(a) Definition

The Central Barrier Island corridor is that portion of barrier islands and spits or peninsulas (narrow land areas surrounded by both bay and ocean waters and connected to the mainland) that lies upland of Wetlands, Beach and Dune Systems, Filled Water's Edges, and Existing Lagoon Edges that line the ocean and bay sides of a barrier island or spit. Central Barrier Island Corridor does not apply to the headlands of northern Ocean County, Monmouth County, and the tip of Cape May County, which are part of the mainland.

(b) Policies

1. New or expanded development within the Central Barrier Island Corridor is conditionally acceptable provided that the criteria for High Development Potential are met, as defined in the policy for Land Areas (see Section 7:7E-5.5).
2. The acceptable density of new development shall be determined using the high-rise policy for residential structures.

(c) Rationale

All of New Jersey's barrier islands and spits, except for Pullen Island in the Brigantine National Wildlife Refuge, are developed to varying degrees, largely as a result of incremental decisions made beginning more than one hundred years ago. Because the public facilities (roads and utilities) necessary to support urban and resort development already exist, and should be protected on New Jersey's barrier islands, and because development pressure is intense on barrier islands, the acceptability for development is to be determined by the Location Policy's criteria for residential development on Land Areas. Use of the high development potential criterion will generally accept infill projects and discourage extensions of development on barrier islands and spits. The high-rise policies will limit sharp increases in density on the presently developed islands.

The policy recognizes the diversity of New Jersey's barrier islands, from Absecon Island with the resort city and urban center of Atlantic City to Long Beach Island with largely single-family seasonal homes. Implementation of the policy is expected to reinforce the existing character of New Jersey's developed barrier islands and not add appreciably to the public service costs and emergency evacuation (in times of hurricanes) problems of these islands.

7:7E-3.23 Wetlands

(a) Definition

Wetlands are areas where the substrate is inundated or saturated by surface or groundwater water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions which are subject to the Wetlands Act, or the Coastal Area Facility Review Act (CAFRA) or the Waterfront Development Law.

Wetlands regulated under the Wetlands Act of 1970 are delineated at a scale of 1:2,400 on official maps as listed at N.J.A.C. 7:7A-1.13. All coastal wetlands situated in the Raritan Basin, south along the Atlantic Ocean and north along Delaware Bay and River are subject to the Wetlands Act.

Under CAFRA, DEP regulates freshwater wetlands and forested wetlands such as white cedars on sites proposed for the major developments requiring a CAFRA permit.

Generalized location maps of White Cedar Stands and other woody wetlands can be found in J. McCormick and L. Jones, The Pine Barrens Vegetation (1973), and forest type maps within DEP's Bureau of Forestry, and, in some areas, in the vegetation maps prepared by the N.J. Pinelands Commission for the Comprehensive Management Plan.

The Waterfront Development Law under the proposed rules will regulate all wetlands north of the Raritan Basin, except for some areas within the Hackensack Meadowlands District, and all coastal wetlands along the Delaware River not regulated under the Wetlands Act.

Generalized locations of some wetland types can be found in county soil surveys prepared by the U.S. Department of Agriculture, Soil Conservation Service.

(b) Policy

1. In general, development of all kinds is prohibited in wetlands, unless DEP can find that the proposed development meets the following four conditions (see also N.J.A.C. 7:7A-1.5 and 1.7):

- (i) Requires water access or is water oriented as a central purpose of the basic function of the activity (this policy applies only to development proposed on or adjacent to waterways),

NOTE: This means that the use must be water dependent as defined in Section 7:7E-1.6(c)8.

- (ii) Has no prudent or feasible alternative on a non-wetland site,

- (iii) Will result in minimum feasible alteration or impairment of natural tidal circulation (or natural circulation in the case of non-tidal wetlands), and
  - (iv) Will result in minimum feasible alteration or impairment of natural contour or the natural vegetation of the wetlands.
2. In particular, dumping solid or liquid wastes and applying or storing certain pesticides on wetlands are prohibited.
  3. Both the restoration of degraded wetlands as a mitigation measure for certain types of approved wetlands development and the creation of new wetlands in non-sensitive areas are encouraged. The Division of Coastal Resources previously has required restoration of temporarily disturbed wetlands and will continue to do so on a case-by-case basis.
  4. Under the Wetlands Act, the activities of DEP, the Tidelands Resource Council, the State Mosquito Control Commission and county mosquito control commissions are exempted from the coastal wetlands policies within mapped coastal wetlands. Voluntary administrative compliance with the regulations adopted by DEP under to the Act is not, however, precluded.
  5. Development that adversely affects white cedar stands is prohibited.

(c) Rationale

The environmental values, and fragility of coastal wetlands have been officially recognized in New Jersey since the passage of the Wetlands Act of 1970 (N.J.S.A. 13:9A-1 et seq.) Coastal wetlands are the most environmentally valuable land areas within the coastal zone.

Coastal wetlands contribute to the physical stability of the coastal zone by serving as: (i) a transitional area between the forces of the open sea and upland areas that absorb and dissipate wind-driven storm waves and storm surges, (ii) a flood water storage area, and, (iii) a sediment and pollution trap.

Also, wetlands naturally perform the wastewater treatment process of removing phosphorous and nitrogenous water pollutants, unless the wetlands are stressed.

The biological productivity of New Jersey's coastal wetlands is enormous and critical to the function of estuarine and marine ecosystems. The emergent cord grasses and associated algal mats convert inorganic nutrients into organic plant material through the process of photosynthesis. In this way, the primary base for estuarine and marine food webs is provided. The principal direct dietary beneficiaries of organic wetland detritus are bacteria and protozoan, which are in turn fed upon by larger invertebrates. Important finfish, shellfish, waterfowl, and other resources feed upon these invertebrates. New Jersey's Coastal Wetlands are prime wintering habitat annually for hundreds of thousands of migratory waterfowl. Approximately two-thirds of marine finfish and shellfish are known to be estuarine, and, therefore, wetlands-dependent.

Inland herbaceous wetlands, such as bogs, play an important role in regulating the quality of water in streams that flow to the estuaries. They retard runoff and store storm waters. They are important areas of primary productivity for estuarine systems. They are critical habitats for several species of plants and animals that are endangered or threatened. They are productive habitats for other game and non-game animals, such as deer. These wetlands also serve as fire breaks, and may limit the spread of forest, brush, or grass fires. They are inappropriate development sites due to poor drainage and load bearing capacity of the underlying soils.

Forested Wetlands play a critical role in coastal ecosystems. Roots and trunks stabilize shorelines and trap sediment. They are physical and biochemical water filter areas maintaining tidal stream water quality. They provide primary protection to estuarine areas from decaying plant material flushed down by streams. They are critical habitats, breeding areas and movement corridors for many coastal species including rare and endangered species. High productivity, high water availability and high edge to area ratio make these areas especially productive wildlife areas.

White cedar stands, as well as other lowland swamp forests, play an important role in purifying water in coastal streams, retarding runoff, providing scenic value, and serving as a rich habitat for many and endangered plant and animal species, as well as game species, such as deer. White cedars also act as forest fire breaks. White cedar stands most commonly occur in flood plains and in the fringe areas of drainage ways and bogs, which are frequently underlain with saturated organic peat deposits. This material is particularly unsuited for development unless highly altered. Many of these locations are Natural Water's Edge Areas.

White cedar is New Jersey's most valuable timber species and grows in discrete stands. The wood has a long tradition of maritime and local craft uses. Unfortunately, white cedars have been eliminated from much of their previous range in New Jersey.

#### 7:7E-3.24 Cranberry Bogs

##### (a) Definition

Cranberry Bogs are areas around streams which have been impounded and are now, or have formerly been, used for cranberry farming. These areas are intermittently flooded in the process of cranberry growing.

##### (b) Policy

1. Cranberry farming is encouraged provided that water quality and diversion standards are satisfied.
2. Wildlife refuges in former Cranberry Bogs are encouraged.
3. Other uses of former Cranberry Bogs shall conform to the policies for Wetlands (7:7E-3.23).

(c) Rationale

Cranberry farming is a small but locally significant part of the coastal economy and should be protected and promoted. Growing cranberries requires plentiful supplies of high quality ground and surface water. Care must be taken, therefore, so that cranberry growing does not unacceptably impact local hydrology or water quality.

Abandoned Cranberry Bogs are ideal wildlife refuges if properly managed since habitat quality can be improved by intermittent flooding and the mechanisms to do this exist. Proposals that include wildlife management programs within Cranberry Bogs will therefore be favored. Abandoned Cranberry Bogs, if undisturbed, take on wetlands characteristics.

7:7E-3.25 Wet Borrow Pit Margins

(a) Definition

Wet Borrow Pit Margins are areas surrounding Wet Borrow Pits (see definition 7:7E-3.15(a)). They extend from normal water level in the borrow pit below to the inland limit of a Water Quality Buffer. The width of this buffer will vary by substrate texture. Where soils are coarse, i.e. sands or gravels, the width will be 100 feet; elsewhere, it will be 50 feet.

(b) Policy

1. Surface mining is conditionally acceptable provided that other coastal policies, particularly the Use Policies on Mining, are satisfied.
2. Wildlife habitat uses are encouraged.
3. Non water dependent uses are prohibited unless acceptable filling (See Section 7:7E-3.15(b) 3 and 4) in the Wet Borrow Pit removes these areas from the Water's Edge and reclassifies them.
4. If residential development takes place landward of the Wet Borrow Pit Margin, use of the margin must be consistent with the requirements for a water quality buffer around Wet Borrow Pits (see Section 7:7E-3.15(b) 4(v)).
5. All proposed uses shall grade all banks at the immediate water's edge, except those in acceptable water access areas, to a slope not greater than 33 percent, and shall stabilize the surface and initiate succession of native vegetation adapted to water's edge conditions.
6. Limited recreational use of the Wet Borrow Pit Margin is acceptable providing that the water buffer disturbance is limited in extent and wildlife habitat disturbance is minimized.

(c) Rationale

Wet Borrow Pit Margins are the water quality buffer areas of Wet Borrow Pits. The still water in the lakes is very susceptible to all types of impacts. A Water Quality Buffer provides a biophysical filter and bank stabilization. Preserving this area also maximizes the important wildlife habitat value of the land-water interface.

The policy on Wet Borrow Pits allows limited filling of the lakes and this may remove Wet Borrow Pit Margins from the water's edge. The former margin areas shall then be reclassified as appropriate, and policy analysis shall proceed on the new classes.

Mixed use projects that include wildlife habitats, and low and high intensity waterfront recreation are an acceptable use of some former borrow pits, since they realize the scenic and recreational value of the lakes and waterfront while preserving wildlife value. Care should be taken in the layout and design of the site to provide adequate separation and barriers to protect wildlife areas from human disturbance.

Recreational use of Wet Borrow Pit Margins is possible without losing the wildlife value, provided that intensive disturbance is limited to occasional concentrated water access points, and elsewhere banks are stabilized, native habitats promoted and human access controlled.

7:7E-3.26 Coastal Bluffs

(a) Definition

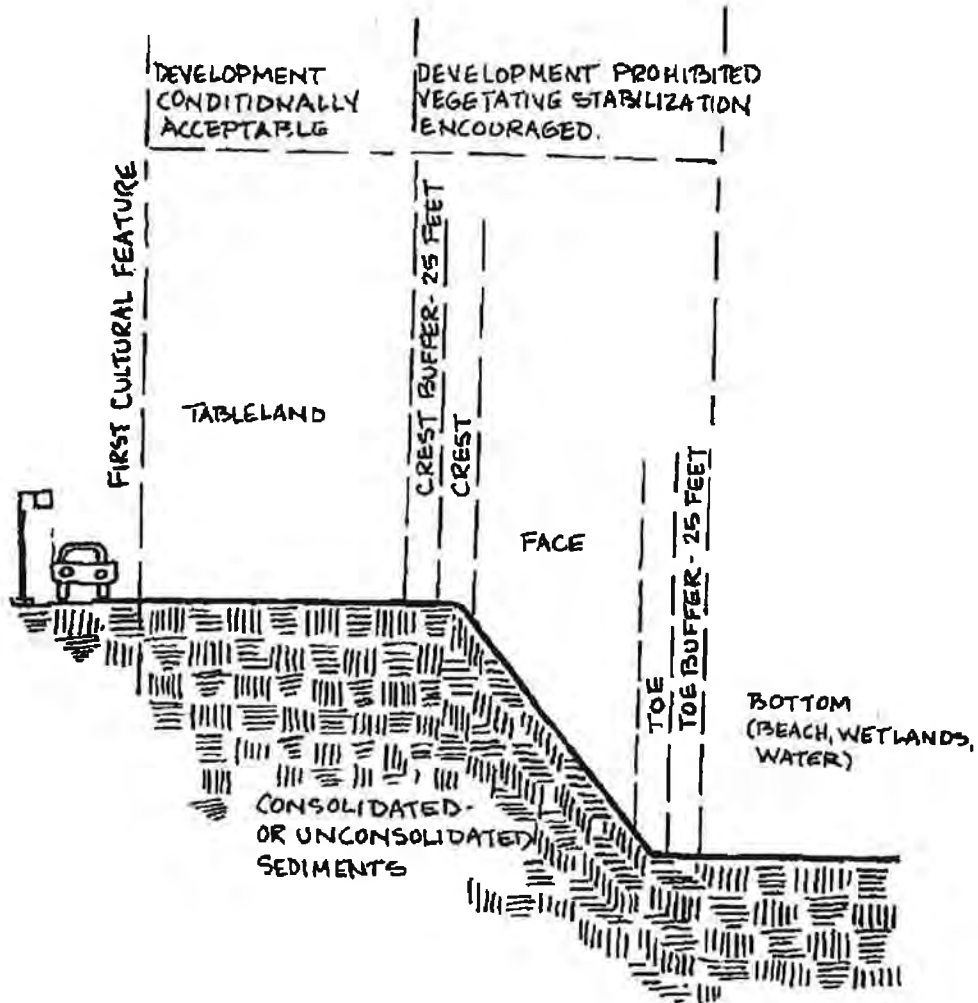
A coastal bluff is a steep slope of consolidated (rock) or unconsolidated (sand, gravel) sediment that is formed by wind and water erosion forces, and which is adjacent to the shoreline or demonstrably associated with shoreline processes. A bluff is composed of three main features (see Figure 17): (1) the toe or the interface of the beach or other bottom area (water, wetlands, etc.), (2) the face of the slope, and (3) the crest of the top of the slope where the bluff becomes the flat tableland. The waterward limit of the bluff is the toe buffer, which extends 25' waterward of the toe of the bluff face. The inland limit is the first cultural feature, such as a road or structure. The term "cliff" will be used as a synonym for bluff, and the same policies will apply, although the cliff face is typically steeper than the bluff face, presenting an almost vertical surface. Steep slopes (Section 7:7E-3.29) are isolated inland areas with slopes greater than 15 percent. All steep slopes associated with shoreline processes, i.e. adjacent to the shoreline or contributing sediment to the system, will be considered coastal bluffs.

(b) Policy

1. All development on bluffs, from the waterward limit of the toe buffer to the first cultural feature, that will endanger the health, safety and welfare of people and property, is prohibited.

Figure 17

# COASTAL BLUFFS



"BLUFF PROFILE"

2. All development is prohibited on the bluff face and within the crest and toe buffer areas. The stabilization of the face and buffer areas through vegetation is encouraged for the protection of the health, safety and welfare of people and property.
3. Structural mitigation measures designed for the purpose of slowing bluff erosion are conditionally accepted, provided that they do not interfere with natural shoreline sediment supply.
4. All development on the tableland is conditionally acceptable, based on the rate of bluff erosion. In general, structures are prohibited in areas which will be eroded during the life of the structure. If a bluff has an erosion history of five feet a year and the projected life of the structure is fifty (50) years, then the structure is prohibited within 250 feet (50 x 5) of the crest buffer. Applicants shall submit historical evidence recording bluff movement and submit a realistic estimate of the life of the structure, noting that most structures are used well beyond their nominal lifetimes.

(c) Rationale

Coastal bluffs are most prominent in New Jersey along the Delaware River at Roebling and Florence and along the Raritan Bay at Aberdeen Township and Atlantic Highlands. They have a significant function in storm damage prevention and flood control, by eroding in response to wave action and resisting erosion caused by wind and rain runoff. Bluff erosion is also an important source of beach sediment where the coastal bluff faces an open water body. Disturbance of coastal bluffs which undermine their natural resistance to wind and rain erosion increase the risk of their collapse and cause cuts in the bluff. This increases danger to structures at the top of the bluff and reduces the bluff's ability to buffer upland areas from coastal storms. Vegetation helps stabilize bluffs and can reduce the rate of erosion caused by wind and rain runoff.

7:7E-3.27 Intermittent Stream Corridors

(a) Definition

Intermittent Stream Corridors are areas including and surrounding surface water drainage channels in which there is not a permanent flow of water. They are also called swales and ephemeral stream corridors. The inland extent of these corridors is either the inland limit of soils with a seasonal high water table equal to, or less than one foot, or a distance of 25 feet on either side of the channel, whichever is greater (see Figure 18).

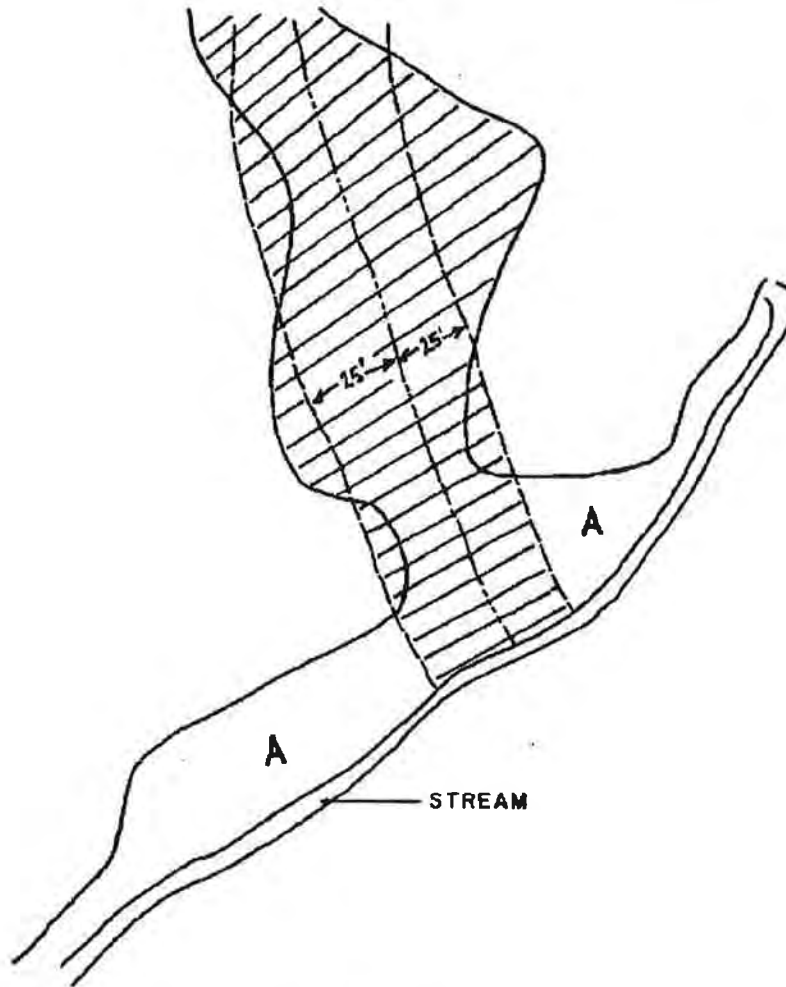
(b) Policy

1. Uses that promote undisturbed growth of native vegetation and wildlife habitat value are encouraged.
2. Cutting, filling, damming, detention basins for runoff recharge paving, structures or any other activities that would directly degrade the function of Intermittent Stream Corridors, except for linear infrastructure for which there is no feasible alternate route, is prohibited.



Figure 18

INTERMITTENT STREAM CORRIDOR



- Intermittent Stream
- 25 foot margin on each side of corridor
- Limit of soils with seasonal high water table equal to, or less than, one foot
- //// //// Intermittent Stream Corridor

Note: Although Area A has a high water table, that high water table is associated with the stream rather than with the intermittent stream. Area A, therefore, would be some Special Water Edge type other than Intermittent Stream Corridor

(c) Rationale

Intermittent Stream Corridors are the spring areas for coastal streams. They are very susceptible to surface and subsurface disturbance. The water quality of coastal streams and estuaries depends in part on undisturbed spring areas. They are productive areas since water is at or near the surface, and are important wildlife habitats. For these reasons the intention of the policies is preservation.

7:7E-3.28 Farmland Conservation Areas

(a) Definition

Large, contiguous areas of 20 acres or more (in single or multiple tracts) with soils of classifications in the Capability Classes I, II and III as mapped by the U.S. Department of Agriculture, Soil Conservation Service, in National Cooperative Soil Surveys, and Special Soils for Blueberries and Cranberries which are actively farmed, suitable for farming, or forested, and located in Cape May, Cumberland or Salem Counties are defined as Farmland Conservation Areas.

(b) Policy

1. Farmland Conservation Areas shall be maintained and protected for open space or farming purposes to the maximum extent practicable.
2. Continued, renewed, or new farming is encouraged in Farmland Conservation Areas.
3. Conversion of Farmland Conservation Areas to development is acceptable only when the predominant surrounding pattern of development is urban or suburban and continued, renewed, or new farming is likely to produce unacceptable urban-agricultural conflict.

(c) Rationale

Farmland Conservation Areas are an irreplaceable natural resource essential to the production of food and fiber, particularly in the "Garden State." Conservation of large, contiguous areas of these lands for farming serves both private and public interests, particularly in terms of ready access to locally-grown food, jobs and open space preservation. At the same time, the policy here recognizes the desirability of minimizing conflicts between farm and urban areas.

In the coastal zone, only Cape May, Cumberland and Salem Counties, have significant acreage of agricultural soils located in a manner generally compatible with present or future farming. In Cape May County, approximately 40 percent of the county's soils qualify as Capability Classes I and II (including areas outside of the coastal zone boundary). Some of these irreplaceable soil resources have already been converted to urban uses. Other areas which are of a sufficiently large scale to make farming feasible should be reserved for farming purposes, provided that rural-urban conflicts are minimized.

7:7E-3.29 Steep Slopes

(a) Definition

Steep slopes are areas with slopes greater than 15 percent, which are not coastal bluffs (7:7E-3.26).

(b) Policy

Development on steep slopes greater than 20% is prohibited, unless the regrading of a very small part of a site (typically, less than 5%) is essential to the overall landscaping plan for the site, in which case the grading shall be done to less than a 10% slope.

Man-made steep slopes above the slope at which the sediments normally stabilize (angle of repose) shall either be regraded to a slope at least 20% below the angle of repose, or stabilized and planted with native woody vegetation.

(c) Rationale

Only a few Steep Slopes Areas exist in the relatively flat Coastal Plain of New Jersey. Isolated steep slope areas are found near headwaters of coastal streams.

Preservation of steep slopes controls soil erosion, protects up-slope lands, minimizes pollution of surface waters, reduces flooding, preserves banks of streams and intermittent streams and maintains water flow in headwaters. When vegetation is stripped, rainfall strikes surface soils causing soil particle movement through surface water flow and gravity, which result in increased surface runoff and downstream flooding. When this silty water enters a surface water body, increased turbidity and sedimentation usually follow which can cause reduction of productivity and flood water storage capacity. Aesthetics are also affected when erosion occurs and topsoil is lost.

Slope maps are available from NJDEP-DGR based on U.S.G.S. Topographic Quadrangle sheets (1:24,000 scale). These maps show slopes in the following ranges. 0-2%, 2-5%, 5-10%, 10-15%, and more than 15% in the coastal plain; and 0-3%, 3-8%, 8-15%, and 15-25% in other parts of the State.

There are some man-made steep slopes left after such activities as mining and road grading. If such slopes are above the angle of repose of the sediments, there is danger of slumping.

7:7E-3.30 Dry Borrow Pits

(a) Definition

Dry Borrow Pits are excavations for the purpose of extracting coastal minerals which have not extended below the ground water level. This includes, but is not limited to, dry sand, gravel and clay pits, and stone quarries.

(b) Policy

1. Surface mining is conditionally acceptable, provided the Mining Use Policies (7:7E-7.8) are complied with.
2. Channeling clean surface runoff into dry sand and gravel pits for the purposes of aquifer recharge is encouraged. Pavement runoff may be channelled into dry borrow pits provided that it is adequately filtered to remove pavement contaminants.
3. Discharge of clean effluent from liquid waste treatment facilities for aquifer recharge is encouraged (e.g. tertiary sewage effluent) provided ground water quality is monitored and maintained.
4. Storing water in impermeable dry borrow pits is conditionally acceptable.
5. Dredge spoil disposal is conditionally acceptable provided that:
  - (i) the spoil will not degrade groundwater quality,
  - (ii) the spoil is of a particle size that will not disturb ground water hydrology, and
  - (iii) spoil disposal is compatible with neighboring uses.
6. Solid waste disposal other than clean dredge spoil and not including radioactive or carcinogenic waste, is conditionally acceptable on a case by case basis provided that:
  - (i) waste disposal is compatible with neighboring uses,
  - (ii) the borrow pit is lined with clay, plastic or other impermeable material; leachate is collected, treated and discharged to the ground through an injection well or other technique that will not degrade groundwater quality; and maintenance will be available for the life of the landfill,
  - (iii) the solid waste is stacked and interlayered with inert material,
  - (iv) a reclamation plan is submitted with the application showing naturalistic final grading, surface improvement with topsoil and organic additives and planting to initial native successions with guarantees of survival for the first five years,
  - (v) Elevations of landfill do not exceed original surface elevations before mining,
  - (vi) The reclamation proposals are worked towards during dumping and completed at conclusion, and
  - (vii) The applicant can demonstrate that even during accidental failure of a treatment plant, the leachate cannot degrade ground or surface water.

7. Filling or grading for construction is conditionally acceptable provided that:
  - (i) Other coastal policies are satisfied, and
  - (ii) The fill is clean and of a texture not to disturb local ground water flow.
8. All proposed uses must reduce all banks to a slope of less than one in three, stabilize them, prepare them for planting and initiate native successions.

(c) Rationale

Dry borrow pits have been used successfully in Long Island to recharge depleted aquifers by channeling surface runoff and tertiary sewage effluent into them. These uses are encouraged in New Jersey's coastal areas, especially where there is a history of saline intrusion. Water shall be discharged, wherever possible, into the aquifer layer most impacted by saline intrusion. There is a critical shortage in coastal areas of disposal sites for dredge spoil and solid waste. Dry Borrow Pits offer opportunities of low-impact disposal if they are compatible with existing uses, the leachate is carefully controlled and the site reclaimed on conclusion. Dry Borrow Pits have comparatively low environmental value and so are acceptable sites for development if all other policies are satisfied.

7:7E-3.31 Historic and Archeological Resources

(a) Definition

Historic and Archeological Resources include objects, structures, neighborhoods, districts, and man-made or man-modified features of the landscape, including archaeological sites, which either are on or are eligible for inclusion on the State or National Register of Historic Places. The criteria for eligibility are defined at N.J.A.C. 7:4-4.2.

(b) Policy

1. Development that detracts from, encroaches upon, damages, or destroys the value of Historic and Archeological Resources is discouraged.
2. Development that incorporates Historic and Archeological Resources in adaptive reuse is encouraged.
3. Scientific recording and/or removal of the Historic and Archeological Resources or other mitigation measures must take place, if the proposed development would irreversibly and/or adversely affect Historic and Archeological Resources.
4. New development in undeveloped areas near Historic and Archeological Resources is conditionally acceptable, provided that the design of the proposed development is compatible with the appearance of the Historic or Archeological Resource.

(c) Rationale

The range of Historic and Archeological Resources along the coast is broad and diverse, from the oceanfront Victorian "gingerbread" architecture, to examples of New Jersey's maritime heritage, to colonial homes, to Indian artifacts. The public interest requires the preservation of both representative and unique examples of Historic and Archeological (cultural) resources of the coast, in order to provide present and future generations with a sense of the people who lived, worked, and visited the coast in the past. DEP's Office of Historic Preservation maintains an up-to-date list of properties on the New Jersey State Register of Historic Places (N.J.S.A. 13:1B-15.128 et seq.) and the National Register of Historic Places. As the State Historic Preservation Officer, the Commissioner of DEP, and staff of DEP's Office of Historic Preservation and Office of Environmental Review advise DEP's Division of Coastal Resources on the historic resources aspects of coastal decisions.

7:7E-3.32 Specimen Trees

(a) Definition

Specimen trees are the largest known individual trees of each species in New Jersey. The DEP-Bureau of Forestry maintains a list of these trees (see New Jersey Outdoors, September-October 1977 for a listing of specimen trees). In addition, large trees approaching the diameter of the known largest tree shall be considered Specimen Trees.

(b) Policy

Development is prohibited that would significantly reduce the amount of light reaching the crown, alter drainage patterns within the site, adversely affect the quality of water reaching the site, cause erosion or deposition of material in or directly adjacent to the site, or otherwise injure the tree. The site of the tree extends to the outer limit of the buffer area necessary to avoid adverse impacts, or 50 feet from the tree, whichever is greater.

(c) Rationale

Many interested citizens have assisted DEP, over decades, in locating specimen trees. This process includes reporting large trees that can be considered specimens even though they may not be the largest in New Jersey of a species. Specimen trees are an irreplaceable scientific and scenic resource. Often these trees have also been associated with historical events.

7:7E-3.33 Endangered or Threatened Wildlife or Vegetation Species Habitats

(a) Definition

Land, Water's Edge, or Water Areas known to be the habitat of any wild-life (fauna) or vegetation (flora) identified as "endangered" or "threatened" species on official federal or state lists of endangered or threatened species, or under active consideration for state or national

listing, are considered special areas. The definition also includes a sufficient buffer area to insure continued survival of the species. DEP intentionally restricts dissemination of data showing the geographic distribution of these species habitats, in order to protect the habitats.

(b) Policy

Development that would adversely affect the habitats of endangered or threatened species is prohibited. DEP will review proposals on a case-by-case basis.

(c) Rationale

Endangered and threatened species are organisms which are facing possible extinction in the immediate future due to loss of suitable habitat, and past overexploitation through human activities or natural causes. Extinction is an irreversible event and represents a loss to both future human use, education research and to the interrelationship of all living creatures with the ecosystem.

At present, the official list of endangered wildlife (fauna) species in New Jersey, available from DEP, Division of Fish, Game and Wildlife (see N.J.A.C. 7:25-11.1), includes the following species: Shortnose sturgeon, Blue-spotted salamander, Eastern tiger salamander, Bog turtle, Bald Eagle, Peregrine Falcon, Osprey, Cooper's Hawk, and Indiana Bat, as well as various marine mammals and marine reptiles. Additional species have threatened status. No official state or federal list of endangered or threatened vegetation (flora) species exists, although the Smithsonian Institution did submit a report to the U.S. Fish and Wildlife Service in 1975 identifying seventeen species of New Jersey plants for consideration for adoption on federal lists (see 40 FR, No. 1217: 27863-27864, July 1, 1975). Habitats of species eligible to be on the list are included in the definition so that the policy will apply to species identified since the last promulgations of the official list.

7:7E-3.34 Critical Wildlife Habitats

(a) Definition

Critical Wildlife Habitats are specific areas known to serve an essential role in maintaining wildlife, particularly in wintering, breeding, and migrating. Rookeries for colonial nesting birds such as herons, egrets, ibis, terns, gulls, and skimmers, stopovers for migratory birds, such as the Cape May Point region, and natural corridors for wildlife movement merit a special management approach through designation as a Special Area. Ecotones, or edges between two types of habitats, are a particularly valuable Critical Wildlife Habitat. Many Critical Wildlife Habitats, such as salt marsh water fowl wintering areas, and muskrat habitats, are singled out as Water or Water's Edge Areas.

Definitions and maps of Critical Wildlife Habitats are currently available only for colonial waterbird habitat in 1979 Aerial Colony Nesting Waterbird Survey for New Jersey (NJDEP, Division of Fish, Game and Wildlife). Until additional maps are available, sites will be considered on a case by case basis by the NJDEP Division of Fish, Game and Wildlife.

(b) Policy

Development that would adversely affect Critical Wildlife Habitats is discouraged, unless: (i) minimal feasible interference with the habitat can be demonstrated, (ii) there is no prudent or feasible alternative location for the development, and (iii) the proposal includes appropriate mitigation measures. DEP will review proposals on a case by case basis.

(c) Rationale

The State of New Jersey, as custodian of a particular portion of the national wildlife heritage, has the obligation of stewardship on behalf of the people of the state and nation to perpetuate wildlife species within its borders for the use, education, research, and enjoyment by future generations.

7:7E-3.35 Public Open Space

(a) Definition

Public Open Space constitutes land areas owned and maintained by state, federal, county and municipal agencies or non-profit private groups (such as conservation organizations and homeowner's associations) and dedicated to conservation of natural resources, public recreation, or wildlife protection or management. Public Open Space also includes State Forests, State Parks, and State Fish and Wildlife Management Areas and designated Natural Areas (N.J.S.A. 13:1B-15.12a et seq.) within DEP-owned and managed lands.

(b) Policy

1. New or expanded public or private open space development is encouraged at locations compatible or supportive of adjacent and surrounding land uses.
2. Development that adversely affects existing public open space is discouraged.
3. Development within existing public open space, such as campgrounds and roads, is conditionally acceptable, provided that the development complies with the Coastal Resource and Development Policies and is consistent with the character and purpose of the public open space, as described by the park master plan when such a plan exists.

(c) Rationale

As the rapid urbanization of New Jersey continues and leisure time increases, open space will play an increasingly important role in maintaining a desirable living environment for the residents of New Jersey. Even though the supply of open space has decreased under the growing pressure for development, the State's expanding population will require more public open space to satisfy its needs.



Not only is open space the basic resource for recreation facility development, it also performs other worthwhile functions. Open space can create public spaces in densely settled areas, shape urban growth, provide buffers for incompatible uses, retain contiguous farmland, insure the preservation of wildlife corridors, increase the economic value of adjacent land, and preserve distinct architectural, historic, and geologic sites.

The distribution of open space should not only be centered around the preservation of unique areas, but must also respond to the needs of people. Where possible, open spaces should be contiguous both visually and physically to promote a sense of continuity and to afford users continued movement through the public open spaces.

#### 7:7E-3.36 Special Hazard Areas

(a) Definition

Special Hazard Areas include areas with a known actual or potential hazard to public health, safety, and welfare, or to public or private property, such as the navigable air space around airports and seaplane landing areas and potential evacuation zones around major industrial and energy facilities.

(b) Policy

Coastal development, especially residential and labor-intensive economic development, within Special Hazard Areas is discouraged. All development within Special Hazard Areas must include appropriate mitigating measures to protect the public health and safety.

(c) Rationale

Management of the coastal zone requires a concern for development that would directly or indirectly increase potential danger to life and property. Mitigating measures such as height limits near airports and evacuation plans for industrial and energy facilities may adequately address the concern in this area.

#### 7:7E-3.37 Excluded Federal Lands

(a) Definition

Excluded Federal Lands are those lands that are owned, leased, held in trust or whose use is otherwise by law subject solely to the discretion of the United States of America, its officers or agents, and are excluded from New Jersey's Coastal Zone as required by the federal Coastal Zone Management Act.

(b) Policy

Federal actions on Excluded Federal Lands that significantly affect the coastal zone (spillover impacts) shall be consistent with the Coastal Resource and Development Policies, to the maximum extent practicable.

(c) Rationale

While the federal Coastal Zone Management Act requires that federal lands be excluded from a state's coastal zone, it is important that New Jersey's Coastal Resource and Development Policies explicitly note the location of these special areas in order that the spillover impacts of actions in these areas may be properly evaluated.

7:7E-3.38 Special Urban Areas

(a) Definition

Special urban areas are those areas defined in urban aid legislation (N.J.S.A. 52:27D-178) which designate municipalities qualified to receive State aid to enable them to maintain and upgrade municipal services and offset local property taxes. This Special Area includes the following 21 coastal municipalities:

Asbury Park	Elizabeth	Long Branch	Passaic
Atlantic City	Hoboken	Millville	Perth Amboy
Bayonne	Jersey City	Neptune Twp.	Rahway
Bridgeton	Keansburg	New Brunswick	Trenton
Camden	Lakewood	Newark	West New York
		North Bergen	

(b) Policy

1. Development that will help to restore the economic and social viability of special urban areas is encouraged. Development that would adversely affect the economic well being of these areas is discouraged, when an alternative more beneficial to them is feasible. Development that would be of economic and social benefit and that serves the needs of local residents and neighborhoods is encouraged.
2. Housing, hotels, motels, and mixed use development are acceptable in water areas on existing pilings, and in Filled Water's Edge Areas.
3. Development is prohibited that does not provide public access to the waterfront, except in locations where such access cannot be safely provided.

(c) Rationale

This policy helps link the Coastal Management Program with other State efforts to focus on and restore New Jersey's urban areas. The policy would be applied to State actions on major proposals, such as shopping centers, outside urban areas which could drain resources from nearby urban areas, as well as to projects both in and out of urban areas which could help stimulate social and economic activity in urban areas.

The Filled Water's Edge policy which reserves the waterfront for water dependent uses should not be strictly applied in Special Urban Areas. Housing, hotels, motels and other commercial developments, which benefit from a waterfront location and stimulate the revitalization of a Special Urban Area would be consistent with State coastal objectives.

7:7E-3.39 Pinelands National Reserve and Pinelands Protection Area

(a) Definition

The Pinelands National Reserve includes those lands and water areas defined in the National Parks and Recreation act of 1978, Section 502 (P.L. 95-625), an approximately 1,000,000 acre area ranging from Monmouth County in the north, south to Cape May County and from Gloucester and Camden County on the west to the barrier islands of Island Beach State Park and Brigantine Island along the Atlantic Ocean on the east (see Figure 19). The Pinelands Protection Area is a slightly smaller area within the Pinelands National Reserve. It was designated for State regulation by the Pinelands Protection Act of 1979 (N.J.S.A. 13:18-1 et seq). The Pinelands Commission has been mandated by the law to develop a comprehensive management plan for the area by December 15, 1980. Within the Pinelands Protection Area, the law delineates a Preservation Area, where the plan shall "preserve an extensive and contiguous area of land in its natural state, thereby insuring the continuation of a pinelands environment ..." (Section 8c).

Within the Pinelands National Reserve, there is also an area designated a Critical Area under the authority of N.J.S.A. 58:11-43 et seq. DEP has adopted special Central Pine Barrens Ground and Surface Water Quality Standards (N.J.A.C. 7:9-4.6i and j). This Central Pine Barrens Region is also the oil and gas pipeline exclusion area as defined in Use Policy 7:7E-7.4.

The coastal municipalities wholly or partly within the Pinelands National Reserve Area include:

Atlantic County

Brigantine City	Hamilton Township
Corbin City	Mullica Township**
Egg Harbor City*	Port Republic*
Egg Harbor Township	Somers Point City
Estell Manor Township	Weymouth Township
Galloway Township	

Burlington County

Bass River Township**	Washington Township**
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Cape May County

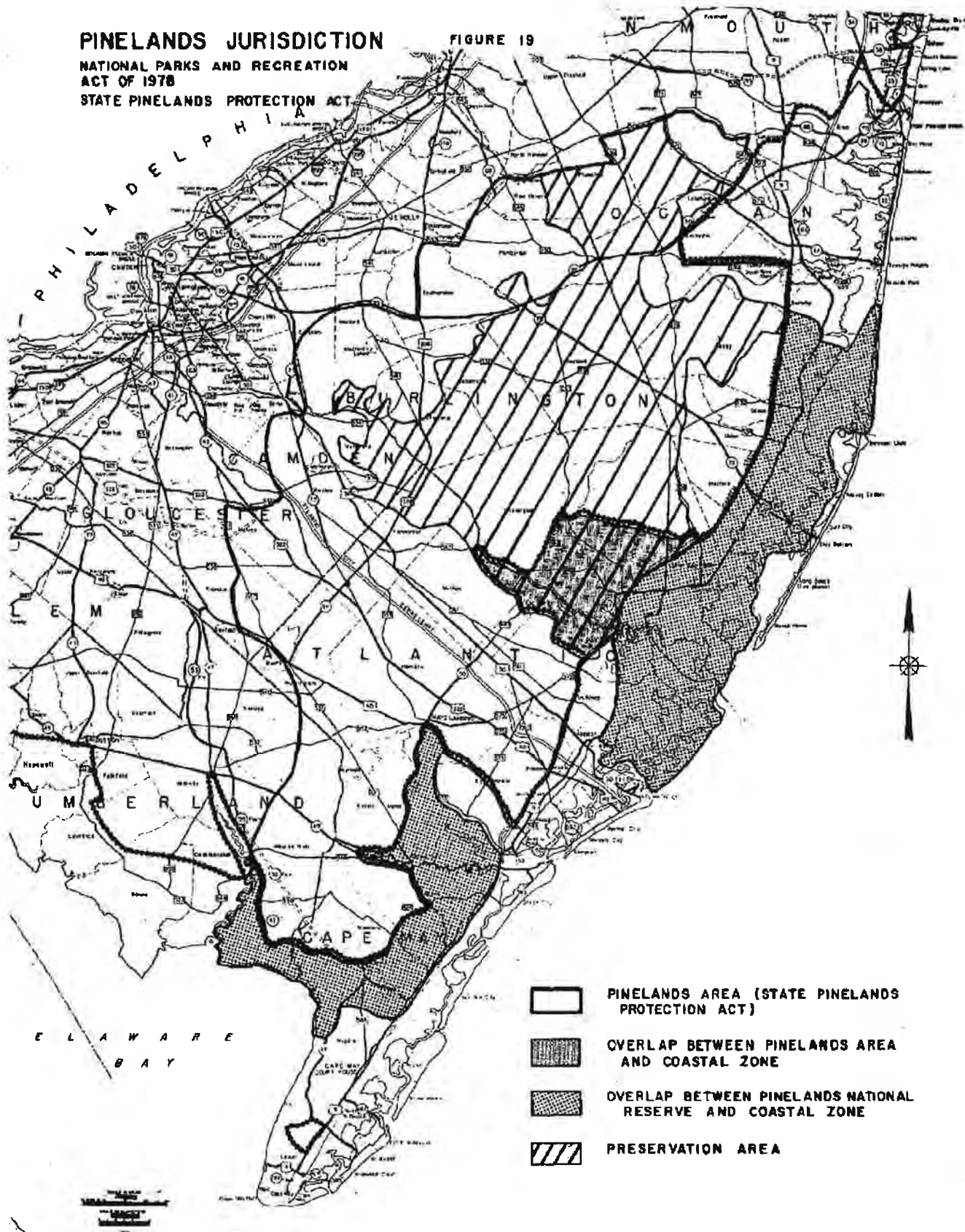
Dennis Township	Upper Township
Middle Township	Woodbine Borough





Cumberland County

Maurice River Township

**PINELANDS JURISDICTION**  
NATIONAL PARKS AND RECREATION  
ACT OF 1978  
STATE PINELANDS PROTECTION ACT

FIGURE 19



-  PINELANDS AREA (STATE PINELANDS PROTECTION ACT)
-  OVERLAP BETWEEN PINELANDS AREA AND COASTAL ZONE
-  OVERLAP BETWEEN PINELANDS NATIONAL RESERVE AND COASTAL ZONE
-  PRESERVATION AREA

Ocean County

Barnegat Township	Lakehurst Borough
Beachwood Borough	Little Egg Harbor Township**
Berkeley Township	Manchester Township
Dover Township	Ocean Township
Eagleswood Township*	South Toms River Borough
Lacey Township	Stafford Township
	Tuckerton Borough

\* municipalities with areas in both the Pinelands Protection Area and the Coastal Zone. These areas are all within the Preservation Area of the Pinelands Protection Area (N.J.S.A. 13:18A-1 et seq.).

\*\* municipalities included within the Pinelands Protection Area area, the Central Pine Barrens Region as defined by N.J.A.C. 7:9-4.6i and j and the Coastal Zone.

(b) Policy

Coastal development shall be consistent with the intent, policies and objectives of the National Parks and Recreation Act of 1978, P.L. 95-625, Section 502, creating the Pinelands National Reserve, and the State Pinelands Protection Act of 1979 (N.J.S.A. 13:18A-1 et seq.).

(c) Rationale

The New Jersey Pinelands contain approximately 1,000,000 acres of high quality surface and groundwater resources. In response to the need to protect, preserve and enhance the unique features of the Pinelands and the significant ecological, natural, cultural, recreational, educational, agricultural and public health resources of the Pinelands area, the federal government passed the National Parks and Recreation Act of 1978, (P.L. 95-625), the Governor issued Executive Order No. 71 in February 1979, and the Legislature passed the Pinelands Protection Act in June, 1979.

Prior to these actions, under Executive Order No. 56, issued on May 28, 1977, the Governor created the Pinelands Review Committee to delineate a Pinelands region and develop a plan to guide State actions affecting that Region. The report of the Pinelands Review Committee, completed in February 1979, stressed the need to take strong action to manage development in the Pinelands.

Because the living marine resources in the bays and estuaries of the coastal zone depend on the flow of freshwater from the Pinelands, changes to the quality and quantity of the Pinelands water resource caused by pollution and contamination would have a significant impact on coastal resources.

The Pinelands Protection Act (Section 22) recognized the overlap between Pinelands and coastal management interests and mandated that DEP, in consultation with the Pinelands Commission, review the environmental design for the coastal area prepared as required by CAFRA (see N.J.S.A. 13:19-10) which is also within the boundaries of the Pinelands Area. This overlap area extends from Pleasant Mills to the Garden State Parkway on both sides of the Mullica River.

#### 7:7E-3.40 Hackensack Meadowlands District

##### (a) Definition

The Hackensack Meadowlands District is a 19,730 acre area of water, coastal wetlands and associated uplands designated for management by a State-level regional agency known as the Hackensack Meadowlands Development Commission (HMDC) by the Hackensack Meadowlands Reclamation and Development Act of 1968 (N.J.S.A. 13:17-1 et seq.) (See Figure 20).

##### (b) Policy

The HMDC will act as the lead coastal planning and management agency within this Special Area. State coastal management actions within the Hackensack Meadowlands District are governed by the District Master Plan and its adopted components and management plans, and the zoning rules adopted thereunder. The HMDC Master Plan Zoning Rules (N.J.A.C. 19:4-1 et seq.) are adopted as part of the Coastal Management Program (see Appendix I, and the Hackensack Meadowlands District is designated a Geographic Area of Particular Concern (see section on GAPCs in Chapter 4).\*

##### (c) Rationale

The District Master Plan was mandated by the Hackensack Meadowlands Reclamation and Development Act. The Master Plan, together with its components, management plans and zoning regulations, embody adopted State policies for the District. The HMDC has a professional staff of natural scientists, engineers and planners with the experience and expertise to apply State coastal policy to this Special Area.

#### 7:7E-3.41 Wild and Scenic River Corridors

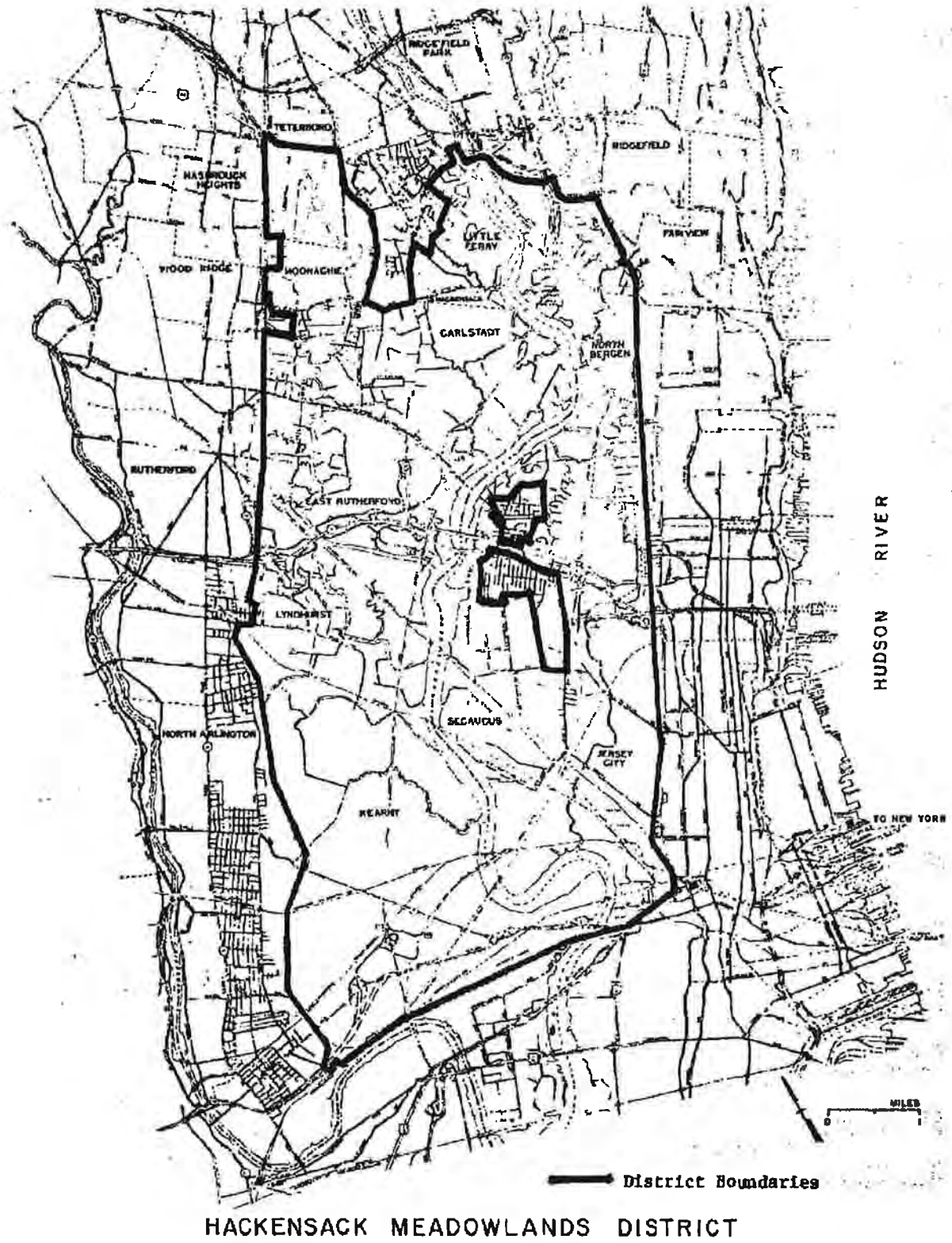
##### (a) Definition

Wild and Scenic River Corridors are components of the New Jersey Wild and Scenic Rivers System designated by the DEP Commissioner under N.J.S.A. 13:8-45 et seq. River corridors include the river and adjacent upland to the limit of the Flood Hazard Area or to the limit of State owned lands, whichever is furthest inland.

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\* It should be noted that the Hackensack Meadowlands District designations for wetlands development do not preclude federal agency recommendations and decisions contrary to such development. The Hackensack Meadowlands District Plan does not meet the definition of a "Comprehensive Planning Process" under Section 404(b) (1) of the Clean Water Act and associated regulations. Therefore, federal agencies will evaluate proposed projects in the Hackensack Meadowlands District on a case by case basis. Wetland modification will require proper analysis and documentation under Section 404(b)(1) of the Clean Water Act regardless of adopted plans and ordinances. The 404(b)(1) process currently requires four tests to be met and properly documented through a public process including: 1) acceptance of unavoidable impacts; 2) alternatives analysis; 3) demonstration of water dependency; and 4) demonstration of need.

Figure 20



(b) Policy

1. Development may be permitted in designated river areas in accordance with N.J.A.C. 7:38-1.1 et seq., including special regulations for a particular river, or sections thereof, adopted upon designations to the New Jersey Wild and Scenic Rivers System.
2. Development which provides general public recreational use of and access to a designated river area, consistent with classification and flood plain regulations, is encouraged.
3. Development must be consistent with all other coastal policies, in particular the performance standards found in the Flood Hazard Areas Resource Policy (7:7E-8.23) and other Special Areas policies.

(c) Rationale

This policy reflects and incorporates the goals of the New Jersey Wild and Scenic Rivers Act, which recognizes the outstanding scenic, recreational, fish and wildlife, floral, historic, cultural and similar values of certain rivers of the State, in addition to the goals of reducing loss of life and property resulting from unwise development of floodplains. Uses compatible with the recognized values of designated river areas and their classification as "wild", "scenic", "recreational", or "developed recreational" river areas may be allowed to further the use and availability of the open space resources which the river areas represent.

River Corridors will be administered according to N.J.A.C. 7:38-1.1 et seq., according to four classifications:

1. "Wild", meaning a river or section thereof, that is free of impoundment, and generally inaccessible by trail, with watershed or shoreline essentially primitive and undeveloped and water unpolluted. Wild river areas are also consistent with Natural Areas;
2. "Scenic", meaning a river, or section thereof, that is free of impoundment, with watershed or shoreline still largely primitive and undeveloped, but accessible in places by road;
3. "Recreational", meaning a river, or section thereof, that is readily accessible, that may have some shoreline development, and that may have undergone some impoundment or diversion; and
4. "Developed Recreational", meaning a river, or section thereof, that is readily accessible, that may have substantial shoreline development, that may have undergone substantial impoundment or diversion, but which remains suitable for a variety of recreational uses.



## SUBCHAPTER 4 - GENERAL WATER AREAS

### 7:7E-4.1 Definition

General Areas are first divided into Water and Land by the same definitions used for Special Areas, Section 7:7E-3.1. Water and land are further subdivided into General Area types. The water's edge has no General Area types since all water's edge areas are one or more Special Area types.

This subchapter defines General Water types, assigns General Area policies to each and summarizes the rationale and intent of the policies.

In many cases, an area already identified as a Special Area will also fall within the definition of a General Area. In these cases, both General and Special Area policies will apply. In case of conflict between General and Special Area policies, the more specific Special Area Policy shall apply.

General Water Areas are areas which lie below either the Mean High Water Line or the normal water level of non-tidal waters. Except at times of drought or extreme low tide, these areas are permanently inundated.

General Water Areas are divided by volume and flushing rate into: Oceans; Open Bays; Semi Enclosed and Back Bays; Tidal Guts; Large Rivers; Medium Rivers, Creeks and Streams; and Lakes, Ponds and Reservoirs. Some of these types are further divided for policy purposes into different depths.

### 7:7E-4.2 Policy Summary Table

The Policy Summary Table (Figure 21) indicates the Location Policy for the introduction of various uses in each of the General Water Areas. This table is included for quick reference. For further details on conditions for acceptability of uses, see Section 7:7E-4.10.

### 7:7E-4.3 Ocean

#### (a) Definition

This basin type has two depth levels (0'-18' and 18'+) and includes all areas of the Atlantic Ocean out to the limit of New Jersey's territorial sea, three nautical miles from the shoreline. The ocean extends from the marine boundary with the State of New York in Raritan Bay and Sandy Hook Bay south to the marine boundary with the State of Delaware in Delaware Bay, near Cape May Point (see Figure 22).

#### (b) Policy

See Policy Summary Table Section 7:7E-4.2.

#### (c) Rationale

The largest water body found within the coastal zone is the Atlantic Ocean. The vast volume of water together with strong wind induced mixing, surface and subsurface currents, and tidal pulse make the ocean the water body most able to assimilate human induced stresses. The

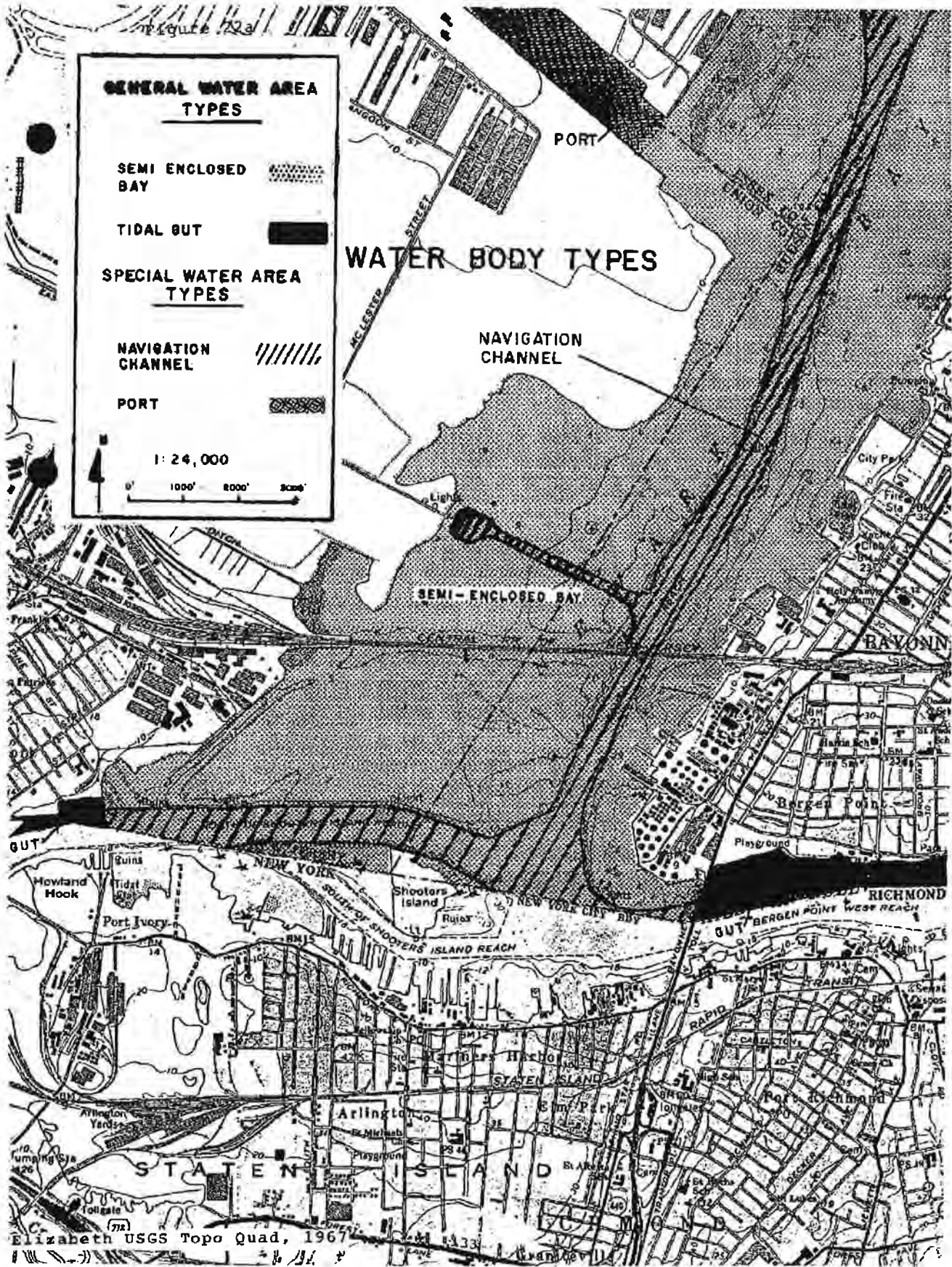
WATER AREA POLICY SUMMARY TABLE

Use	Water Area Type		Open Bay 18'+, 6'-18', 0-6'	Semi Enclosed and Back Bay 6'+, 0-6'	Tidal Guts	Large Rivers	Medium Rivers, Creeks and Streams	Lakes, Ponds and Reservoirs
	18'+, 0-18'	Ocean						
Aquaculture	C	C	C	C	C	C	C	C
Boat Ramps	/	P	/	C	C	C	C	C
Docks (cargo)	C	C	C	C	C	C	C	/
Docks (recreation)	C	C	C	C	C	C	C	C
Dredging (maintenance)	C	C	C	C	C	C	C	C
Dredging (new)	C	C	D	D	D*	C	C	C
Spoil Disposal	C	C	C	C	P*	C	P	C
Dumping	P	P	P	P	P	P	P	P
Filling	D	D	P	D	D	D	D	P
Piling	D	C	D	C	C	C	C	D
Mooring	C	C	C	C	C	C	C	C
Sand, Gravel Extraction	C	D	D	D	P	C	C	P
Bridges	/	/	D	D	C	C	C	P
Submerged Infrastructure	C	C	C	C	D*	C	C	C
Overhead Lines	/	/	P	P	C	D	C	P
Dams & Impoundments	/	/	/	P	P	P	D	/
Outfalls & Intakes	C	C	C	C	C	C	C	C
Realignment	/	/	D	D	D	D	D	D
Miscellaneous	C	C	C	C	C	C	C	C

Figure 21

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\*Conditionally acceptable in the Arthur Kill and Kill Van Kull  
 Note: Depths are mean depth of water  
 C = Conditionally Acceptable  
 P = Prohibited  
 D = Discouraged  
 / = Impractical



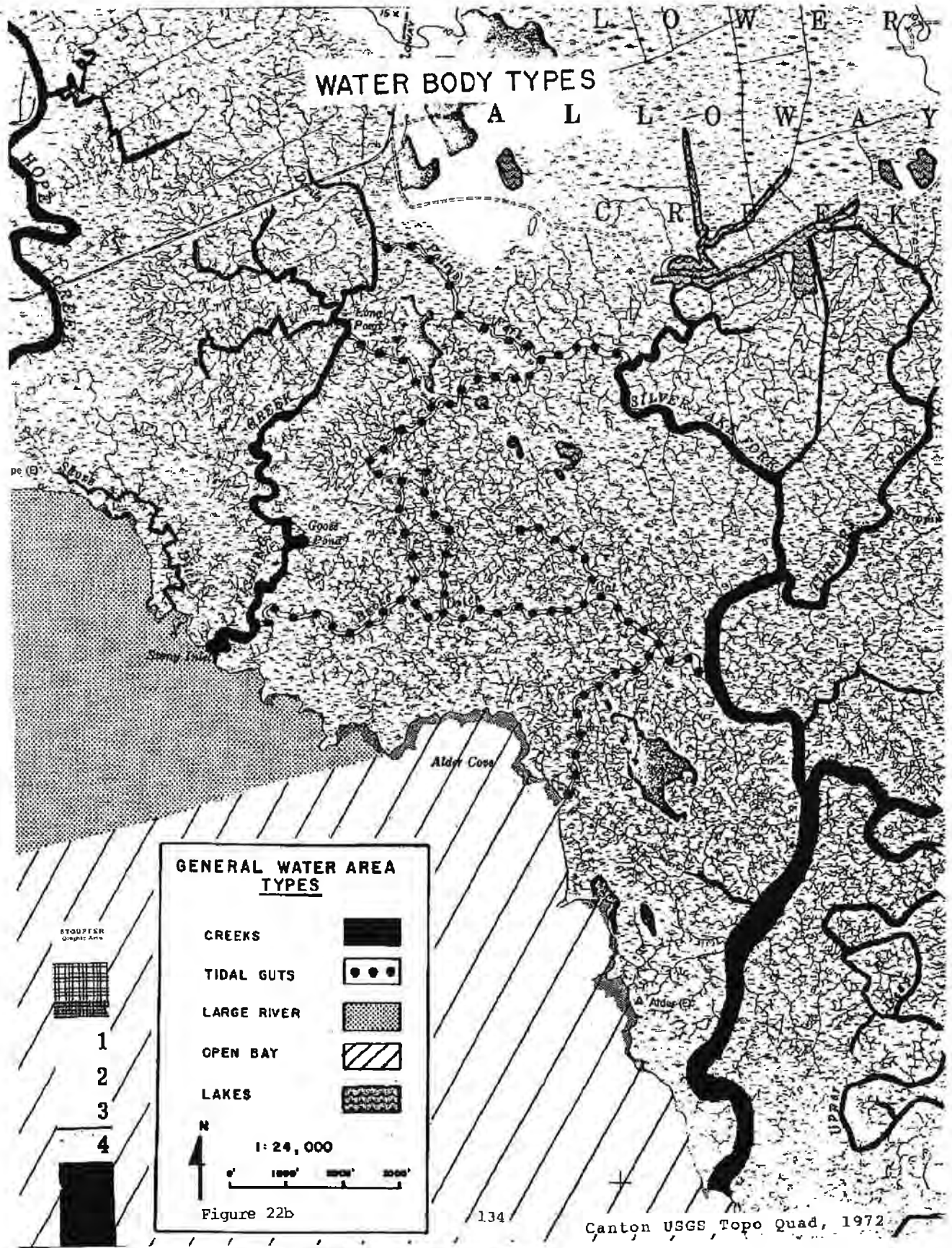
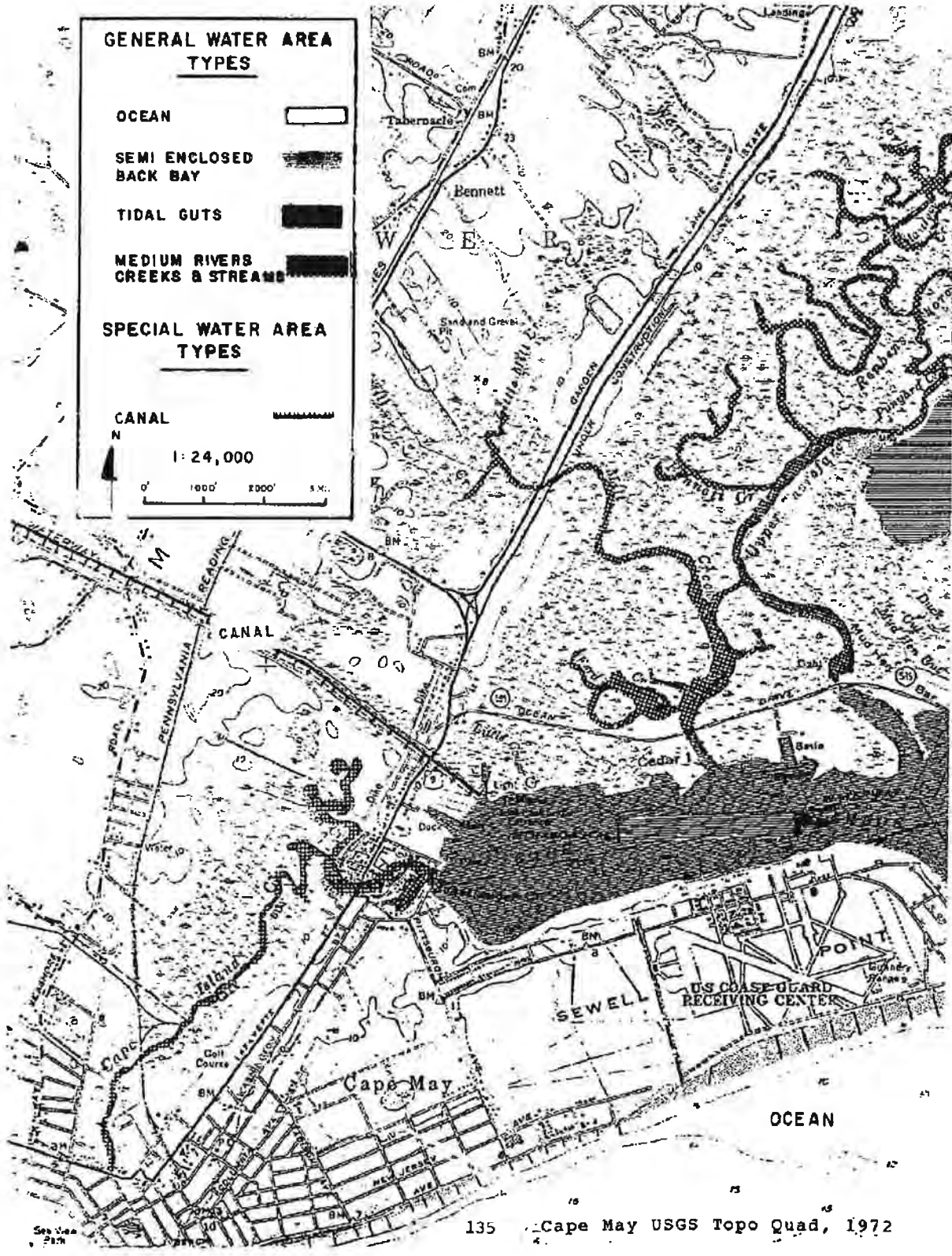


Figure 22c

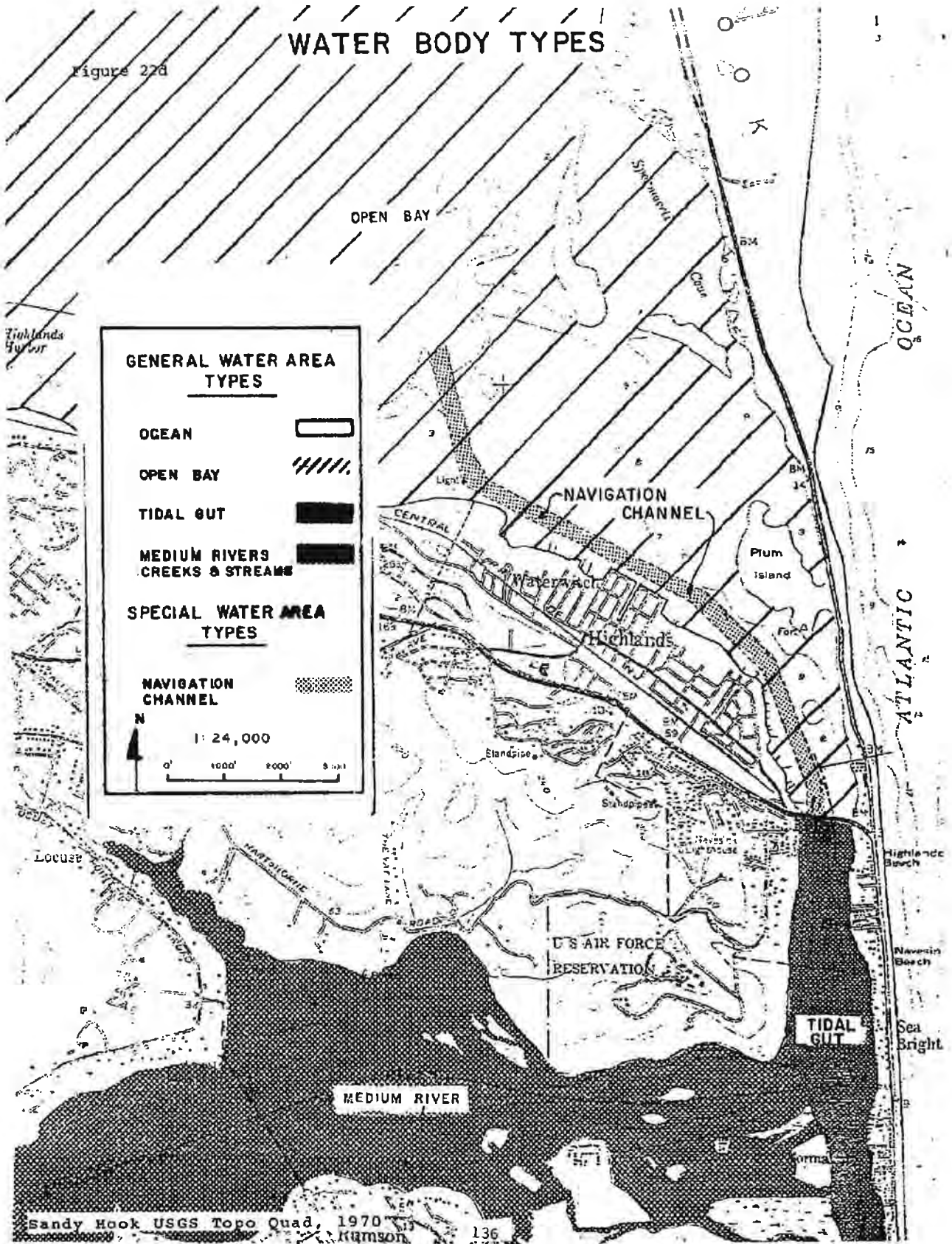
# WATER BODY TYPES



135 Cape May USGS Topo Quad, 1972

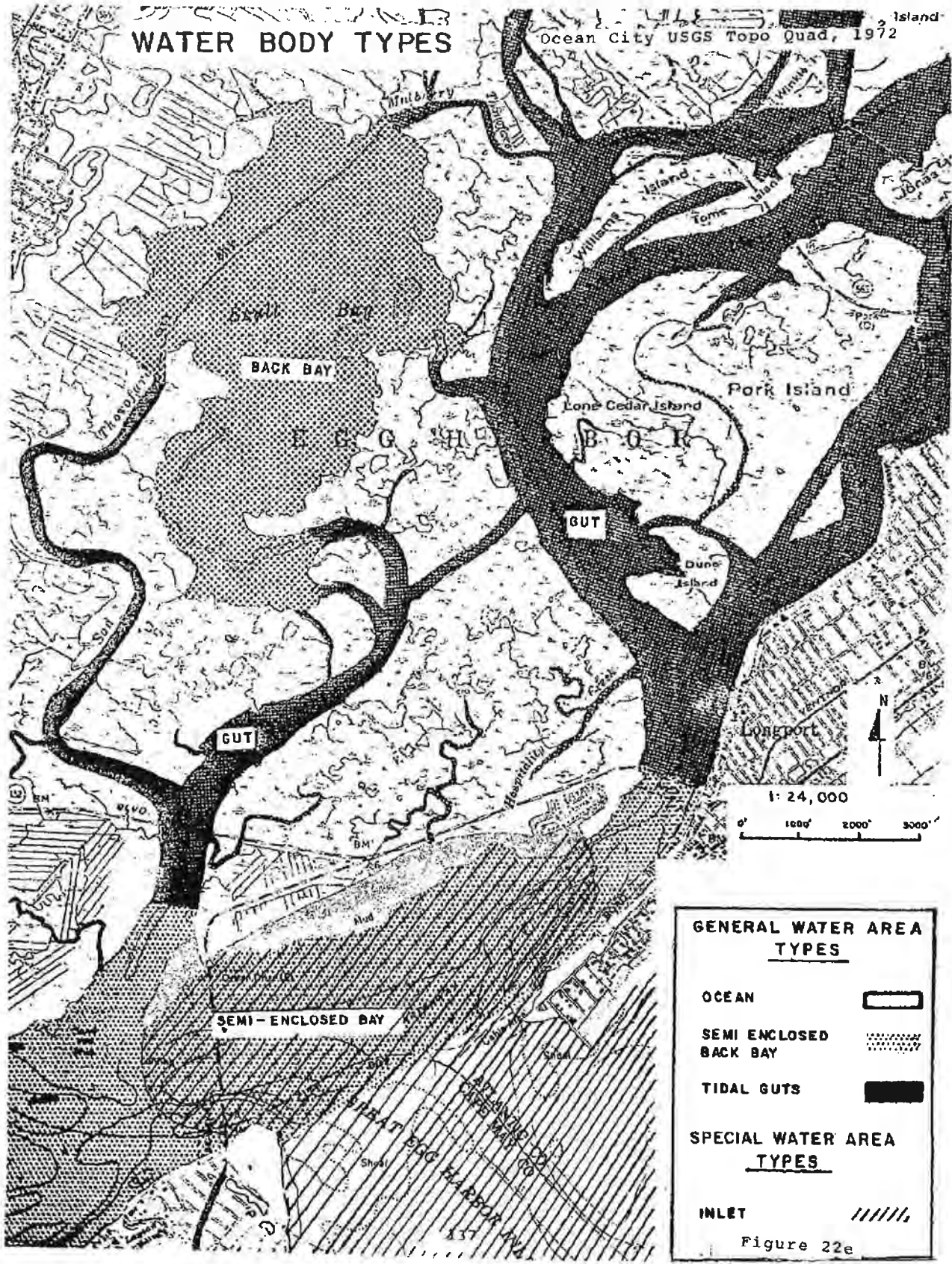
# WATER BODY TYPES

Figure 27a






# WATER BODY TYPES

Ocean City USGS Topo Quad, 1972



**GENERAL WATER AREA TYPES**

- OCEAN 
- SEMI ENCLOSED BACK BAY 
- TIDAL GUTS 

**SPECIAL WATER AREA TYPES**


- INLET 

Figure 22e

assimilative capacity of the ocean is not unlimited, nor are all the benthic and pelagic and surface organisms equally resilient to stresses. The high energy marine system simultaneously provides opportunity for various uses such as recreation and navigation and imposes several constraints to human structures.

Marine waters are divided into two depth categories: the shallower portion is most commonly thought of as the surf zone, which is of national recreational value. Uses which would impact the recreational values are consequently discouraged from this location. Uses located within deeper portions have less potential to adversely impact coastal resources or induce impacts such as ocean shoreline instability.

#### 7:7E-4.4 Open Bay

##### (a) Definition

This basin type has three depth levels (0'-6', 6'-18', and 18+) and is defined as a large, somewhat confined estuary with a wide unrestricted inlet to the ocean and with a major river mouth discharging directly into its upper portion. Delaware Bay, Raritan Bay, Sandy Hook Bay, and Upper New York Bay are the only representatives of this water body type in New Jersey.

##### (b) Policy

See Policy Summary Table, Section 7:7E-4.2.

##### (c) Rationale

Open bays are the largest estuarine systems within the New Jersey coastal zone. All estuaries provide critical nursery habitat for marine finfish and shellfish and provide organic nutrients for marine/estuarine food webs.

Open bays have traditionally been used as commercial shipping entrances to the New Jersey/New York harbors and New Jersey/Pennsylvania/Delaware harbors, and have consequently suffered from extensive human perturbations, with the northern area being more severely disturbed.

Open bays have large rivers discharging into their upper portions. Although a less vigorous environment than the coastal sea, surface wave action can be high during strong wind conditions. Open bays are extensively used for commerce and recreation, although recreation and commercial fin and shellfish has been constrained by sewage pollution.

These water bodies are subdivided into three categories based solely on water depth. The criteria of depth was used as this factor is closely related to dilution potential.



7:7E-4.5 Semi-enclosed and Back Bay

(a) Definition

This basin type is a partially confined estuary with direct inlet connection and some inflow of freshwater. Semi-enclosed bays differ from back bays in depth, degree of restriction of inlet and level of freshwater inflow, but the initial location policy is identical for the two water body types. Great Bay and Great Egg Harbor are examples of semi-enclosed bays, Barnegat Bay, Little Egg Harbor, the Shark River estuary and other bays in Atlantic and Cape May Counties are back bays. This combined water body type has two depth levels (0-6', and 6'+).

(b) Policy

See Policy Summary Table, Section 7:7E-4.2.

(c) Rationale

Semi-enclosed water bodies are the estuaries behind barrier beach islands with restricted, indirect, or shallow inlets to the open ocean. This category includes all non-riverine estuarine water bodies including embayments and back bays.

These areas are more sensitive to human disturbance, because of the very limited to moderate freshwater inflow, slower tidal flushing, and smaller water body volume.

The semi-enclosed estuaries are critical to the protection and perpetuation of the coastal ecosystem. Their physically protected geography allows more sensitive or fragile organisms to survive than in the more vigorous ocean and open bays. The vast majority of important marine finfish, shellfish and aquatic birds utilize these areas as critical nursery habitats. The contiguous coastal wetlands perform the essential role of photosynthesis, resulting in natural organic material export into the coastal sea through the action of tidal and storm induced flushing.

These estuarine water bodies are subdivided into three categories based solely upon the criteria of relative water depth. Deeper water portions are the areas most intensively used by man for water surface activities such as navigation. Deeper water areas have a greater physical ability to dilute pollutants and biologically detoxify toxic agents. This assimilative capacity is not unlimited however. Shallow water areas generally have less potential dilution and flushing.

7:7E-4.6 Tidal Guts

(a) Definition

This channel type includes tidal waterway connections between two estuarine bodies of water. Also known as thorofares, tidal guts have no significant freshwater drainage, are tidally influenced and vary in flow rates and natural water depths. Examples range from the Arthur Kill and Kill Van Kull in the developed coast, to Clam Thorofare, Beach Thorofare and Wading Thorofare in the Shore region.

(b) Policy

See Policy Summary Table, Section 7:7E-4.2.

(c) Rationale

Tidal Guts are critical areas for estuarine ecology, controlling the mix of salt and fresh water nutrient transport, and movement corridors for aquatic organisms. Guts serve as important access ways for human navigation, physical water circulation and tidal flushing of estuaries.

7:7E-4.7 Large Rivers

(a) Definition

This channel type includes flowing waterways with watersheds greater than 1,000 square miles, which means the Delaware, Hudson, and Raritan Rivers.

The Delaware River is a tidal river from the Bridge Street Bridge in Trenton to its mouth at Delaware Bay, defined as a line between Alder Cove, Lower Alloways Creek Township and the Delaware River Basin Commission River and Bay Memorial at Liston Point, Delaware.

The Hudson River is a tidal river from the New York State Line to its mouth at Upper New York Bay at the Morris Canal, Jersey City.

The Raritan River is a tidal river from the Interstate Route 287 Bridge between Piscataway and Franklin townships to its mouth at Raritan Bay and the Arthur Kill.

(b) Policy

See Policy Summary Table, Section 7:7E-4.2.

(c) Rationale

Large rivers are the principal freshwater input to the Open Bays, and the critical estuarine functions performed by these bays depends, in large part, on maintenance or improvement of water quality and flow patterns in tidal rivers. These water bodies have a long history of intensive human use, especially in commerce. These economic interests must be accommodated. Large rivers are all drained by watersheds in excess of 1,000 square miles, and are tidally influenced within the Bay and Ocean Shore Segment. These factors allow for flushing of pollutants, although extensive portions of each are presently over-stressed with sewage and industrial wastes.

7:7E-4.8 Medium Rivers, Streams and Creeks

(a) Definition

This channel type includes rivers, streams and creeks with a watershed area of less than 1,000 square miles. This includes watercourses such as the Hackensack, Passaic, Oldmans, Big Timber, Pennsauken, Navesink, Manasquan, Toms, Wading, Mullica, Great Egg, Maurice, Cohansey, Salem and Rancocas and smaller streams.

(b) Policy

See Policy Summary Table, Section 7:7E-4.2.

(c) Rationale

Medium rivers have from moderate to small discharge rates. Many are tidally influenced and most are relatively shallow, and of smaller volume than large rivers. These factors combine to render these features more susceptible to degradation through human activities.

7:7E-4.9 Lakes, Ponds and Reservoirs

(a) Definition

This category includes lakes, ponds, and reservoirs, virtually all of which in the unglaciated coastal plain of southern New Jersey are man-made (impoundments). These types are relatively small water bodies with no tidal influence or salinity. Many are groundwater fed, while others are known to serve as surface aquifer recharge areas.

This General Water Area type includes enclosed freshwater basins, both shallow and deep, with little or insignificant flow. Due to the limited extent of this water type, no depth subdivisions are made.

Lakes that are the result of former mining operations are not included here, but are defined separately as Wet Borrow Pits.

(b) Policy

See Policy Summary Table, Section 7:7E-4.2.

(c) Rationale

Lakes, ponds, and reservoirs have a severely limited ability to flush pollutants owing to limited freshwater inflow and lack of tidal inundation. Pollutants which enter these areas can precipitate to the bottom, remaining a continuing source of contamination. Certain lakes, ponds and reservoirs also serve as potable surface water sources.

7:7E-4.10 Acceptability Conditions for Uses

Numerous developments or activities seek locations in New Jersey's coastal waters. Some uses involve locations both above and below the mean high water line, in both Water and Water's Edge areas. This section defines the important uses of water areas managed by the Coastal Management Program and the conditions under which those uses are acceptable. Some projects involve combinations of uses, such as retaining structures, dredging, and filling. Other uses, such as Shore Protection uses, are defined elsewhere under Use Policies.

(a) Aquaculture

1. Definition

Aquaculture is the use of a permanently inundated water area, whether saline or fresh, for the purposes of growing and harvesting plants or animals in a way to promote more rapid growth, reduce predation, and increase harvest rate. Oyster farming in Delaware Bay is a form of aquaculture.

2. Acceptability Conditions

Aquaculture is conditionally acceptable in all General Water Areas provided that:

- (i) It does not unreasonably conflict with resort or recreation uses,
- (ii) It does not cause significant adverse off-site environmental impacts, and
- (iii) It does not present a hazard to navigation.

(b) Boat Ramps

1. Definition

Boat ramps are inclined planes, extending from the land into a water body for the purpose of launching a boat into the water until the water depth is sufficient to allow the boat to float. Boat ramps are most frequently paved with asphalt or concrete, or covered with metal grates.

2. Acceptability Conditions

- (i) Where boat ramps are conditionally acceptable, they must meet the following conditions: (a) there is a demonstrated need that cannot be met by existing facilities, and (b) they cause minimal practicable disturbance to intertidal flats or sub-aqueous vegetation.
- (ii) In all water areas, boat ramps shall be constructed of environmentally acceptable materials, such as concrete or oyster shell, and garbage cans shall be provided near the boat ramp. Public use ramps shall have priority over restricted use and private use ramps.

(c) Docks and Piers (for Cargo Movement)

1. Definition

Docks and piers (for cargo movement) are structures supported on pilings driven into the bottom substrate or floating on the water surface, used for loading and unloading cargo, including fluids,

connected to or associated with a single industrial or manufacturing facility. Policies for docks and piers intended for multiple uses may be found under Use Policies for Ports Uses. Policies for docks composed of fill and retaining structures may be found under the category "filling".

2. Acceptability Conditions

Docks and Piers for cargo movement are conditionally acceptable in most General Water Areas, provided that: (1) they will not pose a hazard to navigation, and (2) the associated use of the adjacent land meets all Coastal Resource and Development Policies.

(d) Docks and Piers (Recreational and Fishing)

1. Definition

Recreational and fishing docks and piers are structures supported on pilings driven into the bottom substrate, or floating on the water surface, which are used for recreation or fishing or for the mooring of boats which are used for recreation or fishing, including commercial fishing.

2. Acceptability Conditions

Docks and Piers are conditionally acceptable in General Water Areas bodies provided that: (i) there is a demonstrated need that cannot be satisfied by existing facilities, (ii) the associated upland use satisfies the location policies for water's edge areas, (iii) the construction minimizes adverse environmental impact to the maximum extent feasible, (iv) the docks and piers are located so as to not hinder navigation or conflict with overhead transmission lines, and (v) there is minimum feasible interruption of natural water flow patterns.

Docks and piers on pilings shall be preferred to construction on fill. Repairs and maintenance of existing docks and piers are generally acceptable.

(e) Dredging-Maintenance

1. Definition

Maintenance dredging is the removal of accumulated sediment from authorized and currently maintained navigation channels, marinas, or boat moorings, for the purpose of maintaining an authorized water depth and width.

2. Acceptability Conditions

Maintenance dredging is conditionally acceptable to the authorized depth and width in all existing navigation channels, access channels, anchorages and moorings within all General Water Areas to ensure that adequate water depth is available for safe navigation, provided that an acceptable spoil disposal site exists and

turbidity is controlled using best available technology (reference: U.S. Army Waterways Experiment Station, Dredged Material Research Program Report, TR DS-78-22).

As necessary on a case-by-case basis to mitigate adverse impacts upon Shellfish Beds (7:7E-3.2), Surf Clam Areas (7:7E-3.3), Finfish Migratory Pathways (7:7E-3.9), and nursery areas for finfish, and to prevent reduction of ambient dissolved oxygen below critical levels, or the increase of turbidity or the resuspension of toxic substances above critical levels, seasonal limitations may be imposed on maintenance dredging.

Maintenance dredging is necessary to provide access to marinas, docks, ports, and other appropriate water-dependent facilities. Beach nourishment shall be the priority use of clean dredge spoil when economically feasible. Scouring of channels, anchorages and moorings is acceptable on a case-by-case basis to permit small scale water dependent facilities.

(f) Dredging - New

1. Definition

New dredging is the removal of sediment from the bottom of a water body that has not been previously dredged or excavated, for the purpose of increasing water depth, or the widening or deepening of navigable channels to a newly authorized depth or width.

2. Acceptability Conditions

New dredging is conditionally acceptable in Oceans, Rivers, Creeks and Streams for boat moorings, navigation channels or anchorages (docks) providing that: (i) there is a demonstrated need that cannot be satisfied by existing facilities, (ii) the facilities served by the new dredging satisfy the location requirements for Special Water's Edge Areas, (iii) the adjacent water areas are currently used for recreational boating, commercial fishing or shipping, (iv) the dredge area causes no significant disturbance to Special Water or Water's Edge Areas, (v) the adverse environmental impacts are minimized to the maximum extent feasible, (vi) dredging will have no adverse impacts on groundwater resources, (vii) an acceptable dredge spoil disposal site exists, (viii) the dredged area is reduced to the minimum practical and (ix) turbidity is controlled during the dredging operation using best available technology (reference: U.S. Army Waterways Experiment Station, Dredged Material Research Program Report, TR D5-78-22).

As necessary on a case-by-case basis to mitigate adverse impacts upon Shellfish Beds (7:7E-3.2), Surf Clam Areas (7:7E-3.3), Finfish Migratory Pathways (7:7E-3.9), and nursery areas for finfish, and to prevent reduction of ambient dissolved oxygen below critical levels, or the increase of turbidity or the resuspension of toxic substances above critical levels, seasonal limitations may be imposed on new dredging.

New dredging or excavation to create new lagoons for residential development is prohibited. New dredging in Lakes, Ponds and Reservoirs, Bays and Cuts is discouraged.

New dredging is conditionally acceptable to control siltation in Lakes, Ponds and Reservoirs.

(g) Dredge Spoil Disposal

1. Definition

Dredge spoil disposal is the discharge of sediments (spoils) removed during dredging operations.

2. Acceptability Conditions

Dredge Spoil Disposal is prohibited in Tidal Cuts, and Medium Rivers, Creeks and Streams, and discouraged in Open Bays and Semi-Enclosed and Back Bays when the water depth is less than 6 feet. Spoil disposal by sidecasting in these water body types when shallow waters preclude removal of the dredge spoil from the area is conditionally acceptable on a case by case basis.

Disposal of dredge spoils in the ocean and bays deeper than six feet is conditionally acceptable provided that it is in conformance with USEPA guidelines (40 CFR 230, 40 FR 41291, September 5, 1975) established under Section 404(b) of the Clean Water Act.

EPA guidelines require that consideration be given to the need for the proposed activity, the availability of alternate sites and methods of disposal that are less damaging to the environment, and applicable water quality standards. They also require that the choice of site minimize harm to municipal water supply intakes, shellfish, fisheries, wildlife, recreation, threatened and endangered species, benthic life, wetlands and submerged vegetation, and that it be confined to the smallest practicable area.

Clean dredge sediments of suitable particle size are acceptable for beach nourishment on ocean or open bay shores.

The use of clean dredge spoil to create new wetlands in any General Water Area is conditionally acceptable depending upon an evaluation of the biological value of the wetlands gained compared with the water area lost.

Spoil disposal in Lakes, Ponds and Reservoir is conditionally acceptable provided that the spoil is adequately contained.

Note: Conditions for Dredge Spoil Disposal on land are indicated in Section 7:7E-7.12.

(h) Dumping (Solid Waste or Sludge)

1. Definition

The dumping of solid waste or sludge is the discharge of solid or semi-solid waste material from industrial or domestic sources or sewage treatment operations into a water area.

2. Acceptability Conditions

The dumping of solid or semi-solid waste of any description in any coastal water is prohibited.

(i) Filling

1. Definition

Filling is the deposition of inorganic material (sand, soil, earth, dredge spoils, etc.) into water areas for the purpose of raising water bottom elevations to create land areas.

2. Acceptability Conditions

(i) Filling is prohibited in lakes, ponds, reservoirs, and open bay areas at depths greater than 18 feet.

(ii) In all other water areas, filling is discouraged, but limited filling may be considered for acceptability provided that: (a) the use that requires the fill is water dependent, (b) there is a demonstrated need that cannot be satisfied by existing facilities, (c) there is no feasible or practical alternative site on an existing Water's Edge. (d) the minimum practical area is filled, (e) the adverse environmental impacts are minimized, and (f) minimal feasible interference is caused to Special Areas, and (g) pilings and columnar support or floating structures cannot serve the use.

(iii) Filling to create docks and wharves is conditionally acceptable provided that construction of the dock or wharf on pilings would be infeasible.

(iv) Filling using clean sediment of suitable particle size and composition is acceptable for beach nourishment projects (see the Coastal Engineering Use Policies 7:7E-7.11), and conditionally acceptable for the creation of new wetlands.

(j) Piling

1. Definition

Piling is the insertion of columnar structural members into the water bottom substrate.



2. Acceptability Conditions

When pilings are an element of docks and moorings they must meet the acceptability conditions for those uses. The placement of pilings for other purposes is discouraged in lakes, ponds, reservoirs, and ocean and bay waters greater than 18 feet in depth. Elsewhere pilings are conditionally acceptable provided that they are not a hazard to navigation.

(k) Mooring

1. Definition

A boat mooring is a temporary or permanent, piling or floating anchored facility in a water body for the purpose of attaching a boat.

2. Acceptability Conditions

Temporary or permanent boat mooring areas are conditionally acceptable in all General Water Areas provided that the mooring area is adequately marked and is not a hazard to navigation.

(l) Sand and Gravel Extraction

1. Definition

Sand and gravel extraction is the removal of sand or gravel from the water bottom substrate, usually by suction dredge, for the purpose of using the sand or gravel at another location.

2. Acceptability Conditions

Sand and gravel extraction is prohibited in Lakes, Ponds and Reservoirs, and Tidal Guts.

This activity is discouraged in all other General Water Areas except the deep Ocean and Rivers, Creeks, and Streams. In these General Water Area types, extraction is conditionally acceptable provided that:

- (i) Special Areas are not directly or indirectly degraded,
- (ii) turbidity and resuspension of toxic materials is controlled throughout the extraction operation through use of the best available mitigation technology,
- (iii) there is an acceptable disposal site for the waste from washing operations, and
- (iv) in rivers, creeks and streams, the depth of water at the mining site is at least six feet.

(m) Bridges

1. Definition

A bridge is any continuous structure spanning a water body, except for an overhead transmission line.

2. Acceptability Conditions

Bridges are conditionally acceptable over rivers, streams, and tidal guts provided that: (i) there is a demonstrated need that cannot be satisfied by existing facilities, (ii) applicable Location and Resource Policies are satisfied, with special attention to Resource Policies on Secondary Impacts, (iii) pedestrian use is provided for, and (iv) fishing catwalks and platforms are provided to the maximum extent practicable.

(n) Submerged Infrastructure

1. Definition

Cables are solid underwater lines such as telecommunication cables or electrical transmission lines.

Pipelines are hollow underwater pipes laid, buried, or trenched for the purpose of transmitting fluids. Examples would be crude oil, natural gas, water, petroleum products or sewage pipelines. Construction of an underwater pipeline may involve trenching, temporary trench spoil storage, and back filling, or jetting as an alternative to trenching.

2. Acceptability Conditions

Submerged Infrastructure are conditionally acceptable provided that they are not sited within Special Areas, unless no prudent and feasible alternate route exists. In the case of pipelines, the following conditions must also be met. (i) trenching takes place to a sufficient depth and is backfilled, either through natural or mechanical means to avoid puncturing or snagging anchors or sea clam dredges, and (ii) the pipeline is sufficiently deep to avoid uncovering by erosion of water currents, (iii) the conditions outlined for pipelines in the Use Policies (See Section 7:7E-7.4) are satisfied.

Temporary trench spoil storage and back filling as part of pipeline trenching is acceptable provided that bottom contours are reestablished following trench spoil removal to the original bottom contours, to the maximum extent practicable. Jetting pipelines into bottom sediments is conditionally acceptable provided that trenching and backfilling are impractical.

In the case of Cable routes, the following additional conditions must be met:

(i) the route avoids areas where anchors may foul the cable, and  
(ii) the alignment of the cable route is marked at the landfall and by buoys at the surface.

(o) Overhead Transmission Lines

1. Definition

Overhead transmission lines are electrically conducting wires hung between supporting pylons for the transmission of electrical power from generating plant to the site of consumption.

2. Acceptability Conditions

Overhead transmission lines are prohibited or discouraged, except over Rivers, Streams, Creeks and Tidal Cuts, where transmission lines will be considered for acceptability provided that: (i) there is a demonstrated need that cannot be satisfied by existing facilities, (ii) there is no feasible alternate route that avoids crossing water bodies, (iii) further development likely to be induced by the transmission lines is acceptable, (iv) the transmission line provides adequate vertical clearance for masts, and (v) visual impacts are minimized to the maximum extent practicable.

(p) Dams and Impoundments

1. Definition

Dams and impoundments are structures that obstruct natural water flow patterns for the purpose of forming a contained volume of water. Impoundments include dikes with sluice gates and other structures to control the flow of water.

2. Acceptability Conditions

Dams and impoundments are impractical in many water body types, prohibited in other water body types, and discouraged in specified water body types (see Figure 21), unless essential for water supply purposes or the creation of special wildlife habitats.

(q) Outfalls and Intakes

1. Definition

Outfalls and intakes are opening in pipes that are located in Water Areas for the purpose of intake of water or discharge of effluent including sewage, stormwater and industrial effluents.

2. Acceptability Conditions

Outfalls and intakes are conditionally acceptable in most water bodies provided that the use associated with the intake or outfall meets the Coastal Resource and Development Policies. The Water Areas policy applies only to the location of the mouth of the pipes, not to the effluent or the amount of diversion.

(r) Realignment of Waterways

1. Definition

Realignment of waterways means changing the configuration of any water body.

2. Acceptability Conditions

(i) Realignment of natural (naturally occurring, unaltered) watercourses is discouraged.

(ii) Realignment of previously altered watercourses is conditionally acceptable, provided that it can be demonstrated that no adverse environmental impacts (i.e. water quality, flood hazard, species diversity reduction/alteration) will result, or other Resource Policies will be contravened, by the realignment; that a net recreational/ecological benefit will demonstrably accrue; and that there is no net loss (in linear feet or area) of river bed environment.

(s) Miscellaneous

1. Definition

Miscellaneous includes uses of Water Areas not specifically defined in this section or addressed in the Use Policies.

2. Acceptability Conditions

Uses of Water Areas not identified in the Water Acceptability Table or addressed in the Use Policies will be analyzed on a case-by-case basis.

## SUBCHAPTER 5 - GENERAL LAND AREAS

### 7:7E-5.1 Definition

General Land Areas include all mainland land features located upland of Special Water's Edge Areas.

General Land Areas begin at the inland limit of soils with a seasonal high water table equal to, or less than, one foot; the one hundred year flood hazard line, whether tidal or fluvial; the inland limit of water's edge fill; or the inland limit of coastal bluffs, whichever is farthest inland from the water's edge.

### 7:7E-5.2 Acceptability of Development in General Land Areas

(a) The acceptability for development of Land Areas is defined in terms of three levels of acceptable development intensity. Three factors determine the acceptable development intensity for various locations in Land Areas:

1. Coastal Growth Rating,
2. Environmental Sensitivity, and
3. Development Potential

Assessment of these three factors indicates the appropriate pattern of development from a broad, regional perspective and provides a method for determining the acceptable intensity of development of specific sites, as well as entire regions.

(b) Determination of the specific policy for a Land Area site is a four step process. First, the Coastal Growth Rating is determined. Second, the Environmental Sensitivity and Development Potential of the site are determined. Third, the Land Acceptability Table (Section 7:7E-5.7) for the appropriate region is consulted to determine the acceptable intensity of development of the site, given the three possible combinations of Development Potential and Environmental Sensitivity factors for the site or parts of the sites. Fourth, the proposed intensity of development of the site is compared with the acceptable intensity of development for the site.

(c) Coastal development which does not conform with the acceptable intensity of development of a site is discouraged.

### 7:7E-5.3 Coastal Growth Rating

#### (a) Introduction

The coastal zone is classified into thirteen different regions on the basis of the varied pattern of existing coastal development and natural and cultural resources (see Figure 23). For these regions, DEP uses three broad regional growth strategies:

1. Development Region - This region is already largely developed. From a coastwide perspective, development in this region would be in fill development. In accordance with the coastal policy on concentration of development, development in this region is preferred over development in other regions, other factors being equal. Infill, extension and some scattered development is acceptable here. Development in these regions, however, must be consistent with Recreation and Public Access Policies.
2. Extension Region - This region is the region where development should be channelled after full development of the Development Region. Generally, infill and some extension of development is acceptable here.
3. Limited Growth Region - This region contains large environmentally sensitive areas. Generally, only infill development is acceptable here.

(b) Barrier Island Region

The oceanfront barrier islands and spits constitute the Barrier Island Region. The Land Areas Policy does not apply to the Barrier Island Region, which is composed entirely of various Special Areas.

(c) Urban Areas Region

Each of the Urban Aid municipalities identified below is considered an urban area. The urban areas are designated development areas.

Atlantic  
Atlantic City

Camden  
Camden

Cumberland  
Bridgeton  
Millville

Essex  
Newark

Hudson  
Bayonne  
Hoboken  
Jersey City  
North Bergen  
West New York

Mercer  
Trenton

Monmouth  
Asbury Park  
Keansburg  
Long Branch  
Neptune Township

Ocean  
Lakewood

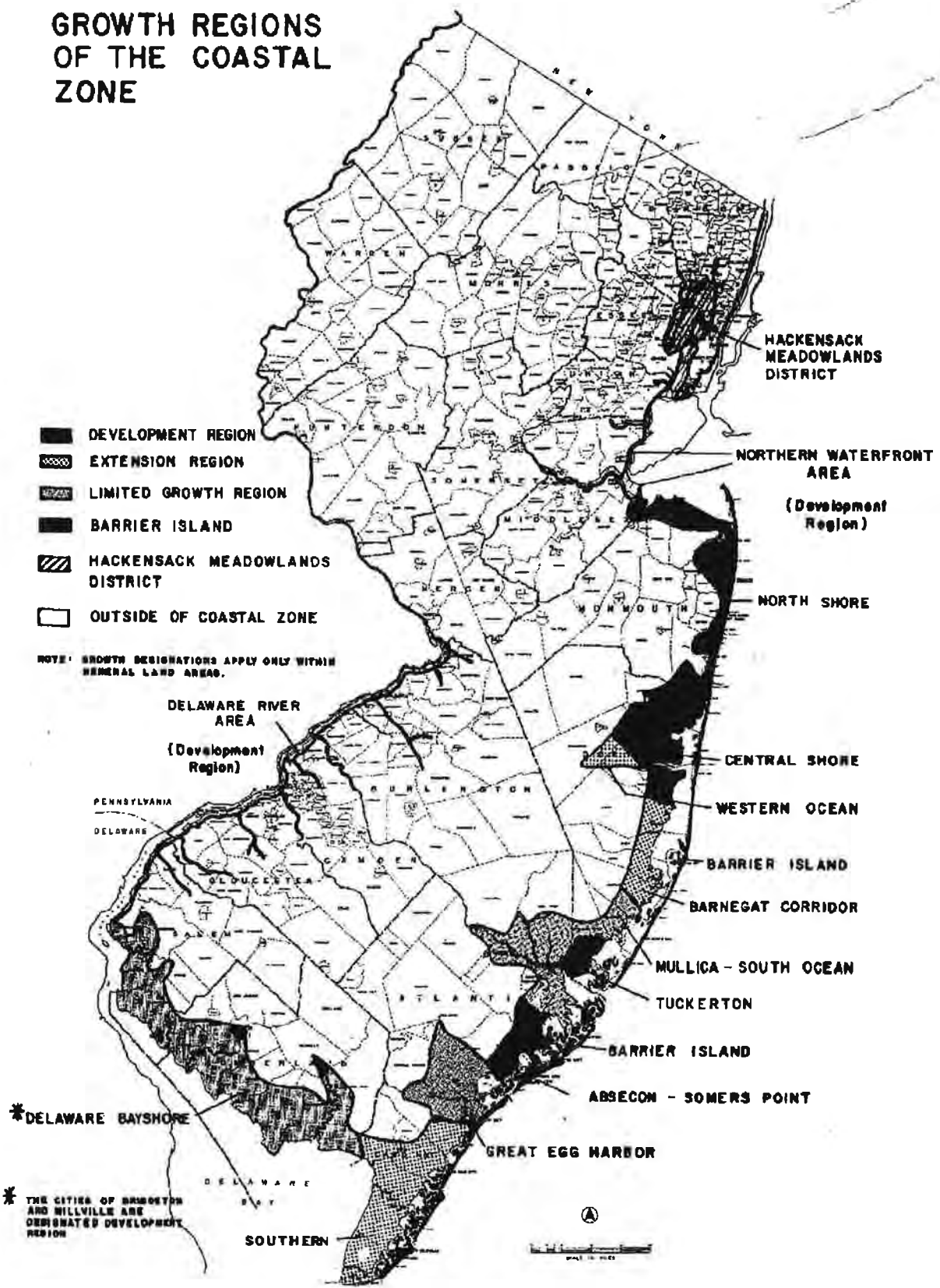
Passaic  
Passaic

Union  
Elizabeth  
Rahway

Middlesex  
New Brunswick  
Perth Amboy

Figure 23

# GROWTH REGIONS OF THE COASTAL ZONE



(d) North Shore Region

The North Shore Region includes those portions of Monmouth and Middlesex County that are within the Bay and Ocean Shore Region and is designated a Development Region.

(e) Central Shore Region

The Central Shore Region includes those portions of Ocean County within the Bay and Ocean Shore Region that are north of State Highway 37 and west of the Garden State Parkway, and those parts of the county north of Cedar Creek and east of the Parkway, and is designated a Development Region.

(f) Western Ocean County Region

The Western Ocean County Region includes those portions of Ocean County west of the Garden State Parkway and south of State Highway 37, and is designated an Extension Region.

(g) Barnegat Corridor Region

The Barnegat Corridor Region includes those portions of Ocean County south of Cedar Creek and north of State Highway 72, and is designated an Extension Region.

(h) Mullica-Southern Ocean Region

The Mullica-Southern Ocean Region those portions of Ocean County south of State Highway 72, all of Burlington County, and those portions of Atlantic County north of County Road 561 (Jimmy Leeds Road), located within the Bay and Ocean Shore Region, and is designated a Limited Growth Region.

(i) Tuckerton Region

The Tuckerton Region is bounded on the west by the Burlington-Ocean County border, on the north by U.S. Highway 9, Otis Bog Road, Nugentown Road and the Tuckerton Borough line, and on the south and east by Little Egg Harbor, Big Thorofare, Big Creek, Great Bay and the Mullica River. The Tuckerton Region is designated an Extension Region.

(j) Absecon-Somers Point Region

The Absecon-Somers Point Region includes those mainland portions of Atlantic County south of County Road 561 (Jimmy Leeds Road), and east of Garden State Parkway, and is designated a Development Region.

(k) Great Egg Harbor River Region

The Great Egg Harbor River Region includes those portions of Atlantic County southwest of County Road Alternate 559 and those portions of Cape May County east of State Highway 50, north of County Road 585, and west of U.S. Highway 9, and is designated a Limited Growth Region.



(l) Southern Region

All of Cape May County, within the Bay and Ocean Shore Region, except for that portion in the Great Egg Harbor River Region and Barrier Island Region, is designated an Extension Region.

(m) Delaware Bayshore Region

All of Cumberland County and Salem County within the Bay and Ocean Shore Region is designated a Limited Growth Region, with the exception of the Cities of Bridgeton and Millville which are designated a Development Region.

(n) Delaware River Region

The area north of the Delaware Memorial Bridge to the coastal zone boundary in Trenton is designated a Development Region, except for land designated as a Low Growth Area by the State Development Guide Plan Concept Map. Such land is along Oldmans Creek eastward of Route I-295, and along Rancocas Creek and its tributaries in Medford and Southampton Townships, and is designated for Limited Growth.

(o) Northern Waterfront Region

The entire coastal zone from Cheesequake Creek in Middlesex County to the New York State boundary is designated a Development Region.

7:7E-5.4 Environmental Sensitivity Rating

(a) Introduction

Environmental Sensitivity is a composite indication of the general suitability of a land area for development based on three factors -- (1) vegetation, (2) fertile soils, and (3) high permeability wet soils -- that are combined to indicate High, Moderate, or Low Environmental Sensitivity on a site or parts of a site. This section first defines these rankings and then defines specifically the three factors.

(b) High Environmental Sensitivity

High Environmental Sensitivity Areas are land areas with: (1) forest vegetation, and (2) high soil productivity or high permeability wet soils adjacent to a stream channel (permanent or ephemeral), as defined below.

All of the following Special Area types shall also be considered High Environmental Sensitivity areas: Farmland Conservation Areas, Steep Slopes, Endangered or Threatened Wildlife or Vegetation Species Habitats, and Critical Wildlife Habitats.

(c) Moderate Environmental Sensitivity

Moderate Environmental Sensitivity Areas are neither High nor Low Environmental Sensitivity Areas.

(d) Low Environmental Sensitivity

Low Environmental Sensitivity Areas are areas with: (1) onsite paving or structures on at least 50% of the project site or (2) areas with bare earth or herbaceous vegetation or early successional meadow with low soil fertility, and large depth to seasonal high water table.

(e) Definitions of Environmental Sensitivity Factors

1. Forest vegetation is defined as a natural community of trees and shrubs with tree species predominantly those of the late successional stage for the region with a majority of trees more than ten years old.
2. High soil productivity is defined as soils with Agricultural Capability Class I, as defined by the U.S. Department of Agriculture, Soil Conservation Service in National Cooperative Soil Surveys. Low soil productivity is any soil designated by Agricultural Capability Class IV-VIII.
3. High permeability wet soils are soils with a depth to seasonal high water table of three feet or less and with textures equal to or coarser than loamy sand within a 24 inch depth from the surface, as indicated in National Cooperative Soil Surveys and includes primarily the following coastal soils series: Atsion (At), Hammonton (HaA), Klej (KmA), and Lakehurst [(LaA, LeB, and LeC)] (LmA and LhA).
4. Large depth to seasonal high water table is defined as a depth to seasonal high water table of more than five feet.

(f) Rationale

1. High Environmental Sensitivity

This ranking is given to land areas where combinations of environmental factors either make the area particularly valuable as a resource or particularly sensitive to impacts, or a combination of the two. Two area types are important. First, a combination of valuable resources exists where forest vegetation coincides with the most productive soils. These areas are valuable as open space, for screening, as wildlife habitats, for ground and surface water purification, and as areas that could be used in the future for local food production and/or nutrient absorption. These areas have value both for the functions they now perform in a developing area and as a limited land bank of the most productive soils. Second, where forest vegetation coincides with a rapid soil percolation rate and a shallow depth to water table, there is a combination of resource value and impact sensitivity factors of special concern where there is an adjacent stream or water body. Areas of high soil percolation and shallow depth to water table are especially sensitive to ground water impacts because the rapid percolation offers little pollutant filtration and the distance to ground water is small. When these areas coincide with forest vegetation, itself a valuable resource in developing areas, the physical and biological

processes of tree roots contribute to ground water protection by taking up nutrients and other contaminants. The combination of loss of forest vegetation and degradation of ground water that occurs when these areas are developed raises the level of sensitivity.

2. Medium Environmental Sensitivity

These are land areas that are neither especially sensitive or insensitive to development.

3. Low Environmental Sensitivity

This ranking is given to areas where there would be particularly little loss of valued resources or sensitivity to impacts of concern if development took place. All paved areas are included, because in these areas most of the adverse impacts associated with development have occurred and further development will minimally diminish natural resources or generate new adverse impacts. The second category of low sensitivity has a low resource value since the soils are infertile and there is little or no vegetation. Since the soils are coarse and have low erosion potential, there is a relatively large distance to ground water and therefore little potential for transferring adverse impacts.

7:7E-5.5 Development Potential

(a) Introduction

Development Potential has three levels -- High, Medium and Low -- depending upon the presence or absence of certain development-oriented elements at or near the site of the proposed development, as defined below. The Development Potential rating applies to the entire site. Different sets of Development Potential criteria are defined below for different categories of development. Also, some of the criteria vary depending upon the regional type. If a specific set of Development Potential criteria is not defined for a particular category or type of development, then the Location Policy assumes a Medium Potential for that category until specific criteria are adopted by DEP. Recommended criteria from an applicant or the public may be considered in the course of the permit application process for a particular development prior to adoption by DEP of specific criteria.

(b) Residential Development Potential

1. Scope

The Residential Development category includes housing, including retirement communities, hotels, motels, and minor commercial facilities of a neighborhood or community scale.

2. High Potential sites meet all of the following criteria:

- (i) Roads - Direct access from the site to an existing paved public road with sufficient capacity to absorb satisfactorily the traffic generated by the proposed development, or in Development Regions, direct access to roads which either in their

existing state, or with improvements included in the proposed coastal development, provide adequate capacity, or adjacent to roads that have been approved but not built.

- (ii) Sewage - Direct access to a wastewater treatment system, including collector sewers and treatment plant, with adequate capacity to treat the sewage from the proposed development, or soils suitable for on-site sewage disposal systems that will meet applicable ground and surface water quality standards, or in Development Regions, access to existing or an approved wastewater treatment system.
- (iii) Infill - At least 50% of the boundary length of the site is either immediately adjacent to, or directly across a railroad or public road from any of the following types of development:
  - residential development at densities of at least one dwelling unit per 2 acres
  - commercial development
  - industrial development, including warehouses
  - schools and other public institutions
  - ballfields
  - public park areas developed for recreational use
  - transportation facilities including train stations and airfields.

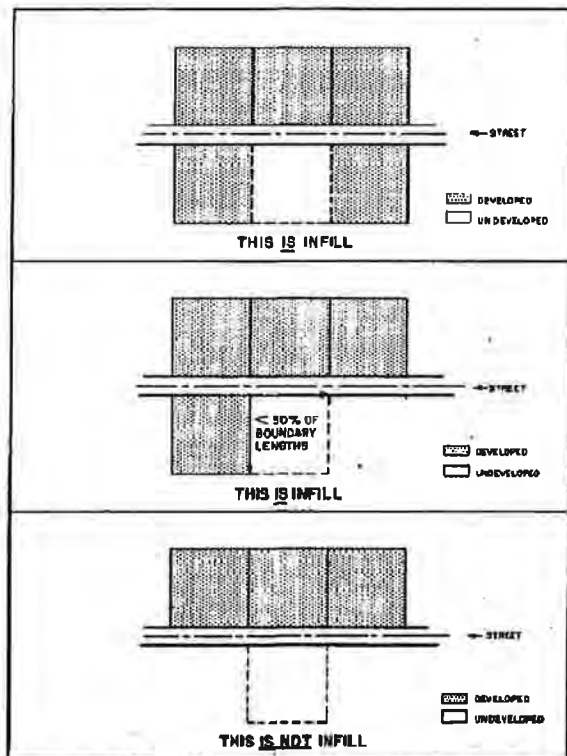
Site boundaries adjacent to wetlands or surface water shall not be included when making infill determinations. (See Figure 24)

Medium Potential sites do not meet all of the criteria for High Potential sites and do not meet any of the criteria for Low Potential sites.

- 3. Low Potential sites in Low or Moderate Growth Regions meet any one of following criteria:
  - (i) Roads - Site located more than 1,000 feet from the nearest paved public road,
  - (ii) Sewage - Site located more than 1,000 feet from an adequate wastewater treatment system, or soils unsuitable for on-site sewage disposal systems,
  - (iii) Infill - No development at a comparable scale or density is adjacent to the site boundary.
- 4. In Development Regions, Low Potential sites meet either of the following criteria:
  - (i) Roads - Site located more than 1,000 feet from the nearest existing paved or proposed public road, or
  - (ii) Sewage - Site located more than 1,000 feet from existing or approved adequate wastewater treatment system.
  - (iii) Infill - No requirement.

Figure 24

# INFILL CRITERIA FOR RESIDENTIAL DEVELOPMENT



(c) Major Commercial and Industrial Development Potential

1. Scope

The Major Commercial and Industrial Development category includes all industrial development, warehouses, manufacturing plants, wholesale and major regional shopping centers, and major parking facilities.

2. High Potential sites meet all of the following criteria:

- (i) Roads - Direct access from the site to a paved public road with sufficient capacity to absorb satisfactorily the traffic generated by the proposed development, or in Development Regions direct access to roads which either in their existing state, or with improvements included in the proposed development, provide adequate capacity.

Sites shall also be within two miles of an existing intersection with a limited access highway, parkway, or expressway, or for industrial development, be a site within one-half mile of a freight rail line with adequate capacity for the needs of the industrial development and with an agreement to build a spur to serve the industrial development.

- (ii) Sewage - Direct access to a wastewater treatment system, including collector sewers and treatment plant, with adequate capacity to treat the sewage from the proposed development, or soils suitable for on-site sewage disposal systems that will meet applicable ground and surface water quality standards. In Development Regions, where the existing sewage collection or treatment capacity is inadequate and the soils are unsuitable for septic systems, an applicant may include an agreement with a sewage authority to increase service to provide the required capacity. This will qualify the proposal for a high potential rating, provided that secondary impact analysis demonstrates that any development likely to be induced by new sewage capacity above the requirements of the proposal is acceptable.

- (iii) Infill - A part of the site boundary shall be either immediately adjacent to, or immediately across a road from, existing major commercial or industrial development, or in Development Regions, either the property proposed for development, or an adjacent property, is adjacent to existing commercial or residential developments.

3. Medium Potential sites do not meet all of the criteria for High Potential sites and do not meet any of the criteria for Low Potential sites.

4. Low Potential sites meet any one of the following criteria:

- (i) Roads - A site located more than 1,000 feet from the nearest paved public road and more than 5 miles from the nearest intersection with a limited access highway, parkway or expressway, except in Development Regions where the site may be located more than 1,000 feet from the nearest paved public road.
- (ii) Infill - A site located more than one-half mile from the nearest existing commercial or industrial development of more than 20,000 square feet building area.

(d) Campground Development Potential

1. Scope

A campground development provides facilities for visitors to enjoy the natural resources of the coast. Typically, this type of development seeks sites somewhat isolated from other development and with access to water, beach, forest and other natural amenities.

2. High Potential sites meet all of the following criteria:

- (i) Roads - Sites shall have direct access to a paved public or private road of adequate capacity to serve the needs of the development.
- (ii) Sewage - Direct access to a wastewater treatment system, including collector sewers and treatment plant, with adequate capacity to treat the sewage from the proposed development, or soils suitable for on-site sewage disposal systems that will meet applicable ground and surface water quality standards.
- (iii) Region - The region surrounding the site is natural, undeveloped and contains either beaches, streams, or forests, and is readily accessible by foot to campground users.

3. Medium Potential sites do not meet all of the criteria for High Potential sites and do not meet any of the criteria for low potential sites.

4. Low Potential sites meet any one of the following criteria:

- (i) Roads - More than one-half mile to the nearest public paved road.
- (ii) Sewage - More than 1,000 feet to the nearest sewer with sufficient capacity for the needs of the development and soils unsuitable for subsurface sewage disposal systems.
- (iii) Region - The region surrounding the site is at least partially developed or is not accessible by foot to campground users.

(e) Energy Facility Development Potential

Development Potential Rankings for energy facilities shall be jointly determined by NJDEP and NJDOE on a case by case basis pending completion of energy facility siting studies.

(f) Rationale

High Development Potential sites satisfy the major siting requirements of coastal uses and may be most desirable from the developer's viewpoint. The Development Potential factor also considers the extent to which the development of a site would carry out the basic coastal policy to concentrate the pattern of development by serving as infill to existing patterns of development, or whether the proposed development site would extend or scatter the pattern of development. DEP recognizes that other factors may be important in siting decisions from a developer's perspective. Use of the development potential factor stresses the advantages of existing settled areas and emphasizes the disadvantages of sparsely settled areas in determining the acceptability of locations. This factor promotes efficient capital investment in public infrastructure and community facilities, as well as conservation of open space.

7:7E-5.6 Definition of Acceptable Intensity of Development

(a) Introduction

The Location Policy for General Land Areas is expressed in terms of three acceptable intensities of development of the site as determined by consulting the Land Acceptability Tables for the appropriate region. The acceptable intensities of development are expressed in terms of maximum and minimum acceptable percentages of the gross area of the site that may be, or must be used for structures, herbs and shrubs, or forests. Permeable paving provides a 10% bonus over the permitted maximum level of structures and impervious paving.

The acceptable maximum and minimum figures are percentages of the gross site area. Thus if a site were 100 acres of land with no special areas and the analysis showed acceptability for high intensity development, 80-90 acres of the site could be developed with paving and structure.

On sites with Special Areas which must remain undeveloped the developable area would be reduced. For example, if a site is 100 acres with 10 acres of wetlands and 20 acres of Endangered Species Habitat, only 70 acres would be acceptable for structures and paving, even if the land analysis showed acceptability for high intensity development which would allow 80-90 acres of a site to be developed (See Figure 25).

In some sites, clustering of development may be necessary if an applicant wishes to realize the acceptable maximum percentages. For example, on a 100 acre site proposed for housing with 20 acres of Floodplain and 30 acres of wetland and an acceptability for moderate intensity development, 30-40 acres of paving and structures would be acceptable. This represents 60%-80% of the General Land Area. These percentages are associated with higher density clustered housing rather than detached structures. In the General Land Area, the minimum vegetation figures are relaxed since vegetation is preserved in the water's edge or special areas.



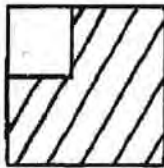
Figure 26

### ACCEPTABLE INTENSITY OF DEVELOPMENT

**CASE 1 NO SPECIAL AREAS**



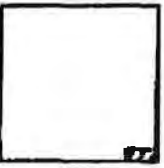
**1a. HIGH INTENSITY ACCEPTABILITY  
80 - 90 AC.**



**1b. MOD. INTENSITY ACCEPTABILITY  
30 - 40 AC.**



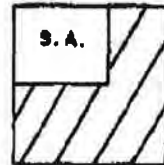
**1c. LOW INTENSITY ACCEPTABILITY  
3 - 5 AC.**



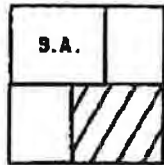
**CASE 2 SPECIAL AREAS  
DEVELOPMENT RESTRICTED  
IN 30 AC.**



**2a. HIGH INTENSITY ACCEPTABILITY  
70 AC.**



**2b. MOD. INTENSITY ACCEPTABILITY  
30 - 40 AC.**



**2c. LOW INTENSITY ACCEPTABILITY  
3 - 5 AC.**



**AREA WHERE DEVELOPMENT IS ACCEPTABLE**

(b) High Intensity Development

This level of development permits extensive development of paving and structures. Typically, if analysis showed that most of a large area was acceptable for intensive development, the landscape that would be produced would be urban or heavily industrialized. The photomaps below show examples of typical High Intensity Development landscapes.



For parts of a site classified for High Intensity Development, the acceptable range of development is:

High Intensity Development	Structures and Impervious Paving	Permeable Paving	Herb and Shrub	Forest
Maximum	80%	90%	95%	-
Minimum	-	-	5%	5%

(Dash symbol (-) indicates no maximum or minimum)

This range allows most of each part of the site in this category to be developed with structures or paving, while preserving at least a small minimum of open space in herbs, shrubs and trees for microclimate control, aquifer recharge and visual screening. A developer planning to use pervious paving can, as a bonus, develop a larger percentage of the area.

The required percentage of forest shall either be preserved, or, if there is no forest on the site, shall be planted. Tree species shall be those of the native mature forest, and saplings shall be at least 6 feet high at a minimum density of 1 per 100 sq. ft. Forest areas shall be protected from trampling.

Shrubs and herbs shall be suitable to the substrate conditions. In the acid sandy soils common in the coastal area, this requirement excludes many species common in more inland areas.

High Intensity Development must be compatible in density with its surrounding region.

(c) Moderate Intensity Development

At this level of development, between 30 and 40 percent of a site can be developed in paving and structures. Typically, if analysis showed that most of a large area was acceptable for moderate intensity development, the landscape that would be produced would be suburban. The photomaps below show examples of Moderate Intensity Development landscapes.



For sites classified for moderate intensity development, the acceptable range of development elements is as follows:

Moderate Intensity Development	Structures and Impervious Paving	Permeable Paving	Herb and Shrub	Forest
Maximum	30%	40%	80%	-
Minimum	-	-	-	20%

The range allows, for example, development of residential subdivisions of up to approximately 4 dwelling units per acre or, if the porous paving allowance is used and the dwellings are clustered, up to approximately 8 dwelling units per acre.

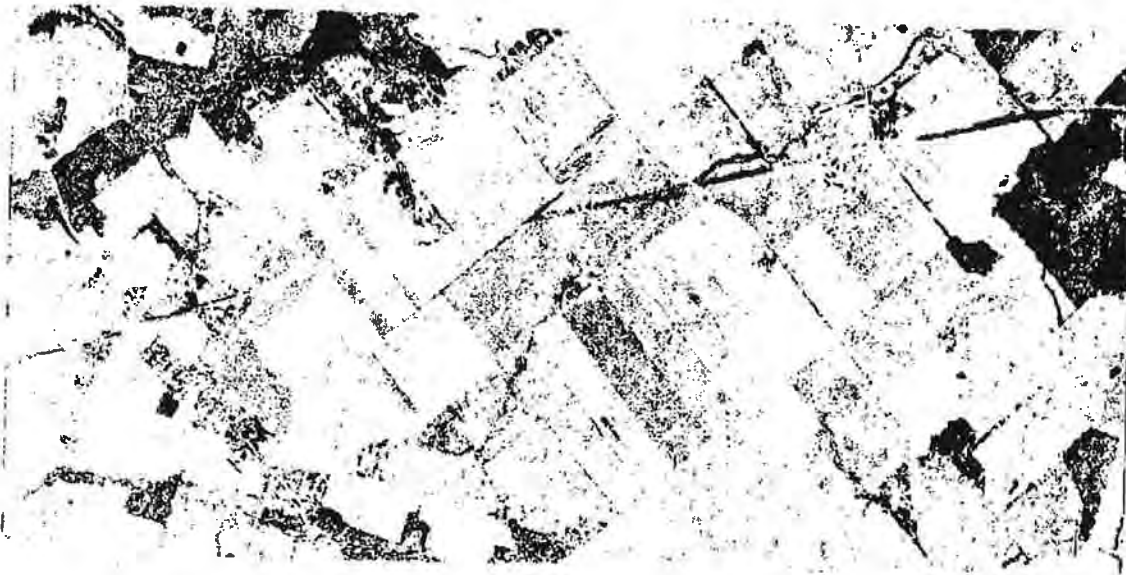
A minimum 20 percent of forest is required to ensure that forest vegetation is preserved or planted for microclimate control, energy conservation, soil stabilization, aquifer recharge and wildlife habitat. Where the site has no existing forest, this percentage shall be met by planting native forest species of the mature forest. It is not intended that this should be costly planting. Whip saplings (less than 3 feet high) at a density of 1 per 200 square feet are acceptable. The forested areas shall be protected from trampling. The herbs and shrubs shall be adapted to the environmental conditions of the site to reduce the adverse impacts associated with extensive liming, fertilization and irrigation. The acid sandy soils common in coastal areas exclude many species common in inland areas, including most lawn grasses.

(d) Low Intensity Development

At this level of development intensity, the existing conditions of the site are not to be disturbed, except for selective removal of vegetation for agricultural use or maintenance purposes. Also, no grading, paving or structures would be allowed except for agriculture related use. Typically the landscape of Low Intensity Development areas would be rural, agricultural, or forest, as shown below in the photomaps. An

exception to this general rule is the removal of vegetation for agricultural or silvicultural purposes or for recreational use that does not disturb soils. Unless the vegetation is in a special area, the following figures are applicable.

Low Intensity Development	Structures and Impervious Paving	Permeable Paving	Herb and Shrub	Forest
Maximum	3%	5%	95%	-
Minimum	-	-	-	5%



7:7E-5.7 Land Acceptability Tables

(a) Introduction

The Land Acceptability Tables, one for each of the three regional growth types, indicate the acceptable intensity of development of a site or parts of a site, for each of the nine possible combinations of Environmental Sensitivity and Development Potential factors in each table. Since Development Potential applies to an entire site, each site can have a maximum of three different levels of acceptable intensity, if it has three areas with different levels of Environmental Sensitivity.

Land Acceptability Table: Moderate Growth Region  
 (Southern, Western Ocean, and Barnegat Corridor Regions)

Line Number	DEVELOPMENT POTENTIAL			ENVIRONMENTAL SENSITIVITY			ACCEPTABLE DEVELOPMENT INTENSITY		
	High	Medium	Low	Low	Medium	High	High Intensity	Moderate Intensity	Low Intensity
1	X			X			X		
2	X				X		X		
3	X					X		X	
4		X		X				X	
5		X			X			X	
6		X				X			X
7			X	X					X
8			X		X				X
9			X			X			X

Land Acceptability Table: High Growth Region  
 (Urban Areas, Northern Waterfront, Northern, Central, [and] Absecon-South Point Regions, and Delaware River)

Line Number	DEVELOPMENT POTENTIAL			ENVIRONMENTAL SENSITIVITY			ACCEPTABLE DEVELOPMENT INTENSITY		
	High	Medium	Low	Low	Medium	High	High Intensity	Moderate Intensity	Low Intensity
1	X			X			X		
2	X				X		X		
3	X					X		X	
4		X		X			X		
5		X			X		X		
6		X				X			X
7			X	X					X
8			X		X				X
9			X			X			X

Land Acceptability Table: Low Growth Region  
 (Mullica-Southern Ocean, Great Egg Harbor River Basin, and Delaware Bayshore Regions)

Line Number	DEVELOPMENT POTENTIAL			ENVIRONMENTAL SENSITIVITY			ACCEPTABLE DEVELOPMENT INTENSITY		
	High	Medium	Low	Low	Medium	High	High Intensity	Moderate Intensity	Low Intensity
1	X			X				X	
2	X				X			X	
3	X					X			X
4		X		X					X
5		X			X				X
6		X				X			X
7			X	X					X
8			X		X				X
9			X			X			X

(b) Rationale

The Land Acceptability Tables represent a striking of balances between the environmental sensitivity and development potential of sites, and balances among regions, in order to indicate both which land areas are appropriate locations for development and how the design of the development should use the land features of the site.

DEP has categorized the Coastal Zone into fourteen regions because the coastal zone is not uniform. Descriptions of the regions make possible a more graphic, though still generalized, picture of its future. The regions are: Barrier Island, Urban Areas, Northern Waterfront Area, Northern, Central, Western Ocean, Barnegat Corridor, Mullica-South Ocean, Tuckerton, Absecon-Somers Point, Great Egg Harbor, Southern, Bay Shore, and Delaware River Area. Also, different broad growth policies -- Development, Extension of Development and Limited Growth -- are appropriate for these regions.

Environmental Sensitivity is weighed more heavily in Limited Growth Regions than in Development Regions. Development Potential is weighed more heavily in Development Regions.

The fourteen regions of the coast are divided into three regional growth types as follows: Development: Urban, Northern, Central, Absecon-Somers Point, Northern Waterfront and Delaware River Area; Extension of Growth: Western Ocean County, Barnegat Corridor, Tuckerton and Southern; Limited Growth: Delaware Bayshore, Mullica-Southern Ocean and Great Egg Harbor River Basin.

The general growth policies are the basis for the distribution of the development acceptability. The three land acceptability tables show that in Development Regions, development potential is favored to promote growth, and in Limited Growth areas environmental sensitivity is favored to promote conservation. This general policy affects the tables as follows:

1. Development Regions (Urban, Northern Waterfront, Northern, Central, Absecon-Somers Point and Delaware River)

The general policy in these regions is to promote growth through infill and limited extension. In the Northern and Absecon areas, as well as urban areas throughout the coastal zone, most growth will take place in high potential infill sites because of the pattern and density of existing development. In the eastern Central region, growth may occur through both infill and extension. The question here is how much to limit the extension and scattering of development so that orderly growth is promoted that does not induce sprawl without unreasonably interfering with the sequence in which sites are developed.

In this Development category, the criteria of both high and low development potential are changed to make it easier to obtain a high or medium ranking. For example, proposals for residential developments that have adequate access to roads and sewers that have been approved but not built may qualify for high development potential status. Proposals that are within 1,000' of roads and sewers that have been approved but are not built qualify for medium development potential. In these areas of

planned growth, the requirement that a site must be infill to qualify for medium development potential does not apply. This definition identifies areas where growth is currently planned and then assigns acceptable development intensities as if the infrastructure were in place, which allows non-sequential development. The definition of levels of environmental sensitivity is the same throughout the tables.

Area Types 1, 2, 3 In these areas development potential is high. Basically these are infill sites. In a Development Region these are prime development areas, satisfying the policy of concentration, so development potential is weighed heavily.

Area 1. There is no conflict in this area. Sites with high development potential and low environmental sensitivity are suitable for any intensity of development compatible with their surroundings.

Area 2. There is little conflict in this area. In Development Regions the high development potential overrides medium environmental sensitivity. Impacts can generally be contained by mitigation. Development of any intensity compatible with the surroundings is therefore appropriate to promote growth.

Area 3. This is an area of high conflict. Development in these areas encroaches upon fertile forests and forested areas around streams with wet high permeability soils. However, because of the high potential and Development Region designations, moderate intensity development is considered acceptable to promote growth. Development on sites, or parts of sites, that are included on this area shall minimize disturbance to the maximum extent practicable and shall distribute the limited areas of structures and paving acceptable in the moderate intensity class as much as possible in areas with a deeper water table and less valuable forest. Mitigation measures to reduce ground and surface water impacts are essential.

Areas 4, 5, 6 In these three areas the development potential moves to medium. In Development Regions development potential is also weighed heavily, though less than in the first three areas. The balance is designed to conserve the limited areas of high sensitivity that occur in Development Regions as open space for surrounding developments.

Area 4. The environmental sensitivity is low and development of any compatible intensity is appropriate to promote growth.



Area 5. Development potential overrides the moderate environmental sensitivity to promote growth. The acceptable development intensity is high, rather than medium, because the resource loss is moderate and, to promote clustering, intensive growth is desirable. The open space necessary in a developing high growth region is better provided in larger contiguous areas which may also conserve high sensitivity land types, than dispersed through lower density development in moderate sensitivity areas.

Area 6. This is an area of conflict. Here high environmental sensitivity overrides development potential. Almost all the high sensitivity areas in the Development Regions are limited areas of forested Atsion, Lakewood or Klej soils adjacent to streams and water bodies. In these moderate development potential growth extension areas, the preservation of these water related areas is desirable for a number of reasons.

- They are linked to the water's edge corridors and so many become parks and wildlife habitats linked to an integrated non-vehicular movement system providing recreation and diversity for surrounding areas of development.
- They conserve the most valuable and sensitive land areas of a developing region improving water quality and adding to the mitigating effects of the water's edge areas.
- Development of these areas is relatively difficult and expensive: vegetation must be cleared, filling is necessary for foundations and paving and special mitigation measures are necessary for the release of sewage and runoff effluents.

Conservation therefore benefits both the community and the environment.

Areas 7, 8, 9 In these three areas, development potential is low, sites are distant from existing or approved roads and sewers, and soils are unsuitable for septic systems. The criteria for low development potential in Development Regions allows scattered non-sequential development in areas where growth is planned. Environmental sensitivity must be weighed more heavily in these three lines to prevent sprawl into unsewered areas where soils are unsuitable for septic systems. This is particularly common in the sandy soils of Development Regions.

Area 7. This is the only area of these three where conflict arises between the policy of promoting development in Development Regions and the policy of discouraging sprawl. The criteria for low potential in Development Regions are designed more narrowly than in other areas to allow most sites to qualify for medium development potential. Environmental sensitivity overrides development potential in this area to restrict scattered development in unsewered sandy soils.

Areas 8 & 9 In these two areas, environmental sensitivity overrides development potential to prevent scattered development into areas of low potential where resource loss and impacts are of concern.

2. Extension Regions (Western Ocean County, Barnegat Corridor, Tuckerton and Southern)

The general policy in these areas is to promote nodal growth based on existing centers of development and to limit ribbon and scattered development along minor roads. It is desirable in these areas to promote settlement patterns that could be served by public transportation systems, particularly buses.

Because of this policy, development acceptability is more limited in areas of extension. Environmental sensitivity is weighed more heavily than in Development Regions. The criteria for inclusion in development and extension categories are also more rigorous for this reason. Sites must be adjacent to existing roads and sewers to qualify for high potential and adjacent to existing developed sites and within 1,000 feet of existing roads and sewers to qualify for medium potential. These more rigorous standards are set to increase the limitations to sprawl in Extension Regions.

Areas 1, 2, 3 In these three areas, development potential is high, sites infill or round off, and the necessary infrastructure is available. These are the nodes where growth is to be promoted. Development potential is weighed more heavily than environmental sensitivity.

Areas 1 & 2 Here development potential overrides environmental sensitivity. The acceptable development intensity is kept high in both areas to promote clustering in the growth nodes.

Area 3. This is an area of conflict, with development encroaching upon highly sensitive areas. In order to promote concentration at nodes, development potential partly overrides environmental sensitivity to permit moderate intensity development. Developers building on sites or parts of sites that are regulated by this

area shall place structures and paving in a way that avoids the most sensitive parts of the area as much as possible and mitigate impacts according to the Resource Policies.

Areas 4, 5, 6 In these three areas, development potential is medium, sites are extensions of existing development and within moderate distances of roads and sewers. If development acceptability is moderate or high, ribbon development along roads is possible conflicting with the policy of nodal development.

In the Southern Region, extensive land areas fall within the Farmland Conservation Area. In western Ocean County, there are few land areas adjacent to existing roads. Little ribbon development is therefore possible. To allow limited growth, development potential partly overrides environmental sensitivity in all but the most sensitive areas to allow moderate intensity development.

Areas 4 & 5 Here moderate intensity development is acceptable to allow very limited extensions of existing roadside developments.

Area 6. Here the most sensitive areas are conserved from ribbon development both to prevent sprawl in Extension Regions and to protect valued and sensitive land areas.

Areas 7, 8, 9 In these areas development potential is low, sites are distant from roads, and sewers and soils are unsuitable for septic tanks. To prevent scattered sprawl development in limited growth areas, the acceptable intensity of development is low.

3. Limited Growth Areas (Delaware Bayshore, Mullica-Southern Ocean Great Egg Harbor River Basin)

The general policy in these areas is that conservation is more important than development and environmental sensitivity is therefore weighed more heavily than other areas. In the Delaware Bayshore, the concern is the conservation of agricultural land. In the Mullica-Southern Ocean and Great Egg Harbor River Basin regions the concern is conservation of the natural environment. The spread of development must, therefore, be highly restricted. In order to satisfy these policies, development has been limited to infilling and rounding off in areas of moderate and low environmental sensitivity.

Areas 1 & 2 These areas show moderate intensity development acceptable in infill sites. This allows a limited amount of growth within existing settlements especially where development had leapfrogged in the past leaving pockets of undeveloped land.

Areas 3 to 9 In these areas development is restricted in Limited Growth Regions either because the lower development potential implies ribbon or scattered sprawl in conflict with the subregional growth policy or, to conserve the environmentally sensitive areas which are more valuable in Limited Growth Regions than elsewhere.

(c) Determination of Location Acceptability

The location acceptability of a coastal development proposed for a General Land Area is determined by comparing the site plan of the proposed development, with the acceptable minimum and maximum percentages of the site for structures, paving, herb and shrub vegetation, and forest vegetation, as specified in the three levels of acceptable development intensity in the Land Acceptability Tables that apply to the site or parts of the site. The percentages of the proposed development's site plan shall conform with the percentages determined using the Land Acceptability Tables, to the maximum extent practicable.

SUBCHAPTER 6 - GENERAL LOCATION POLICIES

7:7E-6.1 Policy on Location of Linear Development

A linear development, such as but not limited to a road, sewer line, or offshore pipeline, that must connect two points to function shall comply with the specific location policies to determine the most acceptable route, to the maximum extent practicable. If part of the proposed alignment of a linear development is found to be unacceptable under the specific location policies, that alignment (perhaps not the least possible distance) may nonetheless be acceptable, provided the following conditions are met:

- (a) there is no prudent or feasible alternative alignment which would have less impact on sensitive areas,
- (b) there will be no permanent or long term loss of unique or irreplaceable areas,
- (c) appropriate measures will be used to mitigate adverse environmental impacts to the maximum extent feasible, such as restoration of disturbed vegetation, habitats, and land and water features,
- (d) the alignment is located on or in existing transportation corridors and alignments, to the maximum extent practicable.

7:7E-6.2 Basic Location Policy

A location may be acceptable for development under the specific location policies above, but the DEP may reject or conditionally approve the proposed development of the location as reasonably necessary to:

- (a) promote the public health, safety, and welfare,
- (b) protect public and private property, wildlife and marine fisheries, and
- (c) preserve, protect and enhance the natural environment.

7:7E-6.3 Secondary Impacts

(a) Definition

Secondary impacts are the effects of additional development likely to be constructed as a result of the approval of a particular proposal.

(b) Policy

Coastal development that induces further development shall demonstrate, to the maximum extent practicable, that the secondary impacts of the development will satisfy the Coastal Resource and Development Policies. The level of detail and areas of emphasis of the secondary impact analysis are expected to vary depending upon the type of development. Minor projects may not even require such an analysis. Transportation and

wastewater treatment systems are the principal types of development that require a secondary impact analysis, but major industrial, energy, commercial, residential, and other projects may also require a rigorous secondary impact analysis.

Secondary impact analysis must include an analysis of the likely geographic extent of induced development, its relationship to the State Development Guide Plan Concept Map, an assessment of likely induced point and non-point air and water quality impacts, and evaluation of the induced development in terms of all applicable Coastal Resource and Development Policies. Models for secondary impact analysis may be found in New Jersey Department of Community Affairs, Division of State and Regional Planning, Secondary Impacts of Regional Sewerage Systems (1975) and in USEPA, Manual for Evaluating Secondary Impacts of Wastewater Treatment Facilities (EPA-600/5-78-003, 1978).

(c) Rationale

Further development stimulated by new development and the cumulative effects of coastal development, including development not directly managed by DEP, may gradually adversely affect the coastal environment. The capacity of existing infrastructure does, however, limit the amount and geographic extent of possible additional development. Secondary impact analysis, particularly of proposed infrastructure, enables DEP to ascertain that the direct, short term effects, and the indirect or secondary effects of a proposed development will be consistent with the basic objectives of the Coastal Management Program. Secondary impact analysis enables DEP to evaluate likely cumulative impacts in the course of decision-making on specific projects.

## SUBCHAPTER 7 - USE POLICIES

### 7:7E-7.1 Purpose

Many types of development seek locations in the coastal zone. The second stage in the screening process of the Coastal Resource and Development Policies spells out a set of policies for particular uses of coastal resources. Use policies are policies and conditions addressed to particular kinds of development. Use policies do not pre-empt location policies which restrict development, unless specifically stated. In general, they introduce conditions which must be satisfied in addition to the Location Policies, and the Resource Policies described in the following section.

### 7:7E-7.2 Housing Use Policies

#### (a) Definition

Housing includes both large and small developments of single family detached houses, multi-family units with apartments or town houses, high rise buildings and mixed use developments.

#### (b) Water Area and Water's Edge Housing

##### 1. Policy

- (i) New housing development is prohibited in Water Areas outside Special Urban Areas except for reconstruction of existing residential structures on pilings located on guts, canals, lagoons and ports which have been damaged by causes other than wind, water or wave, which is conditionally acceptable. In Special Urban Areas, new housing development is acceptable in Water Areas on existing pilings, provided public access between the residential units and the water body is not restricted.
- (ii) New Housing development is conditionally acceptable in the Filled Water's Edge, provided that: (a) it would not preempt use of the waterfront portion of the Filled Water's Edge for potential water dependent uses, (b) the site fulfills the General Land Area criteria for moderate or high intensity development, and (c) public access along the water's edge is not restricted.
- (iii) New housing development involving the stabilization of existing lagoons through revegetation, bulkheading or other means is conditionally acceptable provided that the conditions of the Existing Lagoon Edges policy are satisfied.

##### 2. Rationale

Housing is not dependent on water access, and does not generally qualify for exceptions to the policy of restricting non-water dependent development along the water's edge. In addition to this general restriction, most of the Special Area policies contain specific restrictions that have the practical effect of discouraging or prohibiting new development, including housing, from sensitive areas.

(c) Cluster Development

1. Policy

Housing developments are encouraged to cluster dwelling units on the areas of sites most suitable for development.

2. Rationale

Clustering is defined as an increase of net density realized by reducing the size of private lots and retaining or increasing the gross density of a project. The open space that is produced by clustering can be returned to the community as common open space. The location policies define certain sensitive areas where development is limited. When such areas are present on a site, the acceptable gross density may have to be reduced, unless the net density can be increased by clustering. Where municipal zoning requires minimum lot sizes that preclude clustering, applicants are encouraged to seek local approval, through new ordinances and/or variances, to maintain the permissible gross density by clustering. DEP will aid this endeavor by providing a rationale and testimony, as appropriate, especially for the protection of sensitive areas. Cluster developments lessen the impact of construction by preserving valued soil, open space, vegetation and aquifer recharge resources. Some cluster developments also increase insulation and reduce energy consumption due to shared walls between units.

(d) Residential Mix

1. Policy

Housing development that provides for a mix of dwelling types and for persons of different age and income groups is encouraged.

2. Rationale

The quality of life improves when residential areas provide a diversity of dwelling types, at different cost levels, so that people of different ages, life styles, and incomes can live together, rather than the post-war pattern of highly stratified development that has taken place in the process of suburbanization of the coastal zone. At the same time, the coastal region already provides specialized dwelling types for particular groups, such as senior citizens.

(e) Fair Share Housing

1. Policy

Residential development is encouraged to help municipalities to accommodate their fair share of the regional need for low and moderate income housing, as defined in "A Revised Statewide Housing Allocation Report for New Jersey" (Department of Community Affairs,



Division of State and Regional Planning, Bureau of Urban Planning, May, 1978). Residential developments shall provide least cost housing where feasible, especially in Development Regions and in municipalities not presently providing their fair share of low and moderate income housing.

2. Rationale

In March 1975, the New Jersey Supreme Court, in Southern Burlington County NAACP v. The Township of Mount Laurel 67 N.J. 151 (1975) declared that a municipality must "presumptively make realistically possible an appropriate variety and choice of housing ... at least to the extent of the municipality's fair share of the present and prospective regional need ..." In April 1976, the Governor issued Executive Order No. 35, (amended by Executive Order No. 46 of December 1976) which directed the Division of State and Regional Planning in the Department of Community Affairs to prepare a state-wide fair share housing allocation plan. Developments in the coastal zone that contribute to meeting judicial intent concerning municipal fair shares are encouraged.

Atlantic City is a unique case in that it has more than its fair share of least cost housing, but as casinos increase the demand for and cost of housing, it is necessary that new least cost housing be provided in the city and its surrounding coastal region to accommodate persons forced out of housing by rising costs as well as people attracted to the region by new jobs.

(f) Housing and Transportation

1. Policy

- (a) The development of housing at locations and densities that contribute to the feasibility of public transportation is encouraged.
- (b) Residential developments are encouraged to include bicycle paths to activity centers and bicycle storage facilities.
- (c) Residential developments are encouraged to provide pedestrian amenities which include lighted walkways with benches, lighted sidewalks with curb ramps and intersections, shade trees, and pedestrian controlled traffic lights.

2. Rationale

Public health and welfare concerns about air quality, as well as the necessity to limit energy consumption, require that public policies and decisions encourage alternatives to reliance on private automobiles.

(g) Housing Rehabilitation

1. Policy

Residential development involving the demolition and redevelopment of existing structures is discouraged, unless rehabilitation of the existing structures is demonstrated to be impractical, infeasible, or contrary to the public interest.

2. Rationale

The preservation, restoration, or rehabilitation of existing structures is preferable to demolition and redevelopment in order to save structures and neighborhoods with historic and aesthetic interest. Rehabilitation is often more labor intensive than construction of a new building. This means that more jobs are created and less energy is consumed through the production of new building materials.

(h) High Rise Housing

1. Policy

All high rise housing developments, defined as structures for residential use more than six (6) stories or more than sixty (60) feet from grade, are encouraged to locate in areas of existing high density, high-rise and/or intense settlements. High rise housing is acceptable subject to the following conditions:

- (i) high-rise structures within the view of coastal waters must be separated from coastal waters by at least one public road or an equivalent area physically and visually open to the public,
- (ii) the longest lateral dimension of any high-rise structure must be oriented perpendicular to the beach or coastal waters,
- (iii) the proposed structure must not block the view of dunes, beaches, horizons, skylines, rivers, inlets, bays, or oceans that are currently enjoyed from existing residential structures, public roads or pathways,
- (iv) the structure must not overshadow beaches between May and October, or waterfront parks year round,
- (v) the proposed structure must be in character with the surrounding transitional heights and residential densities, or be in character with a comprehensive development scheme requiring an increase in height and density,
- (vi) the proposed structure must not have an adverse impact on air quality, traffic, and existing infrastructure.

2. Rationale

Considerable recent residential development along the coast, from the Palisades to the barrier islands, has taken the form of high-rise, high-density towers. While conserving of land, some high-rise structures represent a visual intrusion, cause adverse traffic impacts, and cast shadows on beaches and parks. Under CAFRA, DEP has approved several high-rise structures in Atlantic City and denied two CAFRA applications for high-rise proposals, one in downtown Toms River (Ocean County) and another in Brigantine (Atlantic County). This policy strikes a balance, between banning high-rises and allowing tall residential structures anywhere in the coastal zone.

(i) Large-Scale Residential Development

1. Definition

Large-scale Residential Developments are free standing, planned developments, which include at least 500 residential dwelling units. They may also include commercial, industrial, and recreational, uses.

2. Policy

Large-scale Residential Developments are conditionally acceptable, provided that they carry out the basic coastal policy to concentrate the regional pattern of development, contribute to regional housing needs, and do not cause significant adverse secondary impacts.

Large-Scale Residential Developments need not meet the Land Area Policies, except in the High and Moderate Environmental Sensitivity portions of Limited Growth Regions, where only the roads and sewage criteria will be used in determining if the Development Potential is High, Medium or Low (See Policy 7:7E-5.5(b)).

3. Rationale

Large planned communities offer advantages of scale in creating new modes of development and providing housing. Such large projects may, however, detract from or alter appropriate regional patterns of development.

7:7E-7.3 Resort/Recreational Use Policies

(a) Definition

Resort-recreation uses include the wide range of small and large developments attracted to and often dependent upon locations along the coast. Resort-recreation uses include hotels, motels, marinas, boating facilities, campgrounds, amusement piers, parks and recreational structures such as bath houses, natural areas, open space for active and passive recreation, and linear paths for bicycling and jogging.

(b) Recreation Priority

1. Policy

(i) Each waterfront municipality should contain at least one waterfront park on each body of water within the municipality. Municipalities or private developments that do not currently provide, or have active plans to provide, access to the water will not be eligible for Green Acres or Shore Protection Bond Funding.

(ii) Resort/Recreation Uses shall have priority over all other uses, in Monmouth, Ocean, Atlantic, and Cape May, Cumberland and Salem Counties with highest priority reserved for those uses that serve a greater rather than a lesser number of people, and those uses that provide facilities for people of all ages and for people with physical handicaps.

2. Rationale

The national and state interests in recreation are clearly indicated in the coastal economy and are essential for the quality of life. The coastal environment provides numerous opportunities for recreation which should be expanded by public policy and action, including priority setting.

(c) Recreation Areas Within Developments

1. Policy

Recreation areas shall be incorporated in the design of all residential, industrial and commercial development, to the maximum extent practicable.

2. Rationale

The recent national recognition that recreation is physically and mentally important for people of all ages should be accommodated by new development. Recreational facilities are important near places of employment, as well as in residential areas, since many people only have opportunities for recreation during the working day.

NOTE: See Resource Policy on Public Access to the Shorefront (7:7E-8.13)

(d) Marinas

1. Policy

(i) New or expanded marinas for recreational boating are conditionally acceptable if:

(a) the demonstrated regional demand for recreational boating facilities cannot be met by the upgrading or expansion of existing marinas, and

- (b) the proposed marina includes the development of an appropriate mix of dry storage areas, public launching facilities, and berthing spaces, depending upon the site conditions and
- (c) the proposed marina provides adequate pump out stations for wastewater disposal from boats in a manner consistent with federal and state water quality laws and regulations.
- (ii) New marinas or boat launching facilities that provide primarily for sail and oar boating are encouraged.
- (iii) Expansions of existing marinas shall be encouraged by limiting non-water dependent land uses that preclude support facilities for boating.
- (iv) Publicly funded marinas shall be designed to be part of multiple use parks, to the maximum extent practicable.
- (v) Recreational boating facilities are acceptable provided that they are designed and located in order to cause minimal feasible interference with the commercial boating industry.

2. Rationale

The location of marinas requires the use of sensitive lands at the waters edge which exist in only limited supply and are also valued for other activities. The policies aim to ensure that the area devoted to marinas is fully and efficiently utilized to keep the size of the area required to a minimum. Waiting lists for slips at existing marinas would be one type of evidence of regional need for additional facilities. Facilities for sail and oar boating are encouraged because such boats consume less energy and have less of a polluting impact on the water than motor boats.

(e) Amusement Piers, Parks and Boardwalks

1. Policy

New amusement piers are prohibited, except in areas with privately held riparian grants, where they are discouraged. Expanded or extended amusement piers, parks, and boardwalks at the water's edge or in the water and the on-site improvement or repair of existing amusement piers, parks and boardwalk areas are discouraged unless the proposed development meets the following conditions:

- (i) the amusement pier, parks, or boardwalk does not unreasonably conflict with aesthetic values, ocean views, other beach uses, and wildlife functions, and
- (ii) public access to the shorefront is not limited, and
- (iii) the surrounding community can adequately handle the activity and uses to be generated by the proposed development.

## 2. Rationale

Amusement piers, amusement parks, and boardwalks form an essential element of the resort and recreational character of some of the communities fronting on the Atlantic Ocean. The carnival atmosphere of these areas provides fun and excitement annually for hundreds of thousands of people. However, new piers for amusement purposes are an inappropriate use of scarce coastal resources, due to the natural hazard of the desired ocean location and the importance of maintaining the visual quality of the oceanfront. Also, amusement parks are not a water-dependent use; these facilities may be located inland on less sensitive land and water features.

### 7:7E-7.4 Energy Use Policies

#### (a) General Definition of Energy Uses

Energy uses include facilities, plants or operations which produce, convert, distribute, or store energy. Under the Department of Energy Act, the term "energy facility" does not include an operation conducted by a retail dealer.

#### (b) General Energy Facility Siting Procedure

##### 1. Policy

(i) The acceptability of all proposed new or expanded coastal energy facilities shall be determined by a review process that includes both NJDEP and the New Jersey Department of Energy (N.J.S.A. 52:27F-1 et seq.) according to the procedures defined in the Memorandum of Understanding between NJDEP and NJDOE on Coordination of Permit Reviews.

(ii) NJDOE will determine the need for future coastal energy facilities according to three basic standards. NJDOE will submit an Energy Report to DEP with its determination of the need for a coastal energy facility based on three required findings:

- the existing sources of supply will not be adequate to meet future levels of demand, including careful consideration of the potential effects of conservation,
- that no better technological alternative exists to meet future levels of demand,
- that no better locational alternative to the proposed site exists.

(iii) NJDEP will determine the acceptability of coastal energy facilities using the Coastal Resource and Development Policies supported by appropriate, technically sound analyses of alternatives.

(iv) If NJDOE has submitted an Energy Report to DEP, the DEP decision document shall refer to the NJDOE Energy Report and indicate DEP's reasons for differences, if any, between the DEP decision and the NJDOE Energy Report.

(v) Where NJDOE and NJDEP disagree on the acceptability of a specific proposed coastal energy facility (for example, on a specific proposed site for one type of energy facility), the disputed decision shall, in accord with state law, be submitted to the State's Energy Facility Review Board for final administrative action.

2. Rationale

NJDOE and NJDEP share responsibility for carrying out the energy facility siting, planning and project review elements of the New Jersey Coastal Management Program. The State Energy Master Plan and its appendices, the Coastal Resource and Development Policies, and the Memorandum of Understanding between NJDEP and NJDOE provide a clear framework for decision-making by these two State agencies on the review of proposed facilities, as well as a basis for continued consultation and cooperative planning.

(c) Outer Continental Shelf (OCS) Oil and Gas Exploration and Development

1. Policy

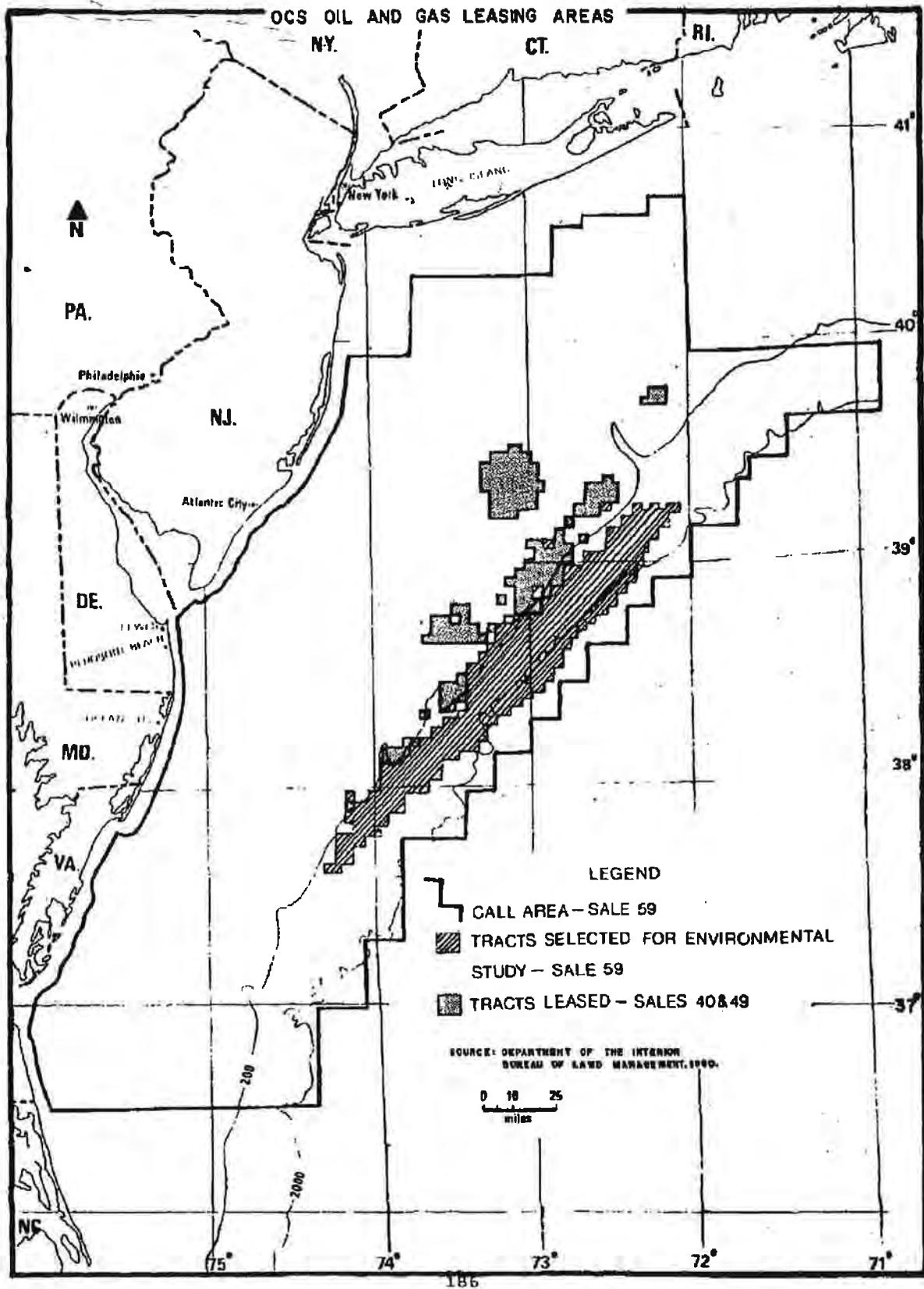
Rapid exploration of the Mid-Atlantic, North Atlantic, and other offshore areas with potential reserves of oil and natural gas is encouraged, as long as no long term adverse impacts will result, onshore or offshore and such activities are conducted in accordance with the policies of the program. Onshore activities related to the exploration, development and production of offshore hydrocarbons shall be carried out according to the specific energy facility policies of this section.

2. Rationale

The decision of the U.S. Department of Interior to lease offshore tracts for oil and natural gas exploration presents New Jersey with new onshore and marine-related environmental problems and opportunities (See Figure 26). New Jersey supports offshore exploration, recognizing the national need to identify new energy supplies, as long as this new industrial activity does not conflict with the State's second most important industry, tourism, which depends upon the maintenance of a high quality coastal environment.

In the event that commercial quantities of natural gas and/or oil are found off the New Jersey coast, there may be considerable onshore and offshore activity during the development stage of OCS operations that is necessary for production of these hydrocarbon resources. Development activity will diminish once production begins.

Figure 26





A number of natural gas strikes have been made on tracts leased in the Mid-Atlantic OCS Region. To date, these strikes do not constitute a commercial discovery.

To minimize the impact of needed facilities, DEP encourages the location of OCS-related facilities, except oil and gas transportation facilities, in developed areas where the infrastructure and labor market already exist to absorb such activity.

During the construction of onshore oil and gas facilities, there may be an influx to the coastal zone of the marine service and engineering industry. This service sector office-oriented activity will be encouraged to locate in urban centers, such as Atlantic City, which because of its proximity to OCS Lease Sale 40 has already been selected by industry as the take-off point for helicopters to the offshore rigs and platforms. Also, the U.S. Geological Survey (U.S.G.S.) has located its mid-Atlantic field office in Atlantic City to supervise and monitor offshore operations.

(d) Onshore Support Bases

1. Policy

New or expanded onshore support bases and marine terminals to support offshore oil and gas exploration, development, and production (including facilities for work boats, crew boats and helicopters, pipelaying barges, pipeline jet barges, ocean-going tugs, anchor handling vessels, and limited, short-term storage facilities), are encouraged at locations in built-up urban coastal areas and discouraged in less developed areas of the coastal zone. Preferable locations for water-dependent onshore support bases include urban waterfront areas, where onshore adverse physical, economic, and institutional impacts will be less than the impacts likely to be placed on less industrially developed areas which are more dependent upon tourism and the resort industry. Small facilities for storing oil spill containment and cleanup equipment for offshore operations and emergency crew transport facilities, including crew boat operations will, however, be acceptable along the Atlantic Ocean or Delaware Bay where such a location would facilitate and expedite offshore emergency operations.

2. Rationale

Offshore exploratory activity began off New Jersey in the Baltimore Canyon on March 29, 1978. If the exploratory drilling is successful, the offshore oil and gas industry is likely to seek onshore support bases closer to the offshore tracts than the present temporary bases established by the major oil, gas, and offshore service and supply companies at Davisville, Rhode Island. Because of shallow inlets in the Bay and Ocean Shore Segment, few locations in this part of New Jersey meet industry's siting requirements. This policy recognizes that the New Jersey coast is favored by proximity to the offshore tracts as a site for onshore staging bases, and carries out the basic policy to concentrate rather than disperse industrial development in the coastal zone.

(e) Platform Fabrication Yards and Module Construction

1. Policy

Platform fabrication yards and module construction are encouraged in built-up coastal areas of the coastal zone, along the Hudson, Raritan and Delaware Rivers which have the requisite acreage, adequate industrial infrastructure, ready access to the open sea, and adequate water depth, and where the operation of such a yard would not alter existing recreational uses of the ocean and waterways in the areas. They are discouraged elsewhere in the coastal zone.

2. Rationale

The development phase of OCS activity in the Mid-Atlantic may require additional platform construction yards. The need for such facilities is dependent on the long term OCS development in frontier areas of the Atlantic Coast and the worldwide demand for such structures. However, platform construction yards require large tracts of land and are labor intensive. The operation of a platform construction yard could severely disrupt the economy and social fabric of less developed communities and areas. For these reasons, offshore platform construction yards are encouraged to seek locations in the already developed areas of the New Jersey coast. However, the height restrictions of bridges on certain other New Jersey waterways may sharply limit the suitability of sites in New Jersey. Existing under-utilized shipyards may be used, however, for platform module construction.

(f) Repair and Maintenance Facilities

1. Policy

Repair and maintenance facilities for vessels and equipment for offshore activities are encouraged in the Delaware River and Northern Waterfront Areas. Repairs can be accommodated on an emergency basis in existing ship repair facilities in the Atlantic Ocean and Delaware Bay area, but not on a continual, long term basis.

2. Rationale

Ship repair yards presently exist in the developed coastal areas and should be utilized by OCS vessels that will be based in the same portion of the coast. Small shipyards within the Bay and Ocean Shore region can serve valuable repair functions on an emergency basis because of their proximity to the offshore leased areas. Utilization of repair yards in this region on a continuing basis, however, is not encouraged because of problems in meeting the OCS vessel draft requirements and because of possible conflicts with recreational vessels.

(g) Pipe Coating Yards

1. Policy

Pipe coating yards are discouraged along the Atlantic Ocean and Delaware Bay and encouraged along the Delaware River and in the port area under the jurisdiction of the Port Authority of New York and New Jersey.

2. Rationale

Pipe coating yards constitute an industrial activity that is generally incompatible with the suburban and rural character of the Delaware Bay and Atlantic Ocean shore region. Further, pipe coating yards typically require 100-150 acres, and wharf space with a preferred depth at the wharf of 20 to 30 feet. These siting requirements suggest that highly industrial port areas are preferred locations.

(h) Pipelines and Associated Facilities

1. Policy

Crude oil and natural gas pipelines to bring hydrocarbons from offshore New Jersey's coast to existing refineries, and oil and gas transmission and distribution systems and other new oil and natural gas pipelines are conditionally acceptable, subject to the following conditions and restrictions:

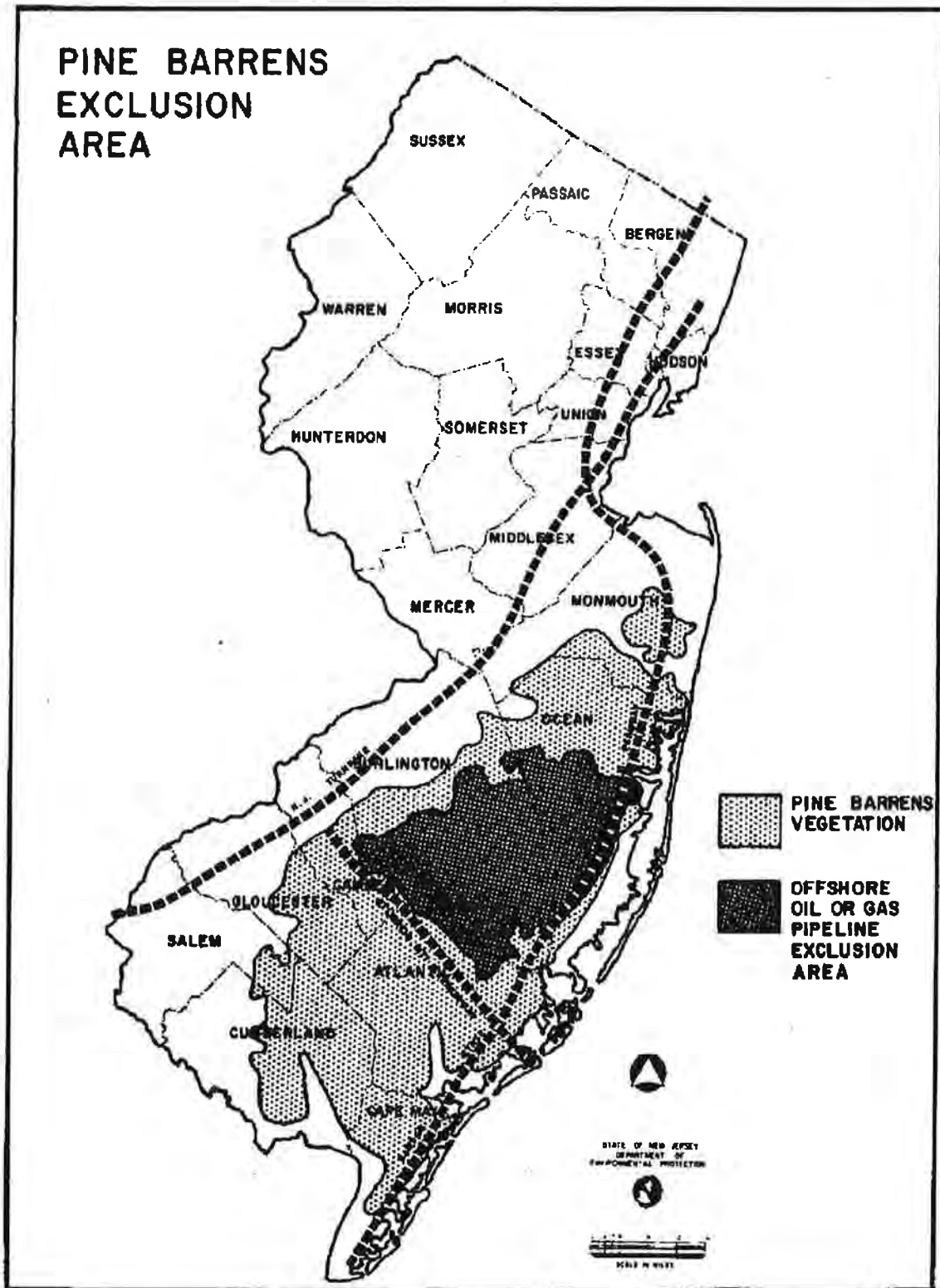
- (i) For safety and conservation of resources, the number of pipeline corridors, including trunk pipelines for natural gas and oil, shall be limited, to the maximum extent feasible, and designated following appropriate study and analysis by the Department of Environmental Protection and the New Jersey Department of Energy, and interested federal, state and local agencies, affected industries, and the general public,
- (ii) The pipeline corridors for landing oil or natural gas are to be located in or adjacent to existing already developed or disturbed road, railroad, pipeline, electrical transmission or other rights-of-way, to the maximum extent practicable,
- (iii) Oil and gas pipelines are subject to the following restrictions, respectively, regarding the Central Pine Barrens and other particularly sensitive areas:
  - Pipeline corridors for landing oil are prohibited in the Central Pine Barrens area of the Mullica River, Cedar Creek watersheds and portions of the Rancocas Creek and Toms River watersheds, defined as the 760 square mile region adopted by DEP as a "critical area" for sewerage purposes and non-degradation surface and ground water quality standards -- see N.J.A.C. 7:9-4.6(i), (j), and N.J.A.C. 7:9-10.1(b) and Figure 27 -- and discouraged in other undeveloped parts of the Pine Barrens,

- Pipeline corridors for natural gas are discouraged in the Central Pine Barrens as defined above, unless the developer can demonstrate that construction and operation of the proposed pipeline will meet the adopted non-degradation standards for water quality and cause no long term adverse environmental impacts,
- (iv) Proposals to construct offshore oil and gas pipelines, originating on the Outer Continental Shelf and all of the contemplated ancillary facilities along the pipeline route such as, for example, gas separation and dehydration facilities, gas processing plants, oil storage terminals, and oil refineries will be evaluated by DEP and the New Jersey Department of Energy, in terms of the entire pipeline corridor through the State of New Jersey and the adjacent territorial sea,
- (v) To preserve the recreational and resort character of the coastal areas, the following conditions and prohibitions shall apply to oil and gas pipeline-related facilities.
  - New major pumping stations and other ancillary facilities associated with offshore oil and gas pipelines shall be discouraged from locations in the Bay and Ocean Shore area.
  - Gas separation and dehydration plants and compressor stations and other facilities associated with natural gas pipelines which are approved shall be protected by adequate visual, sound, and vegetative buffer areas, and
  - Offshore platforms for pumping or compressor stations are encouraged to locate out of sight of the shoreline.
- (vi) Pipeline corridors through the state coastal waters shall, at a minimum and to the maximum extent feasible, avoid offshore munitions, chemical and waste disposal areas, heavily used waterways, geological faults, wetlands and significant fish or shellfish habitats.
- (vii) Pipelines shall be buried to a depth sufficient to withstand exposure by scouring, shipgroundings, anchors, fishing and clamming and other potential obstacles on the sea floor. Trenching operations shall be conducted in accordance with applicable federal regulations.

2. Rationale

New Jersey recognizes that pipelines, rather than other modes of surface transportation such as tankers and barges, are the preferred and more environmentally sound method of bringing crude oil and natural gas ashore from offshore wells. The impact of pipelines are most evident during the construction phase.

Figure 27



However, these impacts will generally be short term provided proper construction technologies, mitigating measures, scheduling practices, and restoration efforts are utilized. At the same time, particular attention should be focused on the potential onshore effects of pipelines on the sensitive ecosystem of the coast and the Pine Barrens. These effects and the visual, noise, and odor impacts which may be created by facilities associated with OCS pipelines, require that New Jersey proceed cautiously and prudently in selecting pipeline corridors, specific alignments, and locations for ancillary facilities.

New Jersey, along with the numerous public and private interests at the local, state, and national levels involved in pipeline siting, is participating in the intergovernmental offshore oil and gas transportation planning process being coordinated by the U.S. Department of Interior, Bureau of Land Management (BLM). BLM has promoted the concept of a common carrier pipeline in recent years by including a stipulation in all lease sales which requires pipelines constructed on the OCS to be placed in designated corridors. The Federal Energy Regulatory Commission which has the overriding responsibility for siting natural gas pipelines, has also endorsed the concept of designated utility corridors.

(i) Gas Separation and Dehydration Facilities

1. Definitions

Separation is defined as the removal of free liquids from a gas stream. They may be either hydrocarbon liquids, which may be processed into fuels such as ethane, butane and propane, or free water.

Dehydration is the removal of water vapor from the gas stream after separation of the liquid from the gas.

2. Policy

Separation and dehydration facilities are discouraged in the Bay and Ocean Shore area. Such facilities that are approved shall meet all applicable air and water quality standards, and be protected by adequate visual, sound, and vegetative buffers. Separation and dehydration facilities will be reviewed as part of the overall proposed gas transportation system by NJDEP and NJDOE.

3. Rationale

It is anticipated that natural gas extracted from the Mid-Atlantic OCS will contain natural gas (mostly methane) and water, along with relatively small amounts of liquid hydrocarbons. Most of the water can be removed from the natural gas stream on the production platform. The liquid hydrocarbons, or condensate, will be returned to the gas stream downstream of gas measurement equipment on the platform and transported to shore with the gas in a single pipeline. The natural gas liquids and small amounts of water which

reach landfall by the pipeline must be separated from the gas stream before it reaches an existing interstate natural gas transmission line. This can, from a technological standpoint, occur at any point along the onshore corridor.

Separation/dehydration facilities essentially remove water, natural gas liquids, and other impurities from the gas stream. The natural gas liquids are temporarily stored in fixed-roof storage tanks with vapor recovery systems until transported offsite by rail, tank truck or pipeline to a gas processing plant. Water will be disposed of either by deep well injection or by trucking to an approved offsite disposal location.

Basic siting criteria requires up to 50 acres of fairly level land, with 20-30 acres intensively utilized and the remaining acreage serving as a buffer zone around the plant. Additionally, easy access to either highway and/or railroad facilities is desirable.

(j) Gas Compressor Stations

1. Definition

Compressor stations are facilities located along natural gas pipelines which raise the pressure of the gas in order to transport the resource more efficiently and economically.

2. Policy

Compressor stations are encouraged to be located out of the sight of the shoreline on platforms in offshore waters. They are discouraged from locations in the Bay and Ocean Shore area.

3. Rationale

The pressure of the gas at the well is the driving force for pushing the gas through a pipeline to shore, and, once ashore, to a connection with an existing interstate transmission line. In some cases, gas pressure at the well is sufficient to free flow the gas to shore.

Once ashore, the gas will continue through the pipeline to a separation and dehydration facility and then to the interstate transmission line. It is not expected that the pressure losses due to friction and the presence of natural gas liquids and water in the gas stream will be sufficient to require compression of Mid-Atlantic natural gas. However, if they are required, it is feasible to place them anywhere along the pipeline corridor.

(k) Gas Pigging Facility

1. Definition

A pig is a scraping tool that is forced through a pipeline to clean out accumulations of wax, scale, gas liquids or any foreign materials from the inside walls of the pipe. The pig is inserted offshore and would be removed at an onshore location called a pigging facility.

2. Policy

A pigging facility, which may or may not be associated with a separation and dehydration facility, is discouraged in the Bay and Ocean Shore area. The need for and location of the facility will be reviewed within the context of the entire natural gas pipeline system.

3. Rationale

A pipeline must be periodically "pigged" in order to ensure its efficient operation and to safeguard against damage. Water and hydrocarbon vapor may condense as pressures drop along the length of a natural gas pipeline and may collect in low points in the pipeline. The condensate must be removed to maintain efficiency in the transmission of gas.

(1) Gas Processing Plants

1. Definition

A gas processing plant is designed to recover liquifiable hydrocarbons from a gas stream before it enters a commercial transmission line. A gas processing facility may include treatment, recovery and fractionation equipment to separate the recovered liquid hydrocarbon stream into its various components including, for example, ethane, butane and propane.

2. Policy

Gas processing plants proposed for locations between the offshore pipeline landfall and interstate natural gas transmission lines shall be prohibited from sites within the Bay and Ocean Shore area and shall be located the maximum distance from the shoreline. The siting of gas processing plants, will be reviewed in terms of the total pipeline routing system by DEP and NJDOE.

3. Rationale

Gas processing plants may be needed if commercially recoverable quantities of natural gas are found off New Jersey's shore.

These facilities, however, do not require locations on the shoreline. If the amount of liquids separated from the gas stream is minimal, the liquids can be trucked or transported by rail to existing facilities which could process these liquids. A gas processing plant may induce the location and/or expansion of chemical plants since gas and its byproducts often provide the feedstock for the petrochemical industry.



To promote the most efficient use of land, gas processing plants could be located close to existing interstate natural gas transmission pipelines. Alternatively, where natural gas is associated with oil and oil pipelines, gas processing plants should be located close to refineries to which the oil pipeline will be routed. Thus, gas processing plants which are economically and technically feasible and which do not exceed new source and performance standards regarding air and water quality are conditionally acceptable in the Delaware River and Northern Waterfront areas.

(m) Other Gas-Related Facilities

1. Policy

Additional facilities related to a natural gas pipeline such as metering and regulating stations, odorization plants, and block valves are conditionally acceptable in the Bay and Ocean Shore area provided they are protected by adequate visual, sound, and vegetative buffer areas; are approved by DEP and NJDOE; and are in compliance with U.S./DOT regulation.

2. Rationale

Certain ancillary facilities, in addition to pipeline, may be necessary to assure the safe, efficient and economical transportation of natural gas to shore. The impacts of these facilities will be evaluated in the overall analysis of the gas transportation system.

(n) Oil Refineries and Petrochemical Facilities

1. Policy

New oil refineries and petrochemical facilities are conditionally acceptable outside of the Bay and Ocean Shore area provided that: (i) they are consistent with all applicable Location and Resource policies, (ii) there is a need for the facility as determined by NJDOE, and (iii) an EIS determines that the facility will have no unacceptable impacts. New oil refineries and petrochemical facilities outside the Bay and Ocean Shore area are encouraged to locate in established industrial areas accessible to their potential labor force. New oil refineries and petrochemical facilities are prohibited in the Bay and Ocean Shore Segment. Expansion in capacity of existing oil refineries and petrochemical facilities at existing sites, which are all located outside of the Bay and Ocean Shore Region, will be acceptable if such expansion does not violate applicable State air and water quality standards.

2. Rationale

Refineries are large-scale industrial facilities that are neither coastal-dependent nor compatible with the character of the Bay and Ocean Shore Region. However, new refineries or additions to existing refineries using advanced technology to control air and water pollution and other hazards could be compatible with existing development in the Delaware River Area or northern waterfront.

(o) Storage of Crude Oil, Gases and Other Potentially Hazardous Liquid Substances

1. Policy

The storage of crude oil, gases and other potentially hazardous liquid substances as defined in N.J.A.C. 7:1E-1.1 under the Spill Compensation and Control Act (N.J.S.A. 58:10-23.11) is prohibited on barrier islands and discouraged elsewhere in the Delaware and Raritan Bay and Atlantic Ocean Shore region. In the Northern Waterfront and Delaware River areas, such facilities are conditionally acceptable if they meet air and water Resource Policies and are compatible with or adequately buffered from surrounding uses. They are not acceptable along the water's edge unless they are supplied by ship in which case they are acceptable on the Filled Water's Edge subject to the above conditions. They are not acceptable where they would limit or conflict with a potential recreational use.

2. Rationale

Major storage facilities for potentially hazardous substances are not entirely coastal-dependent and will not be permitted where storage might limit or conflict with recreational or open space uses of the coast.

(p) Tanker Terminals

1. Policy

New or expanded tanker facilities will be acceptable only in existing ports and harbors where the required channel depths exist to accommodate tankers. Multi-company use of existing and new tanker terminals will be encouraged in the Port of New York and New Jersey and in the area bounded by the Delaware River Port Authority, where adequate infrastructure exists to accommodate the secondary impacts which may be generated by such terminals, such as processing and storage facilities. New tanker terminals will be discouraged in other parts of the coast. Offshore tanker terminals and deepwater ports are discouraged from the Bay and Ocean Shore Region, pending a thorough evaluation of the implications of such a facility.

2. Rationale

Onshore tanker facilities pose potential adverse environmental impacts and could encourage secondary development activity that is not necessarily coastal dependent. Also, even medium sized tankers require minimum channel depths of 30 feet, which excludes locations within the Bay and Ocean Shore Region. New or expanded tanker terminals are therefore directed toward New Jersey's established port areas. Deepwater ports appear attractive to industry due to increasingly larger tankers, limitations on dredging and the scarcity of waterfront land. However, a deepwater port may, depending on its location, cause severe adverse primary and secondary impacts on the built, natural, and social environment.

(q) Electric Generating Stations

1. Policy

New or expanded electric generating facilities (for base load, cycling, or peaking purposes) and related facilities are conditionally acceptable subject to the conditions that follow. Conversion or modification of existing generating facilities for purposes of fuel efficiency, cost reduction, or national interest are conditionally acceptable provided they meet applicable State and federal laws and standards.

- (i) The construction and operation of the proposed facility shall comply with the Coastal Resource and Development Policies, with special reference to air and water quality standards and policies on marine resources and wildlife,
- (ii) NJDEP and NJDOE shall find that the proposed location and design of the electric generating facility is the most reasonable alternative for the production of electrical power that NJDOE has determined is needed. The finding shall be based on a comparative evaluation by the applicant of alternative sites within the coastal zone and inland, and of alternative technologies for the transportation and conversion of energy as well as the productive use of plant residuals, including thermal discharges.
- (iii) Fossil fuel (coal, oil or gas) and hydroelectric generating stations are discouraged in scenic or natural areas that are important to recreation and open space purposes,
- (iv) Nuclear generating stations shall be located in generally remote, rural, and low density areas, consistent with the criteria of 10 CFR 100 (U.S. Nuclear Regulatory Commission rules on siting nuclear generating stations) and/or any other related federal regulations. In addition, NJDEP shall find that the nuclear generating facility is proposed for a location where the appropriate low population zone and population center distance are likely to be maintained around the nuclear generating facility, through techniques such as land use controls or buffer zones,
- (v) The construction and operation of a nuclear generating station shall not be approved unless DEP finds that the proposed method for disposal of the spent fuel to be produced by the facility: (i) will be safe, (ii) conforms to standards established by the U.S. Nuclear Regulatory Commission, and (iii) will effectively remove danger to life and the environment from the radioactive waste material. This finding is required under present state law (N.J.S.A. 13:19-11) and will be made consistent with judicial decisions (see Public Interest Research Group v. State of New Jersey, 152 N.J. Super. 191) and federal law.

(vi) The construction of electric generating facilities using renewable forms of energy such as solar radiation, wind, and water, including experimental and demonstration projects, is encouraged in the coastal zone provided that the facilities do not significantly detract from scenic or recreational values. The cogeneration of electricity and process steam for industrial, community and commercial use is also encouraged.

## 2. Rationale

The siting of an electric generating station is an extraordinary event with far-reaching impacts, when compared with the typical day-to-day decisions made under the State's coastal management program. Such siting decisions therefore require special scrutiny using: (a) the State's authority in its management of state-owned tidelands and submerged lands contemplated as sites for all or part of an electric generating station, (b) the State's regulatory authority, and (c) the State's influence in federal proceedings on aspects of the siting process.

New Jersey's coastal zone, especially along Barnegat Bay and Delaware Bay, has experienced the consequences of several major siting decisions in the past decade and already has a diverse mix of existing, proposed, and potential fossil fuel and nuclear generating facilities, both onshore and offshore.

For example, in 1980 two nuclear generating units were in operation in the coastal zone: Salem Unit I on Artificial Island on the Delaware River in Salem County and at Oyster Creek near Barnegat Bay in Ocean County. Four additional nuclear generating units are under construction in the Bay and Ocean Shore Segment and have received the appropriate federal and State approvals, including Forked River on the Oyster Creek site in Ocean County, and Salem 2 and Hope Creek 1 and 2 on Artificial Island. The Hope Creek project, which DEP approved under CAFRA in 1975, had its genesis in a project contemplated at Newbold Island in the Delaware River, less than five miles south of Trenton. In 1973, the U.S. Atomic Energy Commission (the predecessor to the Nuclear Regulatory Commission), acting in accord with the view of New Jersey, recommended that Artificial Island would be a more suitable site than Newbold Island because of population density concerns. Until PSE&G decided to withdraw its proposal, New Jersey's coastal zone was also the site of two proposed floating nuclear reactors, the Atlantic Generating Station, Units 1 and 2, at a site in the Atlantic Ocean east of Little Egg Harbor. The coastal zone also includes generating stations that have used various fossil fuels depending upon the price and availability of fuel as well as upon the applicable air quality rules.

New Jersey recognizes the interstate nature of the electric power system. Some electricity is produced in New Jersey at facilities owned partially by utilities in other states and exported to those states. New Jersey also imports electricity produced in adjacent

states. In short, New Jersey is an integral part of the Pennsylvania-New Jersey-Maryland interconnecting grid system, importing and exporting electricity from the system at different times of the day, season and year in order to generate electricity efficiently and achieve the lowest achievable cost to electricity users throughout this multi-state region.

The need for converting some existing facilities from oil-fired to coal-fired generation is recognized by the Powerplant and Industrial Fuel Use Act of 1978 (FUA) P.L. 95-620. The FUA restricts, through mandatory and discretionary prohibitions, the use of natural gas and petroleum as primary energy sources in existing powerplants. In the FUA, the national objective to decrease dependency on imported fuel is combined with the desire to achieve self-sufficiency in a manner that minimizes environmental and social costs. These objectives are considered sufficiently flexible in their achievement as to ensure that the environmental impacts are acceptable (see Fuel Use Act, EIS, April 1979, U.S. DOE).

New Jersey also recognizes that most electric generating facilities may not be coastal-dependent but do require access to vast quantities of cooling waters, a siting factor that, from the perspective of utilities, increases the attractiveness of coastal locations. This siting policy strikes a balance among various competing national, regional, and state interests in coastal resources, and recognizes some of the differences in the siting requirements of fossil fuel and nuclear generating stations.

The policy directs fossil fuel stations toward built up areas in order to preserve and protect particularly scenic and natural areas important to recreation and open space purposes. New Jersey has articulated this policy with a conscious recognition of the state's progress in attaining and maintaining high air quality. Given the use of appropriate control technology, coal-fired generating stations, for example, appear feasible at various coastal locations. The siting of coal-fired power plants in urban areas also promotes efficient energy use due to the proximity of power plants to load centers.

The nuclear siting policy recognizes public concern for the disposal of spent fuel, as mandated in 1973 by the New Jersey Legislature in CAFRA.

(r) Liquefied Natural Gas (LNG) Facilities

1. Policy

- (i) New marine terminals and associated facilities that receive, store, and vaporize liquefied natural gas, for transmission by pipeline to a base load electric generating station are discouraged in the coastal zone unless (a) a clear and precise

justification for such facilities exists in the national interest, (b) the proposed facility is located and constructed so as to neither unduly endanger human life, property nor otherwise impair the public health, safety and welfare, as required by N.J.S.A. 13:19-10f, (c) such facilities comply with the Coastal Resource and Development Policies.

LNG facilities shall be sited in accordance with the standards set forth in P.L.96-129, Title I Subtitle B, Pipeline Safety Act of 1979, Section 6(a)(3) which states that no new LNG facility may be operated unless an accident contingency plan is found to be adequate by the Department of Transportation under the Natural Gas Act.

In determining the acceptability of proposed LNG facilities, DEP will consider siting criteria such as: (a) the risks inherent in tankering LNG along New Jersey's water ways, (b) the risks inherent in transferring LNG onshore, and (c) the compatibility of the facility with surrounding land uses, population densities, and concentrations of commercial or industrial activity.

- (ii) New LNG facilities that liquefy, store and vaporize LNG to serve demand during peak periods shall be located in generally remote, rural, and low-density areas where land use controls and/or buffer zones are likely to be maintained.

## 2. Rationale

The Pipeline Safety Act of 1979, P.L. 96-129, amended the Natural Gas Pipeline Safety Act of 1968 and sets forth requirements for the safe operation of pipelines transporting natural gas and liquefied petroleum gases, and provides standards with respect to the siting, construction, and operation of liquefied natural gas facilities.

The State recognizes the responsibilities of various federal agencies, including the U.S. Coast Guard and Office of Pipeline Safety Operations in the U.S. Department of Transportation, the Economic Regulatory Administration in the U.S. Department of Energy (US DOE), and the independent Federal Energy Regulatory Commission within USDOE, for management of various aspects of the siting and operations of LNG facilities.

Importation facilities for LNG are discouraged in view of the present sources of LNG from politically unstable countries. The use of natural gas for base load electric generation purposes is inconsistent with the Power Plant and Industrial Fuel Use Act of 1978, P.L. 95-620. The availability of domestic sources of LNG and a demonstrated need that such importation facilities are in the national interest dictate considering applications for such facilities on a case by case basis.

The tankering, transfer, and storage of LNG pose significant risks to public health, safety and welfare and may cause serious adverse environmental impacts which may not be restricted to one state, given the likely potential locations of LNG terminals along interstate waterways. New Jersey therefore recommends that the siting of LNG facilities be treated as a regional issue on an interstate basis.

7:7E-7.5 Transportation Use Policies

(a) Roads

1. Policy

New road construction shall be limited to situations where:

- (i) a clear need exists, taking into account the alternatives of upgrading existing roads and of using public transportation to meet the need,
- (ii) provision is made to include construction of bicycle and foot paths, except where these would not be feasible,
- (iii) provision is made for coordinated construction of public transportation rights-of-way and facilities, such as bus lanes, rail lines, and related transit stop or station facilities and parking, except where such construction would not be feasible,
- (iv) surrounding land does not lose its recreational and aesthetic opportunity, and
- (v) induced development in conflict with coastal policies would not be expected to result.

2. Rationale

This policy is based on two assumptions: (i) that the coastal zone, is for the most part adequately served already by the existing road network, and (ii) that further capital investment in transportation facilities for the coastal region should emphasize those kinds of facilities which would minimize environmental damage and energy use. Consequently, new road construction should be undertaken only where the burden of proving need is met after less damaging and more fuel efficient alternatives have been considered. In addition, further investment in road construction should include coordinated investment in low-damage, highly fuel-efficient modes wherever possible.

(b) Public Transportation

1. Policy

New and improved needed public transportation facilities, including bus, rail, air, and boat travel and related parking facilities, are encouraged.

2. Rationale

A basic premise of the coastal management program is concentrating the pattern of development, in part to facilitate public transportation. While new air transportation facilities appear unlikely in the Delaware Bay, Raritan Bay and Atlantic Ocean shore areas, bus facilities and parking systems appear appropriate, particularly as a solution to the transportation problems of barrier island resorts.

In the more developed parts of the coastal zone, expansion, improvement and new construction of all forms of public transportation are the most appropriate ways to meet the new transportation needs generated by goods and people.

(c) Bicycle and Foot Paths

1. Policy

- (i) The construction of internal bicycle paths, foot paths and sidewalks in residential, commercial, and industrial developments is required to the maximum extent practicable.
- (ii) Linear bicycle and foot paths are encouraged along the edges of all water bodies, provided they would not disturb Special Areas or subject the user to danger.
- (iii) Existing bicycle and foot paths must be continued around development when it is not practical to pass through development.

2. Rationale

Paths for pedestrians and bicycles provide active outdoor recreation and may lead to reduced dependency on cars, especially if settlement patterns are made more compact.

(d) Parking Facilities

1. Definition

Parking facility policies apply to all parking facilities, in part or wholly within the area subject to the Waterfront Development Act, and to parking facilities for 300 or more cars elsewhere in the coastal zone.

2. Policy

Parking lots, garages and large paved areas are conditionally acceptable, provided that they will not interfere with existing or planned mass transit services, the extent of paved surfaces is minimized, and landscaping with indigenous or preferred species is maximized, the development satisfies the Resource Policies for air, water, and runoff, and the development is compatible with its surroundings and satisfies the Location Policies.



3. Rationale

Parking facilities provide a necessary transportation facility, but one that may cause air and water impacts.

7:7E-7.6 Public Facility Use Policies

(a) Definition

Public Facilities includes a broad range of public works for the production, transfer, transmission, and recovery of water, sewerage and other utilities. The presence of an adequate infrastructure makes possible future development and responds to the needs created by present development.

(b) General Public Facilities

1. Policy

New or expanded public facility development is conditionally acceptable provided that:

- (i) The public facility would serve a demonstrated need that cannot be met by an existing public facility at the site or region,
- (ii) Alternate technologies, including conservation, are an impractical or infeasible approach to meeting all or part of the need for the public facility,
- (iii) The public facility would not generate significant secondary impacts inconsistent with the Coastal Resource and Development Policies, and

Upgrading existing facilities to meet development and redevelopment needs in developed waterfront areas is encouraged.

2. Rationale

Public facilities provide all important public services, but can also adversely affect the coastal environment and economy if improperly located, designed, or constructed. In particular, the secondary impacts of new public facility construction and the need for the facility require scrutiny. In developed areas, some inadequate public facilities need to be upgraded and improved.

(c) Solid Waste

1. Policy

Solid waste conservation techniques such as recycling, resource and energy recovery and volume reduction, must be explored and proved infeasible before a new or expanded sanitary landfill preferably at a regional scale, is deemed acceptable.

Sanitary landfills that locate in the upland must demonstrate that the leachate will not adversely impact the ground or surface waters, by using a lining and/or a leachate filtration plant. Acceptable plans for restoring the site must be submitted with the original proposal.

2. Rationale

Solid waste is a resource whose potential for recovery must be evaluated before locating new sanitary landfills. Further, regional solutions to solid waste management are mandated under State law. In addition, the development of new landfills is subject to the regulations of DEP's Solid Waste Administration.

(d) Wastewater Treatment

1. Policy

- (i) Coastal development that does not employ the most energy-efficient wastewater treatment system practicable is discouraged. Energy efficient systems are encouraged.
- (ii) On-site sewage disposal systems which recycle nutrients and water for productive use are encouraged where the design, installation, operation, and maintenance will be consistent with applicable ground and surface water quality statutes and regulations.
- (iii) Wastewater treatment systems that recharge the groundwater with highly treated effluents are encouraged, provided that consistently high quality effluents and acceptable recharge techniques are demonstrated.
- (iv) Wastewater treatment facilities shall, to the maximum extent feasible, provide for multiple use of the site, including open space and recreation use.

2. Rationale

Wastewater treatment systems range in scale from on-site sewage disposal systems to regional treatment systems with centralized plans, major interceptors, and ocean outfalls. In the past decade considerable wastewater treatment system construction has taken place or been authorized in developing parts of the coastal zone with corresponding improvements in water quality. New wastewater treatment systems must be carefully evaluated in terms of water quality impacts and secondary impacts.

The federal Clean Water Act encourages federally funded wastewater treatment facilities to provide for multiple use of the site. The Coastal Policies support and extend this federal policy by requiring that all new wastewater treatment facilities in the coastal zone consider the feasibility of multiple use.

7:7E-7.7 Industry Use Policies

(a) Definition

Industry uses include a wide variety of industrial processing, manufacturing, storage and distribution activities. Industry is defined by Standard Industrial Classification (SIC) categories 2011 to 3999, except for 2991 (petroleum refining), which is covered by Use Policy 7:7E-7.4(i).

1. Policy

- (i) Industry is encouraged in Special Urban Areas and conditionally acceptable elsewhere provided it is compatible with all applicable Location and Resource Policies. Particular attention should be given to Location Policies which reserve the water's edge for water dependent and water related uses (Sections 7:7E-3.17 and 7:7E-3.21); to Resource Policy 7:7E-8.15, which requires that the use be compatible with existing uses in the area or adequate buffering be provided; and to Resource Policy 7:7E-8.13, which places public access requirements upon the use.
- (ii) New industrial development is encouraged to locate at or adjacent to existing sites, to the maximum extent practicable.
- (iii) Industry that is easily accessible to its labor force by foot or public transportation is encouraged.
- (iv) Marine resource dependent industry, such as commercial fishing, is encouraged and shall have priority over other waterfront uses, except for recreation.
- (v) The cogeneration of electricity with process steam is encouraged.

2. Rationale

A strong industrial base is vital if an area is to be healthy and vibrant. Many of the developed parts of the coast are suffering from a declining industrial base. Land which had been productive is now vacant and in need of redevelopment. The industrial policies encourage industry to locate in the vacant areas of the the cities of the Northern and Delaware waterfronts. However, the policies recognize that a healthy waterfront will host a mix of uses. By asking waterfront industries to create public access to the water and to make sites they would vacate available to the public, the policies also recognize the waterfront as a valuable public resource.

The industrial policies address the conflicting demands and effects of industrial waterfront development. The policies recognize several factors which must be considered in the decision making process. First, water dependent industry must locate somewhere along the waterfront. Other industry which needs water for operating or processing, some or all of the time, might also require a

location near the waterfront, but landward of the water's edge. Second, as a result of environmental degradation, urban areas are suffering from unmet recreation and open space needs. Third, urban areas typically suffer from high unemployment and deteriorating tax bases. Fourth, city dwellers must be supported in their efforts to rejuvenate and revitalize their cities, making them pleasant and economically viable places to live.

#### 7:7E-7.8 Mining Use Policies

##### 1. Policy

New or expanded mining operations on land, and directly related development, for the extraction and/or processing of construction sand, industrial sand, gravel, ilmenite, glauconite, and other minerals are conditionally acceptable, provided that the following conditions are met (mining is otherwise exempted from the General Land Areas policy, but shall comply with the Special Areas, and General Water Areas):

- (i) the location of mining operations, such as pits, plants, pipelines, and access roads, causes minimal practicable disturbance to significant wildlife habitats, such as lowland swamp forests and stands of mature vegetation,
- (ii) the location of new or expanded mining operations is generally contiguous with or adjacent to sites of existing mining operations, or probable locations of mineral resources on nearby sites, in order to concentrate and not scatter the location of mineral extraction areas within a region, recognizing that mineral resources occur only in certain limited areas,
- (iii) adequate buffer areas are provided, using existing vegetation and/or new vegetation and landscaping, to provide maximum feasible screening of new on-land extractive activities and related processing from roads, water bodies, marshes, and recreation areas,
- (iv) the mine development and reclamation plan, including the timetable, phasing, and activities of the new or expanded mining operations, has been designed with explicit and adequate consideration of the ultimate reclamation, restoration, and reuse of the site and use of its surrounding region, once the mineral resource is depleted,
- (v) the mineral extraction areas shall be reclaimed, contoured and replanted, to ensure slope stability, control erosion, afford adequate drainage, provide as natural an appearance as possible, and increase the recreation potential of the restored site,
- (vi) the mining operations control and minimize to the maximum extent practicable adverse impacts from noise and dust, surface water pollution, and disposal of spoils and waste materials and conform to all applicable federal, state, and local regulations and standards,

(vii) the mineral extraction will not have a substantial or long-lasting adverse impact on coastal resources including local economies, after the initial adverse impact of removal of vegetation, habitat, and soils, and not including the long term irretrievable impact of use of the non-renewable mineral resource.

2. Rationale

New Jersey's coastal zone includes important deposits of minerals. Mining these non-renewable resources is vital to certain sectors of the economy of selected regions of the coastal zone, the entire state and in some cases the nation, depending upon the specific type of mineral. For example, the high quality silica sands of Cumberland County supply an essential raw material for New Jersey's glass industry. Other industrial sands mined and processed in Cumberland County serve as basic ingredients in the iron and steel foundry industry. Ilmenite deposits in Ocean County produce titanium dioxide which is used in paint pigment. Construction grade sands are used in virtually all construction activity.

The extraction and processing of minerals from mines on land also produces short and long term adverse environmental impacts. For example, open-pit mining removes all vegetation and soil, destroys wildlife habitat, changes the visual quality of the landscape, and irretrievably consumes the depletable mineral resource. Many of these impacts can be ameliorated by incorporating proper, imaginative and aggressive reclamation and restoration planning into the mine development process. However, the location of mineral deposits is an unquestionably limiting factor on the location of mining operations. Reasonable balances must therefore be struck between competing and conflicting uses of lands with mineral deposits.

Depending upon the diversity and strength of a local economy, depletion of mineral deposits through extraction may lead to serious adverse long term economic consequences, particularly if the planned reclamation does not replace the direct economic contribution of the mining industry. The non-renewable nature of mineral resources must also be considered carefully in light of the uses of some of the mined minerals.

7:7E-7.9 Port Use Policies

(a) Definition

Port uses are concentrations of shoreside marine terminals and transfer facilities for the movement of waterborne cargo (including fluids), and including facilities for loading, unloading and temporary storage.

(b) Policies

- (i) Port related development and marine commerce is encouraged in and adjacent to established port areas. Water dependent development shall not be preempted by non-water dependent development in these areas.
- (ii) New port use outside of existing Ports (see definition, Section 7:7E-3.11) are acceptable only when there is a clear demonstration of need, and when suitable land and water area is not available in or adjacent to an existing port.
- (iii) New or expanded ports must be compatible with surrounding land uses and provide for maximum open space and physical and visual access to the waterfront, provided that this access does not interfere with port operations or endanger public health and safety. New or expanded ports must also not interfere with national, state, county or municipal parks, recreation areas, or wildlife refuges.
- (iv) New, expanded or redeveloped port facilities must have direct access to navigation channels of sufficient depth for anticipated vessel access with minimal dredge and fill requirements, adequate access to road, rail transportation, and adjacent land with sufficient load bearing capacity for structures.
- (v) Limited water-dependent, port-related activity, such as commercial fishing, support facilities and emergency oil spill clean up storage, is acceptable at the small commercial harbors in the coastal zone.

(c) Rationale

New Jersey's port areas are a regional, national and international resource. The existing ports, located largely in the Delaware and Northern Waterfront Areas contain unused and underused areas which can be refurbished to meet increases in demand. The state must nevertheless allow for possible unanticipated future needs for port area.

As in the past, port activities will continue to be a vital part of the economy of New Jersey. However, changes in shipping technology have caused once thriving ports such as Jersey City and Hoboken to become the scene of dilapidated docks and piers and acres of vacant land.

The port policies recognize the changing ship technology and will encourage new or expanded needed modern facilities in areas where port facilities would be compatible with existing uses. The policies recognize modern facilities require large expanses of land to accommodate specialized equipment and host a full array of services. However, the policies seek to avoid construction of a modern facility which meets the needs of today but could become obsolete tomorrow. For this reason, facilities are encouraged not to over-specialize. At the same time, the policies recognize the need to have large bulk cargo facilities to avoid construction of numerous small port facilities.

Recognizing the value of the water as a public resource and the need for environmental controls, the policies require facilities to be designed with provision for minimum environmental degradation. The policies endorse the concept of multimodalism and encourage port facilities to make use of existing infrastructure. In addition, the policies encourage an integrated port system which uses container ships where ship channels are deep enough to accommodate these vessels, but provides for use of smaller barges to move goods to inland waterways or along shallower channels.

Recognizing the value of the waterfront to the public, the policies require port facilities to provide for the maximum public visual and physical access to the waterfront consistent with safety and security concerns. The policies accommodate port usage of the waterfront, where needed and appropriate, while encouraging redevelopment and other uses which would be in the best interest of the public.

#### 7:7E-7.10 Commercial Facility Use Policies

##### (a) Hotels and Motels

###### 1. Definition

Hotels and motels are commercial establishments, known to the public as hotels, motor-hotels, motels, or tourist courts, primarily engaged in providing lodging, or lodging and meals, for the general public. Also included are hotels and motels operated by membership organizations, whether open to the general public or not.

###### 2. Policy

(i) New, expanded or improved hotel-motel developments are conditionally acceptable provided that the development: (i) complies with all Location and Resource Policies and with the policy for high-rise housing, and (ii) is compatible in scale, site design, and architecture with surrounding development.

(ii) Hotels and motels are not water dependent.

Hotel and motel development is encouraged if it promotes revitalization of an urban area and meets all policy requirements. In special Urban Areas, new hotel and motel development is acceptable in the Filled Water's Edge on existing pilings, provided public access between the hotel or motel and the water body is not restricted.

###### 3. Rationale

Hotels and motels enable New Jersey residents and tourists to visit the coast. They support the tourist economy of the area. The buildings must be located, however, so they do not harm or threaten the resources which attract people to the coast.

(b) Casino Hotels

1. Definition

Casino hotels are hotels with casinos as provided for in the Casino Control Act (P.L. 1977, c. 100, as amended).

2. Policy

Hotel-casino development in Atlantic City shall be located in the city's traditional resort area (along the Boardwalk), and in the State Marina area to the maximum extent practicable. Hotel-casino development is discouraged in existing residential areas and in areas where access by public transportation between the proposed hotel-casino and the Boardwalk is limited. Hotel-casino development is discouraged along the access highways to Atlantic City. Hotel-casino development shall comply with the high-rise housing policy. Hotel-casino development and new residential development are encouraged in Atlantic City to ensure that the objectives of the 1976 constitutional referendum on casino gambling, including the stimulation of new construction and the revitalization of Atlantic City and its region, are achieved. The policies of the program shall be interpreted consistent with these objectives.

3. Rationale

This hotel-casino location policy serves several purposes: (1) protecting Atlantic City's existing diverse neighborhoods, (2) facilitating public transportation solutions (such as bus, jitney, park-and-ride, or rail) to the problem of increased access to and in Atlantic City, (3) promoting pedestrian movements, (4) reducing pressure on vehicular systems, and (5) preserving the historic and low-rise residential character of the Gardner's Basin and Inlet area.

(c) Retail Trade and Services

1. Definition

Retail trade and service is a broad category including establishments selling merchandise for personal and household consumption, such as food stores and clothing stores; service establishments such as banks and insurance agencies; establishments such as restaurants and night clubs; and establishments for participant sports such as bowling alleys and indoor tennis courts.

2. Policies

(i) In Special Urban Areas, new or expanded retail trade and service establishments are encouraged in Filled Water's Edge Areas as part of mixed use developments, provided that the development:

(a) is compatible in scale, site design and architecture with surrounding development



- (b) promotes public use of the coast, and
- (c) promotes revitalization of the urban area
- (ii) Elsewhere in the coastal zone, new or expanded retail trade and service establishments are conditionally acceptable in Filled Water's Edge Areas, provided that the development:
  - (a) is water related, and
  - (b) adjacent to, and compatible with, existing Water's Edge Development
- (iii) New or expanded retail trade facilities are prohibited in most Special Water's Edge Areas, other than the Filled Water's Edge.

3. Rationale

Commercial development in the urban waterfront area is consistent with the state's economic development policy to target loans and bond assistance for commercial and retail establishment to urban areas. Commercial development, however, must be situated so it does not harm or threaten the resources which attract people to the waterfront.

(d) Convention Centers and Arenas

1. Definition

Convention centers are facilities designed primarily for holding conventions. Arenas are commercial facilities designed primarily for spectator sporting events. Arenas do not include indoor tennis courts, bowling alleys and other facilities primarily designed for participant sports, nor arenas affiliated with schools and colleges.

2. Policy

New convention centers and arenas are encouraged in Special Urban Areas, and conditionally acceptable in Development regions, provided that the development: (a) is compatible in scale, site design, and architecture with surrounding development, and (b) is accessible by public transportation. New convention centers and arenas are discouraged in Barrier Island, Extension and Limited Growth regions.

3. Rationale

Convention centers and arenas would provide social and cultural benefit to residents and visitors to the waterfront areas. They would also support the economy of the area. However, they can also generate traffic and induce additional development. They must, therefore, be located so that such impacts can be easily absorbed. The buildings must be located, however, so they do not harm or threaten the resources which attract people to the coast.

7:7E-7.11 Coastal Engineering

(a) Definition

Coastal Engineering includes a variety of structural and non-structural measures to manage water areas and the shoreline for natural effects of erosion, storms, and sediment and sand movement. Beach nourishment, sand fences, pedestrian control on dunes, stabilization of dunes, dune restoration projects, dredged spoil disposal and the construction of retaining structures such as bulkheads, revetments and seawalls are all examples of coastal engineering.

The Location Policies on General Water Areas and Special Areas are directly relevant to most coastal engineering uses. These Coastal Engineering Use policies do not apply to uses associated with ports, commerce, and industry.

(b) Shore Protection Priorities

1. Policy

Non-structural solutions to shoreline erosion problems are preferred over structural solutions. The infeasibility and impracticality of a non-structural solution must be demonstrated before structural solutions may be deemed acceptable.

2. Rationale

Past reliance on costly structural shore protection measures, such as groins and jetties to retard the longshore transport of sand by the littoral drift, and seawalls, bulkheads and revetments to prevent waves from reaching erodible materials has proven to be an inadequate and incomplete solution. Bulkheads are deteriorating. Groins are starving the natural longshore transport of sand. Man has modified and destroyed dunes that provide natural protection against storm surges. Inlets frequently develop shoals which prevent safe navigation. The natural processes along the shoreline must be carefully evaluated over reaches or regions of the coast to determine the likely long term effects of shore protection measures. Non-structural measures realistically recognize the inevitability of the ocean's advancement and the migration of barrier islands. Yet this concern must be balanced against the short term benefits of structures to protect the present intense recreational use of the narrow strip of oceanfront land in New Jersey.

(c) Dune Management

1. Policy

Dune restoration and maintenance projects as a non-structural shore protection measure, including sand fencing, revegetation, additions of non-toxic appropriately sized material, control of pedestrian and vehicular traffic, are encouraged.

2. Rationale

A natural dune field provides a strong measure of natural protection for adjacent land uses.

(d) Beach Nourishment

1. Policy

Beach nourishment projects, as a non-structural shore protection measure, are encouraged, provided that: (i) the particle size of the fill material is compatible with the existing beach material to ensure that the new material will not be removed to a greater extent than the existing material would be by normal tidal fluctuations, (ii) the elevation, width, slope, and form of proposed beach nourishment project are compatible with the characteristics of the existing beach, and (iii) the sediment deposition will not cause unacceptable shoaling in downdrift inlets and navigation channels.

2. Rationale

Beach nourishment depends upon an adequate quantity and suitable quality of beach nourishment material, otherwise the material may quickly return to the ocean.

(e) Structural Shore Protection

1. Policy

(i) The construction of new shore protection structures including jetties, groins, seawalls, bulkheads, and other retaining structures to retard longshore transport and/or to prevent tidal waters from reaching erodible material acceptable only if it meets all of the following six policies:

- (1) The structure is essential to protect water dependent uses or heavily used public recreation beach areas in danger from tidal waters or erosion, or the structure is essential to protect existing structures and infrastructure in developed shorefront areas in danger from erosion.
- (2) The structure is designed to eliminate or mitigate adverse impacts on local shoreline sand supply.
- (3) The structure will not create net adverse shoreline sand movement conditions downdrift, including erosion or shoaling.
- (4) The structure will cause minimum feasible adverse impact to living marine resources.
- (5) The structure is consistent with the State Shore Protection Master Plan.

- (6) If the proposed project requires filling of a Water Area it must also be consistent with the General Water Area Policy for Filling (Section 7:7E-4.10(i)).
- (ii) A new, short retaining structure that connects two existing lawful retaining structures is normally acceptable provided that extensive filling is not involved.
- (iii) Maintenance or reconstruction of an existing retaining structure is conditionally acceptable, provided it does not result in extension of the structure by more than 18 inches in any direction. Maintenance or reconstruction of an existing retaining structure which results in extension by more than 18 inches shall be considered new construction.
- (iv) Rip-rap is a preferred construction material for retaining structures as it provides a habitat for aquatic life and helps absorb wave energy.

## 2. Rationale

Structural solutions to shore protection are appropriate and essential at certain locations, given the existing pattern of urbanization of New Jersey's shoreline. However, the creation, repair, or removal of publicly-funded shore protection structures must serve clear and broad public purposes and must be undertaken only with a clear understanding of the regional consequences of natural shoreline sand systems.

Retaining structures are necessary in some cases to stabilize existing development or to allow limited appropriate infill or new development. This is particularly important in an area between two existing bulkheads where a connecting structure could halt the formation of a trap situation, which could trap debris, produce odors, and eliminate the opportunity for use of the land.

### 7:7E-7.12 Dredge Spoil Disposal on Land

#### (a) Definition

Dredge spoil disposal is the discharge or of sediments, known as spoils, removed during dredging operations. The following policies govern Land and Water's Edge disposal only; the policies regulating dredge spoil disposal in Water Areas are found in Section 7:7E-4.10.

#### (b) Policy

Dredge spoil disposal is conditionally acceptable under the following conditions: (i) sediments are covered with appropriate clean material that is similar in texture to surrounding soils, and (ii) the sediments will not pollute the groundwater table by seepage, degrade surface water quality, present an objectionable odor in the vicinity of the disposal area, or degrade the landscape.

Dredge spoil disposal is prohibited on natural undisturbed wetlands, and on formerly spoiled wetlands that have revegetated with wetland species.

The use of uncontaminated dredge material of appropriate quality and particle size for beach nourishment is encouraged. Creation of useful materials such as bricks and light weight aggregate from the dredge material is encouraged.

The use of uncontaminated dredge material for purposes such as restoring landscape, enhancing farming areas, creating recreation oriented landfill sites including beach protection and general land reclamation, building islands, creating marshes, capping contaminated spoil areas, and making new wildlife habitats is encouraged.

Effects associated with the transfer of the dredged materials from the dredging site to the disposal site shall be minimized to the maximum extent feasible.

Dredge spoil disposal in wet and dry borrow pits is conditionally acceptable, see policies 7:7E-3.15, 7:7E-3.25 and 7:7E-3.30.

(c) Rationale

Dredge spoil disposal is an essential coastal land and water use that is linked inextricably to the coastal economy and has serious impacts on the coastal environment. Evolving state and federal policies on protection of the marine and estuarine coastal environment have sharply limited the creation of new water area dredge spoil disposal areas in the past decade. Yet selective dredging must continue if inlets and navigation channels are to be maintained. The coastal policy recognizes the importance of this use of coastal resources and the need for land disposal sites.

Use of inefficient equipment and methods in the movement of dredge spoils, and resulting spillage of fuels, emission of toxic or noxious gases, loss of dredged materials, and noise and vibrations produced by faulty or worn out equipment and machinery may cause water pollution, air pollution and discomfort both for the crews and for the human population along the disposal route and in nearby areas.

7:7E-7.13 National Defense Facilities Use Policy

(a) Definition

A national defense facility is any building, group of buildings, marine terminal, or land area owned or operated by a defense agency (Army, Navy, Air Force, Marines, Coast Guard) and used for training, research, material support, or any other defense-related use.

(b) Policy

National Defense facilities are conditionally acceptable, and will be approved if one of two findings can be made:

1. The proposed facility is consistent with all relevant Coastal Resource and Development Policies; or
2. The proposed facility is coastal dependent, will be constructed and operated with maximum possible consistency with Coastal Resource and Development Policies, and will result in minimal feasible degradation of the natural environment.

The construction of new facilities or expansion of existing facilities on land not owned by a defense agency is discouraged, unless it can be shown that the facility cannot feasibly be accommodated on an existing base.

(c) Rationale

Providing for the national defense is the responsibility of the federal government, and the New Jersey Coastal Management Program will not question the findings of a federal defense agency with respect to national security needs.

The requirements that a coastal dependent facility comply with the Coastal Resource and Development Policies only to the maximum extent feasible is in keeping with Section 306(c)(8) of the Federal CZMA, which requires consideration of the national interest in the siting of facilities necessary to meet requirements which are other than local in nature.

## SUBCHAPTER 8 - RESOURCE POLICIES

### 7:7E-8.1 Purpose

The third step in the screening process of the Coastal Resource and Development Policies involves a review of a proposed development in terms of its effects on various resources of the built and natural environment of the coastal zone, both at the proposed site as well as in its surrounding region. These policies serve as standards to which proposed development must adhere.

### 7:7E-8.2 Marine Fish and Fisheries

#### (a) Policy

Coastal actions are conditionally acceptable to the extent that minimal feasible interference is caused to the natural functioning of marine fish and fisheries, including the reproductive and migratory patterns of estuarine and marine estuarine dependent species of finfish and shellfish.

#### (b) Rationale

Finfish (freshwater, estuarine, and marine) and shellfish resources provide significant recreation experiences for residents of New Jersey and interstate visitors. These resources also help the State's economy, by leading to expenditures of approximately \$375.8 million per year, with fishing yielding approximately \$217.2 million and shellfishing yielding \$158.6 million. DEP also estimates that 1,868,000 people participated in marine/estuarine recreational fishing in 1976 in New Jersey. Commercial landings for all finfish and shellfish in New Jersey during 1978 were 163,603,000 lbs., valued at \$44.35 million dockside and an estimated \$110.9 million retail value, according to Department of Commerce statistics. The 1956 landings of 540 million pounds of all finfish and shellfish indicate the true potential of this industry.

Interference with fish resources includes blockage of diadromous finfish spawning runs, reduction in the critical capacity of estuaries to function as finfish nursery areas, reduction of summer dissolved oxygen level below 4 ppm stimulating anoxic phytoplankton blooms, introduction of heavy metals or other toxic agents into coastal water, rise in ambient water temperature regime especially during summer and fall periods, unacceptable increases in turbidity levels, siltation, or resuspension of toxic agents, and introduction of untreated effluents from domestic and industrial sources.

### 7:7E-8.3 Shellfisheries

#### (a) Definition

Shellfisheries are estuarine bay and river bottoms which are potentially productive for hard clams, soft clams, eastern oyster, bay scallops or blue mussels. Potentially productive areas are those which do not have a history of natural recruitment for any of the above species, but could be used as a shellfish culture planting area.

NOTE: Presently productive shellfish beds, and those with a history of natural recruitment, are addressed by Special Area policy 7:7E-3.2.

(b) Policy

- (i) Any development which would result in the destruction of a potentially productive shellfish area is discouraged. (The term destruction is defined in 7:7E-3.2.)
- (ii) Any development which would result in the contamination or condemnation of a potentially productive shellfish area is prohibited. Water dependent development which requires new dredging in these areas is discouraged. Maintenance dredging in these areas is conditionally acceptable.
- (iii) Any project which would discharge untreated or improperly treated domestic or industrial waste waters or toxic or hazardous substances directly into waters so as to adversely affect a potentially productive shellfishing area is prohibited.

(c) Rationale

Estuarine shellfish are harvested by both commercial and recreational fishermen, with the sport group concentrating on hard clams almost exclusively. Hard clams are a very significant species. Oysters, bay scallops and soft clams are predominantly commercial species. Commercial dockside landing values in New Jersey for 1978 were \$3.43 million for estuarine mollusks, with an estimated retail industry value of \$8.7 million. The commercial harvest is estimated to support employment of 1,500 persons in fishing, distribution, processing, and retail. Sport clambers numbered 17,000 in 1976. In addition to direct human consumption, shellfish play an important role in the overall ecology of the estuary. Young clams are important forage foods for a variety of finfish such as winter flounder, and crabs and migratory waterfowl, especially the diving species.

Hard clams are widely distributed in New Jersey's coastal estuaries, inhabiting most waters where the salinity is about 15 parts per thousand or greater. Suitable bottom substrate and dissolved oxygen are also important determining factors. Hard clams usually recolonize areas that are dredged, provided that anoxic conditions are not present, although it may take a number of years.

Water presently condemned for shellfishing may not be directly or immediately important to human economics although these areas have been used as resource recovery programs, relay and depuration, source areas. These areas however serve for restocking fishable areas through production of motile larvae. Shellfish in condemned waters also are not lost to estuarine ecological food-webs, but serve as a food source to other species of wildlife.



7:7E-8.4 Water Quality

(a) Definition

As required by Section 307(f) of the Federal Coastal Zone Management Act, federal, state and local water quality requirements established under the Clean Water Act shall be the water resource standards of the coastal management program. In the Delaware River Area, water quality standards established by the Delaware River Basin Commission shall also be standards of the coastal management program. State surface and groundwater quality statutes, regulations and standards, are established and administered by DEP's Division of Water Resources (see N.J.A.C. 7:9-4.0 et seq.).

(b) Policy

Coastal development which would prevent attainment of the defined standards for surface or groundwater is prohibited. Coastal development in conflict with any State certified Areawide Water Quality Management (208) Plan is also prohibited.

(c) Rationale

Most of the natural, commercial, recreational, industrial, and aesthetic resources of the coastal zone affect or are affected by surface and ground water quality. Specific coastal zone water quality problems include pollution by nutrients, pathogenic organisms, toxic and hazardous wastes, thermal discharges, suspended sediments, and saline intrusion into freshwater resources. These pollutants can lower water quality sufficiently to prevent desired water uses. This policy incorporates by reference New Jersey's water quality related statutes and regulations adopted as required by the federal Clean Water Act of 1977.

7:7E-8.5 Surface Water Use

(a) Definition

Surface water is the water in lakes, ponds, streams, rivers, bogs, wetlands, bays, and ocean that is visible on land.

(b) Policy

Coastal development shall demonstrate that the anticipated surface water demand of the facility will not exceed the capacity, including phased planned increases, of the local potable water supply system or reserve capacity and that construction of the facility will not cause unacceptable surface water disturbances, such as drawdown, bottom scour, or alteration of flow patterns. Coastal development which use design processes and fixtures which minimize consumptive water use will be encouraged. Coastal development shall conform with all applicable DEP and, in the Delaware River Area, Delaware River Basin Commission, requirements for surface water diversions.

(c) Rationale

The surface waters of the New Jersey coastal zone are an invaluable natural resource. Fresh waters maintain the propagation of established and natural biota. They serve as commercial, recreational, industrial, agricultural, and aesthetic resources. Any development that affects surface water quantity and quality will have a negative impact on these uses.

7:7E-8.6 Groundwater Use

(a) Definition

Groundwater is all water within the soil and subsurface strata that is not at the surface of the land. It includes water that is within the earth that supplies wells and springs.

(b) Policy

Coastal development shall demonstrate, to the maximum extent practicable, that the anticipated groundwater withdrawal demand of the development will not cause salinity intrusions into the groundwaters of the zone, will not degrade groundwater quality, will not significantly lower the water table or piezometric surface, or significantly decrease the base flow of adjacent water courses. Groundwater withdrawals shall not exceed the aquifer's safe yield.

Coastal developments which use design, processes and fixtures which minimize consumptive water use are encouraged. Development plans are also encouraged to incorporate aquifer recharge techniques.

Coastal development shall conform with all applicable DEP and, in the Delaware River Area, Delaware River Basin Commission, requirements for groundwater withdrawal and water diversion rights.

(c) Rationale

Groundwater is a primary source of water for drinking and industrial use. In some areas of the coastal zone, especially areas in Essex, Middlesex, Monmouth, Salem, Camden, and Cape May Counties, excessive amounts of groundwater are being withdrawn. The problem stems from the overpumping of groundwater, industrial, agricultural and municipal landfill leakage into groundwater and reduction of aquifer recharge caused by increased development and population. This has led to a progressive lowering of the water table or piezometric surface, altered groundwater flow patterns, changed groundwater recharge/discharge relationships, is increasing salt water intrusion into the groundwaters, may damage the base flow conditions of streams, and may lead to well closings because of contamination.

7:7E-8.7 Runoff

(a) Definition

Runoff is that portion of precipitation on the land is not absorbed by the soil, but instead runs off to surface water bodies.

(b) Policy

- (i) Coastal development shall use the best available technology to minimize off-site storm water runoff, increase on-site infiltration, simulate natural drainage systems, and minimize offsite discharge of pollutants to ground or surface water and encourage natural filtration functions. Best available technology may include measures such as retention basins, recharge trenches, porous paving and piping, contour terraces, and swale lagoon systems provided such techniques can be demonstrated to satisfy these policies. Provisions for elimination of curbs, reduction of roadway widths, and rooftop recharge basins are strongly encouraged.
- (ii) The goal of runoff control methods shall be to prevent the rate of off-site storm water runoff during the construction and operation of a development under any storm conditions, from exceeding the rate of runoff that would occur under the existing predevelopment conditions of the site. For some sites, with existing predevelopment conditions such as cultivated land, bare earth, or partial paving, the goal of runoff control methods shall be to achieve the runoff standard for good condition pasture land (SCS TR-55 Curve Number 39), which may result in a greater quantity of on-site retention and infiltration than under the existing predevelopment conditions.
- (iii) the off-site stormwater sewers may not discharge into sanitary sewer systems,
- (iv) the amount of pollutants in the stormwater runoff discharge to surface water bodies shall be minimized and the discharge shall satisfy the applicable DEP-established surface water quality standards of the receiving water body using measures such as sediment traps, oil skimmers and vacuum street cleaners. Pollutants of major concern include petrochemicals and heavy metals from vehicle spillage, de-icing salts, aromatic hydrocarbons from blacktop paving, and pesticides, herbicides and fertilizers from lawn and garden areas.
- (v) the volume and quality of stormwater discharged offsite will not cause adverse impacts to the receiving water body, and must conform with the requirements of the DEP Stream Encroachment Permit Program (N.J.S.A. 58:1-26 and rules).
- (vi) Groundwater infiltration areas such as detention ponds or swales shall be sited as far horizontally from surface water and as far vertically from groundwater as is practicable. Infiltration areas are discouraged in soils with a seasonal high water table between 1 1/2 and 3 feet. Limited infiltration swales may be acceptable on a case by case basis provided that:
  - swales in these areas are not the principal infiltration areas and only serve to recharge runoff generated with the area of soils with seasonal high water tables between 1 1/2 and 3 feet.

- maximum swale slopes are 2%.
- time of concentration is maximized by maximizing the length of the swale.
- swales are planted with native woody species at sufficient densities to delay surface water flow and promote evapotranspiration. Infiltration and water retention areas of all kinds are prohibited in soils with a seasonal high water table of 1 1/2 feet or less.

Infiltration areas, detention and retention basins, or any other techniques of delaying runoff are prohibited in soils with a seasonal high water table of 1 1/2 feet or less.

- (vii) In designing the site plan, including detention and retention facilities, the stormwater runoff calculations shall be based on 24 hour storms of 25 years and 100 years frequencies, using standard methods of calculation, such as the so-called "Rational Method" or the SCS Tabular Method of Determining Peak Discharge, as defined in U.S. Department of Agriculture, Soil Conservation Service, Urban Hydrology for Small Watersheds, Technical Release No. 55, January 1975.

(c) Rationale

Stormwater runoff is a natural process of surface hydrology. Development changes this process as the volume and rate of runoff increase as the natural landscape is modified and replaced by impervious surfaces. Unless managed properly, stormwater runoff will adversely affect the coastal environment in several ways: increased erosion, increased storm surges in streams, destruction of flood plain vegetation, degraded water quality from contaminants in runoff from paving, increased turbidity, decreased aquatic productivity, lowered water tables, reduced groundwater quality and supply. The policies anticipate these concerns and treat a development site as a closed system within which drainage systems must be designed to contain runoff and ground and surface water pollution increases within the site in order to minimize offsite impacts. Examples of stormwater runoff management techniques may be found in two source books: J. Tourbier and R. Westmacott, Water Resources Protection Measures in Land Development - A Handbook (Newark, Delaware: University of Delaware, Water Resources Center, April 1974) and New Jersey State Soil Conservation Committee, Standards for Soil Erosion and Sediment Control in New Jersey, Trenton, New Jersey: State Soil Conservation Committee, revised 1975).

7:7E-8.8 Soil Erosion and Sedimentation

(a) Definition

Erosion is the detachment and movement of soil or rock particles by water, wind, ice or gravity, while sedimentation is the action or process of depositing soil or rock particles.

(b) Policy

Coastal development is required to restrict soil loss and control soil erosion and sedimentation during the construction of development to the standards specified in Standards for Soil Erosion and Sediment Control in New Jersey adopted by the State Soil Conservation Committee in 1972, revised in 1975 and any other soil conservation local standards or plans adopted by State Soil Conservation Committee, local Soil Conservation Districts or municipalities pursuant to the Soil Erosion and Sediment Control Act (N.J.S.A. 4:24-39 et seq.).

In addition, development on slopes between 8-15 percent is discouraged, unless:

- (i) limited stabilization structures and measures, such as terracing and paving, are consistent with the natural character of the site, to the maximum extent practicable,
- (ii) The design of the development is compatible with the slope characteristics of the site in visual, physical, and engineering terms,
- (iii) Minimal feasible site disturbance and maximum practicable revegetation take place.

(c) Rationale

Erosion is the detachment and movement of soil or rock particles by water, wind, ice or gravity. Erosion can be significantly increased by human activities including construction practices such as the clearance of vegetation, excavation, grading, and stockpiling, agricultural cultivation and silviculture (timber harvesting).

Erosion and sedimentation cause numerous adverse environmental impacts, such as loss of productive soils, destabilization of slopes, increased flooding due to reduced capacity of storm sewers and natural drainage channels, increased turbidity and siltation of streams, and decreased wetland productivity. By controlling the erosion generated on a site within the site boundary, these adverse impacts are contained and prevented from reaching and affecting coastal waters.

Many techniques are available to control sediment loss, including minimizing the area of soil exposed at one time, baling and contour terracing the edge of construction, mulching and using swale lagoon drainage systems, and building wet and dry detention basins. Other illustrative techniques are found in Standards for Soil Erosion and Sediment Control in New Jersey available from the State Soil Conservation Committee. See also the Special Area Policies on Steep Slopes and Coastal Bluffs.

7:7E-8.9 Vegetation

(a) Definition

Vegetation is the plant life or total plant cover that is found on a specific area, whether indigenous or introduced by humans.

(b) Policy

Coastal development shall preserve, to the maximum extent practicable, existing vegetation within a development site. Coastal development shall plant new vegetation, particularly appropriate native coastal species, to the maximum extent practicable.

(c) Rationale

The steady loss of vegetation is a nearly inevitable result of urbanization. Terrestrial vegetation stabilizes soil, retards erosion and runoff, promotes infiltration of surface water, reduces the force of wind, provides foods, shelter and breeding sites for wildlife, and adds to aesthetic values for recreation and domestic life. Trees release life-giving oxygen, filter particulate pollutants, provide foods and fuel, with no energy input necessary by man. Because each site is unique, the degree of vegetative preservation required will depend upon the environmental conditions within and adjacent to the development site. In general, the greater the intensity of development permitted, the less vegetation preservation required.

"Appropriate native coastal species" means that species selection must reflect the natural physiological limitations of species to survive in distinct habitats, which include all environmental processes (natural and artificial) that operate within a site. Non-suitable species plantings will do poorly or die, or, if preserved through an intensive maintenance program of 'ph' adjustment fertilization and irrigation, will cause unacceptable ground and surface water impacts.

New vegetative plantings should reflect regional geophysical suitability. Illustrative appropriate species can be grouped into three categories:

- (i) Barrier Beach Sites - Plants tolerant of salt spray and occasional saline flooding, such as American holly, red cedar, black cherry, beach plum, beach grass, bayberry, beach heather, etc.
- (ii) Pine Barrens Sites - Plants tolerant of infertile sandy soils, frequent fires, and acidic water, such as pitch and short-leaf pines, Atlantic white-cedar, dogwood, American holly, oaks, blueberry, etc.
- (iii) Inner Coastal Plain and Southern Outer Coastal Plain - Plants compatible with fertile, well drained soils; such as oaks, beach, hickory, dogwood, black cherry, white pine, gray birch, laurel, etc.
- (iv) Piedmont Sites - Oak, hickory, beech, ash, elm, hemlock, dogwood and laurel cherry.

Within these regional groupings, the selection of individual species should take into consideration the depth to seasonal high groundwater table. Species which provide food for wildlife or other desirable traits are favored for new planting.

7:7E-8.10 Important Wildlife Habitat

(a) Definition

Important wildlife habitats are areas of general importance to the maintenance of a range of wildlife species, providing high primary productivity, good mixes of habitat types, surface water, cover, or movement corridors. These areas are not as critical as Critical Wildlife Habitats. If they were depleted the effect on wildlife population would not be as catastrophic as the loss of a Critical Habitat, but serious depletions of wildlife populations would occur. Definitions and maps of Important Wildlife Habitats are currently available from DEP-DCR only for Cape May County. Until additional maps are available, sites will be considered for importance on a case by case basis by the NJDEP Division of Fish, Game and Wildlife.

(b) Policy

- (i) Coastal development which does not incorporate management techniques which minimize disturbance to important wildlife habitats, is discouraged.
- (ii) Development that would significantly restrict the movement of wildlife through the site to adjacent habitats and open space areas is discouraged.

(c) Rationale

Important Wildlife Habitats are areas that provide primary productivity or primary habitat for a wide range of game and non-game species. Depletion of this resource would cause a general population decline of species that are not rare or endangered.

Wildlife is an important natural resource of the coast. Desirable on-site wildlife management techniques which could mitigate adverse impacts, and favor minimal feasible interference include preservation and dedication to open space of sensitive habitats of sufficient width, especially along drainageways and waterways, to preserve wildlife movement corridors, placement of nesting boxes, and planting of vegetative wildlife food species.

7:7E-8.11 Air Quality

(a) Definition

The protection of air resources refers to the attainment of State and federal air quality goals and the prevention of degradation of current levels of air quality.

(b) Policies

Coastal development shall conform to all applicable state and federal emissions regulations, ambient air quality standards, prevention of significant deterioration criteria, nonattainment criteria, any other policies of New Jersey's State Implementation Plan, and other regulations and guidelines established to meet requirements of the federal Clean Air Act as amended in 1977.

(c) Rationale

The attainment and maintenance of high air quality is vital for the health of and welfare of New Jersey's residents and visitors. The federal Clean Air Act Amendments of 1977 require almost all states to develop a State Implementation Plan (SIP) to attain National Ambient Air Quality Standards (NAAQS) for photochemical oxidants.

DEP's Division of Environmental Quality administers the State's air quality program and determines compliance with the coastal policy on air quality.

Furthermore, the federal Coastal Zone Management Act, Section 307(f) requires that the air resource standards of the coastal management program be the local, state and federal policies established in fulfillment of the Clean Air Act and its amendments.

Since the principal source of hydrocarbons and oxides of nitrogen, the precursors of oxidants, is the automobile, the strategies to attain the NAAQS must include, in addition to emission control on vehicles and industrial sources, measures to reduce vehicle miles travelled, by inducing a shift to car pools and other modes of transportation. The Coastal Program policies on transportation address these objectives, as do the policies concerning concentration of development.

Furthermore, new major stationary sources of hydrocarbons will continue to be subject to restrictions, such as the current requirement to offset emissions. Emission tradeoffs may allow for the siting of new facilities in non attainment areas of the coastal zone. The severity of the restrictions will depend on the progress made in reducing emissions during the next decade.

The problem of attainment and maintenance of carbon monoxide NAAQS in urban areas such as Atlantic City and Toms River is one primarily of traffic congestion.

Also, under the Clean Air Act Amendments of 1977, major wilderness areas of over 5,000 acres are mandatory Class I-Prevention of Significant Deterioration (PSD) or Pristine Areas. In New Jersey's Delaware Bay and Atlantic Ocean Shore areas, this designation applies to the wilderness areas of the Brigantine National Wildlife Refuge, and restricts industrial activities within the region that could significantly affect the air quality of the wilderness areas. This may pose conflicts in the future as the pace and intensity of the development of the Atlantic City region increases.

The entire proposed Northern Waterfront and Delaware River areas of the proposed coastal zone violates the NAAQS for carbon monoxide and ozone, and most of the area violates particulate standards. Such widespread nonattainment results from the area's density of residential, commercial and industrial development and the heavy amounts of traffic generated.



The State Implementation Plan does not suggest halting all further development. The Plan outlines policies which will serve to locate and control new development as well as regulate and minimize the emissions of existing pollution sources. Policies which will specifically apply to new development in the areas of the coastal zone which violate the NAAQS are: Emissions Offset, New Source Performance Standards, Prevention of Significant Deterioration for Class II areas, regulations for industrial emissions of particulates and organic substances which contribute to ozone production, and a series of strategies aimed at the control of emissions generated by motor vehicles.

The Prevention of Significant Deterioration (PSD) system allows development to generate incremental amounts of certain pollutants for which the area is in compliance. For the developed areas of the coastal zone, this means that moderate growth generating a limited increase in sulfur dioxide is sanctioned.

The Emissions Offset policy, allowing for emissions tradeoffs between proposed new and existing sources in nonattainment areas, can also be called upon to allow development that might not otherwise be permitted. Finally, a variance system exists which allows the Administrator of the EPA to waive requirements if it is determined that the State is making progress in achieving the NAAQS and other federal-mandated requirements.

#### 7:7E-8.12 Public Services

##### (a) Definition

Public services include a variety of essential facilities provided by either public or private institutions. Health, education, welfare, fire, police and community facilities are principal examples. Others such as child care and home services for the elderly may be important for certain developments.

##### (b) Policy

Coastal development shall insure, to the maximum extent practicable, that adequate levels of public services will be provided to meet the additional demands for public services likely to be generated by the proposed development.

##### (c) Rationale

New development places additional demands on public services. Unless the existing supply can satisfy these demands or extensions to the supply can be available when development is complete, the deficiencies may adversely affect the health, safety, or welfare of the proposed new users.

In coastal areas there are special problems associated with the high seasonal population fluctuation and the relatively high percentage of senior citizens who typically make greater demands on health services. These coastal issues make the demonstration of adequate service supply during peak demand periods an especially critical issue.

7:7E-8.13 Public Access to the Shorefront

(a) Definition

Public access to the shorefront is the ability of all members of the community at large to pass physically and visually to, from and along the ocean shore and other waterfronts.

(b) Policy

Coastal development adjacent to all coastal waters, including both natural and built-up waterfront areas, shall provide perpendicular and linear access to the waterfront to the maximum extent practicable, including both visual and physical access. Shorefront development that limits public access and the diversity of shorefront experiences is discouraged.

All development adjacent to water shall, to the maximum extent practicable, provide, within its site boundary, a linear waterfront strip accessible to the public. If there is a linear waterfront path on either side of the site, and the use, due to operation or security reasons, cannot allow continuation of passage along the water's edge, a pathway around the site must be designed that connects to the other parts, or potential parts of the waterfront path system in adjacent parcels.

Municipalities or private development that do not currently provide, or have active plans to provide, access to the water will not be eligible for Green Acres or Shore Protection Bond funding.

(c) Rationale

New Jersey's coastal waters and adjacent shorelands are valuable public resources which are limited in area. They are protected by New Jersey's Shore Protection and Waterway Maintenance Program and patrolled by the New Jersey Marine Police which are both financed by all State residents. Past developments have often blocked the waters from public view and/or made physical access to the waterfront difficult or impossible. In addition, some municipalities which own land immediately inland of the state-owned riparian land have enacted laws or regulations making waterfront access inconvenient, expensive or impossible for non-residents. These policies have served to limit the opportunity of inland residents for waterfront recreational activities.

Projects such as the experimental Beach Shuttle, funded by DEP each summer since 1977, to Island Beach State Park from Toms River serve to carry out the policy of providing maximum practical public access to the shorefront.

The basis for the Shorefront Access policy came in part from the research in the report entitled Public Access to the Oceanfront Beaches: A Report to the Governor and the Legislature of New Jersey, April 1977, prepared in part by DEP-OCZM.

The developed waterfront, due to its past industrial utilization, has been closed to the people that live adjacent to the waterfront. DEP intends to promote a horizontal network of open space at the water which could be visualized as a narrow strip used for walking, jogging, bicycling, sitting, or viewing, which is continuous, even if the path must detour around existing or proposed industry due to security needs or the lack of pre-existing access. The path or strip will connect future and existing waterfront parks, open space areas, and commercial activities. The goal of this policy is the piecing together of a system that will provide continuous linkages and access along the entire waterfront.

#### 7:7E-8.14 Scenic Resources and Design

##### (a) Definition

Scenic resources include the view of the natural and/or man made landscape, while design is defined as the elements that compose the man-made landscape such as structures, including their geometry, texture and color.

##### (b) Policy

New coastal development that is visually compatible, in terms of scale, height, materials, color, texture, and geometry of building and site design, with surrounding development and coastal resources, to the maximum extent practicable, is encouraged. Coastal development that is significantly different in design and visual impact than existing development or adversely affects the scenic resources of the region is discouraged, unless the new development upgrades the scenic and aesthetic resources of a site and its region.

##### (c) Rationale

Inappropriate design that ignores the coastal landscape and existing patterns and scale of development can degrade the visual environment and appearance of communities. New Jersey's coastal regions have strong architectural traditions which should be encouraged. The visual quality of diverse coastal locations is essential to maintaining a "sense of place".

#### 7:7E-8.15 Buffers and Compatibility of Uses

##### (a) Definition

Buffers are natural or man made areas, structures, or objects that serve to separate distinct uses or areas. Compatibility of uses is the ability for uses to exist together without aesthetic or functional conflicts.

##### (b) Policy

Development shall be compatible with adjacent land and water types, as defined in the Location Policies, to the maximum extent practicable.

Development that is likely to adversely affect adjacent areas, particularly Special Areas (7:7E-3.1 through 7:7E-3.41), is discouraged unless an adequate buffer is provided. The purpose, width and type of the required buffer shall vary depending upon the type and degree of impact and the type of adjacent area to be affected by the development, and shall be determined on a case-by-case basis.

Developments that are incompatible with adjacent residential development shall provide vegetated and other types of buffers at the site boundary of sufficient width to reduce the incompatibility, to the maximum extent practicable.

(c) Rationale

The juxtaposition of different uses may cause various problems. One activity may cause people to experience noise, dust, fumes, odors, or other undesirable effects. The most common incompatibility of this type in the Bay and Ocean Shore Segment are housing developments adjacent to industry, high speed roads or railroads. The juxtapositions of very different housing densities or of housing and agriculture also have potential for conflict. Vegetated buffer areas between uses can overcome, or at least ameliorate, many of these problems, especially if earth berms are included. Buffers can benefit users of both areas. Where farms operate near a residential area, for example, a buffer can protect the residents from the noise and smells of farming, while protecting the farmers from local regulations controlling the hours in which machinery can be used.

Buffers serve several important functions, including maintenance of wildlife habitats, water purification, open space and recreation, and control of runoff. Buffers may include fences, landscaped berms, and vegetated natural areas.

7:7E-8.16 Solid Waste

(a) Definition

"Solid Waste" shall mean garbage, refuse, and other discarded materials from industrial, commercial and agricultural operations and from domestic and community activities, and shall include all other waste materials including liquids except for liquids which are treated in public sewage treatment plants and except for solid animal and vegetable wastes collected by swine producers licensed by the State Department of Agriculture to collect, prepare and feed such wastes to swine on their own farms (N.J.S.A. 13:1E-1 et seq.).

(b) Policy

Coastal development shall recover material and energy from solid waste, to the maximum extent practicable, as required by the New Jersey Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.) and the federal Resource Conservation and Recovery Act (P.L. 94-580). If resource and energy recovery are impractical, solid waste, including litter, trash, refuse, and demolition debris shall be handled and disposed of in a manner acceptable to the standards of DEP's Solid Waste Administration.

(c) Rationale

Solid waste is a valuable resource to be recovered and managed on a district-wide basis. The review of individual projects in terms of solid waste will consider the waste type and volume expected, disposal method employed, and effects on disposal sites.

The recycling of materials from the waste stream:

- reduces energy used in the industrial process,
- conserves landfill space,
- provides material feedstock for local industries,
- provides a domestic source of energy or fuels, and
- provides a local source of jobs, taxes, and profits.

Recyclable materials can replace scarce or imported resources such as bauxite, iron ore, zinc, soda ash, and oil in the production of new materials or energy. The markets for such resources exist in the State. Recycling is an energy-efficient, environmentally sound, and economically viable industry for the State of New Jersey.

7:7E-8.17 Energy Conservation

(a) Definition

Energy Conservation is the use of techniques which minimize the amount of energy used by a facility and maximize the productivity of the energy that is used.

(b) Policy

Coastal development shall incorporate energy conservation techniques and alternative sources of energy, including passive and active solar power and wind turbines, to the maximum extent practicable.

The technical and economic feasibility of employing such measures shall be evaluated in an energy plan prepared by the applicant. The plan shall specify the energy conservation techniques and alternative sources of energy to be utilized as well as anticipated energy requirements for space heating, cooling, ventilation and lighting, industrial processes and other uses.

(c) Rationale

This policy assists the Department of Energy and Community Affairs in implementing New Jersey's Energy Conservation Plan, State Energy Master Plan, and the energy subcode of the Uniform Construction Code (N.J.S.A. 52:27D-119 et seq.). New Jersey's 1977 Energy Conservation Plan administered by the New Jersey Department of Energy derives from the federal Energy Policy and Conservation Act of 1975. The plan contains 22 measures to reduce the state's energy use by 6% by 1980. The measures include thermal and lighting efficiency standards, provision of car and van pools, and waste oil recycling. These measures are intended to save New Jersey approximately 110 trillion British Thermal Units annually (or

the equivalent of 5,000 barrels a day). The Department of Community Affairs is responsible for the implementation of the energy subcode of the state building code. Possible energy conservation techniques include the siting of buildings with an understanding of the micro-climate conditions of a site, use of clustering, provision of bicycle paths, and the location of housing close to public transportation.

7:7E-8.18 Neighborhoods and Special Communities

(a) Definition

Neighborhoods, small towns, and communities are discrete districts and areas with a degree of social stability as well as special architectural, ethnic, cultural, aesthetic, or historical qualities that distinguish these places from other areas along the coast.

(b) Policy

Coastal development that protects and enhances the physical coherence in neighborhoods and special communities is encouraged. Development that would adversely affect neighborhoods and special communities is discouraged.

(c) Rationale

The diversity of the coast is in part due to the existence and vitality of various small towns, communities, and neighborhoods within larger urban areas. These neighborhoods that display a strong sense of community should be valued, reinforced, and preserved.

7:7E-8.19 Traffic

(a) Definition

Traffic is the movement of vehicles, pedestrians and ships along a route.

(b) Policy

Coastal development that induces marine and/or land traffic is conditionally acceptable provided that it does not cause unacceptable congestion and safety problems.

(c) Rationale

The improper location of development may exacerbate existing traffic problems or produce new difficulties in the marine and/or land traffic system. Coastal development should be designed and located in a manner to cause the least possible disturbance to traffic systems, or be rejected.

7:7E-8.20 High Permeability Moist Soils

(a) Definition

High Permeability Moist Soils are soils contiguous with stream channels with a depth to seasonal high water table less than or equal to five feet, and with a loamy sand or coarser soil, as indicated in National Cooperative Soil Surveys prepared by the U.S. Department of Agriculture, Soil Conservation Service. These soils are distinguished from the High Permeability Wet Soils, with a depth to seasonal high water table less than or equal to three feet, which are discussed in the Location Policies.

(b) Policy

Coastal development shall avoid filling, building, paving, disturbing soil, or discharging effluent to groundwater on High Permeability Moist Soils, to the maximum extent practicable. In particular, coastal development shall be designed such that onsite roads, parking lots, structures, subsurface sewage disposal areas, and discharge basins avoid High Permeability Moist Soils, particularly in the proximity of surface water bodies and wells. Development that is determined by DEP to be acceptable in these areas shall conform to the Wet Soils policy (7:7E-8.21).

(c) Rationale

Soils with shallow seasonal high water tables and sandy or gravelly textures facilitate percolation, the vertical and horizontal movement of groundwater. Coarse sediments, however, have a limited capacity to trap and filter contaminants. Further, the high lateral transmissibility along the top of shallow seasonal high water tables aggravates the problems of water borne pollutants eventually reaching surface water bodies or wells. New Jersey's standards for subsurface sewage disposal systems (so-called Chapter 199, N.J.A.C. 7:9-2.1 et seq.) recognize this concern by requiring that the bottom of the trench or bed of disposal fields be at least four feet above the seasonal high groundwater table.

7:7E-8.21 Wet Soils

(a) Definition

Wet soils are soils with a depth to seasonal high water table less than, or equal to, three feet, as delineated by the U.S. Soil Conservation Service in a National Cooperative Soil Survey.

(b) Policy

Development in wet soils is discouraged unless the following conditions are met:

- (i) Basements are prohibited.

- (ii) Effective engineering techniques are used to ensure the stability of foundations and protect them from movement, including excavating organic substrates and backfilling with less compressible sediments, short-bore piles, special footings and floating slabs. Techniques that minimize interference with natural ground and surface water movement, such as short-bore pile and suspended slab techniques, are encouraged.
- (iii) The air spaces beneath ground floor slabs are adequately ventilated, using mechanical ventilation, if necessary.
- (iv) The stability of roads and paved areas assured, using techniques such as removal of compressible sediments and replacement with a firmer substrate and thicker than normal road base.
- (v) Subsurface pipes are stable and waterproofed to avoid contamination of groundwater, using dewatering of trenches during construction, extra pipe base thickness, waterproof gaskets, sealed joints and other techniques as necessary.
- (vi) Porous concrete is prohibited, although other porous pavements such as lattice concrete or gravel are acceptable.
- (vii) The lowering of the water table by pumping that would disturb adapted vegetation is prohibited.
- (viii) Detention basins, swales and other runoff retention and groundwater recharge areas are discouraged in soils with a seasonal high water table between 1 1/2 feet and 3 feet, although limited swales may be acceptable on a case by case basis (see 7:7E-8.7). Runoff retention and groundwater recharge areas are prohibited in soils with a seasonal high water table of 1 1/2 feet or less.

7:7E-8.22 Fertile Soils

(a) Definition

Fertile soils are soils that have Agricultural Capability Ratings, as defined by the U.S. Department of Agriculture, Soil Conservation Service in the National Cooperative Soil Surveys of I, II, IIIe and a K value of less than 0.20, and IIIw if well drained, or Woodland Suitability Rating of 1.

(b) Policy

Location Policies restrict development in Farmland Conservation Areas. Elsewhere, coastal development shall avoid disturbing fertile soils, to the maximum extent practicable, and shall carefully remove, stockpile and reuse the topsoil when onsite fertile soils cannot be preserved.

(c) Rationale

Fertile soils are the product of millenia of soil forming processes and, once paved, are iraperably lost. The Farm Conservation Special Area policy preserves large contiguous acreages of fertile soils for commercial production of food and fiber, but smaller areas of fertile soils in



the open spaces between development are a natural resource of considerable value. The landscaping of development is promoted by fertile soils but, more importantly, the preservation of fertile soils near development offers the opportunity of home gardens. Applicants shall show the distribution of fertile soils relative to proposed structures and paving in site plans. If these development elements are shown on fertile soils, applicants shall demonstrate why alternative positions are not feasible.

#### 7:7E-8.23 Flood Hazard Areas

##### (a) Definition

Flood Hazard Areas around rivers, creeks and streams are being delineated by DEP under the Flood Hazard Area Control Act (N.J.S.A. 58:16A-50 et seq.), and by the Federal Emergency Management Agency. The Flood Hazard Area Control Act mandates DEP to "delineate as flood hazard areas, areas as in the judgment of the Department, the improper development and use of which would constitute a threat to the safety, health and general welfare from flooding" (N.J.S.A. 58:16A-52). Where Flood Hazard Areas have been delineated by both DEP and FEMA, the DEP delineations shall be used.

Flood Hazard Areas around water bodies other than rivers, creeks and streams are delineated only by FEMA. Where Flood Hazard Areas have been delineated by neither FEMA nor DEP, the 10-foot contour line shall be used as the inland boundary of the Floodplain. The seaward boundary shall be the mean high water line.

Floodway is defined as "the channel of natural stream and portions of the flood hazard area adjoining the channel, which are reasonably required to carry and discharge the flood water for flood flow of any natural stream" (N.J.S.A. 58:16A-51). Floodways are being delineated by DEP (see Figure 28).

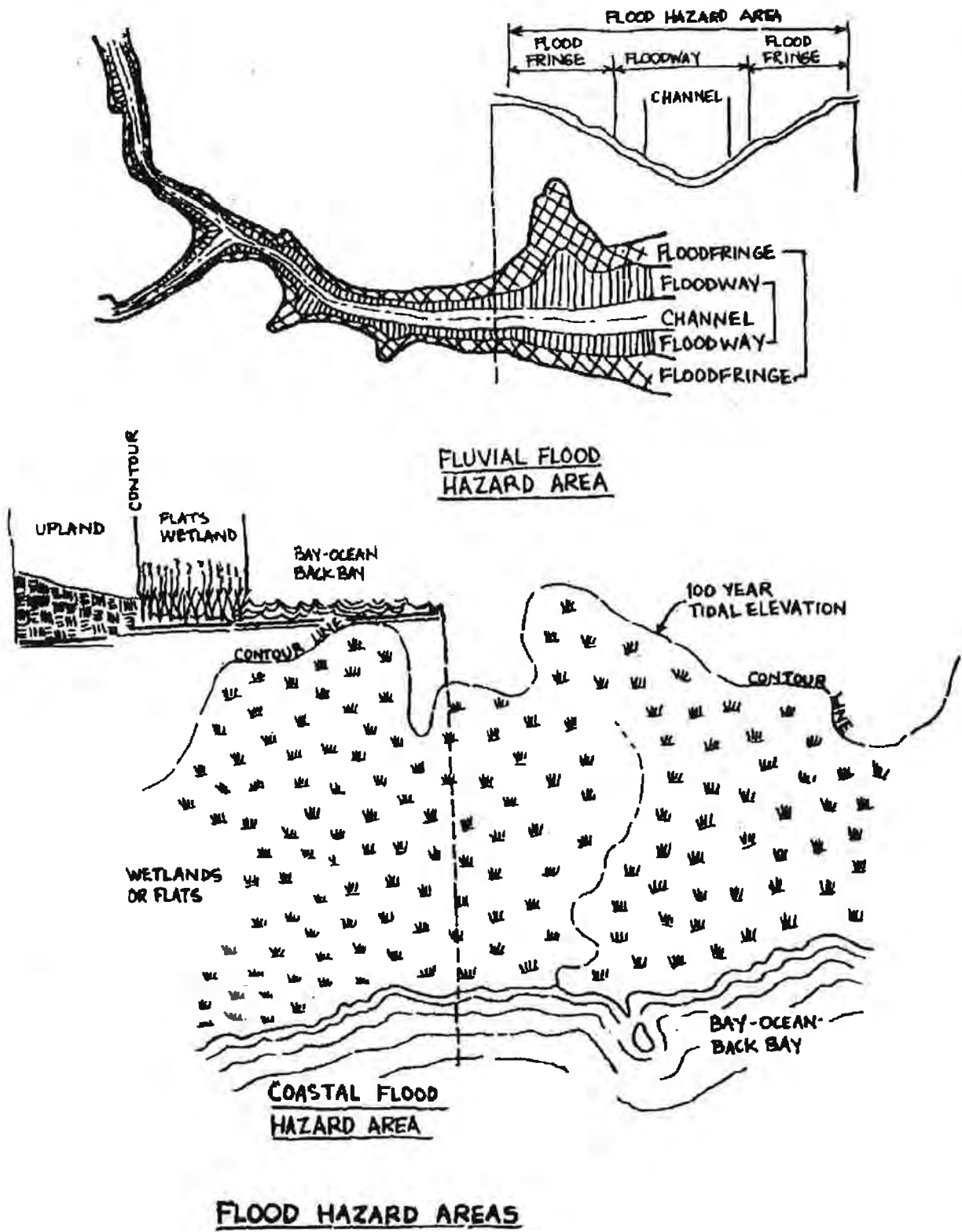
A complete list of streams where DEP had delineated the Flood Hazard Area can be found in the N.J.A.C. 7:13-1.11 et seq.

In the tidal areas, 100 year tidal elevations have been identified for FEMA in most municipalities within the coastal zone by the U.S. Army Corps of Engineers, and are known as the Intermediate Regional Tidal Flood. The geographic extent of tidal flood hazard areas are indicated on USGS topographic maps as "flood prone" areas (there are no floodways in tidal flooding).

##### (b) Policy

- (i) Dedication of undeveloped flood hazard areas for purposes of public open space is encouraged, especially where such areas are designated to the New Jersey Wild and Scenic Rivers System.
- (ii) Certain land uses are prohibited, under State Flood Plain law and rules, in the floodway portion of fluvial flood hazard areas, including uses such as placing, depositing or dumping solid wastes on the delineated floodways; processing, storing or disposal of pesticides, domestic or industrial wastes, radioactive materials,

Figure 28



petroleum products or hazardous materials; erection of structures for occupancy by humans or livestock or kennels for boarding of domestic pets; storage of materials or equipment or construction of septic tanks for residential or commercial use (see N.J.A.C. 7:13-1.2 et seq.). Not affected by this policy are hazard-free activities such as recreation, agriculture, soil conservation projects and similar uses which are not likely to cause obstructions, undue pollution, or intensify flooding. According to N.J.A.C. 7:13-1.4(c), any lawful, pre-existing prohibited uses may be maintained in a delineated floodway provided, that if expanded or enlarged, they do not increase the flood damage potential. Property owners in delineated floodways may rebuild damaged structures, providing that any expansion or enlargement will not increase the flood damage potential.

- (iii) Most land uses are also regulated, under State Flood Hazard Areas Control law and rules, in the flood fringe. Structures for occupancy by humans are conditionally acceptable provided that: the first habitable elevation is one foot above the 100 year flood prone line established by HUD Flood Insurance Maps, and the structure will not increase flood damage potential, by obstructing flood waters.
- (iv) Construction acceptable in flood hazard areas must conform with applicable flood hazard reduction standards, as adopted by the Federal Insurance Administration in HUD (Federal Register, Vol. 41, No. 207, Part II, October 26, 1976), as amended.
- (v) In river areas designated as components of the New Jersey Wild and Scenic Rivers System, land uses are regulated or prohibited in accordance with N.J.A.C. 7:38-1.1 et seq. including special regulations adopted for a particular river, or sections thereof, upon designation to the system.

(c) Rationale

Past development of lands susceptible to flooding in New Jersey has led to flood damages, with sometimes tragic social, economic and ecological consequences. Intensive development of Flood Hazard Areas leads to increased runoff, reduction in flood storage capacity, increased size and frequency of downstream flooding, erosion of stream banks and downstream deposition of sediments with consequent reduction in estuarine productivity. Flood plains serve as important wildlife habitat for endangered and threatened species, game and fur-bearing species, and rare species of vegetation. Flood Hazard Areas can also be key elements in the creation of stream corridor-oriented open space, hiking or cycling trails, and passive recreation areas.

7:7E-8.24 Decommissioning of Projects

(a) Definition

Decommissioning is the shutdown of a development and the return of the site to a state suitable for future use.

(b) Policy

Coastal development applications must state the anticipated life of the proposed project and address the steps necessary to adapt the site to another use once the proposed project is no longer functional. Development proposals in which the applicant takes the long-term responsibility for making the site available for another use are encouraged.

(c) Rationale

The coast, particularly in urban areas, is littered with the remains of projects which outlived their usefulness and were abandoned. These derelict piers, deserted warehouses and crumbling buildings depress the immediate surrounding areas and make more difficult the task of rehabilitating the urban waterfront.

This policy is intended to make the long-term future use of a site one of the factors considered when evaluating a current proposal. Applicants should bear at least some of the responsibility for insuring that their use of a site does not eventually render it a hazard to health or the local or regional economy.

7:7E-8.25 Noise Abatement

(a) Definition

Noise is any sound of such level to be injurious to human health or welfare, or which would unreasonably interfere with the enjoyment of life or property throughout the State or in any portion thereof, but excludes noise emanating from residential structures and all aspects of the employer-employee relationship concerning health and safety hazards within the confines of a place of employment (N.J.S.A. 13:1G-3).

(b) Policy

Noise levels must conform with the standards established in N.J.A.C. 7:29-1.1 et seq. and administered by the Office of Noise Control in the Division of Environmental Quality.

(c) Rationale

Noise can be detrimental to the health, safety and welfare of people who live or work in the coastal zone. It can also diminish the enjoyment of people who visit the coast.

7:7E-8.26 Barrier Free Design

(a) Definition

Barrier free design is a plan for a project which would permit a handicapped person to operate independently with comparative ease.

(b) Policy

All development without barrier free design in public areas is prohibited, and multi-family residential developments of more than 250 units without barrier free design in some of the units are discouraged. Further, barrier free design must be included in all buildings and spaces used by the general public according to State Law (N.J.S.A. 52:32-1 and 52:32-5). Barrier free design is encouraged in units of private residential developments. All curb ramping, sidewalks, and grade changes on public property or on private property for public use shall be constructed or reconstructed according to State Law (N.J.S.A. 52:32-14 et seq.) and pursuant standards promulgated by the Department of Transportation.

(c) Rationale

Activities in the coastal zone should be available to all people, including those whose physical handicaps have precluded such accommodation in the past. "Barrier Free Design Regulation", published by the State of New Jersey, Department of the Treasury, Division of Building and Construction on July 15, 1977, defines the barrier free design requirements of public buildings. Design standards for curb ramps for the physically handicapped were published by the Department of Transportation July 19, 1976 and revised July 18, 1977.

Chapter 5: Special Requirements of the  
federal Coastal Zone Management Act

Chapter 6: Next Steps in Coastal Management in  
New Jersey



CHAPTER FIVE - SPECIAL REQUIREMENTS OF THE FEDERAL COASTAL ZONE MANAGEMENT ACT

- Introduction
- Federal Consistency
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INTRODUCTION

This Chapter addresses the special federal requirements which must be part of a state's coastal management program under the federal Coastal Zone Management Act. The Chapter describes the involvement and consideration of national interests in the development and implementation of the program. It discusses the process of assuring that federal actions are consistent with the Coastal Program to the maximum extent practicable. It then describes how various conflicts between the national interests are balanced in the program and the process to assure adequate consideration of such issues. In addition, this Chapter describes how the New Jersey Coastal Program ensures that uses of regional benefit are not excluded from the coastal zone.

Because some areas in the coastal zone have significant coastal value or face exceptional environmental pressures, they demand special management attention. This chapter describes the areas New Jersey has designated to receive special management consideration as geographic areas of particular concern, including the Hackensack Meadowlands Development Commission District, and areas for preservation or restoration.

In addition, this chapter includes the three special coastal planning elements the 1976 amendments to the Federal Coastal Zone Management Act mandate be included in each State's coastal program. The special planning processes are the energy facility planning process, the shorefront access and protection planning process, and the shoreline erosion/mitigation planning process.

## FEDERAL CONSISTENCY

Federal agencies play a significant role in the coastal zone. They issue permits and licenses for activities such as dredging and the construction and operation of nuclear power plants, as well as activities associated with exploration and development of the Outer Continental Shelf. They also provide financial assistance such as grants for watershed protection and flood prevention, and undertake direct activities and development projects such as national parks and highway construction.

The federal consistency provisions of the Coastal Zone Management Act, Section 307(c)(1) and (2), require that federal activities and development projects in or directly affecting the coastal zone be consistent (in some cases to the maximum extent practicable) with the State Coastal Zone Management Program. Section 307(c)(3)(A), 307(c)(B) and 307(d) require federally licensed and permitted activities, federally licensed and permitted activities described in detail in OCS plans and Federal assistance to State and local governments to be consistent with the State coastal program.

New Jersey will use the goals, objectives and policies of the New Jersey Coastal Management Program as the basis for making consistency determinations. Specifically, New Jersey will consider a federal action consistent if it does not conflict with the Coastal Resource and Development Policies as stated in Chapter Four.

### General Procedural Requirements

The Federal consistency requirements outlined in this chapter describe the procedures that will be followed by DEP's Division of Coastal Resources in determining the consistency of federal activities with the Coastal Management Program. These procedures incorporate the mandatory requirements of the federal consistency regulations (15 CFR Part 530) into a review process that is modelled on existing state permit review processes.

In most cases, an activity subject to the requirements of Section 307 of the Federal CZMA will also require a coastal permit. Consistency for these activities may be demonstrated by receipt of an approved State coastal permit (either a CAFRA, Waterfront Development or Wetlands Permit).

The appropriate state permit application should, therefore, be submitted to DEP prior to or concurrent with the submission to the Federal licensing or permitting agency initiating the Federal review process. Should the Division of Coastal Resources receive a consistency certification for an activity which requires a state permit but for which no application has been submitted, the agency or person proposing to conduct the activity shall be advised that such a permit is required. Such activities will thereafter be reviewed under the State's regulatory authority, and not under Section 307. The Division shall issue, within the time limit relevant to the category of federal activity, a determination stating that the decision to grant or deny the State coastal permit shall constitute a consistency determination. Review of applications for State coastal permits will follow the relevant State procedures.



Activities which would directly affect the coastal zone but are not regulated by a state permit program, activities on federal lands having "spillover impacts" on the coastal zone (see discussion of geographic scope below) and activities described in OCS plans will require reviews independent of any existing permit program.

#### Geographic Scope

The geographic scope of the consistency review process includes the entire coastal zone and, in some cases, areas outside the coastal boundary. Federal lands within the boundary are excluded from the coastal zone, and are not ordinarily subject to a consistency review. Activities on Federal lands and on other lands outside the zone are subject to consistency review if it is found that they may directly affect the coastal zone (15 CFR 930.33c). Whether these "spillover effects" will have such an impact will depend generally on the type of activity to be conducted, its magnitude, and its proximity to the coastal zone. Persons proposing to conduct an activity with potential spillover impacts should consult with the Division of Coastal Resources early in the planning process in order to avoid later problems.

There are certain geographic areas outside the coastal zone in which activities are likely to have direct and predictable impacts on the coastal zone. Any activity in a riverine area upstream of the coastal zone which reduces or otherwise alters flow, for example, is likely to directly affect downstream areas. This is particularly true where the water body is directly affected by the activity, as with damming, dredging, filling, or construction within the natural high water mark. If the affected downstream areas encompass Wetlands, Floodplains, or any of the other Special Areas listed in the Rules on Coastal Resource and Development Policies then it may be assumed that such activities will directly affect the coastal zone.

#### Contents of a Consistency Determination or Certification

Federal activities that require a coastal permit are subject to the information requirements of the particular permit program.

When reviewing activities that do not require a coastal permit (e.g. activities directly affecting the coastal zone but not regulated by the state, activities on federal lands and OCS activities), DEP will attempt to base its decision on the document or documents required for compliance with Federal laws and regulations.

Notice of the receipt of Federal consistency determinations, certifications, and notifications, and the subsequent status of each consistency review will be published in the DEP Bulletin in accordance with the 90 Day Construction Permit Rules, N.J.A.C. 7:10-1.6. A free subscription to the DEP Bulletin may be obtained by writing to the New Jersey Department of Environmental Protection, Documents Distribution Center, P. O. Box 1390, Trenton, New Jersey 08625.

In addition, a public hearing will be held in the local area concerned on all projects requiring a CAFRA permit and on major projects requiring a Wetlands or Waterfront Development Permit. A public hearing will also be held in the event of a serious disagreement between DEP and a federal agency concerning a federally licensed or permitted activity described in OCS oil and gas production and development plans.

DEP will work with each Federal agency to provide joint written notices and public hearings on proposals whenever possible.

Both DEP and the New Jersey Department of Energy (DOE) will participate in the decision of the State of New Jersey to issue a determination of consistency on coastal energy facilities. As required by federal regulations (15 CFR 930.18), DEP shall receive, and forward promptly to DOE, all materials necessary for a consistency determination on coastal energy facilities. In the event of a disagreement, the Energy Facility Review Board will be convened to make a recommendation to the Governor, who shall make the final determination within the applicable time limits as required by the federal consistency determination to the appropriate federal agency.

#### Preliminary Conferences

The Federal consistency regulations encourage early consultation and coordination between state and Federal agencies or applicants. An agency or applicant may request a preliminary conference in writing or by telephone, advising DEP that the agency has identified an activity as one requiring, or possibly requiring, a consistency review that it wishes to discuss. This request should come at the earliest possible time and should be addressed to the Federal Coordinator, Bureau of Coastal Planning and Development, Division of Coastal Resources.

Below are lists of federal activities and development projects, federally licensed and permitted activities, federally licensed and permitted activities described in OCS Plans, and federal programs providing assistance to state and local governments likely to occur in, or affect, New Jersey's coastal zone.

#### Direct Federal Activities and Development Projects

Federal activities and development projects which are located in or directly affect the coastal zone must be consistent to the maximum extent practicable with the New Jersey Coastal Management Program. New Jersey will consider an activity consistent to the maximum extent practicable if it does not conflict with the Coastal Resource and Development Policies, unless compliance with New Jersey's program is prohibited based on existing law applicable to the Federal agency's operations.

#### Agencies and Activities Covered By This Section

Direct activities and development projects include the planning, construction, modification, or removal of Federally owned public works, facilities, or structures, including military facilities; the acquisition, utilization or disposal of land and water resources; Federal agency activities requiring a Federal permit; and Federal assistance to entities other than state and local governments.

Examples of activities in New Jersey's coastal zone that were not previously subject to State review are the housing units presently under construction by the Coast Guard on federally-owned land in Cape May (because of their potential spill-over impacts) and the proposed expansion of the Naval Weapons Station, Colts Neck, New Jersey.

The following Federal activities and development projects, when conducted in whole or in part within the coastal zone, are likely to directly affect the coastal zone, and shall be reviewed for consistency.

GENERAL SERVICES ADMINISTRATION - Location and design of proposed government property acquisition and building construction.

- Disposal and transfer of surplus Federal lands.

DEPARTMENT OF DEFENSE

Army Corps of Engineers

- Proposed projects authorization for dredging, channels, breakwaters, other navigation works, erosion control structures, reservoirs, dams, beach nourishment, and other public works projects in the coastal zone or with the potential to impact coastal lands and waters.

Air Force, Army and Navy

- Location, acquisition and design of new or enlarged defense installations. Actions conducted on Federal lands with potential impact on non-Federal coastal lands and waters.

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

- Management of Coal Conversion Program.

- Approval of construction and operation of an interstate natural gas transmission pipeline.

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

- OCS Leases and pre-leasing activities.

Fish and Wildlife Service

- Management of national wildlife refuges and proposed acquisition.

National Park Service

- National Park and seashore management and proposed acquisition.

DEPARTMENT OF TRANSPORTATION

Coast Guard

- Location, acquisition and design of new or enlarged installations.

Materials Transportation Bureau

- Formation and enforcement of minimal federal safety standards for transportation of oil, gas and pipeline facilities.

Federal Highway Administration - Highway construction.

Federally Licensed and Permitted Activities

Applicants for Federal licenses or permits for activities directly affecting the coastal zone or for renewals or amendments to such licenses or permits shall provide DEP with a certification that the proposed activity is consistent with the coastal policies. DEP shall make a determination that the activity is or is not consistent with Coastal Policies within six months of receipt of the certification. Should DEP fail to make a determination within six months, the State's

concurrence with the certification shall be conclusively presumed. Federal agencies may not issue a license or permit if the State objects unless the U.S. Secretary of Commerce finds that a proposal is consistent with the purpose of the Federal CZMA or is necessary in the interest of national security.

New Jersey will consider an activity consistent if it does not conflict with the Coastal Resource and Development Policies.

In approving the New Jersey Coastal Management Program - Bay and Ocean Shore Segment, the Assistant Administrator for Coastal Zone Management, NOAA, made the following finding:

"With respect to any Federal license or permit, the State's review of the application for that license or permit, for Federal consistency purposes, will be limited to the scope of the review of that application as established under State and Federal law."\*

In order to comply with this finding, DEP examined the legislation and regulations governing the Federal regulatory programs listed in this section and found that Federal agencies are required to examine the potential environmental impacts of their actions, regardless of the scope of review established for the particular permit or license involved. These requirements stem from the National Environmental Policy Act of 1969 (NEPA), the Environmental Quality Improvement Act of 1970, the Fish and Wildlife Coordination Act of 1966, Executive Order 11514 (Protection and Enhancement of Environmental Quality), Executive Order 11990 (Wetlands), and Executive Order 11988 (Floodplains).

The fact that every Federal action is assessed for the significance of its impacts on the environment within the meaning of NEPA (including NPDES permits for new point source discharges), and for its impact on floodplains, wetlands, fish, and wildlife means that the issuance of Federal licenses and permits listed in this section, with two exceptions, will be reviewed with reference to the full range of coastal policies contained in Chapter Four. The two exceptions are NPDES permits for existing point source discharges, which are subject only to Resource Policy 7:7E-8.4 (Water Quality); and decisions under prevention of significant deterioration (PSD) regulations of the Clean Air Act, which are subject only to Resource Policy 7:7E-8.11 (Air Quality).

#### Licenses and Permits Covered by this Section

Licenses and permits include any authorization, certification, approval, or other form of permission which a Federal agency is empowered to issue to an applicant, including amendments to or renewals of such permits.

Activities under the following Federal permits and licenses, when conducted by an applicant in whole or in part within the coastal zone, are likely to significantly affect the coastal zone and will be subject to a consistency review:

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\*Findings of Robert W. Knecht, Assistant Administrator for Coastal Zone Management. Approval of the New Jersey Coastal Management Program - Bay and Ocean Shore Segment, September 29, 1978, p. 47.

#### Army Corps of Engineers

Permits to regulate construction of any dam or dike across any navigable water of the U.S. under Section 9 of the Rivers and Harbor Act of 1899.

Permits to regulate the obstruction or alteration of, the construction of any structure in or over, and the excavation from or depositing of material in any navigable water of the U.S. under Section 10 of the Rivers and Harbor Act of 1899. (Exception: placement of bulkheads and other retaining structures, construction of docks, piers and boat ramps, or excavation from or depositing material within a man-made lagoon).

Permits and licenses to regulate transportation of dredged material for the purpose of dumping it in ocean waters under Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972.

Permits and licenses for the discharge of dredged or fill materials into the waters and adjacent wetlands of the United States at specified disposal sites under Section 404 of the Federal Water Pollution Control Act of 1972 and amendments unless such permitting activity has been delegated to the State.

#### Federal Energy Regulatory Commission

Licenses required for non-Federal hydroelectric projects and primary transmission lines under sections 3(11), 4(e), and 15 of the Federal Power Act (16 U.S.C. 796(11), 797(e), and 808).

Orders for interconnection of electric transmission facilities under section 202(b) of the Federal Power Act (16 U.S.C. 824a(b)).

Certificates of public convenience and necessity for the construction and operation of natural gas pipeline facilities including both interstate pipelines and LNG terminal facilities under Section 7(c) of the Natural Gas Act (15 U.S.C. 717f(c)).

Permission and approval for the abandonment of natural gas pipeline facilities under Section 7(b) of the Natural Gas Act (15 U.S.C. 717f(b)).

#### U. S. Coast Guard

Permits for construction and operation of deepwater ports under the Deepwater Port Act of 1974.

Permits for construction of bridges under 33 USC 401, 491, 525.

#### Federal Aviation Administration

Permits and licenses for the construction, operation, or alteration of airports.

Environmental Protection Agency

National Pollutant Discharge Elimination System (NPDES) permits under the Federal Water Pollution Control Act of 1972, unless such permitting authority is delegated to the State.

Decisions under Prevention of Significant Deterioration (PSD) regulations under the Clean Air Act of 1976.

Nuclear Regulatory Commission

Permits and licenses required for the construction and operation of nuclear facilities under the Atomic Energy Act of 1954, Sections 6, 7, 8 and 10.

Economic Regulatory Administration

Opinions and orders for permission for delivery of imported LNG.

Licensed and Permitted Activities Described in OCS Plans

The 1976 Amendments to the Federal Coastal Zone Management Act added Section 307 (c)(3)(B), stating in part that:

"...any person who submits to the Secretary of the Interior any plan for the exploration or development of, or production from any area which has been leased under the Outer Continental Shelf Lands Act ... and regulations under such Act shall attach to such plan a certification that each activity which is described in detail in the plan complies with such state's approved management program and will be carried out in a manner consistent with such program".

The Department of the Interior must supply DEP with a detailed description of all proposed Federally licensed or permitted activities and facilities for OCS activities which significantly affect the coastal zone.

Federal Agencies may not issue a license or permit if the state objects, unless the U.S. Secretary of Commerce finds the proposal meets the objectives of the Federal CZMA or is necessary in the interest of national security.

New Jersey will consider an activity consistent if it does not conflict with the Coastal Resource and Development Policies.

Permits and Licenses Covered by this Section

Any Federally licensed or permitted activity described in any OCS plan for all lease sales on the Outer Continental Shelf of the United States under which New Jersey is identified as an "affected state".

Federal Assistance to State and Local Governments

Federal assistance to state and local governments for projects directly affecting the coastal zone may not be granted until DEP certifies that the activity will be consistent with the New Jersey Coastal Management Program unless the Secretary of Commerce finds that the proposal meets the objectives of the Federal

CZMA or is necessary in the interest of national security. DEP will use the A-95 Project Notification and Review Process to monitor proposed Federal assistance projects in the coastal zone. The State also reserves the right to comment on other Federal assistance projects brought to its attention through the media and other avenues.

New Jersey will consider an activity consistent if it does not conflict with the Coastal Resource and Development Policies.

#### Activities and Agencies Covered by this Section

The term Federal assistance includes grants, contractual arrangements, loans, subsidies, guarantees, insurance, or other forms of financial aid. The term "state or local government" includes public entities such as special purpose districts.

(Note: It is not clear at this time whether Community Development Block Grant and Urban Development Action Grant Program applications fall within the coverage of this section. Such applications often do not provide, nor are they required to provide, a level of detail adequate to enable a consistency determination to be made. DEP, therefore, shall review such applications, but it shall not issue a negative determination for lack of information for these two categories of grant programs. It shall, by letter and by A-95 comment, assess the applicant's consistency with the Coastal Management Program to the fullest extent possible.)

DEP will monitor state and local Federal assistance applications affecting the coastal zone including, but not limited to the following programs (Reference numbers are those used by the Federal Office of Management and Budget). Activities under these grant programs, when conducted in whole or in part in the coastal zone, are likely to significantly affect the coastal zone, and will be reviewed for consistency.

Federal Regulations (15 CFR 930.94) requires that states list the specific Federal assistance programs subject to consistency review in their coastal management programs.

#### Department of Agriculture

Irrigation, Drainage, and Other Soil and Water Conservation Loans (10.409)

Resource Conservation and Development Loans (10.414)

(Exception: small projects costing under \$7500 for erosion and sediment control and land stabilization for rehabilitation and coordination of existing irrigation systems).

Water and Waste Disposal Systems for Rural Communities (10.418)

Watershed Protection and Flood Prevention Loans (10.419)

Community Facilities Loans (10.423)

#### Department of Commerce

Economic Development: Grants and Loans for Public Works and Development Facilities (11.300)

Economic Development: Public Works Impact Projects (11.304)

Grants to States for Supplemental and Basic Funding of Title I, II, and IV Activities (basic grants only) (11.308)

National Oceanic and Atmospheric Administration - See Grants

Department of Energy

State Energy Conservation Program

Department of the Interior

Heritage Conservation and Recreation Service

Outdoor Recreation - Acquisition, Development, and Planning Grants (15.400)

U. S. Fish and Wildlife Service

Rare and Endangered Species Conservation (15.612)

Department of Transportation

Federal Aviation Administration

Airport Development Aid Program (20.102)

Federal Highway Administration

Highway Research, Planning, and Construction (20.205)

Urban Mass Transportation Administration

Urban Mass Transportation Capital Improvement Grants (planning and construction only) (20.500)

Urban Mass Transportation Capital Improvement Loans (planning and construction only) (20.501)

Urban Mass Transportation Demonstration Grants (50.506)

Urban Mass Transportation Capital and Operating Assistance Formula Grants (20.507)

Environmental Protection Agency

Construction Grants for Wastewater Treatment Works (66.418)

(Note: Public water treatment facilities in the Bay and Ocean Shore Segment are subject to CAFRA).



## NATIONAL INTERESTS

The federal Coastal Zone Management Act requires that the State's program provide "for adequate consideration of the national interest involved in planning for, and in the siting of, facilities ... which are necessary to meet requirements which are other than local in nature." [Subsection (306) (c)]

The "national interest" is a collection of the diverse, and occasionally conflicting, interests of the 13 United States departments, councils, and commissions with involvement in the preservation or development of New Jersey coastal lands and waters. To determine and balance the national interests, New Jersey has met with representatives of the federal agencies with responsibilities affecting the coastal zone. The comments of those agencies choosing to submit written statements and comments or testimony at public meetings on New Jersey's evolving coastal program have contributed to New Jersey's understanding of the national interests. Contacts with federal agencies are summarized in Appendix A. In addition to the comments of federal agencies, the New Jersey program used Presidential statements, federal legislation, and federal, state, and interstate agency reports to aid its consideration of the national interests.

The New Jersey program recognizes that national, as well as state, interests and priorities may shift in response to new and/or unforeseen circumstances. Under an approved program, New Jersey will, therefore, continue to seek and evaluate information from the same sources. Changes in the national interests will be reflected in the Coastal Program through administrative action including amendments to the substantive rules and regulations which incorporate the Coastal Resources and Development Policies.

### The Process for Continued Consideration of National Interest Issues

The process for balancing the national interests in the coastal zone will be the employment of the three-step decision-making process of the Location Policies, Use Policies, and Resource Policies described in Chapter Four, which will be used to guide actions in or affecting the coastal zone. These policies provide for wise management of the coastal zone and represent the State's effort to fulfill the federal mandate to give full consideration to ecological, cultural, historic, and aesthetic values as well as to needs for economic development. In so doing, the State has considered its responsibility to fulfill national needs for national defense, energy production and transmission, recreation and transportation. All decisions made under the program will follow the Coastal Resource and Development Policies described in Chapter Four.

An annual review of the Coastal Resource and Development Policies and the coastal permit application procedures described in Chapter Three will serve as the processes for assuring continued consideration of the national interests in the planning for and siting of facilities which are necessary to meet requirements which are other than local in nature.

All of the facilities identified below (national defense, energy production and transmission, recreation and transportation) are of sufficient size to require a coastal permit if they occur on non-federally controlled land. Furthermore, these facilities and any other development which would significantly affect the eleven resources described below as in the national interest, (e.g. water, air, etc.) are required to receive a coastal permit. Although other state permits would

be needed in some resource areas such as flood plains, the coastal permit would cover all these issues and thus has been identified as the single process during implementation of the Coastal Management Program for assuring the continued consideration of identified national interests.

CAFRA and the Wetlands Act state that the Commissioner of DEP "shall issue a permit only if he finds that the proposed facility...is located or constructed so as to neither endanger human life or property nor otherwise impair the public health, safety and welfare." (N.J.S.A. 13:19-10f) The Commissioner has interpreted "public welfare" and the jurisdiction of the State's Waterfront Development Permit Law (N.J.S.A. 12:5-3) to include a full consideration of national interests as described in this program. This interpretation is contained in Chapter Three of this document (Section 1.3.4) which is proposed as amendments to adopted rules. In addition, the Department of Energy will interpret its mandate "... to contribute to the proper siting of energy facilities necessary to serve the public interest ..." (N.J.S.A. 25:27f.2) as sufficient authority to consider the national interest in the siting of coastal energy facilities.

The following have been defined as facilities or resources which may be in the national interest. Greater specificity on the policies described below can be found in Chapter Four.

#### National Defense

National defense is of obvious importance to all states. To define the national interest in national defense, DEP shared reports, received comments from, and met with the designated representatives of the U.S. Air Force, U.S. Navy, U.S. Army, and U.S. Army Corps of Engineers.

The New Jersey Coastal Program excludes from the coastal zone all federally owned or leased lands, where defense operations are concentrated. The Coastal Program will actively consider defense activities only when agencies of the Department of Defense propose to buy additional land or to build new facilities with potential impacts beyond the borders of the federally owned land. The New Jersey program will not question the national security justification for such proposals. Rather, DEP will review the proposal for consistency with the Coastal Program, and will approve it if it can make one of two findings:

1. The proposal is consistent with the Coastal Resource and Development Policies, or
2. The proposed facility is coastal dependent and will be constructed with maximum possible consistency with the Coastal Resource and Development Policies.

In addition, the New Jersey program will seek to involve local Department of Defense representatives in planning the use of lands and waters surrounding military installations. The only current or projected defense activity in the area addressed by the Coastal Program is the possible purchase of land by the U.S. Navy in the vicinity of the Naval Weapons Station, Colts Neck. DEP has reviewed the proposed expansion of this site and has made a determination (in September 1979) that it would be conditionally acceptable under the Department's Rules on Coastal Resource and Development Policies.

### Energy Production and Transmission

In determining the national interest in energy production and transmission, the following plans and federal agencies were consulted:

- The National Energy Plan, April 29, 1977
- U.S. Department of Energy (formerly ERDA and FEA)
- Federal Energy Regulatory Commission (formerly Federal Power Commission)
- Nuclear Regulatory Commission
- U.S. Department of Interior
  - Bureau of Land Management
  - U.S. Geological Survey
- U.S. Department of Transportation
  - U.S. Coast Guard
  - Office of Pipeline Safety
- Department of Defense
  - U.S. Army Corps of Engineers
- Maritime Administration
- Environmental Protection Agency

The most useful articulation of the national interest in energy is found in the National Energy Plan, which has three overriding objectives:

- as an immediate objective that will become even more important in the future, to reduce dependence on foreign oil and vulnerability to supply interruptions;
- in the medium term, to keep U.S. imports sufficiently low to weather the period when world oil production approaches its capacity limitation; and
- in the long term, to have renewable and essentially inexhaustible sources of energy for sustained economic growth. (Plan Overview, page IX)

The salient features of the National Energy Plan are:

- conservation and fuel efficiency,
- national pricing and production policies,
- reasonable certainty and stability in Government policies,
- substitution of abundant energy resources for those in short supply; and
- development of nonconventional technologies for the future (Plan Overview, page IX-X)

The National Energy Plan also notes that its "cornerstones" are "conservation" (page 35 of the Plan). New Jersey's recognition of the need for energy conservation was one factor leading to the second Basic Coastal Policy which states: "Concentrate rather than disperse the pattern of coastal residential, commercial, industrial, and resort-oriented development, and encourage the preservation of open space". Specifically, the Coastal Program encourages the clustering of development within a site, the use of renewable and recoverable sources of energy, mass transportation, and the incorporation of energy conservation techniques into all proposed coastal development in accordance with the Energy Conservation Plan being administered by the N.J. Department of Energy pursuant to the Energy Policy and Conservation Act of 1975.

### Oil and Gas Facilities

New Jersey recognizes its key role in the transportation, transfer, treatment and storage of national oil and gas supplies. In addition, the exploration for crude oil and natural gas in the Baltimore Canyon has presented New Jersey with the prospect of new offshore and onshore OCS related activities. Given the national interest in recreational and resource protection in the coastal zone, pipelines and pumping and compressor stations will be permitted in the entire coastal zone to the extent they can meet existing federal and state requirements. Oil and gas facilities, other than pipelines, are encouraged to locate in the developed areas of the state where the infrastructure and labor market already exist to absorb such activity. The decision to encourage oil and gas facilities including certain OCS related activities in areas of the state which already house many oil and gas production facilities has been reached as a result of weighing the competing and conflicting national interest in recreation and resource protection as called for in the CZMA. A study undertaken for DEP by Rutgers University Center for Coastal and Environmental Studies (Onshore Support Bases for OCS Oil and Gas Development: Implications for New Jersey, 1977) as well as a study done by the Port Authority of New York and New Jersey to identify the New York Harbor's potential for OCS support bases contributed to this decision by indicating that sites which may be acceptable for oil and gas facilities exist along the Raritan Bay and River and the Hudson River.

### Electric Power

The Coastal Program directs additional fossil fueled generating stations away from particularly scenic or natural areas that are important for recreation and open space purposes, and directs that they be built consistent with applicable air and water quality standards. (See Chapter Four, Section 7:7E-7.4(m)).

In considering the national interest in the development of nuclear power, New Jersey finds applicable the rules and regulations promulgated by the Nuclear Regulatory Commission (10 CFR 100) which provide firm siting criteria with guidelines to prevent siting of future nuclear plants in densely populated locations, in valuable natural areas, or in potentially hazardous locations.

New Jersey was one of the first states to recognize the potential of nuclear power to meet U. S. energy needs. The State has six operating or fully approved nuclear plants, including the Hope Creek I and II Generating Stations which received a CAFRA permit from DEP in 1975. The only other recent application for a nuclear facility filed in New Jersey was a 1974 application to construct two floating plants, which has since been cancelled by the applicant.

The New Jersey Coastal program energy policies considering electric generating stations can be found in Chapter Four, Section 7:7E-7.4(q).

Liquefied Natural Gas - The National Energy Plan contains the following statements applicable to New Jersey:

"Due to its extremely high costs and safety problems, LNG is not a long-term secure substitute for domestic natural gas. It can, however, be an important supply option through the mid-1980s and beyond, until additional gas supplies

may become available...The previous Energy Resources Council guidelines are being replaced with a more flexible policy that sets up no upper limit on LNG imports. Under the new policy, the Federal Government would review each application to import LNG so as to provide for its availability at a reasonable price without undue risks of dependence on foreign supplies. This assessment would take into account the reliability of the selling country, the degree of American dependence such sales would create, the safety conditions associated with any specific installation, and all costs involved." (p. 57)

The New Jersey Coastal Program states that LNG terminals are discouraged unless they are constructed so as to neither unduly endanger human life nor property nor otherwise impair the public health, safety and welfare, and comply with the Coastal Resource and Development Policies. Because the tankering of LNG could pose potential risk to life and property adjacent to New Jersey's waterways which also serve as boundaries with the states of Pennsylvania and Delaware along the Delaware River and the state of New York in the Port of New York and New Jersey, the state considers decisions concerning the siting of LNG terminals to be an interstate matter.

#### Recreation

The New Jersey coast is a national recreational resource. In considering the national interest in recreation, New Jersey reviewed the Nation-wide Outdoor Recreation Plan, the New Jersey State Comprehensive Outdoor Recreation Plan (SCORP), the Land and Water Conservation Fund Act, and the Historic Preservation Act of 1966 as amended. In addition, New Jersey has offered draft coastal documents for review to the National Marine Fisheries Service, Bureau of Outdoor Recreation and its successor Heritage Conservation and Recreation Service, U.S. Fish and Wildlife Service, National Park Service and staff of Gateway National Recreational Area-Sandy Hook, and the Advisory Council on Historic Preservation.

Major objectives of the national interest in recreation are:

- To consider recreation as an equal among competing uses of the coastal region.
- To provide high quality recreational opportunities to all people of the United States, while protecting the coastal environment.
- To increase public recreation in high density areas
- To improve coordination and management of recreation areas.
- To protect existing recreation areas from adverse contiguous uses.
- To accelerate the identification and no-cost transfer of surplus and under-utilized federal property.

New Jersey will consider the recreational potential of a site in each decision under the Coastal Program. The Basic Coastal Policies require each waterfront municipality to provide or plan for at least one waterfront park. Residential, commercial and industrial projects are to be designed to include recreation areas, and public access to the water is to be part of waterfront development, whenever it is feasible. The Policies are consistent with the New Jersey State Comprehensive Outdoor Recreation Plan (SCORP), which was also prepared by DEP.

Recreation is particularly important in New Jersey where tourism is the state's second largest industry. The recreational use of the ocean waterfront has long been recognized, while the use of bay and river waterfront, particularly in urban areas is of growing importance in New Jersey. DEP provides for the national interest in recreation through its ability to acquire and manage state parkland and recreation areas and through the state Green Acres program which makes funds available to local governments for acquisition and development of recreation and open space. The federal government, which owns and operates a public beach and open space area at Gateway National Recreation Area (Sandy Hook), further provides for the national interest in recreation in New Jersey.

#### Transportation and Ports

The need for adequate transportation both to, and within, the coastal zone is an important national interest. To determine the national interest in transportation, and ports, New Jersey consulted the U.S. Department of Transportation, U.S. Coast Guard, Federal Aviation Administration, Federal Highway Administration, Federal Railroad Administration, Urban Mass Transit Administration, Maritime Administration and U.S. Army Corps of Engineers and the regional Port Authorities. The maintenance of existing transportation facilities is unaffected by the New Jersey Coastal Program. New public transportation facilities will be encouraged while additional roads will be permitted only if a need for them is demonstrated and alternative solutions are not feasible. In addition, other types of proposals, such as residential projects and development in Atlantic City, will be evaluated in terms of their potential impact on transportation.

New Jersey's ports also contribute to the national transportation interest. Ports will be encouraged only in established port areas. New facilities will be permitted when there is a clear demonstration of the inadequacy of an existing port. In New Jersey, the existing ports contain unused and under-used areas which can be refurbished to meet increases in demand. The Coastal Policies nevertheless allow for possible unanticipated future needs for port areas. (See Chapter Four, Sections 7:7E-7.4(i), 7:7E-7.5, 7:7E-7.8 and 7:7E-8.19).

#### Water

The New Jersey Coastal Program has been designed to support the attainment of national water quality goals. New Jersey has considered the national interest in water quality by review of the Clean Water Act, which provides the water resource standards of the Coastal Program and in consultation with the Environmental Protection Agency, Fish and Wildlife Service, National Marine Fisheries Service and the Council on Environmental Quality. In addition, all coastal development must conform with any state certified areawide water quality management (208) plan. These goals, and the other resources in which there is a national interest which follow in this section, are recognized by the first Basic Coastal Policy which states "Protect and enhance the coastal ecosystem", as well as by other more specific policies. Water quality is addressed by the Location Policies on General Water Areas and Special Areas, by Use Policies on Wastewater Treatment, and by Resources Policies on Soil Erosion, Runoff, Ground and Surface Water Use, Water Quality, and Marine Fish and Fisheries. DEP's Division of Coastal Resources has a close working relationship with DEP's Division of Water Resources. The former has responsibility for the Coastal Zone Management Act in New Jersey and the latter administers New Jersey's participation under the Federal Water Pollution Control Act of 1977, as amended (Clean Water Act) and the Safe Drinking water Act (See Chapter Three).

### Air

The New Jersey Coastal Program supports the attainment and maintenance of clean air. The State has considered this national interest through review of the federal Clean Air Act and consultation with the Environmental Protection Agency and the Council on Environmental Quality. A policy on Air in the Resources Policies section of the Coastal Resource and Development Policies requires that all development subject to the Coastal Program must conform with the Clean Air Act, the State Implementation Plan and any other applicable air regulations and standards. DEP's Division of Environmental Quality is responsible for improving and maintaining air quality in New Jersey. (See Chapter Four, Section 7:7E-8.11);

### Wetlands

The New Jersey Coastal Program has considered the national interest in wetlands through review of the President's Executive Order 11990 on Protection of Wetlands of May 24, 1977, Section 404 of the Federal Water Pollution Control Act, and the National Environmental Policy Act, as well as through consultation with the Soil Conservation Service, U.S. Army Corps of Engineers, Fish and Wildlife Service, Environmental Protection Agency, National Marine Fisheries Service, and the Council on Environmental Quality.

The major objectives of the national interest in wetlands are:

- To protect basic values of wetlands as habitat and food sources for waterfowl and aquatic life;
- To protect the functioning of wetlands for flood prevention, storm buffering, water supply, and nutrient exchange, and as a recreational resource.
- To regulate alteration of wetlands and the disposal of dredged materials in U.S. waters and associated wetlands.

The New Jersey Coastal Program addresses the national interest in protection of coastal wetlands through their designation as a Geographic Area of Particular Concern. Wetlands are also addressed in a Use Policy on Housing discouraging lagoon development, a Resource Policy on "Buffers" which states that adjacent development must allow a buffer to protect sensitive areas such as wetlands, and the Location Policy which specifically identifies coastal and freshwater wetlands as areas where development proposals must meet very high standards. The use of New Jersey's Wetlands Act of 1970 in the Coastal Program will allow enforcement of these policies. In New Jersey, considerable wetlands acreage was being lost to development each year until the Wetlands Act was passed. (See Chapter Four, Sections 7:7E-3.23, 7:7E-7.2 and 7:7E-8.15).

### Endangered Flora and Fauna, and Wildlife Refuges and Reserves

New Jersey has addressed the national interest in endangered flora and fauna, and wildlife refuges and reserves by reviewing the Endangered Species Act of 1973, and the Federal Aid to Wildlife Restoration Act of 1938 (Pittman-Robinson), and by seeking the advice and comments of the U.S. Forest Service, Environmental Protection Agency, Fish and Wildlife Service and the Council on Environmental Quality.

The major objectives of the national interest in endangered flora and fauna are:

- To provide a means whereby the ecosystems upon which endangered and threatened species depend may be conserved.
- To provide a program for the conservation of such endangered and threatened species.
- To take steps as may be appropriate to achieve the purposes of treaties and conventions in which the United States has pledged its support for the worldwide conservation of wild flora and fauna.

The national importance of wildlife is addressed in the Coastal Program by the Special Areas Policies on "White Cedar Stands", "Endangered or Threatened Wildlife or Vegetation Species Habitats" and "Critical Wildlife Habitats" and by Resource Policies on "Vegetation", "Important Wildlife Habitat", and "Buffers" which state that development must protect and preserve vegetation and wildlife by use of buffers and other techniques to the maximum extent practicable. The Coastal Program also discourages development of sites with endangered species. (See Chapter Four, Sections 7:7E-3.33, 7:7E-3.34, 7:7E-8.9, 7:7E-8.10 and 7:7E-8.15) New Jersey has four National Wildlife Refuges located on excluded federal land in the coastal zone. In addition, the State operates several fish and wildlife management areas within the coastal zone.

#### Living Marine Resources

In determining the national interest in living marine resources, the following documents, specific legislation, and agencies were consulted:

- Fishery Conservation and Management Act of 1976.
- A Compilation of Federal Laws relating to Conservation and Development of our Nation's Fish and Wildlife Resources, Environmental Quality, and Oceanography. The Library of Congress, Congressional Research Service. January, 1975.
- Living Coastal Resources; A Marine Fisheries Program for the Nation. U.S. Department of Commerce/NOAA, National Marine Fisheries Service and U.S. Department of Interior, Fish and Wildlife Service; July, 1976.
- U.S. Fish and Wildlife Service.
- U.S. Army Corps of Engineers
- National Marine Fisheries Service
- Marine Mammal Commission

The major objectives of the national interest in living marine resources are expressed as follows:

- To conserve, enhance and manage in a rational manner commercial fishing which constitutes a major source of employment and contributes significantly to the food supply, economy and health of the nation.
- To strengthen the contribution of marine resources to recreation and other social needs.
- To develop and protect all species of wildlife and their habitat, and to control losses by damage to habitat areas through coordination with other features of water resource development programs.



The key features of the national interest in living marine resources are, therefore:

- emphasis on commercial fisheries
- relationship of marine resources to recreation
- protection of marine resources
- protection of wildlife habitat

The Coastal Program addresses these issues in the Location Policies and Resource Policies in Chapter Four. Development will be discouraged in shellfish beds, submerged vegetation, surf clam areas, navigation channels, finfish migration pathways, and prime fishing areas. In addition, development will be required to cause minimal feasible interference with marine fish and fisheries. In addition to continuing coordination with the appropriate federal agencies, DEP is working with NOAA to identify and plan for the management of marine sanctuaries in the state.

#### Floodplain and Erosion Hazard Areas

New Jersey has considered the national interest in floodplains and erosion hazard areas through review of the Flood Disaster Protection Act (P.L. 93-234), National Flood Insurance Act of 1968 and the President's Executive Order of May 24, 1977 on Floodplain Management, and through consultation with the Federal Insurance Administration, U.S. Army Corps of Engineers, U.S. Geological Survey, Federal Disaster Assistance Administration, National Heritage Program and the Soil Conservation Service. The major objectives of the national interest in these areas is to avoid the long and short term adverse impacts associated with the occupancy and modification of floodplains and high risk erosion areas.

The national interest in flood control is reflected in the Coastal Program's designation of floodplains as a Special Area in the Location Policies in Chapter Four, Section 7:7E-3.19. Floodplain protection is also addressed by the Resource Policy on Flood Hazard Areas. (See Chapter Four, Section 7:7E-8.23) Development in High Risk Beach Erosion Areas is addressed in Chapter Four, Section 7:7E-3.21.

#### Barrier Islands

The national interest in barrier islands was considered through consultation of the same sources noted under "Floodplain and Erosion Hazard Areas" as well as participation in the efforts of the national Barrier Island Task Force. This national interest is directly reflected in the Coastal Program through the Special Areas designated as the Beach and Dune System and the Central Barrier Island Corridor which restrict or prohibit major development, and through the Use Policy on "Coastal Engineering" which gives preference to non-structural over structural approaches to shore protection. The protection of barrier islands is particularly crucial in New Jersey after the damaging winter storms of 1977-78. (See Chapter Four, Sections 7:7E-3.21, 7:7E-3.22, and 7:7E-7.11)

#### Historic Sites and Districts and Areas of Unique Cultural Significance

The national interest in historic sites and districts and areas of unique cultural significance, including shipwrecks, was considered through review of the Archaeological and Historical Preservation Act of 1974 (P.L. 93-291) and National Historic Preservation Act of 1966, and consultation with the National Park Service, the Heritage Conservation and Recreation Service and the Advisory Council on Historic Preservation.

The major objectives of the national, state and local interests in archaeological historic sites and districts are:

- To afford protection from adverse impacts to designated historic and archaeological sites.
- To consider cultural resources in assessing the environmental impacts of proposed activities.

The New Jersey Coastal Program recognizes the national interest of preserving representative and unique archaeological, historical and cultural resources of the coast. The Program reflects this recognition, through the designation of Historic and Archaeological Resource sites as a Special Area which encourages the protection of historic and cultural resources. (See Chapter Four, Sections 7:7E-3.13, 7:7E-3.31 and 7:7E-8.18)

#### Minerals

New Jersey has considered the national interest in minerals through consultation with the U.S. Bureau of Mines and the U.S. Geological Survey. Although mining is not a major industry in New Jersey, its national importance is reflected by the Use Policy on "Mining" which spells out conditions on the acceptability of mining. DEP will continue to coordinate with U.S. Bureau of Mines on the Coastal Management Program. (See Chapter Four, Section 7:7E-7.8)

#### Prime Agricultural Lands

New Jersey has considered the national interest in agriculture through consultation with the Soil Conservation Service and the Fish and Wildlife Service. The national importance of prime and unique agricultural lands is reflected in the Coastal Program by the Location Policy on Farmland Conservation Areas in Chapter Four which discourages development of prime farmland unless continued farming is infeasible or incompatible with surrounding land uses. The Location Policies also consider soil fertility as an important variable in determining the acceptability for development of a site, and there is a Resource Policy to protect fertile soils. (See Chapter Four, Sections 7:7E-3.28 and 7:7E-8.22)

#### Forests

New Jersey has considered the national interest in forests through consultation with the National Forest Service. The state's major forest -- the Pine Barrens -- is located in the south-central portion of New Jersey. A small part of this area overlaps with the coastal zone. The Coastal Program, through a Pinelands Special Area Policy, General Land Area Policies and the General Location Policy on Secondary Impacts, encourages the protection of the Pine Barrens and the State's other prime forest areas. (See Chapter Four, Sections 7:7E-3.39, 7:7E-5.3 and 7:7E-6.3)

## REGIONAL BENEFIT DECISIONS

The federal Coastal Zone Management Act requires that states provide a "method of assuring that local land and water use regulations within the coastal zone do not unreasonably restrict or exclude land and water uses of regional benefit." (Subsection 306(e)(2)). This method should include: (1) a definition of what constitutes unreasonable restrictions or exclusions, and (2) an identification of the methods that will be employed to insure that such unreasonable restrictions or exclusions do not occur (15 CFR 923.12, comment).

The comment to this regulation describes "use of regional benefit" as those which have a direct and significant impact on coastal waters and also affect more than one unit of local, county, or intrastate government. Using these criteria, the comment lists electric utilities, regional waste treatment plants, multi-county garbage disposal sites or landfills, state highways, or multi-county parks and beaches as uses of regional benefit.

New Jersey agrees with both the criteria and the list as an accurate description of uses that are of regional benefit, with the addition of beaches located entirely within one municipality. Many, if not most of the visitors to New Jersey's beaches come from non-coastal communities, yet many of these beaches lie entirely within one municipality. The beaches offer important recreational opportunities for a wide geographic area, and are therefore considered as uses of regional benefit.

In New Jersey, therefore, uses of regional benefit include energy generating and distribution facilities operated by public utilities (not refineries and tank farms), water and sewer facilities, solid waste collection and disposal systems, roads and highways, ports, parks, housing for people with low or moderate incomes, facilities necessary for state or national defense, and the use of wetlands and wet beach areas.

Three methods exist through which local governments are prevented from unreasonably excluding these uses. The most significant of these is the State's power to overrule local decisions which seek to deny approval to any public utility or solid waste facility.

The Board of Public Utilities in the Department of Energy has broad regulatory authority over public utilities, which comprise the bulk of the defined uses of regional benefit. This authority includes the power to supercede local zoning laws when necessary if the service conveniences the welfare of the public (N.J.S.A. 40:55D-19). The standard of necessity has been defined by the courts as that service "reasonably requisite to service public convenience" (Petition of Public Service Coordination Transport, 103 N.J. Super 505, 1968). The term public utility includes roads, street railway, traction railway, autobus, canal, express subway, pipeline, gas, electric light, heat power, water, oil, sewer, solid waste collection, solid waste disposal, telephone or telegraphic system, or plant or equipment for public use (N.J.S.A. 48:2-13). This override authority can be applied only to projects that have received all required State approvals.

The authority of the Board of Public Utilities to override local siting decisions can be invoked at the request of the aggrieved utility whenever "reasonably requisite to service public convenience". This is an effective method of protecting uses of regional benefit from unreasonable restriction or exclusion by local governments. The agreement between NJDEP and NJDOE on the energy siting policies and processes for resolving conflicts ensures that the coastal management program's policies concerning uses of regional benefit will be recognized by the Board, because the NJDOE intervention authority may be used in proceedings before the Board.

Under the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.), DEP also has authority to override the local exclusion of a solid waste facility.

In addition to these authorities, the State of New Jersey has the power of eminent domain for any facilities necessary for state or national defense (N.J.S.A. 20:1-3.1), airports (N.J.S.A. 20:1-3.1), State highways (N.J.S.A. 27:7-44.6) and parks and open space under the Green Acres Program (N.J.S.A. 13:8A-24).

Third, recent judicial rulings have held that low and moderate income housing is a use of regional benefit which municipalities must recognize through their zoning authority. The New Jersey Supreme Court has established in Southern Burlington County NAACP v. Township of Mt. Laurel, 67 N.J. 151 (1975) that municipalities must "presumptively make realistically possible an appropriate variety and choice of housing ... at least to the extent of the municipality's fair share of the present and prospective regional need ...". The State is developing guidelines to implement this ruling. A developer whose application is denied local permits to build such housing has legal standing to appeal the denial on the grounds that the municipality has not provided its fair share of low cost housing.

## GEOGRAPHIC AREAS OF PARTICULAR CONCERN

Section 305 (b)(3) of the Federal Coastal Zone Management Act requires that the state provide "an inventory and designation of areas of particular concern within the coastal zone." A draft paper prepared by NOAA-OCZM (May 24, 1976) indicates that the designation must lead to "specific recognition and action within the framework of the management program".

New Jersey has designated Geographic Areas of Particular Concern (GAPC) on the basis of the following three criteria:

- A. Regional or state-wide significance of the area;
- B. Need for special attention based on threat to the preservation of the area or obstacles to its development consistent with the policies of the New Jersey Coastal Program, and
- C. Availability of State legal authorities to promote desired uses of the areas.

Using these criteria, New Jersey proposes two generic GAPC's and thirteen specific GAPC's (see Figure 29). Clearly, many other areas in the coastal zone are important, but designation of them as GAPC's would not be meaningful or feasible, due to criterion C above. The New Jersey Coastal Management Program, therefore, relies primarily upon the Coastal Resource and Development Policies in Chapter Four and the Management System in Chapter Three to promote the wise use of each site in the Coastal Zone.

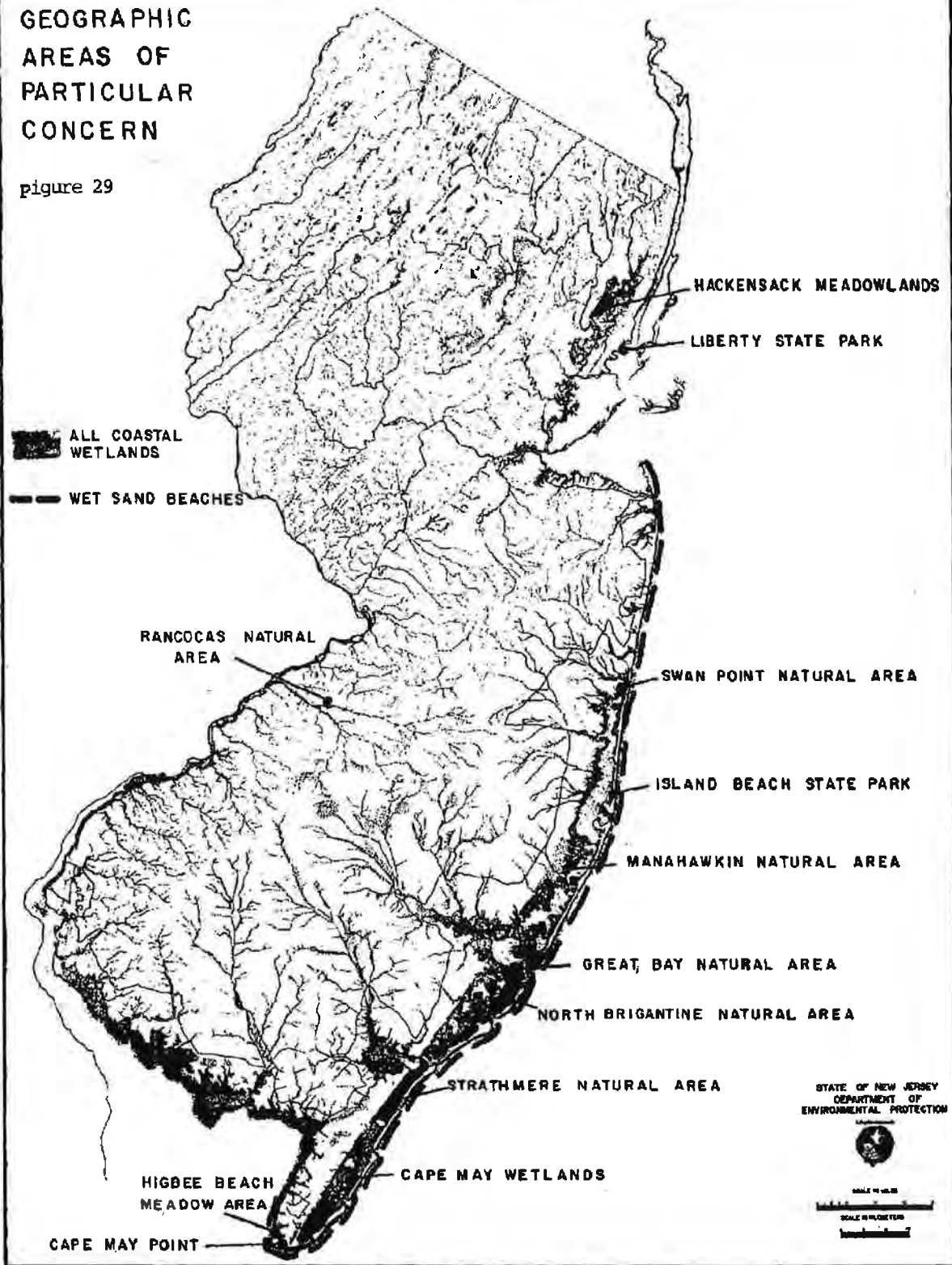
When DEP asked the public in 1977 to nominate areas of particular concern, virtually every possible site in the potential coastal zone was mentioned. The Department used the public nominations to confirm, develop, and refine the Coastal Resource and Development Policies. In addition, the Department distributed a report entitled Nominated Areas of Public Concern in the New Jersey Coastal Zone (December 1977) to other State, municipal, county and federal agencies. The Department prepared a supplement to this report describing how each nominated area was addressed by the Coastal Management Program - Bay and Ocean Shore Segment. Copies of both the report and the supplement Nominated Areas of Public Concern and the New Jersey Coastal Management Program - Bay and Ocean Shore Segment (December 1978) are available from DEP.

New Jersey's Geographic Areas of Particular Concern are the following: all coastal wetlands, Higbee Beach, Pond Creek Meadow Area, wet sand beaches, ten state owned natural areas, and the Hackensack Meadowlands. Because management of the Meadowlands is more complex than management of the other areas, it is discussed under a separate heading at the end of this Section.

1. All Coastal Wetlands - Wetlands are valuable to New Jersey because they serve as natural flood controls, water purifiers, and essential nurseries for marine creatures. (See also the rationale for the Wetlands policies in Chapter Three). The threat to wetlands posed by development was recognized by the Governor and Legislature in 1970 when they enacted the Wetlands Act. This Act has effectively reduced the average annual loss of wetlands to development from 1900 acres to 57 acres, with only 0.7 acres destroyed in 1979. Under the Coastal Program, New Jersey will continue to use the Wetlands Act to preserve coastal wetlands.

**GEOGRAPHIC  
AREAS OF  
PARTICULAR  
CONCERN**

figure 29



The priority of uses in coastal wetlands is as follows:

- (a) Open Space (No development or disturbance).
- (b) Development which (1) requires water access or is water oriented as a central purpose of the basic function of the activity, (2) has no prudent or feasible alternative on a non-wetland site, (3) will result in minimum feasible alteration or impairment of natural tidal circulation, and (4) will result in minimum feasible alteration or impairment of the natural contour of the natural vegetation of the wetlands.
- (c) Other development has lowest priority.

2. Higbee Beach - Pond Creek Meadow Area - This unique area of 424 acres, in Lower Township in Cape May, includes five mini-ecosystems of bayshore beaches, dunes, wooded uplands, fields, and freshwater and tidal meadows (Figure 30). The area is valued by residents of, and visitors to southern New Jersey as a place to sunbathe and swim, and to observe wildlife. Over 200 species of birds have been recorded in the area. The area has been threatened by repeated efforts to build a campground within it. New Jersey has used the CAFRA permit program and funding from the Green Acres Program and the Endangered Species Act administered by the Division of Fish, Game and Shellfisheries described in Chapter Three, to protect the area exclusively for recreation and wildlife.

The set of uses with priority in the Higbee Beach-Pond Creek Area includes only recreation compatible with protection of the area's wildlife. All other uses have lowest priority.

3. Wet Sand Beaches - New Jersey's 126 miles of ocean shorefront form a natural resource which is valued directly by residents and indirectly as the mainstay of the state's tourism industry. The wet sand beach area seaward of the mean high water line is known as Public Trust Land and is a Geographic Area of Particular Concern. This area is owned by the State of New Jersey unless the State has conveyed a "riparian grant" for the tide-flowed land. In all parts of the area, whether or not it is owned by the State, public access must be provided for navigation, commerce and recreation, and any new development requires a Waterfront Development Permit, as described in Chapter Two.

The priority of uses in the wet sand beaches areas is:

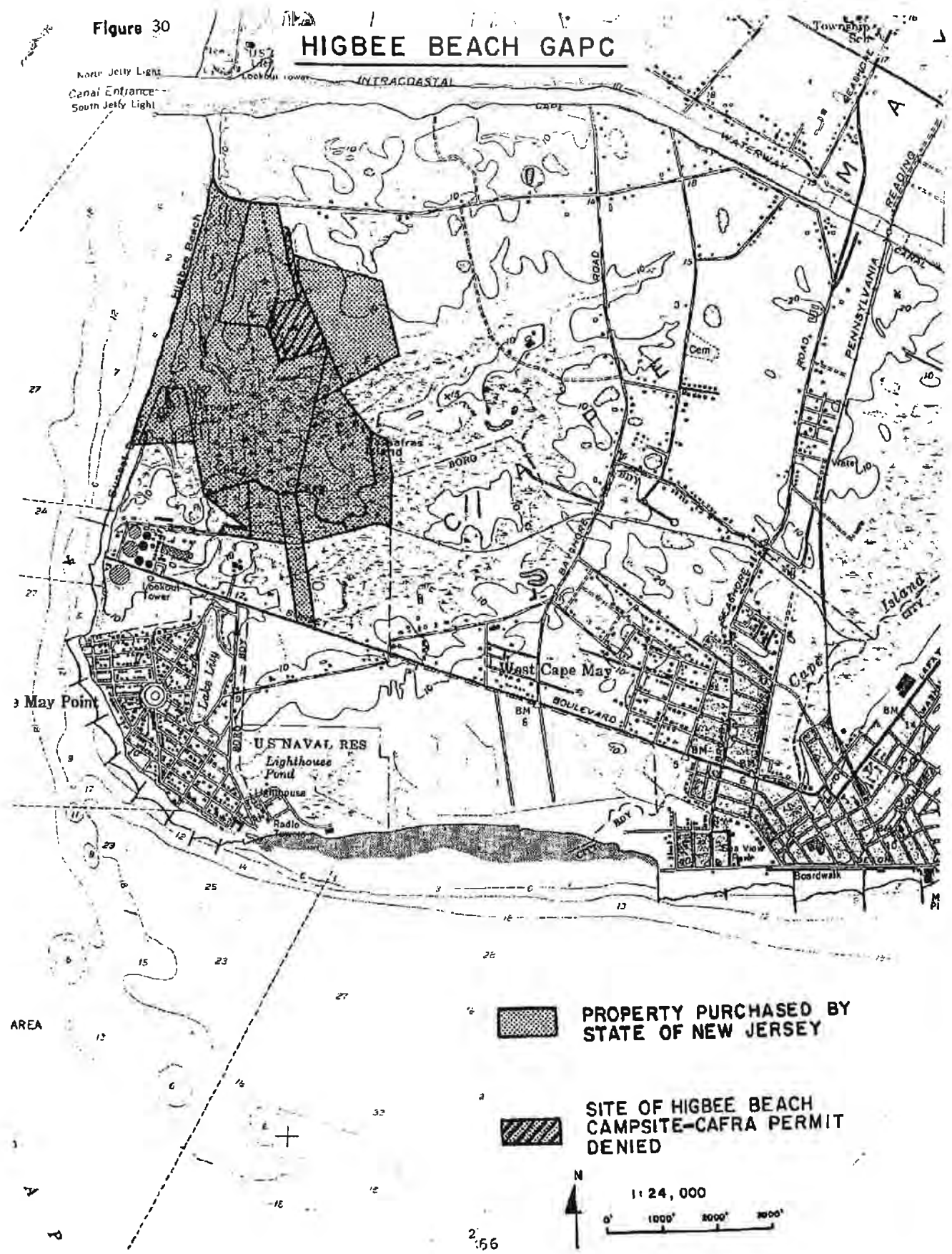
- (a) recreation
- (b) navigation and commerce
- (c) development with no prudent or feasible location on a non-beach (wet sand) location
- (d) all other uses have lowest priority.

#### Natural Areas

In addition to the three GAPCs listed above and the Hackensack Meadowlands, ten specific state-owned areas in the coastal zone have been labelled "natural areas" under the Natural Areas System Act of 1976, N.J.S.A. 13:1B-15.12(a) et seq., and its regulations (N.J.A.C. 7:2-11.1 et seq.). A natural area is defined as "an

Figure 30

# HIGBEE BEACH GAPC





area of land or water which has retained its natural character, although not necessarily completely undisturbed, or having rare or vanishing species of plant and animal life or have similar features of interest which are worthy of preservation for the use of present and future residents of the State." N.J.A.C. 7:2-11.2(A).

The Department of Environmental Protection, Green Acres Program, on July 13, 1978, designated 38 State owned areas to be preserved and managed as natural environments. The ten areas which are in the coastal zone are also designated GAPCs under the federal Coastal Zone Management Act. Two of the areas are parts of Island Beach State Park, an oceanfront natural barrier island.

The Natural Areas system regulations divide the areas into three types for management purposes (7:2-11.5.B):

**Class I Natural Areas:** (a) The Department shall manage such areas for ecological research and study. When compatible with other uses they may be used for guided nature tours; and (b) All of Class I natural areas shall be restricted to entry by permit or with a designated Department employee.

**Class II Natural Areas:** (a) The Department shall manage Class II areas for the specific purpose of interpretation of natural processes, flora and fauna of this State. Class II areas may be used for ecological research and study; and (b) Use of Class II areas shall be limited to interpretive purposes or shall be restricted to entry by permit for research purposes.

**Class III Natural Areas:** (a) The Department shall manage Class III areas for recreational use, interpretive study, wildlife propagation, and succession control; and (b) Use of Class III shall be limited to interpretative purposes, swimming, canoeing, rowboating, hiking, trailside camping, and recreational hunting, fishing and trapping as provided in the natural areas system rules and regulations.

The ten geographic areas of particular concern in the coastal zone and descriptions from the Natural Areas regulations are listed below:

4. Cape May Point Natural Area: An area of 100 acres in Cape May State Park, it demonstrates typical southern New Jersey sand dune and freshwater marsh habitats, and is a bird sanctuary.
5. Cape May Wetlands Natural Area: An area of 2,000 acres acquired through the Green Acres program, it demonstrates the ecosystem complex of salt-marsh habitats, and is a sanctuary for colonial nesting and migratory birds.
6. Strathmere Natural Area, Corson Inlet, Cape May County. An area of 80 acres, it demonstrates dune habitat and the erosion effect of tidal movements confluent with outwash currents.
7. North Brigantine Natural Area: An area of 968 acres acquired with Green Acres funds and adjoining the Brigantine National Wildlife Refuge, it demonstrates both sand dune and salt marsh habitats and serves as a refuge for coastal birds.

8. Great Bay Natural Area, Bass River, Ocean County. An area of 330 acres, it is a salt marsh habitat and an excellent example of New Jersey Bay ecosystem. It is a highly productive oyster area, and is a resting area for coastal birds.
9. Island Beach State Park: The New Jersey State Legislature has statutorily recognized that Island Beach State Park is one of the few natural expanses of barrier beach remaining along the eastern edge of North America, that Island Beach State Park is highly valued for its topography, flora and fauna, and that Island Beach State Park serves the citizens of the State as a unique recreational and educational resource (N.J.S.A. 13:6-2 et seq.). This Act, requiring the park's continued preservation, further provides that the Park "shall be preserved, maintained and improved in such a manner as the Division of Parks and Forestry in the Department of Environmental Protection determines will best perpetuate the park's present physical state".

Through State ownership of Island Beach State Park and the terms of the law, New Jersey will manage the entire Park as a Geographic Area of Particular Concern. In addition, two parts of the park are designated "Natural Areas" under the Natural Areas System Act of 1976. Permissible uses of these areas are defined more specifically below:

- (a) Island Beach Research Area and Wildlife Sanctuary: An area of 1,200 acres encompassing the width of Island Beach State Park and running north for 3.3 miles, it demonstrates a sand dune habitat, it is a wildlife sanctuary, and will serve as a research area.
- (b) Island Beach Natural Area: An area of 1,000 acres of the State park, encompassing its width and running 3.3 miles south (excepting maintenance area and official residence), it demonstrates dune habitat and is a botanical preserve.
10. Swan Point Natural Area, Brick Township, Ocean County: An area of 104 acres acquired through the Green Acres program, it demonstrates salt marsh habitat, and is a part of the Barnegat Bay ecosystem.
11. Manahawkin Natural Area: An area of 64 acres and a national natural landmark, it demonstrates a mature bottomland hardwood forest.
12. Liberty Park Natural Area: An area of 60 acres which is included within the master plan for Liberty Park, it demonstrates salt-marsh habitat for a variety of water fowl. It is a valuable study area for tolerance to urban encroachment.
13. Rancocas Natural Area: An area of 80 acres, located in Westhampton Township, Burlington County, it demonstrates freshwater marsh and southern flood plain habitats. The north Branch of the Rancocas Creek follows along the southern and eastern boundaries of the area and the Timbuctoo Feeder of the North Branch follows the western boundary. To the north and west of the natural area is additional land belonging to Rancocas State Park.

(Maps of designated natural areas are available from the Green Acres Program, New Jersey, DEP, Box 1389, Trenton, N.J. 08625)

#### 14. THE HACKENSACK MEADOWLANDS DISTRICT

The Hackensack Meadowlands District is the fourteenth geographic area of particular concern and is proposed as a distinct unit of the Coastal Zone with its own management system and policies. The District consists of uplands and coastal wetlands interlaced by tidal rivers and streams. Inclusion of at least part of the District within the New Jersey Coastal Zone is, therefore, required by the federal Coastal Zone Management Act, which states that a coastal zone must include coastal waters and adjacent shorelands with a direct and significant impact on the waters, transitional and intertidal areas, salt marshes, wetlands and beaches. The District was defined by the State Legislature in 1968 in the Hackensack Meadowlands Reclamation and Development Act, which established the three goals of orderly development, solid waste management and environmental protection in the District. This occurred five years before the Legislature addressed the issue of development in the Raritan and Delaware Bays and Atlantic Ocean parts of the Coastal Zone through CAFRA, and four years before the enactment of the federal Coastal Zone Management Act.

Under the Coastal Management Program, the Hackensack Meadowlands District will be treated differently than other parts of the coastal zone. This is because the District is the only part of the coastal zone, in which comprehensive land use decision-making is governed by a powerful regional agency which is part of the State government and has objectives and policies generally compatible with the proposed coastal management program.

Despite a location six miles from midtown Manhattan, pre-1968 use of the Meadowlands was limited to an unplanned scattering of landfills, warehouses and other uses not requiring dry soils. The region was underutilized, yet the uses present were severely degrading to the potentially valuable wetlands environment. Natural resource management and planned filling for development were both stymied by the division of the 31 square mile meadowlands into fourteen separate municipalities in two counties. Because of the need for central planning direction if the wetlands environment were to be restored, and if the region were to meet its potential as a supplier of jobs and housing, the Legislature recognized the Meadowlands as a unique area where local zoning would have to be superseded by regional controls. The response was the Hackensack Meadowlands Reclamation and Development Act (N.J.S.A. 13:17-1 et seq.), which defined the boundary of the Meadowlands District, and established a management system which led to the adoption of a Master Plan Zoning Ordinance in 1972 and other management plans defining policies for resource management and development. It is this boundary, management system under the direction of the Hackensack Meadowlands Development Commission (HMDC), and policies which the State is adopting as elements of the Coastal Management Program.

The boundary and management system will be discussed first, followed by a discussion of policies for the District and their implications for coastal zone management. Lastly, the relationship between HMDC and the Division of Coastal Resources under an approved coastal management program will be described.

##### Boundary

The boundary of the Hackensack Meadowlands District of the Coastal Zone is depicted in Figure 31. In general, the District extends to the first major road or railroad upland of the tidally influenced meadowlands. The area of the district is

Figure 31



HACKENSACK MEADOWLANDS DISTRICT

19,730 acres of which, in 1972, 7,800 acres (40 percent) were developed, between 6,200 and 7,500 acres (31-38 percent) were vegetated coastal wetlands, and 1,400 acres (7 percent) were tidal waters.

#### Management System

The Hackensack Meadowlands Reclamation and Development Act established the Hackensack Meadowlands Development Commission (HMDC) as a political subdivision of the State, in but not of, the Department of Community Affairs. Among the Commission's authorities are the power to issue bonds or notes, and to acquire or lease lands and to exercise the power of eminent domain; the power to reclaim, develop, redevelop and improve the land in its district; the power to recover the cost of improvement by special assessments based on the resultant increase in property values; the power to establish an inter-municipal tax sharing formula so that all municipalities will share equitably in the financial benefits of new Meadowlands development; and the powers to adopt and implement a master plan for the physical development of the District, to adopt and enforce codes and standards to implement the plan, and to review and regulate plans for any subdivision or development within the District. The HMDC is also both empowered and required to provide facilities for the disposal of the same large quantities of solid waste from within the State which was being deposited as of January, 1969.

The HMDC consists of seven members, one of whom is the Commissioner of the Department of Community Affairs or an alternate. The other six members are appointed by the Governor subject to the requirement that two be residents of Bergen County municipalities within the District, two be residents of Hudson County municipalities within the District, and the remaining two consist of one resident of Hudson County and one resident of Bergen County. Four members of the Commission constitute a quorum and the Commission may exercise its power through the affirmative vote of a majority.

The HMDC is provided with technical support by a twenty-three member professional staff headed by an executive director. The executive staff is a multidisciplinary team composed of a four member administrative branch, a thirteen member engineering branch and a six member environmental branch.

The legislation creating the HMDC also created a Hackensack Meadowlands Municipal Committee consisting of the Mayor or elected chief executive of each constituent municipality of the District. The HMDC must submit the District master plan and amendments thereto, development and redevelopment plans, improvement plans, and codes and standards to the Committee for its review. The HMDC may not take final action on any proposal formally rejected by the Committee, except by a vote of 5/7 of the full membership. A public hearing is also required before any change may be made to the Master Plan.

To insure that implementation of the master plan will not only balance uses, but will also preserve the most valuable wetlands, share the fiscal benefits of the plan among all the 14 constituent municipalities, and, most importantly, put an end to pollution so that the Hackensack Estuary will once again become an attractive place to both people and wildlife, a system of interlocking administrative tools were written.

The Master Plan Zoning Ordinance (1972; N.J.A.C. 19:4-1) delineates what, where, and how development may take place.\* The accompanying Open Space Map (1972) specifies which areas are to be left as marshland preservation and, which are to be parkland, and identifies the water courses for special protection, while the Wetlands Order (1972) defines the manner in which those wetlands will be respected. Since most of the Hackensack Meadowlands District is privately owned, the Open Space Plan assembles a number of interdependent techniques -- zoning, tax sharing, riparian claim, easements, and cluster principle planning -- to maximize open space preservation without the infusion of extensive public dollars for purchase. The supporting administrative framework is completed with the Inter-municipal Tax Sharing Formula, the Building Code (1969), the Subdivision Regulations (1969), the Environmental Performance Standards (part of the zoning ordinance), the Socio-Economic/Environmental Impact Assessment Guidelines (1973), and the Ecological and Resource Management Plan (1978).

Construction plans for major or minor subdivisions are reviewed by the Chief Engineer of HMDC for consistency with the Master Plan Zoning Regulations, the HMDC Subdivision Code, Building Code, Foundation Regulations, and the Wetlands Order. If the subdivision is to be built on lands to which the State has a riparian claim, the prospective developer must provide evidence of a riparian grant, lease or license and of a Waterfront Development Permit if applicable. When the complexity of the proposal warrants, the Chief Engineer is assisted in his determination by a member of an Environmental Design Committee, a committee of professionals in the field of environmental and architectural matters appointed by the Commission. A written decision of the Chief Engineer may be appealed by the prospective developer to the HMDC, which can overrule the decision by a majority vote of a panel of at least three Commissioners. The detailed approval process is depicted in Figures 32 and 33.

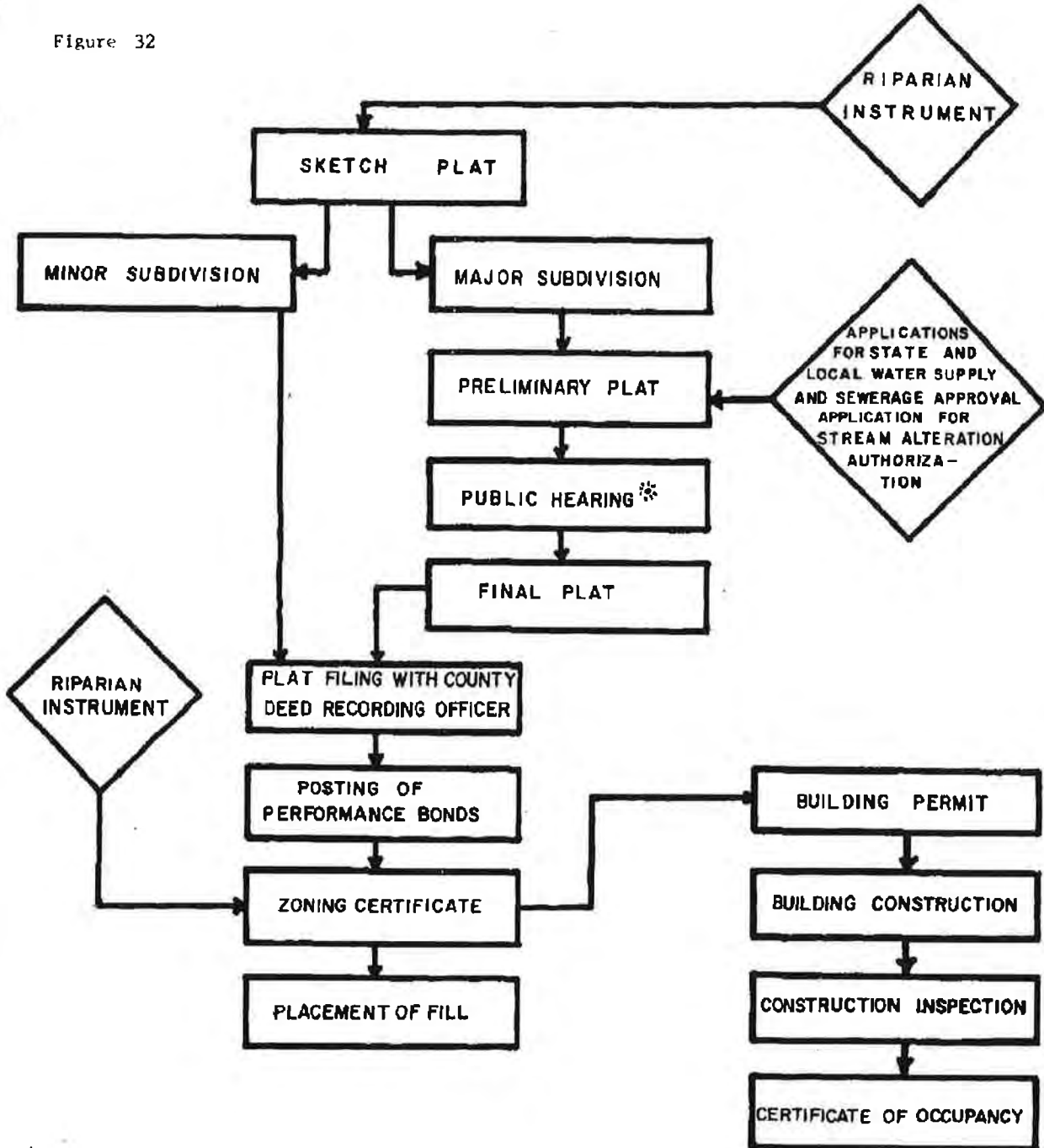
Variations from HMDC Zoning Regulations are decided by the Executive Director, but full or conditional approval of a variance requires a concurring vote of a majority of Commission members. The Master Plan Zoning Regulations require that six findings be made before a variance can be approved: (1) the variance request is the result of a unique situation of the property in question, (2) granting of the variance will not adversely affect the rights of adjacent property owners or residents, (3) failure to grant the variance will result in exceptional practical difficulties or hardships for the applicant, (4) the variance will not adversely affect the public health, safety, morals, order, convenience, prosperity or general welfare, (5) the variance will not have an adverse environmental impact, and (6) the variance will not substantially impair the intent of the Master Plan Zoning

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\* It should be noted that the Hackensack Meadowlands District designations for wetlands development do not preclude federal agency recommendations and decision contrary to such development. The Hackensack Meadowlands District Plan does not meet the definition of a "Comprehensive Planning Process" under Section 404(b) (1) of the Clean Water Act and associated regulations. Therefore, federal agencies will evaluate proposed projects in the Hackensack Meadowlands District on a case by case basis. Wetland modification will require proper analysis and documentation under Section 404(b) (1) of the Clean Water Act regardless of adopted plans and ordinances. The 404(b) (1) process currently requires four tests to be met and properly documented through a public process including: 1) acceptance of unavoidable impacts; 2) alternatives analysis; 3) demonstration of water dependency; and 4) demonstration of need.

**HACKENSACK MEADOWLANDS DEVELOPMENT COMMISSION  
APPROVAL PROCESS FOR SUBDIVISION OUTSIDE OF SPA**

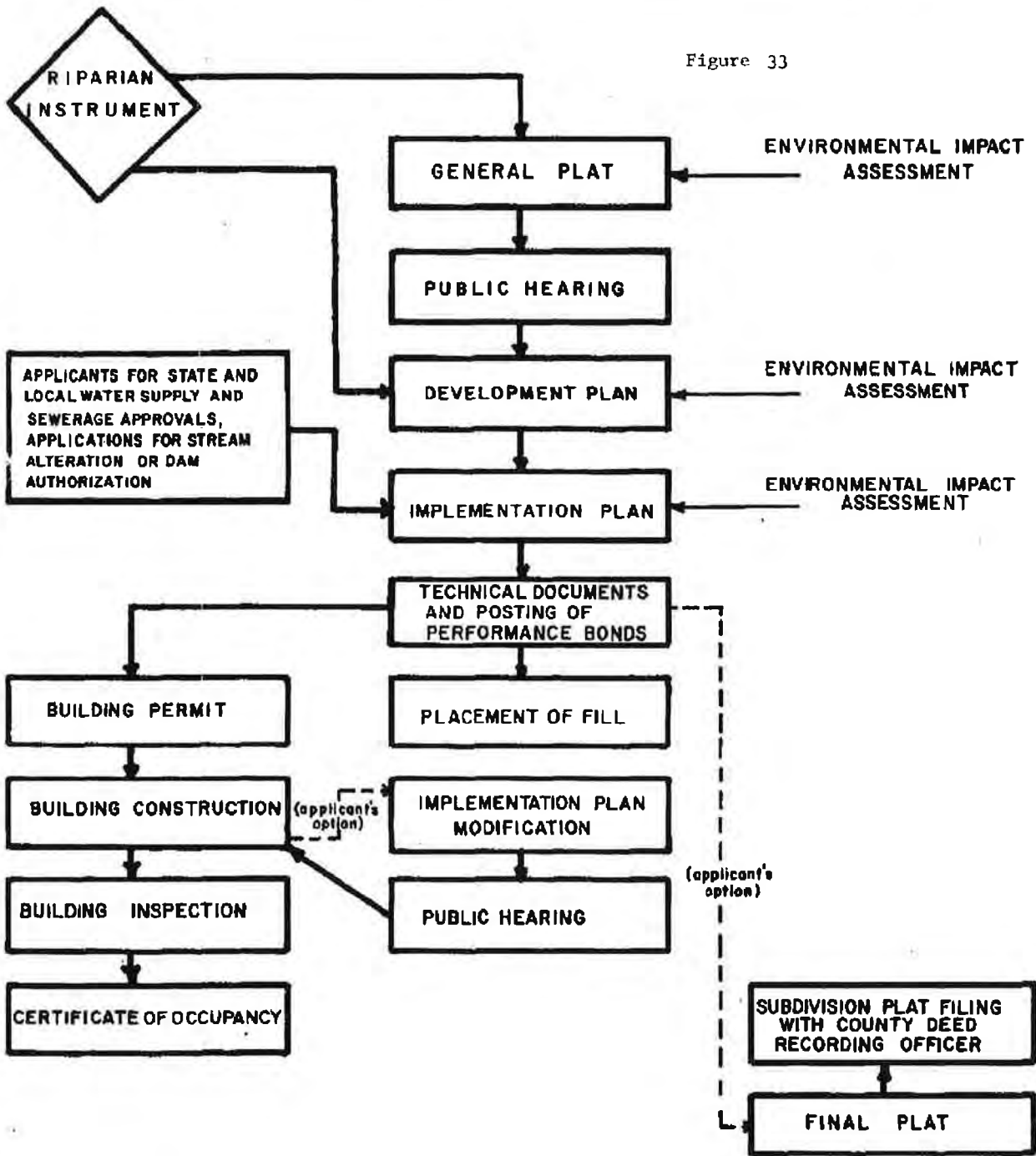
Figure 32



\* MANDATORY UNLESS A PUBLIC HEARING ON THE PROPOSAL IS HELD BY THE MUNICIPALITY

**HACKENSACK MEADOWLANDS DEVELOPMENT COMMISSION  
 APPROVAL PROCESS FOR SPA AND PLANNED UNIT DEVELOPMENTS**

Figure 33





Regulations or result in substantial detriment of the public good. Appeals from variance disapprovals may be made to the Commission with a majority vote of at least four Commissioners required to overrule the Executive Director. Between 1973, the first full year during which the Master Plan Zoning Regulations were in effect, and 1977, 459 variance decisions were made. Seventy-two decisions involved applications for use variances (variances for a non-permitted use), and 53 (74 percent) of these use variances were approved. The remaining applications sought variances to bulk requirements (variances to bulk standards for a permitted use); 82 percent of these were approved. Public hearings must be held before a decision is made on use variance applications. A hearing is required on bulk variance applications only when requested by a person filing an adverse comment.

Within the Meadowlands District there are twelve Specially Planned Areas (SPA) where planning and development must be carried out in a unified manner for the entire area (100 to 600 acres) consistent with the HMDC planning process and in compliance with the purpose and specific requirements of the individual zones. Six are to be predominantly residential SPAs, of which one, Harmon Cove, is already partially developed. Of the remaining six areas, two are to be transportation centers accommodating major commuter transfer centers and office buildings; three are planned as special use areas for land uses of regional importance; and one is to be the Berry's Creek Center, intended to be a shopping, civic, cultural and transportation center which would serve as the focal point of the Meadowlands.

A developer proposing a project for a Specially Planned Area must control at least 80 percent of the land in the SPA. Approval is granted in a multi-stage process with General, Development, and Implementation Plans as increasingly specific review stages. Such large projects typically are built in sections over a period of years. If a development is staged, all regulations applicable to the entire area must be satisfied by each stage.

First, the applicant must file a General Plan covering the entire Specially Planned Area. An environmental and socio-economic impact assessment in accordance with HMDC guidelines must accompany the applicant's General Plan, and a public hearing on the General Plan must be held. If the SPA is to be built on lands to which the State has a riparian claim, the general plan must be accompanied by evidence of a riparian grant, lease or license, and of a Waterfront Development Permit if applicable. Action, in the form of approval, approval subject to certain conditions, or disapproval must be taken by a Development Board composed of the Executive Director, the Chief Engineer, a Mayor of a constituent municipality selected by the Hackensack Meadowlands Municipal Committee, and two HMDC Commissioners selected by the Commission. In reaching its decision, the Development Board is to consider: (1) the HMDC Zoning Regulations for SPAs, (2) the HMDC Wetlands Order, which describes the various inventory, conservation, and environmental protection steps required within each SPA, (3) the HMDC Open Space Map, and (4) the HMDC Environmental Impact Assessment Guidelines, which are keyed to every step in the planning, construction and operation of SPAs. Figure 33 depicts the approval process for SPAs.

Variances from SPA requirements specified in the Master Plan may only be granted if the Development Board finds that the "quality of development in the SPA will not be adversely affected", "the Comprehensive Land Use Plan for the Meadowlands will not be adversely affected", and "the intent and purposes of all the applicable SPA regulations will not be impaired by the variance".

Following approval or conditional approval of a General Plan, the developer must file Development Plans for sections of the SPA in accordance with a timetable given by the Development Board in approving the General Plan. These Development Plans are more detailed plans which are reviewed by the Development Board for compliance with General Plan, with Development Plan requirements, and for any necessary riparian instruments or permits. Additional requirements may be imposed based upon the findings of an Environmental Design Committee. A decision of the Development Board regarding General and Development plans is subject to certification by the full Commission.

Next, the prospective developer must file a highly detailed set of plans called Implementation Plans for each section of the SPA. These Plans must be filed in accordance with a timetable for development specified in the approval of the Development Plans. The General Plan, Development Plans and Implementation Plans must all include an assessment of the environmental impact of the proposed project. The Implementation Plans are reviewed by the Development Board and by the Environmental Design Committee for consistency with the Development Plans as well for consistency with specific Implementation Plan requirements. Should an Implementation Plan be approved in full or with conditions, construction may commence following approval of engineering drawings by the Chief Engineer, approval of a final plat by the Development Board and the municipality, and posting of performance bonds.

#### HMDC Policies and Their Implications

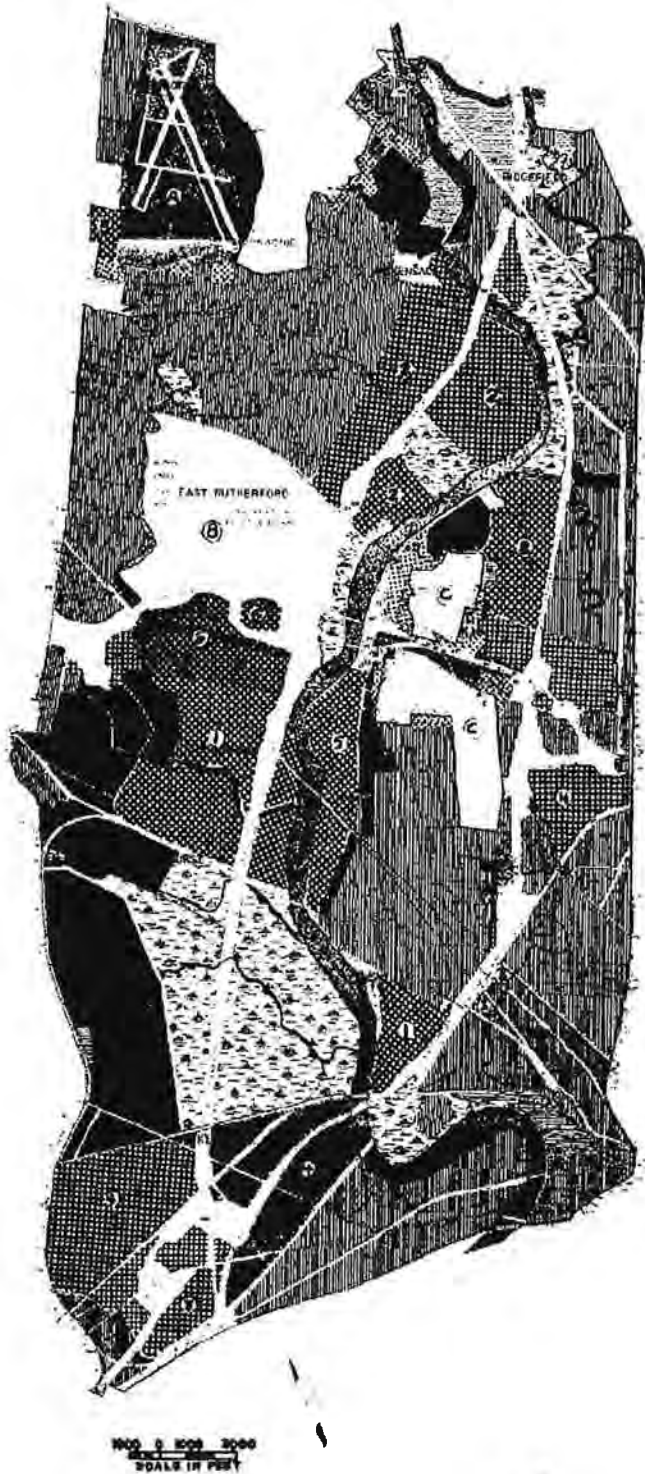
The Hackensack Meadowlands Reclamation and Development Act directed HMDC to respond to a three-fold mandate:

- to provide jobs, homes, and open spaces with need calculated at regional scale;
- to protect the delicate balance of nature and to protect against air and water pollution;
- to provide for solid waste management in perpetuity for all New Jersey municipalities then dumping in the Meadowlands.

With the goals in mind, the HMDC was directed by the Act to develop, adopt and from time to time amend a master plan for the physical development of the Meadowlands District. The result was a Comprehensive Land Use Plan developed by HMDC staff in December, 1971 and adopted in a revised form by the Commissioners in November, 1972 following a two-year construction moratorium. The Zoning Map has been revised following public hearings three times since 1972. In April 1977 the zoning classification of thirty-nine parcels of land was changed; in the Fall of 1978 the classification of eight parcels was changed; and in November, 1979 another five parcels were rezoned. These fifty-two changes involved about 2,250 acres of land or eleven percent of the total area of the Meadowlands District. The most significant changes involved the expansion of park and marshland preservation zones to create Richard de Korte State Park, at the expense of a planned research and distribution park and a parkside residential SPA. To compensate the loss of this residential zone, an Island Residential SPA was expanded into an area formerly designated for marshland preservation. Also, one Transportation Center SPA was replaced by industrial zoning, while a new Special Use SPA was created in an area designated for light industry and marshland preservation (see Figure 34).

Figure 34








# HACKENSACK MEADOWLANDS DISTRICT OFFICIAL ZONING MAP



## ZONES

-  Marshland Preservation Zone
-  Park and Recreation Zone
-  Waterfront Recreation Zone
-  Low Density Residential Zone
-  Commercial Zones
-  Research, Industrial and Distribution Zones
-  Public Utility Zones
-  Airport Facilities
-  Sports Complex

## SPECIALLY PLANNED AREAS

-  Parkside Residential
-  Island Residential
-  Transportation Center
-  Special Use
-  Island Residential - Harmon Cove
-  Berrys Creek Center
-  Secaucus (Outside District)

Proposed December 28, 1971.  
Includes all amendments through January 16, 1980.

Table I - Developed Land Uses in Hackensack Meadowlands District (1972)

Transportation	3,393 acres (includes Teterboro Airport)
Industry	2,384 acres
Utilities	786 acres
Commercial	254 acres
Residential	206 acres
Vacant building and buildings under construction	133 acres
Quarry	115 acres
Marinas	42 acres

Source: HMDC: "Open Space for the Hackensack Meadowlands", 1972.

If the Meadowlands Master Plan were to be fully implemented in its present form, the amount of land in developed uses would increase from 8,260 acres in 1972 to 13,104 acres (Figure 35). Most of the increase in developed land would be in the residential Specially Planned Areas, in light industrial, distribution, research and commercial zones, and in the already developed New Jersey Sports Complex.

The amount of open space would decline from about 8,000 acres in 1972 (not counting sanitary landfills) to 6,626 acres. This is the maximum amount that the Meadowlands Commission believes can be designated for open space given the Legislative mandate to provide for the orderly development of the District, and the constitutional mandate that the Commission not deprive property owners of the use of their land without compensation. This open space is to be preserved by a combination of techniques including the zoning of publicly owned land for open space use, the purchase of additional public lands, the regulation of a fifty foot wide natural buffer strip along stream corridors, and a requirement that a certain amount of land be preserved as open space in each SPA. This open space requirement ranges from 50 percent in Island Residential Areas to 15 percent in Transportation Centers. Land use and zoning consultants calculated that because of the strong demand for developable land in the Meadowlands District, intensive, planned development of the remainder of the SPAs would allow the landowners a reasonable economic return on their land.

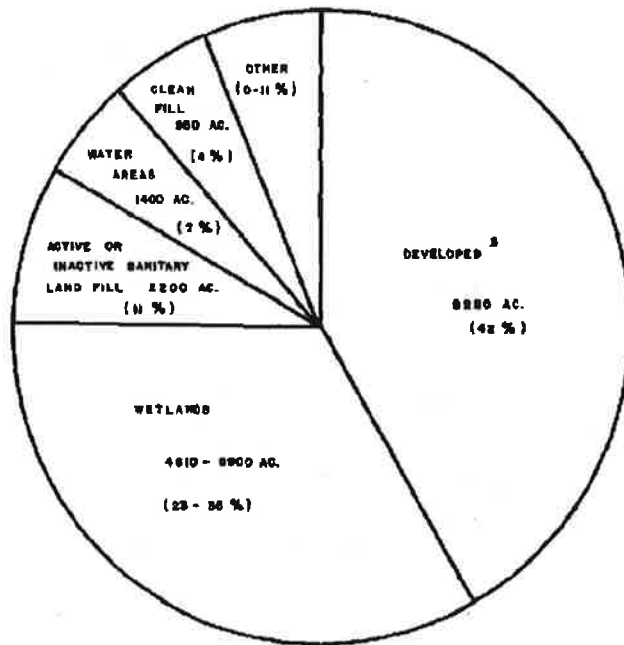
Most of the loss in open space in the Hackensack Meadowlands District will involve wetlands. In 1972, DEP estimated that there were 6,900 + 690 acres of vegetated wetlands in the District, based on "Wetlands Ecological Value Overlay" maps produced for the purpose of tidelands delineation. In 1980 the HMDC estimated that these were 4,772 acres of wetlands in the District in April 1980.\* However, the HMDC calculates that this represents a net gain in wetlands area of 162.6 acres. Between 1972 and 1980, 494.5 acres of wetlands were filled -- including 147.3 acres on the Sports Authority site and 97.1 acres by the Turnpike Authority. However, 657.1 acres of new brackish and fresh water wetlands have formed, primarily at the Kearny Marsh as the result of a man-made dike. The difference between the DEP and HMDC estimates of 1972 wetland area is largely attributable to

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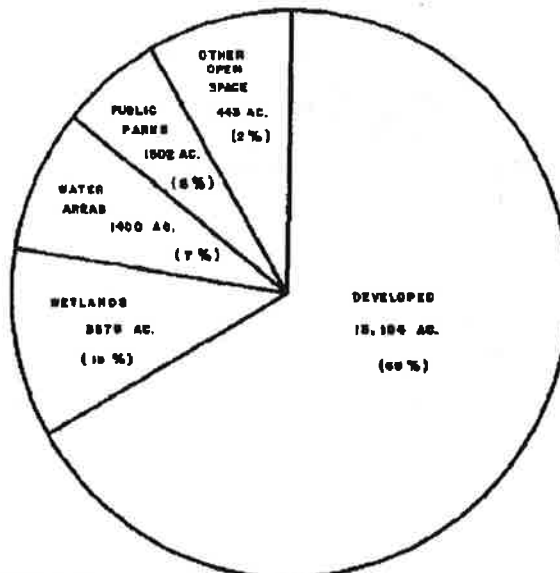
\* Hackensack Meadowlands Development Commission, Wetland Bio-Zones of the Hackensack Meadowlands: An Inventory, July, 1980. This report supercedes a report by the same name published in April, 1975, and quoted in the Proposed New Jersey Coastal Management Program and Draft Environmental Impact Statement.

Figure 35

### 1972 MEADOWLANDS DISTRICT LAND USE

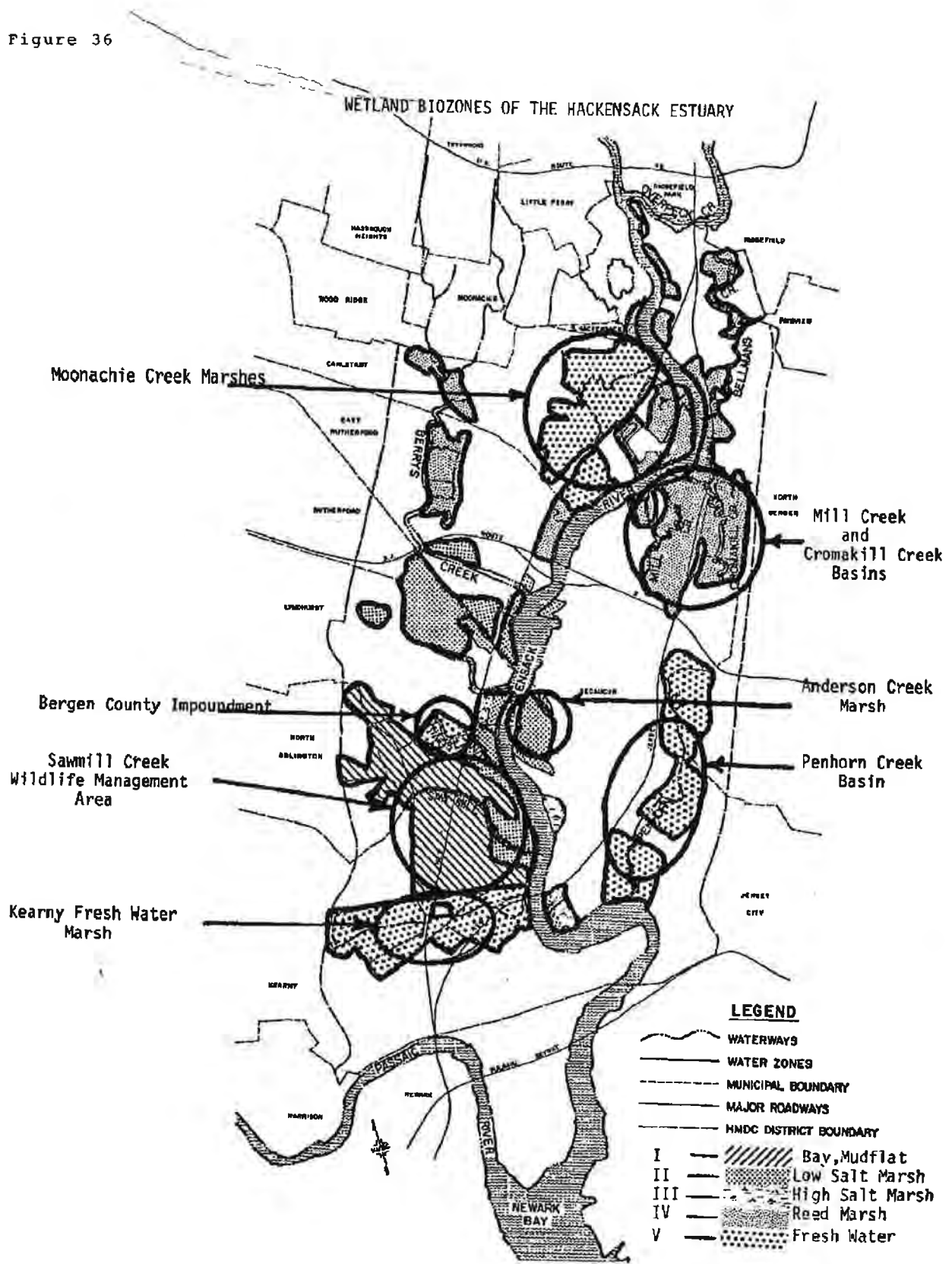


### PROJECTED MEADOWLANDS DISTRICT LAND USE UPON IMPLEMENTATION OF THE MASTER PLAN



\* SEE TABLE ONE BREAKDOWN

Figure 36



different wetlands definitions, with DEP including fields of Phragmites at elevations less than 1 foot above local extreme high water, many of which HMDC has classified as upland fields. It is also possible that there has been some loss of wetlands through upland succession of fields from which tidal flow had long ago been excluded. In any event, use of DEP's 1972 methodology for wetlands delineation would yield a figure higher than 4,772 acres.

The HMDC Wetland Bio Zone Report divides the wetlands into six zones (see Figure 36):

1. Shallow Tidal Bays and Flats	988.0 acres
2. Low Salt Marsh	874.8 acres
3. High Salt Marsh	54.8 acres
4. Reed/Cattail Marsh	1,906.9 acres
5. Fresh Water Marsh	533.5 acres
6. Brackish Impoundments	414.0 acres
	<u>4,772.0 acres</u>

Of the 4,772 acres of wetlands, 533.5 acres (12 percent) are fresh water wetlands, separated from the estuarine system by dikes or tidal gates, and 1,862.8 acres (39 percent) are within the intertidal zone (between mean high water and mean low water).

Of the 3,576 acres (75 percent) of wetlands designated for preservation, at least 1,500 will be within SPAs as part of the open space requirement, and about 1,200 acres will be within the shallow tidal bays, fresh water marsh and Sawmill Creek State Wildlife Management Area of the proposed 2,000 acre Richard de Korte State Park.

The amount of public parkland will be increased from fifteen acres to about 1,500 acres. Five hundred and thirty-five of these acres will be the open space areas required within Parkside Specially Planned Area. Eight hundred of these acres will be within the Richard de Korte State Park and will be created by the landscaping and vegetating of sanitary landfills. One hundred acres will be within Losen Slote State Park. The Commission's Solid Waste Management Plan (revised draft, March 1979) provides for the replacement of landfills by baling and resource recovery facilities, and for the transformation of existing landfills into parkland.

Finally, the requirement that a fifty foot buffer strip along watercourses be kept in a natural state will result in the preservation of only fifty acres of open space, but these fifty acres will be the most biologically productive acreage in the District, as well as serving as filters for stormwater runoff.

At the inception of planning for the Meadowlands District, the Hackensack River Estuary was a highly stressed ecosystem. Sewage and industrial discharges were allowed to flow untreated into the river and its tributaries; oil spills were a frequent occurrence; garbage and toxic wastes were dumped into landfills that were encroaching ever further into virgin marshland. By existing local zoning, the Hackensack Meadowlands were destined to disappear into a complex of industrial development and landfill.

Adopted HMDC policy documents form an enforceable land use regulation system which has enabled the Commission to institute a massive revival effort in the Hackensack Estuary. Discharges into the river have been limited by performance standards specifying type, amount, and location.

Sanitary landfills have been restricted in size, with liquid wastes prohibited, ultimately to be replaced altogether by baling and resource recovery facilities. And most importantly, 1,100 acres of salt marsh, tidal bay and mud-flat, once destined for garbage dumps, is now dedicated by the State as the Sawmill Creek Wildlife Area.

Improvement of water quality in the District, over the last 10 years, has been documented in an on-going joint monitoring program by the Commission and the New Jersey Institute of Technology. Yet the most significant and impressive evidence of the system's revival can be seen in the reappearance of blue claw crabs and crabbers, striped bass, and alewife herring; in the increasing utilization by over 230 species of wildfowl, shore and wading birds; in the discovery three years ago, of the first pair of breeding marsh hawks to be found in the state in thirty years; and in the desire of people to live and play on the banks of the Hackensack River. The Hackensack Meadowlands District is thus a case where balanced land use planning and regulation has produced not only an attractive human development, but one which coexists with a fast-recovering, manageable wetland ecosystem as well.

Under the supervision of the HMDC, over \$600 million of new construction was undertaken between 1970 and 1977, almost two thirds of it by private enterprise. One of the twelve Specially Planned Areas, Harmon Cove, is partially developed. This Island Residential SPA by Hartz Mountain Industries, Inc. now includes 626 townhouse units, a major hotel, a hospital and office buildings. Across the Hackensack River from Harmon Cove is the New Jersey Sports Complex with a race-track and a professional football/soccer stadium already constructed and an indoor sports arena under construction. Employment space for nearly 25,000 people has been created since 1970. A result has been a decrease in wetlands areas, but the decrease is less than it would have been without the HMDC policy of wetland preservation in SPA, encouragement of cluster development and the policy prohibiting the horizontal expansion of landfills.

Notwithstanding HMDC's record of environmental preservation and recovery linked with meeting development needs, it is clear that implementation of the HMDC Master Plan would result in a lesser degree of preservation of environmentally sensitive land and water areas than would the Coastal Resource and Development Policies applied elsewhere in the coastal zone. The Coastal Policies, however, were not developed with a district that is one-third tidal marsh or water area in mind, nor for an area under intense development pressure because it represents the largest block of undeveloped land within ten miles of the center of the nation's largest metropolitan area. Literal application of the Coastal Policies in the Meadowlands District would violate the will of the State Legislature, which has called for the orderly development of the Meadowlands in compliance with the HMDC Master Plan and which specifically exempted the Meadowlands District from the Wetlands Act. The promulgation of different resource policies for different parts of the State in response to different needs has a precedent in the Coastal Policies for the rest of the coastal zone, which differentiate between developed, extension and limited growth areas based upon existing development, environmental sensitivity and State policies toward development patterns. State environmental policy, therefore, envisages a continuum of regions, ranging from sections of the Delaware Bay and Atlantic Ocean shores where low levels of growth and extensive preservation



are encouraged, up to the Meadowlands District where the HMDC Master Plan calls for extensive development consistent with an ecological and Resource Management Plan, Open Space Plan and Wetlands Order. The Department of Environmental Protection, therefore, adopts by reference the Master Plan and its associated policy documents, with their dual concerns of promoting development and preserving the most productive wetlands, as coastal policy for the District.

Relationship Between Division of Coastal Resources and Hackensack Meadowlands Development Commission

The HMDC is the lead agency for planning and regulation of development in the Meadowlands District under the New Jersey Coastal Management Program. The Division of Coastal Resources will be guided by the HMDC Master Plan, its adopted components and management plans in making decisions on Waterfront Development Permit applications (the only Division permit applicable in the Meadowlands), and will consult with HMDC staff concerning interpretation of these policies. The Division will be guided by adopted HMDC policies in its recommendations to the Tidelands Resource Council concerning tidelands grants, leases and licenses, but the Council will also be guided by the need to obtain either a fair market price to benefit the School Fund (a requirement of the New Jersey Constitution), or to obtain lands of equal or greater value to the public, in exchange for lands alienated.

The Department will work together with HMDC to preserve wetlands and other Open Space designated for preservation by the HMDC Master Plan, and to identify additional parcels of land which because of their biological productivity or value for recreational purposes, should also be considered for preservation. The Department and the HMDC will explore public acquisition and other techniques for the preservation of these lands. Working together, the Department and HMDC will be able to ensure the preservation of at least as much wetlands and other open space as presently called for by the HMDC Master Plan.

Amendments to the Zoning Regulations of the Hackensack Meadowlands District will be considered amendments to the Coastal Management Program, when they meet the definition for amendments found in 15 CFR 923.80(c):

"amendments are defined as substantial changes in, or substantial changes to enforceable policies or authorities related to: (1) boundaries; (2) Uses subject to the management program; (3) Criteria or procedures for designating or managing areas of particular concern or areas for preservation or restoration; and (4) Consideration of the national interest involved in the planning for and in the siting of, facilities which are necessary to meet requirements which are other than local in nature."

It should be noted that the Master Plan has been amended three times since its adoption in 1972.

In compliance with 15 CFR 923.53(a)(1), the Division of Coastal Resources will determine the consistency of federal activities with the Coastal Management Program in the Hackensack Meadowlands as elsewhere in the State. However, no federal consistency determination will be made in the Meadowlands District without first consulting with the HMDC concerning the consistency of the federal activity with the District Master Plan and other adopted HMDC policy documents.

## AREAS OF PRESERVATION AND RESTORATION

Section 306 (c)(9) of the federal Coastal Zone Management Act requires that a State's program "makes provision for procedures whereby the specific areas may be designated for the purpose of preserving or restoring them for their conservation, recreational, ecological or esthetic values". This is a requirement that a process to identify areas for preservation or restoration, rather than a list of areas themselves, be available to the state coastal agency.

The Department of Environmental Protection administers several approved programs through which areas can be designated for preservation or restoration. Because these programs are all in the same Department, administrative procedures are already in place to insure their coordination with the coastal program.

Through the Green Acres Administration (N.J.S.A. 13:8A-35 et seq.), DEP can purchase land or provide grants to local governments for land purchase and park development. The amount of money available is established by voter approved bond issues and legislative appropriations.

The Green Acres Administration also administers three other programs which provide DEP with the ability to indicate concern for the preservation or restoration of an area without the absolute certainty of success provided by land purchase. Under the Natural Areas Systems Act (N.J.S.A. 13:1B-15.12a et seq.) described in the Geographic Areas of Particular Concern section, DEP can identify additional natural areas within DEP-owned and managed lands in need of preservation or protection and available implementation options. The Wild and Scenic Rivers System Act, passed in 1977, permits DEP to classify, designate, and administer river areas as wild, scenic, recreational, or developed recreational rivers. The rules and regulations for these two programs further describe the process for designation. Under the Heritage Program, Green Acres is beginning a historic and archaeological inventory in the area of overlap between the Pinelands and the coastal zone.

The Division of Fish, Game and Wildlife can apply funding available under the federal Endangered Species Act to the preservation of species habitats through land purchase or management. This is one of the major tools being used to preserve the Higbee Beach - Pond Creek Geographic Area of Particular Concern.

Another procedure for the designation of areas for preservation or restoration is through the New Jersey Register of Historic Places and the National Register of Historic Places. The Commissioner of DEP, as the State Historic Preservation Officer, may approve nominations to the keeper of the National Register of publicly or privately owned areas and sites for inclusion on the Register. Such inclusion prohibits any federal, state, county or municipal agency from undertaking a project which would harm the historic place, without the approval of DEP, and, in the case of the National Register, the approval of the Advisory Council on Historic Preservation. These historic places are also identified as a Special Land Area in the Location Policies of Chapter Four.

## SPECIAL COASTAL PLANNING ELEMENTS

The Coastal Zone Management Act amendments of 1976 require a State's coastal program to include special planning processes. These include a planning process for siting energy facilities in or affecting the coastal zone and managing their impacts, a planning process to provide for shorefront access and protection and a planning process to evaluate and mitigate shoreline erosion problems.

### ENERGY FACILITY PLANNING PROCESS

#### Introduction

Section 305 b (8) of the Coastal Zone Management Act as amended requires states to develop a planning process to anticipate and manage the impacts of energy facilities in or affecting the coastal zone. As defined by NOAA's rules (15 CFR 923.13), the plan should address the following four elements (1) Identification of energy facilities likely to locate in or which may significantly affect the state's coastal zone; (2) Procedure for assessing the suitability of sites for such facilities and their impacts; (3) Articulation of state policies for managing energy facilities and their impacts and (4) Identification of how affected public and private parties may be involved in the process. These four elements are discussed below.

#### I. Identification of Energy Facilities Likely to Locate in or Significantly Affect the State's Coastal Zone

Energy facilities referred to in the New Jersey Coastal Area Facility Review Act (N.J.S.A. 13:19-1 et seq.), the New Jersey Department of Energy Act (N.J.S.A. 52:27-S-1 et seq.) and the federal Coastal Zone Management Act (P.L. 92-583) are those most likely to be proposed in or significantly affect New Jersey's coastal zone.

They include but are not limited to electric generating plants fueled by coal, uranium, oil and gas; transmission lines; facilities relating to the development of outer continental oil and gas such as support bases or marine terminals, pipeline, compressor stations, gas processing, refineries, tank farms, pipe-coating yards and platform assembly yards; terminals for the transfer, storage and conversion of liquid natural gas (LNG) to natural gas (See also Figure 37). A more detailed resource list is contained in the Energy Use Policies of Chapter Four.

To be located in the coastal zone, these facilities must comply with the relevant local, state and federal regulations and with the Coastal Resource and Development Policies in Chapter Four to be adopted as rules by DEP. Facilities likely to be located in New Jersey's coastal zone have also been addressed in a DEP 1977 Staff Working Paper on Energy Facility Siting Issues in New Jersey's Coastal Zone.

#### II. Procedures to Assess the Suitability of Sites

The general energy facility siting procedures are articulated in the Energy Use Policies in Chapter Four of Part II. The acceptability of all proposed new or expanded coastal energy facilities shall be determined by a review process that involves both the New Jersey Department of Environmental Protection and the New Jersey Department of Energy. The New Jersey Department of Energy is responsible for determining the need for a proposed energy facility, and the Department of Environmental Protection is responsible for determining the acceptability of coastal energy facility sites.

FIGURE 37  
Energy Facilities which may be located in New Jersey's Coastal  
 Zone and their Major Impacts  
MAJOR IMPACTS

	<u>Land Requirements 15 acres 1/2 or less or more</u>	<u>ROW<sup>1</sup></u>	<u>Water's Edge Siting Requirement River/Coast/Channel</u>	<u>Air</u>	<u>Water</u>	<u>Emissions Radiation</u>	<u>Noise</u>	<u>Buffer Requirements</u>
<b>ELECTRIC GENERATING PLANTS FUELED BY:</b>								
Coal	X		X		X			X
Uranium	X		X		X			X
Oil	X		X		X			X
Gas Turbines (Peakload)	X		X		X			X
Hydroelectric		X						
<b>ASSOCIATED FACILITIES:</b>								
Transmission Lines								
<b>OUTER CONTINENTAL SHELF RELATED FACILITIES:</b>								
Primary								
Support Base	X							
Submarine Pipeline Landfall and Right-of-Way								
Pumping/Compressing Stations	X							
Gas Separation/Dehydration Facilities		X					X	
<b>Secondary</b>								
Gas Processing	X							
Refineries	X							
Tank Farm								
Marine Terminal	X							
<b>Tertiary</b>								
Pipe-Coating								
Platform Assembly	X							
LNG	X							
Deepwater Ports <sup>2</sup>								
Uranium Enrichment Plants <sup>3</sup>								
Gasification								

<sup>1</sup>ROW-right-of-way  
<sup>2</sup>Deepwater ports require water site; associated facilities could include either pipelines or marine terminals and storage tanks  
<sup>3</sup>Impacts not yet identified; none proposed for New Jersey

The Department of Environmental Protection will use the Coastal Resource and Development Policies, the three step decision making process discussed in detail in Chapter Three, to determine the suitability of proposed energy facility sites. In general, proposed facilities must comply with the Location, Energy Use and Resource Policies.

The first step in the CLAM method involves identification of the land and water features on a proposed site and a review of the coastal policies for the combination of features of which the site is composed. The Location Policies classify land and water features into three categories: Special Areas, General Water Areas and General Land Areas. The Coastal Resource and Development Policies identify several Special Areas in which development should be restricted, modified, or prohibited to insure their protection.

The Location Policy for General Water Areas varies according to the depth of the water basin, flow of the water channel and proposed use of the water areas. The Waters Area Policy Summary Table presents policies for 18 types of uses in seven types of General Water Areas.

In General Land Areas, the acceptable intensity for development is determined by the coastal region in which the site is located, environmental sensitivity of the site, and development potential of the site, using the Land Acceptability Tables in Section 7:7E-5.6.

Once the location acceptability has been determined according to the location policies, a proposed development must pass through the second and third stages in the screening process, the Use and Resource Policies. For example, a proposed energy facility must comply with the Energy Use Policies. The Resource Policies, which involve a review of the proposed development's effect on the resources of the built and natural environment, serve as standards to which proposed developments must adhere.

### III. Articulation of State Policies and Authority for Managing Facilities and Their Impacts

New Jersey's two major industries are the petrochemical and tourism industry, which occupy first and second place respectively in the state's economy. As long as energy facilities were clustered in the northern waterfront close to the ports of New York, Elizabeth and Newark and along the Delaware close to the Philadelphia - Camden port area, the perceived potential conflicts with siting were few. But as utilities in recent years have turned to the building of larger energy facilities such as nuclear facilities, in the undeveloped sections of the State traditionally devoted to conservation, recreation, tourism and less land intensive uses, and as the need and potential for waterfront recreation in urban areas has been demonstrated, the potential for conflict among competing interests concerning land use has increased.

The policy in New Jersey has been to promote energy production as long as it is not at the expense of the environment. This policy has been stated several times in the context of outer continental shelf development. For example, in January 1977, Governor Byrne said in his annual message to the Legislature:

Although promoting new sources of energy is a primary goal of this Administration, we will not sacrifice our national resources in the name of energy exploration. We are in favor and will actively endorse development of fuel resources on the outer continental shelf -- in an environmentally and aesthetically sound manner.

(See also statements by the Governor before the Department of the Interior in Atlantic City in January 1976; before the House Ad Hoc Committee on the Outer Continental Shelf May 10, 1977, and before the American Bar Association in New York City August 8, 1978.) Such statements have consistently expressed New Jersey's need to balance energy with environmental safeguards.

While articulating the State policy concerning energy development, the energy policies in the New Jersey Coastal Management Program represent the consideration of various conflicting, competing and contradictory local, state and national interests in the diverse coastal resources and in the diverse uses of coastal locations. By balancing the competing interests, the coastal energy policies provide a means to facilitate energy facility siting decisions in New Jersey's coastal zone.

Under the Coastal Area Facility Review Act of 1973, the Wetlands Act of 1970, the Waterfront Development Permit Law, and the Riparian Statutes, DEP has planning responsibility and exercises regulatory authority over the siting of energy facilities in the coastal zone. DEP was also designated by the Governor as the lead agency to plan for and implement the State's coastal program pursuant to the provisions of the federal Coastal Zone Management Act. Under Sections 305 and 306 of the CZMA, a State's coastal program must specifically address planning for and siting of energy facilities.

In 1977 the New Jersey Legislature created the Department of Energy (DOE) to address the energy issues which gained public prominence during the 1973-1974 OPEC embargo and in 1976 when a shortage of gas threatened the state's economy. DOE was conferred with co-extensive jurisdiction with any other state agency regulating energy facilities, which, in most cases, is DEP, administrator of the laws noted above.

Because of their overlapping interests in the siting of energy facilities, DEP and DOE developed a memorandum of understanding to define their respective energy-related responsibilities. A signed copy is contained in Appendix C to the Coastal Management Program and in the DOE Energy Master Plan.

Briefly, the memorandum of understanding states that once permit applications submitted under the CAFRA, Wetlands and Waterfront Development Permit Laws have been declared complete by DEP, the Department will forward a copy of the application to DOE for review.

DOE will then make its findings on the need for the facility and relay these (in the form of an Energy Report) back to DEP 30 days before a decision is due. At the same time, DEP will invite DOE to attend any pre-application conferences or hearings that DEP may schedule.

Should the two agencies disagree concerning the disposition of a proposed energy facility, they must (according to the Department of Energy Act of 1977) inform the Governor who must convene an Energy Facility Review Board made up of the Director of the Division of Energy Conservation and Planning (in the Department of Energy) the head of the agency disagreeing with DOE, and a third person to be appointed by the Governor.

Since DOE was created in 1977, there have been no disputed energy facility decisions.

Municipal and county governments retain their traditional land use authority with respect to the approval or denial of permits for energy facilities.

### Coastal Energy Impact Program

The Coastal Energy Impact Program (CEIP), which provides assistance to states and localities to mitigate potentially adverse effects of energy installations is another technique for managing energy facilities and their impacts. Although the CEIP program is administered by DOE, DEP as the designated lead state agency on coastal zone management reviews all CEIP applications for consistency with the coastal program. In addition, DEP is a member of the Intrastate Allocation Committee which selects CEIP projects for funding. Other members of the Committee include representatives from the Departments of Energy, Community Affairs, the Treasury; the County and Municipal Government Study Commission and Advisory Council on Energy Planning and Conservation.

As already mentioned, energy facilities have wide ranging implications for the social economy of a region. The federal Coastal Management Act requires states participating in the federal coastal program to consider the national interest that energy facilities located in their state might have. Although each state is not mandated to approve such facilities, the State must demonstrate that facilities in the national interest have been considered and it must indicate the process used to consider such facilities.

The process by which New Jersey will consider the national interest in its energy planning is explained in the National Interest section of this Chapter and in Appendix A of the NJ DOE Master Plan. Briefly, DEP and DOE have agreed to consider the national interest in reviewing permit applications. DOE will also address the issue in the Energy Reports it prepares and in the implementation of the State Energy Master Plan. This arrangement was formalized in the Memorandum of Understanding between the two agencies.

#### IV. Identification of How Interested and Affected Public and Private Parties may be Involved in the Planning Process

In New Jersey, participation in the coastal energy planning process takes place in several forms.

##### A. Public Hearings and Meetings

The CAFRA statute requires that a public hearing be held on each permit application. In addition, DEP may at its discretion hold public hearings as part of the review process for other permits issued by the Department. Interested persons may express their views at such meetings, which are usually arranged in close proximity to the site of a proposed project. Notice of public hearings and meetings on permit applications are contained in the DEP Bulletin and the local press.

##### B. Informal Meetings

DEP sometimes schedules meetings on controversial issues to obtain public comments to help in its decision-making. For example, DEP held a meeting in October 1978 in Forked River, Ocean County on the proposed salt-water cooling tower for the Nuclear Generating facility there. This meeting drew about 500 people.

As part of the coastal planning process, over the past four years, DEP has held several series of public meetings to receive public comments on proposed coastal policies and regulations.

Before drafting the Energy Master Plan, DOE held several public meetings to solicit the views of the public concerning what the Master Plan should contain.

C. Regularly Scheduled Meetings

Environmental Advisory Group

DEP meets regularly with an environmental advisory group which includes active representatives from the American Littoral Society, League for Conservation Legislation, the Natural Resource Defense Council, Association of N.J. Environmental Commissions, Sierra Club, N.J. Conservation Foundation, League of Women Voters and Public Interest Research Group and occasional representatives of other statewide environmental groups. Citizens who are unable to attend such meetings, but who wish to express their views may do so through one of these representatives or directly through DEP's Division of Coastal Resources.

The Tidelands Resource Council

The agency which serves as trustee over riparian lands is the Tidelands Resource Council. This is a group of twelve citizens appointed by the Governor, in but not of DEP, which meets twice a month to review applications for riparian grants, leases and licenses submitted under the State's Riparian Statutes. The meetings are open to the public.

Advisory Council on Energy Planning and Conservation

DOE meets monthly with the statutory Advisory Council on Energy and Conservation. The 15-member Council is made up of representatives of the following interest groups: natural gas, bottled gas, home heating oil and coal, terminal operators, refiners, utilities, environmental and consumer. Council meetings are closed to the public although a favorable vote of the Council might permit an individual to attend on a particular issue.

As part of the coastal planning and implementation process, DEP and DOE also meet on request with particular interest groups such as the petroleum industry, utilities, consumer and environmental groups to discuss the implications that proposed energy policies and regulations may have on their activities.

D. Call for Information

In 1975, DEP involved the energy industry early in the coastal planning process by issuing a "Call for Information". Through this, DEP solicited information from industry concerning their projected plans to build energy facilities in New Jersey's coastal zone. One of the goals was to learn more about the siting and technical requirements for outer continental shelf development. While the oil and gas industry response was disappointing and not site specific, the state electric and gas utilities submitted some sites which they indicated they were holding for future construction and/or expansion. From the information received from industry, DEP compiled a document Call for Information on Coastal Energy Facility Siting: An Analysis of Responses which is available to the public.



E. Newsletters and Written Comments

Members of the public may follow energy issues through newsletters issued by DEP and DOE which report on meetings, hearings and recent publications. The Jersey Coast is issued at least quarterly by the Division of Coastal Resources. DOE publishes a monthly Energy Line which is devoted exclusively to energy issues in the state.

DEP's Division of Coastal Resources also maintains a mailing list of over 5,000 names to which it sends the newsletter and other information of interest to the public.

Members of the public wishing to comment in writing on various issues are urged to send comments to DEP and DOE. Comments in response to proposed rules will also be considered under the New Jersey Administrative Procedures Act.

F. Office of Public Participation

DEP established a special Office of Public Participation in 1979 which is staffed with an office chief and an assistant. This office serves as a formal mechanism to coordinate all public participation efforts in the Department.

DEP Division of Coastal Resources public participation activities for all issues including energy facility siting are described in greater detail in Appendix A.

## SHOREFRONT ACCESS AND PROTECTION PLANNING PROCESS

Section 305(b)(7) of the Coastal Zone Management Act and rules adopted thereunder (15 CFR 923.21) require coastal states to develop a planning process that will identify public shorefront areas appropriate for access or protection. The process must include the following elements:

- I. A definition of the term "beach" and an identification of public areas meeting that definition.
- II. A procedure for assessing public beaches and other public areas, including State owned lands, tidelands and bottom lands, which require access or protection, and a description of appropriate types of access and protection.
- III. Identification and description of enforceable policies, legal authorities, funding programs and other techniques that will be used to provide such shorefront access.

These elements are outlined below.

Beach access has not always been a controversial issue in the past, when many urban waterfronts were pre-empted by industrial uses. Access to the shoreline in built-up areas outside beach resorts has recently emerged, however, as an important issue. With new lifestyles and technologies and changing residential settlement patterns, much of the waterfront has become vacant and ready for reuse providing opportunities for urban revitalization and recreation. Shorefront access in this context includes both physical and visual access to the beach and along the urban waterfront. Before continuing, it may be useful to define what is meant by "beach" and the various forms of "access".

### I. DEFINITION OF "BEACH" AND IDENTIFICATION OF PUBLIC AREAS MEETING THAT DEFINITION

The Beach Access Study Commission, staffed by DEP, recommended the following definition of beaches in 1977. "Beaches include both the dry sand area landward from the mean high water line to the vegetation line as well as the wet sand seaward of the mean high water line." Where there is no vegetation, the beach area ends at a seawall, road, parking lot or boardwalk. The wet sand area is known as the public trust land. It belongs to the state of New Jersey unless the state has conveyed a so-called riparian grant for the tide-owned land. (The public trust or commons refer to property to which all members of the community have a right). Access to the ocean for fishing, navigation and transportation has traditionally been regarded as a protected right.

During the 1800's and early 1900's, the State of New Jersey sold riparian grants along about one third of the Atlantic Ocean. Even where sold by the State, tide-flowed (wet sand) or riparian lands remained impressed with a public trust and had to be open to the public for purposes of navigation and commerce.

Tidelands which have been granted to a private entity may be built upon or filled in to the exclusion of the general public only upon issuance of a special riparian "waterfront development" permit. The grant of tidelands excludes any person other than the grant owner from seeking such a permit.

Access relates to legal, physical, and visual and financial considerations. These types are defined below:

A. Legal Access.

According to New Jersey law, land extending seaward of the mean high tide line is held in trust by the State on behalf of the public. These "public trust lands" include the wet portion of the beach that is uncovered six of the 12 hours in a tidal cycle. In recent years, however, courts have come to recognize that the public trust doctrine extends to the dry portion of the beach, at least where that beach is municipally owned.

In the haste to encourage growth and industrialization after the Nation's founding, portions of the beach were often granted to private interests and to municipalities. As increases in leisure time and improvements to transportation in the late 1960's and early 1970's attracted increasing numbers of people to the shore for recreation, efforts to exclude the general public from beach areas led to numerous lawsuits.

The New Jersey courts have not regarded the public trust doctrine - which originally recognized only the public's right to use trust lands for fishing and navigation - as immutable. Rulings favoring increasing public access to municipally owned dry beaches have recognized the important role that recreation plays in today's post-industrial society. Legal access, is less of a problem in New Jersey today than physical or visual access.

B. Physical Access.

Physical access relates to the difficulties of reaching the water's edge because of lack of transportation to the water's edge and/or lack of parking facilities. Physical access to the shoreline, beach and ocean has also been blocked by private construction precluding access to the water for fishing, walking or simply viewing.

C. Visual Access.

Visual access is impeded where construction blocks off views to the beach and water. The protection of views can enhance the character of a place and contribute to protecting its natural features and property values. Views overlooking water also offer intangible social benefits to the public at large which have been recognized as worthy of protection.

D. Fees, Changing Rooms and Parking.

Merely getting to the beaches was a challenge in the past because of limited transportation facilities. Later when highways were built they brought large numbers of people to the shore. In response, some municipalities and residents sought to restrict tourists by imposing various types of fees. While the New Jersey Supreme Court ruled as unconstitutional the imposition of differential beach fees (Neptune vs. Avon 61 NJ 296) between residents and non-residents, most municipalities have imposed fees along the entire shorefront, with the exception of Keansburg,

Atlantic City (which levies an 8 percent luxury tax in its hotels), the Wildwoods and Upper and Lower Township in Cape May County. Because of the wide range in fee schedules, the New Jersey Beach Access Study Commission recommended to the Governor and Legislature in 1977 that beach fees be in line with the actual cost to the local government of maintaining and operating these beaches so that high fees should not deter potential visitors.

Access to the shorefront has also been impeded in the past in some communities by the imposition of high fees for parking and changing facilities. In light of adverse press publicity of such practices, successful litigation and the need for State funding by shorefront communities to cope with storm damage, and recently adopted state review policies as to how to maximize public funds, high parking and changing room fees are not expected to be a factor in the future.

II. PROCEDURE FOR ASSESSING PUBLIC BEACHES AND OTHER PUBLIC AREAS, INCLUDING STATE OWNED LANDS, TIDELANDS AND BOTTOM LANDS, WHICH REQUIRE ACCESS OR PROTECTION, AND A DESCRIPTION OF APPROPRIATE TYPES OF ACCESS AND PROTECTION

New Jersey's small shoreline must serve the dense population of the state and region. This makes it desirable that as much of it as possible be visually and physically accessible to the public. This applies especially to those stretches closest to large seasonal and/or year-round populations. Much of the shorefront in the beach segment (Sandy Hook to Cape May) is open to the public. In the one county - Monmouth - where beach access is particularly restricted, the issue is being litigated by the Department of the Public Advocate.

Along the rivers, much of the adjacent waterfront is in private ownership belonging to industrial, commercial or residential interests. Where this is the case, municipalities are encouraged in the Coastal Resource and Development Policies to take into account the need for providing visual and physical access where new waterfront development is contemplated. Because much of the waterfront in urban areas is vacant and in a state of decay (having been abandoned by railroads and formerly water-dependent facilities), the opportunity exists to bring urban populations back to waterfronts to enjoy the recreational amenities they afford.

Diversity characterizes New Jersey's shorefront with different types of shorefront exhibiting different needs and requiring different management strategies. These types are characterized below.

A. Shorefront Types

There are two major types of shorefront in New Jersey: beach and urban waterfront.

1. Ocean Beach

- a. These include the ocean beaches between Sandy Hook and Cape May Point which are the magnets for the state's coastal resort economy. They are located in Monmouth, Ocean, Atlantic and Cape May Counties, and extend for about 124 miles. Of these, 32.6 miles or 26 percent are in private ownership or use; 63 miles or 51 percent are in municipal ownership, 11.5 miles or 9.2% are in state ownership and

16 miles of 13.4% are in federal government ownership. Most of the private or restricted beaches are located in Monmouth County which is also closest to the densely populated urban areas in the north-east. Overcrowding of beaches in Monmouth County is aggravated by the narrowness of the peninsula on which the beaches are located and the lack of ample parking space in an area where automobiles are the most common mode of transportation to the beach. Bay Head in Ocean County, whose entire beachfront is private, is being challenged in the courts by the Department of the Public Advocate. Public debate and legal action related to the beach access issue have to date focused primarily on the beaches located in the counties cited above.

## 2. Bay Beach

Bay beaches are protected by barrier beaches located along the mainland fronting the Atlantic Ocean. These include the beaches bordering the Manasquan, Navesink, Metedeconk and Shark Rivers; Barnegat Bay; Great and Little Bay; Absecon Bay, Great Egg Harbor and the Intra-coastal Waterway. Bay beaches also include those located along Raritan Bay going north toward the harbor of New York and New Jersey and along the Delaware Bay and River going towards Trenton.

An inventory of the status of ownership and use of 345 miles of bay beaches was made by the U.S. Army Corps of Engineers in 1973. This inventory indicated that much of the land bordering the bays was inaccessible because of extensive wetlands. In the interests of conservation, such land will probably continue to remain inaccessible to conform with the state's policy to protect wetlands which have been identified as geographic areas of particular concern. (The U.S. Army survey (National Shoreline Study) extended up to South Amboy in Raritan Bay and Pennsgrrove on the Delaware River).

## B. Urban Waterfronts Lacking Beaches

Waterfronts in the Harbor of New York and New Jersey, along portions of the Delaware River near Camden, the Arthur Kill, Newark Bay, and the Hudson, Rahway, Hackensack and Passaic Rivers typically do not have beach access, although exceptions do exist, such as at Perth Amboy.

Railroads and industries have dominated the urban waterfront along the Hudson River, Arthur Kill and along the urban sections of the Delaware River near Camden. With the demise of ferries and waterfront terminals and the decline of railroads, much of this waterfront is abandoned and unused. To the extent that publicly-owned lands become candidates for redevelopment, state and local governments have an opportunity to stipulate, as a condition for issuing public funds, that access to the waterfront will be available to the public.

## C. Supply and Demand

Ensuring the adequacy of access depends on the demand for access and the availability of land to supply these needs. New Jersey's shorefront is finite, while the number of people using it is expected to increase in the future. The 1977 edition of the State Comprehensive Outdoor Recreation Plan

(SCORP) predicts that the demand for swimming in salt water will increase from 61,884,252 occasions in 1976 to 68,525,884 occasions in 1985, an 11 percent increase. In 1996, the number of swimming occasions is expected to increase to 77,008,248, a 24 percent increase over 1976. As pressure on the finite waterfront increases, it becomes more important than ever to insure that the waterfronts remain open and accessible to the public.

Recognizing such pressures, the state has taken steps to increase the opportunities for waterfront uses. In the harbor which New Jersey shares with New York, Liberty State Park opened in 1976. While partially finished, it is already serving a demand for waterfront recreation in the densely populated northeastern counties of New Jersey. In addition, its proximity to historic Ellis Island and the Statue of Liberty and its view of lower Manhattan, has made it a major regional, if not a national resource.

D. Local Government Designation of Access Points and Corridors

To the extent that public land will be needed in the future to furnish public access to beaches, based on projections and municipal resource inventories, local governments in the urban waterfront segment may have an opportunity, once New Jersey's coastal management program has been approved, to review the adequacy of existing access points and corridors as defined below and recommend where available access points and corridors may be needed.

Access Corridors are paths or open space systems running parallel to the coast where they may link up with access points.

Access points are paths which run perpendicular to the water from the first inland cultural feature to the water's edge where they may link up with the parallel corridors as defined below.

In recommending access corridors or points of access, municipalities will be asked, at a minimum, to consider the following:

1. The amount and adequacy of shorefront that is available given the resident population and regional demand, using SCORP and/or other supply and demand figures.
2. Identification of access corridor and points of access in terms of their contemplated uses. (i.e. fishing, bicycling, viewing, picnicking, boat launching, photography, historic sites visitations, walking, etc.).
3. Identification of existing corridors in adjacent communities to encourage, to the extent possible, the planning for acquisition of a continuous public access corridor across the boundaries of several municipalities sharing a common waterfront.
4. Provision by each municipality bordering a waterfront beach or bay of at least one public waterfront park for some of the uses outlined above in accordance with the Basic Coastal Policies.
5. That access points serve the largest number of people without creating adverse impacts on the surrounding environment.
6. That access points not impinge on the rights of adjacent private property owners.

III. MANAGEMENT TECHNIQUES: IDENTIFICATION AND DESCRIPTION OF ENFORCEABLE POLICIES, LEGAL AUTHORITIES, FUNDING PROGRAMS AND OTHER TECHNIQUES TO PROVIDE SHOREFRONT ACCESS

The state has a variety of enforceable policies, legal authorities, funding programs and monitoring techniques which help maintain and increase public waterfront access in New Jersey. These are described below:

A. Public Trust Doctrine

As delineated in Appendix F (Legal Commentary), maintaining public access to the shorefront in the coastal zone evolved from the Public Trust Doctrine. This is property to which all members of a community traditionally had a right to use for fishing and navigation. The New Jersey Supreme Court extended the public trust doctrine to include recreation in its Neptune vs. Avon (61 NJ 296) decision of 1972.

Until 1978, the Public Trust Doctrine did not apply to New Jersey's dry sandy beaches owned by either local, state or federal government or by private individuals or associations. In 1978 a New Jersey Supreme Court decision (Van Ness v. Deal [78 NJ 174]) extended the Public Trust Doctrine to apply to the dry sand of municipally-owned beaches:

"whether natural, or man-made the beach is an adjunct to ocean swimming and bathing and is subject to the Public Trust Doctrine."

It should be noted that the cases to date relate exclusively to publicly-owned lands.

However, if New Jersey's coastal management program is approved, planning funds for the acquisition of waterfront sites would be available under Section 306 of the Act which could be combined with State Green Acres program funds to acquire, design and and develop shorefront access systems.

B. Coastal Permit Review

The authority to promote public access through regulatory action is contained in the four fundamental coastal laws summarized in Chapter Three: CAFRA, the Wetlands Act, the Waterfront Development Law, and the Tideland Statutes.

Several applications for CAFRA permits were denied in 1976 and 1977 for, among other reasons, not giving adequate consideration to the issue of shorefront access. The reasons for denial are stated in the following published opinions: Opinion 1 - Lehigh Construction (Toms River Condominium); Opinion 27 - Tranquillity Park; Opinion 35 - Riverview Heights; and Opinion 37 - Shark River Island development. Copies are available from the Bureau of Coastal Planning and Development.

In addition, the State has an opportunity through its capital spending programs (See Chapter Three) to insure that funds will be used to maximize the public's access to the shorefront.

C. Capital Spending

1. State Program

- (a) The Green Acres Program administered by DEP determines how funds from the federal Land and Water Conservation Fund and State Green Acres bond issues may be spent for park and open space acquisition and development. Green Acres funds have been used to acquire several waterfront sites for public use. These include Higbee Beach (Cape May County), Seven President's Park (Monmouth County), Gattus Island (Ocean County) and Liberty State Park (Hudson County).
- (b) The New Jersey Conservation Foundation, a private organization, sometimes assists the state by acquiring options on land in emergency situations for later acquisition by DEP's Green Acres Administration.
- (c) The Beaches and Harbor Fund Act provides funds to municipalities to restore shorefronts damaged by storms, hurricanes and the like. In administering the Shore Protection Program, State policy since 1972 has been to make the disbursement of funds to municipalities conditional upon their making the shorefront open to the public. This policy is also reflected in proposed rules under the Beaches and Harbor Fund Act of 1977.

2. Federal

In Section 315 of the federal Coastal Zone Management Act, as amended in 1976, Congress authorized the acquisition of lands to provide public access along shorefronts containing environmental, recreational, historical, scenic, ecological or cultural benefits. Unfortunately, these funds have not been appropriated to date.

D. Other Techniques to Provide Shorefront Access

A. Monitoring

New Jersey's short 126 mile oceanfront beach stretch makes it possible to inspect it periodically by foot and/or by air. In 1976 and 1978, members of DEP and citizen representatives walked the length of the 124 mile shorefront to assess the state of the beaches with respect to erosion, storm damage and access. Along the way, they met with heads of municipal governments. Recommendations from these inspection tours were included in a report to the Governor and Legislature in April 1977 by the Beach Access Study Commission which was appointed by the Governor in 1976 to study the issue of beach access. These recommendations have been incorporated into the policies of the Coastal Management Program. Similar beachwalks and surveys which will be continued in the future will form the basis for evaluating where additional points of access are needed and should be acquired.



Resulting from the 1976 beachwalk and the Beach Access Study Commission report was the publication in 1977 and annual updates in 1978, 1979, and 1980 of A Guide to New Jersey Beaches. This provides an inventory of New Jersey beaches, and the resources and facilities they afford. The inventory, which was distributed widely to the public, includes the schedule of beach fees charged by various municipalities and indicates if parking and mass transit (mostly bus) are available.

B. Beach Shuttle

In 1977, DEP, with financial assistance from NOAA-OCZM, instituted a beach bus shuttle from the heavily travelled Garden State Parkway in Toms River to Island Beach State Park. The purpose of this experiment was to increase the use of the State Park whose limited parking facilities do not reflect the actual number of people that the park can safely and ecologically accommodate. The shuttle transported 7,594 people in 1977 at a cost of \$50,000 or \$6.08 per person and 7,714 people in 1978 at a cost of \$42,000 or \$4.95 per person (these costs were in addition to a per capita charge of \$.50).

The beach shuttle was also operated with State funds during the summers of 1978 and 1979 and is being operated during the summer of 1980. Because the shuttle allows more people to use Island Beach State Park and with a potential fuel shortage, DEP hopes to continue operating the beach shuttle each summer.

The first year of the program was subsidized by the federal Office of Coastal Zone Management as a pilot project. The project has continued through the involvement of several units of government, including the New Jersey Departments of Transportation and Energy, the New Jersey Highway Authority, Ocean County, Dover Township, and the Dover Township Sewerage Authority.

C. Enforceable State Policies Pertaining to Shorefront Access and Protection

The State policies pertaining to shorefront access and protection (see Chapter Four) include the Special Area Policies for Beaches (7:7E-3.21); Coastal Wetlands (7:7E-3.23); and Central Barrier Island Corridors (7:7E-3.22). The Resource Policies address Public Access to the Shorefront (7:7E-8.13) and Scenic Resources and Design (7:7E-8.14).

As outlined in an earlier section of this Chapter, New Jersey has designated the following shorefront areas as being of particular concern:

- Coastal Wetlands (generic)
- Wet Sands
- Higbee Beach
- Cape May Point Natural Area
- Cape May Wetlands Natural Area
- Strathmere Natural Area
- North Brigantine Natural Area
- Great Bay Natural Area
- Island Beach State Park
- Swan Point Natural Area
- Manahawkin Natural Area

Liberty State Park  
Rancocas Natural Area  
Hackensack Meadowlands Development Commission District

They have been singled out for special treatment because of their recognized ecological sensitivity and uniqueness under the Natural Areas System Regulation (N.J.A.C. 7.2-11.5-B); their regional, state and/or national significance and, not least, because of the availability of state legal authorities to protect them.

CONCLUSIONS

The most important aspects of the shorefront planning process will be to identify where access is or is not available. This will constitute the first step towards developing strategies, such as a possible acquisition schedule, to ensure adequate access to and along New Jersey's shorefront. Such planning becomes more feasible within the framework of a comprehensive coastal program and will become an implementation task after New Jersey's entire coastal management program is approved.

## SHORELINE EROSION/MITIGATION PLANNING

### Introduction

Under the federal Coastal Zone Management Act, state coastal management programs must include a planning process for assessing the effects of shoreline erosion and studying ways to control the impact of such erosion and to restore areas adversely affected by such erosion. These specific federal requirements are defined in Section 305(b)(9) of the Act. The pertinent federal rules on this requirement are identified at 15 CFR 923.25. This planning process must include two parts:

- (1) A method for assessing the effects of shoreline erosion and evaluating techniques for mitigating, controlling or restoring areas adversely affected by erosion, and
- (2) Identifying and describing enforceable policies, legal authorities, funding techniques and other techniques that will be used to manage the effects of erosion as the State's planning process indicates is necessary.

### Background

Since the early 1920's, the State of New Jersey has been giving financial and technical assistance to help shorefront municipalities cope with shoreline erosion. In the early 1940's, new State legislation (P.L. 1940, C. 52; N.J.S.A.) authorized and empowered the then Department of Conservation and Economic Development, now the Department of Environmental Protection, to repair, reconstruct or construct bulkheads, seawalls, breakwaters, groins, jetties, beachfills, dunes, and any or all appropriate structures for shore protection purposes. The annual appropriation for this work was \$1.0 million. In recent years, the need for shoreline erosion planning has been heightened as a result of major coastal storms, particularly the March 1962 storm, the cumulative effects of minor storms in the past decade and increased shoreline development. The New Jersey Capital Budgeting Commission recognized the annual \$1 million appropriations for State aid to municipalities for shore protection purposes was inadequate and in 1977 the voters of the State approved a \$30 million Beaches and Harbor Bond Issue, which provides \$20 million for State aid for shore protection purposes.

In brief, the State of New Jersey has had a shoreline erosion planning and management process in place for several decades. This section of the New Jersey Coastal Management Program documents the process and outlines the work underway today and also that work likely to be undertaken in the future as the State continues to confront the challenge of shoreline erosion.

#### 1. Shoreline Erosion Assessment Method

The New Jersey approach to assessing the effects of shoreline erosion has four components: First, review previous studies of shoreline erosion; second, initiate shoreline erosion studies; third, participate in ongoing shoreline erosion studies by other agencies and organizations; and fourth, review site-specific development proposals in the coastal zone that may affect shoreline erosion.

The most significant previous studies of shoreline erosion in New Jersey that have been reviewed were conducted by the U.S. Army Corps of Engineers, both the New York and Philadelphia Districts. In 1953, the Corps of Engineers, New York District conducted a comprehensive study and issued a report for the shore protection required along the Atlantic oceanfront from Sandy Hook to Barnegat Inlet. In 1956, the Corps of Engineers, Philadelphia District completed a similar study for the area from Barnegat Inlet to Cape May Point. More recently, the Cape May County Planning Board prepared a report on its beaches and inlets called Inlets and Beaches, Cape May County, March 1977.

As part of the coastal planning process funded since 1974 under the federal Coastal Zone Management Act, the Department of Environmental Protection has initiated staff and consultant studies of shoreline erosion. The most comprehensive work to date, entitled Coastal Geomorphology of New Jersey, was completed in 1977, under contract to DEP, by the Center for Coastal and Environmental Studies at Rutgers University. Additional minor staff studies have been carried out in the past and are likely to be initiated in the future. The most significant study initiated by DEP currently is the preparation of a statewide Shore Protection Master Plan, by Dames and Moore, Inc. of Cranford, New Jersey, consulting engineers and scientists, who are assisting the Department of Environmental Protection and the Department of Treasury, Division of Building and Construction in carrying out the shore protection portion of the 1977 Beaches and Harbors Bond Issue. The Center for Coastal and Environmental Studies has begun a technical study to determine the protective capacity of natural and man modified dune areas for the purpose of delineating dune management areas. As necessary, additional analytical studies will be initiated in the future.

Third, the Department of Environmental Protection participates in ongoing shoreline erosion studies carried out by other agencies, particularly the U.S. Army Corps of Engineers and relevant county and municipal agencies. The entire process of shore protection in New Jersey is a cooperative state-municipal, and often federal-state-county-municipal effort. As specific shoreline studies are completed to protect specific inlets, replenish beaches, or propose additional measures, these studies are closely coordinated by the Department of Environmental Protection as the lead agency in shore protection. Similar participation in joint studies will continue in the future.

Fourth, the Department of Environmental Protection reviews site specific development proposals along the waterways (ocean, bays and rivers, etc.) of the State for a number of considerations, including shore protection. This site specific review provides opportunities for review of individual projects at specific locations.

Fifth, field staff of the Department of Environmental Protection visually monitor the shoreline frequently, from the ground and the air in order to identify shoreline erosion problems. This surveillance method for assessing the effects of shoreline erosion will continue and will become an increasingly important monitoring method. DEP has also received updates on important local issues from the Coast Watchers, a group of concerned citizens organized by the American Littoral Society who live in and monitor the coast.

The general conclusion of all these reports is that the problem is quite severe, since the shoreline is receding with an annual loss of sand from the New Jersey beaches of approximately 2,600,000 cubic yards.

The main problem is that there is no natural external supply of material to offset the annual loss of sand. This means that the sand available for accumulation on the updrift sides of groins and jetties is being eroded from existing beaches. It also means that to provide adequate shore protection to beaches the sand has to be transported by hydraulic dredging or by trucking in the material.

The source of sand material required for the artificial nourishment of the beach comes from nearby borrow areas in the interior bays and lagoons. When this source of sand material is not available, nearby land borrow areas will have to be used.

Ultimately, the time will come when these nearby sources of sand material, i.e. bays, lagoons, and nearby land borrow sites for artificial beach nourishment, are depleted. Then it will be necessary to find sand on the mainland or offshore in the Atlantic Ocean.

An economic way of removing sand from the ocean floor is under study by the Corps of Engineers, and as part of this study a pilot project of direct pump out of hopper dredges of the Philadelphia District was initiated at Sea Girt in 1962 to explore the utilization of offshore sand source.

Presently the Division of Coastal Resources works with local engineers in the design of the needed jetties, groins, seawalls, bulkheads, revetments, and beachfill. The Division then advertises for bids and administers the contract and supervises their construction. Field personnel from the Division constantly monitor New Jersey's beaches, watching for developments which may be the forerunner of serious beach erosion problems.

The creation of the Shore Protection Master Plan is the initial major task of the Bond Program. The Shore Protection Master Plan will be a regional statewide shoreline plan, to be financed by the Beach and Harbors Fund (1977). It will outline a method for designating areas for erosion control, mitigation and/or restoration. Some of the criteria for the study are listed below. The major objectives are to maintain and protect beaches through the identification of areas of concern for program development, including identification of State agencies involved, procedures for program administration and funding strategies, identification of legal authorities and funding programs and other techniques that can be used to meet management need. In part, the master plan will identify:

- 1) Coastal Features and Processes
- 2) The Status of the New Jersey Shore
- 3) Alternative Responses to Coastal Erosion and Public Policy
- 4) Shore Erosion Control Alternatives
- 5) Comparative Evaluation of Alternative Responses to Erosion

The Phases of the Bond Program will be: a) a comprehensive regional design phase creating a master plan, b) a municipal coordination phase, c) an individual reach design phase and d) a construction phase for each reach.

A major task will be the survey and assessment of the extent of damage or threat of damage and a priority listing of facilities, projects and programs, dealing with this damage. The objective is to physically alter the shoreline to correct for storm damage, retard or arrest erosion and increase the accretion process. This process will correct emergency conditions of storm damage, create larger protected beaches, provide additional and future shoreline protection from storms, rehabilitate existing shore protection structures and provide routine maintenance for shore protection facilities.

The program will also increase public participation, appreciation and awareness of shoreline uses by providing greater beach access, increasing public ownership of shorefront lands, providing stimuli for initiating and improving local beach protection laws, providing incentives for increased local government land use planning and increasing State tourism and recreational use of the shoreline.

A community's eligibility for fundable projects will be determined by whether it has: 1) an acceptable beach access policy and planning process, 2) an acceptable beach/dune protection policy and other management techniques and 3) an acceptable high risk beach erosion policy and other management techniques.

The Division of Coastal Resources funded Rutgers University, Center for Coastal Environmental Studies in 1979 to delineate dune management areas.

From 1952 to 1971, aerial photographs were taken by the Division of Coastal Resources in the spring and in the fall. These photographs created an excellent historical record of the shoreline. During 1972, the funds used for shore protection flights were diverted to wetlands photography, which produced coastal photography for 1972. Between 1973 and 1976, no flights were made. Half of the 1977-78 flight was flown in the fall of 1977 and the other half was flown in the Spring of 1978. All of the photography produced by the Division has enabled careful assessment of the effects of shoreline erosion.

To meet the specific "geographic areas of particular concern" requirements of the federal Coastal Zone Management Act (Section 305(b)(3)), New Jersey has designated all coastal wetlands, the Higbee Beach-Pond Creek Meadow Area, wet sand beaches and the Hackensack Meadowland District as "geographic areas of particular concern" as defined under federal law. New Jersey has also defined ten areas under the State Natural Area System Act of 1976 as "geographic areas of particular concern". New Jersey has decided not to designate any geographic areas of particular concern, under federal law, for erosion purposes, although the wet sand beaches clearly are areas where erosion sometimes occur. Under the federal Coastal Zone Management Act, states must also establish a process for identifying various preservation and restoration areas. The chief process employed by New Jersey for identifying such areas in terms of shoreline erosion is the shore protection master plan currently underway. The aim of the master plan is to identify on a reach-by-reach basis, those areas in need of various types of shore protection. Areas appropriate for restoration will be included as part of this process.

New Jersey's basic procedure for managing the effects of shoreline erosion is the ongoing program of analyzing the shore protection needs of the State and responding to those needs, within the limits of available technical and financial resources, with appropriate construction activity. Each year, DEP's Division of Coastal Resources makes an annual determination on the projects likely to be funded in a particular year. Depending upon the availability of funds and the need for and the urgency of shoreline erosion, projects may range widely in scope.

For example, current projects under consideration in 1979 include construction of three low profile groins at Sea Isle City (Cape May County), replacing the deteriorated timber bulkheads with aluminum bulkheads in Shark River in Neptune Township (Monmouth County), replacing steel bulkheads with reinforced slab bulkhead at Belmar (Monmouth County), replacing and repairing a stone seawall along Ocean Drive at the northern tip of Avalon (Cape May County), constructing a jetty at Bidwells Creek Harbor of refuge at Middle Township (Cape May County), constructing a bulkhead at Wills Hole Thorofare, Point Pleasant Beach (Ocean County), repairing the seawall at Sea Bright (Monmouth County), and beach replenishment in Atlantic City (Atlantic County). These illustrative projects are all managed jointly by DEP in conjunction with the appropriate municipality.

In addition, DEP undertakes emergency shore protection action as necessitated by storms and natural disasters. Also, shore protection needs that develop through the ongoing inspection programs of the Division of Coastal Resources are addressed in this manner.

#### Enforceable Policies, Legal Authorities and Funding Techniques for Shoreline Erosion Management

New Jersey has proposed five key policies on shoreline erosion, which are contained in Chapter Four. The Special Area Policies on High Risk Erosion Areas, Beaches and Dunes (7:7E-3.19), Use Policies on Coastal Engineering (7:7E-7.11), and the Resource Policy on Flood Hazard Areas (7:7E-8.23) are the applicable policies. In addition, the more general policy on shoreline erosion, and the appropriation of shore protection funds can be found in the enabling legislation for the 1977 Beaches and Harbor Bond Issue.

The statutory basis for New Jersey's shoreline erosion planning and management efforts rests upon several State laws. First, P.L. 1940, C. 42 authorized and empowered the Department of Environmental Protection to repair, construct or reconstruct bulkheads, seawalls and other shore protection structures, including beachfills and dunes as necessary to protect the environment. The Beaches and Harbors Fund established by the 1977 Beaches and Harbors Bond Issue also explicitly authorizes this Department to undertake shore protection planning and to implement the plan that is developed. The first appropriation of funds from the bond issue reiterated the importance of and reauthorized the Department's efforts. In addition, the enabling legislation establishing the Department in 1970 authorized the preparation of comprehensive plans for natural resource management. The planning mandate of the Coastal Area Facility Review Act also authorizes the Department to prepare a management strategy for the coastal environment, which includes the shoreline. The chief funding program available for shoreline erosion planning and management is the 1977 Harbors and Beaches Bond Issue which provides for \$20 million in funds that may be made available to municipalities on a matching basis. In previous years, an annual appropriation of \$1 million was made available for shore protection purposes, a sum that proved inadequate to the task. In

addition, funds may be available for large scale projects that are part of an approved federal project financed by the U.S. Army Corps of Engineers. This applies particularly to protective work for the major inlets along the Jersey shoreline.

Finally, the land management activities regulated through New Jersey's coastal management program also address shoreline erosion planning to the extent that inappropriately located development is carefully scrutinized and prohibited where necessary, when it would adversely effect shoreline erosion problems.

In 1977, recognizing the severity of the problem and the limited resources available, the Beach and Harbor Bond Act (P.L. 1977, c. 208) was passed. The Act authorized the creation of a debt of the State of New Jersey by the issuance of bonds of the state in the aggregate principal in the amount of \$30,000,000 for the purposes of researching, planning, acquiring, developing, constructing and maintaining beach (and harbor) restoration.

In 1978, the Commissioner of the New Jersey Department of Environmental Protection, under the authority of "Beaches and Harbors Bond Act of 1977" P.L. 1977, c.208, N.J.S.A. 12:6A-1 et seq., and N.J.S.A. 13:1-11 et seq. proposed to adopt regulations to establish procedures for governing the operation of shore protection construction projects and research design programs that are financed, in part or in whole, by funds from the Beaches and Harbor Fund. The rules proposed prescribe procedures for application, selection, award, and administration of matching grants and design or construction contracts; provide guidance for determining site specific considerations for locating shore protection structures; establish policies and procedures for distribution of operational funds for the purpose of making State matching grants to local governmental agencies for the planning, design and construction of shore protection facilities, dune restoration, and beachfill projects; establish procedures for contract construction. Also, the proposed rules provide guidance in developing a comprehensive shore protection plan.



CHAPTER SIX - NEXT STEPS IN COASTAL MANAGEMENT IN NEW JERSEY

Introduction  
Management System  
Coastal Policies  
Data Management and Information System  
New Legislation  
Conclusion

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Introduction

New Jersey has devoted growing attention to the management of its coastal zone over the last ten years. This New Jersey Coastal Management Program and Final Environmental Impact Statement presents the results of the efforts to date. The anticipated federal approval of the New Jersey Coastal Management Program will be an important step forward. New Jersey will then become eligible for increased grants to implement the program throughout the coastal zone under Section 306 of the CZMA. These grants will enable the State to apply the program and to refine and improve it as necessary. The coastal activities New Jersey plans to pursue following program approval are summarized below. They are grouped into four general areas: Management System, Coastal Policies, Data Management and Information System, and New Legislation.

Management System

New Jersey will continue to work to improve the clarity and efficiency of its coastal regulatory programs. This will include following up the reorganization of the Division of Coastal Resources (formerly Marine Services) in the summer of 1979, with the preparation of one set of procedural rules to govern the CAFRA, Wetlands and Waterfront Development permit programs, and with further efforts to insure that only one review process is required for an applicant needing any number of approvals from the Division.

In addition, the Division will further develop its monitoring and enforcement activities which were substantially upgraded by the Division reorganization. Staff will be added to the new Bureau of Coastal Enforcement and Field Services so that the Bureau will be able to insure that coastal activities subject to DEP regulation are, in fact, regulated and that coastal regulatory decisions made by the Division are followed.

The Division of Coastal Resources will also work with other parts of DEP and other State agencies to maximize the use of the Coastal Resource and Development Policies, and to create additional procedures for the joint review of projects requiring permits and/or funding from several state sources. Similarly, the Division will continue to seek such opportunities with federal, regional, county and municipal agencies. The application of "federal consistency" to projects in New Jersey once the Coastal Management Program is approved should enhance State-Federal coordination.

The Division of Coastal Resources will also continue to seek specific local projects which can help further the Coastal Resource and Development Policies. The Division will pass through a limited number of small grants from its CZMA grants to municipalities and counties in the coastal zone. In addition, the Division will provide advice and technical support to regional and interstate agencies, municipalities, counties for projects such as the review of plans, ordinances and specific coastal proposals, and to help identify and coordinate other state, regional and federal agencies which may be able to collectively help realize a local coastal project.

Lastly, DEP will continue its public participation program to insure that people affected by the Coastal Management Program are aware of it and understand it, and that interested people have opportunities to help improve it. DEP, therefore, will continue to publish The Jersey Coast, to produce reports, displays, and slide shows focused on coastal issues and to speak frequently at public meetings and events.

#### Coastal Policies

DEP will continue to develop the Coastal Resource and Development Policies to make them increasingly specific, predictable and easily understandable. At least once each year, the Department will consider whether revisions should be proposed to the administrative rules under which the policies will be adopted.

The Department will incorporate the work products received from two contractual studies completed in 1979: an estuarine study and a development potential study. In addition, DEP will continue to seek and explore techniques to more fully integrate social and economic information into coastal decision making. DEP will also continue to analyze specific coastal issues of importance including fisheries management, the development of a shore protection master plan, and the appropriate location for marine and estuarine sanctuaries in New Jersey. The Department will then use the results of these analyses to propose revisions to the Coastal Resource and Development Policies and to take other steps which may be indicated.

#### Data Management and Information System

One major current and continuing activity of the New Jersey Coastal Management Program is the development of a geographic information system which would be useful for coastal planning and decision making by the Division of Coastal Resources and valuable for as many other DEP programs, and programs in other State, Federal and local agencies, as possible. One important goal of such a system is that it be stored on a computer so that information could be readily used for a wide variety of calculations and could also be routinely updated relatively easily and cheaply.

The Coastal Location Acceptability Method (CLAM), the automating of CLAM (Auto-CLAM), and further adaptations require a wide variety of geographic and tabular data from a number of sources. Output quality is limited by the accuracy and updatedness of these data. Remote sensing data, both optical and digital, ground truth surveys, monitoring station data and published data must all be integrated and combined in a single analysis. This requires better survey updating and better indexing and cross referencing of geo-data than now exists.

## New Legislation

The New Jersey Coastal Management Program is based entirely on existing State laws. In the course of administering these laws and of preparing the Coastal Management Program, interested citizens and DEP staff have suggested potentially desirable changes which could not take effect without enactment of one or more new laws. While such changes are not necessary to achieve federal approval of the coastal management program, DEP will work to explore in detail the desirability and feasibility of such changes to improve the effectiveness and efficiency of the Program.

In Options for New Jersey's Developed Coast (March 1979), DEP included for public comment a description of one possible new coastal law (pages 43-49). This is just one of the legislative options DEP will consider. In brief, the issues which DEP will pursue which may require new legislation include the following:

- Protection of sand dunes and restriction of building in areas subject to storm damage.
- Restriction of development which threatens or blocks public access to, or mars the view presented, by the Palisades.
- Consolidation of the three current State coastal permits -- CAFRA, Wetlands and Waterfront Development -- into one permit program. This would include a reevaluation of the types of development subject to DEP regulation so that, for example, environmentally sensitive areas could be regulated more intensively than they now are, while less vulnerable areas would be less intensively regulated.
- Delegation of some DEP regulatory responsibilities to county or municipal governments. This delegation would be proposed only for local governments with adopted plans and ordinances consistent with the New Jersey Coastal Management Program, and only if DEP retained the right to overrule local variances, amendments or modifications to local plans it had certified.

## Conclusion

Changes to the program will be fully discussed in public before they are adopted, and will be incorporated according to the National Oceanic and Atmospheric Administration Final Regulations for Amendments to and Termination of Approved Management Programs (CFR 9, Chapter IX, Part 923, Subpart 1).

As this Chapter has demonstrated, Federal approval of the New Jersey Coastal Management Program will accelerate, rather than conclude, coastal planning and coastal management in the State.

DESCRIPTION OF THE NEW JERSEY COASTAL ZONE -  
AFFECTED ENVIRONMENT

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PART III - DESCRIPTION OF THE NEW JERSEY COASTAL ZONE: AFFECTED ENVIRONMENT

Introduction  
Delineating the Boundary  
Municipalities Within the Coastal Zone  
Description and Visions of the Coastal Zone  
    Northern Waterfront Area  
    Bay and Ocean Shore Area  
    Delaware River Area

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Introduction

This part of the Final EIS describes the geographic area affected by the management program for the New Jersey Coastal Zone. The criteria used to delineate the coastal zone will be discussed, followed by a description of the coastal zone as it is today, together with a general vision of what the zone is likely to become following implementation of the Coastal Management Program.

Delineation of the Boundary

New Jersey's coastal zone extends from the New York border south to Cape May Point and then north to Trenton. It encompasses the waters and waterfronts of the Hudson River and related water bodies south to the Raritan Bay, the Atlantic Ocean and some inland areas from Sandy Hook to Cape May, the Delaware Bay and some inland areas, and the waterfront of the Delaware River and related tributaries. The coastal zone encompasses areas in which the State, through the Department of Environmental Protection, has the authority to regulate land and water uses that have a significant impact on coastal waters. These authorities include the Coastal Area Facility Review Act (CAFRA), the Wetlands Act, the Waterfront Development Law, riparian statutes, and the Hackensack Meadowlands Reclamation and Development Act.

The inland boundary for the portion of the coast traditionally regarded as the "Jersey Shore" from Sandy Hook to Cape May, plus adjacent areas along Raritan Bay and Delaware Bay (consisting of parts of Middlesex, Monmouth, Ocean, Burlington, Atlantic, Cape May, Cumberland and Salem Counties) is defined as:

the landward boundary of the Coastal Area as defined in the Coastal Area Facility Review Act (CAFRA), or the upper boundary of coastal wetlands located landward of the CAFRA boundary along tidal water courses flowing through the CAFRA area, whichever is more landward, including State-owned tidelands.

In the more developed portions of the State (including portions of Salem, Gloucester, Camden, Burlington, Mercer, Middlesex, Somerset, Union, Hudson, Essex, Passaic and Bergen Counties) the coastal zone boundary is defined as:

the landward boundary of the State's jurisdiction under the Waterfront Development Act (N.J.S.A. 12:5-3) or the Wetlands Act (N.J.S.A. 13:9A-1), or the landward boundary of State-owned tidelands, whichever extends farthest inland.

The boundary in these parts of the coastal zone coincides with the geographic jurisdiction of the Waterfront Development Law (discussed in "Principal Implementation Programs" section of Chapter Three).

The boundary of the Hackensack Meadowlands region is defined as:

the boundary of the area defined as the Hackensack Meadowlands District by the Hackensack Meadowlands Reclamation and Development Act (N.J.S.A. 13:17-1 et seq.).

The seaward boundary of the coastal zone is the three nautical mile limit of the United States Territorial Sea, and the interstate boundaries of the States of New York, and Delaware and the Commonwealth of Pennsylvania.

A generalized view of the New Jersey Coastal Zone is shown in Figure 38.

The federal Coastal Zone Management Act establishes the following general standards which states must meet in selecting a coastal zone boundary.

"'coastal zone' means 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 proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends ... 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 on 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." (Section 304 (1))

DEP first publicly analyzed the selection of the coastal zone boundary in December 1976 in a staff working paper entitled "Alternative Boundaries for New Jersey's Coastal Zone". This 55 page paper, which was widely circulated and discussed, described possible boundaries and included a preliminary recommendation.

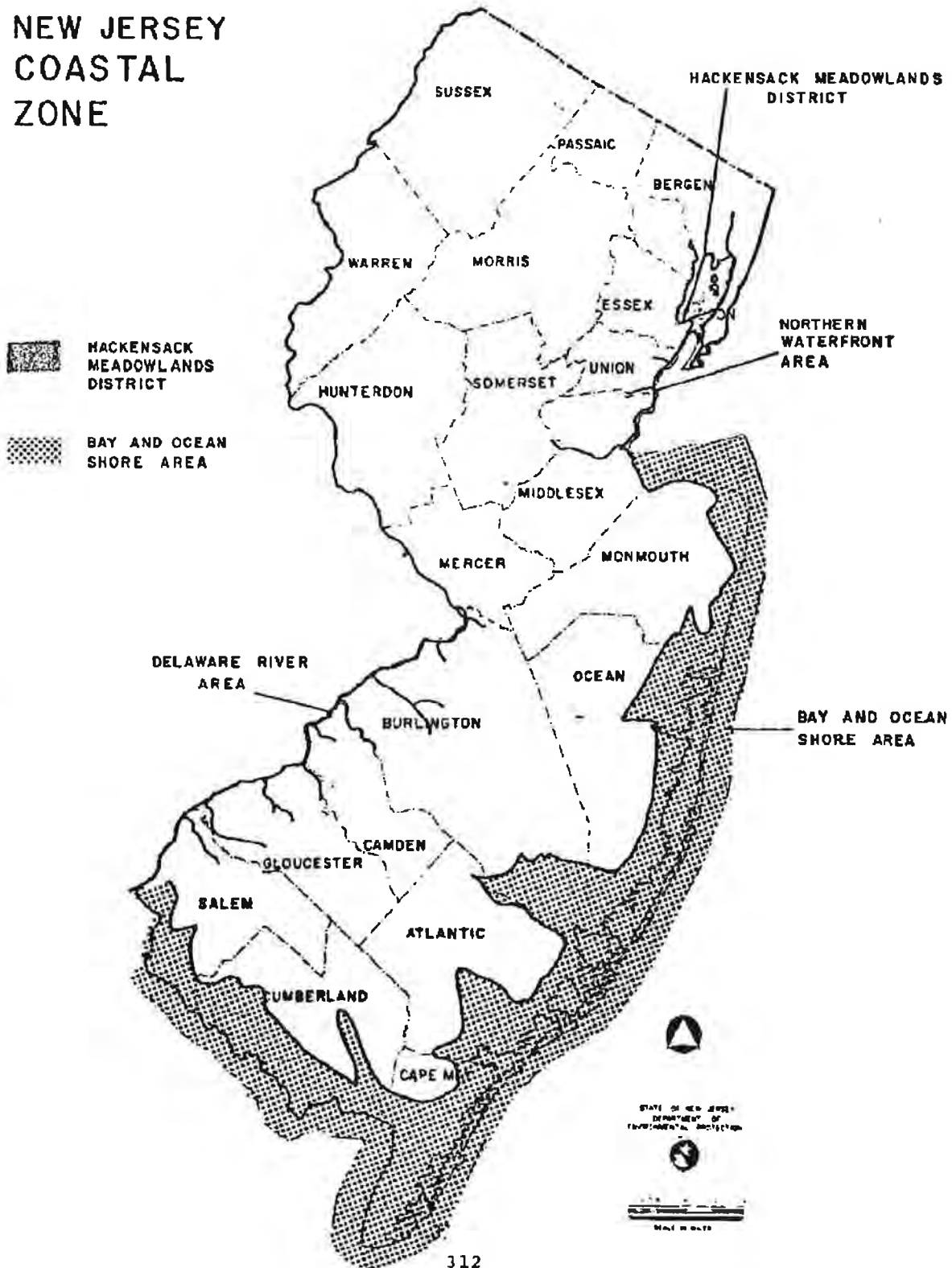
The coastal zone boundary is a detailed refinement of the preliminary recommendation. Comments by interested individuals and groups, particularly County Planning Boards, suggested specific modifications, some of which have been incorporated into the boundary. The most significant change has been the restriction of the Coastal Zone to areas over which the Department has jurisdiction.

Coastal Waters include tidal portions of the Atlantic Ocean, Hudson River, Passaic River, Hackensack River, Raritan River, Delaware River, Newark Bay, Upper New York Bay, Raritan Bay, Arthur Kill, Kill Van Kull, Delaware Bay and their tidal tributaries, and other tidal streams of the Coastal Plain.

The upstream extent of coastal waters can be defined either by the limit of waters containing a specified percentage of salinity, the extent of the salt wedge, or tidal influence. DEP has chosen the landward penetration of tidal influence in a watercourse because this provides a readily measurable dividing line for coastal and non-coastal waters. (The tidal limit also coincides with the extent of State-owned tidelands under the tidelands management program). Salinity levels are

Figure 38

# NEW JERSEY COASTAL ZONE



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highly variable geographically throughout the seasons and from year-to-year, and therefore not appropriate for fixed boundaries, given the complexity and diversity of New Jersey's estuaries.

Two methods have been used to define the upstream limit of tidal activity. First, the approximate tidal limits specified in the annual Compendium of New Jersey Fish Laws, published by DEP's Division of Fish, Game and Wildlife have been used where available. These limits are typically defined as bridges or dams. Second, the point where the 20 foot contour interval crosses the water course is used to define the approximate limit of tidal influence along other tidal water courses. The 20 foot contour line criterion was suggested by DEP's Office of Environmental Analysis, since most of tidal influence is within the first 20 foot elevation.

The Office of Environmental Analysis is currently working to define precisely and legally New Jersey's tidal limits and also the State's claim to tide-flowed lands. This delineation is now complete for the Hackensack Meadowlands District. When this work is completed for other parts of the coastal zone, DEP will consider amendments to the coastal zone boundary. The New Jersey Supreme Court recently upheld DEP's method for delineation in the case of City of Newark v. Natural Resource Council (May 15, 1980).

Tidal influence makes the Delaware River region immediately adjacent to these waters "coastal" in the sense intended by the federal Coastal Zone Management Act. Although the Coastal Area Facility Review Act (CAFRA) boundary stops south of the Delaware Memorial Bridge, the tidal influence on the Delaware River extends 60 miles further north to Trenton. Because of the flat topography of the Coastal Plain, tidal tributaries from the Delaware River extend up to 10 miles inland. NOAA-OCZM does not require inclusion of the Delaware River within New Jersey's coastal zone as the quantity of seawater is less than five parts per thousand. However, the State of New Jersey does today manage the wetlands and riparian lands along this part of the coast and DEP chose to include these areas within the coastal zone because they can benefit from the application of the Coastal Resource and Development Policies to State decisions and from the increased attention and funding available to areas within the coastal zone.

As part of their contracts with DEP, several coastal county planning boards suggested a coastal zone boundary for their county. These suggestions were summarized and analyzed by DEP in Options for New Jersey's Developed Coast.

One other comment on the boundary is worthy of note. That is the boundary modification suggested by the Wave Hill Center for Environmental Studies, the Waterfront Coalition of Hudson and Bergen, and others, to include the Palisades area in the coastal zone. This area, extending from the New York-New Jersey boundary on the north, could be defined in several ways to include the magnificent cliffs which can be seen from the Hudson River and New York and which provide a fine waterfront view from New Jersey. DEP has not included this area in the coastal zone because it lacks authority to regulate or manage development affecting the view presented by the Palisades. This area is, however, discussed in the "Next Steps" chapter of Part II (Chapter Six).



Municipalities Within the New Jersey Coastal Zone

The coastal zone includes at least a small part of a total of 245 municipalities in seventeen of New Jersey's twenty-one counties. Only Hunterdon, Morris, Sussex, and Warren counties have no coastal waters and are entirely excluded from the coastal zone. This relatively large zone, united by the presence of coastal waters, is quite diverse, stretching from the port at Camden to the vast wetlands along Delaware Bay, to the beaches of the barrier islands along the ocean, to the industrialized waterfront of northern New Jersey.

The municipalities are listed below by region and by county beginning with the Northern Waterfront Area (which includes the Hackensack Meadowlands District) continuing into the Bay and Ocean Shore area and then into the Delaware River Area.

NORTHERN WATERFRONT AREA

Bergen County

Alpine Borough  
Bogota Borough  
Carlstadt Borough  
East Rutherford Borough  
Edgewater Borough  
Englewood Cliffs Borough  
Fairview Borough  
Fort Lee Borough  
Garfield City  
Hackensack City  
Little Ferry Borough  
Lodi Borough

Lyndhurst Township  
Moonachie Borough  
New Milford Borough  
North Arlington Borough  
Oradell Borough  
Ridgefield Borough  
Ridgefield Park Village  
River Edge Borough  
Rutherford Borough  
South Hackensack Township  
Teaneck Township  
Teterboro Borough  
Wallington Borough

Essex County

Belleville Town  
Newark City

Nutley Town

Hudson County

Bayonne City  
East Newark Borough  
Guttenberg Town  
Harrison Town  
Hoboken City

Jersey City  
Kearny Town  
North Bergen Township  
Secaucus Town  
West New York Town

Middlesex County

Carteret Borough  
East Brunswick Township  
Edison Township  
Highland Park Borough  
New Brunswick City  
Old Bridge Township

Perth Amboy City  
Piscataway Township  
Sayreville Borough  
South Amboy City  
South River Borough  
Woodbridge Township

Passaic County

Clifton City

Passaic City

Somerset County

Franklin Township

Union County

Elizabeth City  
Linden City

Rahway City

BAY AND OCEAN SHORE AREA

Atlantic County

Absecon City  
Atlantic City  
Brigantine City  
Corbin City  
Egg Harbor City  
Egg Harbor Township  
Estell Manor Township  
Galloway Township  
Hamilton Township  
Linwood City

Longport Borough  
Margate City  
Mullica Township  
Northfield City  
Pleasantville City  
Port Republic City  
Somers Point City  
Ventnor City  
Weymouth Township

Burlington County

Bass River Township

Washington Township

Cape May County

Avalon Borough  
Cape May City  
Cape May Point Borough  
Dennis Township  
Lower Township  
Middle Township  
North Wildwood City  
Ocean City  
Sea Isle City

Stone Harbor Borough  
Upper Township  
West Cape May Borough  
West Wildwood Borough  
Wildwood City  
West Wildwood Crest Borough  
Woodbine Borough

Cumberland County

Bridgeton City  
Commercial Township  
Downe Township  
Fairfield Township  
Greenwich Township

Hopewell Township  
Lawrence Township  
Maurice River Township  
Millville City  
Stow Creek Township

Middlesex County

Old Bridge Township (Madison)  
(Also in Northern Waterfront  
Area)

Monmouth County

Aberdeen Township (Matawan)  
Matawan Borough  
Allenhurst Borough  
Asbury Park City  
Atlantic Highlands Borough  
Avon-by-the-Sea Borough  
Belmar Borough  
Bradley Beach Borough

Loch Arbour Village  
Long Branch City  
Manasquan Borough  
Middletown Township  
Monmouth Beach Borough  
Neptune City  
Neptune Township  
Ocean Township

Monmouth County - Cont.

Brielle Borough  
Deal Borough  
Eatontown Borough  
Fair Haven Borough  
Hazlet Township  
Highlands Borough  
Holmdel Township  
Interlaken Borough  
Keansburg Borough  
Keyport Borough  
Little Silver Borough

Oceanport Borough  
Red Bank Borough  
Rumson Borough  
Sea Bright Borough  
Sea Girt Borough  
Shrewsbury Borough  
South Belmar Borough  
Spring Lake Borough  
Spring Lake Heights Borough  
Union Beach Borough  
Wall Township  
West Long Branch Borough

Ocean County

Barnegat Light Borough  
Barnegat Township (Union)  
Bay Head Borough  
Beach Haven Borough  
Beachwood Borough  
Berkeley Township  
Brick Township  
Dover Township  
Eagleswood Township  
Harvey Cedars Borough  
Island Heights Borough  
Pine Beach Borough  
Point Pleasant Beach Borough  
Point Pleasant Borough  
Seaside Heights Borough  
Seaside Park Borough

Jackson Township  
Lacey Township  
Lakehurst Borough  
Lakewood Township  
Lavallette Township  
Little Egg Harbor Township  
Long Beach Township  
Manchester Township  
Mantoloking Borough  
Ocean Gate Township  
Ocean Township  
Ship Bottom Borough  
South Toms River Borough  
Stafford Township  
Surf City Borough  
Tuckerton Borough

Salem County

Alloway Township (not in CAFRA Area)  
Elsinboro Township  
Lower Alloways Creek Township  
Mannington Township

Pennsville Township  
Quinton Township  
Salem City  
Carneys Point Township  
(Upper Penns Neck)

DELAWARE RIVER AREA

Burlington County

Beverly City  
Bordentown City  
Bordentown Township  
Burlington City  
Burlington Township  
Chesterfield Township  
Cinnaminson Township  
Delanco Township  
Delran Township  
Edgewater Park Township  
Fieldsboro Borough  
Florence Township  
Hainesport Township

Lumberton Township  
Mansfield Township  
Maple Shade Township  
Medford Township  
Moorestown Township  
Mount Holly Township  
Mount Laurel Township  
Palmyra Borough  
Riverside Township  
Riverton Borough  
Southampton Township  
Westhampton Township  
Willingboro Township

Camden County

Audubon Borough  
Barrington Borough  
Bellmawr Borough  
Brooklawn Borough  
Camden City  
Cherry Hill Township  
Gloucester City  
Gloucester Township  
Haddon Township

Hi-Nella Borough  
Laurel Springs Borough  
Lindenwold Borough  
Magnolia Borough  
Mount Ephraim Borough  
Pennsauken Township  
Runnemede Borough  
Somerdale Borough  
Stratford Borough

Gloucester County

Deptford Township  
East Greenwich Township  
Greenwich Township  
Logan Township  
Mantua Township  
National Park Borough  
Paulsboro Borough

Swedesboro Borough  
Wenonah Borough  
West Deptford Township  
Westville Borough  
Woodbury City  
Woolwich Township

Mercer County

Hamilton Township

Trenton City

Salem County

Carneys Point Township\*  
Mannington Township\*  
Oldmans Township

Pennsgrove Township  
Pilesgrove Township  
Pennsville Township\*

\* Also in Bay and Ocean Shore Area

## Description and Visions of the Coastal Zone

This Chapter describes the character of the geographic area addressed by this report and presents visions of the future which DEP considers both desirable and achievable through implementation of the Coastal Management Program. It should be noted at the outset that the visions represent subjective judgements based upon visits to the areas, discussions with local residents and officials, and review of previously prepared reports, studies and plans.

The length and diversity of the coast suggests that it be described in segments. In this section, the Northern Waterfront Area is discussed first, followed by the Bay and Ocean Shore Area, and then the Delaware River Area.

### The Northern Waterfront Area

The Northern Waterfront is marked by diversity in its 60-mile stretch from Piscataway Township in Middlesex County to Alpine Borough in Bergen County. Present vistas of the waterfront range from high-rise apartments above the Palisades to broad tidal wetlands along the Raritan and South Rivers. The only common feature of the Northern Waterfront is that it has all been touched by human activity. The Coastal Management Program for the Northern Waterfront will seek to maintain the diverse character which sets apart the different sections of the waterfront, but it will also promote some changes in the use of the waterfront.

Much of the waterfront is currently occupied by underutilized or abandoned industrial or transportation facilities. Some of these sites will be assembled for new labor-intensive industrial uses while others will be redeveloped as park land or for commercial use. Much more of the waterfront should be made accessible to the public, while water quality should be improved to allow recreational boating at many points. Residential areas near the waterfront would then become more desirable places to live, both because of improved access to a cleaner waterfront and because of buffering from industrial and transportation facilities.

The Northern Waterfront will be addressed in this section by first traveling down the outer waterfront from the Palisades to Raritan Bay and then moving up the tidal portions of the region's rivers. Although the character of the northern waterfront can change dramatically in a short distance, segments of different rivers often show similar characteristics. The Upper New York Bay and Arthur Kill-Newark Bay regions -- the core area of the Northern Waterfront -- are similar industrial port districts which have known better days, but they are physically separated by the residential waterfront of Bayonne. The Upper Hackensack, Passaic and Rahway River segments, likewise, have similar urban/suburban waterfronts, while the Elizabeth and Perth Amboy Waterfronts have a similar urban residential character.

The Hudson River Region - The Hudson River shoreline from the New York State line to the George Washington Bridge, a distance of ten miles, is protected from development as part of the Palisades Interstate Park. In the future, it will remain unspoiled and continue to provide a spectacular vista of the Palisades Cliffs as they rise from the river.

Below the George Washington Bridge, the northern waterfront takes on a two-tiered character, with uses on top of the Palisades entirely different from those below. For the twelve miles from the Bridge to Liberty State Park in Jersey City, the narrow waterfront between the cliffs and river is in large part the scene of

railroad yards and docks, many of them underutilized or abandoned. One town, the Borough of Edgewater, is also below the cliffs. At the top of the cliffs are suburban-type residential neighborhoods with an increasing number of high-rises. Because not all of the waterfront area is needed for rail and ship transportation facilities or for new industrial facilities, the creation of waterfront parks to meet the recreational needs of the densely populated neighborhoods atop the cliffs is both desirable and feasible. Because of severe traffic congestion on top of the cliffs and the lack of a mass transit system, an end to the indiscriminate construction of high rises in this area is desirable. In particular, some have suggested that no new high rises should be constructed between Route 505 (Boulevard East) and the River, as such construction would further limit public access to the waterfront. As noted above, the Coastal Management Program will not contain the authority to prevent such construction.

Liberty State Park in Jersey City, already the most popular facility of the state park system, will continue to be a chief recreational facility for the inner core of the Northeast New Jersey Metropolitan Region. Planning is underway for future recreational development of the park and for the transformation of the abandoned Central Railroad of New Jersey terminal within the Park into an activity center, as part of the revitalization of surrounding residential development in Jersey City. The City of Hoboken is pursuing similar plans for the Erie-Lackawanna terminal.

Upper New York Bay Region - South of the Park is Caven Point. Of a total of 440 acres, 230 acres upland and 210 are a tidal flat. This area is important because it is a wintering spot for waterfowl and a nursery for juvenile fish. This tidal flat, along with the 60 acre Natural Area at Liberty State Park, are the last remaining tidal flats of this type in the Hudson River Region. At low tide, a broad, flat area is exposed along much of the shoreline. Caven Point's special value to fish lies in its shallow depth and natural shoreline. The site is a natural cove, bounded by a sandy beach area. Adjacent to the cove is a pier used for fishing, which is about 3/4 mile in length.

Inland of Caven Point, the waterfront is much the same as it is to the north except that the transportation-oriented waterfront area is wider and the residential sections of Jersey City are separated from the waterfront by the New Jersey Turnpike. This area has been suggested for industrial redevelopment because it is separated from residential sections of the city. One such proposal was made by the Port Authority of New York and New Jersey, for an industrial park at Greenville Yards. At the same time, neighborhood groups in Jersey City have proposed that housing or mixed use development would be more appropriate. Further south, in Bayonne, industrial facilities and oil storage tanks occupy the Kill Van Kull waterfront, with residential neighborhoods in close proximity. In this area, buffering of residential from industrial uses will be the best way to improve the quality of the urban neighborhood. Along Bayonne's western waterfront of Newark Bay and also along part of Kill Van Kull, residential neighborhoods are adjacent to the water's edge. Also, two parks line the bayfront. This area is likely to be little changed in the future, although the parks, which offer a place to watch the busy commercial activities of Newark Bay, may be improved and possibly expanded. At the northern end of Newark Bay in Jersey City, a regional shopping center and other business occupy the waterfront. As the water quality of the Bay is improved, the waterfront should change from a parking lot to an asset attracting people to these businesses.

Newark Bay-Arthur Kill Region - Newark Bay divides into the Hackensack and Passaic Rivers between Jersey City and Newark. Along the two-mile stretch before both rivers enter the Hackensack Meadowlands District, the shorelines are heavily industrialized with the exception of the half-mile waterfront of Lincoln Park in Jersey City. Because of the proximity of these rivers to the Newark and Jersey City labor force, this area should continue to be a good location for industry.

On the western shore of Newark Bay is the City of Newark. Most of its bay frontage consists of the rundown vestiges of an industrial waterfront. The waterfront is separated from Newark's residential neighborhoods by several blocks but is near enough to the City's labor force to make it a prime location for industrial redevelopment. At the southern end of Newark's waterfront and the northern end of Elizabeth's is a modern container port. It is a major employer and an example of the potential of a modernized waterfront. South of the container port in Elizabeth is a large tract of vacant waterfront served by rail. This land is being considered by the Port Authority of New York and New Jersey for promotion under its industrial park development program.

Continuing south, Newark Bay gives way to Arthur Kill. The northernmost three-fourths of a mile of the Kill is bordered by an old, urban residential neighborhood within the City of Elizabeth. Creation and enhancement of public open space in the narrow sector between homes and the Kill will enhance this neighborhood and encourage its preservation. From Elizabeth south to the Middlesex County boundary (City of Linden), the shoreline of the Kill has considerable amounts of wetlands which have been developed. Petroleum tank farms are the most prevalent developed use. In the future, this portion of waterfront is likely to have continued industrial use, but stronger measures to preserve those wetlands which are undeveloped (all the undeveloped coastal wetlands in Linden are owned by adjacent industries) are desirable.

Middlesex County has docks and warehouses along the shoreline, but also about as much vacant land as in Union County. Wetlands are found primarily along Woodbridge Creek, a small tidal tributary. Also, as in Union County, water dependent industry is the major use for the waterfront, but lands not needed by industry should be preserved in order to maintain the estuarine ecosystem. In the City of Perth Amboy is a site which is being evaluated for its potential as a support base for offshore oil and gas operations. Further south in Perth Amboy, residential neighborhoods and a park extend to the waterfront.

Across the Raritan River, the entire Raritan bayfront, with the exception of a residential neighborhood in South Amboy, consists of vacant land separated from residential neighborhoods by the North Jersey Shore rail line. Because of its proximity to existing residential neighborhoods and public transportation, this land has potential for residential, commercial or industrial development (if properly buffered from residences), as well as for public open space.

At the end of this sector of vacant land along Raritan Bay is the beginning of the Bay and Ocean Shore Segment. This analysis will, therefore, turn to the tidal portions of the rivers which flow into this "outer" northern waterfront.



Upper Hackensack River Region - Beginning in the north, the first river is the Hackensack which is tidal to Oradell, Bergen County. For the first 4 1/2 miles from Oradell to Hackensack, the river is surrounded by suburban residential neighborhoods with some commercial uses. Some people have suggested a cycling or hiking path in this area, and Bergen County is considering plans for impoundment of the river at Hackensack to create a lake-park complex.

Where the Hackensack River enters the Meadowlands District it is joined by the Overpeck Creek, a tributary which is tidal for the four miles to Leonia. For the upper two miles, the shoreline is public open space -- Overpeck Park. From the park to the river's juncture with the Hackensack, land uses along the creek include industry, a small amount of commercial and residential property and a large percentage of vacant land. This vacant land, like vacant land on the nearby portion of the Hackensack, will provide for recreation such as boat launching or fishing provided that water quality is brought up to state standards. It could also be a site for water-oriented commercial uses, or minimally polluting industries.

Passaic River Region - The Passaic River is tidal from the Dundee Dam at Clifton to Newark Bay. North of Newark the river is bordered by suburban and urban residential neighborhoods, but much of the immediate waterfront is given over to industries, especially textiles and related printing and dyeing. On the west bank, public access is also denied by State Highway 21. Wherever possible along this stretch of river, public access will be acquired, and where feasible a foot or cycling path system will be developed to enhance the recreational opportunities of the densely populated cities and towns along the banks, while water-dependent industries would continue to provide employment. The Saddle River which flows into the Passaic at the Garfield-Hasbrouck Heights border is tidal for about two miles. The shores of this river are largely undeveloped although residential and commercial uses do encroach certain sections. Because of its less developed shoreline, this river segment has more potential than the Passaic for ecologically sound, planned development, which will encompass a number of different but compatible uses. As the Passaic River reaches Newark, industrial uses become dominant although much of the immediate waterfront is vacant or is occupied by abandoned structures. Revitalization of industry and commerce where possible, and development of small parks or river access paths elsewhere is a desirable future for the Passaic as it passes between Newark on the west and Kearny, East Newark and Harrison on the east.

Elizabeth River Region - In the City of Elizabeth, the Elizabeth River is tidal for two miles as it flows into Arthur Kill, although the length of tidal waters may be diminished by a current U.S. Army Corps of Engineers flood control project. There is some riverfront park land as well as vacant land along the shore, but for the most part homes and apartments line its banks, limiting the potential for public access. In the future, parks will be improved and public access provided where feasible, although greater improvement in the river's environment will be a result of improvement in water quality.

Rahway River Region - The Rahway River is tidal for five miles from Grand Avenue in Rahway to the Arthur Kill. Above Grand Avenue on the non-tidal portion of the river, Union County has acquired the river corridor for public open space, and the river provides opportunities for canoeing, hiking and other forms of recreation. In the tidal portion of the river, however, there is a wide assortment

of land uses, few of which take advantage of the river. In Rahway itself, single-family homes, commercial establishments, and a marina line the river, while closer to the Arthur Kill the shoreline becomes marshy and vacant with the exception of some tank farms which do not appear to be water dependent. In the future, the wetlands near the Kill should be preserved, and improvements should be made along the riverfront in Rahway to make it more of an asset to adjacent neighborhoods and businesses.

Raritan River Region - The Raritan River's tidal reach extends inland to Interstate Route 287 in Piscataway Township. From Route 287 to New Brunswick, the Raritan is paralleled on the south by the Delaware and Raritan Canal. On the north, much of the land is park land, although in some areas the riverfront is residential. Under the direction of the Delaware and Raritan Canal Commission, DEP and the Middlesex County Park Department, the canal should be restored and the Park maintained. Access to the riverfront will, however, be limited in some areas by construction designed to make State Highway 18 a limited access highway. In New Brunswick, the riverfront has already been separated from urban neighborhoods by Route 18, but a pedestrian bridge provides access to public open space along the banks. Public and private emphasis should be placed on assuring continued public access despite highway construction.

East of New Brunswick is an extensive river wetland area. The area extends along the Raritan and up its tributary, the South River. This wetland should be preserved as an open space resource for surrounding residential neighborhoods, as well as for a source of nourishment for the Raritan estuary system.

Further east, the south bank of the Raritan is the scene of shipping and industrial facilities, many of them abandoned. On the north bank is a former arsenal which is being redeveloped as an industrial park. Industry is likely to remain the dominant use of the area near the mouth of the Raritan in this vision of the future Northern Waterfront.

Hackensack Meadowlands District - Within the Northern Waterfront Area is the Hackensack Meadowlands District, a thirty-one square mile area of tidal wetlands, fresh water wetlands and upland located along the Hackensack River six miles west of midtown Manhattan. Until 1968, the District was largely undeveloped except for huge landfills, warehouses, and some light industry and electrical generating facilities. In that year, the Legislature created the Hackensack Meadowlands Development Commission (HMDC), a state agency intended to direct the orderly and comprehensive development of this area. In the ten years of the Commission's existence, the Meadowlands Sports Complex, consisting of a football/soccer stadium and a racetrack, and new commercial and light industrial buildings have been erected on the west bank of the Hackensack River. On the east bank, the Harmon Cove area, including a planned unit residential development, the Meadowlands Hilton Hotel and several office and industrial buildings, have been developed. Much of the Meadowlands, however, still remains undeveloped.

A vision for the Meadowlands has already been created by the HMDC, which was given full planning and zoning authority for the District by its enabling legislation. In 1972, the HMDC introduced a master plan which foresees the development of additional planned residential-commercial-office complexes designed to both take

advantage of the wetlands environment and preserve it to the maximum extent possible. The plan also calls for the preservation of several large wetlands preserves and the creation of one major and several smaller parks. The Commission's Open Space Plan calls for the preservation of 6,626 acres of open space, of which 3,576 acres are wetlands.

The Master Plan was substantially amended in 1977, 1978 and 1979 and will no doubt be amended in the future. DEP has elected to adopt this evolving vision, as the vision of the State's Coastal Management Program.

#### The Bay and Ocean Shore Area

This Coastal Management Program envisions a future Bay and Ocean Shore Area which will reflect the historic development of the region as part intense recreation area, part natural, undeveloped area, and part built-up area. The patterns and intensity of development will be better managed in the future. For example, to minimize conflict between noncompatible uses, similar activities will be located near each other. New developments will be designed to take advantage of increased understanding of natural, as well as economic and social, processes and will therefore have a greater net positive impact on the coast and the entire State than some past development.

New developments will be heavily concentrated in, or immediately adjacent to, existing developed areas. Recreation and tourism will continue to be the largest industry in the coastal zone, and will perhaps expand as a result of development in Atlantic City. Other urban areas in the coastal zone may be revitalized as well, as a result of efforts to concentrate new construction, to develop urban waterfronts, and to encourage expansion of recreational activities in urban areas.

Other industries will be located in inland parts of the coast. Single family detached housing will continue to be common, but the coastal zone will have increasing numbers of cluster developments, contributing to more efficient settlement patterns.

The ocean waterfront from Sandy Hook to Cape May will be devoted almost exclusively to recreation and commercial fishing. An exception is the possible location of offshore pipeline crossings in a very small number of shorefront areas. The inland areas of the coastal zone nearest the ocean will continue to provide housing and commercial services for seasonal and year round residents. Portions of the coastal zone further inland will also provide housing and locations for some industries, as well as land for agriculture, preservation of plant and wildlife, and recreation.

As this program is implemented and this vision becomes reality, some positive results will be immediate and directly visible, such as the halt in the indiscriminate high-rise construction along the Atlantic Ocean shoreline. Other changes in the coastal zone will be less visible, and perhaps take more time, such as changes in water quality making possible renewed swimming in now polluted waters, and a revised public attitude towards the value and need to protect the ocean and the coast.

Barrier Beach Region - The Barrier Beach Region includes the Sandy Hook Spit south to Monmouth Beach, headlands from Monmouth Beach to Bayhead, and the barrier island chain of Island Beach, Long Beach, Little Beach, Brigantine, Absecon, Pecks, Ludlum Beach, Seven Mile Beach, and Four Mile Beach Island. The inland boundary of the parts of the Barrier Beach Region that do not have a west waterbody is the first cultural feature.

The islands, headlands, and spits are considered one region due to their oceanfront locations. The issues associated with these areas far outweigh the differences between them. The ocean shorefront in the northern part of the segment, for example, although it is not strictly speaking a barrier island, responds to development and natural events in a manner similar to the barrier island locations adjacent to the ocean or bay.

The future of the Barrier Beach Region will be a continuation of the present. Recreation will be the dominant use of this part of the coastal zone, and only small amounts of new development directly associated with recreation will be constructed. Such development will be located on sites which have been previously developed; undeveloped sites in this region will, for the most part, remain as open space. The focus of shore protection efforts will continue to shift from structural to nonstructural measures, including a halt to development most likely to be destroyed by storms or floods.

Northern Shore Region - The Northern Shore Region includes all of the CAFRA area north of the Manasquan River (the boundary between Monmouth and Ocean Counties), exclusive of the Barrier Island Region described above.

This section of the coastal zone is part of a more general suburban ring in the New York-Northern New Jersey Metropolitan area. Once a relatively undeveloped place of seasonal homes with a tourism-oriented economy, this region, like much of Monmouth and parts of Middlesex counties, became a "bedroom" suburb after World War II for more mobile and affluent people working in New York City. More recently, as industry and commerce have also suburbanized, this area has developed an economic base of its own. The region includes Asbury Park and Long Branch, which have experienced some of the decline typical of older Northeastern cities.

While designated a Development Region (see Part II, Chapter 4, Section 7:7E-5.3), this region is likely to change little in the foreseeable future. New developments will include housing development, possibly senior citizen developments, and light industry, and will occupy suitable sites which fill in largely developed areas. Initiatives at all levels of government may stimulate increased activity in Asbury Park and Long Branch.

Central Region - The Central Region is bounded in the north by the Monmouth-Ocean County Boundary, on the west by State Highway 37 and the Garden State Parkway in the south by Cedar Creek, and in the east by the back bay waters. Since 1950, this High Growth Region has held the position of the fastest growing area in the state. Relatively young, formerly urban families and senior citizens have constituted the bulk of Ocean County's population growth over the past twenty years. Population is currently growing faster than employment. Retail trade for both summer visitors and year round residents is the largest single source of employment.

Due to the availability of large, easy to develop and relatively low cost tracts of land, the region is still experiencing a housing boom. This type of largely residential, commercial, and light industrial development is likely to continue. The pattern of development in the region will one day form a relatively smooth transition between the densely populated Northern Region and the less developed Barnegat Corridor Region.

Western Ocean Region - Located west of the Garden State Parkway and southwest of State Highway 37, this small region has both large undeveloped, forested lands, large-scale senior citizen communities and areas devoted to ilmenite mining. New development in this region is expected to extend slowly beyond the current reach of development, avoiding the heavily forested Central Pine Barrens areas.

The Barnegat Corridor - This Extension Region, located south of Cedar Creek (the boundary between Berkeley and Lacey townships), north of State Highway 72, west of the back bay systems and east of the Garden State Parkway has experienced pockets of new development in the past decade. A regional sewage treatment system with collector systems to serve existing settled areas is under construction. Designation of this area as an Extension Region recognizes that a gradual pace of infill and some extension development is appropriate here, rather than the more intense and scattered development pattern acceptable in central and northern Ocean County. Additional residential development attracted by the regional center of Toms River is likely in the Barnegat Corridor and Western Ocean regions.

Mullica-Southern Ocean County Region - This Low Growth Region is bounded to the north by Route 72, to the west by the coastal zone boundary, to the south by Route 561 in Atlantic County, and to the east by the back bay systems. It excludes the Tuckerton Region, centered on the Borough of Tuckerton. This is the largely undeveloped Mullica Watershed and Southern Ocean County. The environmental value of the watershed and the inclusion of parts of the Pine Barrens and rural southern Ocean County suggest that this area should remain largely undeveloped. Limited amounts of new development may occur near existing development along U.S. Route 9 and the Garden State Parkway interchanges.

Tuckerton Region - The Tuckerton Region is bounded on the west by the Burlington-Ocean County border, on the north by U.S. Highway 9, Otis Bog Road, Nugentown Road and the Tuckerton Borough border, and on the south and east by the back bay system. The Tuckerton Region is a small region with the Borough of Tuckerton in the northeast area the Mystic Island Lagoon Development in the southwest. The region is designated for Extension of development. Commercial development is encouraged in the Tuckerton Central Business district while multi-family residential development is encouraged as infill in surrounding portions of the Borough. Planned residential development is encouraged as infill between Tuckerton and Mystic Island. The intent is to allow the development of a concentrated growth area within commuting range of Atlantic City.

Absecon-Somers Point Region - The Absecon-Somers Point Region is bounded on the north by the Mullica River watershed, to the west by the Garden State Parkway, to the south by Great Egg Harbor and to the east by the back bay water systems. This Development Region is likely to experience the most change of any part of the Bay and Ocean Shore Region as a result of the casino gambling industry in Atlantic

City. The region will be devoted to housing, tourist industries and other light to moderate industry. Because the existing infrastructure of Atlantic City once supported a population much larger than the present population, new development in this region should be able to locate in already developed, downtown areas of Atlantic City. However, unless land prices in Atlantic City reverse the upward trend which began after the Casino Referendum passed, housing and support facilities for people who work in Atlantic City will have to be located in surrounding towns.

Great Egg Harbor River Basin Region - This Limited Growth Region includes those portions of Atlantic County southwest of County Road Alternate 559 and those portions of Cape May County east of State Highway 50, north of County Road 585, and west of U.S. Route 9. In both its current and likely future character, it resembles the Mullica-South Ocean Region. It is a largely natural area which provides environmental benefits to the surrounding area and is likely to be developed at low residential densities.

Southern Region - The Southern Region is all of Cape May County within the coastal zone except that portion in the Great Egg Harbor River Basin Region and Barrier Island Region. Tourism accounts for approximately 90 percent of this Extension (of growth) Region's economic base, and has also played a major role in the region's development pattern. The region's ocean front municipalities and, to a lesser extent, several of its Delaware Bay shore municipalities are very highly developed, while haphazard, low density sprawl is the rule on the mainland. Due to the region's relative isolation and the absence of economic bases other than tourism, there is little year-round employment. This seasonality accounts for the region's low annual income. The Southern Region will be relatively unchanged. Small amounts of new development will fill in pockets of vacant land, and tourism will continue to be the dominant industry. A modest trend of converting summer homes into year-round housing, particularly for senior citizens, may expand.

Bayshore Region - The Bayshore Region encompasses all of the Bay and Ocean Shore Area in Cumberland and Salem Counties and, except for the Special Urban Areas of Bridgeton and Millville, which are designated Development areas, is designated a Limited Growth Region. This region is the least developed part of the coastal zone and includes large expanses of wetlands along Delaware Bay. These parts of the state are too far from major employment centers to have developed as suburbs. Unlike most other parts of the coastal zone, tourism has never played an important role in this area's economy. The Region is largely agricultural land, forests and wetlands, and sparsely populated with little existing infrastructure. The population and economic activity in these counties are concentrated in the small, manufacturing-oriented cities of Millville, Bridgeton and Salem, which lie on the inland boundary of the coastal zone.

This region is likely to remain largely undeveloped, and to continue to rely on agriculture and sand mining as major industries. Efforts to clean up the Delaware Bay and River may also revitalize the fish and shellfish industries. If additional energy facilities requiring location remote from large population centers are built in New Jersey, this Region offers potential sites. The Region will accommodate construction of small numbers of housing adjacent to existing development and possibly several larger developments and new industries. The large expanses of agricultural land, wetlands, forests, and the historical community of Greenwich will remain largely unchanged.

### The Delaware River Area

The Delaware River Area resembles the Northern Waterfront Area in size and diversity in its 60 mile stretch from Trenton to Pennsville. Like the Northern Waterfront, it has an urban center with densely populated residential areas, industry and shipping; it has abandoned piers and factories; it has residential suburbs; and it has undeveloped land and undisturbed wetlands. The difference between this area and the Northern Waterfront lies in the proportion of land devoted to different uses. The urban/industrial area centered in Camden is relatively limited, while the amount of undeveloped land is relatively large. The Delaware River Area also tends to extend further inland than the Northern Waterfront Area, due to the greater penetration of tidal water up the numerous creeks which flow into the Delaware from the Coastal Plain. The Coastal Zone extends several miles up such major streams as Crosswicks Creek, Rancocas Creek, Cooper River, Big Timber Creek and Oldmans Creek.

The same basic policies will be applied to the Delaware River Area as to the Northern Waterfront Area. These policies will be designed to maintain the present diversity of uses with each use in its optimal location. The following analysis examines what this means for the specific regions of the Delaware River Area, starting at Trenton and moving southward.

The Burlington-Mercer Region - The Burlington-Mercer Region includes all of the coastal zone along the Delaware River north of the Camden-Philadelphia metropolis. This region, traversed by Route 130, Interstate 295 and the N.J. Turnpike, has been extensively suburbanized.

The waterfront is primarily residential, with the most intensive residential use in Trenton and from Burlington City southward. Much of the coastal zone here is a very narrow strip of shoreland rising from the river to the first road. Landward of that road are private homes. A few parks, public facilities and industrial facilities (some abandoned) also front the river. The coastal zone in this region also includes the shores of most tributaries. Some open space, as well as most of the Region's wetlands, remain near the mouths of these streams.

The principal tributary in this region is Rancocas Creek. The proposed coastal zone along this stream is quite wide in some places. Much of it is undeveloped upland or wetlands, although some suburban residential development is also present. The stream corridor could be preserved both for the sake of water quality and to meet the recreational needs of this growing suburban region. The creek has great potential for canoeing and hiking, as well as for development of small parks and picnic areas along its banks.

North of Burlington is the Crosswicks Creek, a stream which flows through extensive marshland. Part of this wetland, known as the Trenton Marsh, is in the Mercer County Park system. Preservation of portions of the marsh which are not presently under public ownership will be an objective of the Coastal Management Program.

In addition, plans of the New Jersey Department of Transportation call for completion of Interstate Highways 195 and 295 and State Highway 29 through this area.

For the most part, the future of the Burlington-Mercer Region should mirror its present. New industry will locate in or near the areas used by existing industrial facilities. Additional residential development will be built as infill, as higher density replacement in existing residential areas, or as new planned clustered unit developments.

The most important changes foreseen are preservation of open space along the Delaware and its tributaries, including those narrow shorelands where people can walk along and see the river; encouraging more widespread public access to the river and riverfront; and increasing recreational opportunities on the river and related lands for boating, fishing, picnicking and, when water quality permits, swimming.

The Camden Region - This region consists of the three Camden County waterfront municipalities of Camden, Pennsauken and Gloucester City as well as several suburban communities located along tributaries of the Delaware. It includes a densely developed, urbanized riverfront which currently accommodates significant shipping and industrial activities. The region also includes the high density residential areas between the Ben Franklin and Betsy Ross Bridges and suburban housing along Pennsauken Creek, Big Timber Creek, and the Newton Creek further inland.

The proposed Coastal Policies would encourage and reinforce city and county waterfront redevelopment programs in Camden. These programs are designed to help create new industrial, shipping and wholesale commercial activities; to rejuvenate existing, but underutilized or vacant industrial sites; and to improve the City's waterfront parkland. The policies of the Coastal Management Program will also encourage other uses on the waterfront in appropriate places, including new high-density housing, commercial and retail activities, and new parks and recreation opportunities. The suggested Coastal Policies would also encourage increased public access to the riverfront, provided the public is not endangered and access does not interfere with other legitimate activities. The preservation of the few remaining areas still relatively open and undisturbed in the Region will also be a goal of the Coastal Program. These include the lower reaches of Big Timber Creek, the marina area on the Cooper River, and Fisherman's Cove, which could be maintained as natural areas for carefully managed recreational activities.

The Gloucester - Salem Region - This region extends south from the Big Timber Creek to the boundary of the Bay and Ocean Shore Segment in Salem County. Most of the riverfront area in this region is industrially owned. The northern part of Gloucester's coastal zone includes two major refineries, extensive bulk storage facilities and large petro-chemical complexes. Further south, a few heavy industries are located intermittently along the riverfront, including large DuPont and Monsanto facilities in Gloucester and another DuPont complex in Salem County.

Yet this region is by far the least developed and most sparsely populated area outside the Bay and Ocean Shore Segment. Between National Park in Gloucester County and Penns Grove in Salem County, the active energy and industrial complexes are typically separated by large tracts of vacant land including extensive wetlands and lowland forests. Although the Delaware River lies within one to three miles of Interstate 295, road access to the waterfront is almost non-existent. In the entire stretch from Paulsboro in Gloucester County to Penns Grove in Salem County, there are no public sewer systems in place immediately adjacent to the Delaware River, although the region's areawide waste treatment management plans call for sewerage a two-mile stretch of riverfront in Greenwich Township.



The central portion of this region, for the most part, contains industrial activities and vacant undeveloped tracts. The region's population, focused at the two ends, can be seen as extensions of two large metropolitan areas -- the Camden-Philadelphia Area to the north and the Wilmington area to the south. Parts of the southern area, which includes Penns Grove, Pennsville and Salem City, have recently lost industry -- creating high unemployment and leaving behind vacant or underutilized facilities. New waterfront industry and port development would be most appropriate in those areas where there are existing infrastructure, an available labor force and underutilized industrial facilities. Vacant land along the waterfront and close to the population centers must also be evaluated in terms of its potential for meeting the recreational needs of the people living in these areas.

The central part of the Gloucester-Salem region is quite wide due to the inland penetration of coastal streams. Demand for industrial, residential and commercial development is expected a few miles inland of the waterfront along Routes 130 and 295. The proposed Coastal Policies would have this development take place in concentrated form and as infill rather than sprawling the entire length of the Camden/Philadelphia - Salem/Wilmington corridor. In addition, the many stream corridors, wetlands and lowland forests in this region would be preserved. The stream corridors, the undeveloped portion of the Delaware River waterfront and other undeveloped lands are suitable for parks, campgrounds and perhaps new marinas, while wetlands, lowland forests and other sensitive areas should be preserved as natural areas.

ALTERNATIVES TO THE PROPOSED ACTION.

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PART IV - ENVIRONMENTAL, ECONOMIC AND INSTITUTIONAL CONSEQUENCES OF FEDERAL APPROVAL

Introduction  
Direct Effects  
    Environmental Consequences  
    Economic Consequences  
    Institutional Consequences  
Possible Conflicts Between Coastal Program and the Plans or  
Policies of Local Governments, Regional and Interstate Agencies

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INTRODUCTION

This part of the environmental impact statement examines the environmental, economic and institutional consequences of federal approval of the New Jersey Coastal Management Program. Such an analysis is valuable because it indicates any general changes that will take place in the coastal zone, as a result of federal approval of the program. It cannot predict, however, specific effects likely to be felt by particular individuals or at particular locations.

Environmental Impact Statements are traditionally prepared for individual projects and examine the impacts of one defined action on an immediate and defined area. A state coastal program covers a large and diverse area of land and water, and the impacts of the program vary greatly from one location to another depending on the type of particular activity taking place or proposed. The consequences of all these activities of the program can only be discussed, therefore, in general terms since the number of combinations of possible individual actions is far too great to consider.

As suggested by the Federal regulations for implementing the procedural provisions of the National Environmental Policy Act, this part of the EIS does not repeat the Coastal Resource and Development Policies, but discusses the general effects on the coastal zone. It examines the effects of federal approval on the environment including both direct affects such as preservation, conservation, and development of particular areas, and indirect effects, such as increased pressure for development in areas outside the coastal zone, and the economic effects, including the indirect effects of redistributing jobs and growth in the coastal zone. Lastly, the institutional effects are examined. These include increased cooperation between federal, state and local agencies and co-ordinated decision-making at the state level.

DIRECT EFFECTS

Environmental Consequences

The proposed federal action will result in approval of a coastal management program for New Jersey. The criterion for assessing the environmental consequences of this action should be the CZMA's declaration of policy: "to achieve wise use of land and water resources of the coastal zone giving full consideration to ecological, cultural, historic and aesthetic values as well as the need for economic development".

Protection of the coastal zone is to be achieved through the implementation of the Coastal Resource and Development Policies in the New Jersey Coastal Management Program. These policies do not affect the operation of existing facilities, but guide future activities within the coastal zone.

Specifically, coastal resources, such as fish and shellfish spawning grounds, sanctuaries, beaches, wetlands, high risk beach erosion areas, dunes, historic resources, specimen trees, endangered species habitats and farmland conservation areas are termed "Special Areas" in the Coastal Management Program. Approval and implementation of the program will protect these areas and discourage further inappropriate development in hazardous areas which could result in destruction of property and loss of life.

The Coastal Resource and Development Policies will help preserve the coast's aesthetic qualities for public enjoyment and promote various types of recreational opportunities along the shore and waterfronts. The policies are intended to preserve natural processes and resources; however, DEP also recognizes that the coast will continue to experience significant new growth. Water dependent energy development, off-shore mineral mining, and port and harbor development with their attendant dredging, spoil disposal and bulkheading activities will be permitted in certain locations and under certain conditions. The potential impacts of these activities, which must be controlled before New Jersey will approve the activity, include a possible reduction in water quality, a possible reduction in fishery productivity as a result of habitat destruction and increased water turbidity, deterioration of coastal aesthetic amenities, and potential interference with recreational uses of the waterfront.

Regional environmental consequences of the program will result from planned growth patterns for the coastal zone, with development largely concentrated in existing developed areas and with preservation of areas which are now primarily open space. The secondary impacts policy will help to control sprawl through prohibiting new infrastructure which would induce growth incompatible with coastal policies. Large scale development will conform to the Coastal Policies, thus preserving sensitive environmental areas from destruction. Prevention of construction on flood plains and the consequential reduction in flood potential will have beneficial environmental consequences for the surrounding region. Additional regional benefits are discussed under economic consequences.

The Location Policies include a methodology for determining the acceptability of a site for development. Implementing this method should have a positive long term environmental impact by preserving unique, exceptionally productive or irreplaceable resources and assuring that development will be compatible with the environment in which it is located. In particular, development will be restricted in areas with a high potential to degrade water quality.

The implementation of this Coastal Management Program will most likely involve a reduction in the development or destruction of relatively scarce coastal natural resources and an increase in the development of inland natural resources, which are less sensitive to such development and more abundant. Thus, the location of activities away from the coast will require the commitment of resources in other parts of New Jersey outside the coastal zone.

Under the Use Policies, most types of major development located in the coastal zone will be regulated by the State of New Jersey. However, the policies leave land use decisions of predominantly local impact to the discretion of local governments. For example, the regulation of housing developments of 24 units or less, outside the jurisdiction of the waterfront development law and not on coastal wetland locations, will remain the responsibility of local governments. Thus, residential or commercial developments that may not be detrimental individually and are not regulated by the State could well have cumulative adverse impacts on the coastal zone. This problem is not remedied by the Coastal Management Program, but is a subject of immediate study by the State.

The Resource Policies address the prevention or mitigation of adverse environmental impacts on both natural and cultural resources. Implementating these policies should result in long-term beneficial environmental impacts related to protecting water quality and water supply, preventing the loss of prime agricultural land through erosion, protecting air quality, protecting historic sites and other recreational attractions, and increasing effective management of fisheries and wildlife resources.

The implementation of these policies may help to direct future development away from currently undeveloped portions of the coastal zone and into already developed portions of both the coastal zone and inland areas. Resultant concentration of development should have a long-term positive impact by decreasing energy use for transportation and the energy supply of scattered housing, and consequently decreasing transportation related and energy generation related pollution. Pollution sources may locate in already developed areas to a greater extent than without the coastal management program, thus making it more difficult for these already stressed areas to attain or maintain ambient air and water quality standards. In some cases it may be necessary to strengthen emissions or effluent controls as a mitigating measure. Conversely, there should be a long-term beneficial effect in presently less developed areas, making it easier for these areas to maintain compliance with environmental standards.

New development inevitably has environmental consequences which differ in urban and rural areas. In rural areas, environmental effects are focused on the land, and air water quality. In urban areas, impacts on the land are less because the area is already built-up, but reductions in air and water quality will occur. In areas where there is substantial development and the area is designated as high growth, these impacts may adversely affect day to day living. The policies in the Proposed Coastal Management Program are intended to mitigate these impacts; air and water quality standards will be enforced to prevent significant environmental damage, but some adverse impacts of development will be unavoidable.

Federal approval of the Coastal Program will give New Jersey federal funds under the CZMA to ensure that effective monitoring and inspection of sites can occur where development may be subject to State regulation or where coastal permits have been granted.

#### Economic Consequences

The Coastal Resource and Development Policies of the New Jersey Coastal Management Program have been designed to conserve and protect key renewable natural resources and recreational areas while encouraging new development to locate in existing built up areas. The implementation of these policies will not

reduce development pressures or the statewide rate of growth in New Jersey. Policy implementation will, however, encourage development to locate in the more developed areas of New Jersey's coastal zone, and some developers may seek to avoid the actual or imagined restrictions of the Coastal Management Program by building more intensively in non-coastal parts of the State.

Landowners will receive medium and long-term positive benefits from the consequences of owning land adjacent to well planned development. Development which has not been controlled by the Coastal Resource and Development Policies may, for example, cause flooding or run-off on adjacent land, thus leading to detrimental effects. Conversely, land that has been developed in an environmentally sensitive fashion, or where open space has been preserved can raise the property values of surrounding sites.

Development subject to regulation under the Coastal Management Program also benefits from that regulation. In many cases, conditions placed upon a coastal permit decrease the costs of owning and maintaining the development by, for example, requiring that the development be built near adequate infrastructure and that energy conservation techniques be considered. Project design policies related to buffers and compatibility of uses, scenic resources, design and others are likely to make developments more aesthetically pleasing places to live or work. In fact, at least one coastal developer, after receiving a multi-conditioned CAFRA permit used these conditions as a marketing product by promoting the project as an "environmentally sensitive" development. His promotional material boasted of the specific features added to the project as a result of the DEP CAFRA permit review process.

The encouragement of growth in developed areas, and the conservation of more sensitive land areas will have an effect on land values both in and, to a lesser extent, outside the coastal zone. Areas that are particularly sensitive will be protected from most development and consequently the land values will in many instances decrease. Development is likely to be attracted to areas designated as medium and high growth areas, raising land values in these areas. In addition, development may be directed to areas outside the coastal zone as some developers seek to avoid regulation. Encouragement of growth in some areas while restricting it in others will have indirect economic consequences such as redirecting jobs and industry, but these effects are impossible to calculate in any meaningful way for such a large area.

Shifting land values and economic activity are a constant factor in the development of every area. State programs concerning a large area will add to the changing pattern of development pressures. The unplanned and rapid development which has taken place in New Jersey over the last few decades has resulted in pollution of the air and water and destruction of valuable natural resources. The costs of cleaning up this pollution must be borne by residents of the state, and will directly effect some residents more than others. Individual people and towns will benefit while others may lose, but the net effect should be beneficial to the State.

One price of the Coastal Management Program is that some land owners may not realize the economic return that they had expected from their land. But so long as some reasonable use of the land may be made, the constitutional rights of land owners are protected. There is a distinction between the reasonable use of land and the speculative gain that a buyer may have hoped to receive.

### Institutional Consequences

Approval of the the New Jersey Coastal Management Program will have implications for federal, state and local decision making processes. Federal approval of the program requires that Federal projects and permits must conform to the state's coastal program. In New Jersey, federal consistency will apply throughout the entire coastal zone when the Coastal Management Program is approved. This will create greater communication and consistency between federal and state agencies and actions.

At a state level, the approved coastal management program will serve as a focal point for all State agency actions in or affecting the coast. Rather than just responding on a case by case basis to crises or other events, all state agencies will be able to refer to adopted Coastal Resource and Development Policies. These policies will be most important for the activities of the Department of Environmental Protection where they provide uniform, predictable, binding policies for CAFRA, Wetlands, and Waterfront Development permits.

One major institutional change made possible by the formulation of these policies is the reorganization of the Division of Marine Services into the Division of Coastal Resources. The reorganized division has one permit review office, instead of three, which will lead to more efficient and less confusing processing of development applications.

A second major change is the addition of a narrow upland area to the jurisdiction of the Waterfront Development Permit Law. This redefinition of jurisdiction was done by a regulation (see Appendix D) which requires the first development upland from the water's edge to get a permit from DEP. This change would only affect development outside the area regulated by CAFRA. Much of this area is quite built-up already, so that the anticipated number of added development proposals requiring a Waterfront Development Permit is not great. Since such permit applications will also be reviewed on the basis of the Coastal Resource and Development Policies, DEP will be able to review efficiently these proposal as soon as the change takes effect.

The Coastal Resource and Development Policies also give the State a basis for working cooperatively with local governments, and responding to local initiatives and proposals. Previously, a local agency seeking State advice or assistance on acceptable coastal development would not have known where to turn and might have been given conflicting advice depending on the people consulted. The Coastal Policies provide a written, consistent standard which can be used by a local government, with State assistance when requested, to design a site-specific environmentally acceptable waterfront plan.

Adverse institutional impacts will be minimal. Some land owners in the Delaware River and Northern Waterfront areas will now need a Waterfront Development Permit for developments along the water's edge, but otherwise the Coastal Management Program will not increase the number of permits needed by anyone. The application of the Coastal Policies as Administrative Rules to the entire coastal zone will have solely beneficial institutional impacts.

POSSIBLE CONFLICTS BETWEEN COASTAL PROGRAM AND PLANS OR POLICIES OF LOCAL GOVERNMENTS, REGIONAL AND INTERSTATE AGENCIES

Introduction

The final sections of Part IV indicate New Jersey's compliance with Section 923.56(a) of the Federal Regulations for the federal Coastal Zone Management Act, requiring states to consider the consistency of their coastal programs with federal, regional, state and local land use plans, policies and controls. This Part of the EIS analyzes consistency with local, regional, and interstate agencies; consistency with federal programs is discussed in the National Interest Section of Chapter Four of Part II and consistency with other state programs is discussed in the Management System Section of Chapter Three of Part II.

Local Governments

The New Jersey Department of Environmental Protection has conducted a review of the zoning and land use ordinances of municipalities in the coastal zone to identify possible conflicts with the New Jersey Coastal Management Program, as well as to identify techniques used by local governments to implement goals compatible with the program.

This study represents, in large part, a re-evaluation of reports received from ten coastal counties under the State-County Coordination Program funded by NJ DEP with funds awarded New Jersey from Section 305 of the CZMA. In these reports the County Planning Boards and, in one case, County Environmental Agency, supplied a summary of municipal master plans and zoning ordinances. Additional information was obtained from county land use studies and plans, and through a review of municipal plans and ordinances on file with County Planning Boards. The results of this review appears in Figure 39.

Explanation of Chart Categories

The New Jersey Municipal Land Use Law, (N.J.S.A. 40:55D-1 et seq.) authorizes a municipality to enact a zoning ordinance. A land use element of a municipal master plan must first have been adopted by the municipal planning board, and the zoning ordinance must be in "substantial compliance" with the land use element.

The Municipal Land Use Law also authorizes the enactment of subdivision and/or site plan review ordinances. Among the required subdivision ordinance elements are provisions for adequate water, drainage, shade trees, sewage facilities and soil protection. Site plan review ordinances must include provisions for the preservation of existing natural resources, screening and landscaping. Discretionary elements of these ordinances include the designation of open space areas, the regulations of flood areas, and design standards. These ordinances provide some assurance that environmental features will be conserved.

Five specific policies embodied in the coastal program and considered most likely to conflict with municipal policies are identified: Floodplain Regulations, Dune Protection, Wetlands Protection, provision for public access to beaches and waterfront areas, and waterfront parks. It must be noted that, in certain cases, the determination as to whether a municipality has a particular ordinance is somewhat subjective. For example, almost all coastal zone municipalities have flood plain ordinances containing construction regulations designed to meet the



P-proposed (-) No  
 D-draft X.A.-not applicable  
 +yes

### MUNICIPAL GOVERNMENT POLICIES

Municipality	Master Plan	Data	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Metland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
<u>County - Atlantic</u>										
Abscon	+	76	-	-	+	-	-	-	-	High-rise restrictions
Atlantic City	+	78	+	+	-	-	+	-	+	Clustering
Brigantine	+	70	+	-	-	+	-	-	+	High-rise restrictions
Cordin City	+	78	+	-	-	-	-	-	-	High-rise restrictions
Egg Harbor City	+	75	+	-	-	-	-	-	-	High-rise restrictions
Egg Harbor Twp.	+	75	+	+	-	-	-	-	-	PUD
Estell Manor	+	77	+	-	-	-	-	-	-	Natural Resource Inventory, Clustering, PUD, High-rise restrictions
Galloway Twp.	+	78	+	-	+	-	-	-	-	Conservation district, High-rise restrictions
Hammilcon Twp.	+	67	+	+	+	-	-	-	-	High-rise restrictions
Linwood	+	78	+	+	-	-	-	-	-	High-rise restrictions
Longport	+	76	+	+	-	-	-	-	+	High-rise restrictions
Margate	+	78	+	+	-	-	-	-	+	Clustering, High-rise restrictions
Mullica	+	67	+	+	-	-	-	-	-	High-rise restrictions
Northfield	+	78	+	+	-	-	-	-	-	High-rise restrictions
Pleasantville	+	71	+	+	-	-	-	-	-	Preservation of natural features, High-rise restrictions
Port Republic	D	78	+	-	-	-	-	-	-	High-rise restrictions
Somers Point	D	78	+	+	+	-	+	-	-	High-rise restrictions

63  
68

Proposed (-) No  
 Draft N.A., not applicable  
 + yes

Figure 38

Municipality	Master Plan	Date	Subdivision ordinances	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
Ventnor	+	63	-	-	-	-	+	-	+	Clustering, PUD
Baymanah Twp.	+	76	+	-	-	-	-	-	-	High-rise restrictions
<b>County - Bergen</b>										
Alpine Borough	+	78	+	+	-	N.A.	N.A.	-	+	High-rise restrictions, EIS required
Bogota Borough	+	69	+	-	-	N.A.	N.A.	-	+	High-rise restrictions
Carlstadt Borough	+	78	+	-	-	N.A.	N.A.	-	-	High-rise restrictions
East Rutherford Boro	+	67	+	-	+	N.A.	N.A.	-	-	High-rise restrictions
Edgewater Borough	0	66	+	+	-	E.A.	N.A.	-	+	
Englewood Cliffs Borough	+	78	+	+	-	E.A.	N.A.	-	+	
Fairview Borough	+	78	-	-	-	E.A.	N.A.	-	-	
Fort Lee Twp.	+	78	+	+	+	E.A.	N.A.	-	+	
Garfield City	+	56	+	+	-	N.A.	N.A.	-	-	High-rise restrictions, Buffer requirements
Hackensack City	+	76	-	-	-	N.A.	N.A.	-	-	
Little Ferry Boro.	+	64	+	-	-	N.A.	N.A.	-	-	High-rise restrictions
Lyndhurst Twp.	+	79	+	+	+	N.A.	N.A.	-	+	High-rise restrictions
Monmouth Borough	+	78	+	+	-	N.A.	N.A.	-	-	Buffer requirements
New Milford Boro.	+	78	+	+	+	N.A.	N.A.	-	-	
North Arlington Boro	+	71	+	-	+	N.A.	N.A.	-	+	High-rise restrictions

Figure 38

P-proposed (-) No  
 D-draft N.A.-not applicable  
 +-yes

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning low compatible w/Coastal Management Program
Oradell Borough	+	76	+	-	+	N.A.	N.A.	-		High-rise restrictions, Conservation/Recreation zone
Ridgefield Borough	+	71	+	+	+	N.A.	N.A.	-	+	High-rise restrictions, RIS
River Edge Borough	+	77	+	-	+	N.A.	N.A.	-	+	High-rise restrictions, Buffer requirements
Rutherford Borough	+	77	+	+	+	N.A.	N.A.	-		
Tenack Twp.	+	78			-	N.A.	N.A.	-	+	
Teterboro Borough	+	77	+	+	-	N.A.	N.A.	-		
Wallington Borough	+	60	+	+	-	N.A.	N.A.	-		
<u>County - Burlington</u>										
Boas River Twp.	+	75	+	+	P	N.A.	P	-		Environmental Impact Statements, County Natural Resource Inventory
Beverly City	P	77	-	-	-	N.A.	-	-	+	
Bordentown City	+	58	+	-	-	N.A.	-	-	+	Buffer requirements
Bordentown Twp.	+	78	+	+	-	N.A.	-	-	+	Buffer requirements, cluster provision
Burlington City	+	66	+	+	-	N.A.	-	-		
Burlington Twp.	+	73	+	+	-	N.A.	-	-	-	
Chesterfield Twp.	+	73	+	+	-	N.A.	-	-	-	
Cinnaminson Twp.	+	65	+	+	+	N.A.	-	-	+	Buffer requirements
Delanco Twp.	+	75	+	+	-	N.A.	-	-	-	
Delran Twp.	+	79	+	+	-	N.A.	-	-	-	

Figure 38

P-proposed (-) No  
 D-draft M.A.-not applicable  
 +-yes

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
Edgewater Park Twp.	+	78	+	+	-	N.A.	-	-	-	Conservation District
Fieldsboro Borough	+	78	-	-	+	N.A.	-	-	-	
Florence Twp.	+	76	+	+	-	N.A.	-	-	+	
Hainsport Twp.	D		+	+	-	N.A.	-	-	+	
Lumberton Twp.	P	77	+	+	+	N.A.	N.A.	-	-	
Nansfield Twp.	+	78	+	P	-	N.A.	-	-	+	Flood plain zone
Maple Shade Twp.	+	78	+	+	-	N.A.	-	-	-	Clustering; High-rise restrictions, Buffer requirements, Natural Features Protection
Madford Twp.	+	75	+	+	+	N.A.	-	-	+	
Mooresboro Twp.	+	76	+	+	-	N.A.	-	-	-	
Mount Holly Twp.	+	78	+	-	-	N.A.	-	-	+	
Mount Laurel Twp.	+	79	+	+	+	N.A.	-	-	+	FUD, Flood Plain Protection (through conservation district)
Falmers Borough	+	79	+	+	+	N.A.	-	-	-	
Riverside Twp.	+	78	+	+	+	N.A.	-	-	-	
Riverton Borough	-	-	-	-	-	N.A.	-	-	+	
Southampton Twp.	-	-	-	-	-	N.A.	-	-	-	
Washington Twp.	+	78	+	P	P	N.A.	P	P	-	
Vesthampton Twp.	+	79	+	+	+	N.A.	-	-	+	
Willingboro Twp.	-	-	+	+	+	N.A.	-	-	+	

Figure 38

P-proposed (-) No  
 D-draft N.A.-not applicable  
 +-yes

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
<u>County - Camden</u>										
Audabon Borough										
Bellmeyer Borough	+	77	+	-	-	N.A.	-	-	+	High-rise restrictions
Brooklawn Borough	-	-	-	-	-	N.A.	-	-	-	High-rise restrictions
Camden City	+	78	+	+	-	N.A.	-	-	+	Clustering, buffer requirements
Cherry Hill Twp.	+	66	-	+	+	N.A.	-	-	+	Clustering, buffer requirements
Gloucester City	+	65	+	-	-	N.A.	-	-	-	High-rise restrictions
Gloucester Twp.	+	78	-	-	+	N.A.	+	-	-	Clustering, Buffer requirements
Haddon Twp.	+	75	-	+	+	N.A.	-	-	+	Buffer requirements, High-rise restriction
Hi-Nella Borough	-	-	-	-	-	N.A.	-	-	-	High-rise restrictions
Lindenwald Borough	+	61		+	-	N.A.	-	-	-	High-rise restrictions
Mount Ephraim Boro.	+	69	-	+	-	N.A.	-	-	+	High-rise restrictions, Clustering, Buffer requirements
Pennsauken Twp.	+	69		-	+	N.A.	-	-	+	Clustering, Buffer requirements
Oaklyn Borough										
Rummenede Borough	+	71		+	-	N.A.	-	-	-	Buffer requirements, High-rise restrictions
Stratford Borough	+	67		+	+	N.A.	-	-	-	High-rise restrictions
Woodlynsa Borough	-	-			-	N.A.	+	-	-	Buffer requirements, High-rise Restrictions

2-proposed (-) No  
 D-draft N.A.-not applicable  
 +yes

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
<u>County - Cape May</u>										
Avalon	D	78	+	+	+	+	-	+	+	Clustering, High-rise restrictions
Cape May City	+	78	+	+	-	-	-	+	+	Preservation of natural features, Clustering, High-rise restrictions
Cape May Point	+	78	+	-	+	+	-	+	+	High-rise restrictions
Dennis Twp.	+	78	+	+	-	-	+	-	-	Clustering, Buffer requirements, High-rise restrictions
Lower Twp.	D	78	+	+	-	+	+	+	+	Conservation district, Open space/cluster development regulations
Middle Twp.	+	69	+	-	-	-	+	-	-	Clustering, High-rise restrictions
N. Wildwood	D	78	+	-	-	+	-	+	+	Clustering, High-rise restrictions
Ocean City	D	78	+	+	+	+	-	+	+	High-rise restrictions
Sea Isle City	D	78	+	-	+	+	-	+	+	High-rise restrictions
Stone Harbor	+	78	+	-	+	?	-	+	+	High-rise restrictions
Upper Twp.	+	78	+	+	-	N.A.	+	+	+	High-rise restrictions, Clustering, Buffer requirements
V. Cape May	D	78	+	-	+	N.A.	-	-	-	High-rise restrictions
W. Wildwood	D	78	+	-	-	N.A.	-	+	+	High-rise restrictions
Wildwood	+	78	+	+	-	N.A.	-	+	+	Clustering
Wildwood Crest	D	78	+	-	+	-	-	+	+	Buffer requirements
Woodbine	+	76	+	-	-	N.A.	N.A.	-	-	Clustering, High-rise restrictions

Figure 38

2-proposed (-) No  
 3-draft N.A.-not applicable  
 +-yes

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
<u>County - Cumberland</u>										
Bridgeton	+	78	+	+	+	N.A.	-	-	+	Open space
Commercial Twp.	+	78	+	+	+	N.A.	-	-		
Dorcas Twp.	+	78	+	+	+	N.A.	-	-		Conservation district
Fairfield Twp.	+	78	+	+	+	N.A.	-	-		
Greenwich Twp.	+	78	+	+	+	N.A.	-	-		Alternative energy use design requirement
Hopewell Twp.	+	78	+	+	-	N.A.	+	-		farmland preservation (proposed), woodlands protection, (clustering)
Lawrence Twp.	D	78	+	-	+	N.A.	+	-	+	
Maurice River Twp.	D	78	+	+	+	N.A.	-	-	+	
Milville	+	78	+	+	+	N.A.	-	-	+	Land conservation district
Stow Creek Twp.	+	78	+	+	+	N.A.	-	-		
<u>County - Essex</u>										
Belleville Town	+	79	-	+	+	N.A.	N.A.	-	-	High-rise restrictions
Newark City	+	79	+	P	P	N.A.	N.A.	-	+	
Nutley Town	+	76	+	-	+	N.A.	N.A.	-	-	

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Figure 36

P-proposed (-) No  
D-draft N.A.--not applicable  
+--yes

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinances	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
<u>County - Gloucester</u>										
Deptford Twp.	+	77	+	+	-	N.A.	-	-	-	Flood plain provision, Buffer requirements, Clustering
East Greenwich Twp.	D	-	D	-	-	N.A.	-	-	-	
Greenwich Twp.	+	77	+	+	-	N.A.	-	-	+	Conservation district
Logan Twp.	+	79	+	+	-	N.A.	-	-	-	PUD ordinance
Mantua Twp.	+	73	+	+	-	N.D.	-	-	-	Clustering, Flood Plain Provision
<u>National Park Borough</u>										
Paulsboro Borough	D	-	-	-	-	N.A.	-	-	+	
Swedesboro Borough	+	73	+	-	-	N.A.	-	-	-	
Wenonah Borough	+	77	D	D	-	N.A.	-	-	-	Cluster Development Provision, Buffer requirements
West Deptford Twp.	+	77	+	+	-	N.A.	-	-	-	
<u>County - Hudson</u>										
Westville Borough	+	78	-	-	-	N.A.	-	-	-	Parks & Conservation District
Woodbury City	+	78	+	+	-	N.A.	-	-	+	
Woolwich Twp.	+	78	+	+	+	N.A.	-	-	-	PUD ordinance
<u>County - Hudson</u>										
Bayonne City	+	63	+	+	+	N.A.	N.A.	-	+	Buffer requirements
East Newark Boro.	-	-	-	-	-	N.A.	N.A.	-	-	



Figure 36

P-proposed  
D-draft  
+yes  
(-) No  
N.A.--not applicable

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
Outtenberg Town	-	-	-	-	+	N.A.	N.A.	-	-	
Harrison Town	-	-	-	-	+	N.A.	N.A.	-	-	
Hoboken City	+	78	+	-	-	N.A.	N.A.	+	-	Buffer requirements
Jersey City	+	66	+	-	-	N.A.	N.A.	-	+	Buffer requirements h/v zones
Kearny Town	+	74	+	+	-	N.A.	N.A.	-	-	N/A provision
North Bergen Twp.	D	-	+	+	+	N.A.	N.A.	-	-	Controlled Water Development Zone
Weehawken	+	73	+	+	+	N.A.	N.A.	-	-	
West New York Town	+	-	+	-	-	N.A.	N.A.	-	-	
<u>County - Mercer</u>										
Hamilton Twp.	+	78	+	+	+	N.A.	-	-	+	Conservation District, Buffer requirements
<u>County - Middlesex</u>										
Carteret Borough	+	73	+	+	-	N.A.	N.A.	-	+	High-rise restrictions
East Brunswick Twp.	+	76	+	+	+	N.A.	N.A.	-	-	High-rise restrictions, Steep Slopes, PDD, Clustering, Buffer requirements, Historic Sites, Bike or Pedestrian Paths
Edison Twp.	+	78	+	+	-	N.A.	N.A.	-	-	Buffer requirements, High-rise restrictions

P-proposed (-) No  
 D-draft N.A.-not applicable  
 +yes

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
Highland Park Boro.	+	69	+	+	-	N.A.	N.A.	-	+	
New Brunswick City	+	79	+	+	-	N.A.	N.A.	-	+	
Old Bridge Twp.	+	78	+	+	+	N.A.	N.A.	+	-	Clustering, PUD, Buffers, High-rise restrictions, Steep Slopes, Natural Features Protection
Perth Amboy City	P	79	+	+	-	N.A.	-	-	+	buffer requirements
Piscataway Twp.	+	78	+	+	-	N.A.	N.A.	-	+	Clustering, PUD, High-rise restrictions, Bike or Pedestrian Paths, Buffers
Sayreville Borough	+	78			+	N.A.	-	-	-	PUD, High-rise restrictions
South Amboy City	+	77	+	+	-	N.A.	-	-	-	High-rise restrictions
South River Borough	+	79	+	+	+	N.A.	N.A.	-	-	PUD, Clustering, Buffers, High-rise restrictions
Woodbridge Twp.	+	78	+	+	-	N.A.	N.A.	-	+	Pedestrian or Bike Paths, Buffers, High-rise restrictions
County - Monmouth										
Aberdeen Twp. (formerly Matswan)	+		+		+	-	+	-	-	Clustering, Critical Environmental areas
Matswan Borough	+		+		-	-	-	-		
Allenhurst	+		+		-	-	-	+	+	
Asbury Park	D	78	+		-	-	-	+	+	High-rise restrictions
Atlantic Highlands	+		+		-	-	-	-		High-rise restrictions

Figure 38

P-proposed (-) No  
 D-draft N.A.-not applicable  
 +-yes

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
Avon by the Sea	D	78	+					+	+	
Belmar	+		+					+	+	
Bradley Beach	+	75	+					+	+	
Brielle	+		+					-	+	Natural Resource Inventory
Deal Twp.	-		+					+	+	Clustering
Easton Twp.	+	77						-		
Fairhaven	+							-		
Hazlet Twp.	D				+			-		PRD
Highlands	+							+		
Holmdel	+							-		
Inverlaken	+							-		
Keansburg	+							-	+	
Keypert	+		+					-		PRD
Little Silver	+	69						-		
Loch Arbour	+							-	+	
Long Beach	+							-	+	High-rise restrictions
Mantoloking	+		+					+	+	Clustering, PRD, critical areas
Middletown Twp.	+				+			+	+	Natural Resource Inventory, Clustering, High-rise restrictions, Critical areas

Figure 38

P-proposed (-) No  
 D-draft N.A.-not applicable  
 +yes

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
Monmouth Beach	+	78	-	-	-	-	-	+	+	Natural Resource Inventory
Neptune City	D	78	-	-	-	-	-	-	-	High-rise restrictions
Neptune Twp.	D		-	-	-	-	-	+	-	Clustering, tree removal, Natural Resource Inventory
Ocean Twp.	+		-	-	-	-	-	-	-	
Oceanport	+	74	-	-	-	-	-	-	+	
Red Bank	+	76	+	+	-	-	-	-	-	
Rumson	D	78	-	-	-	-	-	-	-	
Sea Bright	+		-	-	+	-	-	+	+	Preservation of natural areas
Shrewsbury	+		-	-	-	-	-	-	-	
Spring Lake Boro.	+		+	-	-	-	-	+	+	
Spring Lake Heights	+		+	-	-	-	-	-	-	
South Belmar	D	78	-	-	-	-	-	-	-	
Wall Twp.	+		-	-	+	-	-	-	-	High-rise restrictions, PUD
Union Beach	D	78	-	-	-	-	-	-	-	Critical environmental areas, Preservation of natural areas
West Long Branch	D	78	-	+	+	-	-	-	+	Soil protection, Preservation of natural features, Critical areas
Sea Girt	+		-	-	-	-	-	+	+	

Figure 38

P-proposed (-) No  
 D-draft H.A.-not applicable  
 +-yes

Municipality	Master Plan	Date	Subdivision Ordinance	Site Plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other Features of zoning law compatible w/Coastal Management Program
County - Ocean										
Barnegat Light	+	63	+	-	+	+	-	-	+	Rural Preservation District
Barnegat Twp. (Union)	+	73	+	+	-	-	-	-	+	Cluster, Natural Resource Inventory
Bay Head	+	63	+	+	+	-	-	-	+	
Beach Haven	+	68	+	+	+	-	-	-	+	Soil erosion, Shade trees, Cluster
Berkeley	+	74	+	+	+	-	-	-	+	Environmental Impact Assessment for sub-divisions, Tree cutting, Shade tree
Brick Twp.										Tree cutting
Englewood Twp.	+	74	+	-	+	-	-	-	+	
Harvey Cedars	D	78	-	-	+	-	+	-	+	
Inland Heights	+	70	-	-	-	-	-	-	+	
Plover Twp.	+	75	+	+	+	-	+	+	+	Cluster, Natural Resource Inventory, Tree cutting, Open space
Jackson Twp.	+	69	-	-	+	-	-	-	+	
Lacey Twp.	D	78	+	+	+	-	-	-	+	
Lakehurst	+	78	+	+	+	-	-	-	+	
Lakewood Twp.	+	76	+	+	+	-	-	-	+	
Levittette	+	77	+	-	+	-	-	-	+	Natural Resource Inventory
Little Egg Harbor	+	78	+	+	+	-	-	-	+	
Long Beach Twp	+	71	+	+	+	+	+	-	+	

Figure 38

P-proposed (-) No  
 D-draft N.A.-not applicable  
 +yes

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning, for compatible w/Coastal Management Program
Manchester	+	67	+	+	+	-	-	-	+	
Hantoloking	D	78	-	-	+	-	-	-		
Ocean Gate	+	73	+	+	-	-	-	-		
Ocean Twp.	-		-	+	-	-	-	-		
Pine Beach	+	62	+	+	-	-	-	-	+	
Point Pleasant	+	63	+	+	+	-	-	-	+	
Point Pleasant Beach	-		-	-	-	-	-	-		
Seaside Heights	-		-	-	-	-	-	-		
Seaside Park	D		+	+	-	-	-	-		
Ship Bottom	+	72	+	-	+	-	-	-		
South Toms River	+	76	+	+	-	-	-	-	+	Tree cutting
Stafford Twp.	+	70	+	-	-	+	-	-	+	
Surf City	D	78	+	-	-	-	-	+		
Tuckerton	+	78	+	+	-	-	-	-		
Beachwood	+	78	+	+	-	-	-	-		
<u>County - Passaic</u>										
Clifton City	+	78	+	+	-	N.A.	N.A.	-	-	Buffer requirements, High-rise restrictions
Passaic City	+	78	+	+	-	N.A.	N.A.	-	+	FDU, High-rise restrictions

Figure 38

P-proposed (-) No  
D-draft N.A.-not applicable  
+yes

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
<u>County - Salem</u>										
Lower Allways Creek Twp.	+	79	+	+	+	-	-	-	-	Wildlife sanctuary
Carney's Point Twp.	+	79	+	+	-	-	-	-	-	Conservation district, Flood Plain Development Regulations
Elstebro	+	79	+	+	+	-	-	-	-	Preservation of natural features
Hannington Twp.	+	79	+	+	+	-	+	-	-	Preservation of natural features, Conservation District
Olmans Twp.	+	79	+	+	-	N.A.	-	-	-	Wetland Construction Regulated
Penna Grove Bero.	+	77	+	+	-	N.A.	-	-	+	
Pennsville Twp.	+	77	+	+	-	N.A.	-	-	-	Wildlife Sanctuary
Pilesgrove Twp.	+	77	+	+	-	N.A.	-	-	-	Flood plain development restrictions
Quinton Twp.	+	77	+	+	-	-	-	-	-	Provisions restricting development on flood plains
Salem City	+	74	+	+	+	-	+	-	-	Historic preservation district, Clustering, Preservation of natural features
<u>County - Somerset</u>										
Franklin Twp.	+	78	+	+	+	N.A.	N.A.	-	-	Cluster, PUD, Buffer requirements Natural Features Protection

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Figure 38

P=Proposed (-) No  
 D=Draft N.A.=not applicable  
 +=yes

Municipality	Master Plan	Date	Subdivision ordinance	Site plan review	Flood plain ordinance	Dune protection	Wetland Protection	Public Access	Waterfront Park	Other features of zoning law compatible w/Coastal Management Program
County - Union										
Elizabeth City	+	78	+	-	+	N.A.	N.A.	-	+	Buffer requirements
Linden City	+	76	+	+	-	N.A.	N.A.	-	-	
Rahway City	+	74	-	+	+	N.A.	N.A.	-	+	Open space zone, Buffer requirements



requirements of the Federal Flood Insurance Program. Only those ordinances which protect the floodplain area itself are indicated on the chart. Similarly, high rise restrictions were noted both if a municipality prohibits high rise housing in the proposed coastal zone or if it has a maximum building height under 60 feet.

### Conflicts

The absence of a "+" in any of the four specific categories for a given municipality indicates a potential conflict with the New Jersey Coastal Management Program, in that a municipality is not prevented from approving projects inconsistent with the Coastal Resources and Development Policies.

Since municipal zoning defines acceptable uses for specified land areas, while coastal policies specify development conditions based upon a matrix of generic location, proposed use and affected resource, the presence or absence of conflicts between the two policies cannot be determined by simple comparison, but is dependent upon a nature and location of proposed development.

### Conflict Resolution

The major mechanism for conflict resolution is the direct State authority available through the state riparian Laws, the Waterfront Development Law, the Wetlands Act of 1970, and the Coastal Area Facility Review Act. The Coastal Resource and Development Policies shall apply to these areas of DEP regulatory authority, as well as to other management actions of DEP affecting the coastal zone, to the extent statutorily permissible.

Planning assistance and cooperation by the Division of Coastal Resources with local governments may also prove to be an effective method of conflict resolution. The present revision of most municipal master plans is occurring with the assistance of county planning officials, who have worked closely with DEP on coastal policies. Local officials received the DEP-OCZM Interim Land Use and Density Guidelines - 1976 and subsequent documents, including the State of New Jersey Coastal Management Program - Bay and Ocean Shore Segment (August 1978) which, in turn, were based in large part on county planning information. Furthermore, the Municipal Land Use Law requires that the land use element of a master plan take into account natural conditions including but not limited to "topography, soil conditions, water supply, drainage, flood plain areas, marshes and woodlands", as well as the other master plan elements, including a "conservation element" providing for "the preservation, conservation and utilization of natural resources, including, to the extent appropriate, open space, waters, forests, soil, marshes, wetlands, harbors, rivers and other waters, fisheries, wildlife and other natural resources ..." [N.J.S.A. 55D-19(a)(8)]. As municipalities include these considerations in their master plans, conflicts between local and state policies will be minimized.

NJDEP will continue to work with counties and will increase its efforts to work with individual municipalities to maximize the consistency between state and local plans and decisions.

### Regional and Interstate Agencies

Local governments designated pursuant to regulations established under Section 204 of the Demonstration Cities and Metropolitan Development Act of 1966 and regional and interstate agencies with plans affecting the coastal zone are listed on the next page. Coordination has been carried out with each of these agencies in development of Coastal Policies.

The county governments have limited authority to regulate development in accordance with their plans. There is no conflict between their use of this authority and coastal zone management (See Figure 40). Coordination of county policies with Coastal Policies is discussed in Part Two, Chapter Three. The three regional planning agencies with A-95 review functions in the proposed Coastal Zone have no regulatory authority. Each was given an opportunity to comment on draft Coastal Policies presented in the proposed Coastal Management Program. The Delaware River Basin Commission holds significant regulatory authority for implementing its Comprehensive Plan. NJDEP has conducted a coordination project with DRBC which found no inconsistencies between the DRBC Comprehensive Plan and the Coastal Policies.

Potential Regional Government Conflicts  
Figure 40

<u>Local Governments Which Function as A-95 Clearinghouses and Regional and Interstate Agencies</u>	<u>Plan</u>	<u>Regulatory Authority</u>	<u>Conflicts with Plans of a Regulatory Nature</u>
County of Atlantic	County Master Plan	Authority to review all subdivisions of land within the county and to approve those subdivisions affecting county roads or drainage facilities N.J.S.A. 40:27-6.2	None
County of Cape May	County Master Plan		None
County of Cumberland	County Master Plan		None
County of Ocean	County Master Plan		None
Delaware Valley Regional Planning Commission	Land Use Plan Open Space Plan Housing Allocation Plan Water Supply Plan Transportation Plans	None	None
Tri-State Regional Planning Commission	Regional Development Guide, 1977-2000	None	None
Wilmington Metropolitan Area Planning Coordination Council	Regional Land Use Plan	None	None
Delaware River Basin Commission	Comprehensive Plan for the Delaware River Basin	Intrastate Allocation of Delaware River Basin Waters Review authority over proposed facilities with the potential for significant impact on water quality in the Basin. Enforcement authority over effluent standards required to attain water quality standards described in the Comprehensive Plan.	No conflicts discovered through coordination project with DRBC.

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ENVIRONMENTAL, ECONOMIC AND INSTITUTIONAL  
CONSEQUENCES OF FEDERAL APPROVAL

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PART V - ALTERNATIVES TO THE PROPOSED ACTION

All alternatives to the proposed action, approving the New Jersey Coastal Management Program, involve a decision to delay or deny approval. Delay or denial of approval would be based on failure of the Program to meet any one of the requirements of the federal Coastal Zone Management Act (CZMA). In approving a coastal management program, affirmative findings must be made by the Assistant Administrator for Coastal Zone Management on over twenty such requirements.

Normally, at the time a program is submitted for approval, most of the substantive decisions regarding policies, how the program is to be implemented, etc., will have been made by State executive or legislative branches of government. In many instances in other states, charges have been made after state program approval. As a result of what is now termed the scoping process under CEQ's regulations implementing NEPA, OCZM has tried to identify the major issues discussed during the public review process. OCZM's alternatives to approval are to delay or deny approval for a number of reasons. These reasons are limited to those identified in the review process and those that OCZM feels are potentially valid reasons.

Additional valid alternatives are those which can be carried out by the state. They are to modify parts of the program or withdraw their application for federal approval. While these were not specifically elaborated on in the DEIS because the consequences coincide with those of the federal alternatives, they remain throughout the process as valid alternatives.

With respect to the "no action" alternatives, OCZM has generally considered that federal denial or state withdrawal of the program, and "no action" are synonymous. State participation under the CZMA is voluntary and when a state participates in program development, it decides whether or not program approval and implementation is in its best interests. A few states have chosen the alternative of non-participation. This alternative may be chosen by a state at any time. Some states have decided not to participate during the legislative hearings on various coastal bills. The impacts of the "no action" alternative are described below under the "Loss of Federal Funds to Implement the Program" and "the Loss of Consistency of Federal Actions with the Program". OCZM believes that these descriptions are sufficient for an understanding of the impacts associated with this particular alternative.

The proposed action is federal approval of the New Jersey Coastal Management Program. The federal alternatives are to delay or deny approval. Before federal approval can occur, the Assistant Administrator must determine that the New Jersey Coastal Management Program meets the requirements for approval under the Federal Coastal Zone Management Act. This determination ultimately requires that discretion be used in interpreting the intent of Congress as expressed in the Act. Based upon careful consideration of the Proposed New Jersey Coastal Management Program and Draft Environmental Impact Statement and upon comments received on that DEIS, the Assistant Administrator has made a preliminary determination that New Jersey has met the requirements for approval under the Federal Coastal Zone Management Act.

This discussion of alternatives will first consider the generalized impacts that would result from delay or denial of approval for any reason. It will next consider possible reasons for denial.

Delay or denial, for whatever reason, would not prevent New Jersey from implementing the Coastal Program. It would not prevent the State from enforcing its Coastal Resource and Development Policies which meet a number of federal concerns such as preservation of natural and cultural resources and adequate consideration of the national interest in the siting of facilities of greater than local importance. It would, however, limit the State's ability to fully implement its Coastal Management Program by curtailing funds for program implementation and removing the requirement that federal actions be consistent with State coastal policies. The general impacts of delay or denial of approval, regardless of the reason, are as follows:

1. Loss of Federal Funds to Administer the Program

If approval of the program is delayed or denied, New Jersey will lose an estimated \$1.8 million per year in program implementation funds, beginning in October, 1980. Loss of these funds would prevent adequate staffing of the permit programs which are the backbone of the Coastal Management Program. The State might be unable to implement the Waterfront Development Permit program over a reinterpreted jurisdiction. The State would also be forced to curtail its coastal planning activities, making it more difficult to revise coastal policies as new problems are identified. It might not be possible to implement whatever recommendations result from the federally funded Cumulative Impact study. Finally, delay or denial of program approval would mean an estimated annual loss of up to \$6 million in CEIP funds for planning to deal with the impacts of offshore energy production.

2. Loss of Consistency of Federal Action With New Jersey's Coastal Resource and Development Policies

Denial or delay of program approval would render ineffective Section 307(c) of the CZMA, which requires that Federal actions in or affecting New Jersey's Coastal Zone be consistent with State coastal policies.

Although the Assistant Administrator has made a preliminary determination that New Jersey has met the requirements for approval under Section 306 of the Coastal Zone Management Act, this section identifies possible deficiencies in the Coastal Program which might require delay or denial of program approval to insure that the Assistant Administrator's initial decision is correct.

Alternative 1: The Assistant Administrator could delay or deny approval if the boundary is not adequate to meet the requirements of Section 304(1) - definition of coastal zone and 923.31(a) of the CZM regulations - inland boundaries.

Section 304(1) of the Coastal Zone Management Act states that the coastal zone shall extend inland from the shoreline only to the extent necessary to control shoreland uses which have a direct and significant impact on coastal waters. The state has established a boundary in the area north of the Raritan Bay (except for the Hackensack Meadowlands District) and north of the Delaware Memorial Bridge on the Delaware River which would extend 100 to 500 feet inland of all tidal waters through the administration of the Waterfront Development Act (N.J.S.A. 12:5-3).

Specifically, the boundary in these areas is a minimum of 100 feet inland and a maximum of 500 feet, or an intervening property line, public road or railroad if one lies between 100 and 500 feet inland. Within the area from the Raritan Bay to the Delaware Memorial Bridge, which is subject to the Coastal Area Facility Review Act, the coastal zone boundary includes the area under the jurisdiction of CAFRA or the Wetlands Act, whichever extends farther landward. While the CAFRA boundary varies considerably, it extends inland no less than one half mile and averages about six miles in width. The boundary of the coastal zone in the Hackensack Meadowlands will be the same as that of the HMDC District.

The issue can be raised of the adequacy of regulating in urban areas only up to 100 feet from the shoreline. Federal CZMA regulations 923.31(c) (general comments), however, clearly allow for a narrower boundary in urban areas by stating that "in many urban areas or where the shoreline has been modified extensively, natural system relationships between land and water may be extremely difficult, if not impossible, to define in terms of direct and significant impact". Because of the nature of the New Jersey coastline in the area north of the Raritan Bay, and along the Delaware River, its extensive bulkheading, high density, existence of infrastructure, and generally built-up character, the administrator has preliminarily determined that the State will be regulating in an area adequate to cover all uses that have a direct and significant impact on coastal waters. In addition to the Waterfront Development Permit Program, the State will regulate activities through the Wetland Act N.J.S.A. 13:9A-1 et seq. and tidelands grants, leases and licenses. The procedures for review of activities within the boundary is outlined in further detail in Chapter 4 of this document. Reviewers of this FEIS are especially encouraged to comment on any land uses which could occur inland of this boundary, which may have direct and significant impact on coastal waters.

Alternative 2: The Assistant Administrator could delay or deny approval if the inclusion of the Hackensack Meadowlands Commission's policies on wetlands violate the provisions of 923.3(b)(ii) - regarding wetlands and floodplains.

CZMA regulations 923.3(b)(ii) state that a program must include policies that address uses of or impacts on wetlands and floodplains and that these policies shall minimize the destruction, loss or degradation of wetlands and preserve and enhance their natural values in accordance with the purposes of Presidential Executive Order 11990 - pertaining to wetlands. The Hackensack Meadowlands Development Commission's (HMDC) Master Plan allows for the possible filling of 25% (1,196 acres) of the remaining wetlands for water dependent activities and housing. About 75% (3,576 acres) of the wetlands are to be preserved under the plan. The acreage of wetlands proposed for possible filling, however, amounts to a small percentage of the overall coastal wetlands in the coastal zone. The State has an estimated 256,000 acres of coastal wetlands under the direct jurisdiction of the Coastal Management Program. The 1,196 acres identified by the HMDC for possible filling represent approximately 0.5% of the entire State's regulated wetlands. The Commission will allow selected filling of wetlands in accordance with the District Master Plan, adopted in 1972, and last amended in November, 1979, after a thorough review of alternative sites.

The issue has been raised as to whether the policies of the Hackensack Meadowlands Development Commission violate the provisions of the CZMA, or the President's Executive Order on Wetlands. In regard to the CZMA, Section 303 and Regulation 923.3 do not prohibit all filling of wetlands, but call for programs to minimize the destruction, loss or degradation of wetlands. It is the preliminary conclusion of the Assistant Administrator that the Hackensack Meadowlands plan minimizes the destruction of wetlands. The President's Executive Order on Wetlands applies to Federal activities in wetlands; it will come into effect when federal permits, such as permits under Section 404 of the Clean Water Act are applied for.

It is important to note that the Hackensack Meadowlands Commission Plan is not a special management plan of the type allowed for in Section 230.10(a)(3)(ii) of the 404(b)(1) guidelines to the Clean Water Act. The Hackensack Meadowlands plan was prepared without necessarily meeting the comprehensive planning process called for in those guidelines. It is expected that decisions for 404 permits will continue to be made by federal agencies on a case-by-case basis, taking into account the wetland values and responsibilities under the Executive Order.

CZM regulation 923.21 allows for the designation as an Area of Particular Concern of any area where there are regulatory or permit requirements which apply only to that area. The State has designated the HMDC as an Area of Particular Concern based on the particular policies adopted by the Commission, and upon the Commission's regulatory jurisdiction. The plan adopted by the Commission calls for the creation of unified marshland preservation districts and restored shoreline buffer areas, and requires improvements to existing water quality facilities. Chapter 5 of the FEIS/Program document details the regulations of the HMDC.

Alternative 3: The Assistant Administrator could delay or deny approval if the Waterfront Development Permit Program does not meet the requirements of Section 306(c)(7) - adequate authorities necessary to implement program.

CZMA regulations 923.41(b)(1) allow for the Assistant Administrator to request a State Attorney General's opinion when there is a need for verification of an interpretation of any of the authorities proposed to be part of the management program. An Attorney General's opinion was requested on the interpretation of the Waterfront Development Permit Program's jurisdiction to regulate all uses in the coastal zone up to 500 feet inland of tidal waters, or to the first property line, road or railroad, whichever is less extensive, subject to a minimum jurisdiction of 100 feet. The Attorney General responded to this request and his opinion is in Appendix D of the FEIS/Program document.

The Attorney General's opinion states that DEP does have the legal authority to define the jurisdiction of the Waterfront Development Permit Program to regulate all uses in the coastal zone up to a minimum of 100 and a maximum of 500 feet inland. Based on the Attorney General's opinion, DEP has adopted this interpretation of the Waterfront Development Permit Program as a rule. This rule may be found in Appendix D of the FEIS/Program document.



APPENDICES



## APPENDIX A - THE COASTAL PLANNING PROCESS: 1973-1979

The New Jersey Coastal Management Program is based on DEP staff research, contractual studies by private consultants, university research teams, and state and local government agencies, and considerable public debate, suggestions, questions, and comments over the past six years. The most tangible evidence of the coastal planning process are the federally-approved Coastal Management Program - Bay and Ocean Shore Segment, Options for New Jersey's Developed Coast, Proposed New Jersey Coastal Management Program and other coastal reports published by DEP. Many of the planning reports produced and widely distributed by DEP are available upon request from the Division of Coastal Resources, while others, intended as in-house working documents, are available for review by interested people. Other evidence of the coastal planning process may be less visible, but just as significant as printed documents. This appendix sketches some of the highlights of the coastal planning process to date, both the clearly tangible reports and the public participation efforts.

The coastal management program has been prepared in two phases. The first, addressing the Bay and Ocean Shore Segment, received approval from the National Oceanic and Atmospheric Administration in September 1978. The second, combining the Developed Coast with the Bay and Ocean Shore Segment and proposed in this document, is based on studies prepared for the entire coast during the past six years.

### Major Planning Documents

Since 1975, DEP has prepared several major coastal planning reports which were widely shared with public groups, individuals, and agencies. These reports and the reaction to them have shaped the direction and policies of the Coastal Program.

In September 1975, DEP published an Inventory of the New Jersey Coastal Area which defines and discusses the diverse resources, problems and opportunities of New Jersey's coast in order to indicate the range of issues that constitute the agenda for coastal zone management.

In July 1976, DEP released Interim Land Use and Density Guidelines for the Coastal Area of New Jersey, prepared with the assistance of Rivkin Associates of Washington, D.C. This document classifies land and water features in the coastal area in terms of relative suitability for development. The Interim Guidelines and the companion publication, Guiding the Coastal Area of New Jersey -- The Basis and Background for Interim Land Use and Density Guidelines, provided an advance indication to developers, municipal officials, and others, of the likely decision on CAFRA permit applications, and have also served as a focal point for discussion and debate in the development of the Coastal Management Strategy (September 1977), the Coastal Management Program - Bay and Ocean Shore Segment (August 1978) and Options for New Jersey's Developed Coast (March 1979).

In October 1976, Alternatives for the Coast - 1976 was published to indicate the scope of policy alternatives DEP was evaluating for the coastal zone, their implications and the principles that helped shape them. DEP expanded upon the policy alternatives in twenty-two issue papers published between November 1976 and early 1977. The topics covered were: Agriculture and the Coast, Air Resources,

Cultural Resources, Flooding, Groundwater Quantity and Quality in the New Jersey Coastal Zone, Housing, Ocean Resources (Living, Mineral, and Physical Resources), Sand Movement and the Shoreline, Solid Waste and the Coast, Surface and Coastal Water Resources of New Jersey, Upland Living Resources (Endangered, Threatened and Rare Animals, Endangered and Rare Vegetation, and Upland Wildlife Habitats), and Upland Mineral Resources and the Coast. A separate paper on the value of Atlantic White-Cedar Stands was completed in May 1976.

In December 1976, DEP released Alternative Boundaries for New Jersey's Coastal Zone. This report presented ten possible coastal zone boundaries and served as a basis for debate on the issue.

DEP submitted the Coastal Management Strategy for New Jersey-CAFRA Area to the Governor, Legislature, and public in the fall of 1977. The Strategy introduced the Coastal Location Acceptability Method (CLAM), a method of coastal resource management developed by DEP-OCZM in 1976-1977 using a pilot study area in lower Cape May County. Prepared in part to satisfy the statutory mandate of the Coastal Area Facility Review Act of 1973 that called for the selection of an environmental management strategy for the coastal area in four years, the document also served as a discussion draft of the Coastal Management Program for the Bay and Ocean Shore Segment. DEP distributed 3,000 copies of the Coastal Management Strategy, conducted eight public meetings throughout the state to discuss and debate the coastal program, held twenty additional informal meetings with public agencies and received nearly one hundred written statements with comments on the Strategy. DEP then revised the Strategy substantially in the course of preparing the Draft EIS for the Bay and Ocean Shore Segment document.

The formal federal approval process for New Jersey's coastal program began in May 1978 with the publication of the Coastal Management Program - Bay and Ocean Shore Segment and Draft Environmental Impact Statement. DEP distributed more than 3,000 copies of the draft document, and held numerous meetings with various interest groups to discuss and debate the coastal program. In addition, DEP with NOAA-OCZM convened three public hearings to receive testimony on the DEIS. The Final Environmental Impact Statement (August 1978) was the result of revisions made to the May 1978 document, based on public comment gathered at the hearings, in informal meetings, and in written statements, and was approved by NOAA in September 1978. Options for New Jersey's Developed Coast (March 1979) provided a basis for further discussion of a coastal boundary, management system and policies as the coastal management program is expanded to encompass the coastal zone of the entire State.

The discussion of Options led to several changes, including a Coastal zone boundary limited to the area of direct DEP jurisdiction, in the Proposed New Jersey Coastal Management Program and Draft Environmental Impact Statement (May 1980). Three thousand copies of that draft program were distributed and four public hearings were jointly convened by NOAA and DEP. This New Jersey Coastal Management Program and Final Environmental Impact Statement represents the culmination of the coastal planning process, incorporating written and oral comments received throughout the past five years. The coastal planning process, however, is not complete. The Coastal Management Program will be revised as need becomes apparent through public comment, research and implementation experience, and the Coastal Resource and Development Policies, which lie at the core of the program, will be reevaluated annually.

## Public Shorefront Access and Erosion

DEP's Office of Coastal Zone Management served as staff to the Commissioner of DEP in his capacity as an active ex-officio member of the New Jersey Beach Access Study Commission. In 1976-1977, DEP staff helped prepare the Commission's report to the Governor and Legislature on beach access in April 1977. This report, entitled Public Access to the Oceanfront Beaches, examined beach use, budgets, and fees and ownership.

A study on shoreline erosion was prepared under contract to DEP by Rutgers University - Center for Coastal and Environmental Studies. The Coastal Geomorphology of New Jersey, in two volumes printed in December 1977, deals with the management techniques, strategies, and the technical basis and background for shoreline erosion management strategies. The study was a large step forward in understanding how to make decisions regarding development along the shoreline. Its influence is seen in many of the policies (high risk erosion, shore protection, dune protection) of the Coastal Resource and Development Policies.

## Energy

In December 1975, the Department of Environmental Protection invited energy industry representatives to provide basic information on coastal energy siting to be used in preparing the energy facility element of New Jersey's coastal zone management program. The results of this "Call for Information" were published by DEP in March 1977. The state's three major electric utilities responded in considerable depth to the "Call".

DEP's concern with the development of coastal energy facilities is further reflected in two contractual studies undertaken by research groups at Princeton and Rutgers Universities. The study by Princeton's Center for Environmental Studies, entitled Who's in Charge? - Governmental Capabilities to Make Energy Siting Decisions in New Jersey, received financial support from the Federal Energy Administration, which sponsored a similar effort in each of the states associated with the Mid-Atlantic Governors Coastal Resources Council (New York, New Jersey, Delaware, Maryland and Virginia). It was published in September 1977. The Rutgers study, prepared by the Center for Coastal and Environmental Studies and entitled Onshore Support Bases for Offshore Oil and Gas Development: Implications for New Jersey, was released in February 1978. In addition, DEP staff completed a report entitled Energy Facility Siting Issues in New Jersey's Coastal Zone, which was released for distribution in December 1977. DEP staff also prepared a brief "Fact Sheet on Offshore Drilling in New Jersey" in June 1978, and a report on OCS activities in New Jersey (1974-1979) in November 1979.

## Legal Framework

In June 1976, DEP compiled "An Inventory of Environmental Law in New Jersey", which includes a description of major New Jersey land use, water quality, air pollution, and living resources laws related to coastal zone management. This is an in-house working document.

In June 1977, DEP completed "Areawide (208) Water Quality Planning and the New Jersey Coastal Zone Management Program: Opportunities for Interagency Coordination," a paper detailing the relationship between coastal zone management planning and water quality planning being conducted in New Jersey under Section 208 of the Federal Water Pollution Control Act.

### Economics and Land Use

NJ DEP had contracts in 1975 and 1976 with the New Jersey Department of Community Affairs (DCA) and the Department of Labor and Industry (DLI) to prepare background land use and socio-economic studies about the coast. DCA produced information concerning: "Coastal Zone Housing Issues", County Land Use Issues in Atlantic, Cape May, Cumberland, Monmouth, Ocean and Salem Counties (six papers), "Growth Centers and Their Implications", "Sewerage Facilities", "Transportation Systems", and "Water Supply".

The Department of Labor and Industry prepared the following papers: "Background Paper: Economic Perspectives on New Jersey Tourist Industry", "Economic Inventory", "Economic Issues and Problems in Northeastern Region of New Jersey Coastal Zone", "Some Taxes", "Economic Profiles" on Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Monmouth, Ocean, and Salem Counties (nine papers), and "Municipalities in Burlington and Middlesex Counties".

### Information Systems

In February, 1975, in cooperation with the American Arbitration Association, DEP began an experiment to validate the environmental data for the Coastal Program. This experiment involved two large public meetings and several subsequent workshops. By January 1976, agreement was reached on data in nine natural resource categories. The categories are: bathymetry, flood areas, geology, groundwater, land use, slope, soils, tidal wetlands and vegetation.

NJ DEP also tested the development of information packages on an automated basis, in cooperation with the American Arbitration Association, Rockefeller Foundation, Rutgers University, and Princeton University. The 1976-1977 project, called the "Intuitive-Interactive Model", produced draft information packages on air pollution, construction noise, physical impact, industrial energy demand, odor pollution, residential energy demand, solid waste and waste demand, and urban runoff. One distinctive feature of the model is the ability of interested users such as developers or municipal officials to work directly, or "interact", with the computer. The findings of the project are being used by DEP in considering the ultimate design of an information system to assist coastal and perhaps statewide land and water use decision-making.

### Nominated Areas of Public Concern

In December 1977, NJ DEP completed a report for public release entitled Nominated Areas of Public Concern in the New Jersey Coastal Zone. The report describes 176 areas of the state nominated by 140 interested individuals and organizations in 1976-1977, in response to DEP's invitation that the public suggest sites and areas for preservation, development, historic, recreation, visual, or other purposes.

The enthusiastic public response to this invitation led to detailed and wide ranging nominations, which were used in part to confirm and refine the DEP-OCZM staff recommendations on Special Land Areas and Special Water Areas in preparing the Location Policies in the Coastal Management Program - Bay and Ocean Shore Segment and this document. DEP also distributed its report describing the nominations to other state, county and municipal agencies which can make decisions

affecting the sites. Finally, the information DEP gained about specific sites through the Nominated Areas of Particular Concern program has been used in the past and will be used in the future as supplemental information to be reviewed in individual coastal permit decisions.

#### Coastal Awareness

Rutgers University Center for Coastal and Environmental Studies, under contract to DEP, produced four booklets on coastal issues for public distribution in 1976-1977. The booklets, which are available from DEP are: "State Government and Coastal Zone Management", "Coastal Zone Legislation", "Oil Spills Reaction and Responsibility in New Jersey", and "New Jersey's Fishing Industry".

#### Mapping

During 1976-1978 DEP published several coastal map series, which are available to the public. The Inventory of the New Jersey Coastal Area - 1975 describes where these maps are located and how to use them. The Third Year Coastal Zone Management Program Development Grant Application provides a detailed list of the mapping in the first two years of the program. During the third year (1976-1977), extensive mapping was also done as part of DEP's pilot study in lower Cape May County, which resulted in the publication of A Method for Coastal Resources Management (July, 1978).

The Interim Land Use and Density Guidelines also includes maps of developed and selected environmentally sensitive areas in the Bay and Ocean Shore Segment. Wetlands maps are on file with each county recording officer and are also available for public inspection or purchase in DEP's Bureau of Coastal Planning and Development. Flood hazard area maps, as delineated by DEP's Division of Water Resources, are available for public inspection.

In addition, DEP funded a study by Rutgers University - Center for Coastal and Environmental Studies to develop an underwater aerial photographic methodology suitable for surveying submerged vegetation in the coastal estuaries of New Jersey. The study culminated in the report, entitled Analysis and Delineation of the Submerged Vegetation of Coastal New Jersey: A Case Study of Little Egg Harbor (January 1978), which describes the aerial underwater photographic method, identifies and maps distributions of species, and discusses the ecological functions and associated problems of each of the dominant species.

In July 1978, DEP released a staff working paper entitled Definition of the Preliminary Coastal Zone Boundary for the Delaware River and Northern Waterfront Regions of New Jersey's Coastal Zone. This paper identifies the process used by DEP to prepare an initial boundary for the coastal zone outside of the Bay and Ocean Shore Segment.

In September 1978, DEP held an all day mapping workshop to begin planning a coordinated effort by state agencies and other interested groups to identify mapping and other data needs, and to devise a system for obtaining, storing, and using the information.

## Public Participation

DEP's Division of Coastal Resources is committed to wide public participation by law, by practicality, and by principle. The Division's involvement efforts have two objectives, to raise the level of public awareness regarding both threats to, and attributes of the coast, and to identify and meet with individuals and groups who can contribute knowledge and opinions to coastal planning efforts.

The Division works to involve people early in the planning process and continues to encourage such involvement. Draft documents are made available. Possible policies are discussed in public long before they are even formally proposed, much less adopted. The objective is for the DEP staff to be exposed to as much information as possible, and for initial staff ideas and work products to receive a wide and critical reading. The reason is simple: a coastal zone management program cannot be prepared just from Trenton. The state's coastal zone is too large and too diverse. Public input and feedback is critical. Ideas which appear attractive on a planner's desk may be impossible to apply.

The Division of Coastal Resources uses varied forums and publications to hear and explore varied information and viewpoints. To attract coastal residents, DEP convened several series of public meetings in coastal counties during 1975-1978. The first meetings, held in Toms River and Trenton in February and May 1975, were focused on introducing the program and DEP's Data Validation Project. A second series of meetings were held in the summer of 1976 following publication of the Interim Land Use and Density Guidelines for the Coastal Area. A third series of seven meetings were held in the early winter of 1976 after release of Alternatives for the Coast. A fourth series of eight public meetings took place around the state in November-December 1977, following public release of the Coastal Management Strategy. These public meetings often began with a slide presentation and talk by a DEP staff member and then turned to the specific concerns of the assembled. Discussion at these meetings flows from the questions, and many topics are each discussed relatively briefly. In addition, DEP holds periodic workshops focused on specific, pre-announced subjects. Workshops on Agriculture, for example, were held in October 1976 in two locations (Bridgeton and New Brunswick). Additional workshops were held in February 1977 in Trenton and Toms River on Biological Resources, Physical Resources, Housing, Air Resources and Transportation, and Recreation and Boating.

Upon publication and distribution of the Draft Environmental Impact Statement on the Bay and Ocean Shore Segment in May 1978, DEP held numerous workshops throughout the state with municipal officials, environmentalists, and industry and trade representatives prior to the document's more formal review at public hearings in June. The workshops were held primarily to further acquaint participants with the Coastal Location Acceptability Method (CLAM). DEP staff used a step-by-step process with illustrations to work through a CLAM case study. The workshops also provided a forum for additional comments about the document, so that interested parties could receive clarification on specific points within the document, or suggest and discuss particular issues in greater detail than is possible at hearings. DEP, in conjunction with NOAA-OCZM, then held three public hearings on the Coastal Management Program in June 1978 in Bridgeton, Toms River, and Trenton. Approximately 180 people attended the hearings at which a total of 35 persons offered testimony. DEP presented a slide show at the start of each hearing to serve as an introduction to the coastal program.

Following publication and distribution of Options for New Jersey Developed Coast, another series of public meetings were held in June, 1979. These public meetings explored the issues raised in Options and discussed the implications of completing the coastal management program for the developed parts of the coast.

In the Delaware River Area, DEP has held public meetings in Camden, in 1976, 1977, 1978, and 1979; in Gloucester in 1978 and 1979; and in Burlington in 1979. Speakers from DEP's Office of Coastal Zone Management (OCZM) have attended additional meetings in Gloucester County and Burlington County. DEP-OCZM has shared drafts of documents with the Delaware River Port Authority throughout the planning process and undertook a contract for joint coastal planning with the Delaware River Basin Commission.

In the Northern Waterfront Area of the Developed Coast, DEP-OCZM held public meetings in Hoboken in 1976, New Brunswick in 1976, 1978 and 1979; Jersey City in 1977 and 1978; Hackensack, Edison and Elizabeth in 1978; and Newark in 1979. In 1977, DEP-OCZM met with municipal officials in Hudson and Bergen counties. DEP-OCZM staff have also spoken to environmental, civic and business groups in the area. Drafts of documents have been shared with the New York and New Jersey Port Authority, and DEP-OCZM has a working arrangement with the Hackensack Meadowlands Development Commission to exchange views on planning efforts.

As an additional method of adding local input and perspectives to planning for the Developed Coast, DEP-OCZM passed through two small grants of federal funds available under the Coastal Zone Management Act to coastal counties to conduct studies on energy facility siting, and to provide county suggestions and comments on the direction and content of the State Coastal Management Program. The participating counties in the Developed Coast were Salem, Gloucester, Camden, Burlington (for one year), Middlesex, Union and Hudson.

DEP also meets regularly with representatives of builders and environmental groups. DEP has shared and discussed with these groups early drafts of several coastal reports including the Interim Land Use and Density Guidelines, CAFRA Procedural Rules and Regulations and the Coastal Management Strategy. Prior to the May 1978 publication of the Coastal Management Program - Bay and Ocean Shore Segment and Draft Environmental Impact Statement, DEP distributed 150 copies of a pre-publication version of the document for quick review and comment by other state agencies, coastal county planning boards, builders, and energy, industry and environmental group representatives who had been active in the coastal planning process. Recipients of the pre-publication draft were also invited to a special Saturday review working session.

Since November 1976, DEP has held regular meetings with an Environmental Advisory Group composed of leaders of statewide civic and environmental groups. These meetings have been regularly attended by representatives of the American Littoral Society, American Association of University Women, League for Conservation Legislation, Sierra Club, Association of New Jersey Environmental Commissions, Natural Resources Defense Council, and the League of Women Voters, and occasionally by the Citizens Association to Protect the Environment, New Jersey Audubon Society, New Jersey Conservation Foundation, New Jersey Public Interest Research Group, and the Youth Environmental Society.



DEP also convened a series of workshops on energy involving oil and gas industry representatives from Louisiana and Texas, as well as from the New Jersey Petroleum Council and the American Petroleum Institute in Washington, D.C., county energy planning representatives, researchers from Rutgers and Princeton, fishing groups. As the Newark Star Ledger noted on April 24, 1977, "It comes as somewhat of a surprise to find many of the combatants meeting across tables to discuss the issue informally, almost casually, in New Jersey."

The hearings held by DEP on each CAPRA permit application provide another forum for public input in the Bay and Ocean Shore Segment. The hearings are held near the site proposed for development, and range, depending on the interest aroused by the applicant, from five minute meetings attended only by the applicant to four hour sessions with up to 300 people.

The Coastal meetings and workshops are announced primarily through The Jersey Coast, the Division of Coastal Resources newsletter. This periodical is mailed to all interested persons and organizations known to DEP. The mailing list currently includes more than 7,000 names. Meetings are also announced through press releases and the DEP Bulletin.

The Division recognizes that reliance on a mailing list may neglect many potentially interested persons. To expand interest and knowledge of coastal management issues, the DEP staff have spoken before a wide variety of municipal, county, state, and regional agencies, and civic, interest and professional groups in New Jersey and in other states. This provides an opportunity to talk with many people who may be well aware of some of the problems, but unaware of the coastal zone management program and possible solutions. Through these meetings, proposed policies are debated, interested individuals identified, and new people added to the mailing list who may later contribute to an element of the program.

DEP also participates in other events to raise public awareness of coastal issues and again to identify more people who are interested in participating in the coastal management process. In June, 1976, for example, the DEP Commissioner led federal, state and local officials, interested citizens, and reporters on a six day walk along New Jersey's 125 mile ocean shoreline. This innovative event sparked considerable publicity and interest in the coast both in New Jersey and nationally. The Beach Shuttle experiment operated by DEP in the summer of 1977, and the return of the service in 1978 and 1979, have provided another vehicle for probing public views on selected coastal management issues. In addition, DEP has had exhibits at boat shows and county fairs. In May 1978, DEP developed a portable display describing New Jersey's coastal management program. This display can be easily updated as DEP completes the Federal approval process and begins to emphasize different areas of the State's coastal zone. The exhibit has been placed at several environmental and ecological fairs around the state, in libraries, and in the rotunda of the State House.

## APPENDIX B - EXCLUDED FEDERAL LANDS

Under the federal Coastal Zone Management Act, lands that are owned, leased, held in trust or whose use is otherwise by law subject solely to the discretion of the Federal Government, its officers, or agents are excluded from New Jersey's coastal zone. The major federal holdings located within New Jersey's Coastal Zone and, therefore, excluded under federal law, are listed below. "Major" is defined as greater than 100 acres. These areas are indicated in Figure 41. In addition to the areas noted, numerous Coast Guard stations and smaller federal land holdings are excluded from the coastal zone. The listing below notes the federal agency responsible for the land and the county in which it is located.

### Army Corps of Engineers

National Park Disposal Area (Gloucester)  
Pedricktown Disposal Area (Salem)  
Penns Grove Disposal Area (Salem)  
Penns Neck Disposal Area (Salem)  
Killcohook Spoil Disposal Area (Salem)  
Artificial Island Disposal Area (Salem)  
Cape May Canal (Cape May)

### Army

U.S. Military Reservation - Caven Point Marine Terminal (Hudson)  
Military Ocean Terminal (Hudson)  
Fort Monmouth (Monmouth)  
Highlands Army Air Defense Site (Monmouth)  
Philadelphia Air Defense Site - USA Reservation (Salem)

### Navy

Naval Weapons Station, Colts Neck

### Fish and Wildlife Service

Barnegat National Wildlife Refuge (Ocean)  
Brigantine National Wildlife Refuge (Atlantic)  
Killcohook National Wildlife Refuge (Salem)  
Supawana Meadows National Wildlife Refuge (Salem)

### National Park Service

Gateway National Recreation Area - Sandy Hook (Monmouth)

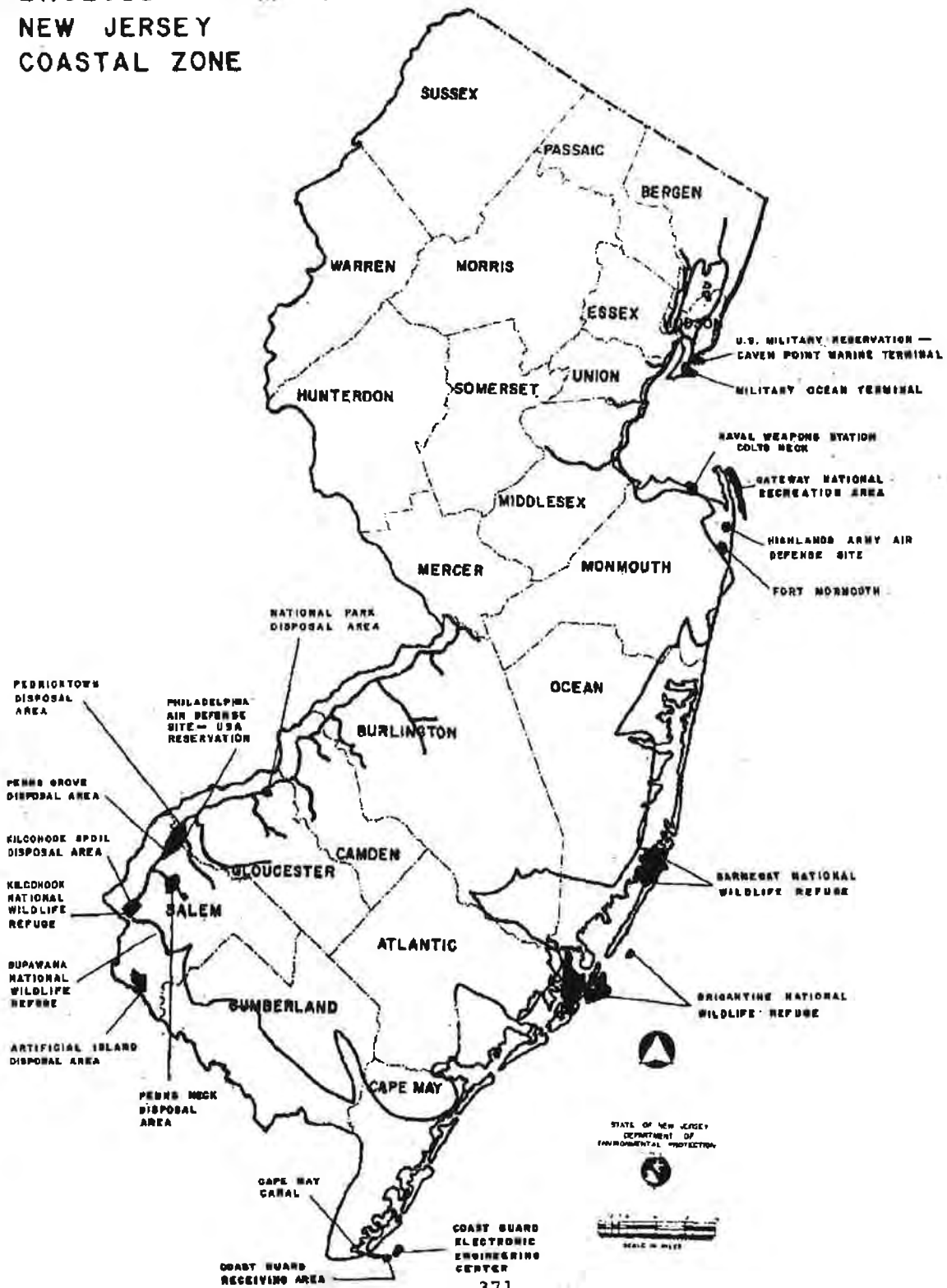
### Coast Guard

Coast Guard Receiving Center - Cape May (Cape May)  
Coast Guard Electronic Engineering Center (Cape May)

The State of New Jersey considers the acquisition of new federal lands to be a direct federal action subject to the consistency provisions of Section 307 of the federal Coastal Zone Management Act. Also, federal actions on excluded lands that have spillover impacts that significantly affect coastal resources must be consistent with State coastal policies.

Figure 41

# MAJOR FEDERAL LANDS EXCLUDED FROM THE NEW JERSEY COASTAL ZONE



APPENDIX C - DOE-DEP MEMORANDUM OF UNDERSTANDING

Memorandum of Understanding  
Between  
New Jersey Department of Energy  
and  
New Jersey Department of Environmental Protection  
on  
Coordination of Permit Reviews

A. Purpose

This Memorandum of Understanding sets forth the areas of responsibilities and operating procedures to be followed effective immediately by the Department of Energy (DOE) and Department of Environmental Protection (DEP) under the State of New Jersey's coastal management program, as developed and as to be administered under the federal Coastal Zone Management Act of 1972 as amended (16 U.S.C. 1451 et seq.).

The DOE and DEP agree to the procedures and responsibilities that follow, recognize the statutory limitations of both agencies, and do not intend this Memorandum of Understanding to expand or limit their existing statutory powers in any way.

B. Definitions

As used in the Memorandum of Understanding, the following words and definitions shall have the following meanings unless the context indicates or requires another or different meaning or intent.

1. Complete for Review means that supplemental information requested by either the Department of Environmental Protection and Department of Energy on permit applications has been submitted and both agencies are satisfied as to form and content of such information.
2. Energy Report means the report in form and content specified by the Department of Energy Act N.J.S.A. 52:27F-13(c) or as further specified by Administrative regulation of the Department of Energy.
3. Energy Facility means any facility which produces, converts, distributes or stores energy or converts one form of energy to another consistent with applicable statutory authority and regulations of the DOE and DEP.
4. Final Agency Action means a final decision of the Commissioner of Environmental Protection or designated representative on a pending permit application except as noted in Section F.
5. Permits means administrative regulatory instruments issued by the Department of Environmental Protection on the construction or location of energy facilities, under the Coastal Area Facility Review Act (N.J.S.A. 13:19-1 et seq.), Wetlands Act (N.J.S.A. 13:9A-1 et seq.), and waterfront development permit program (N.J.S.A. 12:5-3). The definition of "Permits" may be extended by mutual agreement between DEP and DOE.

C. Statement of Existing Agency Responsibilities

1. The DEP is responsible for formulating comprehensive policies for the conservation of the natural resources of the State, promoting environmental protection, and preventing pollution of the environment (N.J.S.A. 13:1D-9).
2. The DEP is the agency designated by the Governor to develop and administer the State's coastal management program under Sections 305 and 306 of the federal Coastal Zone Management Act.
3. The DEP has selected and presented to the Governor and Legislature the Coastal Management Strategy for New Jersey - CAFRA Area (September 1977) as required by the Coastal Area Facility Review Act (hereafter CAFRA) (N.J.S.A. 13:19-16).
4. The DEP exercises regulatory responsibility over the construction of energy facilities in the coastal zone under three coastal permit programs: the Coastal Area Facility Review Act (N.J.S.A. 13:19-1 et seq.), the Wetlands Act (N.J.S.A. 13:9A-1 et seq.), and waterfront development permit program (N.J.S.A. 12:5-3).
5. The Coastal Area Review Board (hereafter CARB), in but not of DEP, may hear appeals of CAFRA permit decisions by DEP (N.J.S.A. 13:19-13, N.J.A.C. 7:7D-1 et seq.). DEP also provides a plenary hearing appeals procedure complying with the Administrative Procedures Act for CAFRA (N.J.A.C. 7:7D-2.8), Wetlands (DEP Administrative Order No. 12, December 8, 1977), and waterfront development (N.J.A.C. 7:1C-1.9(b)) permit decisions by DEP's Division of Marine Services.
6. The DOE is responsible for the coordinated regulation and planning of energy-related matters in the State (C. 146, L. 1977, N.J.S.A. 52:27F-1 et seq.).
7. The DOE, through its Division of Energy Planning and Conservation, is preparing the State Energy Master Plan for the production, distribution, consumption, and conservation of energy in the State, which will include the siting of energy facilities in the coastal zone (N.J.S.A. 52:27F-12).
8. The DOE, Division of Energy Planning and Conservation is empowered and directed to intervene in any proceeding and appeal from any decision of DEP with respect to the siting of energy facilities in the coastal zone. The DOE is a party of interest in any proceeding before DEP on coastal energy facility siting (N.J.S.A. 52:27F-13(a)).
9. The DOE has coextensive jurisdiction with DEP over permit applications on the siting of any energy facility in the State, including the coastal zone. The DEP must solicit the views of DOE prior to making a decision on the siting of an energy facility in the coastal zone. DOE's views must be transmitted to DEP in a report (hereafter Energy Report) within 90 days of DOE's receipt of the application. If the Energy Report differs from the decision of DEP, the conflict shall be referred for resolution to the Energy Facility Review Board (N.J.S.A. 52:27F-13(c)).

10. The DOE is the agency designated by the Governor to administer the State's participation in the Coastal Energy Impact Program (CEIP) under Section 308 of the federal Coastal Zone Management Act. DEP, as the state coastal management agency, must be involved in the CEIP Intrastate Allocation Process.

D. Coastal Planning and Energy Planning

DOE and DEP agree to work together, to the maximum extent practicable, to formulate, review, and revise plans, policies, and guidelines on the siting of energy facilities in the coastal zone, including but not limited to planning documents such as the State Energy Master Plan, Coastal Management Strategy for New Jersey - CAFRA Area, and New Jersey Coastal Management Program - Bay and Ocean Shore Segment.

E. Joint DEP-DOE Coastal Permit Application Processing Sequence

DEP and DOE agree that coastal permit applications for energy facilities over which DOE has coextensive jurisdiction shall be processed according to the following sequence of steps and timetable.

1. DEP receives energy facility permit application and begins internal DEP permit application review process.
2. When complete for review, DEP promptly refers a copy of the energy facility permit application to DOE, Division of Energy Planning and Conservation for its review. The Division shall submit an Energy Report on the application to DEP within 90 days of DOE receipt of the complete application. The DOE Energy Report shall be transmitted to DEP at least thirty (30) days prior to the application statutory or regulatory deadline for decisions by DEP on CAFRA, Wetlands, or waterfront development permits (see the 90 Day Construction Permits Law, C. 232, L. 1975, N.J.A.C. 7:1G-1.8) in order to insure both timely consideration by DEP of DOE's views as well as expeditious decision-making on energy facility permit applications. The time period may be extended by mutual consent of both agencies and the applicant as deemed appropriate. Consistent with the provisions of the 90 Day Construction Permits Law C. 232, L. 195, no decision will be made on energy facility permit applications until the DOE Energy Report or a memorandum from the DOE Commissioner that such a report will not be issued, is received by DEP.
3. For CAFRA permit applications, DEP shall request additional information from applicants, as reasonably requested in a timely manner by DOE, prior to declaring an application complete for filing (N.J.A.C. 7:7D-2.3(e)1.), at the required public hearing (N.J.A.C. 7:7D-2.3(e)5.iv.), or within 15 days after the public hearing (N.J.A.C. 7:7D-2.3(e)6.i.), prior to declaring the application complete for review (N.J.A.C. 7:7D-2.3(e)6.iii.), to insure that DOE has adequate information to prepare its Energy Report. At its discretion, DOE may submit a Preliminary Energy Report to DEP at least 15 days prior to the date of a scheduled public hearing on a CAFRA permit application, in order to assist DEP in preparing its Preliminary Analysis of the application (N.J.A.C. 7:7D-2.3(e)4.).

4. For Wetlands and waterfront development permit applications, DEP shall request additional information from applicants, as reasonably requested in a timely manner by DOE, before declaring an application complete (N.J.A.C. 7:1C-1.7(a)2.), to insure that DOE has adequate information to prepare its Energy Report.
5. For proposed coastal energy facilities that require a CAFRA permit and either or both of a Wetlands and waterfront development permit, DEP shall coordinate the review process, including review of the adequacy of submitted information, public hearings, and decision documents, under the auspices of the review process for the CAFRA permit application, including its information requirements. Specifically, a Wetlands or waterfront development permit application shall not be declared complete, triggering the 90 day permit decision period under the 90 Day Construction Permits Law (C. 232, L. 1975), until the CAFRA permit application is declared complete for review (N.J.A.C. 7:7D-2.3(e)6.iii.).
6. DEP issues decision on the energy facility permit application. If DOE has submitted an Energy Report in a timely manner, the DEP decision document shall refer to the Energy Report and indicate DEP's reasons for differences, if any, between the DEP decision and the DOE Energy Report.

F. Appeals of DEP Coastal Energy Facility Permit Application Decisions

DEP's decisions on CAFRA, Wetlands, and waterfront development permit applications may be appealed administratively by an applicant or an interested third party. DOE shall refer a DEP decision that differs with DOE's Energy Report to the Energy Facility Review Board for a decision binding upon DEP. Since multiple possible avenues of appeal exist on DEP coastal energy facility permit applications, DEP and DOE agree that appeals shall be heard according to the following procedure, to be incorporated by appropriate regulations of DEP: the Coastal Area Review Board, the Natural Resource Council and the Energy Facility Review Board.

1. DOE may convene the Energy Facility Review Board only if its Energy Report submitted to DEP differs with the DEP decision.
2. If an applicant and/or an interested third party appeals a CAFRA permit decision to the Coastal Area Review Board, or appeals a CAFRA or Wetlands decision by DEP's Division of Marine Services to the Commissioner for a plenary (quasi-judicial) hearing, or appeals a waterfront development permit decision by DEP's Division of Marine Services to the Natural Resource Council (N.J.A.C. 7:1C-1.9(b)), DOE shall be a party of interest at the appeal. If the final decision on appeal of either the Coastal Area Review Board, Commissioner, or Natural Resource Council differs with the DOE Energy Report submitted to DEP before the initial administrative decision, then DOE shall convene the Energy Facility Review Board.
3. The Energy Facility Review Board may affirm, reverse, or modify the initial DEP administrative decision or the decision on appeal. The DOE and DEP members of the Board agree that DOE shall, by September 28, 1978, promulgate regulations to establish the operating procedures of the Board, including, but not limited to a provision binding the Energy Facility Review Board to limit its review to the DEP decision and the

Energy Report, prepared pursuant to Section C of this Memorandum of Understanding, and to follow the New Jersey Administrative Procedures Act.

4. Appellant parties may seek judicial relief as appropriate.

G. Basis of Energy Report

1. DOE and DEP agree to accept the New Jersey Coastal Management Program - Bay and Ocean Shore Segment (and subsequent segment), as approved by the Governor, and particularly its Coastal Resource and Development Policies, and the State Energy Master Plan, as the basis for the formulation of the DOE Energy Report with respect to the siting of energy facilities in the coastal zone.
2. DOE and DEP agree that the DOE Energy Report shall include an evaluation of the need for the proposed energy facility, considering local, state, regional, and national interests, as one of many factors to be considered in preparation of the Energy Report and decision, respectively.

H. Coastal Energy Impact Program

1. DOE and DEP agree to work cooperatively in DOE's administration of the federal Coastal Energy Impact Program in New Jersey.
2. DEP will participate fully in the New Jersey CEIP Intrastate Allocation Committee's deliberations, as the designated lead state agency for coastal zone management.
3. One copy of all CEIP applications submitted to DOE shall be referred by DOE to DEP for an initial review of the application's compatibility or consistency, as appropriate, with the State's developing or approved coastal management programs (15 CFR 932.26(a)(3), Federal Register, Vol. 43, No. 37 - February 23, 1978, p. 7554).
4. One copy of all final work products and reports prepared with financial assistance under the Coastal Energy Impact Program shall be transmitted to DEP, as a standard condition of CEIP grants passed through to state agencies and units of local governments by DOE.

I. National Interests in Energy Facility Siting

DEP and DOE agree to consider the national interests in New Jersey's coastal zone, as defined in the New Jersey Coastal Management Program - Bay and Ocean Shore Segment, as approved by the Governor, in the DEP permit application processes and the DOE Energy Report preparation process and the DOE State Energy Master Plan. DEP agrees to interpret the opportunity under CAFRA to consider the "public health, safety and welfare" (N.J.S.A. 13:19-4) as sufficient authority to consider these national interests. DOE agrees to interpret its mandate to "... contribute to the proper siting of energy facilities necessary to serve the public interest ..." (N.J.S.A. 25:27F-2) as sufficient authority to consider the national interests in the siting of coastal energy facilities.

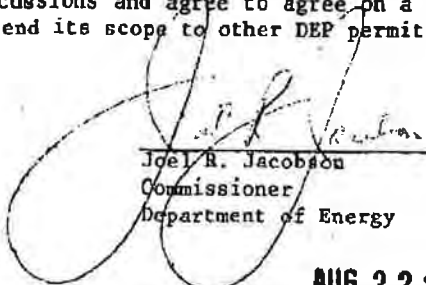


J. Federal Consistency

DEP and DOE agree that both agencies shall participate in the State's decision to issue a determination of consistency under Section 307 of the Federal Coastal Zone Management Act for coastal energy facilities. As required by federal regulations (15 CFR 930.18), DEP shall receive, and forward promptly to DOE, all materials necessary for consistency determinations on coastal energy facilities. In the event of a disagreement between DEP and DOE, the Energy Facility Review Board shall be convened and shall make a recommendation to the Governor, who shall make the final determination within the applicable time limit. As required by federal regulations (15 CFR 930.18), DEP will then transmit the final federal consistency determination to the appropriate federal agency.

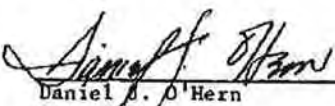
K. Effective Date

This Memorandum of Understanding shall take effect on September 28, 1978. DOE and DEP agree to continue discussions and agree to agree on a revision of this Memorandum of Understanding to extend its scope to other DEP permits.

  
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Joel R. Jacobson  
Commissioner  
Department of Energy

AUG 22 1978

\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Daniel B. O'Hern  
Commissioner  
Department of Environmental  
Protection

AUG 22 1978

\_\_\_\_\_  
Date

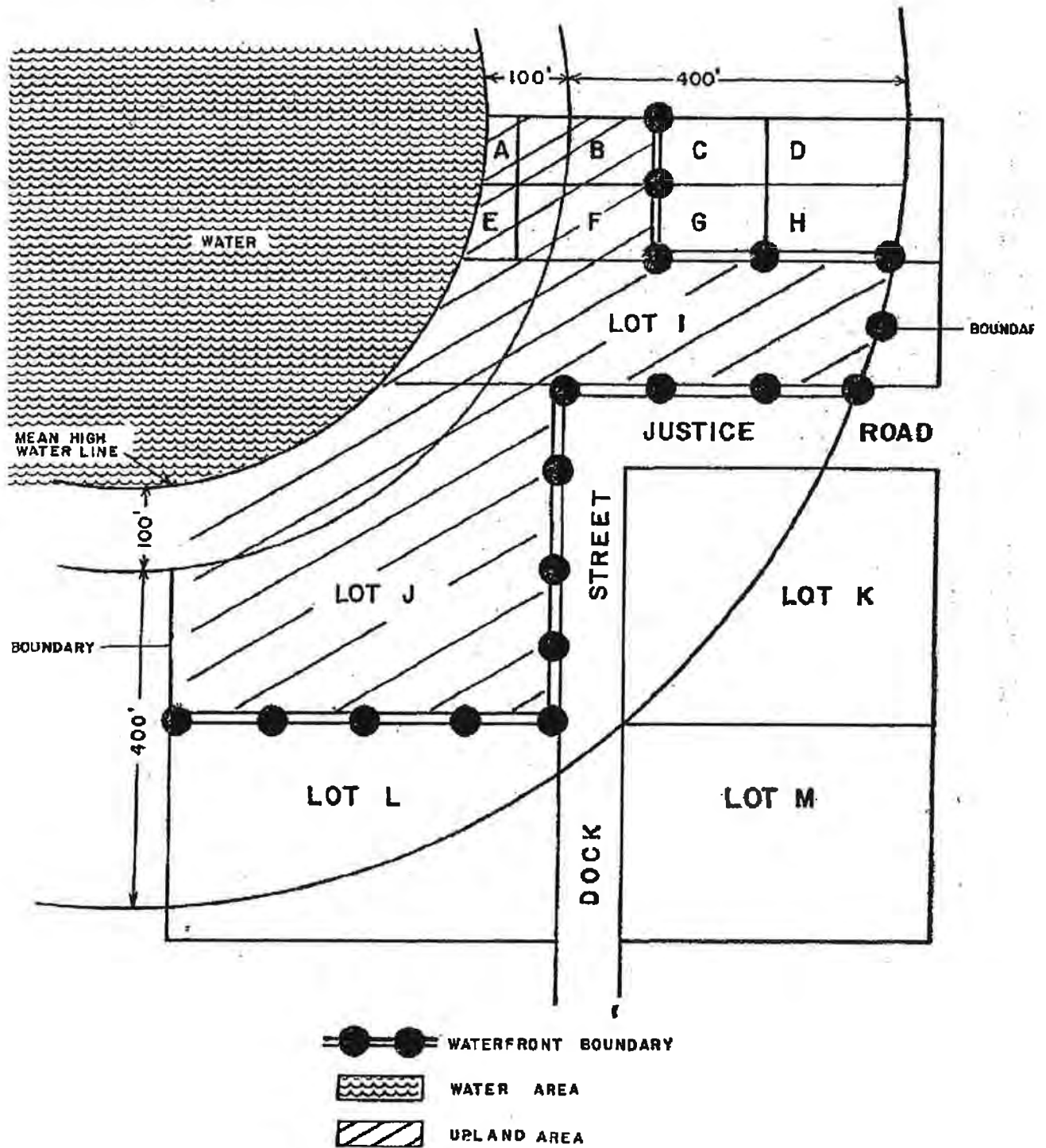
APPENDIX D - WATERFRONT DEVELOPMENT RULES AND ATTORNEY GENERAL'S OPINION

Rules on Waterfront Development Permits  
N.J.A.C. 7:7-2.1 et seq.

- 7:7-2.1 Authority: Unless otherwise expressly noted, all provisions of this subchapter were adopted pursuant to authority of N.J.S.A. 12:5-1 et seq.
- 7:7-2.2 Purpose and Scope: These rules and regulations are intended to implement N.J.S.A. 12:5-3 by defining a boundary for "waterfront" areas and by defining "waterfront development".
- 7:7-2.3 Definitions: The following words and terms, when used in this subchapter, shall have the following meanings, unless the content clearly indicates otherwise.
- "Navigable": Those waters of the State which are subject to the ebb and flow of the tide shoreward to the mean high water line.
- 7:7-2.4 Waterfront Area Described: The waterfront area to be regulated under these rules shall consist of:
- a. A "Water Area", which shall include any navigable waterway or stream of this State and all lands lying thereunder up to the mean high water line and
  - b. An "Upland Area", which shall include all lands extending landward from the mean high water line of such water area to the first surveyable property line existing on the effective date of these Rules, public road, railroad right-of-way, or other cultural feature generally parallel to the waterway; provided that the landward boundary of such area shall be at least 100 feet and no greater than 500 feet from the waterway except where lands formerly flowed by the tide (i.e. tidelands) extend more than 500 feet from the mean high water line. In such cases the boundary of the upland fringe area shall be the upland boundary of such tidelands.
- 7:7-2.5 Applicability in Man-Made Waterways: These rules shall apply to all man-made waterways and lagoons connected to tidal waters.
- 7:7-2.6 Inapplicability in Coastal Area and Hackensack Meadowlands Development District. The Upland Area described by this rule shall not include any part of the Coastal Area as defined by the Coastal Area Facility Review Act at N.J.S.A. 13:19-4, or any part of the Hackensack Meadowlands Development District as delineated at N.J.S.A. 13:17-4.1
- 7:7-2.7 Activities Requiring Permits: The following activities will require a permit in the Waterfront:
- a. the removal or deposition of Sub-aqueous materials (dredging);

JURISDICTION OF PROPOSED RULE FOR WATERFRONT DEVELOPMENT LAW - SKETCH

Figure 42a



**JURISDICTION OF PROPOSED RULE  
FOR WATERFRONT DEVELOPMENT  
LAW - SAMPLE MAP**

Figure 42b

 - JURISDICTION



- b. the construction or alteration of a dock, wharf, pier, bulkhead, bridge, piling, mooring dolphin, pipeline, cable, or other similar structure or;
- c. the construction, reconstruction, or enlargement, of any building or other structure, or of any excavation or landfill.

7:7E-2.8 Activities not Requiring Permits: The following activities will not require a permit in the waterfront:

- a. the construction of an individual single family home or appurtenant structure, when constructed more than 100 feet inland from the mean high water line,
- b. the reconstruction or enlargement of any structure more than 100 feet inland from the mean high water line, or
- c. the conversion of any structure to a different use.

7:7-2.9 Exemptions for Development in Progress on Effective Date: These rules shall not apply to any development in the Upland Area for which on-site construction, including site preparation, was in progress on or prior to the effective date of these rules.

Any person who believes that a proposed facility is exempt from the requirements of these rules due to on-site construction may request in writing a determination of exemption from the Division of Coastal Resources.

Exemptions shall be applied for and considered upon submission of information sufficient for the Commissioner to determine that physical work was actually performed on the proposed facility, including site preparation, prior to September 26, 1980, the effective date of these rules. Any interruption in the process of construction and completion of the facility may be cause for denial of an exemption request by the Commissioner unless caused by factors beyond the developer's control, provided good faith efforts were made by the developer to overcome such delay or interruption. Interruptions caused by financial, labor, or legal factors must be documented in the exemption request.

7:7-2.10 Permits: Any person proposing to undertake or cause to be undertaken any development in the Waterfront Area shall first obtain a permit from the Division of Coastal Resources. Permit application forms may be obtained upon request from the Division of Coastal Resources, Department of Environmental Protection, Box 1889, Trenton, New Jersey 08625.

Permit applications shall be reviewed by the Division in accordance with the 90 Day Construction Permit Rules, N.J.A.C. 7:1C-1.1 et seq.

7:7-2.11 Exemptions Request for Finding on Geographic Applicability: Any person proposing to undertake or cause to be undertaken any development in or near the Waterfront Area may request in writing a determination that that proposal is exempt from the requirements of these Rules on the basis that the proposed facility's site is located outside the Waterfront Area.

The requesting party shall provide the Division with a map depicting the project site in a scale of not less than 1:2,400 (one inch equals 200 feet) and a project description. When the exemption request is based on a proposed facility's location landward of the first surveyable property line more than 100 feet from the waterway, the map shall depict that property line as it is depicted on the official local tax map as of the effective date.

The Division shall, within 30 days of receipt, return the map to the requesting party, indicating on the map the waterfront area boundary and its relationship to the project site.

- 7:7-2.12 Procedure for Development Entirely Within Regulated Wetlands: No waterfront development permit shall be required for a proposed development located entirely within a wetland area regulated under the Wetlands Act (N.J.S.A. 13:9A-1 et seq.).
- 7:7-2.13 Criteria for Permit Decisions: Waterfront Development permit applications shall be approved, modified or denied on the basis of the Rules on Coastal Resource and Development Policies, N.J.A.C. 7:7E-1.1 et seq.
- 7:7-2.14 Appeals: Appeals of permit decisions shall be taken to the Commissioner in accordance with the 90 Day Construction Permit Rules, N.J.A.C. 7:1C-1.9.

#### Rationale

The source of the Waterfront Development Law is Chapter 123 of the Laws of 1914, entitled "An Act to Create the New Jersey Harbor Commission and to Define its Powers and Duties." The Commission was to be concerned with "the condition of waterfront and harbor facilities and any other matter incident to the movement of commerce upon all navigable rivers and waters within this state or bounding thereon". (N.J.S.A. 12:5-1). It authorizes the State to regulate land and water uses in the waterfront area, but defines neither the area nor the uses to be regulated with precision. It is left to the Executive branch to establish by rule the parameters of its authority, and to do so in a manner that is reasonably related to the goals established by law.

- A. The regulation of waterfront development is an appropriate exercise of the State's police power.

"The legislative history of the Law reveals that it was passed in response to a need for the State to assume a direct role in the regulation of harbor development for competitive economic reasons. In its 1914 Fourth Preliminary Report to the Legislature prior to passage of the legislation, the temporary New Jersey Harbor Commission recommended direct State control over the waterfront, the waterways and the upland adjacent thereto'. Fourth Preliminary Report of the New Jersey Harbor Commission, p. 6 (1914). Clearly, then, the perceived need for this remedial law was to regulate uplands as well as water areas."\*

The proposed Upland Area encompasses a narrow, largely developed area which is entirely within 500 feet of the water's edge. Because of the restricted size of the waterfront and its proximity to the water's edge, small-scale development can have a proportional impact as great as a major development in other areas of the State,

particularly in terms of reducing the range of sites available for other, perhaps competing uses. A small parking lot or commercial development built directly on the water can effectively preclude access to the water's edge and can, in more developed areas, consume the last vacant waterfront site in the immediate area.

Experiences in other cities have shown that the economic vitality of waterfront areas often depends on a well coordinated planning and management program which insures that industrial, maritime and other water-related uses may be accommodated in an orderly fashion, with room left for recreational and other, multi-purpose uses.

These factors make it clear that it is necessary to regulate development in the waterfront in order to enforce the intent of the Waterfront Development Law. This will not preclude the concentration of growth in developed areas of the coast and the use of the waterfront for a variety of uses, including well designed commercial activities. Both of these uses are acceptable under the Department's Rules on Coastal Resource and Development Policies for the Bay and Ocean Shore Region (N.J.A.C. 7:7E-1.1 et seq., effective September 28, 1978).

The Rules on Coastal Resource and Development Policies favor the concentration of development away from relatively undeveloped areas. Consequently, many of the types of development described in this rule will seek to locate in the developed coast. The fact that these Rules on Coastal Resource and Development Policies will be in place throughout the coast when these rules take effect means that DEP will have an existing substantive basis for efficiently regulating the activities defined in this proposed rule.

The Coastal Resource and Development Policies were originally developed by DEP as the substantive basis for decision-making under a number of statutes in the State's Bay and Ocean Shore region. They address a variety of considerations, both environmental and economic. Those rules are being amended concurrently with the proposed adoption of these rules, and if adopted will apply throughout the State (see Section 7:7-2.13 of these proposed rules). The amendments are designed to incorporate the purposes of the Waterfront Development Law, by insuring that water-dependent and maritime dependent uses will not be precluded by haphazard waterfront development.

B. The boundary described by this rule is an appropriate delineation of the waterfront area.

A boundary delineation utilizing property lines, cultural features and/or distances determined by measurement is a traditional method of delineation. The CAFRA boundary is delineated in this manner. The proposed boundary accomplishes three things:

1. It encompasses a land area of sufficient width to control the first land use adjacent to the waterway;
2. It encompasses a land area that is sufficiently limited in width as to avoid over-reaching into areas that are not waterfront in character;
3. It describes a boundary which may be readily delineated and mapped.

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\* Attorney General's Formal Opinion No. 6 (February 29, 1980), page 2.

C. The use of different standards for the regulation of waterfront activities inside and outside the CAFRA area and Hackensack Meadowlands District is reasonable and appropriate.

The Coastal Area Facility Review Act (N.J.S.A. 13:19-1 et seq.) recognizes the special character of New Jersey's Bay and Ocean Shore areas, and seeks to preserve and protect that character by regulating major facilities. The findings made under that Act constitute the State's land use priorities within the defined coastal area, and should, therefore, apply to the Waterfront Development Law as administered in that area.

The Act does not affect the State's authority under N.J.S.A. 12:5-3 outside the CAFRA area, and so the Department may, as part of its concern for "any matter incident to the movement of commerce upon all navigable rivers and waters within this state or bounding thereon" (N.J.S.A. 12:5-1), define appropriate uses for other waterfront areas. Such a dual system is particularly appropriate because the greater portion of the state's commercial or industrialized waterfront is in the Developed Coast, outside the CAFRA area.

Similarly, the Hackensack Meadowlands Reclamation and Development Act (N.J.S.A. 13:17-1.1 et seq.) constitutes the State's land use priorities in the Meadowlands District. It adopts a regional approach to reducing and resolving the development pressures on a seriously strained estuarine system. It applies only in a limited area, and does not affect the State's authority under the Waterfront Development Law outside the District.





State of New Jersey

DEPARTMENT OF LAW AND PUBLIC SAFETY

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DEPUTY ATTORNEY GENERAL  
SECTION CHIEF

February 29, 1980

Jerry F. English, Commissioner  
Department of Environmental Protection  
P. O. Box 1390  
Trenton, New Jersey 08625

FORMAL OPINION NO. 4 - 1980

Dear Commissioner English,

Our advice has been requested on certain questions pertaining to the expanded implementation of the permit requirements of the Waterfront Development Law, N.J.S.A. 12:5-1, et seq. The threshold question is whether the Waterfront Development Law authorizes the Department of Environmental Protection to regulate development on uplands adjacent to navigable waters or streams. It is our opinion that the statute provides jurisdiction to regulate any development on the "water-front" portion of uplands adjacent to navigable waters or streams.

N.J.S.A. 12:5-3, the key operative provision of the law, provides as follows:

"All plans for the development of any water-front upon any navigable water or stream of this State or bounding thereon, which is contemplated by any person or municipality, in the nature of individual improvement or development or as a part of a general plan which involves the construction or alteration of a dock, wharf, pier, bulkhead, bridge, pipe line, cable, or any other similar or dissimilar water-front

development shall be first submitted to the Department of Environmental Protection. No such development or improvement shall be commenced or executed without the approval of the Department of Environmental Protection first had and received, or as hereinafter in this chapter provided."

Thus, the statute requires State approval for any "water-front development" that is either similar or dissimilar to the specifically mentioned types of development. The inquiries therefore are, what area is physically encompassed by the term waterfront and what constitutes development.

The Waterfront Development Law was passed in 1914. The legislative history reveals that it was passed in response to a need for the State to assume a direct role in the regulation of harbor development for competitive economic reasons. In its 1914 Fourth Preliminary Report to the Legislature prior to passage of the legislation, the temporary New Jersey Harbor Commission recommended direct State control over the "waterfront, the waterways and the upland adjacent thereto". Fourth Preliminary Report of the New Jersey Harbor Commission, p. 6 (1914). Clearly, then, the perceived need for this remedial law was to regulate uplands as well as water areas.

This conclusion is reinforced by the unambiguous dictionary meaning accorded to the term waterfront. According to Webster's New Collegiate Dictionary (1977 ed.) it means "land, land with buildings, or a section of a town fronting or abutting on a body of water". Black's Law Dictionary (4th ed. 1968), defines waterfront as "land or land with buildings fronting on a body of water". See, City of Long Beach v. Liesenby, 175 Cal. 575, 166 P. 333, 335, cited in Blacks. Thus, without reasonable doubt the term waterfront as used in the Waterfront Development Law, was intended to include the uplands adjacent to navigable waters or streams.

On the ancillary question of what constitutes "development" requiring a permit, the listing of specific structures in N.J.S.A. 12:5-3 followed by the statement "or any other similar or dissimilar water-front development", can reasonably be viewed as inclusive of all structures of whatever type under the permit requirement. Under this view, the specific examples are seen as merely illustrative of typical waterfront structures, but by no means intended by the Legislature as exhaustive or limiting in any way. In its Fourth Preliminary Report the Harbor Commission

also touched upon this issue and called for State approval of any improvement or construction whatever. Fourth Preliminary Report of the New Jersey Harbor Commission, p. 3 (1914). Thus, consistent with the expressed legislative purpose to remedy the perceived evil of unregulated waterfront development, it may be concluded that the Legislature intended to require a permit for all structures erected in the waterfront area. To conclude otherwise and give the term development a limited meaning would obviously tend to frustrate the essential underlying purpose of the Waterfront Development Law.

Your second inquiry is to what extent does the waterfront extend, and in particular, may the Department extend it by rule or otherwise to 1000 feet from the water. While it is certain that the concept of regulating a waterfront includes regulating development on uplands, the concept or term waterfront is elusive in its precise spatial definition. However, in light of the purpose of the law in promoting and safeguarding water oriented activities and in light of the direct waterfront nature of the specific examples of development mentioned in N.J.S.A. 12:5-3, it must be concluded that the waterfront to be regulated under the law is no larger than the area of the first substantial land use that directly adjoins the water and not an area extending 1000 feet inland. Since regulation of the first substantial land use (or area where that potential use will take place) is enough to promote and protect water oriented activities by insuring access, availability of dockage, etc., and since it is also large enough by definition, to encompass any development as called for by N.J.S.A. 12:5-3, the law does not contemplate regulation extending automatically 1000 feet inland.\*

It is also necessary to address the nature of the substantive standards to be adopted by the Department in its administration of the permit requirements of the Waterfront Development Law. The permissible scope of such regulations lies in an understanding of the legislative purpose in enacting the Waterfront

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\*More precise definition of the waterfront should be undertaken by administrative rule. For example, a rule regulating at least the first 100 feet would be appropriate since it can reasonably be assumed that the first significant land use will occupy at least that large an area (a typical building lot is in excess of 100 feet deep). Moreover, the rule could indicate that where the potential area for the first significant land use extends more than 100 feet inland, a permit will be required for that entire use of the waterfront, subject to a reasonable maximum distance limitation.

Development Law. That purpose was to promote the development and revitalization as well as to safeguard the port facilities and waterfront resources for the public's overall economic advantage, Fourth Preliminary Report, *supra*. The Waterfront Development Law therefore, justifies the adoption of standards to insure access to the State's waterways for all water-dependent uses and, conversely, standards discouraging nonwater-dependent uses from usurping the waterfront. Furthermore, a variety of other considerations may come into play in the determination of an appropriate use in a particular case so long as they are in furtherance of the essential purposes underlying the Waterfront Development Law. For example, the development of extensive high rise housing on the waterfront would not be consistent with the legislative purpose to insure access to waterways for water dependent uses and at the same time denial of a permit may serve the purpose of protecting the scenic or aesthetic appearances of the waterfront. In summary, therefore, so long as regulations adopted under the Waterfront Development Law are designed to carry out and are in furtherance of the primary intent of the Waterfront Development Law, they may be permissibly used to control the exercise of administrative discretion in the issuance of waterfront development permits.

In summation, it is our advice that the Department may regulate the portion of uplands adjacent to the State's navigable waterways that constitutes the waterfront, but that the waterfront is a relatively narrow strip of land whose precise geographical limit should be defined by rule in accordance with the criteria set forth in this opinion. In addition the substantive standards that are to be used to guide Department permit decisions under the Waterfront Development Law must be in accord with the Legislature's intent to promote the development, revitalization and safeguarding of the waterfront for the public's overall economic wellbeing.

Very truly yours,

JOHN J. DEGNAR  
Attorney General

By   
John M. Van Dalen  
Deputy Attorney General

JWD/bc

## APPENDIX E - LEGAL AUTHORITIES

### Introduction

The New Jersey Coastal Management Program relies upon certain New Jersey State laws and adopted rules for its legal authority and the enforceability of its Coastal Resource and Development Policies. This Appendix briefly describes these key legal authorities and gives the appropriate citation reference to either the New Jersey Statutes Annotated (N.J.S.A.) or the New Jersey Administrative Code (N.J.A.C.). In addition, this Appendix concludes by reprinting four laws in their entirety: the Coastal Area Facility Review Act, the Wetlands Act, the Waterfront Development Law, and the Department of Energy Act. The CAFRA Procedural Rules and Regulations and regulations governing the wetlands and riparian permit processes are also published in the New Jersey Administrative Code and are available upon request from DEP.

### Coastal Area Facility Review Act

#### Law

N.J.S.A. 13:19-1 et seq. enacted June 20, 1973; effective September 19, 1973 (reprinted in this Appendix).

#### Rules

N.J.A.C. 7:7D-1.0 et seq. - Coastal Area Review Board; effective November 18, 1975. These rules establish the procedures of the Coastal Area Review Board, a body composed of three cabinet members and created by N.J.S.A. 13:19-13, and which may hear appeals from decisions on CAFRA permit applications by the Director of the Division of Marine Services.

N.J.A.C. 7:7D-2.0 et seq. - CAFRA Procedural Rules and Regulations; effective April 5, 1977. These rules establish the permit application and exemption request procedures of DEP under the Coastal Area Facility Review Act.

#### Administrative Orders

- No. 32, November 3, 1975, by DEP Commissioner David J. Bardin; effective November 10, 1975. This Administrative Order delegated decision-making authority on CAFRA permit applications from the Commissioner to the Director, Division of Marine Services (now Coastal Resources).
- No. 35, December 4, 1975, by DEP Commissioner David J. Bardin, effective December 8, 1975. This Administrative Order established the Office of Coastal Zone Management in DEP's Division of Marine Services. Under the Administrative Order, the Chief of the Office of Coastal Zone Management reports directly to the DEP Commissioner with respect to planning under N.J.S.A. 13:19-16 and under the Federal Coastal Zone Management Act, but reports to the Director of the Division of Marine Services with respect to the CAFRA permit program. Superseded in part (see the following).
- No. 17, June 22, 1979; effective July 3, 1979. Re-organizes the Division of Marine Services into five bureaus and continues its operation as the Division of Coastal Resources.

## Wetlands Act

### Law

N.J.S.A. 13:9A-1 et seq.; effective November 5, 1970 (reprinted in this Appendix)

### Rules

N.J.A.C. 7:7A-1.1 et seq.; effective April 13, 1972. The New Jersey Wetlands Order Basis and Background, adopted in 1972, defined the rationale for the regulation of coastal wetlands. Independent contractors for DEP prepared maps of wetlands at a scale of 1:2,400 (one inch = 200 feet). DEP then adopted the Wetlands Order, including the maps delineating wetlands areas, on a county-by-county rule-making process, with notice to affected property owners, from 1972-1977 (N.J.A.C. 7:7A-1.2). The order defines regulated activities, and prohibits certain activities on wetlands, while the Procedural Regulations (N.J.A.C. 7:7A-1.3 et seq.) establish permit application procedures and project review criteria, and list the wetlands maps.

### Administrative Order

No. 12, December 8, 1977, by DEP Commissioner Rocco D. Ricci; effective December 8, 1977. This Administrative Order delegated decision-making authority on Wetlands permit applications from the Commissioner to the Director, Division of Marine Services and specified that appeals of the Director's decision shall be submitted to the Commissioner.

## Waterfront Development Permit

### Law

N.J.S.A. 12:5-1 through 12:5-11; enacted at various dates beginning 1914. These laws define the procedures and standards for the management of waterfront and harbor facilities, including waterfront development permits (N.J.S.A. 12:5-3, reprinted in this Appendix).

## Tidelands Statutes

### Law

N.J.S.A. 12:3-1 through 12:3-71; enacted at various dates beginning 1869. These laws define the procedures and standards for leases, grants, and conveyances of tidelands.

N.J.S.A. 13:1B-10, 11, 12; enacted at various dates beginning 1948. These laws define the powers, functions, and duties of the Tidelands Resource Council, which decides tidelands management real estate matters.

N.J.S.A. 13:1B-13; enacted 1948. This law defines the procedure for approval of tidelands leases and grants.

N.J.S.A. 13:1B-13.1 through 13:1B-13.51; enacted 1968. This law, part of the statute creating the Hackensack Meadowlands Development Commission, mandates tidelands delineation studies and the surveys in the Meadowlands and defines procedures for conveyances of State-owned tidelands in the Meadowlands.

#### 90 Day Construction Permit Law

##### Law

C.232, L. 1975 (supplements N.J.S.A. 13:1D-1 et seq., amends N.J.S.A. 12:5-2, 12:5-3, 58:1-26 and 58:1-27, and repeals N.J.S.A. 12:5-4); enacted October 23, 1975; effective December 22, 1975. The law provides for the approval, conditional approval, or disapproval of applications under five DEP-administered construction permit programs within 90 days of completion of an application, otherwise the application is deemed approved.

##### Rules

N.J.A.C. 7:1C-1.0 et seq.; effective December 22, 1975; revised October 10, 1977. These rules implement the 90 Day Construction Permits Law, and govern the waterfront development permit process.

#### Shore Protection

##### Law

N.J.S.A. 12:6A-1 et seq.; enacted at various dates beginning 1940. The law authorizes DEP to carry out structural and non-structural shore protection programs and undertake dredging of waterways and streams.

#### Department of Energy

##### Law

N.J.S.A. 52:27-1 et seq.; enacted and effective July 11, 1977. This law created a new cabinet-level executive department, with co-extensive jurisdiction with other State agencies, including DEP, on energy facility siting. It should be noted that pending State legislation (s-1179) would amend the Department of Energy Act and increase and clarify the authority of the Commissioner of Energy.

N.J.S.A. 40:55D-19; effective August 1, 1976. This section of the municipal Land Use Law empowers the Board of Public Utilities to supercede any local action taken with respect to a public utility if the Board finds the service "necessary for the service, convenience, or welfare of the public".

##### Rules

N.J.A.C. 14A:8-1.1, effective December 3, 1979. Procedural Rules of the Energy Facility Review Board.

Hackensack Meadowlands Development Commission Law

Law

N.J.S.A. 13:17-1 et seq. Creates the Hackensack Meadowlands Development Commission, defines the district, and authorizes development and management activities.

Rules

N.J.A.C. 19:4. District Zoning Regulations and procedural rules.

Reprinted Laws

The Coastal Area Facility Review Act, the Wetlands Act, the Waterfront Development Law, and the Department of Energy Act are reprinted in full on the following pages.



## CHAPTER 185

A

An Act to provide for the review of certain facilities in the coastal area and making an appropriation therefor.

Enacted by the Senate and General Assembly of the State of New Jersey:

## C. 12:12-1 Short title.

1. This act shall be known and may be cited as the "Coastal Area Facility Review Act."

## C. 12:12-2 Declaration of policy.

2. The Legislature finds and declares that New Jersey's bays, harbors, sounds, wetlands, inlets, the tidal portions of fresh, saline or partially saline streams and tributaries and their adjoining upland wetland drainage area nets, channels, estuaries, barrier beaches, near shore waters and intertidal areas together constitute an exceptional, unique, irreplaceable and delicately balanced physical, chemical and biologically acting and interacting natural environmental resource called the coastal area, that certain portions of the coastal area are now suffering serious adverse environmental effects resulting from existing facility activity impacts that would preclude or tend to preclude those multiple uses which support diversity and are in the best long-term social, economic, aesthetic and recreational interests of all people of the State; and that, therefore, it is in the interest of the people of the State that all of the coastal area should be dedicated to those kinds of land uses which promote the public health, safety and welfare, protect public and private property, and are reasonably consistent and compatible with the natural laws governing the physical, chemical and biological environment of the coastal area.

It is further declared that the coastal area and the State will suffer continuing and over-accelerating serious adverse economic, social and aesthetic effects unless the State assists, in accordance with the provisions of this act, in the assessment of impacts, stemming from the future location and kinds of facilities within the coastal area, on the delicately balanced environment of that area.

The Legislature further recognizes the legitimate economic aspirations of the inhabitants of the coastal area and wishes to encourage the development of compatible land uses in order to improve the overall economic position of the inhabitants of that area within the framework of a comprehensive environmental design strategy which preserves the most ecologically sensitive and fragile area from inappropriate development and provides adequate environmental safeguards for the construction of any facilities in the coastal area.

## C. 12:12-3 Definitions.

3. For the purposes of this act, unless the context clearly requires a different meaning, the following words shall have the following meanings:

a. "Commissioner" means the State Commissioner of Environmental Protection.

b. "Department" means the State Department of Environmental Protection.

c. "Facility" includes any of the facilities designed or utilized for the following purposes:

- (1) Electric power generation—  
Oil, gas, or coal fired or any combination thereof.  
Nuclear facilities.
- (2) Food and food byproducts—  
Beer, whiskey and wine production.  
Fish processing, including the production of fish meal and fish oil.  
Slaughtering, blanching, cooking, curing, and pickling of meats and poultry.  
Trimming, culling, juling, and blanching of fruits and vegetables.  
Animal matter rendering plants.  
Operations directly related to the production of leathers or furs such as, but not limited to, unhairing, soaking, delimiting, bating, and tanning.  
Curing and pickling of fruits and vegetables.

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Pasteurization, homogenization, cocondensation, and evaporation of milk and cream to produce cheeses, sour milk, and related products.

Coffee bean and cocoa bean roasting.

(3) Incineration wastes—

Municipal wastes (larger than or equal to 30 tons per day).

Automobile body (30 automobiles per hour or larger).

(4) Paper production—

Pulp mills.

Paper mills.

Paperboard mills.

Building paper mills.

Building board mills.

(5) Public facilities and housing—

Sanitary landfills.

Waste treatment plants (sanitary sewage).

Road, airport, or highway construction.

New housing developments of 25 or more dwelling units or equivalent.

Expansion of existing developments by the addition of 25 or more dwelling units or equivalent.

(5) Agri-chemical production—

Pesticides manufacture and formulation operations or either thereof.

Superphosphate animal feed supplement manufacture.

Production of normal superphosphate.

Production of triple superphosphate.

Production of diammonium phosphate.

(7) Inorganic acids and salts manufacture—

Hydrofluoric acid and common salts.

Hydrochloric acid and common salts.

Nitric acid and common salts.

Sulfuric acid and common salts.

Phosphoric acid and common salts.

Chromic acid, including chromate and dichromate salts.

(8) Mineral products—

Asphalt batching and roofing operations including the preparation of bituminous concrete and concrete.

Cement production, including Portland, natural, masonry, and portland cements.

Coal cleaning.

Clay, clay mining, and dry-sah sintering.

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Calcium carbide production.

Stone, rock, gravel, and sand quarrying and processing.

Frit and glass production.

Fiberglass production.

Slag, rock and glass wool production (mineral wool).

Lime production, including quarrying.

Gypsum production, including quarrying.

Perlite manufacturing, including quarrying.

Asbestos fiber production.

(9) Chemical processes—

Ammonia manufacture.

Chlorine manufacture.

Caustic soda production.

Carbon black and charcoal production, including channel, furnace, and thermal processes.

Varnish, paint, lacquer, enamel, organic solvent, and inorganic or organic pigment manufacturing or formulating.

Synthetic resins or plastics manufacture including, but not limited to, alkyd resins, polyethylene, fluorocarbons, polypropylene, and polyvinylchloride.

Sodium carbonate manufacture.

Synthetic fibers production including, but not limited to, semi-synthetics such as viscose, rayon, and acetate, and true synthetics such as, but not limited to, nylon, orlon, and dacron, and the dyeing of these semi and true synthetics.

Synthetic rubber manufacture, including but not limited to, butadiene and styrene copolymers, and the reclamation of synthetic or natural rubbers.

The production of high and low explosives such as, but not limited to, TNT and nitrocellulose.

Soap and detergent manufacturing, including but not limited to, those synthetic detergents prepared from fatty alcohols or linear alkylate.

Elemental sulfur recovery plants not on the premises where petroleum refining occurs.

Used motor or other oil or related petroleum product reclamation operations.

Petroleum refining, including but not limited to, distillation, cracking, reforming, treating, blending, polymerization, isomerization, alkylation, and elemental sulfur recovery operations.

Organic dye and dye intermediate manufacturing.

Hydrogen cyanide or cyanide salts manufacture or use.

**Glue manufacturing operations.**

Manufacturing, fabricating, or processing medicinal and pharmaceutical products including the grading, grinding, or milling of botanicals.

**(10) Storage—**

Bulk storage, handling, and transfer facilities for crude oil, gas and finished petroleum products not on the premises where petroleum refining occurs.

Bulk storage, handling, transfer and manufacturing facilities of gas manufactured from inorganic and organic materials including coal gas, coke oven gas, water gas, producer, and oil gases.

**(11) Metallurgical processes—**

Production of aluminum oxide and aluminum metal and all common alloys, such as those with copper, magnesium, and silicon.

Production of titanium metal, salts, and oxides.

Metallurgical coke, petroleum coke, and byproduct coke manufacturing.

Copper, lead, zinc, and magnesium smelting and processing.

Ferrous alloys manufacture such as, but not limited to, those combined with silicon, calcium, manganese and chrome.

Integrated steel and iron mill operations including, but not limited to, open hearth, basic oxygen, electric furnace, sinter plant, and rolling, drawing, and extruding operations.

Melting, smelting, refining, and alloying of scrap or other substances to produce brass and bronze ingots.

Gray iron foundry operations.

Steel foundry operations.

Beryllium metal or alloy production, including rolling, drawing and extruding operations.

Operations involving silver, arsenic, cadmium, copper, mercury, lead, nickel, chromium, and zinc including, but not limited to, production, recovery from scrap or salvage, alloy production, salt formation, electroplating, anodizing, and metallo-organic compound products preparation.

Stripping of oxides from and the cleaning of metals prior to plating, anodizing, or painting.

**(12) Miscellaneous—**

Operations involving the securing, desizing, cleaning, bleaching, and dyeing of wool.

Wood preserving processes which use coal or petroleum based products such as, but not limited to, coal tars and/or creosoles.

Manufacture, use, or distillation of phenols, creosols, or coal tar materials.

Manufacture of lead acid storage batteries and/or storage batteries produced from other heavy metals, such as nickel or cadmium.

Installation of above or underground pipelines designed to transport petroleum, natural gas, and sanitary sewage.

Operations involving the dyeing, bleaching, coating, impregnating, or glazing of paper.

Dyeing, bleaching, and printing of textiles other than wool.

Chemical finishing for water repelling, fire resistance, and mildew proofing, including preshrinking, coating and impregnating.

Sawmill and planing mill operations.

Marine terminal and cargo handling facilities.

d. "Person" means and shall include corporations, companies, associations, societies, firms, partnerships and joint stock companies as well as individuals and governmental agencies.

e. "Governmental agencies" means the Government of the United States, the State of New Jersey, or any other states, their political subdivisions, agencies, or instrumentalities thereof, and interstate agencies.

**C. 13-19.4 "Coastal area" defined.**

6. The "coastal area" shall consist of all that certain area lying between the line as hereinafter described and the line formed by the State's seaward (Barrington Bay and Atlantic ocean) territorial jurisdiction on the east thereof, the State's bayward (Delaware Bay) territorial jurisdiction on the south and southwest thereof, and the State's riverward (Delaware River) territorial jurisdiction on the west thereof. Beginning at the confluence of Chesapeake Creek with the Barrington Bay; thence southwesterly along the center line of Chesapeake Creek to its intersection with the Garden State Parkway; thence southeasterly along the Garden State Parkway to Exit 117 at State Highway 36; thence northeasterly along State Highway 36 to the intersection of Middle Road (County 516); thence easterly along Middle Road to the intersection of Palmer Avenue (County 7); thence northeasterly on Main Street to the intersection of State Highway 36; thence easterly on State Highway 36 to the intersection of Navesink Avenue; thence southerly on Navesink Avenue to the intersection of Monmouth Avenue at Navesink; thence westerly on Monmouth Avenue to its intersection with Browns Dock Road; thence southerly on Browns Dock

Road to its intersection with Cooper Road; thence southwesterly on Cooper Road to the intersection of State Highway 35; thence southerly on State Highway 35 to its intersection with State Highway 71; thence southeasterly on State Highway 71 to its crossing of the Central Railroad of New Jersey tracks to its intersection of 6th Avenue (County 2); thence westerly on 6th Avenue (County 2) to the intersection of State Highway 33; thence westerly along State Highway 33 to the crossing of State Highway 18; thence southerly on State Highway 18 to its intersection of Marconi Road; thence southeasterly on Marconi Road to Adrienne Road, continuing south on Adrienne Road to Belmar Boulevard; thence easterly on Belmar Boulevard and 16th Avenue to the intersection of State Highway 71; thence southerly on State Highway 71 to the intersection of State Highway 35; thence northwesterly along State Highway 35 to State Highway 34 at the Brielle Circle; thence northwesterly along State Highway 34 to the Garden State Parkway at Exit 96; thence southwesterly along the Garden State Parkway to the intersection of the Monmouth, Ocean County boundary; thence westerly along said boundary to the intersection of the Central Railroad of New Jersey tracks; thence southwesterly along the tracks of the Central Railroad of New Jersey to its junction with the tracks of the Pennsylvania Railroad near Whiting; thence easterly along the tracks of the Pennsylvania Railroad to its intersection with the Garden State Parkway near South Toms River; thence southerly along the Garden State Parkway to its intersection with County Road 539 at Garden State Parkway exit 58; thence northerly along County Road 539 to its intersection with Martha-Stafford Forge Road; thence westerly along Martha-Stafford Forge Road to its intersection with Spur 563; thence northerly along Spur 563 to its intersection with County Road 563; thence southerly along County Road 563 to its intersection with County Road 542 at Green Bank; thence northwesterly along County Road 542 to its intersection with Weekstown-Pleasant Mills Road; thence southeasterly along Weekstown-Pleasant Mills Road to its intersection with County Road 563 at Weekstown; thence southeasterly along County Road 563 to its intersection with Clarks Landing Road leading to Port Republic; thence easterly along Clarks Landing Road to its intersection with the Garden State Parkway; thence southerly along the Garden State Parkway to its intersection with Alt. 559, and thence northwesterly along Alt. 559 to its intersection with County Road 559 at Gravelly Run; thence-

northwesterly along County Road 559 to its intersection with U. S. 40 and S. R. 59 at Maya Landing; thence westerly along combined U. S. 40 and S. R. 50 to its intersection with S. R. 50; thence southerly on S. R. 50 to its intersection with Buck Hill Road near Buck Hill; thence westerly along Buck Hill (River Road) Road to its intersection with S. R. 49; thence southwesterly along S. R. 49 to its intersection with S. R. 50; thence southeasterly along S. R. 50 to its intersection with County Road 585; thence southwesterly along County Road 585 to its intersection with S. R. 47 at Dennisville; thence northwesterly along S. R. 47 to its intersection with State Road 49 at Millville; thence through Millville along State Road 49 to its intersection with County Road 565; thence southerly along County Road 565 to its intersection with County Road 27; thence southerly along County Road 27 to its intersection with County Road 70; thence southerly on County Road 70 to the Center of Mauricetown; thence through Mauricetown westerly on County Road 548 to its intersection with the tracks of the Central Railroad of New Jersey; thence northwesterly on the tracks of the Central Railroad of New Jersey to its intersection with County Road 93; thence easterly along County Road 93 to the intersection with County Road 38; thence northerly along County Road 38 to its intersection with S. R. 49 east of Bridgeton; thence westerly along S. R. 49 through Bridgeton to its intersection with County Road 5 (Roadstown Road); thence westerly along County Road 5 (Roadstown Road) to Roadstown; thence northwesterly along the Roadstown Road to County Road 47; thence southwesterly along County Road 47 to its intersection with County Road 19; thence along County Road 19 northwesterly to Gum Tree Corner; thence northwesterly along County Road 19 from Gum Tree Corner across Stone Creek to its intersection with Salem County Road 53 (Hancock's Bridge Road); thence northwesterly along County Road 59 to its intersection with County Road 51 at Coopers Branch; thence northwesterly along County Road 51 to its intersection with S. R. 49 at Quinton; thence northwesterly along S. R. 49 to its intersection with County Road 50; thence southwesterly along County Road 50 to its intersection with County Road 68; thence southerly on County Road 58 to its intersection with County Road 24; thence westerly along County Road 24 to its intersection with County Road 60; thence northerly along County Road 60 (Walnut Street) to its intersection with County Road 4; thence westerly along County Road 4 and northerly along

County Road 4 and thence easterly along County Road 4 to its intersection with State Road 49; thence northerly along State Road 49 (Front Street) to its intersection with County Road 57; thence easterly along County Road 57 to its intersection with State Road 45; thence northerly along State Road 45 to its intersection with County Road 540 at Pointers; thence northerly and northwesterly along County Road 540 (Deepwater-Slapes Corner Road) to its intersection with the New Jersey Turnpike; thence westerly along the New Jersey Turnpike to its intersection with County Road 33; thence southerly along County Road 33 to its intersection with State Road 49; thence southeasterly along S. R. 49 to its intersection with County Road 26; thence northwesterly along County Road 26 to the Killbuck National Wildlife Refuge; thence northwesterly along this southeasterly boundary to the limits of the State's territorial jurisdiction on the Delaware River; provided, however, that the coastal area shall not include all that certain area in Cape May County lying within a line beginning at the intersection of S. R. 47 and County Road 54; thence westerly on County Road 54; to the intersection of County Road 3; thence southeasterly on County Road 3 through the intersection of County Road 3 with County Road 13 to the intersection with County Road 47; thence easterly and northerly along County Road 47 to its intersection with State Road 9; thence northerly along State Road 9 to its intersection with State Road 47; thence westerly along State Road 47 to its intersection with County Road 54.

**C. 15:19-5 Permit to construct facility.**

5. No person shall construct or cause to be constructed a facility in the coastal area until he has applied for and received a permit issued by the commissioner; however, the provisions of this act shall not apply to facilities for which on-site construction, including site preparation, was in process on or prior to the effective date of this act.

**C. 15:19-6 Application for permit.**

6. Any person proposing to construct or cause to be constructed a facility in the coastal area shall file an application for a permit with the commissioner, in such form and with such information as the commissioner may prescribe. The application shall include an environmental impact statement as described in this act.

**C. 15:19-7 Contents of environmental impact statement.**

7. The environmental impact statement shall provide the information needed to evaluate the effects of a proposed project upon the environment of the coastal area.

position concerning the application and any data they may have developed in reference to the environmental effects of the proposed facility.

b. The commissioner, within 15 days after the hearing, may require an applicant to submit any additional information necessary for the complete review of the application.

**C. 15:19-10 Review of applications; required findings.**

10. The commissioner shall review filed applications, including the environmental impact statement and all information presented at public hearings. He shall issue a permit only if he finds that the proposed facility:

a. Conforms with all applicable air, water and radiation emission and effluent standards and all applicable water quality criteria and air quality standards.

b. Prevents air emissions and water effluents in excess of the existing dilution, assimilative, and recovery capacities of the air and water environments at the site and within the surrounding region.

c. Provides for the handling and disposal of litter, trash, and refuse in such a manner as to minimize adverse environmental effects and the threat to the public health, safety, and welfare.

d. Would result in minimal feasible impairment of the regenerative capacity of water aquifers or other ground or surface water supplies.

e. Would cause minimal feasible interference with the natural functioning of plant, animal, fish, and human life processes at the site and within the surrounding region.

f. Is located or constructed so as to neither endanger human life or property nor otherwise impair the public health, safety, and welfare.

g. Would result in minimal practicable degradation of unique or irreplaceable land types, historical or archeological areas, and existing scenic and aesthetic attributes at the site and within the surrounding region.

**C. 15:19-11 Grounds for denial of permit applications; conditional permits; appeal of nuclear electricity generating facility.**

11. Notwithstanding the applicant's compliance with the criteria listed in section 10 of this act, if the commissioner finds that the proposed facility would violate or tend to violate the purpose and intent of this act as specified in section 2, or if the commissioner finds that the proposed facility would materially contribute

The statement shall include:

a. An inventory of existing environmental conditions at the project site and in the surrounding region which shall describe air quality, water quality, water supply, hydrology, geology, soils, topography, vegetation, wildlife, aquatic organisms, ecology, demography, land use, aesthetics, history, and archeology; for housing, the inventory shall describe water quality, water supply, hydrology, geology, soils and topography;

b. A project description which shall specify what is to be done and how it is to be done, during construction and operation;

c. A listing of all licenses, permits or other approvals as required by law and the status of each;

d. An assessment of the probable impact of the project upon all topics described in a.;

e. A listing of adverse environmental impacts which cannot be avoided;

f. Steps to be taken to minimize adverse environmental impacts during construction and operation, both at the project site and in the surrounding region;

g. Alternatives to all or any part of the project with reasons for their acceptability or nonacceptability;

h. A reference list of pertinent published information relating to the project, the project site, and the surrounding region.

**C. 15:19-8 Declaration of completeness of application.**

8. a. Within 30 days following receipt of an application, the commissioner shall notify the applicant in writing regarding its completeness. The commissioner may declare the application to be complete for filing or may notify the applicant of specific deficiencies. The commissioner, within 15 days following the receipt of additional information to correct deficiencies, shall notify the applicant of the completeness of the amended application. The application shall not be considered to be filed until it has been declared complete by the commissioner.

b. The commissioner, within 15 days of declaring the application complete for filing, shall set a date for the hearing. The date for the hearing shall be set not later than 60 days after the application is declared complete for filing.

**C. 15:19-9 Hearing.**

9. a. The commissioner, or a member of the department designated by him, shall hold a hearing to afford interested parties standing and the opportunity to present, orally or in writing, both their

to an already serious and unacceptable level of environmental degradation or resource exhaustion, he may deny the permit application, or he may issue a permit subject to such conditions as he finds reasonably necessary to promote the public health, safety and welfare, to protect public and private property, wildlife and marine fisheries, and to preserve, protect and enhance the natural environment. In addition, the construction and operation of a nuclear electricity generating facility shall not be approved by the commissioner unless he shall find that the proposed method for disposal of radioactive waste material to be produced or generated by such facility will be safe, conforms to standards established by the Atomic Energy Commission and will effectively remove danger to life and the environment from such waste material.

**C. 15:19-12 Notification to applicant.**

12. The commissioner shall notify the applicant within 60 days after the hearing as to the granting or denial of a permit. The reasons for granting or denying the permit shall be stated. In the event the commissioner requires additional information as provided for in section 9, he shall notify the applicant of his decision within 90 days following the receipt of the information.

**C. 15:19-13 Coastal Area Review Board: creation; membership; voting; powers.**

13. There is hereby created the Coastal Area Review Board, in but not of the Department of Environmental Protection, which shall consist of three voting members who shall be the Commissioner of Environmental Protection or his designated representative, the Commissioner of Labor and Industry or his designated representative and the Commissioner of Community Affairs or his designated representative. No vote on a permit request shall be taken unless all voting members are present.

The Coastal Area Review Board shall have the power to hear appeals from decisions of the commissioner pursuant to section 12. The board may affirm or reverse the decision of the commissioner with respect to applicability of any provision of this act to a proposed use; it may modify any permit granted by the commissioner, grant a permit denied by him, deny a permit granted by him, or confirm his grant of a permit. The board shall review filed applications, including the environmental impact statement and all information presented at public hearings and any other information the commissioner makes available to the board prior to the affirmation or reversal of a decision of the commissioner.

**C. 18:19-14 Continuance in force of issued permit.**

14. In the event of rental, lease, sale or other conveyance by an applicant to whom a permit is issued, such permit, with any conditions, shall be continued in force and shall apply to the new tenant, lessee, owner, or assignee so long as there is no change in the nature of the facility set forth in the original application.

**C. 18:19-15 Effect of denial of application.**

15. The denial of an application shall in no way adversely affect the future submittal of a new application.

**C. 18:19-16 Environmental inventory; alternate environmental management strategies; environmental design for coastal area.**

16. The commissioner shall, within 2 years of the taking effect of this act, prepare an environmental inventory of the environmental resources of the coastal area and of the existing facilities and land use developments within the coastal area and an estimate of the capability of the various areas within the coastal area to absorb and react to man-made stresses. The commissioner shall, within 3 years of the taking effect of this act, develop from this environmental inventory alternate long-term environmental management strategies which take into account the paramount need for preserving environmental values and the legitimate need for economic and residential growth within the coastal area. The commissioner shall, within 4 years of the taking effect of this act, select from the alternate environmental management strategies an environmental design for the coastal area. The environmental design shall be the approved environmental management strategy for the coastal area and shall include a delineation of various areas appropriate for the development of residential and industrial facilities of various types, depending on the sensitivity and fragility of the adjacent environment to the existence of such facilities. The environmental inventory, the alternate long-term environmental management strategies and the environmental design for the coastal area shall be presented to the Governor and the Legislature within the time frame indicated herein.

**C. 18:19-17 Rules and regulations.**

17. The department is hereby authorized to adopt, amend and repeal rules and regulations to effectuate the purposes of this act.

**C. 18:19-18 Injunctive relief; penalties.**

18. If any person violates any of the provisions of this act, rule, regulation or order promulgated or issued pursuant to the provisions of this act, the department may institute a civil action in

the Superior Court for injunctive relief to prohibit and prevent such violation or violations and said court may proceed in a summary manner. Any person who violates any of the provisions of this act, rule, regulation or order promulgated or issued pursuant to this act shall be liable to a penalty of not more than \$3,000.00 to be collected in a summary proceeding or in any case before a court of competent jurisdiction wherein injunctive relief has been requested. If the violation is of a continuing nature, each day during which it continues shall constitute an additional, separate and distinct offense. The department is hereby authorized and empowered to compromise and settle any claim for a penalty under this section in such amount in the discretion of the department as may appear appropriate and equitable under the circumstances.

**C. 18:19-19 Applicability of act.**

19. The provisions of this act shall not be regarded as to be in derogation of any powers now existing and shall be regarded as supplemental and in addition to powers conferred by other laws, including municipal zoning authority. The provisions of this act shall not apply to those portions of the coastal areas regulated pursuant to enforceable orders under the Wetlands Act, C. 13:29A-1 et seq., section 18 however shall apply to the entire area within the boundaries described herein.

**C. 18:19-20 Construction of act.**

20. This act shall be liberally construed to effectuate the purpose and intent thereof.

**C. 18:19-21 Partial invalidity.**

21. If any provision of this act or the application thereof to any person or circumstances is held invalid, the remainder of the act and the application of such provision to persons or circumstances other than those to which it is held invalid, shall not be affected thereby.

22. There is hereby appropriated to the Department of Environmental Protection for the purposes of this act the sum of \$100,000.00.

23. This act shall take effect 90 days from the date of enactment, except that section 22 shall take effect immediately.

Approved June 20, 1973.

## CHAPTER 272

AN ACT concerning the protection of natural resources in coastal wetlands, providing for the designation by the Commissioner of Environmental Protection of certain coastal wetlands after public hearing, and requiring permits from the Commissioner prior to the dredging, removing, filling or otherwise altering or polluting coastal wetlands.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

C. 13:9A-1 Legislature's findings and declaration of policy; inventory and mapping of tidal wetlands; filing of maps.

1. a. The Legislature hereby finds and declares that one of the most vital and productive areas of our natural world is the so-called "estuarine zone," that area between the sea and the land; that this area protects the land from the force of the sea, moderates our weather, provides a home for water fowl and for 75 of all our fish and shellfish, and assists in absorbing sewage discharge by the rivers of the land; and that in order to promote the public safety, health and welfare, and to protect public and private property, wildlife, marine fisheries and the natural environment, it is necessary to preserve the ecological balance of this area and prevent its further deterioration and destruction by regulating the dredging, filling, removing or otherwise altering or polluting thereof, all to the extent and in the manner provided herein.

b. The Commissioner of Environmental Protection shall, within 2 years of the effective date of this act, make an inventory and maps of all tidal wetlands within the State. The boundaries of such wetlands shall generally define the areas that are at or below high water and shall be shown on suitable maps, which may be reproductions or aerial photographs. Each such map shall be filed in the office of the county recording officer of the county or counties in which the wetlands indicated thereon are located. Each wetland map shall bear a certificate of the commissioner to the effect that it is made and filed pursuant to this act. To be entitled to filing no wetlands map need meet the requirements of R. S. 47:1-6.

C. 13:9A-2 Authority to regulate alteration of coastal wetlands; definition.

2. The Commissioner may from time to time, for the purpose of promoting the public safety, health and welfare, and protecting pub-

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Upon the adoption of any such order or any order amending, modifying or repealing the same, the commissioner shall cause a copy thereof, together with a plan of the lands affected, including reference to the filed wetlands map or maps on which the same are shown and a list of the owners of record of such lands, to be recorded in the office of the county clerk or register of deeds, where it shall be indexed and filed as a judgment, and shall mail a copy of such order and plan to each owner of record of such lands affected thereby.

C. 13:9A-4 "Regulated activity" defined; permits; applications; containing inspection; effect of work to be considered.

4. a. For purposes of this section "regulated activity" includes but is not limited to draining, dredging, excavation or removal of soil, mud, sand, gravel, aggregate of any kind or depositing or dumping therein any rubbish or similar material or discharging therein liquid wastes, either directly or otherwise, and the erection of structures, drivings of pilings, or placing of obstructions, whether or not changing the tidal ebb and flow. "Regulated activity" shall not include continuance of commercial production of salt hay or other agricultural crops or activities conducted under section 7 of this act.

b. No regulated activity shall be conducted upon any wetland without a permit.

c. Any person proposing to conduct or cause to be conducted a regulated activity upon any wetland shall file an application for a permit with the commissioner, in such form and with such information as the commissioner may prescribe. Such application shall include a detailed description of the proposed work and a map showing the area of wetland directly affected, with the location of the proposed work thereon, together with the names of the owners of record of adjacent land and known claimants of rights in or adjacent to the wetland of whom the applicant has notice. All applications, with any maps and documents relating thereto, shall be open for inspection at the office of the Department of Environmental Protection.

d. In granting, denying or limiting any permit the commissioner shall consider the effect of the proposed work with reference to the public health and welfare, marine fisheries, shell fisheries, wildlife, the protection of life and property from flood, hurricane and other natural disasters, and the public policy set forth in section 1. a. of this act.

lic and private property, wildlife and marine fisheries, adopt, amend, modify or repeal orders regulating, restricting or prohibiting dredging, filling, removing or otherwise altering, or polluting coastal wetlands. For the purposes of this act the term "coastal wetlands" shall mean any bank, marsh, swamp, meadow, flat or other low land subject to tidal action in the State of New Jersey along the Delaware bay and Delaware river, Raritan bay, Barnegat bay, Sandy Hook bay, Shrewsbury river including Navesink river, Shark river, and the coastal inland waterways extending southerly from Manasquan Inlet to Cape May Harbor, or at any inlet, estuary or tributary waterway or any thereof, including those areas now or formerly connected to tidal waters whose surface is at or below an elevation of 1 foot above local extreme high water, and upon which may grow or is capable of growing some, but not necessarily all, of the following: Salt meadow grass (*Spartina patens*), spike grass (*Distichlis spicata*), black grass (*Juncus gerardi*), saltmarsh grass (*Spartina alterniflora*), saltworts (*Salicornia europaea*, and *Salicornia bigelovii*), Sea Lavender (*Limonium carolinianum*), salt marsh bulrushes (*Scirpus robustus* and *Scirpus paludosus* var. *atlanticus*), sand spurrey (*Spergularia marina*), switch grass (*Panicum virgatum*), tall cordgrass (*Spartina pectinata*), lighttide bush (*Iva frutescens* var. *oraria*), cattails (*Typha angustifolia*, and *Typha latifolia*), spike rush (*Eleocharis rostellata*), chairmaker's rush (*Scirpus americanus*), bent grass (*Agrostis palustris*), and sweet grass (*Heteropogon odorata*). The term "coastal wetlands" shall not include any land or real property subject to the jurisdiction of the Hackensack Meadows Development Commission pursuant to the provisions of P. L. 1969, chapter 404, sections 7 through 84 (C. 13:17-1 through C. 13:17-86).

C. 13:9A-3 Adoption, change or repeal of orders; hearing, notice recording, indexing and filing of orders; mailing.

3. The commissioner shall, before adopting, amending, modifying or repealing any such order, hold a public hearing thereon in the county in which the coastal wetlands to be affected are located, giving notice thereof to each owner having a recorded interest in such wetlands by mail at least 21 days prior thereto addressed to his address as shown in the municipal tax office records and by publication thereof at least twice in each of the 3 weeks next preceding the date of such hearing in a newspaper of general circulation in the municipality or municipalities in which such coastal wetlands are located.

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C. 13:9A-5 Restraint of violations.

5. The Superior Court shall have jurisdiction to restrain violations of orders issued pursuant to this act.

C. 13:9A-6 Filing of complaints; determination of issue exclusive.

6. Any person having a recorded interest in land affected by any such order or permit, may, within 90 days after receiving notice thereof, file a complaint in the Superior Court to determine whether such order or permit so restricts or otherwise affects the use of his property as to deprive him of the practical use thereof and is therefore an unreasonable exercise of the police power because the order or permit constitutes the equivalent of a taking without compensation. If the court finds the order or permit to be an unreasonable exercise of the police power, the court shall enter a finding that such order or permit shall not apply to the land of the plaintiff; provided, however, that such finding shall not affect any other land than that of the plaintiff. Any party to the suit may cause a copy of such finding to be recorded forthwith in the office of the county clerk or register of deeds, where it shall be indexed and filed as a judgment.

The method provided in this section for the determination of the issue shall be exclusive, and such issue shall not be determined in any other proceeding.

C. 13:9A-7 Certain powers and duties not to be considered.

7. No action by the commissioner under this act shall prohibit, restrict or impair the exercise or performance of the powers and duties conferred or imposed by law on the State Department of Environmental Protection, the Natural Resource Council and the State Mosquito Control Commission in said Department, the State Department of Health, or any mosquito control or other project or activity operating under or authorized by the provisions of chapter 9 of Title 26 of the Revised Statutes.

C. 13:9A-8 Riparian rights or obligations not affected.

8. Nothing in this act or any permit issued hereunder shall affect the rights of the State in, or the obligations of a riparian owner with respect to, riparian lands.

C. 13:9A-9 Liability in event of violations; penalty.

9. Any person who violates any order by the commissioner, or violates any of the provisions of this act, shall be liable to the State for the cost of restoration of the affected wetland to

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its condition prior to such violation insofar as that is possible, and shall be punished by a fine of not more than \$1,000.00, to be collected in accordance with the provisions of the Penalty Enforcement Law (N. J. S. 2A:58-1 et seq.).

c. 13:9A-10 Short title.

10. This act may be cited as "The Wetlands Act of 1970."

11. This act shall take effect immediately.

Approved November 5, 1970.

WATERFRONT DEVELOPMENT LAW

**12:5-3. Submission to board of plans for water-front development**

All plans for the development of any water-front upon any navigable water or stream of this State or bounding thereon, which is contemplated by any person or municipality, in the nature of individual improvement or development or as a part of a general plan which involves the construction or alteration of a dock, wharf, pier, bulkhead, bridge, pipe line, cable, or any other similar or dissimilar water-front development shall be first submitted to the Department of Environmental Protection. No such development or improvement shall be commenced or executed without the approval of the Department of Environmental Protection first had and received, or as hereinafter in this chapter provided.

Amended by L.1976, c. 232, § 8.

1977 Senate No. 3179 (Official Copy Reprint)

As Act concerning the production, distribution, conservation, and consumption of energy, establishing a Department of Energy as a principal department in the Executive Branch of State Government "and repealing parts of the statutory law".

Be it enacted by the Senate and General Assembly of the State of New Jersey:

1. This act shall be known and may be cited as the "Department of Energy Act."

2. The Legislature hereby finds and determines that a secure, stable, and adequate supply of energy at reasonable prices is vital to the State's economy and to the public health, safety, and welfare; that this State is threatened by the prospect of both near- and long-term energy shortages; that the existing dispersion of responsibilities with respect to energy and energy-related matters among various State departments, divisions, agencies, and commissions inhibits comprehensive and effective planning for our future energy needs; and that the State government does not now possess either sufficient information or adequate authority to provide for and insure the wise and efficient production, distribution, use, and conservation of energy.

The Legislature further finds and determines that only an agency with comprehensive powers can collect, collate, and analyze the information necessary to determine the amount of energy that is or may be available; develop mechanisms to insure a fair and equitable distribution of existing supplies; conduct the long-term planning and management needed to eliminate or alleviate the potential adverse effects of a supply of energy insufficient to meet

EXPLANATION—Matter enclosed in bold-faced brackets [ ] in the above bill is not enacted and is intended to be omitted in the law.

h. "[Energy]" "Energy" industry" means any person, company, corporation, business, institution, establishment or other organization of any nature engaged in the exploration, extraction, transportation, transmission, refining, processing, generation, distribution, sale or storage of energy;

i. "Fuel" means coal, petroleum products, gases and nuclear fuel, including enriched uranium, U235 and U238, and plutonium, U239.

j. "Gases" means natural gas, methane, liquefied natural gas, synthetic natural gas, coal gas and other manufactured gases;

k. "Person" means natural persons, partnerships, firms, associations, joint stock companies, syndicates and corporations, and any receiver, trustee, conservator or other officer appointed pursuant to law or by any court, State or Federal; "person" also means the State of New Jersey, counties, municipalities, authorities, other political subdivisions, and all departments and agencies within the aforementioned governmental entities;

l. "Petroleum products" means and includes motor gasoline, middle distillate oils, residual fuel oils, aviation fuel, propane, butane, natural gasoline, naphtha, gas oils, lubricating oils and any other similar or dissimilar liquid hydrocarbons;

m. "Public building" means any building, structure, facility or complex used by the general public, including, but not limited to, theaters, concert halls, auditoriums, museums, schools, libraries, recreation facilities, public transportation terminals and stations, factories, office buildings, business establishments, passenger vehicle service stations, shopping centers, hotels or motels and public eating places, owned by any State, county or municipal government agency or instrumentality or any private individual, partnership, association or corporation;

n. "Purchase" means and includes, in addition to its ordinary meaning, any acquisition of ownership or possession, including, but not limited to, condemnation by eminent domain proceedings;

o. "Retail dealer" means any person who engages in the business of selling fuels from a fixed location such as a service station, filling station, store, or garage directly to the ultimate users of said fuel;

p. "Sale" means and includes, in addition to its ordinary meaning, any exchange, gift, theft, or other disposition. In such cases where fuels are exchanged, given, stolen, or otherwise disposed of, they shall be deemed to have been sold;

legitimate needs or from practices of production, distribution, and consumption detrimental to the quality of life or the environment; "contribute to the proper siting of energy facilities necessary to serve the public interest," coordinate New Jersey's energy policies and actions with Federal energy policies; and secure for New Jersey the maximum amount of Federal funding available for energy related research, development, and demonstration projects.

The Legislature further finds and determines that shortages of energy have the potential at certain times and in certain places to so seriously affect the public interest that it is necessary for State government to possess emergency powers sufficient to prevent or minimize health disasters and grave economic disruptions which could occur during said times.

The Legislature, therefore, declares it to be in the best interest of the citizens of this State to establish a principal department in the Executive Branch of State Government to coordinate authority, regulation and planning by the State in energy related matters.

3. As used in this act:

a. "Commissioner" means the Commissioner of the Department of Energy;

b. "Department" means the Department of Energy established by this act;

c. "Distributor" means and includes each person, wherever resident or located, who imports into this State fuels for use, distribution, storage, or sale in this State after the same shall reach this State; and also each person who produces, refines, manufactures, blends, or compounds fuels and sells, uses, stores, or distributes the same within this State. In no case, however, shall a retail dealer be construed to be a distributor;

d. "Energy" means all power derived from, or generated by, any natural or man-made agent, including, but not limited to, petroleum products, gases, solar radiation, atomic fission or fusion, mineral formations, thermal gradients, wind, or water.

e. "Energy facility" means any plant or operation which produces, converts, distributes or stores energy or converts one form of energy to another; in no case, however, shall an operation conducted by a person acting only as a retail dealer be construed as an energy facility;

f. "Energy information" means any statistic, datum, fact, or item of knowledge and all combinations thereof relating to energy;

g. "Energy information system" means the composite of energy information collected by the office;

q. "Supplier of fuel" means any refiner, importer, marketer, jobber, distributor, terminal operator, firm, corporation, wholesaler, broker, cooperative or other person who supplies, sells, conveys, transfers, or otherwise furnishes fuel. In no case, however, shall a retail dealer be construed to be a supplier of fuel;

r. "Trade secret" means the whole or any portion or phase of any scientific, technical or otherwise proprietary information, design, process, procedure, formula or improvement which is used in one's business and is secret and of value; and a trade secret shall be presumed to be secret when the owner takes measures to prevent it from becoming available to persons other than those selected by the owner to have access thereto for limited purposes;

s. "Wholesale dealer" means any person who engages in the business of selling fuels to other persons who resell the said fuel. In no case shall a retail dealer be considered as a "[wholesale]" "wholesale" dealer.

4. There is hereby established in the Executive Branch of the State Government a principal department which shall be known as the Department of Energy.

5. The administrator and chief executive officer of the department shall be a commissioner who shall be a person qualified by training and experience to perform the duties of his office. The commissioner shall be appointed by the Governor with the advice and consent of the Senate, and shall serve at the pleasure of the Governor and until the appointment and qualification of the commissioner's successor. He shall devote his entire time to the duties of his office and shall receive such salary as shall be provided by law. Any vacancy occurring in the office of the commissioner shall be filled in the same manner as the original appointment.

5.1.a. There is hereby established in the department the Board of Public Utilities; provided, however, that such board shall be independent of any supervision or control by the department or by any officer or employee thereof, except as otherwise expressly provided in this act.

b. The Department of Public Utilities is abolished and its functions, powers and duties are hereby transferred to the Board of Public Utilities, except as provided in section 25 of this act.

c. The Board of Public Utility Commissioners and the positions of president and commissioners thereof shall be continued as the Board of Public Utilities and the president and commissioners thereof in the Board of Public Utilities. This act shall not affect the terms of office of, nor the salaries received by, the present mem-

24 bers of the Board of Public Utility Commissioners, or of any  
 25 officers or employees thereof. The Department of Civil Service  
 26 shall not reclassify any title or position transferred from the De-  
 27 partment of Public Utilities pursuant to this act without the ap-  
 28 proval of the board. The President and Commissioners of the  
 29 Board of Public Utilities shall be appointed in the manner provided  
 30 by existing law for the appointment of the President and Commis-  
 31 sioners of the Board of Public Utility Commissioners, and shall  
 32 receive such salaries as shall be provided by law.  
 33 d. All functions, powers and duties now vested in the Board of  
 34 Public Utility Commissioners and in the positions of president and  
 35 commissioners thereof are hereby transferred to and assumed by  
 36 the Board of Public Utilities and the president and commissioners  
 37 thereof.  
 38 e. Whenever in any law, rule, regulation, order, contract, docu-  
 39 ment, judicial or administrative proceeding or ordinance, reference  
 40 is made to the Department of Public Utilities or the Board of Public  
 41 Utility Commissioners, the same shall mean and refer to the Board  
 42 of Public Utilities.  
 43 4.2 a. There is hereby established in the department the Division  
 44 of Energy Planning and Conservation.  
 45 b. The Division of Energy Planning and Conservation shall be  
 46 under the immediate supervision of a director who shall be ap-  
 47 pointed by the Governor, with the advice and consent of the Senate,  
 48 and who shall serve at the pleasure of the Governor during the  
 49 Governor's term of office and until the appointment and qualifica-  
 50 tion of his successor. The director shall receive such salary as  
 51 shall be provided by law.  
 1 6. The commissioner shall organize the work of the department  
 2 and establish therein such administrative subdivisions as he may  
 3 deem necessary, proper and expedient. He may formulate and  
 4 adopt rules and regulations and prescribe duties for the efficient  
 5 conduct of the business, work and general administration of the  
 6 department. He may delegate to subordinates officers or employees  
 7 in the department such of his powers as he may deem desirable  
 8 to be exercised under his supervision and control.  
 9 7. Subject to the provisions of Title 11 of the Revised Statutes,  
 1 and within the limits of funds appropriated or otherwise made  
 2 available, the commissioner may appoint such officers and em-  
 3 ployees of the department as he may deem necessary for the  
 4 performance of its duties, fix and determine their qualifications,  
 5 duties, and compensation and retain or employ engineers and

17 f. Establish an energy information system which will provide  
 18 all data necessary to insure a fair and equitable distribution of  
 19 available energy, to permit a more efficient and effective use of  
 20 available energy, and to provide the basis for long-term planning  
 21 related to energy needs;  
 22 g. Design, implement, and enforce a program for the conservation  
 23 of energy in commercial, industrial, and residential facilities, which  
 24 program shall provide for the evaluation of energy systems as they  
 25 relate to lighting, heating, refrigeration, air-conditioning, building  
 26 design and operation, and appliance manufacturing and operation;  
 27 and may include, but shall not be limited to, the requiring of an  
 28 annual inspection and adjustment, if necessary, of oil-fired heating  
 29 systems in residential, commercial and industrial buildings so as to  
 30 bring such systems into conformity with efficiency standards  
 31 therefor prescribed by the department; the setting of lighting  
 32 efficiency standards for public buildings; the establishment of  
 33 mandatory thermostat settings and the use of seven-day, day-night  
 34 thermostats in public buildings; the development of standards for  
 35 efficient boiler operation; and, the preparation of a plan to insure  
 36 the phased retrofitting of existing gas furnaces with electric igni-  
 37 tion systems and to require that new gas "furnaces," "ranges," "I,"  
 38 and dryers be equipped with electric ignition systems, and new  
 39 gas furnaces with electric ignition systems and automatic "anti-  
 40 dampers";  
 41 h. Conduct and supervise a State-wide program of education  
 42 including the preparation and distribution of information relating  
 43 to energy conservation;  
 44 i. Monitor prices charged for energy within the State, evaluate  
 45 policies governing the establishment of rates and prices for energy,  
 46 and make recommendations for necessary changes in such policies  
 47 to other concerned Federal and State agencies, including the Board  
 48 of Public Utilities, and to the Legislature;  
 49 j. Have authority to conduct and supervise research projects  
 50 and programs for the purpose of increasing the efficiency of energy  
 51 use, developing new sources of energy, evaluating energy conserva-  
 52 tion measures, and meeting other goals consistent with the intent  
 53 of this act;  
 54 k. Have authority to distribute and expend funds made available  
 55 for the purpose of research projects and programs;  
 56 l. Have authority to enter into interstate compacts in order to  
 carry out energy research and planning with other states or the  
 Federal Government where appropriate;

7 private consultants on a contract basis or otherwise for rendering  
 8 professional or technical assistance.  
 9 8. "c." The commissioner shall make an annual report to the  
 10 Legislature and the Governor of the department's operations and  
 11 render such other reports as they shall from time to time request  
 12 or as may be required by law. These reports shall include, but not  
 13 be limited to, an analysis of existing problems and guidelines re-  
 14 lating to future energy use and availability.  
 15 "d. Within 6 months of the effective date of this act, the com-  
 16 missioner, after consultation with the Director of the Division of  
 17 Energy Planning and Conservation, the Board of Public Utilities,  
 18 the attorney General, and the commissioners of appropriate execu-  
 19 tive departments, including but not necessarily limited to the De-  
 20 partments of Environmental Protection and Transportation, shall  
 21 prepare and submit a report to the Legislature and the Governor  
 22 identifying (1) those functions and duties currently exercised by  
 23 other departments, divisions, agencies, commissions, councils,  
 24 boards, or bureaus of State Government relating to energy that  
 25 might be appropriately transferred to the department; and (2)  
 26 those functions and duties transferred to the department pursuant  
 27 to the provisions of this act that might be appropriately transferred  
 28 to other departments. Such transfers may be effectuated by execu-  
 29 tive order or law, as the case may be."  
 1 9. The commissioner shall, "[b]y and through" on behalf of the depart-  
 2 ment "through the Division of Energy Planning and Conservation":  
 3 a. Manage the department as the central repository within the  
 4 State Government for the collection of energy information;  
 5 b. Collect and analyze data relating to present and future  
 6 demands and resources for all forms of energy;  
 7 c. Have authority to require all persons, firms, corporations or  
 8 other entities engaged in the production, processing, distribution,  
 9 transmission or storage of energy in any form to submit reports  
 10 setting forth such information as shall be required to carry out the  
 11 provisions of this act;  
 12 d. Have authority to require any person to submit information  
 13 necessary for determining the impact of any construction or  
 14 development project on the energy and fuel resources of this State;  
 15 e. Charge other State Government departments and agencies  
 16 involved in energy-related activities, including the Board of  
 Public Utilities, with specific information gathering goals and  
 require that said goals be fulfilled;  
 17 f. Have authority to apply for, accept, and expend grants-in-aid  
 18 and assistance from private and public sources for energy pro-  
 19 grams; notwithstanding any other law to the contrary, the com-  
 20 missioner is designated as the State official to apply for, receive,  
 21 and expend Federal and other funding made available to the State  
 22 for the purposes of this act;  
 23 g. Require the annual submission of energy utilization reports  
 24 and conservation plans by State Government departments and  
 25 agencies, "including the Board of Public Utilities," evaluate said  
 26 plans and the progress of the departments and agencies in meeting  
 27 those plans, and order changes in the plans or improvement in  
 28 meeting the goals of the plans;  
 29 h. Carry out all duties given him under other sections of this act  
 30 or any other acts;  
 31 i. Have authority to conduct hearings and investigations in  
 32 order to carry out the purposes of this act and to issue subpoenas in  
 33 furtherance of such power. Said power to conduct investigations  
 34 shall include, but not be limited to, the authority to enter without  
 35 delay and at reasonable times the premises of any energy industry  
 36 in order to obtain or verify any information necessary for carrying  
 37 out the purposes of this act;  
 38 j. Have authority to adopt, amend or repeal pursuant to the  
 39 "Administrative Procedure Act" (C. 52:14B-1 et seq.) such rules  
 40 and regulations necessary and proper to carry out the purposes of  
 41 this act;  
 42 k. Administer such Federal energy regulations as are applicable  
 43 to the states, including, but not limited to, the mandatory petroleum  
 44 allocation regulations and State energy conservation plans.  
 45 l. Have authority to sue and be sued;  
 46 m. Have authority to acquire by purchase, grant, contract or  
 47 eminent domain title to real property for the purpose of demon-  
 48 strating facilities which improve the efficiency of energy use,  
 49 conserve energy or generate energy in new and efficient ways;  
 50 n. Have authority to construct and operate, on an experimental  
 51 or demonstration basis, facilities which improve the efficiency of  
 52 energy use, conserve energy or generate power in new and efficient  
 53 ways;  
 54 o. Have authority to contract with any other public agency or  
 55 corporation incorporated under the laws of this or any other state  
 56 for the performance of any function under this act;  
 57 p. Determine the effect of energy and fuel shortages upon con-  
 58 sumers, and formulate proposals designed to encourage the lowest



98 possible cost of energy and fuels consumed in the State consistent  
99 with the conservation and efficient use of energy;

100 x. Keep complete and accurate minutes of all hearings held  
101 before the commissioner or any member of the "[department]"  
102 "Division of Energy Planning and Conservation" pursuant to the  
103 provisions of this act. All such minutes shall be retained in a  
104 permanent record and shall be available for public inspection at  
105 all times during the office hours of the department.

1 10. There is created in the "[department]" "Division of Energy  
2 Planning and Conservation" an Advisory Council on Energy "Plan-  
3 ning and Conservation" which shall consist of "[10]" "15" mem-  
4 bers representing the following: the natural gas industry, the  
5 bottle gas industry, the home heating oil and coal industry, terminal  
6 operators, oil refiners, gasoline retailers, electrical utilities, nuclear  
7 fuel suppliers, "[the Department of Public Utilities and the con-  
8 suming public]" "environmental organizations, the solar energy  
9 industry, manufacturing industrial consumers, commercial con-  
10 sumers, residential consumers, the transportation industry and the  
11 academic community". Members shall be appointed by the Gov-  
12 ernor, with the advice and consent of the Senate, and as practically  
13 as possible represent the several geographical areas of the State.

14 The council shall elect a chairman, vice chairman and secretary  
15 from its membership. Of the members first appointed, "[three]"  
16 "five" shall serve for terms of 2 years, "[three]" "five" for  
17 terms of 3 years and "[four]" "five" for terms of 4 years.  
18 Thereafter all appointments shall be made for terms of 4 years.  
19 Members shall serve after the expiration of their terms until their  
20 respective successors are appointed and shall qualify, and any  
21 vacancy occurring in the membership of the council by expiration  
22 of term or otherwise, shall be filled in the same manner as the  
23 original appointment for the unexpired term only.

24 Members of the council shall serve without compensation but  
25 shall be reimbursed for expenses actually incurred in attending  
26 meetings of the council and in performance of their duties as  
27 members thereof. The council shall meet at least four times each  
28 year, at the call of its chairman, and at such other times, at the call  
29 of the commissioner, as he deems necessary.

30 11. The Advisory Council on Energy "Planning and Conserva-  
31 tion" is empowered to:

32 a. Request from the commissioner "and from the Director of the  
33 Division of Energy Planning and Conservation" such energy in-  
34 formation as it may deem necessary;

27 delineated in the master plan. Each such public hearing shall con-  
28 cern the overall content of the plan and those aspects thereof that  
29 have relevance to the specific geographical area in which each such  
30 public hearing is being held;

31 (2) At least 60 days prior to each public hearing held pursuant  
32 to this section, notify each energy industry and each State depart-  
33 ment, commission, authority, council, agency, or board charged  
34 with the regulation, supervision or control of any business, in-  
35 dustry or utility engaged in the production, processing, distribu-  
36 tion, transmission, or storage of energy in any form of the time  
37 and place for the hearing and shall publish such notice in a news-  
38 paper of general circulation in the region where the hearing is to  
39 be held, and in such newspapers of general circulation in the State  
40 as the commissioner determines appropriate to reach the greatest  
41 possible number of citizens of New Jersey.

42 e. Upon the completion of the requirements of subsection b. of  
43 this section, the department shall consider the testimony presented  
44 at all such public hearings and adopt the energy master plan,  
45 together with any additions, deletions, or revisions it shall deem  
46 appropriate.

47 d. Upon the adoption of the energy master plan, and upon each  
48 revision thereof, the department shall cause copies thereof to be  
49 printed and shall transmit sufficient copies thereof to the Governor  
50 and the Legislature, for the use of the members thereof, and to  
51 each State department, commission, authority, council, agency, or  
52 board charged with the regulation, supervision or control of any  
53 business, industry or utility engaged in the production, processing,  
54 distribution, transmission, or storage of energy in any form. In  
55 addition, the department shall advertise in the manner provided in  
56 subsection b. of this section the existence and availability of the  
57 energy master plan from the offices of the department for the use  
58 of such citizens of New Jersey as may request same; provided,  
59 however, that the department may charge a fee for such copies of  
60 the energy master plan sufficient to cover the costs of printing and  
61 distributing same.

1 12. A. The "[department]" "Division of Energy Planning and  
2 Conservation" is "[further]" empowered and directed to intervene  
3 in any proceedings before, and appeals from, any State depart-  
4 ment, "division," commission, authority, council, agency or board  
5 (hereinafter referred to as "State instrumentalities") "including  
6 the Board of Public Utilities" charged with the regulation, super-  
7 vision or control of any business, industry or utility engaged in the

4 b. Consider any matter relating to the production, distribution,  
5 consumption or conservation of energy;

6 c. From time to time submit to the commissioner any recom-  
7 mendations which it deems necessary for the long-term planning  
8 and management of energy;

9 d. Study energy programs and make its recommendations  
10 thereon to the commissioner;

11 e. Review, prior to their promulgation, proposed rules and regu-  
12 lations of the department, and make its recommendations there-  
13 upon, except such rules and regulations determined by the commis-  
14 sioner to be emergency measures essential to preserve the public  
15 health, safety, or welfare.

16 f. Hold public hearings in regard to existing statutes and regu-  
17 lations governing the production, distribution, consumption or con-  
18 servation of energy.

1 12. a. The department, "through the Division of Energy Plan-  
2 ning and Conservation," within 1 year of the effective date of this  
3 act, shall prepare or cause to be prepared, and, after public hear-  
4 ings, as hereinafter provided, adopt a master plan for a period of  
5 10 years on the production, distribution, consumption and conserva-  
6 tion of energy in this State. Such plan shall be revised and updated  
7 at least once every 3 years. The plan shall include long-term  
8 objectives but shall provide for the interim implementation of  
9 measures consistent with said objectives. The department may  
10 from time to time and after public hearings amend the master plan.  
11 In preparing the master plan or any portion thereof or amendment  
12 thereto the department shall give due consideration to the energy  
13 needs and supplies in the several geographic areas of the State, and  
14 shall consult and cooperate with any Federal or State agency har-  
15 ving an interest in the production, distribution, consumption or con-  
16 servation of energy.

17 b. Upon preparation of such master plan, and each revision  
18 thereof, the department shall cause copies thereof to be printed,  
19 shall transmit sufficient copies thereof to the Governor and the  
20 Legislature, for the use of the members thereof, and shall advertise,  
21 in such newspapers as the commissioner determines appropriate to  
22 reach the greatest possible number of citizens of New Jersey, the  
23 existence and availability of such draft plan from the offices of the  
24 department for the use of such citizens as may request same. In  
25 addition, the department shall:

26 (1) Fix dates for the commencement of a series of public hear-  
ings, at least one of which shall be held in each geographical area

5 production, processing, distribution, transmission or storage of  
6 energy in any form, when, in the discretion of the commissioner,  
7 such intervention is necessary to insure the proper consideration  
8 by such State instrumentalities of the State energy master plan,  
9 or any part or aspect thereof, adopted by the department pursuant  
10 to section 12 of this act, or any rule or regulation promulgated by  
11 the department pursuant to the provisions of this act. To facilitate  
12 the intervention provisions of this section, each such State instru-  
13 mentality shall consider the department a party of interest in any  
14 proceedings before such instrumentality with respect to energy and  
15 shall give the same notice to the department as is given to every  
16 other party of interest in such proceedings of any meeting, public  
17 hearing or other proceeding of such instrumentality in implement-  
18 ing its regulatory, supervisory or control powers, responsibilities  
19 and duties with respect to such businesses, industries or utilities.

20 b. It being the intention of the Legislature that the notions,  
21 decisions, determinations and rulings of the State Government with  
22 respect to energy shall to the maximum extent practicable and  
23 feasible conform with the energy master plan adopted by the de-  
24 partment pursuant to section 12 of this act, the department shall  
25 prepare, periodically revise and distribute to each State instru-  
26 mentality charged with the regulation, supervision or control of any  
27 business, industry or utility engaged in the production, processing,  
28 distribution, transmission or storage of energy in any form, such  
29 guidelines as the department determines to be relevant to assist  
30 each such instrumentality in conforming with said energy master  
31 plan in implementing its regulatory, supervisory or control powers,  
32 responsibilities and duties with respect to such businesses, in-  
33 dustries or utilities.

34 c. With respect to the siting of any energy facility in any part  
35 of New Jersey, the department shall, the provisions of any law  
36 in the contrary notwithstanding, have jurisdiction coextensive with  
37 that of any other State instrumentality, and to that end, no State  
38 instrumentality with the power to grant or deny any permit for the  
39 construction or location of any energy facility shall exercise its  
40 powers without referring to the Division of Energy Planning and  
41 Conservation, for its review and comments, a copy of such applica-  
42 tion and all papers, documents and materials appurtenant thereto  
43 filed by the applicant with such State instrumentality. Prior to  
44 making a final decision with respect to any such application, the  
45 State instrumentality with power of approval over such application  
46 shall solicit the views of the department thereon. Such views

49 shall be communicated to the State instrumentality with the power  
50 of approval over such application in the form of a report describing  
51 the findings of the department with respect to such application.  
52 Such report shall be prepared by the Director of the Division of  
53 Energy Planning and Conservation and shall be signed by said  
54 director and by the commissioner. In the event that such report  
55 is not prepared and transmitted to the State instrumentality with  
56 power of approval over such application within 60 days after the  
57 department's receipt of such application, such State instrumentality  
58 shall act upon such application pursuant to the law providing  
59 its power of approval thereof. In the event that the views of the  
60 department, as contained in its report, with respect to any such  
61 application differ from the views of the State instrumentality with  
62 the power of approval over such application, there shall be estab-  
63 lished an Energy Facility Review Board which shall consist of the  
64 Director of the Division of Energy Planning and Conservation, the  
65 director or chief executive officer of the State instrumentality with  
66 the power of approval over such application, and a designee of the  
67 Governor. The decision of the Energy Facility Review Board estab-  
68 lished with respect to a specific energy facility application shall be  
69 binding with respect to such facility and shall be implemented forth-  
70 with by the State instrumentality with the power of approval over  
71 such application.

72 In implementing its responsibilities pursuant to this subsection,  
73 the department shall have the power to adopt, by regulation, a fee  
74 schedule for reviewing applications for the construction or location  
75 of energy facilities; provided, however, that fees shall be charged  
76 to applicants for permits to construct or locate energy facilities  
77 only in those instances where the nature and extent of the proposed  
78 energy facility are such as to necessitate the employment of con-  
79 sultants or other expert personnel from without the department  
80 before the department can make its determinations with respect to  
81 any such application, and that such fees shall in any event be the  
82 minimum amount necessary to permit the department to fulfill its  
83 responsibilities under this section.

84 The provisions of this section shall not be regarded as to be in  
85 derogation of any powers now existing and shall be regarded as  
86 supplemental and in addition to powers conferred by other laws,  
87 including municipal zoning authority.

1 14. The commissioner shall prepare and adopt an emergency  
2 allocation plan specifying actions to be taken in the event of an  
3 impending serious shortage of energy which poses grave threats

4 to the public health, safety, or welfare. The commissioner shall  
5 direct all State Government departments and agencies, including  
6 the Board of Public Utilities, to develop, subject to his approval,  
7 contingency plans for dealing with said emergencies.

1 15. a. Upon a finding by the commissioner that there exists or  
2 impends an energy supply shortage of a dimension which endan-  
3 gers the public health, safety, or welfare in all or any part of the  
4 State, the Governor is authorized to proclaim by executive order  
5 a state of energy emergency for a period of up to 6 months. The  
6 Governor may limit the applicability of any such state of emergency  
7 to specific kinds of energy forms or to specific areas of the State  
8 in which such a shortage exists or impends.

9 b. During the duration of a state of energy emergency the com-  
10 missioner to the extent not in conflict with applicable Federal  
11 law or regulation but notwithstanding any State or local law or  
12 contractual agreement, shall be empowered to:

13 (1) Order any person to reduce by a specified amount the use  
14 of any energy form; to make use of an alternate energy form,  
15 where possible; or to cease the use of any energy form;

16 (2) Order any person engaged in the distribution of any energy  
17 form to reduce or increase by a specified amount or to cease the  
18 distribution of such energy form; to distribute a specified amount  
19 and type of energy form to certain users as specified by the  
20 "[administrator]" "commissioner"; or to share supplies of any  
21 energy form with other distributors thereof;

22 (3) Establish priorities for the distribution of any energy form;  
23 (4) Regulate and control the distribution and sale of any energy  
24 form by:

25 (a) Establishing such limitations, priorities, or rationing  
26 procedures as shall be necessary to insure a fair and equitable  
27 distribution of available supplies;

28 (b) Establishing minimum and maximum quantities to be  
29 sold to any purchaser;

30 (c) Fixing the days and hours of access to retail dealers;

31 (d) Compelling sales to members of the general public dur-  
32 ing times when a retail dealer is open for the sale of an energy  
33 form;

34 (e) Establishing methods for notifying the public by flags,  
35 symbols, or other appropriate means whether such retail  
36 dealers are open and selling the subject energy form;

37 (5) Direct the heads of those departments and agencies within  
38 State Government that were ordered to develop contingency plans  
39 pursuant to section 14 of this act to implement said plans;

40 (6) Adopt and promulgate such rules and regulations as are  
41 necessary and proper to carry out the purposes of this section.

42 c. During the existence of a state of energy emergency, the Gov-  
43 ernor may order the suspension of any laws, rules, regulations, or  
44 orders of any department or agency in State Government or within  
45 any political subdivision which deal with or affect energy and  
46 which impede his ability to alleviate or terminate a state of energy  
47 emergency.

48 d. Any aggrieved person, upon application to the commissioner  
49 shall be granted a review of whether the continuance of any order  
50 issued by the commissioner pursuant to this section is unreasonable  
51 in light of then prevailing conditions of emergency.

52 e. During a state of energy emergency the commissioner may  
53 require any other department or other agency within State Gov-  
54 ernment to provide such information, assistance, resources, and  
55 personnel as shall be necessary to discharge his functions and  
56 responsibilities under this act, rules and regulations adopted here-  
57 under, or applicable Federal law and regulations.

58 f. The powers granted to the Governor and the commissioner  
59 under this section shall be in addition to and not in limitation of  
60 any emergency powers now or hereafter vested in the Governor, the  
61 commissioner, or any other State Government department or  
62 agency pursuant to any other laws, including but not limited to  
63 any power "[now]" vested in the Board of Public "[Utility Com-  
64 missioners]" "Utilities" to require utility companies to allocate  
65 available supplies of energy; provided, however, that upon declar-  
66 ing a state of energy emergency, the Governor may supersede any  
67 other such emergency powers.

68 g. The state of energy emergency declared by the Governor pur-  
69 suant to this section shall remain in effect until the Governor  
70 declares by a subsequent executive order that the state of energy  
71 emergency has terminated.

1 16. a. The commissioner shall adopt rules and regulations  
2 requiring the periodic reporting by energy industries of energy  
3 information which shall include but not be limited to the following:

4 (1) Electrical generating capacity in the State; long-range plans  
5 for additions to said capacity; efficiency of electrical generation;  
6 price and cost factors in electrical generation; types and quantities  
7 of fuels used; projections of future demand, consumption of elec-  
8 tricity by sectors; times, duration, and levels of peak demand;

9 (2) Petroleum refining capacity; amount and type of fuel pro-  
10 duced; amount and type of fuel sold; interstate transfers of fuel;

11 price and cost factors in refining, production, and sale; long-term  
12 plans for alterations or additions to refining capacity; location,  
13 amount, and type of fuel storage;

14 (3) Storage capacity for gases; amount and end uses of gases  
15 sold; price and cost factors in the sale and use of gases; and

16 (4) Such other information as the commissioner may determine  
17 necessary for carrying out the purposes of this act.

18 b. The commissioner shall at least annually publish a report  
19 analyzing all energy information collected.

20 c. The commissioner shall have the discretion to obtain energy  
21 information from an affiliate of any energy industry or from an  
22 association or organization of industries of which any such energy  
23 industry is a member. Whenever energy information supplied by  
24 an energy industry is so obtained by the commissioner, the energy  
25 industry to which such information pertains shall be promptly  
26 notified of the energy information so obtained and shall be given  
27 an opportunity to correct or amplify such information.

28 d. Trade secrets collected under this section shall be exempt  
29 from the requirements of P. L. 1963, c. 73 (C. 47:1A-1 et seq.).  
30 The commissioner shall promulgate rules and regulations for the  
31 conduct of administrative hearings on the issue of whether certain  
32 energy information should not be disclosed to the public.

1 17. No person who is an official or employee of the department  
2 shall participate in any manner in any decision or action of the  
3 department wherein he has a direct or indirect financial interest.

1 18. The commissioner may issue subpoenas requiring the at-  
2 tendance and testimony of witnesses and the production of books,  
3 documents, papers, statistics, data, information, and records for  
4 the purpose of carrying out any of his responsibilities under this  
5 act. Whenever there arises a refusal to honor his subpoena, the  
6 commissioner may petition a court of competent jurisdiction for  
7 an order requiring the attendance and testimony of a witness or  
8 the production of the requested books, documents, papers, statistics,  
9 data, information, and records. Any failure to obey such an order  
10 issued by a court shall be punished by the court as a contempt  
11 thereof.

1 19. Upon a violation of this act or of any rules, regulations, or  
2 orders promulgated hereunder, the commissioner, the county pro-  
3 secutor of the county in which the violation occurs if he has the  
4 approval of the commissioner, or any aggrieved person shall be  
5 entitled to institute a civil action in a court of competent juris-  
6 diction for injunctive relief to restrain such violation and for such

7 other relief as the court shall deem proper. The court may proceed  
 8 in a summary manner. Neither the institution of such action, nor  
 9 any of the proceedings therein shall relieve any party to such  
 10 proceedings from other fines or penalties prescribed for such a  
 11 violation by this act or by any rule, regulation or order adopted  
 12 hereunder.

1 20. Any person who fails to provide energy information in his  
 2 official custody when so required by the commissioner shall be liable  
 3 for a penalty of not more than \$3,000.00 for each offense. If the  
 4 violation is of a continuing nature, each day during which it con-  
 5 tinues shall constitute an additional and separate offense. Penalties  
 6 shall be collected in a civil action by a summary proceeding under  
 7 the Penalty Enforcement Law (N. J. S. 2A:56-1 et seq.).

1 21. Any officer or employee of the State who, having obtained by  
 2 reason of his employment and for official use, any confidential  
 3 energy information, publishes or communicates such information  
 4 for reasons not authorized by this or any other act shall be fined  
 5 not more than \$2,000.00 or imprisoned not more than 2 years or  
 6 both.

1 22. a. Any person purchasing or attempting to purchase energy  
 2 in violation of section 15 of this act or any rules, regulations, or  
 3 orders promulgated thereunder, shall be subject to a penalty of  
 4 not more than \$25.00 for the first offense, not more than \$100.00  
 5 for the second offense, and not more than \$200.00 for the third  
 6 offense or subsequent offenses.

7 b. Any retail dealer who violates section 15 of this act or any  
 8 rules, regulations, or orders promulgated thereunder, shall be  
 9 subject to a penalty of not more than \$25.00 for the first offense,  
 10 not more than \$200.00 for the second offense, and not more than  
 11 \$400.00 for the third offense or subsequent offenses.

12 c. Any distributor or any other supplier of energy who violates  
 13 any of the provisions of section 15 of this act or of any rules,  
 14 regulations, or orders promulgated thereunder, shall be subject to  
 15 a penalty of not more than \$1,000.00 for the first offense, not more  
 16 than \$5,000.00 for the second offense, and not more than \$10,000.00  
 17 for the third offense or subsequent offenses.

18 d. In addition to any other penalties provided under this or any  
 19 other act, the commissioner may recommend to the appropriate  
 20 agency the suspension or revocation of the license of any retail  
 21 dealer, gasoline jobber, wholesale dealer, distributor, or supplier  
 22 of fuel, who has violated this act or any rules, regulations, or orders  
 23 promulgated hereunder.

24 e. All penalties imposed pursuant to this section shall be collected  
 25 in a civil action by a summary proceeding under the Penalty  
 26 Enforcement Law (N. J. S. 2A:58-1 et seq.). If the violation is  
 27 of a continuing nature, each day during which it continues shall  
 28 constitute an additional and separate offense.

29 \*22.2 The department shall transmit copies of all rules and  
 30 regulations proposed pursuant to this act "by or on behalf of the  
 31 Division of Energy Planning and Conservation" to the Senate and  
 32 General Assembly on a day on which both Houses shall be meeting  
 33 in the course of a regular or special session. The provisions of the  
 34 "Administrative Procedure Act" or any other law to the contrary  
 35 notwithstanding, no such rule or regulation, except a rule or regu-  
 36 lation adopted pursuant to an energy emergency declared by the  
 37 Governor, shall take effect if, within 60 days of the date of its  
 38 transmittal to the Senate and General Assembly, the Legislature  
 39 shall pass a concurrent resolution stating in substance that the  
 40 Legislature does not favor such proposed rule or regulation."

1 23. a. All appropriations, grants, and other moneys available to  
 2 the State Energy Office are hereby transferred to the department  
 3 created hereunder and shall remain available for the objects and  
 4 purposes for which appropriated, subject to any terms, restrictions,  
 5 limitations or other requirements imposed by Federal or State law.

6 b. The employees of the State Energy Office are hereby trans-  
 7 ferred to the department created hereunder. Nothing in this act  
 8 shall be construed to deprive said employees of any rights or protec-  
 9 tions provided them by the civil service, pension, or retirement  
 10 laws of this State.

11 c. All files, books, paper, records, equipment, and other property  
 12 of the State Energy Office are hereby transferred to the depart-  
 13 ment created hereunder.

14 d. The rules, regulations, and orders of the State Energy Office  
 15 shall continue with full force and effect as the rules, regulations,  
 16 and orders of the department created hereunder until further  
 17 amended or repealed.

18 e. Except as otherwise provided by this act, all the functions,  
 19 powers, and duties of the existing State Energy Office and its  
 20 administrator are hereby continued in the department and the  
 21 "Commissioner thereof" "Director of the Division of Energy  
 22 Planning and Conservation" created hereunder.

23 f. This act shall not affect actions or proceedings, civil or crim-  
 24 inal, brought by or against the State Energy Office and pending  
 on the effective date of this act, but such actions or proceedings

25 may be further prosecuted or defended in the same manner and  
 26 to the same effect by the department created hereunder.

27 g. Whenever in any law, rule, regulation, order, contract, docu-  
 28 ment, judicial or administrative proceedings, or otherwise, refer-  
 29 ence is made to the State Energy Office or the administrator  
 30 thereof, the same shall be considered to mean and refer to the  
 31 State Department of Energy and the "Commissioner thereof"  
 32 "Director of the Division of Energy Planning and Conservation"  
 33 created hereunder.

1 24. All the functions, powers and duties heretofore exercised  
 2 by the Department of Community Affairs and the Commissioner  
 3 thereof relating to the adoption, amendment and repeal of the  
 4 energy subcode of the State Uniform Construction Code pursuant  
 5 to P. L. 1975, c. 217 (C. 52:27D-119 et seq.) are hereby transferred  
 6 to, and vested in the Department of Energy and the Commissioner  
 7 of the Department of Energy; provided, however, that nothing in  
 8 this section shall be construed so as to interfere with the enforce-  
 9 ment of such energy subcode by the Commissioner of the Depart-  
 10 ment of Community Affairs pursuant to the aforesaid P. L. 1975,  
 11 c. 217; provided further, however, that this section shall not take  
 12 effect until 90 days after the effective date of this act, and any  
 13 energy subcode adopted by the Department of Community Affairs  
 14 within said 90 days shall continue in force and effect until amended  
 15 or repealed by the department as herein provided."

1 25. The Bureau of Energy Resources in the Department of  
 2 Public Utilities, together with all of its functions, powers and  
 3 duties, is hereby transferred to the "Division of Energy Planning  
 4 and Conservation in the" Department of Energy established pur-  
 5 suant to this act.

1 26. The transfer of responsibilities directed by this act, except  
 2 as otherwise provided herein, shall be made in accordance with the  
 3 "State Agency Transfer Act," P. L. 1971, c. 375 (C. 52:14D-1  
 4 et seq.).

1 27. All acts and parts of acts inconsistent with any of the provi-  
 2 sions of this act are, to the extent of such inconsistency, superseded  
 3 and repealed.

1 28. If any section, part, phrase, or provision of this act or the  
 2 application thereof to any person be adjudged invalid by any court  
 3 of competent jurisdiction, such judgment shall be confined in its  
 4 operation to the section, part, phrase, provision, or application  
 5 directly involved in the controversy in which such judgment shall  
 6 have been rendered and it shall not affect or impair the validity

7 of the remainder of this act or the application thereof to other  
 8 persons.

1 29. The object and design of this act being the protection of the  
 2 public health, safety and welfare by means of the coordination of  
 3 State planning, "regulation" and authority in energy related mat-  
 4 ters, this act shall be liberally construed.

1 30. This act shall take effect immediately.

## APPENDIX F - LEGAL COMMENTARY

### Introduction

This Appendix provides a legal commentary to the principal recent judicial decisions involving the laws concerning coastal management in New Jersey.

Judicial decisions in New Jersey courts have upheld the constitutionality of the Coastal Area Facility Review Act (N.J.S.A. 13:19-1 et seq.) and the Wetlands Act (N.J.S.A. 13:9A-1 et seq.). New Jersey courts have also expanded a common law doctrine protecting public rights in riparian lands (the "Public Trust Doctrine") to include the rights of beach access and recreational use in addition to the traditionally recognized rights of navigation, commerce and fishing on the water and at the water's edge. Also, the State of New Jersey is actively establishing its claim of ownership of the riparian lands now or formerly flowed by the mean high tide.

### Coastal Area Facility Review Act

The Appellate Division of the New Jersey Superior Court upheld the constitutionality of CAFRA in the case of Toms River Affiliates and Lehigh Construction Company v. Department of Environmental Protection and Coastal Area Review Board, 140 N.J. Super 135 (App. Div.), cert. den. 71 N.J. 345 (1976). The case involved the denial by DEP of a CAFRA permit for a ten story, high-rise luxury apartment complex on a 9.5 acre tract of land in Toms River, Ocean County. The plaintiff, a developer, contended that the Act: (1) did not provide adequate standards for the administration of the Act in violation of Article III, Paragraph I of the New Jersey Constitution; (2) granted zoning powers to the DEP in contravention of the constitutional delegation of such powers to a municipality; (3) created an invalid classification by designating a delineated coastal area and omitting other coastal areas; (4) denied equal protection of the laws; and (5) constituted the taking of property in violation of Article I, Paragraph 20 of the Constitution of New Jersey.

The Court rejected all five arguments, finding that: (1) Sections 10 and 11 of the Act set forth specific criteria by which the Environmental Impact Statement required for a CAFRA permit could be evaluated; (2) the police power of the State was not exhausted by the delegation of zoning power to the municipality (the State retained a quantum of reserved police power to delegate such authority to one or more agencies of the State government as the Legislature may deem appropriate); (3) the limitation of the Act to the portion delineated by the statutory boundaries constituted a valid exercise of discretionary power vested in the Legislature (The Court noted that the Act should be read in light of the intention of the Legislature which recognized that the coastal area was a unique and irreplaceable region of the state); (4) the mere fact that the property of the appellants is subject to the Act's provision, while property in other parts of the state is not, does not establish a Fourteenth Amendment deprivation of equal protection; and (5) The taking issue in this case was specious (A particular use of property may be frustrated, but so long as alternative uses for development exist, no taking of private property can be claimed by the appellants).

In the case of Public Interest Research Group of New Jersey, et. al. v. Department of Environmental Protection and Public Service Electric and Gas Co., 152 N.J. Super 191 (App. Div.), certif. den. 73 N.J. 538 (1977), the Court upheld the decision of the Department and the Coastal Area Review Board to approve a CAFRA permit for the Hope Creek Nuclear Generating Station (Units 1 and 2) at Artificial Island in Lower Alloways Creek Township, Salem County. The Court rejected the appellants' procedural contention that DEP should have conducted an adversarial hearing with cross-examination of witnesses and findings of fact and conclusions of law, instead of the two quasi-legislative, fact-finding hearings held before the DEP decision. The Court also ruled that the decision to grant a conditional permit was reasonable. The Court concurred with the Department's finding that Public Service Electric and Gas Co. complied with the findings of Section 10 and 11 of the Act.

The Court also rejected the contention of appellants and the Public Advocate, who submitted an amicus brief, that the environmental impact statement submitted by Public Service Electric and Gas Company was legally deficient.

The Court further rejected appellants claim that the Commissioner's finding in the method for disposal of radioactive waste, as required by N.J.S.A. 13:19-11, was unsupported by the available data in the record. The Court noted the comprehensive federal legislation and regulations in the area of radiation hazards and stated that the Commissioner must satisfy himself that the applicant has conformed to the standards of the Nuclear Regulatory Commission. If such standards are met, the Court noted, the Commissioner has no authority to impose either lower or higher safety standards to regulate radiation (152 N.J. Super. at 216).

#### Wetlands Act

In American Dredging Co. v. State of New Jersey, 161 N.J. Super. 405 (1978), the Chancery Division, Superior Court held that the Wetlands Act and 1973 Wetlands Order was a valid exercise of the State's police power as applied to a wetlands site on the Delaware River. The plaintiff owns a 2,500 acre site in Dover Township, Gloucester County, of which approximately 159 acres are regulated wetlands. The site is used primarily for dredge spoil disposal, and DEP had issued prior permits allowing fill on all but 80 acres. The plaintiff argued that the denial of a permit for the last 80 acres so diminished their value as to constitute a constructive taking. The Court responded by saying that a diminution in value was only one factor to be considered and weighed against the need for regulation by the State. The Court looked at the site as a whole (i.e. the entire 2,500 acres) and found that the restricted use of 3% of the land (80 acres) was not unreasonable when weighed against the destruction of an entire wetland area. The decision was affirmed by the Superior Court's Appellate Division in June 1979 (167 N.J. Super. 18).

The Wetlands Act was also upheld in the case of Sands Point Harbor, Inc. v. Sullivan, 136 N.J. Super. 436 (1979). In that case a private developer alleged that both the statute and regulations both deprived him of equal protection under the law as guaranteed by the Constitutions of the United States and New Jersey, and further that the statutes and regulations constituted a taking of property without just compensation in violation the New Jersey Constitution.

The applicant's equal protection argument was predicated upon the fact that only coastal wetlands were regulated by the Wetlands Act, and that wetlands subject to the Hackensack Meadowlands Development Commission (N.J.S.A. 13:17-1 et seq.) were specifically excluded. The Court noted that classification in legislation is not constitutionally prohibited, and that the Legislature is granted a wide range of discretion to treat subject matter of legislation differently, so long as the classification is reasonable and related to the basic object of the legislation. The Court stated further that classifying coastal wetlands as a separate object of protection was reasonable, considering that wetlands north of Raritan Bay are characterized by heavy industrial, commercial, or residential development. The only other broad contiguous area of wetlands in the state was within the special legislatively defined Hackensack Meadowlands Development District, and a classification by statute of this area afforded reasonable grounds for the disparate treatment of land in these different areas of the State.

On the so-called "taking issue", the applicant relied upon a New Jersey Supreme Court case which struck down a municipal zoning ordinance severely restricting the use of swamp land (Morris County Land, Parsippany-Troy Hills Township, 40 N.J. 539, 1963). The restrictions in this case, however, were of such a nature that the only practical use which could be made of the property was as a hunting or fishing preserve. The taking test, as defined by the New Jersey Supreme Court, was whether no practical use could be made of the land so as to constitute a taking without just compensation.

The Court found that the only activities absolutely prohibited under the Wetlands Act were the dumping of solid waste, discharging of sewage, and storage and application of pesticides. Since the Commissioner of Environmental Protection must consider the effect of a proposed activity upon the public health and welfare, marine and shellfisheries, wildlife, and the protection of property from flood, hurricane or other disasters, such criteria were reasonable and did not so restrain virtually all activities so as to be in violation of the New Jersey Constitution.

In an unreported decision, Carton et al vs. State of New Jersey (Docket No. A-638-763, 1978), the Superior Court, Appellate Division rejected the contention of a wetlands owner that the Wetlands Act constituted a taking of private property without just compensation. The plaintiffs contended that the Act was vague, unreasonable and unconstitutional, but the Court, citing Sands Point Harbor held that the Act was a valid exercise of governmental power and did not constitute a taking. A petition for appeal was denied by the New Jersey Supreme Court on May 16, 1978.

In a recent Administrative Action, the Commissioner upheld a decision denying a wetlands permit for a lagoon development on Long Beach Island (Loveladies Harbor, Inc. - Unit D, Wetlands Permit No. 77-0050-2). The site, which is adjacent to an existing barrier island lagoon development, contains both regulated wetlands and an upland area. DEP rejected the developer's proposal for single family homes on the entire site, but indicated that clustering in the upland area would be acceptable. The local zoning code prohibits clustering, however, and despite the DEP denial, no variance has been granted. The applicant appealed the decision to the Superior Court's Appellate Division in May, 1979 (in the matter of Loveladies Harbor, Inc., Docket No. A-3020-78).

In June, 1980 another decision denying a wetlands permit was appealed to the Superior Court's Appellate decision. In this case the appellant had sought to develop a shopping center by filling 11 acres of regulated wetlands in Lower Township, Cape May County. The permit was denied in December, 1977 in a decision (77-0045-2) which noted the availability of alternative non-wetlands sites. The denial was affirmed on appeal to a hearing officer in August, 1979.

#### Tidelands Cases

Numerous issues concerning tidelands management in the coastal zone of New Jersey are not expressly addressed or resolved in Titles 12 and 13 of the Revised New Jersey Statutes, which contain the bulk of tidelands statutory authority. The case law decisions described in this section have established key principles in tidelands law.

The case of O'Neill v. State Highway Department 50 N.J. 307 (1967) involved an ownership dispute of lands along the Hackensack River. The State asserted title to these lands. In its opinion, the Court laid down several principles. First, the State owns in fee simple all lands that are flowed by the tide up to the high water line or mark (The high water line or mark is the line formed by the intersection of the tidal plain of mean high tide with the shore). In establishing this line, the average to be used should be, if possible, the average of all the high tides over a period of 18.6 years. Second, the State cannot acquire interior land by the construction of artificial works, such as ditching, which enables the tide to ebb and flow on lands otherwise beyond it. The riparian owner cannot, however, enlarge his holdings by excluding the tide. Third, the party who challenges the existing scene must satisfy the court that the tidelands status of the property was changed by artificial measures.

Rules concerning erosion and its effect on riparian ownership were discussed in the case of Leonard v. State Highway Department of New Jersey, 29 N.J. Super 188 (App. Div. 1954). Where erosion is by natural means, the riparian owner loses title to the State. The owner suffers no such loss, however, in the event of a sudden and perceptible loss of land. The high water mark may shift from time to time through erosion, and persons who own or purchase tide-flowed land are well aware of this natural process. Where there is erosion, they lose title to the State. Where there is accretion, they gain title at the expense of the State.

The State's procedure for tidelands delineation was reviewed in a series of decisions beginning with the City of Newark v. Natural Resources Council (133 N.J. Super 245, Law Div. 1974, affirmed 152 N.J. Super. 458 (Appellate Division, 1977)). Two tidelands statutes relevant to the State's tideland delineation procedure provided that "the (Natural Resource) Council is hereby directed to undertake title studies and surveys of meadowlands throughout the State and to determine and certify those lands which it finds are State owned lands." (N.J.S.A. 13:1B-13.2.) "Upon completion of each separate study and survey the Council shall publish a map portraying the results of its study and clearly indicating those lands designated by the Council as state owned lands". (N.J.S.A. 13:1B-13.4).

In 1970 the State issued a map which designated those portions of the State in which it claimed an interest. In 1971, the Superior Court held that these maps did not comply with the intent of the legislation, and prohibited their use.

The State then began a new delineation process based on aerial photography. This mapping procedure resulted in maps for thirty-seven panels of land, each of approximately 964 acres, drawn at a scale of 1:2,400. In 30 of the 37 panels the maps produced resulted in substantial State claims to land. However, in seven of the panels it was very difficult for the State to determine ownership, and so these areas were characterized as "hatched" (areas of filled meadowlands adjacent to virgin meadowlands). The "hatched" areas indicated a claim by the State that the filled areas were once tide flowed and were therefore likely to be state owned.

The court held that the "hatching" procedure did not conform with the statutory requirement that the State define its interests in unequivocal terms. (N.J.S.A. 13:1B-1 et seq.), and once again ordered the preparation of new maps clearly indicating State interests in tidelands. The Office of Environmental Analysis in DEP began the mapping based on new overlay techniques, and filed these maps with the Appellate Division of the Superior Court in January 1978. The Appellate Division upheld the method used by the State in May, 1979. That decision was appealed to the New Jersey Supreme Court by appellants who sought to suppress the maps. On May 15, 1980, the Court, in a 6-0 decision (City of Newark v. Natural Resource Council in DEP) affirmed the Appellate court's decision stating that "the evidence adduced indicates only a difference of opinion between the appellants' and NRC's experts", and citing the presumptive valid of an agency's actions. The Court also noted that the case did not seek to quiet any titles and wrote that "We do not broach the question of what evidentiary effect these maps should be given in subsequent quiet title suits involving private owners."

#### Waterfront Development

An appeal by an owner of a tideland grant whose application for a waterfront development permit was denied by the Natural Resource Council (now the Tidelands Resource Council) was reviewed in Kupper v. Bureau of Navigation, Council of Resources, etc., Docket No. A-737-71 (unpublished opinion of Appellate Division, decided April 9, 1976). The application involved a request to construct a bulkhead connecting two existing bulkheads in a substantially developed residential area. The Court observed that although they were sympathetic to DEP's efforts to preserve the ecological balance in any area of the State, they were equally sympathetic to the rights of individual property owners who would be deprived of the economic use of their land. The Court felt that the trial evidence indicated that granting of a permit in this case would not result in detrimental impacts on the immediate environment, as claimed by DEP.

#### Public Access to Shorefront Areas

Increasing and maintaining public access to the shorefront in the coastal zone of New Jersey is a public policy derived from the Public Trust Doctrine. That doctrine, as defined by New Jersey case law, holds that the public retains certain limited rights in tidelands, even where those lands have been conveyed to individuals or to municipalities. (See Martin v. Waddel's Lessee 81 U.S. (P&T) 367 (1842), Arnold v. Mundy 6 NJL 1 (Sup. Ct. 1821), and Avon v. Borough of Neptune by the Sea 61 N.J. 296 (1972).)

The cases concerning shorefront access have so far dealt only with public access to publicly owned, rather than privately owned land. However, the New Jersey Superior Court is expected to discuss this issue in Matthews v. Bay Head Improvement Association, (Docket No. L-23410-73).



The decision in Avon v. Borough of Neptune is significant in that it expanded the Public Trust Doctrine beyond the traditional public rights of navigation, commerce, and fishing to include recreational uses of the shoreline. The New Jersey Supreme Court held that municipally owned tidal lands below mean high water are subject to these public rights, and for a municipality to charge a discriminatory fee to users of the beach was analogous to erecting a physical barrier.

Two more recent decisions by the New Jersey Supreme Court have expanded public access rights in beachfront areas considerably.

In Van Ness et al. v. Borough of Deal, 78 N.J. 174 (1978) the Supreme Court held that municipally owned upland or dry sand areas are subject to the Public Trust Doctrine, and that a municipality cannot exclude a non resident from using those areas upon payment of a reasonable fee. The Court struck down the Borough's practice of roping off the beach area above the high tide line for the use of residents, saying that "whether natural or man-made, the beach is an adjunct to ocean swimming and bathing and is subject to the public trust doctrine".

In a companion case, Hyland v. Borough of Allenhurst, 78 N.J. 190 (1978), the Court ruled that the exclusion of the general public from the restrooms of a municipally owned beach club was an arbitrary and unreasonable exercise of municipal authority. This decision was not based on the public trust doctrine.

The practice of offering rates to early purchasers of beach badges was recently upheld by the Superior Court, Appellate Division in Hyland v. Township of Long Beach et al. (160 N.J. Super 201, 1978), cert. denied 78 N.J. 395 (1978). The Court found no evidence to support the State's contention that the practice of offering beach badges early in the season favored the township residents over non-residents, and therefore violated the public trust doctrine.

Finally, a recent Superior decision overturned a zoning ban which prohibited the recreational use of beachfront land unless the adjacent upland was developed for single family dwellings. The decision in Lusardi v. Curtis Point Property Owners Association and Township of Brick (Docket No. C-3515-63(C-1101), letter opinion August 13, 1979, Kaplan, CSJ), concerned the use of a dry beach area for bathing and recreation where the area's primary zoning purpose was reserved for single family dwellings.

The Court relied on the Rules on Coastal Resource and Development Policies (Public Access to the Shoreline), on language in the Beaches and Harbors Bond Act of 1977, and on the Neptune, Deal, and Allenhurst decisions as evidence of an affirmative public policy on shoreline access, and found that:

"In the light of judicial, legislative and executive pronouncements since 1972 ... I conclude that a zoning ban of the recreational use of undeveloped beachfront property unless a primary use exists contravenes state policy and is therefore an unreasonable exercise of the police power."

Board of Public Utilities

It has been held that the Board of Public Utilities, when exercising its authority under N.J.S.A. 40:55D-19 to supercede local actions taken with respect to utilities when necessary if the service conveniences the welfare of the public, may make a finding that such service is necessary if found to be "reasonably requisite to service public convenience" (emphasis added). Petition of Public Service Coordinated Transport, 103 N.J. Super 505 (1968). Under the Coastal Management Program, the Board's authority insures that key "uses of regional benefit" will not be unreasonably excluded by actions of local governments.

APPENDIX G - SECRETARIAL FINDINGS INDEX

The Federal Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1451 et seq.) and the program approval regulations adopted as an interim final rule by NOAA-OCZM (15 CFR Part 923, Federal Register, Vol. 44, No. 61, March 28, 1979, pp. 18590-18624) define twenty-six required findings that must be made before the Secretary of Commerce may approve a state's coastal management program. This appendix identifies these requirements and provides an index to the appropriate section or sections in Part II where the New Jersey Coastal Management Program presents the information required for the secretarial findings.

<u>SECTION OF THE FEDERAL COASTAL MANAGEMENT ACT</u>	<u>ASSOCIATED SECTION(S) OF PROGRAM APPROVAL REGULATIONS</u>	<u>PROGRAM SECTION</u>
305(b)(1)	boundaries	923.31, 923.32, 923.33, 923.34
305(b)(2)	uses subject to management	923.11, 923.12
305(b)(3)	means of particular concern	923.21, 923.23
305(b)(4)	guidelines on priorities of uses	923.41
305(b)(5)	organizational structure	923.22
305(b)(6)	shorefront planning process	923.45
305(b)(7)	energy facility planning process	923.25
305(b)(8)	erosion planning process	923.14
305(b)(9)		923.26
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306(e)(1)	technique of control	923.41, 923.42
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NOTE: Chapter numbers refer to Part II.

APPENDIX H - COMMENTS AND RESPONSES ON THE PROPOSED NEW JERSEY  
COASTAL MANAGEMENT PROGRAM AND DRAFT ENVIRONMENTAL IMPACT STATEMENT

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  - 4. Extension of Bay and Ocean Shore Program to Developed Coast
  - 5. Pinelands Comprehensive Management Plan
  - 6. Hackensack Meadowlands District - Master Plan as Coastal Policy for District
  - 7. Hackensack Meadowlands District - Consistency with Federal Rules
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61	3.3	Surf Clam Areas
62	3.4	Prime Fishing Areas
63	3.5	Finfish Migratory Pathways
64	3.6	Submerged Vegetation
65	3.7	Navigation Channels
68	3.8	Canals
69	3.9	Inlets
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I. INTRODUCTION

This appendix identifies the commentors and presents responses to the issues raised during the public review period for the Proposed New Jersey Coastal Management Program and Draft Environmental Impact Statement (May 1980). This appendix includes comments on the Proposed New Jersey Coastal Management Program, or Program, prepared by NJDEP, comments on the Draft Environmental Impact Statement (DEIS) prepared by NOAA-OCZM, and comments on the Proposed Waterfront Development Rules to be promulgated by NJDEP.

For a list of the recipients of the combined Program-DEIS, see Appendix H of the DEIS (May 1980).

The responses to these comments have been coordinated by NOAA-OCZM and DEP. A list of commentors is presented in Section II.

Eight general comments were raised by a number of commentors; these comments are given detailed responses in Section III. Names of commentors contributing to the general comments are listed, followed by those comments related to the general comments. Those related comments that are not adequately addressed by the general response are answered by an individual response. All comments not related to the eight general comments are answered individually in Section IV, often with reference to specific changes from the Proposed Program or revisions reflected in the Final Environmental Impact Statement. Comments by federal agencies are answered separately in Section V.



II. LIST OF COMMENTORS

NOAA-OCZM and DEP received comments from public agencies, interest groups, companies, and individuals both in writing and at the four public hearings conducted jointly by NOAA-OCZM and DEP officials at Trenton and Jersey City on June 11 and at Camden and Toms River on June 12. Verbatim transcripts of the hearings, prepared by certified shorthand reporters, may be consulted at the NOAA-OCZM and DEP-DCR offices. This appendix identifies all commentors, and indicates whether the comments were made in writing or at a public hearing. In some cases, the same source provided comments on several occasions, but is counted as only one source. Comments were received from the following sources:

Federal Agencies	9
State Agencies	5
Regional Agencies	2
County and Municipal Agencies	14
Organizations	31
Individuals	12
<u>TOTAL</u>	<u>73</u>

<u>Commentor</u>	<u>Date</u>	<u>Hearing</u>	<u>Written</u>
<u>FEDERAL AGENCY</u>			
Department of Agriculture Soil Conservation Service P.O. Box 2890 Washington, D.C. 20013 Norman A. Berg, Chief	July 3		X
Department of Agriculture Soil Conservation Service 1370 Hamilton street P.O. Box 219 Somerset, New Jersey 08873 Plater T. Campbell State Conservationist	July 7		X
Department of the Army Office of the Chief of Engineers Washington, D.C. 20314 George F. Boone, Asst. Director of Civil Works	July 7		X
Department of Commerce National Marine Fisheries Service Washington, D.C. 20235	Undated		X
Department of Energy Deputy Assistant Secretary Resource Development and Operations Washington, D.C. 20461 R. D. Langenkamp	July 25		X

Commentor	Date	Hearing	Written
<u>FEDERAL AGENCIES - Continued</u>			
Department of the Navy Fourth Naval District Philadelphia, Pa. 19112 W. B. Britt, Deputy Director Civil Engineer	June 27		X
Department of the Interior Washington, D.C. 20240 Larry E. Meierotto Asst. Secretary - Policy, Budget and Administration	July 7		X
Environmental Protection Agency Region II 26 Federal Plaza New York, N.Y. 10007 Anne Norton Miller, Director Office of Federal Activities	Undated		X
Federal Energy Regulatory Commission Washington, D.C. 20426 Carl N. Shuster, Jr. - Ph.D. Coordinator, Coastal Zone Affairs	July 7		X
<u>STATE AGENCIES</u>			
Department of Community Affairs 363 West State Street Trenton, N.J. 08625 Joseph A. LeFante, Commissioner	July 9		X
Department of Energy Office of Planning and Policy Analysis 101 Commerce Street Newark, N.J. 07102 Edward J. Linky, Administrator	July 7		X
David Atkin, Ph.D. CEIP Coordinator	July 10		X
Nancy Fiordalisi CEIP Coordinator	June 11	X	
Department of Health P.O. Box 1540 Trenton, N.J. 08625 Joanne E. Finley, Commissioner	July 9		X

<u>Commentor</u>	<u>Date</u>	<u>Hearing</u>	<u>Written</u>
<u>STATE AGENCIES - Continued</u>			
Department of Labor and Industry Labor and Industry Building Trenton, N.J. 08625 John J. Horn, Commissioner	July 2		X
Department of the Public Advocate Division of Public Interest Advocacy P.O. Box 141 Trenton, N.J. 08625 Michael Bryce, Assistant Deputy Public Advocate	July 7		
<u>REGIONAL AGENCIES</u>			
Delaware River Port Authority World Trade Division Bridge Plaza Camden, N.J. 08101 William Bennington	June 12	X	
The Port Authority of New York and New Jersey One World Trade Center New York, N.Y. 10048 Stuart F. Millendorf Environmental Coordinator	July 14		X
<u>COUNTY AND MUNICIPAL AGENCIES</u>			
Camden Department of Community Development City Hall - 10th Floor Camden, N.J. 08101 William P. Hankowsky, Director	July 9		X
Cape May County Planning Board Cape May County Court House, N.J. 08210 Elwood Jarmer, Director	July 8		X
Borough of Edgewater 916 River Road Edgewater, N.J. 07020 Charles Susskind, Borough Clerk	June 11	X	
Elizabeth Department of Community Development 50 Winfield Scott Plaza Elizabeth, N.J. 07201 Dennis W. Hudacsko, City Planner	July 2		X

Commentor	Date	Hearing	Written
<u>COUNTY AND MUNICIPAL AGENCIES - Continued</u>			
Gloucester County Planning Board Woodbury, N.J. 08096 Robert V. Scolpino, Director	July 12		X
Borough of Lavallette P.O. Box 67 Lavallette, N.J. 08735 Mayor Ralph J. Gorga	June 12	X	
Township of Logan 73 Main Street Logan, N.J. 08014 John C. Wright, Mayor	July 2		X
Borough of Mantoloking Ocean Court, N.J. 08738 Donald D. Tubbs, Mayor	July 9		X
Middlesex County Planning Board 40 Livingston Avenue New Brunswick, N.J. 08901 John Bernat, Jr.	July 11		X
Monmouth County Environmental Council Monmouth County Planning Board One Lafayette Place Freehold, N.J. 07728 Kathleen H. Rippere Chairman	July 14		X
City of Perth Amboy City Hall Perth Amboy, N.J. 08861 George J. Otlowski, Mayor	June 18		X
City of Rahway 1470 Campbell Street Rahway, N.J. 07065 Daniel L. Martin, Mayor	May 19		X
Salem County Planning Board Old Courthouse Salem, N.J. 08079 Christopher J. Warren, Director	July 8		X
<u>ORGANIZATIONS</u>			
American Littoral Society Sandy Hook Highlands, N.J. 07732			
Paul Dritsas	June 12	X	X
D. W. Bennett	July 16		X

Commentor	Date	Hearing	Written
<u>ORGANIZATIONS - Continued</u>			
American Society of Civil Engineers New Jersey Section Fred J. Hofmann, President Elect Box 169B - Lyons Road Basking Ridge, N.J. 07920	July 7		X
Association of New Jersey Environmental Commissions 300 Mendham Road, Route 24 Box 157 Mendham, New Jersey 07945 Candace Ashmun, Executive Director	July 8		X
Atlantic City Development Corp. 205 Dover Plaza West Atlantic City, N.J. 08232 Matthew C. Hudson	June 12	X	
	July 2		X
Atlantic City Electric Co. 1600 Pacific Avenue Atlantic City, N.J. 08404 Morgan T. Morris, III Manager of Environmental Affairs	July 9		X
Bayonne Against Tanks Nancy Richardson, President Box 119 Bayone, N.J. 07002	June 12	X	
Cape May County Emergency Beach Restoration Association John G. Federico 337 47th Place Sea Isle City, N.J.	June 11	X	
Federation of Beach Associations P.O. Box 431 Brielle, N.J. 08730 Alba Kupper, President	July 2		X
GATX Terminals Corporation Suit 201 - 195 Main Street Metuchen, N.J. 08840 D. L. Moyer Eastern & Midwest Operations Manager	July 8		X
Historic Paulus Hook Association Joseph Duffy, President 108 Grand Street Jersey City, N.J. 07302	June 11	X	

Commentor	Date	Hearing	Written
<u>ORGANIZATIONS - Continued</u>			
Hartz Mountain Industries, Inc. 1 Harmon Plaza P.O. Box 1411 Secaucus, N.J. 07094 Morton Goldfein Vice President/General Counsel	July 10		X
League of Conservation Legislation Box 605 Teaneck, N.J. 07666 Richard Willinger, Esq., President	July 7		X
League of Women Voters of New Jersey 460 Bloomfield Avenue Montclair, N.J. 07042 Joan Crawley, President	July 8		X
Mining Industry Representatives: George F. Pettinos, Inc. Mays Landing Sand and Gravel Jesse S. Morie & Sons, Inc. Pennsylvania Glass Sand Corp Ricci Brothers Sand and Gravel Unimin Corp Whitehead Brothers Co.	July 3		X
Natural Resources Defense Council 122 East 42nd Street New York, N.Y. 10017 Gary Grant	June 11	X	
Written testimony also submitted on behalf of: The American Littoral Society The New Jersey Conservation Foundation	Undated		X
New Jersey Alliance for Action Suite 201-20 Highland Avenue Metuchen, N.J. 08840 Lewis Caccese Ellis S. Vieser	June 12 June 20	X	X
New Jersey Business and Industry Association 50 Park Place Newark, N.J. 07102 Gene Deutsch	June 11		X
New Jersey Builders Association 1000 Route 9 Woodbridge, N.J. 07095 David Fisher	June 11 July 14	X	X

Commentor	Date	Hearing	Written
<u>ORGANIZATIONS - Continued</u>			
New Jersey Conservation Foundation 300 Mendham Road Morristown, N.J. 07960	July 8	X	
New Jersey Independent Liquid Terminal Association 60 Park Place Newark, N.J. 07102 Albert F. Mogerly, Chairman	June 11	X	
New Jersey Marine Sciences Consortium Sandy Hook Field Station Building 22 Fort Hancock, N.J. 07732 Robert B. Abel, Vice President	June 30	X	
New Jersey Petroleum Council 170 West State Street Trenton, N.J. 08608 G. Oliver Papps Associate Director	June 25		X
New Jersey State Chamber of Commerce 5 Commerce Street Newark, N.J. 07102 Edward Lenihan, Chairman Economic Development Committee	July 3		
Private Citizens Action Team (PACT) Pat Castagno 384 Princeton Avenue Jersey City, N.J. 07305	June 11	X	
Public Service Electric and Gas Company 80 Park Place Newark, N.J. 07101 James A. Shissias, General Manager Environmental Affairs	June 11	X	X
Pureland Industrial Complex 603 Heron Drive Bridgeport, N.J. 08014 A. Carl Helwig, Manager	June 12	X	X
Save the Hudson - Our Riverland Environment (SKORE) Helen Thompson 6050 Blvd. East West New York, N.J.	June 11	X	

Commentor	Date	Hearing	Written
<u>ORGANIZATIONS - Continued</u>			
Sierra Club New Jersey Chapter 360 Nassau Street Princeton, N.J. 08540 Vivian Li, Vice-Chair.	July 7		X
North Jersey Group 241 River Road Bogota, N.J. 07603 Clare C. Dudley	June 11	X	
West Jersey Group 1305 Walnut Avenue W. Collingswood, N.J. 08107 Carol Barrett, Chairman	June 12	X	
	July 9		X
South Jersey Shellfish Association P.O. Box 134 Oceanville, N.J. 08231 Richard Crema, Secretary	April 16		X
	July 7		X
The Penjerdel Council Suite 1960 1617 John F. Kennedy Boulevard Philadelphia, Pa. 19103	June 12	X	
<u>INDIVIDUALS</u>			
Helen Bicher Normandy Beach, N.J. 08739	June 12	X	
Isabelle Dietz Whiting, N.J.	June 12	X	
Catherine Grimm 250 Woodlawn Avenue Jersey City, N.J. 07305	June 11	X	
William J. McDevitt 305 N. 2nd Street Surf City, N.J. 08008	June 12	X	
Michael D. Miller Representative of State Senator Raymond Zane 44 Cooper Street Woodbury, N.J.	June 12	X	
Daniel W. Myers The Provincial Executive Suite 800 2201 State Highway 38 Cherry Hill, N.J. 08034	July 7		X



<u>Commentor</u>	<u>Date</u>	<u>Hearing</u>	<u>Written</u>
<u>INDIVIDUALS - Continued</u>			
Bill Neyenhouse Toms River, N.J.	June 12	X	
Myron Portenar 227 Carey Street Lakewood, N.J. 08701	June 12	X	
Pearl Schwartz 25 Green Twig Drive Toms River, N.J.	June 12	X	
W. Elmer Seaman, Jr. P.O. Box 12 Barnegat, N.J. 08005	June 12 July 8	X	X
Chris Theodos 141 E. Main Street Tuckerton, N.J. 08087	June 12	X	
Roger Wells Roger Wells Inc. 18 Kings Highway West Haddonfield, N.J. 08033	June 12 July 7	X	X
R. C. Westmoreland, Esq. 535 Tilton Road P.O. Box 175 Northfield, N.J. 08225	June 27		X

### III. GENERAL COMMENTS AND RESPONSES

Many of the statements made by the many individuals and groups who commented on the Proposed New Jersey Coastal Management Program and Draft EIS raised a number of common concerns. This section of the Comments and Responses Appendix includes eight general comments which were each raised by several commentors and provides a detailed response to each. Each response is followed by a list of persons or organizations making the comment, and by related comments and responses.

#### General Comment No. 1

1. The Proposed Coastal Management Program will have a negative impact on economic development of the State's Coastal Zone, and the Environmental Impact Statement does not adequately address economic impacts.

This comment was made by:

1. New Jersey State Chamber of Commerce
2. Daniel W. Myers
3. L. Caccese, New Jersey Alliance for Action
4. A. Helwig, Pureland Industrial Complex
5. J. Deitz, The Penjerdel Council
6. A. Mogerly, N.J. Independent Liquid Terminals Assoc.

Response: The Coastal Management Program has been in operation for two years in the Bay and Ocean Shore Segment of the State. While an economic analysis has not been performed, we cannot detect any decline in development activity separate from that attributable to high interest rates and other national factors. Rather than causing a decrease in the quantity of development activity, we believe that the Coastal Management Program has resulted in a changed spatial distribution of development in the coastal zone, with environmentally sensitive areas being preserved and those areas with the greatest development potential being developed. The development which has taken place is also more environmentally sensitive and energy efficient than that which would have occurred in the absence of a Coastal Management Program.

In the Developed Coast, the proposed policies are not as preservation-oriented as in the Bay and Ocean Shore Segment. They have been drafted to ensure the wise development of coastal resources, while preserving wetlands and other critical areas. The water's edge in the developed coast is a finite resource, much of which has already been consumed by uses which could have located on inland sites. The result is that there are fewer sites left for port or water-related industrial development, for mixed-use development, or for recreation. One of the objectives of the Coastal Management Program in the developed coast is to reserve most remaining sites for water dependent uses, so that the northern waterfront and Delaware River areas can attract new jobs, and so mixed-use development (commercial/residential/recreational) and waterfront parks can make the region's cities more attractive places to live and work. The existing reliance on municipal zoning has failed to bring new water related jobs to the water's edge because many municipalities, by permitting any ratable that came their way, have precluded a later opportunity to attract a form of development which could make a better use of the water's edge. The extent of economic redevelopment and waterfront revitalization efforts of most of the cities of the developed coast contrasts poorly with that of the Hackensack Meadowlands District where regional planning has led to 28,000 new permanent jobs.

Yet what the Coastal Management Program is proposing for the developed coast is less ambitious than what is being undertaken in the Meadowlands. DEP is proposing to require a permit only for a narrow strip of land along the water's edge for the purpose of reserving this resource for uses which would benefit from a waterfront location, and to preserve any environmentally sensitive areas located in this narrow strip. To complement this regulatory program, DEP, in conjunction with NJDOE, will be making planning and implementation grants from the federal grants the State will receive as a result of program approval to waterfront municipalities for the purposes of waterfront redevelopment and the creation of recreational facilities. Under the State's Program Development Grant from NOAA, six such planning grants have already been "passed through" to local governments in the Developed Coast. Based on the experience of other urbanized states with approved Coastal Management Programs, notably Michigan and Massachusetts, the mix of limited state regulation together with redevelopment aid to local governments leads to economic redevelopment as well as environmental protection.

The discussion of the environmental, economic and institutional consequences of federal approval must, because of the nature of the program, be general and descriptive rather than precise and quantitative. The Coastal Management Program is not a discrete action with a limited number of direct consequences. It is the application of a specified set of policies to a set of permit decisions and management actions, which would have to be made even in the absence of a coastal program. It is also the channeling of grants to an as yet undetermined group of municipalities for still to be selected projects. It is impossible to predict what permit and management decisions would be made in the absence of a program, and we also cannot foresee what decisions will result from the application of specific and predictable policies to permit decisions involving still unknown proposals for development. Unlike zoning, the Coastal Management Program does not define a class of acceptable uses for specified land areas. Under the program, the pattern of coastal development will be a result of the interaction of private market decisions with a set of location, use and resource policies, and of the development actions taken by local governments and private entrepreneurs in response to Local Coastal Grants aimed at waterfront redevelopment. Precise economic impacts cannot be predicted without knowing what the private and local decisions will be. We can only make the general statement that the Coastal Management Program is not expected to change the overall quantity of housing starts or commercial and industrial investment in the State, but that it will have some effect on the distribution of that development by (1) encouraging the concentration of development in existing built-up areas, (2) reserving the water's edge water dependent uses, (3) preserving environmentally sensitive areas, and (4) by focusing public attention on the waterfront.

The following comments are related to General Comment 1:

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
An objectionable aspect of the proposed GMP is its expansion to include great areas outside the Bay and Ocean Shore, enlarging DEP's jurisdiction and giving it authority to regulate construction in the navigable	The Penjerdel Council	See General Response.

Comments

Commentor

Response

waters and the adjacent waterfront. This will adversely affect all of those areas utilized for a hundred or more years to support commerce and industry.

The Attorney General's opinion concerning the Waterfront Development Law allows DEP to regulate the waterfront for "the public's overall economic well-being" and states the act was promulgated to provide a state role in "harbor development for economic reasons". The proposed rules actually place New Jersey at a competitive disadvantage.

Not only are the present CAFRA rules extended to the developed areas, they also are made more economically restrictive in this proposal. (See amendments to Policies 7:7E-3.7/Maintenance Dredging, 7:7E-3.20/Wetlands, 7:7E-8.6/Groundwater Use).

The combined impact of the State's land use control programs upon the economy is harmful because they undermine investor confidence. This plethora of regulations evidences an undesirable adversary atmosphere in public/private sector relationships in New Jersey.

Al Mogerly - N.J. Independent Liquid Terminals Assoc.

Al Mogerly - N.J. Independent Liquid Terminals Assoc.

New Jersey State Chamber of Commerce

See General Response.

The "CAFRA rules" are not extended to developed areas; rather the Waterfront Development Permit rules are extended to limited upland areas in the developed waterfront as provided for in the Waterfront Development Act. Dredging policies have become more permissive since borrow pits may now be acceptable disposal sites. Wetlands rules have not changed, neither have groundwater use policies since the old policies also stated that other DEP rules, now more explicitly stated, should also be observed.

The CMP represents a consolidation of regulations to make permit decisions more consistent and predictable to the investor. DEP does not regard the private sector as an adversary, and does not wish to be viewed as an adversary by the private sector.

General Comment No. 2

The proposed rules under the Waterfront Development Law will add another layer of regulation in conflict with the State's home-rule traditions.

This comment was made by:

1. New Jersey Section, American Society of Civil Engineers
2. Township of Logan
3. Charles Susskind, Clerk, Borough of Edgewater
4. J. Deitz, The Penjerdel Council
5. A. Helwig, Pureland Industrial Complex
6. Mayor Ralph Gorga, Lavallette Borough
7. A. Mogerly, N.J. Independent Liquid Terminals Association

Response: It is true that the proposed rule under the Waterfront Development Law will expand the area which requires a waterfront development permit along a narrow water's edge in the northern waterfront and the Delaware River areas. However, we believe that on balance, implementation of the Coastal Management Program will result in less permit-related frustration for prospective developers. There are two reasons why the permit process will be simplified under the proposed program:

1) The Waterfront Development permit program is already in operation for tide flowed lands. Permit applications are made to the Bureau of Coastal Project Review, the same Bureau that administers CAFRA and Wetlands permits. Prior to July 1, 1979 developers had to apply to three separate offices for each of the three coastal permits.

2) The Waterfront Development permit criteria are the rules on Coastal Resource and Development Policies, the same as for CAFRA and Wetlands Permits. Therefore, if a project meets the criteria for one permit, it meets the criteria for all three. The result is that predictable, consistent permit decisions will be made under the Waterfront Development Permit program, as well as under CAFRA and the Wetlands Act.

With regard to the issue of expanded State jurisdiction versus home rule, municipalities are chartered by the State and given their authority under State law. Early in this century the Legislature chose to delegate extensive land use regulatory authority to the municipalities. In recent years the Legislature has determined that municipal land use decisions often have regional impacts. Therefore, legislation has been enacted to transfer the regulation of many resources of regional or State importance to regional bodies or to the State. In the case of the waterfront, the importance to the State's economy of this narrow interface of land and water was recognized by the Legislature in 1914 when it granted regulatory authority to a predecessor of DEP. More recently, the Legislature recognized the need for regional planning in the Hackensack Meadowlands and in 1969 created a regional agency to assume zoning authority. In 1970, the Legislature recognized a State interest in coastal wetlands and delegated DEP regulatory authority over them. In 1973, CAFRA was enacted because of a recognition of a statewide interest in the wise use of coastal resources. Finally, in 1979, the State delegated planning and regulatory authority to the Pinelands Commission because of a State and national interest in the preservation of part of the Pinelands, and the careful development of the remainder.

To the extent that development does not impact resources of regional, State or national concern, the Legislature has allowed land use regulation to remain at the municipal level. In the case of CAFRA, the Wetlands Act and the Waterfront Development Act, State authority supplements but does not supplant home-rule. The State may deny a permit to an activity which would destroy a resource of statewide importance, but it may not require development which local zoning prohibits with the rare exception of uses of regional benefit. The State and municipality, therefore, have mutual vetoes over activities affecting resources of statewide significance.

The ability to manage activities significantly affecting coastal waters of a state is required by NOAA before it will approve a state's coastal management program. In practice, NOAA requires that a state be able to manage all development within at least 100 feet of coastal waters in developed areas and a wider jurisdiction in undeveloped areas. New Jersey does not have to seek federal approval for its coastal management program. The state has elected to do so both to make itself eligible for federal coastal management funds, and more importantly because it recognizes a state interest in managing the coastal zone to ensure optimal use of its resources. To obtain federal approval and to complete its coastal management program, the State has elected to define its jurisdiction under the Waterfront Development Law.

The following comments are related to General Comment 2:

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
The City of Perth Amboy objects to the expansion of regulatory jurisdiction. Our present system of permitting plant locations is long and complicated enough, without making it more complex and time consuming. Delays involve amounts of money which can swing the decision balance in favor of other locations.	Mayor George Orlowski, Perth Amboy	See General Response.
We favor home rule and oppose the proposed CMP. It is unnecessary and autonomous.	Joseph R. Duffy - Historic Paulus Hook Association	See General Response.
Extension of State's regulatory powers as proposed in the N.J. CMP is not in the best interests of the State of New Jersey and thus should be reconsidered.	New Jersey Section, American Society of Civil Engineers	See General Response.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
The Proposed Management Program introduces yet another regulatory agency with powers that in many areas overlap existing agencies such as the Delaware River Basin Commission, CAFRA, and Wetlands.	M. Hudson, Atlantic City Development Corp.	CAFRA and Wetlands are not separate agencies but component laws of the Coastal Management Program. No new agency is being created -- all three coastal permit programs are consolidated in DEP's Division of Coastal Resources.
Remove those properties already zoned for commercial and industrial use from the scope of the proposed regulations.	M. Hudson, Atlantic City Development Corp.	The fact that a municipality has zoned a site for commercial or industrial use does not ensure that such development would be a wise use of a resource of statewide importance.
Perform coordination with local municipal zoning laws now rather than later.	A. Helwig, Pureland Industrial Complex	Extensive discussion and coordination have already been incorporated. For example, under the State-County Coastal Coordination Project, eleven county planning boards served as links between DEP and local planning officials in developing the CMP.
The proposed definition of the inland boundary is 100 feet from the wetlands limit or mean high tide. In Gibbstown on June 5, 1979 this was explained to us as "the depth of a residential lot". What about other uses? The distance seems arbitrary.	A. Helwig, Pureland Industrial Complex	The boundary is intended to include the first use adjacent to the water. A standard residential lot is 100' in depth, but some uses extend further inland, thus the 500' maximum. The upland jurisdiction is proposed along tidal water bodies only, not along wetlands.

General Comment No. 3

The proposed rules under the Waterfront Development Law amount to an illegal extension of DEP's authority. The Department should seek new legislation to operate a permit program in the developed coast.

This comment was made by:

1. A. Helwig, Pureland Industrial Complex
2. New Jersey Petroleum Council
3. L. Caccese, New Jersey Alliance for Action
4. GATX Terminals Corporation

5. Atlantic City Electric Company
6. The Port Authority of N.Y. and N.J.
7. Township of Logan
8. Gloucester County Planning Board
9. D. Fisher, N.J. Builders Association
10. Michael D. Miller, Representative of State Senator Zane

Response: The Department did not wish to seek new legislation until it had inventoried existing legislation to determine its authority. The Waterfront Development Law (N.J.S.A. 12:5-3), with its delegation of authority to DEP to regulate "any waterfront upon any navigable water or stream of this state or bounding thereon", appeared to give the Department adequate authority to regulate a narrow water's edge in the northern waterfront and Delaware River area. However, before basing a program upon this statute, the Department sought an opinion from the Attorney General. Formal Opinion No. 6 of 1980 (See Appendix D) affirmed the Department's jurisdiction under this law. Having received an opinion from the State's chief legal authority "that the Department may regulate the portion of uplands adjacent to the State's navigable waterways that constitutes the waterfront, but that the waterfront is a relatively narrow strip of land whose precise geographical limit should be defined by rule in accordance with the criteria set forth in this opinion" the Department felt on sound legal ground in defining its regulatory authority by rule. As discussed in Chapter 6, DEP may, at some future date, seek new legislation to consolidate existing permit programs, delegate regulatory responsibilities to local governments, and close loopholes in its existing authority. In June, 1980, legislation was introduced (A-1825) to give DEP authority to regulate development which would destroy the natural protection offered by dunes. Other gaps in DEP authority are its inability to control the cumulative impacts of developments of less than 24 units and its inability to protect the Palisades from poorly planned development. NOAA-OCZM, however, believes the State's existing authority is adequate to meet the requirements of the FCZMA.

The following comments are related to General Comment 3:

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
We recognize the 500 foot boundary (inland of high water) as being necessary to ensure proper regulation.	Michael Bryce, Department of the Public Advocate	Agreed.
Is interpreting the term "navigable water" within the Waterfront Development Law to include all tidally influenced streams within the legislative intent of the Law?	Gloucester County Planning Board	Yes. This is consistent with definition of navigable water adopted by federal agencies and upheld in State courts.
We approve extension of CAFRA boundaries to limits of tidewater along the Delaware and northern section of coast.	League of Women Voters of N.J.	Thank you for support. CAFRA is not being extended, but the authority cited in the comment is pursuant to the Waterfront Development Law.



Comments

The Penjerdel Council objects strongly to an agency of New Jersey Government and a department of the Federal Government proposing regulations without the oversight and need for approval of the General Assembly. Adoption of the Proposed New Jersey CMP should be prevented.

The 1914 Waterfront Development Law cannot justify the regulations and amendments in the DEIS.

DEP should withhold action on the proposed waterfront development regulations and CAFRA amendments while the present legislative inquiries are pending.

Is the Waterfront Development Law valid? The law must be tested before basing a management plan on it.

The Attorney General's opinion, based on a 1914 law using 1977 and 1968 editions of certain dictionaries to interpret the law, does not seem correct nor prudent. We contend the meaning of words in a language such as English change constantly on a yearly basis and certainly more so in half a century.

We object to the Attorney General's interpretation of the Waterfront Development Law. The "essential underlying purpose" of the law was not one of land use but rather was (in 1914) and still remains the promotion of commerce on the waterfront and the protection

Commentor

J. Deitz, The Penjerdel Council

A. Mogerly, N.J. Independent Liquid Terminals Assoc.

A. Mogerly, N.J. Independent Liquid Terminals Assoc.

Joseph R. Duffy, Historic Paulus Hook Assoc.

A. Helwig, Pureland Industrial Complex

G. Deutsch, N.J. Business and Industry Assoc.

Response

See General Response.

See General Response.

Hearings on Waterfront Development Rule concluded before promulgation. No legislative inquiries were held regarding amendment of coastal policies.

If a court test is to occur, it can only occur after a law or rule is implemented.

Note that opinion was also based on a 1914 report of the New Jersey Harbor Commission.

NOAA-OCZM sees no conflict between the purpose, the Coastal Resource and Development Policies, and the proposed geographic jurisdiction under the Waterfront Development Act.

Comments

Commentor

Response

of the State's navigable waters from structures and development which might hinder that commerce.

The Coastal Resource and Development Policies proposed for the northern waterfront are in direct conflict to the intent of the Waterfront Development Law, to safeguard, preserve, and improve ports, navigation, and commerce. The intent of the WDL cannot be stretched to include the land use reviews of the coastal program.

I disagree with the Deputy Attorney General's interpretation of the Waterfront Development Law. Only construction related to water should be regulated.

On what basis did DEP choose the distance of 500 feet, particularly considering that even the Attorney General's opinion did not specifically recommend such a distance, but rather discussed establishing an administrative rule "regulating at least the first 100 feet"?

Nowhere in Chapter 5 of Title 12 (12:5-1 et seq.) are there any standards which could be applied by the DEP in its determination as to whether a permit should be issued for the construction or alteration of any building or structure on the uplands of the coast.

J. Shiasias, Public Service Electric and Gas Co.

David Fisher, N.J. Builders Association

Gloucester County Planning Board

N.J. Petroleum Council

By reserving the waterfront for water dependent uses, the CMP will safeguard, preserve and improve ports, navigation and commerce.

If only construction related to the water were regulated, the waterfront could be fully developed with non-water related uses, contrary to the clear intent of the Waterfront Development Act.

The opinion also recommended "a reasonable maximum distance limitation" (footnote on p. 3 of opinion). The maximum of 500 foot was thought necessary to regulate the first land use inland from the water. For more developed areas, the boundary would be narrower due to the presence of a road or property line.

For that reason, the rules on Coastal Resource and Development Policies are proposed as standards.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
DEP has inappropriately chosen this proposal as the forum in which it introduces proposed Rules on Waterfront Development Permits prior to promulgation. Since this action is the subject of an EIS, any final action prior to release of the FEIS would appear to violate the provisions of the National Environmental Policy Act (NEPA).	GATX Terminals Corporation	The FEIS will be presented to EPA in August, 1980. The Waterfront Development Rules will be promulgated on September 26, 1980.
DEP should strongly consider legislative review and approval of the document. Why undertake such a task, which could be subject to extensive litigation, when approval of the legislature would eliminate such a problem?	A. Helwig, Pureland Industrial Complex	Two legislative hearings have been held on the Waterfront Development Rules and a formal Attorney General's opinion was received before promulgation.
The index on page iii, 4.B.3 includes the words "... to reinterpret the Waterfront Development Law ..." which connotes a change in the meaning of the law instituted by DEP. It appears the DEP arrived at a conclusion then looked for a law to support that conclusion.	Pureland Industrial Complex	That is not the case and the language has been changed.
In reality, NJDEP is proposing the defacto expansion of the CAFRA program outside of its statutory boundary.	J. Shissias, Public Service Electric & Gas Co.	Disagree. The program in the Developed Coast is based on the Waterfront Development Act, not on CAFRA. The Waterfront Development Act already relies on coastal policies in its application below mean high water.
The expansion of authority under the Waterfront Development Act seems to exceed the intent of the Legislature which establishes very specific CAFRA boundaries along New Jersey's coast.	Commissioner John J. Horn, New Jersey Department of Labor and Industry	See General Response and above response to J. Shissias.

General Comment No. 4

The Coastal Management Program in operation in the Bay and Ocean Shore Segment of the State is not suited for extension into the Developed Coast.

This comment was made by:

1. New Jersey Section, American Society of Civil Engineers
2. New Jersey State Chamber of Commerce
3. James A. Shissias, Public Service Electric and Gas Co.
4. New Jersey Petroleum Council
5. A. Mogerly, N.J. Independent Liquid Terminals Assoc.

Response: The proposed Rules on Coastal Resource and Development Policies will be the basis for permit decisions under all three coastal permit programs anywhere in the coastal zone. This will result in simplified, consistent and predictable permit administration, but it will not result in permit decisions which disregard regional differences. The Coastal Resource and Development Policies are a matrix of Location, Use and Resource Policies which will yield different permit decisions in different parts of the state. This will especially be the case following adoption of the changes proposed to the policies which are currently in effect in the Bay and Ocean Shore Segment of the State.

In the Limited Growth Regions of the Coast, which are almost entirely within the Bay and Ocean Shore Segment, there tend to be a large number of Special Areas and General Water Area types where development is prohibited or discouraged. In General Land Areas of Low Growth Regions, development tends to be discouraged unless it can be considered infill.

In the Extension Regions, there tend to be less Special Areas, and development in General Land Areas may be acceptable if it is an extension of existing development or infill.

In the Development Regions, which include almost all of the developed coast, there are few Special Areas or General Water areas where development is prohibited or discouraged. In General Land areas of Development Regions, development is normally acceptable provided Use and Resource Policies are met.

In the developed coast, oil refineries and tank farms are conditionally acceptable, for example, while in the Bay and Ocean Shore Segment they are discouraged or prohibited.

In the Hackensack Meadowlands District, the proposed policies adopt the HMDC Master Plan, which promotes a balance between orderly development and preservation of the region's delicate ecological balance, in accordance with the Legislature's 1968 mandate to HMDC.

Finally, in Special Urban Areas, the proposed policies are more concerned with development than with preservation, allowing mixed use developments on Filled Water's Edges and residential development on pilings, when the development promotes the revitalization of the area.

A single set of policies, administered under a uniform Coastal Management Program, will, therefore, result in a particular balance between preservation and development which is appropriate for each of the diverse regions of the State ranging from the Mullica River estuary or the pristine wetlands along Delaware Bay on the one extreme to the Jersey City, Newark and Camden waterfronts on the other. The policies describe every type of location or potential activity in the coastal zone. A potential developer will only need to be concerned with those policies that describe a particular intended site or project.

General Comment No. 5

The Coastal Management Program must be coordinated with the Pinelands Plan.

This comment was made by:

1. David Fisher, New Jersey Builders Association
2. Chris Theodos
3. Mining Industry Representatives

Response: Within the Coastal Zone, there is one area, roughly described as that portion of the Mullica River watershed west of the Garden State Parkway and east of Pleasant Mills, which is under the jurisdiction of the State Pinelands Protection Act as well as under the jurisdiction of the Coastal Management Program. The remainder of the Pinelands in the Coastal Zone are part of the Pinelands National Reserve, but are not under the regulatory jurisdiction of the State Pinelands Commission.

In the Mullica River watershed, major developments will require both the approval of the Pinelands Commission and a CAFRA permit. Smaller developments will require only Pinelands approval. Because few, if any, major developments are likely to be proposed in this area, and because the Coastal Management Program defines it as a Limited Growth Area and the draft Pineland Comprehensive Management Plan defines it as a Preservation Area, no conflicts between the Pinelands Plan and the Coastal Management Program are anticipated.

The draft Comprehensive Management Plan for the Pinelands also includes the portion of the National Reserve not under the jurisdiction of the Pinelands Commission. In this area, the Coastal Management Program will of necessity be the principal instrument for implementing the Plan, and the rules on Coastal Resource and Development Policies will remain the criteria for permit decisions. Meetings with the Pinelands Commission will be held to discuss potential amendments to the coastal policies and to the draft Pinelands Plan to bring about a greater degree of consistency. Under the FCZMA (Section 307) the Pinelands Plan must be certified as consistent with the State's Coastal Management Program before the federal action of plan approval may be taken. Similarly, the State Pinelands Act (Section 22) requires DEP to "review the environmental design for the coastal area" and make revisions necessary "to effectuate the purposes of this act and the Federal Act". DEP believes that the Coastal Management Program is consistent with the objectives of State and Federal Pinelands legislation, but that some specific elements of the draft Pinelands Plan are not yet fully consistent with the State's adopted Coastal Resource and Development Policies. These issues will be resolved before the Pinelands Plan takes effect, and any resulting changes to the Coastal Management Program will be formally proposed and publicly debated before being adopted.

The following comments are related to General Comment 5:

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
We are anxious that implementation of both the CMP and the Pinelands Management Plan be accomplished with great care and cooperation between the two agencies. It is imperative that the defined coastal area agency be as determined as the Pineland Commission in preserving the integrity of the natural resources in their boundaries.	Carol Barrett, Sierra Club, West Jersey Group	See General Response.
The Comprehensive Management Plan of the Pinelands Commission, once approved, should be the guiding rule for any coastal permit decisions in the Pine Barrens.	Carol Barrett, Sierra Club, West Jersey Group	See General Response.
DEP has announced land use proposals designating only 4.5% out of one million acres appropriate for High Growth, most of which is adjacent to the Great Egg Harbor River Region, along alternate 559. It is inappropriate for one branch of DEP to designate one side of Alternate 559 as High Growth while another DEP branch designated the other side so as to effectively prohibit any development.	M. Hudson, Atlantic City Development Corporation	Alternate Route 559 generally defines the northern limit of the Great Egg Harbor watershed and is an appropriate boundary between a regional growth district and a Limited Growth area. Such a Pinelands/CMP regional growth strategy is also consistent with the Atlantic County Master Plan.
It is hoped that CAFRA will eventually change the designation for parts of Egg Harbor Township to be in conformity, at least as to density, with Pinelands' designation of its adjacent jurisdictional land.	R. C. Westmoreland, Esquire	Disagree. Coastal and Pinelands policies taken together channel development on the upland north of the Great Egg Harbor watershed, while protecting the more sensitive, and less accessible area within the watershed.

General Comment No. 6

DEP should implement the Coastal Management Program in the Hackensack Meadowlands District as in the remainder of the coastal zone.

This comment was made by:

1. Catherine P. Grimm
2. Carol Barrett, Sierra Club, West Jersey Group
3. Natural Resources Defense Council
4. The League for Conservation Legislation
5. Vivian Li, Sierra Club, New Jersey Chapter

Response: Outside of the Hackensack Meadowlands District, coastal policies are not uniform from region to region. The acceptability of development in General Land Areas is dependent upon the regional Growth Rating as well as upon site specific factors. In accordance with the State's Urban Policy and the Coastal Program's policy of concentration of development, new residential, commercial and industrial development is generally encouraged to seek sites in the Northern Waterfront Area, the Delaware River Area, the North Shore and Central Shore and the Absecon-Somers Point area rather than in less developed parts of the coast. Development is also encouraged to locate in the Hackensack Meadowlands District because of its location near the core of the northeastern New Jersey metropolitan area.

The Hackensack Meadowlands District Master Plan has represented State policy for the District since its adoption in 1972. The Plan was developed in response to the three-fold mandate of the Hackensack Meadowlands Reclamation and Development Act of 1968 (N.J.S.A 13:17-1 et seq.), which directed the Hackensack Meadowlands Development Commission (HMDC) to:

- 1) provide jobs, homes and open space with need calculated at regional scale,
- 2) protect the delicate balance of nature and to protect air and water pollution, and
- 3) to provide for solid waste management in perpetuity for all New Jersey municipalities then dumping in the Meadowlands.

DEP finds the plan to be a sensitive solution to the need to balance orderly growth and resource protection. As changing conditions dictate, amendments can be made to the plan by a majority vote of the HMDC. In accordance with the wishes of the Legislature, DEP believes that the HMDC, a regional agency appointed by the Governor, should make land use decisions for the region, but DEP will, from time to time, make recommendations concerning amendments to the Master Plan. DEP also believes that the HMDC, with its interdisciplinary staff of planners, administrators and scientists, is best qualified to serve as lead management agency in implementing the Master Plan.

It is true that the HMDC Master Plan is not as protective of wetlands as coastal policies applied in the remainder of the state. Should the Master Plan be fully implemented, 3576 acres of wetlands out of 4772 presently existing acres will be preserved (these figures are based upon a new survey by HMDC since publication of the Proposed Coastal Management Program). The HMDC has sought to preserve the maximum wetland area possible, concentrating on the most productive

wetlands, with the goal of creating a viable estuarine-wetlands system, while also designating sufficient area for development to meet the Legislature's 1968 mandate. Under the State's 1981 Coastal Implementation Grant, DEP has proposed passing through \$100,000 to the HMDC for a number of projects and studies to improve the environment of the Meadowlands District. One of the studies would develop techniques to expand the wetland acreage to be protected, while still providing sufficient area for development. Other studies will develop plans for a series of waterfront parks, recommend flora suitable for the revegetation of closed landfills, and make recommendations for protection of viewsheds. DEP believes that by incorporating the HMDC Master Plan into the Coastal Management Program and working with HMDC to improve the management of coastal resources in the District, it can lead to more efficient State government by having one state regional voice for the Meadowlands rather than two and moreover that that voice, the HMDC's plans and policies, produce an environmentally sound program. Should the HMDC change their program, NOAA and DEP would consider that a change in the Coastal Management Program requiring full public review and comment.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
We see the possible positive effects of your inclusion of HMDC's Master Plan in the Coastal Management Program as: (1) renewing State support of a tested mechanism in regional land use controls that has become a model of reasonable environmental management; (2) providing a mechanism for federal agency concurrence in State permit decisions; and (3) avoiding the imposition of yet another layer of regulatory authority on development activity.	Hartz Mountain Industries, Inc.	See General Response.
Your expressed intention to incorporate the HMDC Master Plan and regulatory scheme into the CMP is well-founded in the results that the Commission has produced. As the U.S. EPA has pointed out, extensive development has taken place while the environment has improved; people have come to live and work where it was long thought only garbage should go.	Hartz Mountain Industries, Inc.	See General Response.



<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
Adoption of the HMDC Plan conflicts with State coastal policies on Filling and the Filled Water's Edge.	Natural Resources Defense Council	See General Response.
If the HMDC retains the management responsibility under the CMP, it should have wetlands regulations identical to DEP's.	Clare C. Dudley, Sierra Club, North Jersey Group	See General Response.
We understand the reason for excluding the Hackensack Meadowlands from other state laws affecting the coast, but hope that preservation of additional wetlands over and beyond that of the Master Plan can be achieved.	League of Women Voters of N.J.	DEP will be working with HMDC in 1981 to improve the Master Plan's ability to protect wetlands and other estuarine resources. In addition, all activity related to wetlands is subject to the provisions and permits of Section 404 of the Clean Water Act and the guidelines related to Section 404(b)1 on dredging and filling. See also general Comment Number 7.
HMDC Wetlands Order of 1972 does not afford the District's wetlands the same protection as the state's Wetlands Act of 1970. There should be a Memorandum of Agreement between HMDC, NJDEP, and federal agencies which would either place the Hackensack Meadowlands District under the Wetlands Act or provide conditions that strengthen the regulations protecting wetlands from non-water dependent fills.	American Littoral Society	Placing the HMDC under the Wetlands Act would require new State legislation. Strengthening HMDC regulations would require a rule change by HMDC. DEP and HMDC will continue to examine possible changes to HMDC Wetlands policy, although NOAA considers the present policy adequate for approval as part of New Jersey's CMP.

General Comment No. 7

Several commentors questioned the inclusion of the Hackensack Meadowlands Master Plan in the N.J. Coastal Management Program as being 1) inconsistent with Executive Order 11990 (Protection of wetlands); 2) inconsistent with 923.3(b)(ii) of the CZMA regulations; and 3) inconsistent with Section 307(f) of the CZMA by not reflecting the environment guidelines developed under Section 404(b)(1) of the Clean Water Act.

Comments made by:

1. U.S. Department of the Interior
2. Natural Resources Defense Council
3. National Marine Fisheries Service, NOAA

**Response:** The President's Executive Order on Wetlands (Executive Order 11990, May 24, 1977) requires in Section I(a) that:

"Each agency shall provide leadership and shall take action to minimize the destruction, loss, or degradation of wetlands ..."

Section 923.3(b)(ii) of the CZMA regulations call for:

"The management program must include policies that address uses of or impacts on wetlands ... The particular policies shall minimize the destruction, loss, or degradation of wetlands ..."

The Hackensack Meadowlands Master Plan was adopted in 1972 after extensive public review and comment. The Master Plan preserves over 3,576 acres of wetlands as open space (representing 75% of the remaining wetlands in the Meadowlands District), while the Commission has designated 1,196 acres (25%) of the remaining wetlands as areas that could be filled. The 1,196 acres of wetlands where filling now take place represent only 0.5% of the 256,000 estimated acres of regulated wetlands in the Statewide Coastal Zone.\* OCZM feels that in light of the location of the Meadowlands District (five miles from New York City) and the Commission's threefold mandate from the New Jersey Legislature to: 1) provide jobs, homes, and open spaces, 2) protect the delicate balance of nature and protect against air and water pollution and 3) provide for solid waste management in perpetuity, that the overall State Coastal Program, including the Hackensack Meadowlands Development Commission Master Plan, has met the spirit and intent of the President's Executive Order and the CZM regulations on wetlands by "minimizing the destruction, loss or degradation of wetlands".

Section 307(f) of the CZMA states that nothing in CZMA programs shall in any way affect any requirements of the Clean Water Act and Clean Air Act. In particular, the commentors noted that the Hackensack Meadowlands Plan could be inconsistent with Section 404(b)(1) guidelines issued for the Federal Water Pollution Control Act. It is OCZM's position that approval of the New Jersey Coastal Management Plan, including the Hackensack Meadowlands Plan, does not affect the application of the Water Pollution Control Act or the 404 (b)(1) guidelines, which apply to federal permits issued for dredging and fill activities.

Each Federal agency will need to evaluate proposed projects in the Hackensack Meadowlands District on a case by case basis. There may be cases where Federal agencies disagree with a wetlands permit decision by the Hackensack Meadowlands Commission. In this instance wetland modification will require proper analysis and documentation under Section 404(b)(1) of the Clean Water Act regardless of prior Commission actions. Each applicant for wetlands modification in the District will be required to meet and properly document through a public process the tests for

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\* Based on data from Wetland Biozones of the Hackensack Meadowlands, HMDC, July, 1980. This report updates wetlands data presented in the DEIS.

alternatives, need, water dependency, cumulative impact and public interest required by Section 404(b)(1) of the Clean Water Act. As a result, in each case the stronger standards, State or federal, will prevail. See the discussion on page 272.

It should be noted that the Hackensack Meadowlands designations for wetlands development do not preclude federal agency recommendations and decisions contrary to such development. The Hackensack Meadowlands Commission Master Plan does not meet the definition of a "Comprehensive Planning Process" or Special Area Management Plan under Section 404(b)(1) of the Clean Water Act.

The following comment is related to General Comment 7:

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
Federal approval of a coastal management program containing the current policies of the HMDC plan in regard to wetlands would be contrary to Section 307(f) of the Coastal Zone Management Act and Section 923.3 (b)(2)(ii) of the CZMA final Rules, which require state CZM programs to provide environmental protection consistent with those required by Section 404 of the Clean Water Act and Executive Order 11990 on Wetlands, respectively.	Natural Resource Defense Council	See General Response.

General Comment No. 8

The time frame for public comment on the proposed Coastal Management Program is too short.

This comment was made by:

1. New Jersey State Chamber of Commerce
2. Daniel W. Myers
3. Donald D. Tubbs, Mayor of Mantoloking
4. A. Helwig, Pureland Industrial Complex
5. James A. Shissias, Public Service Electric and Gas Co.

Response: NOAA-OCZM and DEP met and exceeded the legal requirements for allowing comment. The July 7, 1980 deadline for comments allowed a 45-day comment period plus a 15-day extension (in fact, NOAA-OCZM granted a two-week grace period, responding to comments received through July 18).

Publication of the Proposed Program in May was not the beginning of the public review process. Rather, it was the culmination of a six year public participation program which includes distribution of many draft publications including NJCMP-BOSS FEIS in August 1978, Options for New Jersey's Developed Coast (March, 1979) and literally hundred of public meetings all across the State.

We are gratified by the quantity and detail of the comments we received. It appears thoughtful review of the Proposed Coastal Management Program occurred. This review has led to significant improvements to a number of aspects of the final program.

The following comments are related to General Comment 8:

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
In the public's interest, DEP should extend the stated review period because of its coincidence with the release of the Draft Comprehensive Management Plan of the Pinelands Commission.	M. Hudson, Atlantic City Development Corp.	The coincidence of the review periods of the two programs is beneficial as it allows their consistency to be examined. However, extension of the review period for the CMP would result in delay of federal approval for a period of several months.
Scheduling all these N.J. DEP Management programs together (Pinelands, CZM, Shore Protection, etc.) all covering the same basic area automatically deprives people most concerned any chance of objecting and being heard. The proposals should be heard after the tourist and farming season when people most concerned can participate.	W. Elmer Seaman	See General Response. Furthermore, scheduling the comment period during the summer increased the opportunity for summer residents to comment.

IV. COMMENTS BY TOPIC

This section of the Comments and Responses Appendix first addresses comments on the Coastal Resource and Development Policies, and then addresses comments on the CDR/DEIS in the order in which that document was presented.

Comments	Commentor	Response
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I. COASTAL POLICIES  
POLICIES - GENERAL

- |   |                |  |
|---|----------------|--|
| 1. I endorse an update and strengthening of the Coastal Management Program.   | Rosal Schwartz | Thank you.   |
| 2. I am concerned with the establishment of rigid rules which do not take into account reality, new technology and techniques and the widely varying characteristics of the different areas along the Jersey coast from Sandy Hook to Cape May. | Daniel Myers   | The rules are not rigid but change as development patterns change. There are numerous examples where best available technology is called for. The rules vary by region to recognize differences in existing settlement. The rules will be revised every year to assess the need for changes. This IS represents the first review of the Bay and Ocean Shore Segment. |

- |   |                                       |  |
|---|---------------------------------------|--|
| 3. The preference for water related industries or development in the 500 foot area may make sense on a large scale. However, New Jersey cities which are fighting for their economic life require a rational mix of economic activities to minimize the impact of business cycles on the local economy. Cities must be free to pursue this objective. | Mayor George Orlowski,<br>Perth Amboy | Agreed. See the revised policies on Filled Water's Edges 7:72-3.17 and Special Urban Areas 7:72-3.38 (Perth Amboy is included). These policies give great flexibility for mixed waterfront uses which promote economic revitalization. |
|---|---------------------------------------|--|

Comments

POLICIES - GENERAL - Continued

4. If New Jersey's program will regulate only the first use directly adjacent to the water in urban areas according to its coastal policies, those policies must be capable of achieving coastal objectives in a comprehensive fashion. Objectives such as the reservation of sites for water-dependent activities, parks, and open space must not be sacrificed for the achievement of non-coastal objectives related to the urban area as a whole. We believe that coastal objectives are not adequately met by the policies.

Commentor  
Natural Resources  
Defense Council

Response  
Disagree. Some urban areas have more than enough waterfront for water dependent uses, and provided public access is included, other uses can be acceptable. The use of more permissive policies in Special Urban Areas to promote revitalization is important; otherwise the policies are careful to set aside the waterfront for conservation, recreation or water dependent development.

5. CAPRA assumes that growth (change) and environmental protection are mutually exclusive. It does not recognize, through specific assessment standards, the nature of different environments to successfully absorb change.

Commentor  
Roger Wells, Inc.

Response  
CAPRA, one of the three permit jurisdictions administered using NUCMP policies assumes no such thing. Throughout, development and protection needs are balanced and such development with appropriate mitigation is acceptable.

6. The state's many policies both encourage and discourage the development of barrier islands and the shore areas.

Commentor  
Myron Portener

Response  
The Program favors public recreation along with public access as uses of barrier islands, but it does allow infill development to occur in the Central Barrier Island Corridor.

7. Water-related uses should be the primary use of the waterfront.

Commentor  
Helen Thompson,  
Sara de Hudson,  
Beverly Environment

Response  
Agreed. Water-dependent uses are so designated in the policies.

8. Guidelines for the development and redevelopment of New Jersey's ports, harbors and rivers, if deemed necessary, should be based upon broader concerns than those in the CDR.

Commentor  
New Jersey State  
Chamber of Commerce

Response  
The concerns of this document are quite broad: resource protection, waterfront revitalization, maintenance of navigation, creation of jobs, and many more.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<b>POLICIES - GENERAL - Continued</b>					
9. The regulations in the proposed GAP are too restrictive and discourage economic growth.	L. Caccese, R.I. Alliance for Action	Disagree. Economic needs are balanced with environmental protection in the Coastal Policies.	14. The document's failing is a tendency to use ambiguous words and policies plus insufficient provision for public involvement when the permit process progresses.	Carol Barrett, Sierra Club, West Jersey Group	One of the objectives of the present, and future, policy revisions is to tighten the language and reduce ambiguity. Public hearings are held on all CAPRA permit decisions and are optional on Wetlands and Waterfront Development details.
10. The proposed program is deficient in covering urban waterfronts. The proposed policies are too broad and contain few specific standards. The proposed program need details for waterfront parks and open space.	Sally Aaranson	Disagree. The program policies are specific and can be used to critically review proposals.	15. The inability or unwillingness of the Department to reduce the deficiencies and Location Policies to graphic form for each area of the State severely limits the understanding of the implications of this management document by local elected officials.	Salem County Planning Board	Limited resources mean that time is needed for completion. Cape May County and parts of Ocean County have been mapped. Geographic information is now being digitized that will lead to coast-side policy mapping by computer, a much more accurate and flexible technique. The timetable for this work depends on funding availability.
11. The proposed program stereotypes the northern waterfront as developed. The uses encouraged by the program for this area could discourage people from living in the northern waterfront cities.	Pat Costagno, Positive Action Citizens Team	Disagree. The program explicitly states that the northern waterfront is not all developed (see Part III). The northern waterfront area is much more developed at the present time than other areas of New Jersey, but the prospect of public access to the waterfront and waterfront parks could encourage people to live in the northern waterfront region.	16. Was any consideration been given to a new type of entrepreneurial activity that is beginning to take place in other states and which may be extended to New Jersey, wherein old boats of rather large size are permanently moored and converted to seafood restaurants, boutiques, aquatic-related shops, casinos, etc.?	N.J. Marine Sciences Consortium	DEP's Bureau of Coastal Project Review has received various applications for conversion of boats to restaurants and has looked on this type of use-location combination favorably depending on the extent of site improvements necessary to make the venture fully operational.
12. Beneficial development should be encouraged and implemented in a comprehensive planned and orderly fashion.	New Jersey Section, American Society of Civil Engineers	NOAA-OCM believes the coastal policies do this through specifying conditions under which development is encouraged, conditionally acceptable, discouraged or prohibited.	17. Page 3, first paragraph - Don't "Use Policies" preempt local zoning?	A. Melwig, Pureland Industrial Complex	No. Use policies do not specify one use only for a particular location. Proposed uses must still meet local zoning requirements, unless they are designated uses of regional benefit as described in Chapter Five.
13. Sierra Club supports the proposed GAP because of the long-range benefits, for both industry and people, which will result from regulated development.	Carol Barrett, Sierra Club, West Jersey Group	No response necessary.			

<u>Comments</u>	<u>Commentator</u>	<u>Response</u>	<u>Comments</u>	<u>Commentator</u>	<u>Response</u>
<b>POLICIES - GENERAL - Continued</b>					
18. We would hope that a flexible posture will be maintained in applying, for example, nothing more restrictive than a "conditionally acceptable" location, use or resource policy where appropriate in the encouragement of port activity.	The Port Authority of N.J. and N.J.	Special Area policies will be applied as written to all areas. The permissive language that encourages port development will also be applied as written. The importance of port activity is clearly recognized.	27. Atlantic Electric agrees that, wherever feasible, the pattern of industrial development should be concentrated rather than dispersed, and that the active industrial facilities should be maintained by providing for necessary expansion in adjacent areas.		
19. The Township of Logan strenuously opposes the present form of the proposed CMP because it... ignores unique physical features of Logan Township and will cause Logan Township and its residents economic harm.	The Township of Logan	Location Policies will result in different acceptability conditions based upon local conditions. In Logan Township, where the coastal zone generally consists of a Filled Water's Edge along a large river, a variety of water dependent uses will be permitted.	23. The word "enhance" has been added to page 10 as one of the first coastal policies. We can find no legislative authority for including the word "enhance" in the coastal policies. It is stated that the word "enhance" is meant to apply only to the urban waterfront, but this is not clearly stated in the policy and should be so stated.	David Fisher, New Jersey Builders Association	Although the urban waterfront may be most in need of "enhancement", the policy is applicable wherever coastal resources have become degraded. The statutes authorizing the three coastal permit programs were enacted to preserve the resources of the coastal zone while allowing development requiring a coastal location. If the enforcement of these three laws results in enhancement of coastal resources, this would certainly not be inconsistent with the Legislature's intent.
20. The CMP needs to more specifically define Riparian rights. Will the filling of water-covered land be allowed?	Belen Thompson, Save the Hudson, Our Riverland Environment	Riparian rights are defined in the Management System chapter and in a separate CMP publication called Riparian Rights Handbook. The rules for use of water areas are specified in Figure 21. Filling is either prohibited or discouraged in all water bodies.	24. We support Basic Coastal Policies 1, 3, 5.	Marcy Richardson, Bayside Against Tanks	No response necessary.
21. The South Jersey environment must be protected. Critical areas should be identified and a No Growth policy should be stated for those areas.	Roger Wells, Eggers Walls, Inc.	Many Special Areas have such a policy, but the intention of New Jersey's coastal law is to control and direct growth, rather than to stop it.	25. The proposed policies need more emphasis on the population density of an area in order to determine what is possible, practical, and safe development.	Helen Thompson, Save the Hudson, Our Riverland Environment	The population density is indirectly addressed through Location and Resource Policies which determine carrying capacity of natural and human systems. Direct zoning of density would pre-empt the zoning power of municipalities.





Comments	Commentor	Response	Comments	Commentor	Response
34. - Continued of the resource "water dependent" and "water related" need to be spelled out specifically as to whether the primary need of the development fits these terms. Also, "encouraged" and "discouraged" can be misleading or lead to undesirable developments.	7:78-1.6 COASTAL DECISION-MAKING PROCESS - Continued	related" language has been deleted. We believe that the definitions for the remaining words, as found in Section 7:78-1.6, and in the glossary, provide a reasonable balance between precision and the need for some flexibility in response to unexpected conditions.	38. (c) Definitions - Does "navigable" apply to streams which are not navigable at low tide?	7:78-1.6 COASTAL DECISION-MAKING PROCESS - Continued	No. See revised definition.
35. (c) Definitions - The definition for "water related development" is too broad, and should be deleted. It would be difficult to think of any development which would not conform to such a definition. The existing Bay and Ocean Shore Segment policy which uses a criteria of water-dependent uses is appropriate.	36. The general phraseology of subsection (a) implies that policy application could be frivolous or imply a lack of consistency. See page 73, paragraph 7:78-1.1, stating the intent of the document to increase the predictability of limiting administrative discretion.	Agreed. "Water Related" has been deleted.	39. (c) Definitions - Authorization for DEP to permit otherwise "discouraged" activity on the basis of its being considered "in the public interest" is too broad. Concerns of public interest in need of special attention should be specifically listed and provided for in the program, not distinguished on a case-by-case basis by DEP. The last sentence of (c)(4) must be deleted or a detailed definition of "public interest" must be provided including criteria for the determination that a particular public interest outweighs the intent in enforcing existing program policies.	Natural Resource Defense Council	The public interest is defined by the Basic Coastal Policies. This qualification has proved necessary to allow review of certain unanticipated projects, but it is sufficiently limited to prevent destruction of coastal resources. Note that the revised definition also requires mitigating or compensating measures such that there is a net gain in the quality of the affected ecosystem.
36. The language does not imply frivolous application of policy, only that all sites will not contain all location types nor all applications propose all uses. Therefore, not all policies will apply to a particular proposal.	37. (c) Definitions - There is a statement that housing is not water dependent or related. There should be some recognition of the attractiveness of housing in terms of market economies on the waterfront.	The term "water-related" is not used in the amended policies. Housing remains defined as a non-water dependent use, but is now permitted near the waterfront in many cases.	40. (c) Definitions - Is it really legitimate to use the words "action", "project", and "proposal" interchangeably in common practice, they mean quite different things. A definition for the word "approval" might be inserted between paragraphs 7:78-1.6(c)(6) and (7).	N.J. Marine Science Consortium	The meaning of these words in the context of this document is clear although they may mean different things in common practice. See glossary.
37. (c) Definitions - The report has difficulty in establishing a clear distinction between "water dependent" and "water related". For instance, it appears that, in the	41. (c) Definitions - The report has difficulty in establishing a clear distinction between "water dependent" and "water related". For instance, it appears that, in the	The Port Authority of N.Y. and N.J.	41. (c) Definitions - The report has difficulty in establishing a clear distinction between "water dependent" and "water related". For instance, it appears that, in the	The Port Authority of N.Y. and N.J.	Agreed. Distinction has been eliminated. However, an automobile assembly plant would not be considered water dependent, although its shipping facilities could be.

Comments	Commentor	Response
<b>7:7E-1.6 COASTAL DECISION-MAKING PROCESS - Continued</b>		
41. - Continued automobile assembly plant example, the classification should be water dependent, not water related. The distinction should be strengthened or eliminated.		
42. (c) definitions - The proposed definition of water-related development means the former policies which allowed only water-dependent development.	Natural Resources Defense Council Littoral Society	Agreed. The "water related" category has been deleted.
43. (c) Definitions - It should be made clear that the definitions apply only to areas that are within the direct jurisdiction of the division by specific statute.	David Fisher, New Jersey Builders Association	This is made clear by Section 7:7E-1.3 of the Rules.
44. (f) Information Requirements - The requirements for information, while logical and necessary, are rather complicated. Is there such a thing as an ombudsman in this State to assist the small practitioner who wants to extend his pier or, even more to the point, an individual resident who happens to have a small duck in his back yard?	N.J. Marine Sciences Consortium	A Coastal Developers' Handbook is to be developed under New Jersey's 1981 CDP Grant. In the interim, DEP's Bureau of Coastal Project Review and Bureau of Coastal Enforcement and Field Services (based in Toms River) will assist the applicant by explaining information requirements.
<b>7:7E-2.1 INTRODUCTION</b>		
45. What is a "built environment"?	N.J. Marine Sciences Consortium	The structures and paving built by people, as opposed to areas undeveloped by man.
<b>7:7E-2.2 CLASSIFICATION OF LAND AND WATER TYPES</b>		
46. The new language is certainly a great improvement over its predecessor, which was quite ambiguous. Who designates a "special area"?	N.J. Marine Sciences Consortium	Thank you. Special areas are designated by NJDEP with the mandate of the N.J. State Legislature in CAPRA, the Wetlands Act and the Waterfront Development Law, and with the approval of the National Oceanic and Atmospheric Administration and the advice of the public.
47. We encourage the mapping and inventory of Special Areas. The developed coast wetlands should be delineated by DEP.	Audrey Zapp, Hudson County Citizens for Clean Air	These are tasks that will be considered for inclusion in future N.J. coastal grant applications.
<b>7:7E-2.3 MAPPING AND ACCEPTABILITY DETERMINATION</b>		
48. Has New Jersey already been so mapped, e.g. according to "zones"?	N.J. Marine Sciences Consortium	"Zone" is an inappropriate word for CLAM analysis which does not "zone" in the sense of allocating one use for a location. Cape May County and parts of Ocean County have been mapped.
49. "CLAM Location Policy Analysis." What is the time table for accomplishment of all these steps?	N.J. Marine Sciences Consortium	This mapping is done by applicants as the timeable is whenever application is made. DEP has made regional maps of Cape May and parts of Ocean County for planning and proposes to map the whole coastal area by computer when funding is available.
50. The CLAM analysis procedure does not clearly incorporate Subchapter 6 - General Location policies. Explicit provision should be made for utilizing these policies during the CLAM analysis.	Natural Resources Defense Council	Incorrect. Steps 1-6 of CLAM address the location policies.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Commentor</u>	<u>Response</u>
<u>7:7E-3.1 INTRODUCTION</u>				
55. Don't these regulations, for practical purposes, just about terminate all marine development in New Jersey?	N.J. Marine Science Consortium	No. Water dependent uses, such as marinas, may override many prohibitions and discouragements of development in the water's edge. DEP has proposed a study on marinas sitting for the coming year.		
<u>7:7E-3.2 SHELLFISH BEDS</u>				
56. (b) (4) - Why delete the phrase, "Coastal development which would directly discharge untreated domestic sewage, or industrial wastes, toxic or carcinogenic agents ..."	N.J. Marine Science Consortium	All point source discharges are regulated by EPA and DEP - Division of Water Resources through the National Permit Discharge Elimination System program. These discharges would be prohibited through regulations under the Clean Water Act, and therefore would be redundant if stated here.		
57. The definition of shellfish beds should be revised to include both beds that are presently productive or that have a prior history of natural recruitment.	Natural Resources Defense Council	This is incorporated into the definition of policy 7:7E-3.2. "A productive bed is one which can be shown to have a history of natural recruitment ..."		
58. The basic shellfish policies are sound although the proposal does not specifically address the permits or controls necessary to remove shellfish from condemned areas when dredging is conducted (7:7E-3.2). The proposal should identify the permits required by the Division of Water Resources, Bureau of Shellfish Control, and the Division of Fish, Game and Shellfisheries.	Commissioner Finley, Department of Health	The New Jersey Administrative Code would become unavertly if related rules. Removal of shellfish from contaminated areas is covered by N.J.A.C. 7:12-1 et seq. and 7:25-15.1.		
59. The Caven Point area is discussed on page 320 of this EGIS. Because only a portion of the site is within the coastal zone, Caven Point cannot be cited as a Geographic Area of Particular Concern in the Coastal Program. However, the DEP will continue to explore possible methods for preservation of at least a portion of this site. The Green Acres Administration is now considering purchasing part of Caven Point.	Catherine Grumm, Helen Thompson, Audrey Zapp	Agreed. They are included as either bluffs (7:7E-3.26) or as dunes (7:7E-3.21) formerly 7:7E-3.19).		
60. Bluffs directly landward of the beach should be included as a special area.	Audrey Zapp, Hudson County Citizens for Clean Air	Thank you. This change is in part, the result of previous comments by the Cape May Planning Board and staff.		
61. It is proposed that the water's edge be divided into eleven special water's edge areas. This proposed change appears to be advantageous.	Cape May County Planning Board	The policies as modified to address the special conditions of the Northern and Delaware Waterfronts and provide adequate guidance for program administration.		
62. There are proposed changes in the location policies which recognize that a good portion of the Northern Waterfront Area is largely industrialized and economically depressed. These changes are limited in scope, however, and do not provide guidance as to how the program should be administered.	N.J. Petroleum Council			

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Response</u>
<u>7:7E-3.2 SHELLFISH BEDS - Continued</u>			
59. We wonder about the wisdom of the "presciently productive" definition. You are not excluding the possibility of eventually removing water quality in the Meadowlands. This goal should be applied to Maritan Bay.	League of Women Voters of N.J.	Potentially productive Shellfish Beds, such as those in Maritan Bay, are protected by the Shellfish Bed Resource Policy.	
60. We note it is required that there be no resuspension of toxic materials. Is there a technique to control that? If so, refer to specific methods or sources of information.	League of Women Voters of N.J.	Silt curtains in low water velocity waters have been shown to reduce turbidity as much as 80 to 90% in subaqueous disposal of spoils. This type of information will be included in a Developer's Handbook to be prepared in 1981.	
<u>7:7E-3.3 SUPER CLAM AREAS</u>			
61. Could not this policy result in termination of new bathing beaches and oceanographic research which would need docks?	N.J. Marine Science Consortium	No. Beach nourishment to create new bathing beaches would not conflict with this policy. Would oceanographic research really choose docking facilities on an unprotected beach? Surely a sheltered harbor in the backyard adjacent to the intracoastal waterway would be more appropriate and, generally, acceptable to coastal policies.	
<u>7:7E-3.4 PRIME FISHING AREAS</u>			
62. The Consortium is particularly grateful for your reference to Lionel Walford's <u>Angler's Guide</u> .	N.J. Marine Science Consortium	Thank you. It is a very professional data source for this determination. The co-author Bruce L. Freeman is now Administrator for the N.J. Bureau of Marine Fisheries.	
<u>7:7E-3.5 FRESHWATER MIGRATORY PATHWAYS</u>			
63. Doesn't the change of "discourage" to "prohibited" constitute an over-usage of the word "prohibited" and will it not stall useful development? Suppose, someone struck oil on the property encompassed in this paragraph?	N.J. Marine Science Consortium	The exact wording is "prohibited unless acceptable mitigating measures are taken". The chance of striking, and only being able to pump oil in the fish-migrating pathway itself is rather low. If this occurred oil revenues should be sufficient to build a fish ladder or other mitigation.	
<u>7:7E-3.6 SUBMERGED VEGETATION</u>			
64. (b) - Who determines what is a "feasible alternative site"?	N.J. Marine Science Consortium	NJDEP and NJDOE after analysis of corridor alternatives.	
<u>7:7E-3.7 NAVIGATION CHANNELS</u>			
65. "Definition" - On the second line add "by the Army Corps of Engineers" after "maintained". On the eleventh line change "dock" to "moor", and add "awaiting high tide, better weather, fuel and terminal availability" after "transferring cargo".	The Port Authority N.Y. and N.J.	Agreed. See revised policy 7:7E-3.7. Navigation channels maintained by DEP have also been included.	
66. The policy on maintenance dredging of existing navigation channels should remain encouraged.	Cape May County Planning Board	"Conditionally acceptable" is more appropriate due to conditions under the maintenance dredging policy (see Section 7:7E-4.1D).	
67. (b) Policy - Add "and new dredging" after "maintenance dredging" on first line.	The Port Authority of N.Y. and N.J.	Agreed. See revised policy which incorporates this comment.	

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<u>7:7E-3.11 PORTS</u>		
73. State that "port facilities are to be found in municipalities along the Hudson, Passaic, Hackensack and Raritan Rivers, and Arthur Kill van Kull, Newark Bay ..."	The Port Authority of N.Y. and N.J.	Disagree. There are not "concentrations of shoreside marine terminals" along all these waterbodies. Scattered port facilities are not considered ports.
74. Add the following at the end of the ports definition: "Underutilized areas where the potential for modern port operations has been deemed unfeasible are not included in this definition".	The Port Authority of N.Y. and N.J.	Disagree. This unnecessarily complicates the definition.
75. Rationale - On the seventh line, (a) change "preventing" to "discouraging" and (b) insert "unjustified" before "aprasl".	The Port Authority of N.Y. and N.J.	(a) Agreed. (b) Disagree. "Aprasl" connotes hazardous growth. Controlled extension of development is not aprasl.
<u>7:7E-3.13 SHIPWRECKS AND ARTIFICIAL REEFS</u>		
76. What is "weighted" non-toxic material?	N.J. Marine Science Consortium	An example of weighted ("weighted" was a typo) non-toxic material would be used automobile tires fastened together and blasted with concrete, such as those previously employed by NM's - Sandy Hook Laboratory in construction of artificial reefs off Monmouth Beach and Sea Cliff.
77. Do you really expect commercial salvage of wrecks to destroy ecological or physical stability?	N.J. Marine Science Consortium	Yes, removal of hard substrates will proportionately reduce suitable attachment habitat and shelter habitat which is naturally rare in New Jersey's coastal sea and offshore. Shipwrecks are prime sport fishing areas. Loss of wreck material would reduce that site habitat value for a host of organisms.
<u>7:7E-3.11 PORTS</u>		
68. (b)(1) - Do you expect this paragraph to cause any collisions with the shellfishing industry?	N.J. Marine Science Consortium	Shellfish harvesting could satisfy these policies. The limited area of working canals is not suitable for aquaculture.
<u>7:7E-3.9 INLETS</u>		
69. (b) Policy - Does the document anywhere define "infrastructure"?	N.J. Marine Science Consortium	"Infrastructure" is now defined in the Glossary of this document.
70. This policy should allow for submerged infrastructure in inlets if no feasible alternative is available.	Cape May County Planning Board	Agreed. The policy does allow for this possibility by discouraging rather than prohibiting infrastructure in inlets.
<u>7:7E-3.11 PORTS</u>		
71. Boat ramps should be "discouraged", not "prohibited", and then only in port facilities, not in ports themselves.	The Port Authority of N.Y. and N.J.	Agree in part. Ports are usually not appropriate locations for the launching of small recreational craft, but the policy has been changed to "discouraged" to allow for the possibility that there might be suitable launching areas in some ports. Boat ramps are discouraged throughout Port Areas because they could interfere with commercial shipping.
72. (b) Policy - Why should boat ramps be included? Isn't this overly prohibited?	N.J. Marine Science Consortium	Same answer as above.

<u>Comments</u>	<u>Comments/Response</u>	<u>Response</u>
<p>7:7E-3.16 ESTUARINE OR MARINE SANCTUARY</p> <p>78. Definition -- Delets "Hudson Canyon" from the NOAA Recommendations. This is based on a February 21, 1980 letter from Mr. John Weingart to Mr. Alfred Hammon of the Port Authority that states that "the State of New Jersey has not nominated the Hudson Canyon or any area for designation as a marine sanctuary".</p>	<p>The Hudson Canyon was among DEP's six nominations in 1977, but note the additional language stating that New Jersey is not currently pursuing the nomination of a marine sanctuary.</p>	<p>This change has not been made due to the wider use of the term "Borrow pit".</p>
<p>7:7E-3.15 WET BORROW PITS</p> <p>84. What is meant by the "original lake area" in policy 3(ii)?</p>	<p>Mining Industry Representatives</p>	<p>See Revised Policy which clarifies that this is the area before approved mining activity began.</p>
<p>85. We wonder if permitting fill in wet borrow pits is wise even if it is placed in "fingers" that would create additional shoreline. Cutting down on the size of lakes and adding shoreline vegetation might speed the eutrophication process.</p>	<p>League of Women Voters of N.J.</p>	<p>Limited clean fill seems a reasonable compromise in these artificial water bodies. Wildlife, scenic and recreational benefits are preserved or enhanced and some urgently needed provision is made for dredge disposal. The required water buffer, (see 7:7E-3.25) is that recommended by JACK McCormick and Associates for preventing eutrophication in wet borrow pits.</p>
<p>86. The policy states that mining is conditionally acceptable in Wet Borrow pits. It is acceptable in other areas if consistent with the Use Policy on Mining.</p>	<p>M.J. Marine Science Consortium</p>	<p>Disagree. There is no reason to require an arbitrary 100-foot setback on a Filled Water's Edge, which by definition is already disturbed. However, a sufficient setback for public access must be allowed.</p>
<p>87. Language should be added to clarify the fact that while mining is in progress in one of these areas, the other special policies do not apply.</p>	<p>Mining Industry Representatives</p>	<p>Disagree. There is no reason to require an arbitrary 100-foot setback on a Filled Water's Edge, which by definition is already disturbed. However, a sufficient setback for public access must be allowed.</p>
<p>7:7E-3.17 FILLED WATERS EDGE</p> <p>86. Policy fails to distinguish priorities among, or standards applicable to, water dependent and non-water dependent activities. This policy functionally exempts all activities other than housing development from the 100' set</p>	<p>Natural Resources Defense Council</p>	<p>Disagree. There is no reason to require an arbitrary 100-foot setback on a Filled Water's Edge, which by definition is already disturbed. However, a sufficient setback for public access must be allowed.</p>

Comments	Commentor	Response	Commentor	Response
<p>7:7E-3.17 FILLED WATER'S EDGE - Continued</p> <p>36. - Continued back. This is unacceptable. Coastal policies must give clear priority to water dependent facilities, parks and open space. A setback requirement of at least 100' should be applied to all non-water dependent activities without exception, especially in the bay and ocean shore area.</p> <p>37. Proposed policy changes for Filled Water's Edge will weaken the criteria for regulating development in this zone. The policy regulating development in the Filled Water's Edge within 100 feet of a navigable water body should be extended to the entire defined boundary. We recommend that the criteria for Filled Water's Edge remain as written in the Bay and Ocean Shore Segment document of August 1978 and not contain the changes proposed in the May 1980 document.</p> <p>38. We would like to see a 50 foot buffer instead of 100 feet, which appears to have no basis or a 50 to 100 foot requirement depending upon the circumstances of each case.</p> <p>39. There also seems to be an inconsistency between the Water's Edge Policy, the Water's Edge Rationale, and the House Use Policy.</p>	<p>American Lithoral Society</p>	<p>Disagree. The filled water's edge is by definition less environmentally sensitive and therefore coastal policies should be more permissive toward development.</p>		
<p>7:7E-3.18 EXISTING LAGOON EDGE</p> <p>90. Glad to see the new policies for managing the lagoon edge. Reclamation is the desirable choice, but stabilization of slopes with vegetation is a step toward reclamation of as much filled land as feasible.</p> <p>91. It is assumed that "ports" are not intended for inclusion in the term "commercial" on the fourth line of the definition.</p> <p>92. This definition is ambiguous as to what the limit of fill is. The policy on reclamation of existing lagoon edges is also unclear. Reclamation of the site to its natural state would be based on economic feasibility.</p>	<p>League of Women Voters of N.J.</p> <p>The Port Authority of N.Y. and N.J.</p> <p>Cape May County Planning Board</p>	<p>This assumption is correct.</p> <p>The definition is unambiguous provided the fill distribution is known. Economic feasibility is implicit, leaving room to judge on a case by case basis.</p>		<p>Thank you for support.</p>
<p>7:7E-3.19 BEACH AND DUNE SYSTEMS (Now Policy 7:7E-3.21)</p> <p>93. We strongly support restrictions on new building in high risk erosion areas and on the repair of structures heavily damaged by storms.</p> <p>94. This section needs to be upgraded to meet the intent of the proposed dune and shoreline protection bill. Under the proposed plan, activities adversely affecting the dune system would merely be discouraged, rather than prohibited as under the Bay and Ocean Shore Segment.</p>	<p>League of Women Voters of N.J.</p> <p>League for Conservation Legislation</p>	<p>Comment accepted.</p> <p>The rules and regulations for the Proposed Dune and Shorefront Protection will be written if the Act is passed and they then will be incorporated into this document.</p>		
<p>7:7E-7.2(b)(1)ii</p> <p>See revised policies. Housing is acceptable in the Filled Water's Edge, provided it meets the three conditions of Housing Use Policy 7:7E-7.2(b)(1)ii.</p>	<p>David Fisher, N.J. Builders Association</p>	<p>Agree. See revised policy.</p>		

Comments	Commentor	Response	Comments	Commentor	Response
7:7E-3.19 BEACH AND DUNE SYSTEMS (New Policy 7:7E-3.21) - Continued			7:7E-3.19 BEACH AND DUNE SYSTEMS (New Policy 7:7E-3.21) - Continued		
95. The use of "discouraged" for beach and dune systems represents a substantial downgrade from the EDS program which prohibited activities adversely affecting the beach and dune system. Considering the limited jurisdiction of CAFRA, any permit issued which allows development in beach and dune systems will have substantial adverse impacts on the functioning of such systems and will conflict with the management objectives as stated in the program. The controlling term must remain "prohibited" rather than "discouraged".	Natural Resources Defense Council	Disagree. The policy, which applies to the whole system, provides the flexibility to allow a facility such as a pipeline crossing. The intention, made clear by the rationale is clearly not to allow adverse development. The suggested term "prohibit" would not allow the state to approve even a pipeline crossing. Moreover, developments built after CAFRA permit approval often incorporate conditions increasing the environmental sensitivity of the design.	98. Based on findings of the Army Corps of Engineers Dredged Material Research Program that turbidity is short lived, add "been especially sensitive environmental resources are impacted" after "turbidity is controlled".	The Port Authority of N.Y. and N.J.	The turbidity clause has been deleted in response to this comment because turbidity is not a concern when it is silt that is being dredged.
96. Any activity which adversely affects the natural functioning of the dune system should be prohibited. Shore protection structures and retaining structures should not be conditionally approved. Development in high risk beach accretion areas should be prohibited.	Vivian Li, Sierra Club, New Jersey Chapter	See above responses to League for Conservation Legislation and Natural Resources Defense Council.	99. The phrase "and inlet areas" should be added to the definition of high risk beach erosion areas following the words "ocean shorelines".	Cape May County Planning Board	Agreed. See new wording.
97. We strongly favor protection of our few remaining natural beach and dune areas, including undeveloped sections of barrier islands and spits. However, in view of past failures, we wonder about the new construction of groins mentioned in page 31.	League of Women Voters of N.J.	The groin construction you mention are reasonable efforts to protect the shoreline on a case by case basis. The Shore Protection Master Plan currently being prepared will deal with the benefit and harm of all techniques and will recommend coordinated State Protection.	100. The Beach and Dune Systems policy is generally consistent with previous positions of the Planning Board and Environmental Council. The Planning Board recommended the designation of a coastal based buffer area to be determined through the use of historical flood data and the substitution of disaster relocation assistance for Federal Flood Insurance.	Monmouth County Environmental Council	No response received.
			101. This proposed change converts into a single special area the policies on "Beaches", "High Risk Beach Erosion Areas", "Accretion Areas", "Overwash Areas" and "Dunes". This combination results in the formulation of one coherent policy on "Beach and Dune Systems".	Cape May County Planning Board	Thank you.



<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<p>102. Glad to see bogs and white cedar forests included under policies that apply to coastal wetlands.</p> <p>103. Would it not be possible to make a written agreement with the State Hospital Control Commission similar to the one between DEP and DWS, and, if so, would developed policies be able to influence county commissioners?</p> <p>104. While the proposal to regulate up to 500 feet from tidal waters under the Wetland Development Law may include portions of the 3,500 acres of tidal wetlands in Hiddlesex County, this new proposal is not a viable substitute for comprehensive wetlands protection nor does it meet the obligation of the State to provide wetland protection.</p> <p>105. Wetlands have been grouped together into one definition and all wetlands have been designated unusable for anything. This is too general; the facts do not support such a sweeping confiscatory position.</p>	<p>League of Women Voters of N.J.</p> <p>League of Women Voters of N.J.</p> <p>Middlesex County Planning Board</p>	<p>Thank you.</p> <p>DEP intends to pursue a Memorandum of Understanding with the State Hospital Control Commission regarding the mitigation of impacts in wetlands.</p>	<p>7:7E-3.20 WETLANDS (New Policy 7:7E-3.23)</p> <p>106. The policies on "Bogs and Freshwater Wetlands", "White Cedar Swamps", and "Coastal Wetlands" are proposed to be combined into a single special area policy for "Wetlands". This change is an improvement since these special areas are interrelated.</p> <p>107. For NJDEP to efficiently regulate coastal wetlands, all official wetland maps must be issued. The complete set of wetland maps must include the areas now regulated under the jurisdiction of the proposed N.J. Coastal Management Plan.</p>	<p>Cape May County Planning Board</p> <p>American Littoral Society</p>	<p>No response necessary.</p> <p>Federal regulations CFR 923.31 (a)8 do not require parcel by parcel mapping of wetlands prior to federal approval, but only require a determination that they are subject to the CMP. Wetland mapping will be conducted during 1981 for the area subject to the Wetlands Act. This does not include the northern waterfront areas of Hackensack Meadowlands which are not subject to the Wetlands Act.</p>
<p>108. Policies concerning floodplain areas have been strengthened considerably. The Planning Board has long discouraged development in flood hazard areas and was pleased that the new Flood Hazard Areas Control Act provides the statutory foundation for better floodplain management.</p>	<p>Monmouth County Environmental Council</p>	<p>No response necessary.</p>	<p>7:7E-3.21 FLOODPLAIN (New Policy 7:7E-3.19, titled Natural Water's Edge-Floodplains)</p>	<p>Monmouth County Environmental Council</p>	<p>No response necessary.</p>

Comments	Commentor	Response
<p>7:7E-3-21 FLOODPLAINS (Now Policy 7:7E-3.19, titled Natural Water's Edge-Floodplains) - Continued</p> <p>109. In the prohibition of non-water dependent development within 100' of the water's edge in floodplains too strong? Certain development, such as roads, driveways or recreational areas, might be acceptable if properly undertaken.</p>	<p>Pureland Industrial Complex</p>	<p>Linear development may override this prohibition in some cases (see 7:7E-0.1).</p>
<p>110. The policy on floodplains appears to be more restrictive than the floodplain regulations issued by the Division of Water Resources. Since the Division of Water Resources has primary jurisdiction of this area, it is inconceivable that CAPRA could enact regulations more restrictive than Water Resource's regulations.</p>	<p>D. Fisher, N.J. Wilders Association</p>	<p>The Divisions of Coastal Resources and Water Resources are in agreement that the floodplains of tidal rivers and streams merit more careful management than inland floodplains because of the special relationship that these areas have with estuarine habitats and breeding areas. DWR regulations have public safety rather than environmental protection as their primary objective, thus the difference.</p>
<p>7:7E-3-22 CENTRAL BARRIER ISLAND CORRIDORS</p> <p>111. - Continued</p> <p>and destruction of beaches and dunes. This cycle must not be permitted to continue under a program which purports to preserve beaches and dunes.</p>	<p>Natural Resources Defense Council</p>	<p>The policies invoke the same standards for development on barrier islands as are applied to developments in urban areas on the mainland. Policies for central barrier island corridors should prohibit new construction in any area which is not adequately protected from reasonably foreseeable future coastal hazards during its useful lifetime. The term "adequately protected" should mean that the construction is protected by previously existing and effective shore protection structures or is located such that it will not be threatened by natural processes.</p>
<p>112. The policies invoke the same standards for development on barrier islands as are applied to developments in urban areas on the mainland. Policies for central barrier island corridors should prohibit new construction in any area which is not adequately protected from reasonably foreseeable future coastal hazards during its useful lifetime. The term "adequately protected" should mean that the construction is protected by previously existing and effective shore protection structures or is located such that it will not be threatened by natural processes.</p>	<p>David Fisher, N.J. Wilders Association</p>	<p>The brackets, as explained on page 87 last paragraph indicated that the enclosed text has been deleted. The barrier island corridors are shown in Figure 14 of the DBIS and FEIS.</p>
<p>113. It does not appear that figure 6 referred to on page 113 shows the central barrier island corridors.</p>	<p>David Fisher, N.J. Wilders Association</p>	<p>The Water Quality Buffer is an area around War Burrow Pits where development is restricted to maintain surface water quality. Around natural water bodies various water's edge special areas, notably floodplains, perform the same function.</p>
<p>7:7E-3-24 WET BORROW PITS MANGIN (Now Policy 7:7E-3.25)</p> <p>114. What is meant by the Water Quality Buffer? This area, referred to with capital letters, does not appear elsewhere in the document.</p>	<p>Mining Industry Representatives</p>	<p>The Water Quality Buffer is an area around War Burrow Pits where development is restricted to maintain surface water quality. Around natural water bodies various water's edge special areas, notably floodplains, perform the same function.</p>
<p>7:7E-3-22 CENTRAL BARRIER ISLAND CORRIDORS</p> <p>111. When the policy on barrier island corridors is read in conjunction with policies 7:7E-3.19(b) on beach and dune systems and 7:7E-7.11(c) on shore protection structures, a peculiar circular logic emerges: shore protection structures are conditionally acceptable on beaches and dunes when they are built for the protection of existing buildings, while new structures can be built in the barrier island corridor without attention to potential hazards which may well result in further construction of protection devices</p>	<p>Natural Resources Defense Council</p>	<p>This cycle is the result of the need to protect existing developments, many of which are inappropriately located. The proposed Dune and Shorefront Protection Act is one attempt by DWR to break this cycle. In the interim, the Central Barrier Island Corridor Policy prevents the hazardous extension of development on barrier islands by limiting development to areas that meet the high development potential criteria, which include roads, sewage and inflow requirements. Beaches and dunes are more rigorously</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<p>115. The 100' and 50' buffer zones are arbitrary and unsupported by good land use policies and should therefore be removed.</p> <p>116. This language is particularly restrictive in the area of future land use in a mined out area after reclamation has been completed. A paragraph should be added which would permit variances in order that land planned for future utilization may be used for its intended purpose.</p>	<p>Mining Industry Representatives</p>	<p>These distances are not arbitrary, they are the results of studies done by Jack McCormick and Associates for the Warner Company to establish minimum setbacks to prevent autophyllation in borrow pits.</p> <p>Disagree. The language restricts only a narrow strip around the water body. Water quality, scenic amenity and wildlife habitat quality cannot be assured without this water quality buffer.</p>	<p>7:7E-3-24 <u>MTI BORROW PITS MARCOW (New Policy 7:7E-3-25) - Continued</u></p> <p>7:7E-3-27 <u>INTERMITTENT STREAM CORRIDORS</u></p> <p>119. Is it correct to assume that mining is acceptable in intermittent stream corridors since it is not mentioned?</p> <p>120. The need for the prohibition on use of intermittent stream corridors for "run-off exchange" is not clearly demonstrated. Where practical, it is often desirable to encourage use of swales and similar areas for recharge and stormwater runoff detention purposes.</p>	<p>Middlesex County Planning Board</p>	<p>No. Mining would not be acceptable if it would "directly degrade the function of" the corridors.</p> <p>Intermittent or ephemeral stream corridors, swales or any other landscape depressions which sometimes are channels for flowing surface water, are unsuitable sites for runoff detention because ground-water infiltration cannot take place in saturated substrates.</p>
<p>117. Development should be allowed in alluvial flood margins if proper mitigating techniques are utilized. It is arbitrary to merely discourage development without allowing proper mitigating techniques.</p>	<p>David Fisher, N.J. Builders Association</p>	<p>It is not arbitrary since no mitigation is available which preserves the primary productivity, water filtration and wildlife habitat functions of these areas if they are developed.</p>	<p>7:7E-3-25 <u>ALLUVIAL FLOOD MARGINS</u></p>	<p>David Fisher, N.J. Builders Association</p>	<p>Section 11 of CAPRA allows not to deny a permit if "resource exhaustion" is threatened. The resource is the soil. Soil formation takes thousands of years. The voracious situation and farming economy will change dramatically in the next quarter century and the value to society of this irreplaceable resource, lost entirely if developed, will rise steadily.</p>
<p>118. It would help if in the definition of the "crest" of a bluff, the "crest" and "buffer" were each spelled out in terms of feet as in the diagram on page 118. There seems to be no distinction between the "crest" and the "tableland".</p>	<p>League of Women Voters of N.J.</p>	<p>The crest and top of the slope are the limited areas where there is a rapid change of slope. A single figure would not be applicable since the width of this area varies.</p>	<p>7:7E-3-26 <u>COASTAL BLOPPS</u></p>	<p>League of Women Voters of N.J.</p>	<p>Farmland Conservation Special Area Policy and Permitted Soils Resource Policy restrict activities on agricultural soils whether or not they are along water courses. Thank you for support.</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<p>7:7E-3.30 DRY BORROW PITS</p> <p>126.</p> <p>We question the use of runoff to recharge aquifers because of heavy metals and hydrocarbons. Would the runoff be treated or simply allowed to infiltrate? There is a problem of the pits becoming clogged with decaying vegetation, and in handling the dredge material from these pits. A clearer statement would help.</p>	<p>League of Women Voters of N.J.</p>	<p>See revised policy 7:7E-3.30(b)2.</p>
<p>127.</p> <p>Is it correct to assume that mining is acceptable in dry borrow pits since it is not mentioned?</p>	<p>Mining Industry Representatives</p>	<p>Mining is conditionally acceptable provided the use policies for mining are compiled with. See revision to 7:7E-3.30(b)1.</p>
<p>128.</p> <p>Add language to indicate that "surface mining is conditionally acceptable provided the Use Policies for Mining are compiled with". By adding this language, it would merely make dry borrow pit and wet borrow pit sections consistent.</p>	<p>Mining Industry Representatives</p>	<p>Agreed. See new policy 7:7E-3.30(b)1.</p>
<p>129.</p> <p>Policy Stmt 5(1) regarding disposal of solid waste should be qualified to read: "Leachate is collected, treated and discharged to the ground through an injection well or other technique that does not in any way result in leachate entering an aquifer system used now or potentially useable in the future for potable water supply."</p>	<p>Mining Industry Representatives</p>	<p>Agreed. See revised policy, which incorporates this suggestion.</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<p>7:7E-E.28 FARMLAND CONSERVATION AREAS - Continued</p> <p>123.</p> <p>We recommend rewording Policy Statement number "3" to read, "Conversion of Farmland Conservation Areas to development is acceptable only when the predominant surrounding pattern of development is urban or suburban and such development is consistent with adopted zoning and land use plans." The criteria of "unacceptable urban - agricultural conflict" is impossible to define.</p>	<p>Middlesex County Planning Board</p>	<p>Disagree. The coastal policies are State policy and cannot be subject to municipal policies.</p>
<p>7:7E-3.29 STEEP SLOPES</p> <p>124.</p> <p>The policy is unreasonable insofar as it prohibits development on steep slopes greater than 15%. If in fact the problems relating to soil erosion, undercutting of up-slope lands, pollution of surface waters, and flooding are mitigated or eliminated by development on slopes of greater than 15%, such development should be conditionally acceptable.</p>	<p>David Fisher, N.J. Builders Association</p>	<p>Mitigation becomes increasingly ineffective as the slope rises. See revised language.</p>
<p>125.</p> <p>It is very difficult to define the words "very small part of a site" and therefore the definition is vague and arbitrary.</p>	<p>David Fisher, N.J. Builders Association</p>	<p>See revised policy, which incorporates your comment.</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Comments</u>	<u>Response</u>
<p>7:7E-3.31 HISTORIC AND ARCHEOLOGICAL RESOURCES</p> <p>130. Coven Point should be included on the New Jersey State Register of Historic Places.</p>	<p>Audrey Zapp, Hudson County Citizens for Clean Air</p>	<p>This suggestion has been directed to the Office of Historic Preservation, but it does not appear to be eligible.</p>	<p>7:7E-3.36 CRITICAL WILDLIFE HABITAT</p> <p>133. Coven Point should be considered a Critical Wildlife Habitat.</p>	<p>The Proposed NJDEP does not specifically identify all sites which may be considered as a Critical Wildlife Habitat, rather examples of some types are provided. Identification is consequently done on a site by site review during permit application and through consultation with the N.J. Division of Fish, Game and Wildlife.</p>
<p>7:7E-3.33 ENDANGERED OR THREATENED WILDLIFE OR VEGETATION SPECIES HABITAT</p> <p>131. How are species eligible to be on list to be determined?</p>	<p>Mining Industry Representatives</p>	<p>Species appearing on the State list are arrived at (and periodically revised) by a group of experts representing a variety of public and private agencies and organizations. The full list of advisors is listed on pages 2 and 3 of State of New Jersey 'Endangered, Threatened, Peripheral, Declining, Under-Examined and Extirpated Wildlife Species in New Jersey Official List' (March 29, 1979) available from DEP, Division of Fish, Game and Wildlife.</p>	<p>134. This prohibition against building in certain habitats is unreasonable unless there are sightings of the actual type of wildlife that is supposed to be associated with such habitats.</p>	<p>The designation of habitat areas is based on recommendations by DEP's Division of Fish, Game and Wildlife, which in turn are based on sightings.</p>
<p>132. Birds "or eligible to be on the list". This phrase is very broad and lacks specific definition. Also there are separate procedures outlined in the Endangered and Non-Game Species list. By including it in with these regulations, we are creating a duplication of authority.</p>	<p>Mining Industry Representatives</p>	<p>See revised definition in 7:7E-5.53, which responds to your suggestion.</p>	<p>7:7E-3.38 SPECIAL URBAN AREAS</p> <p>135. Mixed use development in special urban areas should not necessarily be encouraged. Such development in urban areas would encompass nearly every usage, and it does not necessarily have to be along urban coasts.</p> <p>136. We are pleased to note the wide range of development that is encouraged to locate in the Special Urban Areas. The flexibility that results from the mixed development policies of these areas is important to the City of Camden in terms of the future development of our City Centre Urban Renewal Area.</p>	<p>Disagree. The water's edge in the State 21 Special Urban Area is already developed. Mixed use redevelopment is acceptable unless it is inconsistent with other coastal policies.</p> <p>Camden Department of Community Development</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<b>7:7B-3.38 SPECIAL URBAN AREAS - Continued</b>		
135. This section should establish a priority of recreation, rather than development, along the coast. We support the call for a park and open space for each community along the coast, and hope this emphasis is reflected in this section as well.	Vivian Li, Sierra Club, New Jersey Group	Redevelopment and public open space are both encouraged in Special Urban Areas. See Policy 7:7B-1.3(b)(1).
137. Sierra Club supports the rejuvenation of urban areas.	Carol Bartlett, Sierra Club West Jersey Group	No response necessary.
138. The imposition of a new permit and approval process is counter-productive to the encouragement of development. These provisions already zoned for commercial and industrial use should be removed from the scope of the proposed regulations.	G. Deusch, N.J. Business & Industry Assoc.	The program represents State policy and cannot rely upon municipal zoning. It does not add a new approval process but rather adds clarity and specificity to an existing process.
139. The emphasis on siting water-dependent uses and public open space areas along the water's edge should not be reduced in Special Urban Areas. Water-dependent uses and open space should be given priority over mixed use development even in Special Urban Areas.	Natural Resources Defense Council	Open space is one of the uses required in mixed use development. Public access to the waterfront is a criterion for the acceptability of all waterfront development. The special areas and the potential of the waterfront resource to revive depressed economies demands special use considerations in these areas.
140. Special Urban Areas should not be exempt entirely from the 100 foot setback requirement for water-related projects on the Filled Water's Edge. The exemption should be limited to waterfront areas which are already built up.	Monmouth County Environmental Council	See above response to Natural Resources Defense Council. The waterfronts of Special Urban Areas are almost entirely developed.
<b>7:7B-3.39 SPECIAL URBAN AREAS - Continued</b>		
<b>141.</b>		
The definition of Special Urban Areas may work a hardship upon industrial-based urban municipalities which do not meet the state's statutory standard for designating special growth zones which considers a number of factors, such as the existing character and usage of the waterfront, should be formulated.	A. Magerly, M.J. Independent Liquid Remnants Assoc.	The relaxation of water dependency requirements is appropriate only for developed waterfronts in need of revitalization, i.e. for urban aid cities.
<b>142.</b>		
The Council supports this policy which encourages development to promote of economic well-being of these communities and discourages project (such as suburban shopping centers) which would affect the local economy adversely.	Monmouth County Environmental Council	Thank you for support.
<b>143.</b>		
The proposed plan includes changes recommended by DCA's Division of State-wide Planning, such as the designation of Urban Aid municipalities within the region as High Growth Areas.	Department of Community Affairs	No response necessary.
<b>144.</b>		
The Special Urban Areas definition should be expanded to include other smaller cities.	Salem County Planning Board	The Special Urban Area Policy is designed for a small group of cities that have developed waterfronts which are in need of revitalization.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<p>145. Salem City and Pease Grove should be listed as part of the urban areas region to attract needed new investment. Although Pease Grove is within the high growth area of the Delaware River, Salem City is not listed as high growth under the Delaware Bayshore Region even though it was listed as a high growth area in previous documents and as a growth area on the State Development Guide Plan.</p>	<p>7:7E-3-38 SPECIAL URBAN AREAS - Continued Salem County Planning Board</p>	<p>7:7E-3-38 SPECIAL URBAN AREAS - Continued Monsmouth County Environmental Council</p> <p>148. The definition of Special Urban Areas is overly restrictive, and should be extended to additional urban areas such as Belmar, Kayport, and Red Bank. Such a policy would help to ensure the continued vitality of the more prosperous commercial centers as well as pruner the revitalization of areas which have declined.</p>
<p>146. An urban impact analysis should be required for all development proposed outside of the high growth areas, and for major development outside the Special Urban Areas.</p>	<p>Camden Department of Community Development</p>	<p>149. Many policies shown in the Water Area Policy Summary Table have been downgraded from their predecessor in the BOSS program. Of 16 areas previously "prohibited", 10 are now "discouraged" and 6 are "conditionally acceptable". The program includes no explanation why this is necessary or desirable, or why the bay and ocean shore areas should not receive better than the reduced level of protection deemed for urban Areas.</p>
<p>147. We strongly disagree with the policy relating to development outside of those (urban) areas. It is also almost impossible to ascertain whether urban areas would be more beneficial within an urban area. Obviously a developer has made a market determination that it would be more applicable outside of the urban area and this water determination should not be disturbed.</p>	<p>David Elshert, N.J. Builders Association</p>	<p>150. The definition of Lake upon so as to exclude wet borrow pits.</p>
<p>148. The Special Urban Area policy is designed to give priority to the revitalization of the most economically depressed developed waterfronts. It is based on state law establishing areas eligible for urban aid. Areas such as those mentioned are conditionally acceptable because of their generally developed character.</p>	<p>Experience in implementing this policy has brought unexpected situations where a prohibited activity was found to be in the public interest. Use of "Conditionally acceptable" allows DEP to prohibit an activity in an undeveloped environment and permit it in an urban area.</p>	<p>Agreed. See revised section 7:7E-4.9.</p>
<u>7:7E-4.2 POLICY SUMMARY TABLE</u>		
<p>7:7E-4.9 LAKES, PONDS, RESERVOIRS</p>	<p>Mining Industry Representatives</p>	<p>Agreed. See revised section 7:7E-4.9.</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<u>7:75-4.10 ACCEPTABILITY CONDITIONS FOR USES - Continued</u>		
151. All of the uses covered by this section (7:75-4.10) should be first required to meet a general acceptability condition: "There is a demonstrated need for the proposed facility or use that cannot be met by existing facilities and there is no alternative method by which, at location where, the facility or use could accomplish its intended function while creating a lesser adverse impact on coastal resources."	Natural Resources Defense Council	Disagree. This is the entire range of water uses and this would be too stringent a condition for any water use, most of which clearly must locate in water bodies. Adequate conditions to protect coastal resources are included in the separate policies.
152. (c) Dredging Maintenance - Policy should be revised to permit scouring of channels, anchorages, and moorings on a case by case basis since the cost of dredging is prohibitive for many small-scale water-dependent facilities.	Cape May County Planning Board	Agreed. See revised policy 7:75-4.10(n), which incorporates your suggestion.
153. (a) Maintenance Dredging - The proposed regulation state that dredging of channels to their "authorized depth and width" will be conditionally acceptable. This commented to us that the intent of DEP is to only tolerate dredging when conditions they impose are met, if they can be met. These conditions remain undefined.	New Jersey Alliance for Action	The intent of this policy is that maintenance dredging shall preserve the dimensions of channels now authorized by State and Federal agencies. There are no hidden conditions. The policy has, however, been revised.
154. (f) New Dredging - Dredging conditions, in particular, the seasonal limitations to dredge spoil disposal, have been arbitrarily established on assumptions that are not supported by data and studies.	S. Wieser, N.J. Alliance for Action	See revised policy. Seasonal dredging limitations will only be applied when necessary to protect a specified resource in a specified area.
<u>7:75-4.10 ACCEPTABILITY CONDITIONS FOR USES - Continued</u>		
155. (f) New Dredging - No reason is given for limiting dredging to the period between November and mid-March. We believe seasonal dredging prohibitions should be site specific and appropriately tailored to meet environmental resource requirements. The term "conditionally acceptable" would be preferable.	The Port Authority of N.Y. and N.J.	See above responses to Ellis Wieser.
156. (f) New Dredging - Add "when especially sensitive environmental resources" is a vague term. Note revision to policy 7:75-4.10(f)ix requiring best available technology for turbidity control.		Disagree. "Especially sensitive environmental resources" is a vague term. Note revision to policy 7:75-4.10(f)ix requiring best available technology for turbidity control.
157. (f) New Dredging - A general seasonal restriction on dredging activities is unwarranted and would impose a significant new economic burden to industry. Seasonal restrictions should be imposed only where scientific evidence indicates they are absolutely necessary.	John J. Horn, Commissioner, Department of Labor and Industry	Agreed. Policy has been revised.
158. (f) New Dredging - Add "of width" after "water depth".	The Port Authority of N.Y. and N.J.	Expansion of the width of a water area means trans-forming a Land Area into a Water Area, or realignment. See Policy 7:75-4.10(r).



Comments

Commentor

Response

7:7E-4.10 ACCEPTABILITY CONDITIONS FOR USES - Continued

Comments	Commentor	Response
159. (g) Dredge Spoil Disposal - We recommend a revision in policy be made to prohibit dredge Spoil Disposal in Open Bays and Semi-Enclosed and Back Bays as well as in Tidal Guts, Medium Rivers, Creeks and Streams, Lakes, Ponds, and Reservoirs. The remainder of the paragraph addressing disposal by side casting should be deleted.	American Littoral Society	Such a change would be in conflict with the conditionally acceptable policy on the use of clean dredge spoil to create new wetlands, marsh islands in any general water area. Also there is often no alternative to sidestepping in dredging channels through shallow waterways. See Policy 7:7E-4.10(g) which has been slightly revised.
160. (i) Filling - Non-Water dependent uses should not be offered special treatment in respect to filling extensions to filled water bodies.	Natural Resources Defense Council	Agreed. See revision to policy 7:7E-4.10(i)(ii), which incorporates this suggestion.
161. (j) Filling - Insert "conditionally acceptable" before "in oceans".	The Port Authority of N.Y. and N.J.	Disagree. Ocean filling is not a desirable practice, particularly since filling is now defined to be for creating new upland.
162. (j) Filling - 2.(ii) - On first line, substitute "conditionally acceptable" for "discouraged".	The Port Authority of N.Y. and N.J.	Disagree. Filling has major environmental impacts. Limited filling is conditionally acceptable as described in the policy.
163. (j) Filling - Delete current fourth line and substitute "ocean waters and acceptable for bay waters. Elsewhere ..."	The Port Authority of N.Y. and N.J.	Disagree. Filling in deep bay waters is undesirable, filling in moderate and shallow bay waters is now conditionally acceptable.
		Under these policies new dredging would be discouraged in bays, which would affect channels, anchorages, and terminals in Saritan and Newark Bays. Filling would be discouraged or prohibited in such water bodies. Filling would be discouraged generally in deep open bays, and vessel mooring would be prohibited in ocean waters and discouraged in open bays.
	The Port Authority of N.Y. and N.J.	Maintenance dredging of existing channels anchorages and ports is preferred over the creation of new ones. Therefore, new dredging is discouraged in bays, outside of existing port areas. Similarly filling is conditionally acceptable in existing ports (7:7E-3.11) but discouraged in prohibited elsewhere. Plans or fillings are always preferred on mooring has been changed to make it conditionally acceptable in all water bodies.
	Mining Industry Representatives	Lakes, Ponds and Reservoirs include man-made bodies, but do not include Wet Borrow Pits.
		165. (1) Sand and Gravel Extraction - Does the prohibition in lakes, ponds, reservoirs, and tidal guta apply to man-made bodies of waters or only natural bodies? Would not a more rational distinction be between water bodies created by mining activities and those not created by mining activities.
	Public Service Electric and Gas Co.	166. (o) Overhead Transmission Lines - Item (i)(ii) - Should be deleted. Electric lines do not induce development. The acceptability of development must be concluded on its own merits.
		Surplus infrastructure capacity is a prime invitation to further development. Analysis of induced impacts is an essential part of any infrastructure proposal. Transmission lines cannot be judged solely on their merits since they are not a use in themselves but are always associated with other uses.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Commentor</u>	<u>Response</u>
<u>7:7E-5.1.0 ACCEPTABILITY CONDITIONS FOR USES - Continued</u>				
167. (o) Overhead Transmission Lines - The overhead transmission line statement should be restated since it is poorly worded and confusing. It was only apparent from the summary table (Table 21) what was intended. It is suggested that the acceptability conditions also specify that the design of the towers should minimize aesthetic and construction impacts on water areas.	Salem County Planning Board	See revised policy 7:7E-4.10(o)(2)(vi), which incorporates your suggestion.	Natural Resources Defense Council	This change is being approved through this document. The growth region policies, like all coastal policies, are rules adopted as part of the New Jersey Administrative Code. They may only be changed following notice of proposed amendment in the New Jersey Register and public review. Substantive changes to the rules are considered amendments to the Coastal Management Program as such they are subject to federal review and are possible grounds for withdrawal of federal approval.
168. (o) Overhead Transmission Lines - (2)(iv) - should be deleted. The requirement for a broken cable is tantamount to requiring that a bridge which breaks not hit the water. There is no record of any safety problem from the hundreds of existing crossings of water bodies by electric lines, some of which meet the above requirement.	James A. Shissler, Public Service Electric and Gas Co.	Agreed. Item deleted.	N.J. Marine Sciences Consortium	No, because it is a Special Area as an Excluded Federal Area. Growth Regions only apply to General Land Areas.
169. (p) Dams and Impoundments - The water body types in the "Dams and Impoundments" policy are too general; they need to be specified.	Cape May County Planning Board	They are specified in Figure 21.	R.J. Marine Sciences Consortium	Agreed. Graphics are poor. Generally Barrier Islands can be distinguished because they are islands but boundaries on spits and headlands are unclear on the reduced maps. Larger scale maps available on request from DMK.
<u>7:7E-5.1 GENERAL LAND AREAS</u>				
170. "Definition" - It is unclear how this definition relates to the proposed 100-500 foot boundary.	The Port Authority of N.Y. and N.J.	Most areas within the 100-500 foot boundary are Special Water's Edge Areas. Those that are not are General Land Areas.	Roger Wells, Inc. Roger Wells, Inc.	The growth regions and the other policies are based on DEP's experience adopting GARBA and the other coastal laws. Further improving rationales and stabilizing growth region boundaries will be a high priority after program approval.
<u>7:7E-5.3 COASTAL GROWTH RATINGS</u>				
171. The proposed CMP lacks criteria for changing growth region designations. If designation changes such as those being considered for Galloway and Egg Harbor Townships in Atlantic County take place, they will be changes in the CMP, and as such are subject to federal review and public review.				
172. By existing in Monmouth County, would Sandy Hook be designated a high growth region? If so, why?				
173. Figure 23 on page 159, does not differentiate in its marking between high growth and barrier island. How could one tell them apart on the map?				
174. I request that the growth regions policy be reevaluated. DEP must supply as part of its EIS the specific basis for its growth policies.				

Comments	Response	Commentor	Response	Commentor
<p>175. The proposed system of Growth Rating is inadequate. In the absence of specific criteria, it is totally subjective. The growth rating system must be better substantiated.</p>	<p>Coastal Growth Ratings are based on a balancing of considerations of existing development patterns, regional resource needs, and the results of such a balancing necessarily involve best professional judgements.</p>	<p>N.J. Conservation Foundation</p>	<p>176. Criteria are the existing pattern of coastal development and natural and cultural resources. Public review of any changes is required by the Administrative Procedures Act, and federal review is required by the federal CZMA.</p>	<p>Richard Willinger, The League for Conservation Legislation</p>
<p>176. Growth designations for the coast should be clearly delineated and criteria for changes in such should be included in the plan. There should be adequate public notice for comment about such change.</p>	<p>Criteria are the existing pattern of coastal development and natural and cultural resources. Public review of any changes is required by the Administrative Procedures Act, and federal review is required by the federal CZMA.</p>	<p>N.J. Conservation Foundation</p>	<p>177. The regional growth types shown in the proposed plan (figure 23, page 159) have been found essentially compatible with the State Department Guide Plan.</p>	<p>Richard Willinger, The League for Conservation Legislation</p>
<p>177. The regional growth types shown in the proposed plan (figure 23, page 159) have been found essentially compatible with the State Department Guide Plan.</p>	<p>Criteria are the existing pattern of coastal development and natural and cultural resources. Public review of any changes is required by the Administrative Procedures Act, and federal review is required by the federal CZMA.</p>	<p>N.J. Conservation Foundation</p>	<p>178. No response necessary.</p>	<p>Department of Community Affairs</p>
<p>178. We support redesignation of portion of the Mullett-Southern Ocean and Great Egg Harbor Low Growth Regions to a higher growth rating. These areas can be protected by other coastal policies and are essential to accommodate housing need.</p>	<p>We oppose redesignation of portions of the Mullett-Southern Ocean and Great Egg Harbor Low Growth Regions to a higher growth rating because these regions are environmentally sensitive and crucial to coastal fisheries.</p>	<p>South Jersey Shellfishermen's Assoc.; Assoc. of N.J. Environmental Commissions; New Jersey Conservation Foundation; and Sierra Club West Jersey Group</p>	<p>179. We oppose redesignation of a no growth region. A moderate growth rating in effect is a low growth designation and promotes development sprawl. By designating an area as a high growth region, existing neighborhoods may be destroyed by the encouraged new development.</p>	<p>Atlantic City Development Corp. Roger Wells, Inc.</p>
<p>179. Note revision to Policy 7:7E-7.21 permitting large-scale residential development in Limited (Low) Growth regions are met. Extension (moderate) regions are development (high growth) regions allow development at 4+ dwelling units per acre, thus discouraging (low density sprawl. Existing neighborhoods are protected by Resource Policy 7:7E-8.18 (Neighborhood and Special Communities).</p>	<p>We oppose redesignation of portions of the Mullett-Southern Ocean and Great Egg Harbor Low Growth Regions to a higher growth rating because these regions are environmentally sensitive and crucial to coastal fisheries.</p>	<p>South Jersey Shellfishermen's Assoc.; Assoc. of N.J. Environmental Commissions; New Jersey Conservation Foundation; and Sierra Club West Jersey Group</p>	<p>180. The low growth rating of a region essentially makes it a no growth region. A moderate growth rating in effect is a low growth designation and promotes development sprawl. By designating an area as a high growth region, existing neighborhoods may be destroyed by the encouraged new development.</p>	<p>Roger Wells, Inc.</p>
<p>180. Note revision to Policy 7:7E-7.21 permitting large-scale residential development in Limited (Low) Growth regions are met. Extension (moderate) regions are development (high growth) regions allow development at 4+ dwelling units per acre, thus discouraging (low density sprawl. Existing neighborhoods are protected by Resource Policy 7:7E-8.18 (Neighborhood and Special Communities).</p>	<p>We oppose redesignation of portions of the Mullett-Southern Ocean and Great Egg Harbor Low Growth Regions to a higher growth rating because these regions are environmentally sensitive and crucial to coastal fisheries.</p>	<p>South Jersey Shellfishermen's Assoc.; Assoc. of N.J. Environmental Commissions; New Jersey Conservation Foundation; and Sierra Club West Jersey Group</p>	<p>181. Identification of "high growth regions" should consider water supply availability as a major consideration in the criteria for "high potential" classification for land use types.</p>	<p>Roger Wells, Inc.</p>

Comments	Commentor	Response
<p>7:7E-5.4 ENVIRONMENTAL SENSITIVITY MATING</p> <p>182. The definition of environmental sensitivity factors should be changed. It does not appear reasonable to have an one aspect of high environmental sensitivity. The fact that forest vegetation is a community of trees and shrubs with a successional stage for the region. We would suggest that the definition be changed to reflect that it only refers to mature trees and shrubs.</p> <p>183. We strenuously object to placing certain special areas automatically into the high environmental sensitivity areas. There is no correlation between a farmland conservation area and high environmental sensitivity.</p>	<p>David Fisher, N.J. Builders Association</p>	<p>See revised policy 7:7E-5.4(e), which defines forest vegetation as consisting primarily of trees over ten years old.</p>
<p>7:7E-5.5 DEVELOPMENT POTENTIAL</p> <p>184. Major Commercial - Criteria - Substitue "within one quarter mile of an" for "either immediately adjacent to, or immediately across a road from". In addition, we believe this requirement should be waived, where appropriate, to provide flexibility in the potential location of specific industries near or within "Special Hazard Areas", as covered on pages 128, 7:7E-3.36.</p>	<p>The Port Authority of N.Y. and N.J.</p>	<p>Disagree. This would weaken the infill requirement. These General Land Area Policies do not apply in Special Hazard Areas or in any other Special Areas.</p>
<p>185. (1) "Energy Facility Development Potential" - The statement that "in the interim, the development potential of energy facilities is assumed to be moderate" is too vague and insufficient for this Draft EIS.</p> <p>186. The change in the infill definition appears to again restrict growth. There may be a good reason why there is no development at a comparable scale or density and this consideration should be included in the definition of infill.</p> <p>187. We question why septic systems are not mentioned under the same criteria for low potential sites in high growth region.</p> <p>188. Major Commercial - Criteria - Substitue "within one quarter mile of an" for "either immediately adjacent to, or immediately across a road from". In addition, we believe this requirement should be waived, where appropriate, to provide flexibility in the potential location of specific industries near or within "Special Hazard Areas", as covered on pages 128, 7:7E-3.36.</p>	<p>The Port Authority of N.Y. and N.J.</p> <p>David Fisher, N.J. Builders Association</p> <p>David Fisher, N.J. Builders Association</p> <p>The Port Authority of N.Y. and N.J.</p>	<p>Agreed. See revised language in 7:7E-5.5(e), which states that Development Potential Rankings shall be jointly determined by NJDEP and NJDOE on a case by case basis.</p> <p>See revised definition in Section 7:7E-5.5(b). "Comparable scale or Density" terminology has been deleted.</p> <p>Policy is intended to be more restrictive in limited growth and recreation areas than in Development Regions.</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Commentor</u>	<u>Response</u>
<p>189. The regional criterion for low potential sites for "Campground Development Potential" is too restrictive. In Cape May County this criterion would eliminate many potential campground development sites. Since campground sites are essential to our resort/tourist economy, this criterion should be relaxed.</p>	Cape May County Planning Board	Disagree. Under this policy at least five campgrounds have been approved for CAFRA permits in Cape May County, with only one denial.	David Fisher, N.J. Builders Association	It was rewritten, and, we hope, made clear.
<p>7:7E-5.5 DEVELOPMENT POTENTIAL - Continued</p>				
<p>190. (b) "High Intensity Development" - Port Facilities SHOULD be exempt from the 80% minimum retention and previous paving coverage and 5% minimum herb, shrub and forest coverage.</p>	The Port Authority of N.Y. and N.J.	Disagree. Limited vegetation offers all the benefits in Ports as in other highly developed areas. However, this policy would apply to port facilities only if they extend inland to a General Land Area.	League of Women Voters of N.J. and N.J. Marine Sciences Consortium	Agreed. "line" has been changed to "Area" in revised policy 7:7E-5.7.
<p>191. (c) - Shouldn't the requirement for a minimum of 20% of forest ... be exclusive of sandy beaches in which it is impractical to try to plant forests?</p>	N.J. Marine Sciences Consortium	No, because sandy beaches are a Special Area not governed by this General Area policy, as are herbaceous wetlands. The climax vegetation of all General Areas is forest.	N.J. Marine Sciences Consortium	Very high permeability soils are a problem for septic systems because they provide very little filtration, contaminants travel long distances and may enter wells and surface water. The Soil Conservation Service has now included severe restrictions to septic systems.
<p>192. "Land Acceptability Table: High Growth Region", page 172 - Change Line 7 from "Low Intensity" to "Moderate Intensity".</p>	Port Authority of N.Y. and N.J.	Disagree. Even in development regions this would unreasonably promote spread. Moderate intensity development is diffuse and deliberately limited in such regions.	The Port Authority of N.Y. and N.J.	Agreed, word deleted.
<p>7:7E-5.6 DEFINITION OF ACCEPTABLE INTENSITY OF DEVELOPMENT</p>				
<p>194. The use of the title "line" in the Land Acceptability Tables was confusing. Aren't you really accomplishing different types of areas so words "Areas" or some similar word be clearer and more appropriate?</p>				
<p>195. (b)(1) - Lines 7, 8, 9 - Why would the sandy soils of high growth regions be unsuitable for septic systems? Aren't these areas of particular concern of particulate good permeability?</p>				
<p>196. Relocate - High Growth Region, page 172 - On the second line, the word "lightly" appears unnecessary and should be deleted.</p>				
<p>7:7E-6.J SECONDARY IMPACTS</p>				
<p>197. (b) - The reference to "secondary impacts of the development ..." was particularly gratifying to me in that secondary and tertiary impacts of development are all too often</p>				

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<u>SUBCHAPTER 7 USE POLICIES - Continued</u>		
202. The Use Policies introduce conditions which must be satisfied in addition to the Location Policies. We do not consider it appropriate to limit specific uses over such a wide area. Whether a particular use should be established or enlarged in an already developed industrialized area should be judged in relationship to the immediate surrounding area.	N.J. Petrosalem Council	The location policies serve the purpose suggested of allowing a project to be considered in terms of its surrounding development.
<u>7:7E-6.3 SECONDARY IMPACTS - Continued</u>		
197. - Continued ignored by planners and developers; yet, these can be crucially important in later stages of residential and professional life.		
198. Transferred impact in addition to secondary impacts merely confuses the issue of effect of development.	David Fisher, N.J. Builders Association	Agreed. Proposed policy has been deleted.
199. There is no State Development Guide Plan which has been adopted by the Department of Community Affairs. It is inconceivable that Division decisions could be based upon a guide plan that is not yet adopted.	David Fisher, N.J. Builders Association	Agreed. Reference has been changed.
<u>7:7E-6.4 TRANSFERRED IMPACTS</u>		
200. The transferred impacts policy is vague and allows DEP to stop any project it wishes since there will always be transferred impacts with any project.	Roger Wells, Inc. Roger Wells, Inc.	The policy has been deleted.
<u>SUBCHAPTER 7 USE POLICIES</u>		
201. There seems to be a shift in emphasis in the Use Policies to give the Division another criterion for rejecting a permit application. It should be clearly stated that the use policies can only enhance the chances of obtaining a permit and not detract from those chances.	David Fisher, N.J. Builders Association	The suggested statement would not accurately describe the Coastal Policies. An applicant must meet all relevant location, use and resource policies. This has always been the case; there was no shift proposed in the DRIS.
<u>7:7E-7.2 HOUSING USE POLICIES</u>		
203. BCA supports the proposed revisions to the housing policies. Especially for the provision of least-cost housing in high growth regions and in municipalities not presently providing their fair share of low and moderate income housing.	Department of Community Affairs	Thank you for support.
204. Housing does have some water related elements and it should not be dismissed as not being water related or water dependent.	David Fisher, N.J. Builders Association	Water-related definition has been deleted. Housing is acceptable near or, in Special Urban Areas, on the water.
205. The CRP should include limitations on the height of waterfront buildings.	Helen Thompson, Save the Hudson, Our Riverland Environment	The CRP does set such limitations. See Policy 7:7E-7.20.
206. BCA approves the special acknowledgement of the housing needs of the Atlantic City Region.	Department of Community Affairs	No response needed.

Comments	Commentor	Response	Comments	Commentor	Response
7:7E-7.2 HOUSING USE POLICIES - Continued			7:7E-7.2 HOUSING USE POLICIES - Continued		
207. (b)(1) - Is the implication here that wind, water and wave damaged homes cannot be reconstructed? What will be the effect on people who have already purchased waterfront lots for the purpose of building homes? Are they out of luck forever?	N.J. Marine Sciences Consortium	This is not the implication here. This issue is now at the heart of the controversy over the Dine and Shorefront Protection Act and is not specifically addressed by the Coastal Management Program. Under the program there is no prohibition on reconstruction of buildings except in water areas.	211. (c) Fair Share Housing - There really is no longer any viable low income single family or condominium type housing available in New Jersey if not in the United States. The Mr. Laurel decision does not in fact mandate low and moderate income housing but only a fair share of present and prospective regional need, whether that need be low, moderate, or high income housing. Also, the burden should not be placed on the developer, but should remain with the municipality to provide its fair share of regional housing.	David Fisher, N.J. Builders Association	Unless reliance is placed on public housing, the private sector developer must take the role in providing low and moderate income housing. Recognizing the economics of the problem the policy only requires the provision of some "least cost" housing, however expensive "least cost" may be, wherever feasible.
208. In the past, the Division has insisted that housing is not water dependent or water related. On the other hand, the Division is attempting to control housing as a part of "waterfront development". It is submitted that although housing may be water dependent the waterfront is one of the most desirable places to live in New Jersey and therefore there should be some recognition of this economic and social fact of life which would allow further development of housing along the waterfront.	David Fisher, N.J. Builders Association	DEP proposes to regulate housing because it is not water dependent - to ensure that it does not preempt use of the water's edge from uses requiring a waterfront location. The Program does, however, recognize that people want to live near the water and permit housing near the water on filled water edges, and extending out into the water on piers in Special Urban Areas, provided public access is not prevented (See revision to Policy 7:7E-7.2(b)).	212. (e) Fair Share Housing - Is this realistic in considering the high cost of the lot in such areas, i.e., requiring a sizeable portion of the lean-cost housing.	N.J. Marine Sciences Consortium	This is economically difficult, or at least unprofitable, and so little addressed by the private sector. The need for public support to ensure adequate housing for low and moderate income people is, however, a SEM's objective.
209. (e) Greater Development - Does this mean that developers who may build homes where individuals cannot?	N.J. Marine Sciences Consortium	No. The policies apply equally to all development regulated under the coastal program. Larger developments may be better able to meet the policies in some areas, however.	213. (e) Fair Share Housing - Emphasis should not be put on the Housing Allocation Report as the arbiter of a particular municipality's compliance with the intent of the Mr. Laurel decision.	Department of Community Affairs	It is one sector that will be considered.
210. (d) Residential Mix - Does this conflict with 7:7E-7.2(b)(1)(i) and (ii)?	N.J. Marine Sciences Consortium	The two policies are independent, neither reinforcing, nor conflicting with each other.	214. Throughout the program, it is stated that housing is not a water-related use, mention the attractiveness of water adjacent to housing.	David Fisher, N.J. Builders Association	The program does mention waterfront housing in the policy on water borrow pits, (7:7E-3.15) and the housing policy for special urban areas (7:7E-3.16).

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Commentor</u>	<u>Response</u>
7:7E-7.2 HOUSING USE POLICIES - Continued	7:7E-7.2 HOUSING USE POLICIES - Continued			
215. Policy fails to recognize that housing can enhance the economic vitality and quality of life within a waterfront community. Enhancement could occur by recycling unused facilities back into productive functions. As the policy is now written this would not be allowed. We strongly urge a change in the language to make possible the realization of substantial public benefits in appropriate cases.	The Port Authority of N.Y. and N.J.	Agreed. See revised language in Housing Use Policy 7:7E-7.2(b).	John J. Horn, Commissioner, Department of Labor and Industry	There has been widespread public concern about the visual impact of waterfront high rise buildings. The policy does provide flexibility, allowing high rises in areas where they are compatible with existing buildings.
216. (h) High Rise Housing - We suggest adding the following to policy (v): "However, consideration will be given to mitigating and compensating measures within an overall development program which would offset any adverse impact related to a specific structure within that development". Also, add the word "occasional" before "adverse" on the first line.	The Port Authority of N.Y. and N.J.	This is the effect of the definition of "discouraged" (see 7:7E-1.6(c)(4)).	American Littoral Society	While your understanding is correct that this is the legal form for proposing amendments to the coastal policies, many reviewers did comment upon this proposal in the DEIS. It has been thoroughly discussed in public meetings prior to preparing the DEIS.
217. (h) High Rise Housing - Policies (i) through (v) appear overly restrictive. We suggest that they be made flexible enough to permit individual communities to consider appropriate alternative conditions.	The Port Authority of N.Y. and N.J.	These policies do not prohibit high rise housing and serve to protect public use and view of the water.	David Fisher, N.J. Builders	The policy on Large Scale Multi-Use Developments has been changed to encourage such developments since their size makes it possible to take full advantage of siting the possibility of a large tract. They are now permitted in Limited (low) Growth Regions except where environmental sensitivity is high.
(i) Large Scale and Multi-Use Development - It is unclear on what basis a conclusion is reached that a large scale multi-use development should be discouraged in low and moderate growth regions unless that housing is adjacent to an existing developed area in a moderate growth region. In many cases large scale multi-use development is extremely efficient and				
219. (i) Large Scale and Multi-Use Development - We understand that the present document is serving as a request for public comment on whether or not the State should redesignate all or parts of Gallorey and Egg Harbor Townships from low growth to high growth areas. That subject should be covered in a separate document, rather than buried among hundreds of pages that few will read and even fewer will realize is so important.				
220. (i) Large Scale and Multi-Use Development - It is unclear on what basis a conclusion is reached that a large scale multi-use development should be discouraged in low and moderate growth regions unless that housing is adjacent to an existing developed area in a moderate growth region. In many cases large scale multi-use development is extremely efficient and				





Comments	Response	Comments	Response
<p><b>7:7E-7.2 BOATING USE POLICIES - Continued</b></p> <p>227. (e) - Amusement Piers - We disagree with the policy on amusement piers, parks, and boardwalk areas found in N.J.S.A. 7:7E-7.3(e). There is no appreciation of the fact that amusement piers are an essential part of the economic base of the tourist industry in New Jersey, and we industry useably protected by the Division. This should be recognized and new amusement parks should be conditionally acceptable.</p>	<p>This policy does not deny that amusement piers are vital to the tourist economy. It places conditions on their expansion, and discourages new piers since there is adequate capacity for amusement activity on existing piers and boardwalks.</p>	<p>David Fisher, N.J. Builders Association</p>	<p>Al Mogyly, N.J. Independent Liquid Terminals Assoc.</p>
<p>228. (e) Amusement Piers - The phrase "and the on-site improvement or repair of existing amusement piers, parks and boardwalk areas" should be deleted from the policy on "Amusement Piers, Parks and Boardwalks". Consistent with the proposed policy, the upkeep and maintenance of the above mentioned areas enhance their value to the area and maintain an adequate safety level.</p>	<p>Disagree. This policy does not prohibit the maintenance of the use, but only sets out criteria for this maintenance, repair or expansion.</p>	<p>Cape May County Planning Board</p>	<p>Natural Resources Defense Council</p>
<p><b>7:7E-7.4 ENERGY USE POLICIES - Continued</b></p> <p>229. The new policy on the storage of crude oil, gas, and potentially hazardous liquid substances would deem such facilities "not acceptable along most of the water's edge as they are not water dependent". This conclusion as applied to our business is wrong. We are water dependent. We handle water-borne commodities and must locate along the water's edge.</p>	<p>Policies related to onshore support bases, platform fabrication yards, pipe coating yards and tanker terminals should explicitly prohibit such uses in the BOSS area. Policies leave openings by which OCS development might enter the Bay and Atlantic Coast area. Use of "close-by-coast" terms "built up" and "less developed" areas creates a potential for misinterpretation of coastal policies. The distinction between the BOSS area and the urban coast should be used consistently.</p>	<p>Al Mogyly, N.J. Independent Liquid Terminals Assoc.</p>	<p>This is recognized by the policy which states "may be acceptable on filled water's edge"; any docking facility satisfies this test. Landing LNC is water dependent, while storage is not.</p>
<p>230. Policies related to onshore support bases, platform fabrication yards, pipe coating yards and tanker terminals should explicitly prohibit such uses in the BOSS area. Policies leave openings by which OCS development might enter the Bay and Atlantic Coast area. Use of "close-by-coast" terms "built up" and "less developed" areas creates a potential for misinterpretation of coastal policies. The distinction between the BOSS area and the urban coast should be used consistently.</p>	<p>Disagree. The policy should remain as it was in the CHP-BOSS because while the bay and ocean shore area represents significant, and perhaps unique, opportunities for the enjoyment of natural resources, it likewise represents distinct opportunities for OCS-related activities which are water and/or port dependent. However the CAP recognizes the general incompatibility of the OCS-related activities cited and natural resource based activities. In this regard, the distinction between the BOSS area and the urban coast is not always appropriate since portions of the bay and ocean shore are clearly urban.</p>	<p>Natural Resources Defense Council</p>	<p>Disagree. The policy should remain as it was in the CHP-BOSS because while the bay and ocean shore area represents significant, and perhaps unique, opportunities for the enjoyment of natural resources, it likewise represents distinct opportunities for OCS-related activities which are water and/or port dependent. However the CAP recognizes the general incompatibility of the OCS-related activities cited and natural resource based activities. In this regard, the distinction between the BOSS area and the urban coast is not always appropriate since portions of the bay and ocean shore are clearly urban.</p>
<p><b>7:7E-7.4 ENERGY USE POLICIES</b></p> <p>231. We are pleased that the Division's agreement with DOE lets it retain considerable control over the siting of pipelines so that destruction of wetlands and shellfish habitats can be prevented.</p>	<p>No response necessary.</p>	<p>League of Women Voters of N.J.</p>	<p>No response necessary.</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<u>7:7E-7.4 ENERGY USE POLICIES - Continued</u>					
222. In order to deal with air pollution problems, I suggest non-development of coal-fired generating plants in urban areas of the coastal region.	Michael Bryce, Department of the Public Advocate	Coal-fired electric generating plants are subject to State and federal air quality standards which are designed to either maintain or improve air quality. Air emissions from coal-fired plants generally exceed allowable limits in urban areas, and therefore, plant development would be precluded.	235. Should any mention be made of relations to the Coastal Energy Impact Program or Coastal Energy Impact Fund anywhere in this sub-chapter?	N.J. Marine Sciences Consortium	The CEIP is described under Item 6, "Regulation and Planning of Energy Facilities" within the section entitled "Principal Program Authorities in the Management System Chapter. Although the CEIP provides funding essential for the implementation of the energy policies, it does not of itself create energy policy, which is made by DOE and DEP.
223. No input from environmental groups was included in County Coastal Energy Studies, used in forming the proposed Energy policies. The energy studies do not reflect local opinions.	Audrey Zapp, Hudson County Citizens for Clean Air	The county energy facility planning studies conducted in 1978 to which you refer were intended to secure the perspective of sub-municipal counties and their constituents which include "local" and environmental interests. Although the extent to which these views were incorporated into the studies varies, the State uses several other mechanisms for securing these views on a continuing basis. These include both formal and informal means such as public hearings, citizen advisory committees, workshops and individual correspondence. See Appendix A.	236. (b) General Energy Facility Siting Procedure - (iii) A federal/state conflict in preemption could occur with those energy facilities that are federally controlled. At some time, it would appear that the courts will have to resolve this issue if they have not yet done so. Recognition of this should be included in the DEIS.	James A. Shissas, Public Service Electric and Gas Co.	There are no energy facilities from which State review is completely preempted. Policies on siting of electrical generating stations and LDC facilities cite relevant federal permitting requirements, and the relationship between federal and state permitting is discussed in the section on Federal Consistency (Part II, Chapter 5).
224. The entire chapter on energy siting should be deleted until the Hudson River Waterfront Commission and the Mayor of Hudson municipalities can make an acceptable energy facility plan with DEP.	Nancy Richardson, Bayona Against Tanks	Disagree. While additional views of the residents and public officials of the Northern Waterfront are welcome, the issue of what energy facilities should be placed there is clearly a state's concern. Thus, the views of Northern Waterfront residents and officials must be considered in conjunction with those of residents elsewhere in the State, and in the nation.	237. (b) General Energy Facility Siting Procedure - A policy for the DEP to conduct an analysis of practicable alternatives should be added to (iii).	Recruital Resources Defense Council	See revised language, which incorporates your suggestion.
			238. (d) Onshore Support Bases - A conditional approval was suggested in the draft for emergency oil spill tanks in the Bay-Ocean Shore Region. In view of the sensitive nature of this area we would recommend that this conditional approval be reconsidered.	Michael Bryce, Department of the Public Advocate	The policy allows oil spill containment equipment specifically because the sensitivity of the Atlantic Ocean and Delaware Bay coast requires an immediate response to oil spills.

Comments	Commentor	Response
<p>239. 7:7k-7.4 ENERGY USE POLICIES - Continued</p> <p>(c) platform fabrication yards and mobile construction - (1) It is unclear what is meant by "built up coastal areas of the coastal zone". If the intention is to limit this activity to areas of certain growth potential this should be specified.</p>	<p>The Port Authority of N.Y. and N.J.</p>	<p>The term "built-up" refers to areas where development, specifically industrial development, has already occurred. Growth potential is not implied.</p>
<p>240. (d) Onshore Support Bases - "Onshore and helicopter" are important components of the onshore support of OCS related facilities and should be included in the list of facilities.</p>	<p>The Port Authority of N.Y. and N.J.</p>	<p>Agreed. See revised Policy 7:7k-7.4(d)(1).</p>
<p>241. (h) Pipelines and Associated Facilities - The policies on oil and gas pipelines in the Central Pine Barrens Area are inconsistent with the apparent intention of the plan to guide new growth to already developed locations. We recommend that these policies be amended to provide that, once a pipeline corridor is designated for any use, it might be concurrently evaluated for all possible uses.</p>	<p>The Port Authority of N.Y. and N.J.</p>	<p>This is the intent of the policies to minimize the number of pipeline corridors and to locate them near existing rights of way.</p>
<p>242. (h) Pipelines and Associated Facilities - (iii) - The prohibition of pipeline corridors for landing oil, and discouragement of natural gas pipelines corridors, in the Central Pine Barrens of New Jersey, are based on N.J.A.C. 7:9-4.6(i), (j), and N.J.A.C. 7:9-10.1(b). These references are not included in the Plan's Appendix B of legal authorities and key should be added.</p>	<p>The Port Authority of N.Y. and N.J.</p>	<p>The cited rules are not a basis for the Pipelines and Associated Facilities policy, but are water quality standards with which the coastal policy is consistent. These standards are described in the Management System Chapter.</p>
<p>243. 7:7k-7.4 ENERGY USE POLICIES - Continued</p> <p>(h) Pipelines and Associated Facilities - (v) - Evaluation of OCS pipelines in terms of the potential New Jersey pipeline corridor is nuclear. The implication will be solely based on impacts of the whole pipeline. Policy should recognize the national implications of the pipeline as stipulated in the Memorandum of Understanding Between New Jersey DOE and DEP (August 22, 1978).</p>	<p>The Port Authority of N.Y. and N.J.</p>	<p>As stated in the MOU, DOE is responsible for determining the necessity of energy facilities, taking into consideration the national interest. DEP is then responsible for evaluating the alignments for pipelines and other facilities found to be needed by DOE. The policy on pipelines consists of siting criteria intended to accommodate national interest facilities.</p>
<p>244. (h) Pipelines and Associated Facilities - (i) - The quantity of recoverable reserves and the offshore location of geologic structures should play a role in the number and designation of pipelines, in addition to considerations of safety and conservation of resources. Policy should also acknowledge the probability of natural gas pipelines from the OCS, and estimate how many may be necessary.</p>	<p>Michael Bryce, Department of the Public Advocate</p>	<p>Agreed. Pipelines are the most reliable method of transporting oil from offshore production areas. Concerns about both tourism and the fisheries industry were the basis for favoring piping to tankering or barging of offshore oil.</p>
<p>245. (h) Pipelines and Associated Facilities - (i) - The quantity of recoverable reserves and the offshore location of geologic structures should play a role in the number and designation of pipelines, in addition to considerations of safety and conservation of resources. Policy should also acknowledge the probability of natural gas pipelines from the OCS, and estimate how many may be necessary.</p>	<p>The Port Authority of N.Y. and N.J.</p>	<p>KDEP is currently conducting a piping siting study, but a truly comprehensive, regional planning approach to transporting OCS energy resources will not be possible until the location, amount and nature of these resources are thoroughly explored and understood. In the interim the present policy ensures a balancing between the national interest in exploring the OCS and the interest in protecting New Jersey's coastal resources.</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Response</u>
<u>7:7E-7.4 ENERGY USE POLICIES - Continued</u>			
246. (i) Oil Refineries and Petrochemical Facilities - Why must the State Department of Energy "determine" that there is a need before a new petrochemical facility can become "conditionally acceptable" in areas outside of the Bay and Ocean Shore?	G. Deutch, N.J. Business and Industry Assoc.	It would be immaterial to approve an energy facility, conditionally or otherwise, if there is no need for the facility. Note that "need" is defined very broadly in this context. See Section 7.4(b)1.(ii).	
247. (j) Oil Refineries and Petrochemical Facilities - We agree that locating refineries and petrochemical facilities in the Delaware River or Northern Waterfront Areas would help protect less developed portions of the coastal zone. The plan, however, does not address the problems of finding sufficient vacant space in these areas to accommodate new facilities or even expansion of existing facilities.	The Port Authority of N.Y. and N.J.	The Program does address this issue by requiring that water's edge development not preclude a potential water dependent activity.	
248. (i) Oil Refineries and Petrochemical Facilities - Onshore facilities should be located in Jersey City.	Joseph R. Duffy, Historic Paulus Hook Assoc.	DEP and DOB will have to respond to specific proposals. Some onshore facilities have minimal environmental impacts and could benefit Jersey City. If such facilities are needed, they should be located in accordance with the second Basic Coastal Policy which requires a dispersed pattern of development. However, they would also have to be consistent with policy 7:7E-8.15, Buffers and Compatibility of Use.	
249. We object to the encouragement of oil refineries, petrochemical facilities, and gas processing plants in the industrial areas of the coast.	Nancy Richardson, Bayonne Against Tanks	See above response to Joseph R. Duffy.	
250. (i) - The policies encourage oil refineries, etc., to locate in developed, industrial areas of the coast. Jersey City's zoning ordinance, however, prohibits oil refineries, petrochemical facilities, and gas processing plants.	Catherine P. Drimm	Neither the State nor the federal government has the authority to override local zoning ordinances with respect to the facilities cited except in the case of natural gas pipelines where federal authority can preempt local and state authority.	
251. (j) Gas Processing Plants - Policy should be adjusted to reflect the following intent: "Gas processing plants, including partial processing plants, between the offshore pipeline landfill and commercial natural gas transmission lines shall be excluded from the Central Plan Barrens critical area and shall be discouraged in the Bay and Ocean Shore Segment".	The Port Authority of N.Y. and N.J.	The suggested language differs slightly from the intent. Gas processing plants are prohibited from both the Central Plan Barrens critical area and the Bay and Ocean Shore Segment. New or expanded facilities are encouraged in existing industrial areas where conflict with recreational and resort activities will be minimal.	
252. (j) Gas Processing Plants - To exclude gas processing plants from the Bay and Ocean Shore Segment to the maximum extent practicable Policy (h)(vi) on page 199, which specifically excepts "major gas processing plants and required compressor stations" from the prohibition of ancillary facilities associated with offshore oil and gas pipelines in the Bay and Ocean Shore Segment.	The Port Authority of N.Y. and N.J.	Disagree. Policy (j) excludes such facilities only to maximum extent practicable. This is consistent with the exception for such facilities from prohibition in policy (h).	

Comments	Commentor	Response	Response
<p>7:7E-7.4 ENERGY USE POLICIES - Continued</p> <p>253. (k) Storage of Crude Oil, Gases and Other Potentially Hazardous Liquid Substances - The new policy on the storage of crude oil, gas and potentially hazardous liquid substances would deem such facilities "not acceptable along most of the water's edge as they are not water dependent". This conclusion as applied in our business is wrong. We are water dependent. We handle water-borne commodities and must locate along the water's edge.</p>	<p>Al Megerly, N.J. Independent Liquid Terminals Association</p>	<p>Although many companies that offer storage facilities for such substances handle water-borne commodities, this is often only one component of their business. Further, while economies of scale may be realized by firms that consolidate land-based and water-borne commodities, this consolidation (which does require a coastal location) represents added public costs in the form of environmental and recreational losses. See revised language.</p>	<p>256 - Continued          Segant (outside the Central Pine Barrens area) it would appear to be within the realm of acceptance according to Policy (b)(ii) and (ii) on pipelines.</p>
<p>254. (k) This policy indicates no comprehension of the nature of terminal business which is clearly water dependent. Without access to ship and barge transportation, most bulk liquid storage terminals would not be economically viable.</p>	<p>CAIX Terminals Corporation</p>	<p>See above response to Al Megerly.</p>	<p>The Port Authority of N.Y. and N.J.</p>
<p>255. (l) Tanker Terminals - It is not clear how the construction and placement of a deepwater port could cause severe adverse primary and secondary impacts on the built, natural and social environment."</p>	<p>The Port Authority of N.Y. and N.J.</p>	<p>One of the primary objectives of N.J. DOR's deepwater port study is to identify and evaluate the impacts of the facility. A more detailed discussion of the impacts of deepwater ports on the built, natural and social environment must await the study's completion.</p>	<p>1. Even if a deepwater port were not constructed within the State's 3 mile limit, it would undoubtedly impact the coastal zone. Required Federal permits and approvals would, therefore, be subject to consistency with New Jersey's Coastal Management Program. Only the lack adherence of the policy addresses deepwater ports.</p>
<p>256. (l) Tanker Terminals - If a deepwater port were proposed in federal waters, with a pipeline proposed along a right-of-way in the Bay and Ocean Shore</p>	<p>The Port Authority of N.Y. and N.J.</p>	<p>True. Such a project could be approved if it met all other applicable Coastal Politics.</p>	<p>2. A deepwater port proposal would be a major and unique proposal. It would require an environmental assessment to determine whether any of its primary or secondary impacts would be inconsistent with specific coastal policies.</p>

Comments	Commentor	Response
<u>7:7E-7.4 ENERGY USE POLICIES - Continued</u>		
258. The policy rationale on page 203 for "storage facilities for hazardous substances" is now needed to include "potentially hazardous substances". What is potentially hazardous and how will that term be applied?	AJ Hagerly, N.J. Independent Liquid Terminals Association	The definition of potentially hazardous substances is referenced in the policy 7:7E-7.4(c) (formerly (k)) and is from the Spill Compensation and Control Act (N.J.S.A. 58:10-23.11). The policy will be applied to all new or expanded facilities as detailed in this section. See revised language.
259. (m) Electric Generating Stations - The proposed policy for nuclear generating stations omits any concern for the proposed storage method for spent fuel. There is increasing local concern near the plants that a disposal method will not be available in the near future. I trust that NEP accepts that the proper storage of spent fuel is a relevant concern in approving nuclear plants if there is no permanent disposal method in the foreseeable future.	Salem County Planning Board	While NEMA and DEP share this concern, GAMA does not give DEP authority to review storage of spent fuel, unless the storage would occur in the coastal zone. This is primarily the responsibility of the NRC licensing process, though DEP may thank to comment through the federal consistency process.
260. (e) Electric Generating Stations - We approve of a buffer zone around nuclear facilities and restriction on the handling of spent fuel, but are not satisfied that federal regulations are sufficiently strict.	League of Women Voters of N.J.	The effectiveness of both federal regulations and enforcement capabilities is a key issue in the debate on the safety of nuclear power plants. Any concerns about this issue would be best directed to the Nuclear Regulatory Commission.
<u>7:7F-7.4 ENERGY USE POLICIES - Continued</u>		
261. (u) LNG Facilities (1) - The phrase "unduly endanger human life and property" is extremely broad and does not give applicant a specific goal for risk level. The DEIS should give adequate support for the risk level or argue that it expects to achieve.	Public Service Electric and Gas Co.	The actual language of the CAPRA statute is even broader requiring facilities be constructed "so as to neither endanger human life ... N.J.S.A. 13:19-10(f) - the word "unduly" is in recognition of federal standards under the Pipeline Safety Act of 1979 and other federal regulations regulating aspects of LNG operation.
262. (n) LNG Facilities - The idea of handling the location of LNG facilities on a regional inter-state basis with due consideration being given to their confinement to non-sensitive areas and those that are not heavily populated seems like the only feasible way of managing the real and potential problems they create.	League of Women Voters of N.J.	Agreed. Consideration of national interest and siting in accordance with the Pipeline Safety Act of 1979 ensures interests considerations will be given to siting. See also discussion of LNG facilities in the discussion of National Interests in Part II, Chapter 5.
263. (n) LNG Facilities - We are in agreement with the draft's recommendation that LNG facilities should not be located in the coastal zone. Specifically, such facilities should not be located near any form of dense population.	Michael Bryce, Department of the Public Advocate	Disagree. The policies allow LNG in the coastal zone if need and federal safety criteria are met. Population density is one of the factors considered in siting.
264. (n) LNG facilities (1) - "generally remote ... areas where ... buffer zones are likely to be maintained" is meaningless. Without definition, an owner cannot know what is acceptable. Support for the definition should be included.	Public Service Electric and Gas Co.	Disagree. Given the extremely limited number of LNG facilities likely to be proposed in New Jersey, such sites can be determined on a case by case basis.

Comments	Commentor	Response
<b>7:7E-7.5 TRANSPORTATION USE POLICIES - Continued</b>		
267.	David Fisher, N.J. Builders Association	To provide services adequate for very high, short-lived peak loads that are not needed for the rest of the year but that induce growth further overloading peak flow, is questionable policy.
268.	David Fisher, N.J. Builders Association	While not uniquely coastal, bicycle and foot paths are consistent with the goal of promoting public access to, and use of the coastal zone.
<b>7:7E-7.8 MINING USE POLICIES</b>		
269.	Mining Industry Representatives	The sentence has been removed.
<b>7:7E-7.9 PORT USE POLICIES</b>		
270.	The Port Authority of N.Y. and N.J.	Disagree. Port facilities should not be located along waters with inadequate depths, even if those depths could potentially be changed.

Comments	Commentor	Response
<b>7:7E-7.4 ENERGY USE POLICIES - Continued</b>		
265.	James A. Shissias, Public Service Electric and Gas Co.	1) Agree. This policy is state policy for siting in the coastal zone. Reference to "New Jersey's policy" has been deleted. 2) DEP standards are acknowledged in the rationale, paragraph 2. 3) Reference to RM76-13 has been deleted. 4) Reference to West Deptford and Logan proposals have been deleted. 5) See answer to 4) above. DEP will rely on federal guidelines where appropriate, in meeting its mandate to protect public health and safety.
(n) Liquefied Natural Gas (LNG) FACILITIES - National		
1) We are not aware of any official N.J. policy on LNG facility siting.		
2) Federal LNG siting standards have been issued by the Department of Transportation.		
3) Petition RM76-13 has been dismissed by the Federal Energy Regulatory Commission.		
4) The LNG facility on Staten Island exists in fact and is not a proposal as were those at West Deptford and Logan, which were dismissed and should not be referred to as though they were active proposals.		
5) The DEIS prepared for West Deptford can't be used to condemn all LNG facilities; it is very site and project specific. The authors appear to have a complete lack of understanding of risk analysis.		
<b>7:7E-7.5 TRANSPORTATION USE POLICIES</b>		
266.	Department of the Public Advocate	Such uses are encouraged in the policy document but would not be initiated by DEP.
Develop a new mass transit in the coastal zone, including complete mini-subway through the Hudson River region (St. Lee to Bayonne) and relocate the Ferry Service in the Hudson River region to help deal with air pollution.		



<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Response</u>
<p>7:7E-7.9 PORT USE POLICIES - Continued</p> <p>271. <u>Rationale</u> - It does not appear to us that New Jersey's waterfront, industrial structure, with the prime exception of petrochemicals, is conducive to the barge transfer of ocean dry cargoes.</p> <p>272. As the ability to dredge becomes hampered through obstructions, regulations, and the consumption of acceptable disposal areas, it will be necessary for some port activities to relocate to areas with naturally deep water where dredging requirements are minimized. In contrast to this, the proposed regulations enunciated a policy which looks to freeze present port activities to present locations.</p> <p>273. <u>Definition</u> - Delete "publicly utilized".</p> <p>274. <u>Policy</u> - (iii) The question of responsibility for cost needs resolution.</p> <p>275. <u>Policy</u> - (ii) - on the third line substitute "sufficient" for "adequate".</p>	<p>The Port Authority of N.Y. and N.J.</p> <p>New Jersey Alliance for Action</p>	<p>Agreed. However, the industrial capacities of the waterfront may increase.</p> <p>The policy permits new port activities outside of existing ports where expansion of the existing port is not feasible.</p>	<p>See revised policy, which rates the activities as acceptable in small commercial harbors throughout the coastal zone.</p>
<p>7:7E-7.9 PORT USE POLICIES - Continued</p> <p>276. <u>Policies</u> - (v) - This policy should be expanded to rate the listed activities as also acceptable in the Northern Waterfront Area. In particular, commercial fishing is an important economic development opportunity which should be permitted and encouraged, where feasible, in the Northern Waterfront Area.</p>	<p>The Port Authority of N.Y. and N.J.</p>	<p>The Port Authority of N.Y. and N.J.</p>	<p>See revised policy, which rates the activities as acceptable in small commercial harbors throughout the coastal zone.</p>
<p>7:7E-7.10 COMMERCIAL FACILITY USE POLICIES</p> <p>277. (e) <u>Parking facilities</u> - To deal with air pollution problems, parking lot development or enlargement in the coastal zone should be formally discouraged rather than conditionally approved.</p>	<p>Department of the Public Advocate</p>	<p>Parking lot development can contribute to beach access and public transportation in the case of park and ride lots. Parking lots of reasonable size are needed in conjunction with development not adequately served by public transportation. Note that parking lot policy is now part of Transportation Use Policy, Section 7:7E-7.5.</p>	<p>Agreed. See revised policy which states that convention centers and arenas are discouraged on barrier islands.</p>
<p>278. It is difficult to understand why barrier islands, as a generic category, are lumped together with the high growth regions in the commercial facility use policy which states that convention centers and arenas are conditionally acceptable in these areas. Major facilities on barrier islands should be discouraged. If it is found desirable to make exceptions in special cases such as Atlantic City, these areas should be identified by name.</p>	<p>Nammouth County Environmental Council</p>	<p>Agreed. See revised policy which states that convention centers and arenas are discouraged on barrier islands.</p>	<p>Agreed. See revised policy which states that convention centers and arenas are discouraged on barrier islands.</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<u>7:7E-7.10 COMMERCIAL FACILITY USE POLICIES - Continued</u>		
279. The policy for "Convention Centers and Arenas" is too restrictive. The reason for this is two-fold. First, Cape May County is a moderate growth region therefore these facilities would be discouraged. Second, the requirement of the facility being capable in scale, site design, and architecture with surrounding development is, for the most part, infeasible for Cape May County.	Cape May County Planning Board	Diagrams. New convention centers or arenas in barrier island cities such as Ocean City or Wildwood would induce further growth on already crowded barrier islands. New convention centers outside of a highly developed commercial/recreational area would lead to recreational sprawl. Note that improvements to existing convention centers are not discouraged.
280. In the policy for "Parking facilities" the phrase "and escaping with indigenous or preferred species is maximized" should be deleted following the words "surface is minimized".	Cape May County Planning Board	Agreed. See Policy 7:7E-7.5(e).
281. There may be instances where a hotel or motel may not be compatible with all of the listed conditions but may still be beneficial to the local community and contribute to the significant physical and economic improvement of the Coastal Zone.	The Port Authority of N.Y. and N.J.	See revision to policy dealing with hotels or motels in Special Urban Areas.
<u>7:7E-7.11 COASTAL ENGINEERING</u>		
282. (e) Structural Shore Protection - The clarification of the Use Policy which deals with the maintenance or reconstruction of existing retaining structures is beneficial.	Cape May County Planning Board	Thank you.
<u>7:7E-7.11 COASTAL ENGINEERING - Continued</u>		
283. We note that the Department has eliminated the requirement that structures "protect and enhance" public access and hope that the department will consider this need in reviewing future applications.	Monmouth County Environmental Council	This is not a weakening of public access policy but a recognition that a shore protection structure can be in the public interest without "enhancing" public access. All public moieties that will be spent at the land-water's edge that deal with potential restriction of access will require that the structures provide this access. Where no public moieties are involved, the development must still meet the requirements of the Public Access Resource Policy.
284. We question from where the eighteen inch criteria was derived for the reconstruction of existing remaining structures.	David Fisher, N.J. Builders Association	It was derived from the Army Corps of Engineers general regulations on maintenance and expansion of existing bulkheads.
285. Riprap may be impractical when it is between two existing bulkheads.	David Fisher, N.J. Builders Association	Riprap is preferred but the policy does not insist on its use between two existing bulkheads.
<u>7:7E-7.12 DREDGE SOIL DISPOSAL</u>		
286. Policy - Since the environmental implications of ocean vs. land disposal are still under study, this policy should be held in abeyance until the major issue is resolved.	The Port Authority of N.Y. and N.J.	The present policies on disposal on land or ocean are conditionally acceptable. New requirements which may result from new studies will be incorporated into revision of policies.

Comments	Response	Commentor	Response	Commentor
<p><u>7-7B-7-12 DREDGE SPOIL DISPOSAL - Continued</u></p> <p>287. In Policy (i), clean dredged material should be exempted from the capping requirement.</p>	<p>To insure that adopted vegetation of surrounded area can succeed on the area that has been filled, the top soil should have a similar texture with the surrounding soils. This will result in more rapid restoration of the site.</p>	<p><u>7-7B-8-1, 8-2, 8-3 - Is not this treatment redundant upon paragraphs 7-7B-9-2, 3-3, 3-8, and 3-5?</u></p>	<p>The resource policies reinforce the location policies. While the location policies refer to specific areas of prime concern, the resource policies are more general in their intent and provide a tool to manage impacts on fisheries and shellfisheries which may not be confined strictly to impacts on limited areas.</p>	<p><u>7-7B-8-A SHELLFISHERIES</u></p> <p>291. Policy, page 224 - Delete the word "potentially" from the three places it appears (once each in (i), (ii) and (iii)).</p>
<p>288. The dredge spoil disposal policy seems appropriate and reasonable, as amended. However, there are substantial impacts of Federal dredge spoil areas which are not being regulated. As stated on page 249, "activities on federal lands having spillover impacts ... will require review independent of any existing program." It is unclear how, or if, the Division of Coastal Resources intends to enforce regulations with respect to these dredge spoils disposal areas.</p>	<p>NDA regulations require Federal Consistency Certification for activities on federal lands which have spillover impacts. Federal agencies are required to notify states of proposed activities in or affecting a state's coastal zone, and New Jersey DCF will review and comment upon such proposals in terms of their consistency with the Coastal Resource and Development Policies.</p>	<p><u>7-7B-8-A SHELLFISHERIES</u></p> <p>291. Policy, page 224 - Delete the word "potentially" from the three places it appears (once each in (i), (ii) and (iii)).</p>	<p>The resource policies reinforce the location policies. While the location policies refer to specific areas of prime concern, the resource policies are more general in their intent and provide a tool to manage impacts on fisheries and shellfisheries which may not be confined strictly to impacts on limited areas.</p>	<p>The Port Authority of N.Y. and N.J.</p>
<p><u>7-7B-8-B RESOURCE POLICIES</u></p> <p>289. The application of the Resource Policies on a generalized basis to the industrialized areas is inappropriate. This area is not a source or habitat for fish and wildlife and is not a source for drinking water. There are sufficient controls on industry under present air and water pollution statutes. Further regulation along this line is going to discourage location or expansion in these areas by commercial or industrial interests.</p>	<p>If an area does not contain particular resources, the policies on those resources are not used. If a particular area is not the location of particular special areas, then those policies could not apply to project reviews in this area.</p>	<p><u>7-7B-8-A SHELLFISHERIES</u></p> <p>291. Policy, page 224 - Delete the word "potentially" from the three places it appears (once each in (i), (ii) and (iii)).</p>	<p>The resource policies reinforce the location policies. While the location policies refer to specific areas of prime concern, the resource policies are more general in their intent and provide a tool to manage impacts on fisheries and shellfisheries which may not be confined strictly to impacts on limited areas.</p>	<p>American Littoral Society</p>

Comments	Commentor	Response	Comments	Commentor	Response
<p>7:7E-8.6 GROUNDWATER USE</p> <p>293. It is understood that availability of fresh water has been a serious consideration in shore-side development in New Jersey for a long time. Should not the quantity and quality of existing water tables be a serious consideration in granting permits for new development of all kinds?</p> <p>294. The basis of the policy seems to be that all groundwater should be potable. We object to that premise and refer you to DEPocket No. 010-80-02 for comments by GATX and other on this case.</p> <p>7:7E-8.7 RUROFF</p> <p>295. We find it inacceptable that there is no rationale given for the easing of runoff standards. As it stands this policy latches the substance to guarantee that runoff standards will be adhered to. Under this policy a developer could use some aspect of best available technology claiming that he/she is meeting the spirit of the program, while the actual project runoff might be totally out of control.</p>	<p>M.J. Marine Sciences Consortium</p> <p>GATX Terminal Corporation</p> <p>M.J. Conservation Foundation</p>	<p>It is, Policy 7:7E-8.6 is to be applied to all pro-cesses and the Division of Water Resources review applications to establish that groundwater policies are satisfied.</p> <p>There is no such premise explicit or implicit. The goal is to prevent <u>more</u> potable groundwater from becoming non-potable from pollution or seepage.</p> <p>The best available technology requirement is needed to allow project review officers the flexibility to require the best feasible technique to deal with a specific situation.</p>	<p>7:7E-8.7 RUROFF - Continued</p> <p>296. (b)(vi) should be modified to provide that detention basins or swales should avoid soils with a seasonal high water table less than three feet to the maximum extent practicable since the run-off policy can be met by placing detention facilities in the areas with seasonal high ground-water tables of less than three feet. This may adversely affect infiltration but the extent of this adverse affect must be based on a case by case analysis.</p> <p>297. We question the statement that porous paving is the best available technology, since this technology has not been proven in the field except in one isolated instance at a parking lot at the University of Delaware. We also question whether the standard in curve 39 is a practical one.</p> <p>298. We question the change in the Rationale from the word "say" to the word "will" because in certain circumstances storm runoff may not have an adverse affect on the items mentioned depending on the degree, etc. We also think that the sentence which is stricken indicating a degree of flexibility in storm water management should remain within the Rationale.</p>	<p>David Fisher, N.J. Builders Association</p> <p>David Fisher, N.J. Builders Association</p> <p>David Fisher, N.J. Builders Association</p>	<p>See Revised Wet Soils Policy 7:7E-8.21, which incorporates this concern.</p> <p>Porous paving is not required, but is cited as an example of a best available technology and with suitable substrate conditions. Tests bear this out. Experience shows that runoff curve 39 is practical with responsible runoff design.</p> <p>There is sufficient evidence that improperly managed runoff causes degrading impacts to merit "will". The flexibility permitted by the performance requirements has not diminished, despite the deletion of a sentence.</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<p>7:7E-8.7 <u>RUNOFF</u> - Continued</p> <p>299. We question the change in the slope percentage in 7:7E-8.8(b) from a minimum to 10 to 8 percent.</p> <p>300. There should be a statement that CAPRA will defer to decisions of the Soil Conservation Service, as a practical matter this is CAPRA's practice and there is no necessity to attempt to usurp the jurisdiction of the Soil Conservation Service in this area.</p> <p>301. We question the definition of run-off because we believe that all precipitation except that which is evaporated eventually reaches surface water.</p> <p>302. The existing flexibility as now applied in CAPRA area is proposed to be deleted. No such deletion should take place since some interpretive latitude should properly be maintained.</p> <p>303. N.J.A.C. 7:7E-8.7(b)(vii) provides for a design for twenty-four hour storm of twenty-five and one hundred years. When is the one hundred year design appropriate? We question the twenty-four hour portion of the standard, since this injects a factor that merely complicates calculation and does not have any real beneficial effect.</p>	<p>David Fisher, N.J. Builders Association</p> <p>David Fisher, N.J. Builders Association</p> <p>David Fisher, N.J. Builders Association</p> <p>John J. Horn, Commissioner, Department of Labor and Industry</p> <p>David Fisher, N.J. Builders Association</p>	<p>The original indication of 10% was an error. Slope maps have an 8% cutoff.</p> <p>This is not necessary because the Coastal Policies (7:7E-8.8) adopt the standards set by the State Soil Conservation Committee and local Soil Conservation Districts.</p> <p>See revised definition which incorporates this concern.</p> <p>The existing flexibility is not deleted. The language of the FEIS calls for Best Available Technology to minimize offsite runoff and sets out goals for minimum offsite impacts. This reflects current DEP practice.</p> <p>The 24 hour storm is a more rigorous requirement because the duration of heavy precipitation is longer. This was strongly advocated by the Soil Conservation Service to ensure that prolonged rainfall does not overflow the system.</p>
<p>7:7E-8.7 <u>RUNOFF</u> - Continued</p> <p>304. We applaud the Department's goal of preventing excessive runoff. However, whereas flexibility is included in other sections of the proposed program, the flexibility in the provision is to be removed. The phrase "to the maximum extent practicable" provides flexibility and a necessary element of realism. We suggest that it be retained in Section 8.7ii.</p>	<p>G. Deutch, N.J. Business and Industry Association</p>	<p>The runoff standards are stated as goals not as inflexible requirements. The chief requirement is that best available technology be used.</p>
<p>7:7E-8.11 <u>AIR QUALITY</u></p> <p>305. Suggest a total reevaluation of the transportation plans for the coastal zone, because under present conditions and procedures it may be impossible for the ambient air quality standards to be met in numerous parts of the coastal zone.</p>	<p>Department of the Public Advocate</p>	<p>DEP will not undertake such revisions since it is not its responsibility. This is not a requirement for Federal approval since any new transportation facility would have to receive a coastal permit which would require consistency with ambient air quality standards.</p>
<p>306. We question the revision of the air quality policy. An analysis of air quality should be excluded except in the areas that are urban in nature or "hot spots" as defined by Federal EPA.</p>	<p>David Fisher, N.J. Builders Association</p>	<p>Disagree. Since the whole of New Jersey is already an air-quality non-attainment area for at least one pollutant and standards are still becoming more stringent on the annual improvement schedule required by the Federal Government, the suggested revision has not been made.</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<p>7:7E-8.12 PUBLIC SERVICES</p> <p>307. We believe that CAPRA is overstepping its jurisdiction insofar as health services and educational services are within the province of the Department of Health and the Department of Education respectively.</p> <p>7:7E-8.13 PUBLIC ACCESS TO THE SHOREFRONT</p> <p>308. I encourage the provision that public access and enjoyment of the coastal region shore must be ensured.</p> <p>309. Improve present roadways in heavily populated areas to allow better access to the waterfront. However, great caution should be exercised in promoting another expressway through the northern waterfront area.</p> <p>310. I don't find anything in the proposed OAP addressing access to riverfronts.</p> <p>311. DEP is proposing linear water-front strips for public access. What happens in the case of existing development like Gulgate-palmolive in Jersey City?</p>	<p>David Fisher, N.J. Builders Association</p> <p>Department of the Public Advocate</p> <p>Department of the Public Advocate</p> <p>Department of the Public Advocate</p> <p>Helen Richer</p> <p>Catherine Orsina</p>	<p>Health, safety and welfare obligations are to be considered by DEP in reviewing CAPRA permit applications (Section 11 of CAPRA).</p> <p>No response necessary.</p> <p>Improvement of pedestrian and bike access is needed to improve waterfront access and is included in the coastal policies and secondary impact analysis would be required for any new road.</p> <p>See policy 7:7E-8.13 Public Access to the Shorefront which addresses all coastal waterfronts including rivers.</p> <p>Gulgate-Palmolive has already contributed funds to the development of a DEP-sponsored Park at the foot of York Street. More generally, in other cases of existing industry where waterfront access is not possible, the path will detour inland, until waterfront space is again available.</p>	<p>7:7E-8.13 PUBLIC ACCESS TO THE SHOREFRONT - Continued</p> <p>312. We generally commend the plan's sensitivity to public needs along the developed waterfront by providing access wherever possible. Specifically it is suggested that the last sentence on page 233 might be better stated as "Shorefront development that promotes public access and the diversity of shore-front experiences is encouraged."</p> <p>7:7E-8.16 SOLID WASTE</p> <p>313. The solid waste policy is unrealistic because this is not within the control of the developer and therefore the developer should not have to suffer for the lack of solid waste facilities.</p>	<p>The Port Authority of N.Y. and N.J.</p> <p>David Fisher, N.J. Builders Association</p>	<p>Disagree. The suggested language would actually weaken the proposed policy because it would not enable the State to stop projects which block public access. The policy also promotes public access.</p> <p>CAPRA explicitly states that permits shall be issued only if the proposed facility "provides for the handling and disposal of litter, trash and refuse in such a manner as to minimize adverse environmental effects and the threat to the public health, safety and welfare (emphasis added)". DEP cannot, therefore, approve coastal development until this condition is met. Moreover, wise use of the coastal zone demands consideration of the availability of such facilities in the review of other projects.</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Commentor</u>	<u>Response</u>
<p>7:7E-8.17 <u>ENERGY CONSERVATION</u></p> <p>316. 8.17 implies that the State will have final say as to which energy conservation techniques will be implemented in coastal development areas and will determine the "anticipated energy utilization" for industrial processes. This will unreasonably interfere with industry's efforts to achieve energy conservation goals.</p>	G. Bentuch, N.J. Business and Industry Associates	The policy has been revised to clarify that applicants will prepare energy plan.	David Fisher, N.J. Builders Association	Disagree. One goal of the runoff policy is to ensure that runoff passes through the ground and is filtered before reaching surface water. This cannot occur in wet soils.
<p>7:7E-8.20 <u>HIGH PERMEABILITY MOIST SOILS</u></p> <p>315. The definitions and policy for high permeability moist soils is lacking clarity in certain areas. Questions as to which soils series are high permeability moist soils remain unanswered. The definition and policy for "High Permeability Moist Soils" needs to be modified in order to answer such questions.</p>	Cape May County Planning Board	The policy on moist soils is a Resource Policy independent of Location Policies. These areas may be determined from the County Soil Survey or site inspection. Where moist soils overlap with Special Areas, the most restrictive policy applies.	David Fisher, N.J. Builders Association	Such analysis has been done by the Soil Conservation Service. Prime agricultural soils are prevalent in parts of the coastal area, and regulation is essential to prevent depletion of this soil resource which is critical for food supply. The fertile soil policy does not in any case prohibit development.
<p>7:7E-8.21 <u>WET SOILS</u></p> <p>317. Detention basins, swales and other runoff recharge areas may in fact be viable in wet soils depending upon the nature of those facilities. These should not be prohibited but should be conditionally acceptable based upon a case by case analysis.</p>				
<p>7:7E-8.22 <u>FERTILE SOIL</u></p> <p>318. We strongly object to the policy on fertile soils since traditionally fertile soils are also the best soils for development. There should be an analysis of how prevalent these fertile soils are in the coastal area and why fertile soils are unique to the coastal area or should be regulated. This type of regulation goes way beyond the CAPRA statute.</p>			David Fisher, N.J. Builders Association	No response necessary.
<p>7:7E-8.23 <u>FLOOD HAZARD AREAS</u></p> <p>319. We are gratified to see that the flood hazard area policy is designed to comply with the law on flood hazard areas and regulations promulgated thereunder.</p>			David Fisher, N.J. Builders Association	
<p>316. We question why there should be any prohibitions on building in areas with seasonal high water table of three to five feet and also question what type of development would be acceptable in these areas.</p>	David Fisher, N.J. Builders Association	There is no blanket prohibition. Development is to avoid these soils to the maximum extent practicable. The concern is rapid, unfiltered transmission of contaminants to wells and surface water. Development that does not endanger these resources would be acceptable.		





<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<u>GENERAL - Continued</u>			<u>GENERAL - Continued</u>		
326. Had we been able to appear at the June public hearings, we would have expanded on our earlier testimony and expressed continued support for your effort to bring rational planning to New Jersey's coastal areas.	Hertz Mountain Industries, Inc.	Thank you.	330. I don't all this management inflationary?	W. Elmer Seaman	No. In the long term, it will lead to more productive use of limited resources. Also, see Economic Consequences section of Part IV.
327. We strongly urge that care be exercised to assure that the coastal management program not emerge as a separate and distinct layer of regulations. Our hope is that the management potential of the proposed program be employed to expedite permit and other review processes, facilitate decision making and reduce delays. The pre-application conference appears to address this issue, and we commend that RFP innovation.	The Port Authority of N.Y. and N.J.	Agreed.	331. The second full paragraph on page 8, the first paragraph on page 9, are excellent descriptions of how much of the Northern Waterfront Area requires special coastal management attention. We hope that implementation of the plan will assure recognition of the stated fact that the "economic revitalization of New Jersey's cities is an increasingly recognized coastal issue".	The Port Authority of N.Y. and N.J.	No response necessary.
328. Why are the constitutional property rights, as guaranteed by both the U.S. and N.J. Constitutions never mentioned?	W. Elmer Seaman	Constitutional property rights are fully protected and maintained by the Coastal Program. Those rights prevent the taking of private property without compensation, but they do not include immunity from regulation in the public interest which may increase or decrease the value of that property.	332. The over-abundance of governmental regulations makes it impossible for developers to represent the public interest.	M. Hudson, Atlantic City Development Corp.	The program is intended to insure that the combined efforts of government and developers achieve the public interest. Government regulations provide the specificity to implement public laws consistently and efficiently.
329. At a time when the President of the U.S. and Congress are trying to reduce regulations and red tape, why is N.J. trying to increase it?	W. Elmer Seaman	This program is designed to make use of existing law more productive and efficient.	333. Introduction, page 16 - In the third paragraph, the suggestion that Coastal policies could "be used to guide other decisions not strictly subject to the New Jersey Coastal Management Program" is presumed to be voluntary and without statutory significance.	The Port Authority of N.Y. and N.J.	The Coastal Resource and Development Policies are Departmental Rules, but other divisions of DEP will be guided by them only to the extent that they do not conflict with the other divisions' legislative mandates.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Commentor</u>	<u>Response</u>
<u>GENERAL - Continued</u>				
334. Section 305 of the Federal Coastal Zone Management Act offers each State a choice in deciding which method to use in exercising land and water use control in its coastal zone. We question why New Jersey considers management technique "p" - direct state regulation and planning - to be the "only feasible approach".	The Port Authority of N.Y. and N.J.	After careful consideration and wide public participation, DEP has concluded that technique "p" is the most appropriate approach for New Jersey. This approach was adopted after concluding that techniques "a" or "b" would require State approval of local coastal regulation decisions, which was considered objectionable by local governments.	Carol Barrett, Sierra Club, West Jersey Group	A major aspect of the federal program is an annual evaluation called for by Section 312 of the CZMA of each approved state program. The basis for the evaluation is the approved program as implemented in that year's grant, including proper enforcement of State laws. The State must carefully follow the program as well as show that the laws which serve its basis are adequately enforced.
335. In regards to the legality of this regional planning effort, land use planning and zoning has been recently upheld as constitutional by the Supreme Court.	Earl Schwartz	No response necessary.	Federation of Beach Associations	This opposition is noted. The program has been in effect since September 1978 in the Bay and Ocean Shore Segment of the State, with beneficial results which approval will continue and extend to the rest of the coastal zone.
336. It should be specifically included in this document that public notice and hearings will take place when there are changes contemplated. Also, policies should not be permitted to be altered because a locality changes its zoning or master plans.	Carol Barrett, Sierra Club, West Jersey Group	The Federal CZMA requires that revision to an approved coastal program have wide public review. This is described in the management system and next steps chapters. Furthermore, the New Jersey Administrative Procedures Act requires notification and public review of proposed rule changes. A change in municipal zoning or a municipal master plan is not, by itself, a change in the coastal management program.	N.J. Conservation Foundation	Thank you.
337. We hope that approval of this program and additional grants will not be given unless there is evidence submitted that enforcement and implementation can be carried forth. That means enough staff and qualified personnel will be used. We would also like to be assured that the federal agency responsible for the financing and approval of New Jersey's Coastal Management Program will exert sufficient control in the present and future so that it will be adhered to in spirit and letter.			Slair Spaan	DEP believes the regulation is needed to protect resources of regional and statewide interest.
338. We are strongly opposed to the coastal management plan and urge and expect it not to be passed.			Natural Resources Defense Council	No response needed.
339. The proposed program appears to be well organized, and in general we feel that it will aid New Jersey in protection of its valuable coastal resources.				
340. The proposed CMP is too much regulation.				
341. The proposed CMP is a positive step towards a sound management program, and final federal approval of the CMP is important.				

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Response</u>
<u>GENERAL - Continued</u>			
342. I must concede that something other than home rule must be tried. I support regional planning and this Coastal Zone Management Plan.	Isabell Dietz	Thank you for your support.	Adequate comment period has been provided in the six years of program development. Adoption as rule will occur September 26, 1980 at which time the program will become effective.
343. Does the document cover some-where procedures for self modification at a later date as events might dictate? Can such procedures be effected at the executive level of government or are they restricted to the Legislative authority?	Isabell Dietz	The Federal CZMA mandates a procedure for review of changes to the document. This is described in Section 923-80 of the Federal Regulations. In addition, the rules governing coastal permit decisions will be reviewed annually and updated as necessary. No legislative approval is required for rule changes, but public notice and opportunity for comment would be provided.	Adequate comment period has been provided in the six years of program development. Adoption as rule will occur September 26, 1980 at which time the program will become effective.
344. The Coastal Management Program mandates of land use regulation, the authority for which was not granted to it under the CDMMA Act. It ignores the mandates to recognize economic appropriations of the area, and it is of no legal effect until it complies with the enabling legislation (CAPRA) by submitting the CZM to the Legislature for review and approval.	R. C. Westmoreland, Esquire	The requirement that DEP submit a management strategy under CAPRA to the Legislature was fulfilled in 1977. The enabling legislation for the CZM is not only CAPRA, but also the Wetlands Act, Waterfront Development Act and Riparian Statutes.	Delaware was singled out because the Delaware border extends to the mean low water line on the New Jersey Shore, thus creating a unique permit coordination situation. Policy coordination with the New York and Pennsylvania coastal management programs will also continue to be carried out.
345. Our office has for the most part been satisfied with the functioning of the Bay and Ocean Shore segment. A review of the expanded areas and regulations, initially indicates this proposed program should function as well.	Michael Bryce, Department of the Bay Public Advocate	No response needed.	Thank you. Maps will be prepared during 1980-1981. Under the Federal CZMA and 923.31(a)(8) of its rules, states must be able to indicate whether a particular piece of property is within the coastal zone with a reasonable length of time, and DEP will do this.
346. It is absolutely necessary that a time frame be established between the date of adopting a Coastal Management Program and a date when it becomes effective. We suggest a one year time frame.	A. Helwig, Pireland Industrial Complex		
<u>BOUNDARY</u>			
348. Seward and Interstate Boundaries, page 18 - In the last paragraph the need is stressed for coordination between Delaware and New Jersey. We believe it is of equal importance to have similar joint efforts developed for coastal zone cooperation between New York and New Jersey, but found no such evidence in the report.	The Port Authority of N.Y. and N.J.		
349. Page 2, Figure 1 - Could DEP supply large-scale maps? Figure 1 is impossible to read.	A. Helwig, Pireland Industrial Complex		Contact DEP's Bureau of Coastal Planning and Development for detailed information about any particular segment of the coastal zone boundary.
350. This boundary is far more appropriate than the previously proposed boundary which would have included extensive inland areas. However, the document makes no attempt to map the boundary, which will tend to create misunderstandings and confusion. The boundary should be delineated on a regional basis by the Division of Coastal Resources to eliminate most boundary discussions.	Balton County Planning Board		Thank you. Maps will be prepared during 1980-1981. Under the Federal CZMA and 923.31(a)(8) of its rules, states must be able to indicate whether a particular piece of property is within the coastal zone with a reasonable length of time, and DEP will do this.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<u>BOUNDARY - Continued</u>		
351. Recommend that head of salinity rather than head of tide be coastal zone boundary in Delaware River area.	A. Helwig, Purcelland Industrial Complex	DEF elected to use the head of tide rather than the limit of salinity in defining the coastal zone for these reasons: (1) DEP-PCR already regulates tidal waters and tidally influenced wetlands, (2) consistency with the proposed Pennsylvania CMP, and (3) the sensitivity of the aquatic habitats, breeding and spawning areas of the Delaware Bay to impacts originating higher up the river demands some degree of upstream control.
352. It is suggested that MDEP delete the proposed expanded Delaware River Area from the proposed coastal zone boundary. The Federal Coastal Zone Management Act of 1972 does not require the inclusion of the Delaware River Area, and the intent of Congress was not to include substantial areas of freshwater within the coastal zone.	J. Shinnias, Public Service Electric & Gas Co.	The potential of waterfront development along the Delaware estuary degradation of the critical Delaware Bay estuarine areas is high. Management to ensure water quality is essential. Also, see response above to Helwig on why E.I.J. chose to set boundaries at the head of tide.
353. It appears that the proposed expansion of the CMP to include the Delaware River area will not significantly restrict new development along the river but rather will affect the manner of development in that area. The use and location policies of the document generally acknowledge the growth potential of the region and recognize it as a region suited for development, in deference to other coastal municipalities.	Salem County Planning Board	Agreed.
354. How accurately can DEP determine extent of tidal influence by using the very gross guideline of including all waters up to where the 20 foot contour crosses a stream?	Gloucester County Planning Board	The 20-foot contour line was recommended by the Office of Environmental Analysis as a rough approximation of the maximum head of tide. The coastal zone boundary will be refined as data becomes available from OEA's Tideland Delineation Project.
355. We believe it is an unfair burden of proof to require a property owner to show that land within 500 feet of tidal water is not within the waterfront boundary. This burden of asserting jurisdiction should be on the Division.	David Fisher, E.J. Builders Association	This burden will be assumed by the Division at the request of a land owner.
356. We are pleased to note the addition of property lines as part of the boundary definition.	Camden Department of Community Development	Thank you for support.
357. I disagree with the definition of the waterfront as 500 ft. from the waterway. Only the first substantial rise let should be regulated.	David Fisher, E.J. Builders Association	In most cases only the first lot adjacent to a waterway will be regulated. 500' is a maximum jurisdiction, should the first lot be deeper than 500'.
358. The coastal zone boundary is inadequate; a minimum of 100 feet is too little.	Helen Thompson, Save the Hudson, Our Riverland Environment	This minimum only occurs in parts of the developed waterfront, where the character of the area has already been largely determined and the "coastal" concern applies generally to the first inland use. In other parts of the coastal zone, the boundary is wider.

<u>Comments</u>	<u>Commenter</u>	<u>Response</u>	<u>Comments</u>	<u>Commenter</u>	<u>Response</u>
<b>PRINCIPAL IMPLEMENTATION PROGRAMS</b>					
359. The character of the Northern Waterfront and Delaware River Area is industrial and developed, an extension of the Coastal Management Program outside of the Bay and Ocean Shore Segment and the current proposals are unnecessary.	L. Caccese, N.J. Alliance for Action	The Northern and Delaware River waterfront areas have the capacity to have direct and significant impacts on the coastal zone and must, therefore, be included in the coastal zone under the Federal CZMA (see Federal Regulation 923.11).	DEP has proposed that Waterfront Development Permit decision appeals be made to the Commissioner rather than to the Tide-Lands Resources Council. The Commissioner of DEP, however, is also a Commissioner for the Port Authority of N.Y. and N.J. May can the Commissioner fairly evaluate any appeals which involve the Port Authority?	Pat Castagno, Positive Action Citizen's Team (PACT)	Both DEP and the Port Authority are public service, non-profit agencies. In both capacities, the Commissioner of DEP would be striving to develop coordinated policy of benefit to New Jersey.
360. The elimination of the Delaware River Area would not delay or deny federal approval of a Coastal Management Program nor would it result in a loss of federal funding or other benefits that may accrue to the State under the CZM Act of 1972.	J. Shissles, Public Service Electric and Gas	The exclusion of the Delaware River area would definitely result in the loss of CZM and CEQP funds for that area. Furthermore, this area would benefit from application of consistent coastal policies and federal consistency.	363. A ninety-day permitting process for a proposed industrial user is too long a period of time. Once a firm has made the decision to establish a new facility, it is in its best interest to do so quickly. Ninety days for a permit will cause him to look to Delaware or Pennsylvania for his site. New Jersey will then lose jobs and taxables.	A. Helvig, Purland Industrial Complex	90 days is a maximum time frame set to ensure timely permit decisions. For a major project, it is likely that other local, State or Federal permits would require a longer decision period than the Coastal permits. The State coastal permits should be pursued at the same time as other required permits to lesser overall review time.
361. The coastal zone boundary outlined in the Proposed CMP is inadequate; the Palisades are not included and a 500 foot boundary is not wide enough.	Sally Aronson	The Palisades are not included in the Coastal Zone because uses on the Palisades do not have a direct or significant impact on coastal waters. (See 923.11 of Federal Regulations). In addition, DEP lacks the authority to regulate or manage development affecting the Palisades. In Part II, Chapter 6, "West Steps in Coastal Management in New Jersey" it is suggested that while new legislation is not necessary to achieve federal approval of the Coastal Management Program, it may be desirable in the future to improve the effectiveness and the efficiency of the program. Legislation to protect the Palisades could therefore be developed at a later date.	364. Both the Coastal Area Facility Review Act and the Waterfront Development Law contain serious deficiencies which must be noted. In each act, the jurisdiction restrictions bear no rational relation to the intent of the CZMA to regulate uses and areas having a "direct impact on coastal resources".	Natural Resources Defense Council	NMA-CZMA has determined that DEP jurisdiction under CAFRA and the Waterfront Development Act is adequate to manage all land uses which have a direct and significant impact on coastal waters. The CZMA does not require every land use to be managed under the program, see Section 923.11(b)(1). Section 304(1) of the CZMA states that the coastal zone extends inland from the shorelines only to the extent necessary to control shore lands, the use of which have a direct and significant impact on coastal waters.

Comments	Commentor	Response	Response
<b>PRINCIPAL IMPLEMENTATION PROGRAMS - Continued</b>			
<p>365. We believe that appeals regarding waterfront development permit decisions should continue to be directed to the Tidelands Resources Council since, as a body of twelve Governor appointed citizens, it is representative of a broader public interest. The Commissioner would still maintain veto power over the Council.</p>	<p>The Port Authority of N.Y. and N.J.</p>	<p>The Tidelands Resource Council has the responsibility for protecting the public interest in state owned Tidelands, and should be left free to deal with major issues regarding alienation of these lands, without being burdened by detailed permit review.</p>	<p>The Coastal Program itself will not affect Green Acres, selection process for projects they intend to fund except to prevent projects which would be inconsistent with Coastal Policies. Comments on this issue should be (and have been) directed to DEP Green Acres.</p>
<p>366. The streamlining of the permit procedure is very important. The pre-application conference, single permit office and the "90 Day Construction Permit Law" will assist with simplifying and speeding up the permit process.</p>	<p>Camden Department of Community Development</p>	<p>No response needed.</p>	<p>Agreed.</p>
<p>367. The state should continue the unfinished Sea Isle City Jetty Project.</p>	<p>John Federico, Cape May County Emergency Beach Restoration Assoc.</p>	<p>The Sea Isle City Jetty project is a decision based on the results of the Shore Protection Master Plan to be released this fall and is not a direct outcome of the Coastal Program.</p>	<p>The funds received by the State under the FZMA have been used to develop policies and a management system to regulate growth on barrier islands and prevent unwise development. These efforts will continue throughout the coastal zone with approval of the program. In general, management funds cannot be used for construction or land acquisition.</p>
<p>368. Some scheme of exempting commercial and industrial zones properties in the areas covered by the Waterfront Development Law and/or a method for grandfathering future modifications to existing facilities should be considered to minimize the impact of expanded permit authority.</p>	<p>John J. Moen, Commissioner, Department of Labor and Industry</p>	<p>We agree. This would run counter to the intent of the program to provide State review, in addition to municipal review of waterfront proposals.</p>	<p>The review staff of DEP is expanding as rapidly as civil service restrictions permit. Meanwhile, the 90-day rule assures that no developer will be unduly delayed by the permit process. Federal approval of the Cap will provide added funds to hire additional staff.</p>
<b>PRINCIPAL IMPLEMENTATION PROGRAMS - Continued</b>			
<p>369. Public Trust Doctrine - In 1978, the courts ruled that sand beaches owned by a municipality are in the Public Trust, Green Acres, therefore, should acquire 20 additional acres of water edge uplands of Coven Point.</p>	<p>Audrey Zapp, Hudson County Citizens for Clean Air</p>	<p>New Jersey should have a Federally-approved coastal management program in order to obtain the benefits of the Coastal Energy Impact Program.</p>	<p>The Coastal Program itself will not affect Green Acres, selection process for projects they intend to fund except to prevent projects which would be inconsistent with Coastal Policies. Comments on this issue should be (and have been) directed to DEP Green Acres.</p>
<p>370. There seems to be a dichotomy between points of the proposed CIP that want to stop development of barrier beaches and a federal program that gives money to states for coastal management.</p>	<p>Nancy Fioravanti, RUDOE, Coastal Energy Impact Program</p>	<p>Ms. Fioravanti, we strongly oppose any further burden on the review staff until it has been bolstered and has been awarded salaries commensurate with its experience, expertise, etc.</p>	<p>Agreed.</p>
<p>371. Helan Richer, Raritan Bay Improvement Assoc.</p>	<p>Helan Richer, Raritan Bay Improvement Assoc.</p>	<p>The review staff of DEP is expanding as rapidly as civil service restrictions permit. Meanwhile, the 90-day rule assures that no developer will be unduly delayed by the permit process. Federal approval of the Cap will provide added funds to hire additional staff.</p>	<p>Agreed.</p>
<p>372. The acceptance of jurisdiction over waterfront development activities by the Division should be accompanied by a restructuring of the review personnel of the Division. We strongly oppose any further burden on the review staff until it has been bolstered and has been awarded salaries commensurate with its experience, expertise, etc.</p>	<p>David Fisher, N.J. Builders Association</p>	<p>The review staff of DEP is expanding as rapidly as civil service restrictions permit. Meanwhile, the 90-day rule assures that no developer will be unduly delayed by the permit process. Federal approval of the Cap will provide added funds to hire additional staff.</p>	<p>Agreed.</p>

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<u>PRINCIPAL IMPLEMENTATION PROGRAMS - Continued</u>					
373. The federal government should not be in the business of giving money to the states to restrict local government.	Elmer Bowman	The purpose of the program is not to restrict local governments, but to implement State policies for its coast, as provided by the CZMA.	376. CZMA regulations can be avoided by splitting a project into two separate units too small to be covered by CZMA. This is not the intent of the Act and this situation should be addressed in the proposed CIP.	Thomas Meyenhouse	This is not the case. A property subdivided into developments below the threshold of CZMA with the intent of avoiding State regulation is subject to CZMA for all units after the first 24. The building of one project with less than 25 units has been used to avoid CZMA regulation and this is a problem DEP recognizes and has attempted to address in proposed state and shorefront protection legislation. See "Next Steps" Chapter.
374. Is there any provision in this plan which would direct Coastal Energy Impact funds to areas of the state suffering from the greatest adverse impacts due to coastal energy facilities?	The Port Authority of N.Y. and N.J.	While CEIP funds are to be expended in coastal areas, the CIP does not directly indicate how CEIP funds would be allocated in the state, except to provide that they not be given to projects inconsistent with the Coastal Policies, Section 308(g)(2) of the Federal CZMA requires each state to develop an allocation process for CEIP funds. This process is administered by NDOE, and does direct funds to areas of the State suffering the greatest adverse impacts.	377. The State of New Jersey should reexamine its present policy of embracing the obligations of federally-funded regulatory programs simply because of the availability of substantial funding. Would state Government be willing to shoulder the full burden of financing the developed coast program administration if federal funds were curtailed?	New Jersey State Chamber of Commerce	DEP would seek such funding, whether sufficient funds would be made available by the Legislature to adequately manage the coast is uncertain. Congress has established the CZMA to address perceived deficiencies in achieving a wide range of coastal goals and has funded states through the Act on the best level of government to take charge of the management problems of the coast and resolve them.
375. The commitment by DEP in striving toward a consolidated/streamlined permit system addresses a real need of the business community in New Jersey. It is hoped that the intra-Departmental coordination that is referred to as a means of implementing these proposed coastal policies could be intensified for the purpose of providing a truly consolidated environmental permit system in New Jersey.	John J. Born, Commissioner, Department of Labor and Industry	Agreed.	378. Page 37, Section 4, second paragraph - Since DEP has not yet completed the tidelands delineation program, isn't this proposed Coastal Management Program putting the cart before the horse and opening DEP to litigation?	Pureland Industrial Complex	Independent of the tidelands delineation process, New Jersey will have the authority to regulate the waterfront under the rules to N.J.S.A. 12:5-1 which applies to tidelands, but is not a riparian statute.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<u>PRINCIPAL IMPLEMENTATION PROGRAMS - Continued</u>		
379. Does DEP's mandate allow it to exercise regional control or state-wide zoning?	Roger Wells, Inc. Roger Wells, Inc.	DEP does not zone. No policy limits an area to a specific use. Instead locations and intensities of major developments are managed to preserve critical regional resources, as mandated by CAPRA, the Wetlands Act, and the Waterfront Development Law.
380. The goal of unifying and simplifying the permit system is unrelated to the extension, or non-extension of the Coastal Zone into the Upper Delaware River and Northern New Jersey area. This can be done without adopting the present proposals.	N.J. Alliance for Action	The extension of the coastal zone to these areas is a requirement of federal approval because they have a direct and significant impact on coastal waters. The comment is technically correct, although federal approval provides funding for permit simplification and other activities.
381. A suggestion has been made that three of the coastal permitting systems be integrated into one permit system. We would strongly recommend this, in the interest of clarity and efficiency.	Michael Bryce, Department of the Public Advocate	DEP will consider preparation of proposed legislation to accomplish this purpose during 1981.
382. Sierra Club supports predictability in the permit process for developers. DEP, however, should strictly enforce its rules once they are established.	Carol Barrett, Sierra Club, West Jersey Group	Agreed. NOAA-OCZM will assure that this is the case through grant review, appropriate grant conditions where necessary and review carried out under the annual evaluation authorized under Section 312 of the CZMA.
<u>SUPPLEMENTARY PROGRAMS</u>		
<u>PRINCIPAL IMPLEMENTATION PROGRAMS - Continued</u>		
383. The proposed amendment to E.J.A.C. 7178-1.2(f) on pages 75 and 76 is a back door way of gaining jurisdiction over less than 25 housing units. We feel this is over-reaching.	David Fisher, N.J. Builders Association, Al Mogerley, N.J. Independent Liquid Terminals Assoc., WATX Terminals Corporation	Disagree. This is an effort to insure the coordination of DEP decision-making affecting the coast.
384. Is there a provision for a Master Waterfront Development Permit whereby a developer would have the flexibility of changing specific details on the site as changes take place during the course of the project?	Parland Industrial Complex	There is not now such a provision. However, pre-coastal permit programs will be prepared in 1981. These rules will deal with the question of concept approval or a "Master Permit" for future development of large tracts of land.
385. In page 41 relating to the CZIP program, the text indicates that New Jersey CZIP staff approves project applications; this is not the case.	David Atkin, NUDOX, Coastal Energy Impact Program	Agreed. Revision made.
386. We are pleased with the initiative taken to coordinate Division actions and decisions with other DEP branches, and with the extension of coordination process to regional and federal agencies.	League of Women Voters of N.J.	No response needed.



<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<b>OTHER AGENCIES - Continued</b>		
390. How will the Hudson River Waterfront Commission be interesting with the Coastal Management Program?	Department of the Public Advocate	The Commission is a temporary body with no statutory power. The permanent agency it recommends will have to be considered by the Legislature and Governor. If it is created, its Riverfront Plan would be required to be consistent with all existing State policies, including the Coastal Management Program.
391. The recommendations of the Hudson River Waterfront Study, Planning, and Development Commission should be included in the CMP.	Sally Aaronson	"See Northern Waterfront Area" section of Chapter Three, which summarizes the work and recommendations of the Commission. Since its recommendation are only advisory and are subject to change by the Legislature, they have not been included in full.
392. Salem County is strongly opposed to the statement in this revision that any project in the area must be consistent with both Delaware's and New Jersey's coastal programs and obtains permits from two states.	Salem County Planning Board	This disagreement is noted, but DEP has found no other solution available by administrative action to address the peculiar N.J.-Delaware boundary in Salem County, where the Delaware State line reaches to low tide on the New Jersey shore.
393. The administrative development of rules and regulations by persons other than elected officials has a tendency to erode traditional concepts of home-rule and true political responsibility. It would be urged, therefore, that any proposed system for regulation involve the local governmental units of each municipality and county on a meaningful basis and on a basis where full and complete discussion and analysis can be had.	Daniel Myers	On the contrary, administrative agencies at all levels of government traditionally prepare rules and regulations in response to legislation enacted by elected officials. Local governments have been involved in commenting upon DEP's coastal programs throughout the planning process. See Appendix A.
394. The 208 plans and CZMA plans have been compared and are fully consistent. Revised language indicates that CAPRA permits too must be consistent with 208 plans. This is required by the B.J. Water Quality Planning Act (N.J.S.A. 58:11A-10).	David Fisher, N.J. Builders Association	The 208 plans and CZMA plans have been compared and are fully consistent. Revised language indicates that CAPRA permits too must be consistent with 208 plans. This is required by the B.J. Water Quality Planning Act (N.J.S.A. 58:11A-10).
395. There should be provision for coordination with other government departments at the state and county level which have not always been apparent in the past.	Daniel Myers	DEP makes, and will continue to make, extensive efforts at such coordination. See appendix A.
<b>OTHER AGENCIES</b>		
387. Municipal consistency with Coastal Resource and Development Policies should not be a condition for the award of Harbor Clean-up funds. This project has regional and national objectives related to navigation safety and environmental enhancement. Objectives which should be pursued by New Jersey without regard to a municipality's consistency with coastal policies.	The Port Authority of N.Y. and N.J.	Agreed. Sentence deleted.
386. We would like a clarification of the statement on page 46 that no Waterfront Development or Wetlands permits will be granted which conflict with a certified 208 plan. We do not think that 208 permits should apply to CAPRA permits and would like a clarification that this policy does not apply to CAPRA permits.		

<u>Comments</u>	<u>Response</u>	<u>Commentor</u>	<u>Response</u>
<u>OTHER AGENCIES - Continued</u>			
393. The role of the Department of Health should be discussed in the section "Other State Agencies".	Agreed. See revised section.	Commissioner Finley, Department of Health	Salem County Planning Board
394. Northern Waterfront Area - page 61 - In the second paragraph, please expand the description of the Port Authority's role by inserting, after -- "and industrial facilities", the following: "and its mandate to protect and preserve coasts through the Port of New York and New Jersey".	Agreed. Section revised.	The Port Authority of N.Y. and N.J.	
395. In the description of regional entities and authorities which affect land use, the Delaware River and Bay Authority is omitted. The DRBA has recently analyzed various new roles that could fulfill along the Delaware River and Bay and therefore should be mentioned in the report.	See revised discussion of Regional Land Use Authority in Delaware River Area.	Salem County Planning Board	Charles Sasekind, Clerk, Borough of Edgewater
396. We are glad to submit the study sites of the Delaware River Port Study for inclusion in the NJCRP. By doing this, there will be no conflict in the Delaware River master plan and the NJCRP.	See discussion of Regional Agencies in the Delaware River Area (Part II, Chapter 3), which describes this submission.	Delaware River Port Authority	
<u>OTHER AGENCIES - Continued</u>			
397. The document lists the possibility of delegating some regulatory responsibilities to county or municipal governments. The county supports authority delegation to the County provided a Plan consistent with the Coastal Zone program is adopted. I urge pursuit of the suggested new legislation by the Department.			DEP will revise this idea as noted in the Program document.
398. The names of municipalities involved in the Hudson River Waterfront Commission Study were led to believe that Hudson River waterfront towns would be excluded from the CRP. It is unreasonable for these towns to be covered by both.			This is inaccurate. The Hudson River Waterfront Commission and the Coastal Program will achieve similar results of benefit to the region. The Commission cannot replace the Coastal Program, in that it is recommending a permanent agency to oversee the development of the waterfront and to prepare a site specific master plan, while the Coastal Program is more general, and its policies will recommend the protection of coastal resources and encourage only general types of development. The policies recommended by the Commission, however, are consistent with the Coastal Resource and Development Policies.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Commentor</u>	<u>Response</u>
<p><u>OTHER AGENCIES - Continued</u></p> <p>399. The document should identify that New Jersey laws of 1974, Chapter 359, (S 1494) allows for the delegation of stream encroachment, flood plain, riparian, wetlands and CWA regulations to State established standards. A coastal zone policy should call for the development of those standards by the NJDEP to allow for County existence in implementation where appropriate.</p> <p>400. The County Environmental Health Act, Chapter 443, Law of 1977 permits State pollution control authority to be delegated to County Health agencies pursuant to State standards. This could also be a valuable tool in coastal zone protection which should be identified in the document.</p> <p>401. We note on page 56 that there is a reference to the Soil Erosion and Sediment Control Act. This was amended in 1980 to delete the jurisdictional requirement of the municipal building permit.</p>	<p>Middlesex County Planning Board</p>	<p>This is the responsibility of DEP's Divisions of Water Resources and Environmental Quality and is distinct from the purposes of this Coastal Program.</p>	<p>James Shissles, Public Service Electric and Gas Co.</p>	<p>Under Section 307(c)(3)(A) of the RCRA, certification of consistency with an approved State CWP is required before a Federal license or permit may be issued.</p>
<p>402. Page 250 - The paragraph entitled "Direct Federal Activities and Development Projects" seems to further support the case for federal preemption. (Refer to comments on page 193 and 248). Also refer to page 251 under "Federally Licensed and Permitted Activities".</p>	<p>Middlesex County Planning Board</p>	<p>See above responses.</p>	<p>J. Shissles, Public Service Electric and Gas Co.</p>	<p>It is correct that direct Federal activities must be consistent with an approved CWP to the maximum extent practicable. However, as noted in final Federal Regulations (15 CFR 910.37) and related introductory comments, this is an extremely strict standard that can be deviated from only under the most unusual circumstances.</p>
<p>404. Must state actions be consistent with federal policies? What control does the federal government exert over New Jersey's actions?</p>	<p>David Fisher, N.J. Builders Association</p>	<p>Agreed. See revised language.</p>	<p>Carol Barrett, Sierra Club, West Jersey Group</p>	<p>The CWP must be consistent with the stated goals of the RCRA. Failure to implement federal coastal objectives could lead to loss of federal approval and coastal management funds. Annual reviews of compliance are held under the authority of Section 312 of the federal CZMA.</p>
<p>405. The scope of federal consistency review is constrained both inside and outside of the defined coastal zone to the scope of regulations which are directly supportable under state law.</p>	<p>J. Shissles, Public Service Electric and Gas Co.</p>	<p>Limiting federal consistency to the scope of regulations which are directly supportable under state law would make it meaningless, and this was not the Congressional intent.</p>		

Comments      Commentor      Response

NATIONAL INTERESTS - Continued

407. Page 260 - Liquefied Natural Gas - The reference to the National Energy Plan is inappropriate since it was superseded by acts passed by Congress. Safety was addressed in Public Law 96-129 passed November, 1979. The Energy Act of 1978 addresses pricing as well as Section J of the Natural Gas Act. The 1977 plan has been superseded by the 1979 plan, and will be superseded by the proposed 1981 plan.

408. The Division is improperly using the federal consistency provision by extending its jurisdiction to the developed coast. not presently under state regulation, and to non-coastal areas having only minimal or indirect impacts.

409. Page 260 - Liquefied Natural Gas - The reference to the National Energy Plan is inappropriate since it was superseded by acts passed by Congress. Safety was addressed in Public Law 96-129 passed November, 1979. The Energy Act of 1978 addresses pricing as well as Section J of the Natural Gas Act. The 1977 plan has been superseded by the 1979 plan, and will be superseded by the proposed 1981 plan.

REGIONAL BENEFIT DECISIONS

410. The inclusion of energy facilities as "uses of regional benefit" will be meaningless if R.J. doesn't provide the necessary tools to insure that local differences don't restrict or exclude such critical uses.

411. On the map on page 270, Caven Point should be specifically indicated.

412. The CBM regulations (Sections 923.20(b)) state that the number and types of areas to be designated as CAPCs are directly related to the degree of comprehensive controls applied. As New Jersey has an extremely comprehensive program, further designations of CAPCs are not a requirement for federal approval.

GEOGRAPHIC AREAS OF PARTICULAR CONCERN

413. See "Use of Regional Benefit" section of Chapter Five. Facilities treated as uses of regional benefit cannot be arbitrarily restricted by local governments according to Section 306(e)(2) of the CZMA. The annual review conducted under Section 312 of the CZMA will monitor compliance with this provision.

414. James A. Shissias, Public Service Electric and Gas Co.

415. James A. Shissias, Public Service Electric and Gas Co.

NATIONAL INTERESTS

416. Congress intended pre-existing facilities to be exempt from federal consistency review as they are exempt from the requirements for new facilities under the Clean Air Act and Clean Water Act.

417. James Shissias, Public Service Electric and Gas Co.

418. James A. Shissias, Public Service Electric and Gas Co.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<u>ENERGY FACILITY PLANNING PROCESS</u>		
412. Page 297 - The paragraph on the Hudson River waterfront Commission should make it clear that the Commission did not come up with the proposals for petrochemical storage along the Hudson.	Pet Castagno, Positive Action Citizen's Team	Not that the Commission has completed its work, this paragraph has been deleted.
<u>NEXT STEPS</u>		
413. Page 315, New Legislation - It appears that DEP has only two alternatives; 1) Submit the Coastal Management program (with necessary revisions) to the legislature, and b) Since the program is based on present laws, administer those laws as it has been doing perhaps with some in-house procedural streamlining.	A. Melwig, Pureland Industrial Complex	Alternative b is what was proposed by the DEIS. Although new legislation as discussed in the DEIS may be proposed after program approval, upon federal approval, the state becomes eligible for implementation grants and the federal consistency provision takes effect.
414. Page 5, first paragraph - Does the management program take effect when approved by NOAA-OCZM or does it take effect when submitted? Page 313. Once again, the timetable does not establish a date when DEP proposed to adopt the program.	A. Melwig, Pureland Industrial Complex	Proposed revisions to Rules on Coastal Resource and Development Policies and proposed rules under Waterfront Development Act take effect on promulgation, on September 26, 1980. With their effectuation the Coastal Management Program may be considered to have taken effect. Federal approval is expected shortly thereafter, but before October 1, 1980.
<u>DEIS - GENERAL</u>		
415. In order to provide consistency with Section 306(f) of the 1972 Coastal Zone Management Act as amended in 1976, the words "regional and interstate agencies" should be inserted before "municipalities" on the fifth line of the fourth paragraph on page 314.	The Port Authority of N.Y. and N.J.	Agreed. Change made.
416. New Jersey Council objects to the added control and restriction which will be imposed by bringing the Federal Government into New Jersey's coastal management program by seeking its approval.	J. Deitz, Peajardo Council	The federal law establishing the coastal management program gives leadership to the State with a large amount of discretion in the management approach and policies used in development of a program. There are broad national goals which must be included by the State but federal oversight following approval is primarily related to effective administration of the State laws. All federal actions must be consistent with the approval program.
417. The CAPRA EIS does not discuss or analyze demand factors in any depth. Instead, it proposes policies which assume that a detailed, segmented and allocated demand analysis using accepted statistical and impact probability assessments be incorporated into the revised EIS.	Roger Wells, Roger Wells, Inc.	Demand is not ignored, but is factored into growth region policies and is explicitly noted by policies promoting development. The policies are intended to accommodate demand by steering development to appropriate locations.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<u>DEIS - GENERAL - Continued</u>		
418. We believe it would help if the index were more specific.	League of Women Voters of N.J.	See new index at back of document.
419. The present DEIS is not a rational approach to coastal management and should be reevaluated.	Roger Wells, Inc.	The proposed DEP is the result of seven years of study. It is the professional judgement of DEP and NOAA that it is a rational approach to managing the coast.
420. Page 424, Preparers of the Proposed document - Could the experience of candidates be broken down to years of government/quasi-government service and service in industry or consulting?	Pureland Industrial Complex	With the exception of Messrs. Yarkin and Wenzel, who spent two years and four years, respectively, in the private sector, the relevant experience of preparers has been entirely Government, quasi-government and academic service.
421. NOAA should withhold action on the DEIS until New Jersey clarifies DEP's legal authority for planning and regulation outside the CAPRA some through the legislature.	Al Mogerly, N.J. Independent Liquid Terminal Association	Disagree. DEP has clarified this through regulation as provided by legislation. General's opinion to support the legal interpretation as indicated in the comment to Section 923.41 of the Federal Regulations.
422. A statement such as this DEIS should be prepared by someone separate from the person who is going to be charged with ultimate control.	Beniet Myers	DEP has separate planning and regulatory staffs. The interaction of these staffs insures that the Coastal Program is clear from a regulatory viewpoint, and reflects the experience of regulation.
<u>DEIS - GENERAL - Continued</u>		
423. Prepare an objective, independent analysis of utilizing in-house mechanics to efficiently administer the present laws, thereby giving Federal approval to what we believe is a much simpler, less costly approach.	A. Helwig, Pureland Industrial Complex	This is essentially what New Jersey did propose in the DEIS and in this FEIS. The reorganization of the Division of Marine Services into the Division of Coastal Resources has already improved efficiency of existing laws. No new laws are proposed.
424. This document represents an enormous improvement in both coverage, treatment, and language from its predecessor. A particularly admirable feature is its treatment of "balance" and multiple use of the coastal zone.	N.J. Marine Sciences Consortium	No response necessary.
<u>DEIS - DESCRIPTION OF THE COASTAL ZONE</u>		
425. Change the description of the Clarent Terminal and the Greenville Yards, which has been proposed for industrial development by the Port Authority, to reflect that community groups have proposed the land for residential uses.	Andrey Zapp, President, Hudson County Citizen for Clean Air	Agreed. See revised description.
426. I am pleased to note that NADGP and the City agree on the types of improvements that should be made to the Mahsey River in Rahway.	Daniel L. Martin, Mayor, City of Rahway	No response necessary.
427. Page 325 - Is Logans Township (Gloucester County) excluded by intent?	Pureland Industrial Complex	No. Note correction in FEIS.

<u>Comments</u>	<u>Commentor</u>	<u>Response</u>	<u>Comments</u>	<u>Commentor</u>	<u>Response</u>
<b>DEIS - DESCRIPTION OF THE COASTAL ZONE - Continued</b>					
428. Page 320, second paragraph - The 20 foot contour has no bearing whatever on tidal influence in Logan Township, New Jersey. Why use it?	A. Helwig, Puraland Industrial Complex	Until DEP's Office of Environmental Analysis establishes surveyed and computed mean head of tide lines for each coastal stream, the coastal program accepts their expert advice that the 20' contour is an appropriate interim approximation.			
429. Page 327 - The proposed CDP discusses the Greenville Yards as an area for future development. I feel the Greenville Yards should not be developed for industry. I support new housing on Jersey City's waterfront.	Yar Castagnon, Positive Action Citizen Team	See revised discussion which notes this position. The Coastal Program does not address the best use of specific sites, but instead receives proposals for consistency with the Coastal Policies.			
430. Page 330, first paragraph - There is a public sewer in place (Logan Township MPA) in the form of a force main between Beacon Creek and High Hill Road on U.S. Route 130 in Logan Township.	Puraland Industrial Complex	This is more than a mile from the Delaware River, and outside the area being described in the section.			
<b>DEIS - CONSEQUENCE</b>					
431. Page 340, last paragraph - Will the Coastal Management Program insure that owners/developers recoup their costs to date if DEP preempts the development of this land?	Puraland Industrial Complex	CDP regulates rather than preempts development. CDP will not compensate land owners if this regulation is alleged to prevent them from achieving increased property value, just as other state agencies do not expect compensation from land owners when publicly funded infrastructure increases land value.			
<b>DEIS - CONSEQUENCES - Continued</b>					
432. Shouldn't an analysis of zoning laws in individual municipalities be made?	Puraland Industrial Complex	The state's objectives and policies for waterfront redevelopment and environmental protection are consistent with the adopted plans and policies of the Planning Board of the City of Elizabeth. However, the "Municipal Government Profiles" chart (Figure 38, page 358) incorrectly states that Elizabeth has no site plan review ordinance. The "Land Development Control Ordinance of the City of Elizabeth, New Jersey" includes all subdivisions, site plan review and flood control ordinance elements.			
433.	Department of Community Development - City of Elizabeth	We are pleased that the Planning Board finds no conflict between the City's policies and those of the Proposed Coastal Management Program. Figure 38 has been revised to include a "s" in the Site Plan Review category for Elizabeth.			
434.	L. Cocceve, N.J. Alliance for Action	Under the "No Action" alternative, MCAA would not approve the proposed CDP. As discussed on the first page of Part V, this would not terminate New Jersey's CDP, since DEP would still be mandated to manage the coast by State laws. Denial			

V. COMMENTS FROM FEDERAL AGENCIES

Comments	Commentor	Response	Response
DEIS - ALTERNATIVES - Continued			
436. - Continued			
435. Isn't a summary of existing laws and DEP's methods of enforcing them an acceptable alternative since DEP has concurred the de facto extension of the CAFMA boundary is not necessary for Federal funding? (For example, the DEP has a one day permitting process already in place for minor waterfront development projects.)	Burland Industrial Complex	Essentially, the Proposed CMP is a summary of existing coastal laws, criteria for enforcement decisions (policies), and a proposed boundary in which they will be enforced. Continued funding of the Bay and Ocean Shore Segment is dependent upon approval of the management program for the remainder of the State's coastal areas that awaits Federal approval under 15 CFR 923.93.	
436. Alternatives to the proposed action should not be limited to consequences of federal rejection of the program, and the department should not view the proposed Coastal Program as a fait accompli as stated on page 363. The DEIS does not adequately examine alternatives to the proposed action, and is inadequate.	GATX Terminals Corporation	Because of its mandate under CAFRA, the Highlands Act, the Waterfront Development Act and the tidelands statutes, DEP will have to manage the coast, with or without federal approval. As noted above, denial or delay of federal approval could materially affect the efficiency and capability of the state to manage its coastal resources.	
437. Page 109, fifth paragraph - Soil Surveys do not show "wetlands types". Soil surveys show locations of wet soils and soils that flood, such as soils with high water tables.		of federal approval would, however, limit the State's ability to fully implement its CMP by curtailing funds and delaying the use of Federal consistency.	Revision made. Soil surveys do show tidal marshes.
438. Page 116, 7:7R-3.25, paragraph (a), third line - The sentence beginning with "Alluvial soils are ..." would be more acceptable as "Alluvial soils are those developing in recent sediment deposited by surface water and exhibiting essentially no modification of the deposited materials."		Essentially, the Proposed CMP is a summary of existing coastal laws, criteria for enforcement decisions (policies), and a proposed boundary in which they will be enforced. Continued funding of the Bay and Ocean Shore Segment is dependent upon approval of the management program for the remainder of the State's coastal areas that awaits Federal approval under 15 CFR 923.93.	Agreed. See revised paragraph.
439. Page 18, seaward and Inshore Boundary - Should the seaward boundary of the coastal zone be redefined? The United States territorial sea is now set at a 200 nautical mile limit. The seaward boundary still may be at 3 miles but terminology is no longer consistent.	FLAVEN T. CAMPBELL, U.S.D.A. STATE SOIL CONSERVATIONIST	Because of its mandate under CAFRA, the Highlands Act, the Waterfront Development Act and the tidelands statutes, DEP will have to manage the coast, with or without federal approval. As noted above, denial or delay of federal approval could materially affect the efficiency and capability of the state to manage its coastal resources.	The State has no jurisdiction beyond its 3-mile territorial sea.
440. Page 73, DEP Management Actions, no mention is made of the interim Guidelines for the Preparation of Sludge Management Plans, DEP, Division of Water Resources, OFFICE of Sludge Management and Industrial Wastewater Treatment. Should your rules cover these guidelines also?		Preparation of its mandate under CAFRA, the Highlands Act, the Waterfront Development Act and the tidelands statutes, DEP will have to manage the coast, with or without federal approval. As noted above, denial or delay of federal approval could materially affect the efficiency and capability of the state to manage its coastal resources.	Preparation of plans is not considered a management action.
441. 7:8R-3.19, page 105-2(v) - Definition of stabilized dunes. Dunes are not only maintained in a fixed location by artificial means, but may also be stabilized through the use of vegetation, such as American beach-grass, which will remain stable for ever. Every major hurricane and storm alters a dune, whether it is stabilized or not.		The section the comment refers to specifically defines dunes that are bulldozed, fenced and maintained actively in a fixed position. Other sections speak to the process of migration.	



Comments

ELAYER T. CAMPBELL, STATE SOIL CONSERVATIONIST - Continued

Response

442. Page 765, under Floodplain and Erosion Hazard Areas, several Federal agencies were omitted, however, the USDA-Soil Conservation Service is not mentioned. The Soil Conservation Service is the agency with the most expertise in identifying and treating erosion hazard areas. The Soil Conservation Service also prepares flood hazard studies and manages the Small Watershed Protection Program PL566.

443. Page 43 - The South Jersey Resource Conservation and Development Council (RCDC) and the Cape-Mantic Soil Conservation District with technical assistance from the USDA-Soil Conservation Service have worked with several municipalities on dune stabilization and dune management. The municipalities have done this work with State matching fund grants. The RCDC Council and the various Soil Conservation Districts should also be mentioned along with the Corps of Engineers.

DEPARTMENT OF ARMY, CORPS OF ENGINEERS

444. Development in the national interest is "conditionally acceptable" in surf claim areas. This is not the case with the shellfish policies, although both policies' rationales are based on similar economic considerations. Recommend that the last sentence in surf claim policy be incorporated in shellfish policies to recognize national interest concerns.

445. Finish Migratory Pathways - Based on the definitions of "prohibited" and "discouraged", pages 78 and 79, it appears that under the referenced policy, development would be "discouraged" rather than "prohibited" since mitigation is recognized in the context of the policy statement.

Comments

DEPARTMENT OF ARMY, CORPS OF ENGINEERS - Continued

Response

446. Page 108, Paragraph 5, Overwash Areas - Barrier island migration by overwash is a hypothesis posed by scientists associated with the National Park Service. Engineering investigations of the validity of the hypothesis for several of the lower elevation islands of the outer banks of North Carolina do not support the hypothesis. These investigations indicate both ocean and bay shorelines are eroding with no significant overall increase in the marsh areas. Unless the hypothesis has been substantiated by analysis of factual data on the New Jersey barrier islands, the phrase "and is the principal technique by which barrier islands migrate inland" should be deleted. Without remedial action, overwash may result in inlet formation in some instances.

447. 7:75-4.10 (f) Dredging - New - We object to the proposed dredging restrictions indicated on page 149. It is recommended that any references to time restrictions be deleted until the recently established Federal-State interagency and public task force on dredging and disposal problems in New Jersey reaches a final recommendation on this issue.

448. Please explain the rationale for the filling criterion of 18 feet.

449. Coastal Engineering, 7:75-7.11, (b), Shore Protection Priorities - a. Policy. The second sentence should be deleted. There may be instances where both non-structural and structural solutions are feasible and the structural solution provides a desirable advantage over the non-structural solution.

Barrier islands do migrate via an overwash mechanism which can be amply substantiated in post 1962 storm aerial photography of New Jersey.

Seasonal restrictions have been modified. See revised policy. Seasonal dredging limitations will only be applied when necessary to protect a specified resource in a special area.

Policy revised. Filling is now discouraged at all depths to allow for administrative discretion.

Disagree. The Program favors non-structural solutions and wants proof as to their infeasibility before structural solutions are considered.

Comments

DEPARTMENT OF ARMY, CORPS OF ENGINEERS - Cont Inued

Response

DEPARTMENT OF COMMERCE - NATIONAL MARINE FISHERIES SERVICE

450. Coastal Engineering, 7:7E-7.11, Structural Shore Protection, Item (iii). This is unreasonably restrictive and is not compatible with item (iv).

456. It is our understanding that the term "water related" development will be applied to projects requiring permits in areas which are already filled. By definition, this term considers development such as a hotel or restaurant as water related. The effect of this broadened definition will be to allow more development along the filled water's edge. Utilization of these areas for non-water dependent development will ultimately create greater pressure on natural areas.

451. Shore Protection Priority - The National is not rational. It provides an indictment of those responsible for maintaining the structures and those who destroyed the dunes, but it does not provide a rationale for preferring non-structural solutions over structural solutions. A substitute is offered.

452. 7:7E-7.12, Dredge Spoil Disposal - Policy, Condition (1) is expensive "window dressing" when combined with item (11). Recommend item (1) be deleted.

453. Page 243, Decommissioning of Projects. Further clarification is requested. Would such a requirement apply to Corps projects or only to projects requiring an explicit application?

454. Page 249, Federal Consistency. Under Geographic Scope, it would be revised to reflect current regulations; significantly affect should be changed to directly affect.

455. The final FIS should include coverage of mosquito control programs located within the coastal zone.

Comments

Response

DEPARTMENT OF COMMERCE - NATIONAL MARINE FISHERIES SERVICE

456. The water-related definition has been deleted. In New Jersey, there is more than enough water front to accommodate water dependent uses. The revised policy aims to insure that those activities are sited before other uses preempt their sites.

See General question #7.

457. The proposed program allows wetland alterations for water-related and non-water dependent activities and therefore is less restrictive in the protection of wetlands than the current federal habitat protection program. The effect of OZM approval of the program could be construed to be an endorsement of weaker state laws.

458. State-Federal conflicts will probably increase in the Hackensack Meadow Area if the State permits decisions that are not allowed under federal permit criteria, such as 404(b)(1).

459. We recommend that a grant condition include a mapping task for all coastal wetlands.

460. A pollution block in Philadelphia-Camden area of the Delaware River prevents anadromous fish from migrating upstream to spawn because of low dissolved oxygen concentrations. We recommend the NJMFP provide added emphasis to existing efforts to reduce pollution within the area by designating the "block" as a geographical area of particular concern in need of restoration.

See General Question #7. Approval of a wetlands permit by the Hackensack Meadowlands Development Commission does not preclude a Federal decision contrary to approval.

A task in the proposed New Jersey grant under the approved program is to update the State wetlands maps and the updated coastal boundary.

DEP will work with DEBC and the Pennsylvania DEP to address the pollution block. It cannot be designated as a GAPC by New Jersey because the State does not have full authority in the areas, as required by CZMA.

Comments  
DEPARTMENT OF THE INTERIOR

Response  
Thank you.

463. We commend DEP for the way in which they have integrated the previously approved Bay and Ocean Shore Segment and the remainder of the State's defined coastal zone. The DEP is also to be commended for their efforts to develop a program document which provides an overview of the full State program and an indication of the changes made to the previously approved program segment.

464. We are seriously concerned that the Hackensack Meadowlands Master Plan may be inconsistent with Section 307(f) of the CZMA because it fails to reflect the environmental guidelines developed under Section 404(b)(1) of the Clean Water Act.

465. Neither the plan nor its associated documents, which would become the State's enforceable policies for Meadowlands District, are included in the program document for Federal agency review and comment.

466. The Master Plan Zoning Map, is shown at Figure 36. The Zoning Regulations are N.J.A.C. 19:27-1.1 et seq. and are available on request from the MDC, 200 Murray Hill Parkway, East Rutherford, NJ 07073. Inclusion of the plan would have added unnecessarily to the length of the document, violating the NEPA regulations.

467. At the time the RMUC plan was designed, the CZMA had not been considered by Congress. The possible role of the plan in New Jersey's coastal program was raised for federal comment in Letters for New Jersey's Developed Coast (March, 1973) and in the DEIS.

468. The Division of Coastal Resources will be guided by the policies of the Master Plan in making decisions on the waterfront development law. The DCR will make all federal consistency determinations. Such an action would be superfluous since the two agencies are mandated by their respective laws to protect the area.

Comments  
DEPARTMENT OF COMMERCE - NATIONAL MARINE FISHERIES SERVICE

Response  
The Co-op will be utilized to identify tasks but implementation would be through DRBC.

463. See revised language, Policy 7-7G-8.17 which adds such recognition.

464. At present this technology is highly speculative except near very active plate boundaries where heat is near the surface. If in the future this or other innovative energy technology such as harnessing the tides, appears to be both technically and economically feasible, the close working relationship between DEP and DCR will be used to produce recommendations and policy revisions. At present the opportunities and possible impacts of such technology are not sufficiently well documented to prepare General Policy for this presently remote possibility.

465. Page 291 lists energy facilities likely to be proposed in or significantly affecting the coastal zone. Geothermal energy production is not likely to be proposed in or affecting the coastal zone in the foreseeable future.

Comments  
DEPARTMENT OF ENERGY

Response  
We also suggest that the Delaware River Co-op be utilized to identify priority tasks.

463. Passive and active solar power are encouraged as an energy conservation measure in part 7-7E-8.17. The program does not, however, specifically recognize that some larger scale solar technologies, possibly large scale wind turbines, may require coastal energy sites.

464. The proposed program does not appear to distinguish geothermal fluid from general ground water resources. 7-7E-8.6 should include recognition of possible future location of geothermal resources.

465. Geothermal energy projects should be recognized in the identification of energy facilities stated on page 291.

Comments

DEPARTMENT OF THE INTERIOR - Continued

470. We are concerned that approval of this part of the NDEP may constitute a violation of the President's Executive Order on Protection of Wetlands because it permits substantial filling of wetlands for non-water dependent purposes.

471. While the Department is in agreement with the decision designating the Backuslands as an area of particular concern (APC), we object to the State's use of the APC provisions of the regulations (e.g., 923.20(a)) to achieve program approval by NOAA, which apparently could not be achieved without such a designation. The Department believes that this approach to coastal zone management violates the intent of the APC process, the spirit of the CZMA, and is inconsistent with the proposed OCSM goals for special area planning, which includes increased permit pretractability and improved intergovernmental coordination.

472. We would like to emphasize the ecological and recreational importance of Backusack Wetlands, particularly the Keamy Marsh. We consider this an extremely important issue which requires prompt reevaluation and resolution.

473. We recommend that the last sentence in the definition of "water dependent" be revised to include hotels, casinos, and restaurants as examples of uses which are not water dependent.

Response

See General Response #7.

The Wetlands fit the criteria for APC designation. The policies of the Master Plan are consistent with the special management goals of an APC. Such designation was not required prior to approval by the CZMA and the document carefully explains that the Wetlands are not a special area management plan as described in 404(b)(1) guidelines.

The Backusack Master Plan recognizes the importance of this non-water marsh. Present zoning (Special Use) would preserve at least 40% of the marsh, but BMD is negotiating with the owner to preserve a higher percentage should it be developed.

Agreed. See revised policy.

Comments

DEPARTMENT OF THE INTERIOR - Continued

474. We also recommend that the term "water related" be either more precisely defined or deleted. Many projects, including house developments, would "benefit economically" from direct access to a water body and yet housing is specifically excluded. The definition does not acknowledge that significant economic benefits may accrue from something less than direct physical access, such as visual access. We would not object to this term if the definition were supplemented by the statement "water related development is acceptable provided that it is located on fastlands and does not modify in any way the water or wetlands".

475. Policy 7:72-3.12 states that an activity which would increase the likelihood of infrastructure (pipelins) damage or breaking or interfere with the maintenance of operations is prohibited. We question whether or not New Jersey plans to adhere strictly to this policy and prohibit bottom trawls and scallop dredges which at times disturb the subsea bottoms in pipelins corridors.

476. We would like to point out that some borrow pits in southern New Jersey provide the only breeding habitat for the southern gray tree frog and tiger salamander, both of which are on New Jersey's endangered species list. We recommend that the policy be revised to include this information.

477. We question why the Floodplain Policy does not apply to barrier islands. Given the serious threat to life and property on barrier islands posed by periodic severe storms, a stronger State policy than that evidenced by the Central Barrier Island Corridor Policy would seem warranted. We do not believe that the existence of structures should be used as a justification for permitting additional development in hazardous areas.

Response

Agreed. Definition was deleted.

The OMP does not have regulatory authority over Fishing and Shell-fishing methods.

Endangered species habitats are protected by 7:72-3.33. There is no need to list habitat for each species.

As noted in the rationale the policy recognizes that infill development in Central Barrier Island Corridor will not add appreciably to public service and emergency evacuation costs.

Comments

DEPARTMENT OF THE INTERIOR - Continued

478. We believe that this policy would allow and encourage re-establishment of old navigation channels. Many channels in New Jersey backbays have not been decided for a number of years, and have been reestablished with submerged vegetation beds. We recommend that the policy be revised as follows: "Main-channel dredging is conditionally acceptable in authorized and currently maintained local, State and Federal navigation channels. Obstructions, maintenance dredging is discouraged but in any case must comply with all other coastal policies".

479. We recommend that the NJOWP develop a strong policy against non-overboard disposal of dredge material. We suggest that the policy be revised to state that dredge spoil disposal is prohibited in Open Bays and Seagrass Enclosed and Back Bays as well as in Tidal Creeks, Medium Rivers, Creeks and Streams, Lakes, Ponds, and Reservoirs, and that the remainder of this paragraph be deleted.

480. We believe that a strong policy covering fill (the major environmental pollutant which permanently eliminates habitat) is needed. We recommend that part 2(f) of the Filling Policy be revised to state: "In all other areas, filling is discouraged unless the project can meet all of the following conditions: (a) ..."

481. We are concerned about the potential change in the low growth designation for parts of Galloway and Egg Harbor Townships in Atlantic County. We urge DEP to give careful consideration to the precedent-setting implications of any change in designation. Should a pattern of such designation changes develop, we believe that it could effectively negate a major thrust of the NWRP.

Response

Disagree. The intent of the policy is not to encourage the re-establishment of abandoned channels, thus the definition refers to "maintaining" rather than "restoring" authorized water depth and width. The alternative language suggested fails to mention access channels, anchorages and moorings, all of which require maintenance dredging.

Many bays are dredged for shipping and the bay itself is the only feasible area for disposal, especially if sidesteaking is necessary. Lakes, ponds and reservoirs are dredged to remove silt and sometimes a contained portion of the lake is the only suitable disposal site.

This will weaken the policy. Under the policy filling is not acceptable unless all the conditions are met.

Agree. However, a change was made to the Limited Crouch (formerly called Low Crouch) designation of a portion of the Middle-South Ocean Region to create the Tuckerton Region, which has been designated an Extension (Moderate Crouch) Region. The Tuckerton Region was designated to meet housing needs by allowing development to extend out from the Borough of Tuckerton through an upland area to the already developed Mystic Island section of Lower Egg Harbor Township.

Comments

DEPARTMENT OF THE INTERIOR - Continued

482. Energy facilities in the State are to be sited using the Coastal Location Acceptability Method (CLAM) consistent with the Energy Use Policies and other applicable policies. A problem arises, however, due to the fact that DEP has not weighed or ranked the various policies. The failure to rank these priorities becomes crucial when a proposed land use is affected by policies which "encourage" and others which "discourage" a given use.

483. The organization of the program into sections on areas, uses, and resources becomes confusing in attempting to interpret the State's policies. In particular, Pipelines are conditionally acceptable provided that they are not sited within any of the 39 Special Areas (which essentially cover all potential pipelines landfall sites). While the prohibition on destruction of submerged vegetation beds is expressly lifted to provide for the conditional acceptability of pipeline placement, the section on beaches does not discuss pipelines at all. This general problem could be avoided by amendment at the beginning of Chapter 4, Section 7:12-1.6, that where a specific use is not mentioned in the area section, the state policies in regard to it in the use section will prevail.

484. Wet sand beaches (which cover the entire 126 mile Atlantic Coastline) are a special case in that they are designated as Geographic Areas of Particular Concern (GAPC). The priority of uses for these beaches indicates that a pipeline right-of-way would have "lowest priority". Would this classification have the effect of precluding any pipeline landfall on a beach area? If so, we believe that the NWRP fails to make adequate provisions for national interest in OCS oil production.

Response

All policies must be met, none can be violated, even for an encouraged use.

Location Policies normally do not refer to specific uses and are intended to be applied to any use proposed at the location. Pipeline siting, however, would be determined by the Policy on Location of Linear Development (7:12-6.1).

If possible, a pipeline should not come onshore on a wet sand beach. While such use would be a low priority, it may be allowed under specified conditions.

Comments

DEPARTMENT OF THE INTERIOR - Continued

485. Policy 7:7E-7.4(b)(iv) states that pipeline corridors for natural gas are designated in the Central Pine Barrens, just the Pinelands National Reserve and Pinelands Protection Area Policy label this area as the "Offshore Oil or Gas Pipeline Exclusion Area". If pipelines are excluded in this area, then Policy 7:7E-7.4(b)(ii) which discusses pipelines using established right-of-way would be invalidated.

486. The document fails to incorporate the findings of a recently completed study by the Center for Coastal and Environmental Studies of Rutgers University entitled "Coastal Gas Pipelines: An Analysis of Routing Issues". The study identified three pipeline routing scenarios which would enable the State to amend and/or resolve its policies where needed and to develop new policies where they did not exist previously.

487. We make exception to the last paragraph entitled "National". We believe that mining use policies should be designed to provide for the prudent development of minerals having local, regional, or national significance, while at the same time ensuring that acceptable environmental standards are maintained. The end use of a product derived from mined materials may be dictated by economics and consumer demand and should have no bearing on MICH's mining use policies.

488. Section 306(e)(2) of the CDMIA requires that an approvable program must provide for "a method of assuring that local land and water use regulations within the coastal zone do not unreasonably restrict or exclude land and water uses of regional benefit." In order to meet the requirements of this section for public utilities (which comprise the

Responses

Under "pipelines and associated facilities", a pipeline is prohibited in certain defined areas and allowed with limits in others. If it is in the latter areas the policy 1(iii) applies.

DEP is familiar with this study and is now conducting a follow-up Pipeline siting study.

The sentence has been deleted.

Comments

DEPARTMENT OF THE INTERIOR - Continued

488. - Continued. bulk of New Jersey's defined uses of regional benefit). DEP cites the authority of the Board of Public Utilities (BPU) in the Department of Energy (DOE) to exercise local zoning decisions. We consider the process by which this authority is invoked to be both complicated and uncertain for the following reasons. First, it appears that only the "regulated utility" can request action by the Board. Second, through the BPU in the DEP, the DEP retains the stature of an independent regulatory board. Therefore, the adoption of a Memorandum of Understanding between DEP and DOE has not in our opinion bound the BPU to the policies developed by DEP in this program. The MICHP maintains that DOE "intervention authority" can be used to ensure that the program's policies on uses of regional benefit will be recognized by the Board, but does not explain under what circumstances this authority would be invoked or what effect it would have.

489. The statement expressing New Jersey's policy regarding federal consistency determinations contains a clause which should be deleted in the interest of both clarity and accuracy. The full statement in question asserts that "New Jersey will consider an activity consistent if it does not conflict with the Coastal Resources and Development Policies and is the available alternative most supportive of New Jersey's coastal program." If the underlined clause is not intended to add new meaning, it should be deleted as a redundancy with confusing implications.

Response

the express power "to intervene in any proceeding before ... any State Department ... including the Board of Public Utilities ... to insure the proper consideration ... of the State energy master plan" (N.J.S.A. 52:27E-13a). The policies of the Energy Master Plan and the Coastal Management Program are identical as established by the MOU included in both documents.

Agreed. The clause has been deleted.

Comments

DEPARTMENT OF THE INTERIOR - Continued

490. The procedure for Federal consistency as described in this section may have been too simplified to reflect the actual requirements in 15 CFR 930. For example, the time-frame of the State's consistency certification process and the requirements of "conclusively presumed" in the absence of timely State response are not discussed.

491. The phrase "significantly affect" is used where the correct phrase as used in 15 CFR 930 is "directly affect" or "affect".

492. The format of this section is confusing. A case in point is the term "licensed and Permitted Activities Described in OCS Plans" which looks as if it were a part of the Economic Regulatory Administration responsibilities. In fact, of course, the Department of the Interior, through the U.S. Geological Survey, is responsible for OCS plans.

493. The second paragraph on page 254 states that applicants for permits described in OCS plans must supply the State with a description of the proposed activities. The description of the proposed activities (i.e., the OCS Plan) will be provided by the DOI and not the applicants. We request that this paragraph be rephrased to reflect the correct requirements.

494. In the section on shorefront access/ recreation regarding the three areas of islands, riprap, and trails, the subject of resources is at course addressed, but their particular place in a comprehensive state-wide resource vision for the long-range is not clear, and the initiatives which might foster and nurture desirable future objectives are not discernible. Their interrelationship with the Coastal and Bay Area zones should be more clearly delineated.

Response

New Jersey has discussed this in detail in its Federal Consistency Handbook. Its procedures are consistent with federal law and regulations and have been used without complaint for two years in the Bay and Ocean Shore Segment.

Agreed. Changes have been made.

Agreed. Format changed.

Agreed. See revised language.

These initiatives are ongoing in DEP and the Legislatures. Since this document can only address the coastal zone, where the DEP has authority under the legislation, a broader picture was not possible.

Comments

DEPARTMENT OF THE INTERIOR - Continued

495. We believe that the DEIS does not adequately respond to our concerns for protection of the Hackensack Headlands.

496. We would also like to point out that the State alternatives considered on page iii of the document are not covered in the alternative discussion in Part V. We request that these alternatives be examined, with particular emphasis on including choices that would better protect the Hackensack Headlands District.

497. We believe that the DEIS would benefit from more comprehensive discussion of how the coastal policies will affect various economic sectors and further qualification and quantification of environmental impacts.

498. It would be useful to have, in addition to the general Table of Contents provided, an appropriate general index to the subject document, as a matter of practical convenience to those who are to review it as well as those who are to work with it.

499. Before finalization of the FEIS process, the State Historic Preservation Officer should be invited to comment on policies and procedures which significantly impact areas of concern.

500. We are pleased to see that this Coastal Zone Management document clearly recognizes that the starved littoral drift system deprives Sandy Hook of its natural sand supply and that: "the focus of shore protection efforts will continue to shift from structural to non-structural measures, including a halt to development most likely to be destroyed by storms and floods".

Response

See general question #6.

The CZMA does not require the document to consider State alternatives. See General Questions 6 and 7.

Because the document addresses policies without knowing definite uses for a specific site, discussion of economic impacts would be guesswork. The environmental impacts are considered as much as possible for development of a broad program. See also General question #1.

Agreed. This has been added.

Agreed. This officer, as part of DEP, was part of the State preparation and review process.

Thank you.

Comments

DEPARTMENT OF THE NAVY

301. Page 248, third paragraph - There is no requirement that a Federal action be consistent only if it is "the available alternative most supportive of the (New Jersey) coastal program. Accordingly, the second requirement of your two prong test for consistency seems inappropriate.

302. Page 248, fifth paragraph - The words "if required by Federal law or regulation" should follow the last sentence of this paragraph to clarify the fact that Federal agencies are required to obtain state (consent) permits only when directed by Federal law or regulation.

303. Page 248, sixth paragraph - The first two sentences should be modified to include the underlined phrases: "The appropriate state permit application should, therefore, be submitted to DEP prior to or concurrent with the submission to the Federal licensing or permitting process. Should the Division of Coastal Resources receive a consistency certification for an activity which requires a state permit by Federal law or regulation but for which ...."

304. Page 249, second and third paragraphs - The phrase "significantly affect the coastal zone" has been deleted in the amended consistency regulations. (See Federal Register, Volume 44, Number 123, June 25, 1979 (15 CFR 930)).

305. Page 250, Page 258 and Page 315, also App on Page 376 - The Navy activity referred to as either Lionardo-Barile Naval Ammunition Depot or Earle Naval Supply Depot should be the Naval Weapons Station, Coles Neck.

Response

This phrase has been deleted throughout the Program.

Disagree. The suggested change would be confusing. The point of the sentence is to make the federal consistency determination process easier for those activities which do otherwise require State coastal permits.

The first suggested change has been made; the second has not for the reason noted directly above.

Agreed. See revised language.

Agreed. See change.

Comments

U.S. ENVIRONMENTAL PROTECTION AGENCY

506. 7-7E-3.1B, Existing Lagoon Edge - No suggest additional conditions for development; availability of adequate waste collection, treatment and disposal; and shallow lagoon design to prevent anoxia and odor problems caused by poor tidal flushing and drainage of street runoff and seepage.

507. 7-7E-3.19, Beach and Dune Systems - The discussion of beach and dune systems (page 103-108) appears consistent with federal efforts to preserve these systems (Reference Department of Interior, "Alternative Policies for Protecting Barrier Islands Along the Atlantic and Gulf Coasts of the United States", Dec. 1979).

508. 7-7E-3.22, Central Barrier Island Corridor - We suggest that (1) the "infill" criterion be very strictly applied on barrier islands to limit growth to already developed areas and to discourage sprawl, and (2) consideration be given to applying more vigorous criteria to barrier island development. Barrier Islands, themselves, could reasonably be classified as Special Hazard Areas.

509. 7-7E-3.26, Coastal Bluffs - Makes no allowance for a particularly severe series of events during which bluffs and structures could erode at an unusually high rate. We suggest, therefore, the inclusion of an appropriate buffer amount into the applicable formula (page 117).

Response

Adequate solid waste disposal is required for new development throughout the coastal zone (7-7E-3.8). This policy applies only to existing lagoons. Filling to create new lagoons for residential development is prohibited.

No response necessary.

Now infill policies group Barrier Islands with limited growth and extension regions so areas where infill requirements are most rigorous.

There is no agreed defensible figure which would be appropriate. Very severe erosion from storm events of low statistical probability is possible but legally acceptable. Calculations are hard to make; thus the reference to erosion history. The Buffer Resource Policy provides some additional protection.



Comments	Response
<p>U.S. ENVIRONMENTAL PROTECTION AGENCY - Continued</p> <p>510. 7:75-5.3, Coastal Growth Rating - The designation of the Trenton-Philadelphia corridor, especially in development centers, as part of a high growth region does not appear to recognize the groundwater quality and quantity problems currently experienced. We recommend that the coastal management plan consider the need to protect available drinking water resources from further overdraft. Although the policy under subchapter 7:75-8.6 recognizes this need, we believe that an attempt should be made to resolve conflicting policy directions.</p>	<p>Most of the coastal areas in this corridor are on the water's edge and so are governed by Special Area policies which do not vary by Growth Region. Policy 7:75-8.6 on Groundwater Use, as noted, offers protection to groundwater which would increase dramatically if a validated aquifer model of the Coastal Plain were available to calculate safe sustained yields.</p>
<p>511. 7:75-3.6, Definition of Acceptable Intensity of Development - The example used on page 168 for Special Area Types delineates possible minimum areas for endangered species habitat. We recommend provision for the fact that endangered species are endangered because, among other factors, they cannot coexist with intense development; buffer areas may be appropriate.</p>	<p>Provisions for such buffers is included in 7:75-8.15 Buffers and Compatibility of Uses.</p>
<p>512. 7:75-8.6, Groundwater Use - Please explain the definition of aquifer safe yield used on page 226.</p>	<p>That level of continued pumping which would not lower water tables or piezometric surfaces to levels that would cause saline intrusion changes of vegetation or drying of streams.</p>
<p>513. 7:75-8.11, Air Quality - Recommend that consideration be given to the designation of Air Quality Management Areas and Air Quality Non-attainment Areas as Geographic Areas of Concern so that a potential developer will be informed early in project prepackaging that a site has air quality constraints and that he should seek a determination from the state Bureau of Air Pollution Control.</p>	<p>To satisfy NOAA requirements the State must have jurisdiction over land areas of CAPC's, precluding the addition of the large areas suggested. The State Implementation Plan available for DEP provides some guidance in this direction.</p>
<p>FEDERAL ENERGY REGULATORY COMMISSION</p> <p>514. Page 207 states that "the tankering, transfer, and storage of LNG pose significant risks to public health, safety and welfare". This statement is unacceptable, and if intended as a conclusion from the FERC (FPC)/DEIS on the formerly proposed West Deptford LNG terminal is grossly inaccurate. since none of the conclusions on page 207 can be derived from the cited DEIS. Only tankering is identified as an unacceptable risk to public safety, and this was only in a certain segment of the river.</p>	<p>The discussion of potential LNG risks was not intended to represent a conclusion of the cited FERC report. However, this section has been revised to add clarity.</p>
<p>515. In accordance with the requirements of section 307(c)(3)(A) of the CMAA, a decision on consistency certification for Federal licenses must be made by the State within six months after receipt of its copy of the applicant's certification. Otherwise, the State's concurrence with the certification shall be conclusively presumed. This time limit on concurrence. This time limit on concurrence should be clearly defined in the NRCNP (page 248).</p>	<p>Note revision to discussion of federally licensed and permitted activities.</p>
<p>516. The statement on page 249 implies that Federal licenses for hydroelectric projects located on river segments upstream and outside of the coastal zone would require consistency certification. Hydroelectric powerplants, however, are not identified in the energy facility planning process (page 291) as energy facilities likely to locate in, or significantly affect New Jersey's coastal zone.</p>	<p>Hydroelectric plants have now been listed among facilities discussed in the section on the energy facility planning process.</p>
<p>517. Revise list of FERC licenses and permits subject to federal consistency.</p> <p>518. Figure 36 should indicate possible impacts from LNG facilities; for example, the thermal impacts of cooling or heating water effluents.</p>	<p>Agreed. Revision made.</p> <p>Agreed. Appropriate changes have been made in Figure 36.</p>

Comments

Response

FEDERAL ENERGY REGULATORY COMMISSION - Continued

519. 7:7E-7.4, Energy Use Policies - (n) -  
110 - The information on the Staten  
Island application (page 207) should  
be updated, from the "mid-1978" citation.  
Agreed. As indicated by brackets in  
the draft document, the mid-1978  
citation was to be deleted and is not  
included in the FEIS.

520. The FERC is receiving a great number  
of applications for small-scale hydro-  
electric power development at existing  
dams in the U.S. A list of retired  
hydropower plants in the U.S.,  
maintained by the FERC, shows 19  
retired small-scale hydropower plants  
in New Jersey, some of which appear  
to be located within the New Jersey  
coastal area or near its boundary.  
No response necessary.

521. Should it be the intent of the NJCEP  
that Federal licenses for hydro-  
electric projects, which are located  
outside of the state's coastal zone,  
be subject to consistency certification?  
Any federal approvals for projects  
which will directly affect the  
coastal zone are subject to con-  
sistency certification.

APPENDIX I: GLOSSARY

Introduction

This glossary is intended to provide the reader with understandable definitions of technical terms used and undefined in the text. Terms which have been previously defined include a reference to the appropriate section of Part II.

- acceptable - See Chapter Four, 7:7E-1.6(c).
- acceptable  
intensity of  
development - See Chapter Four, 7:7E-5.6.
- accretion - the process of gradual and imperceptible addition of solid material, thus extending the shoreline.
- action - See Chapter Four, 7:7E-1.6(c).
- activity - See Chapter Four, 7:7E-1.6(c).
- adverse impact - a negative effect.
- algae - non-vascular simple aquatic plants, without true roots, stems, or leaves, that vary from single celled to large multicellular forms; most noted groups are: green, brown, red, blue-green and diatoms.
- alluvial - deposits of flowing water; clay, silt, sand, gravel, and/or organic detritus.
- alluvial flood  
margins - See Chapter Four, 7:7E-3.25.
- aquaculture - See Chapter Four, 7:7E-4.10(a).
- aquifer - a water-bearing underground layer of sand, gravel, or rock; a porous sub-terranean water-bearing stratum of unconsolidated sediments.
- anadromous - marine or estuarine species of finfish that spawns in freshwater.
- approved - a CAFRA, Wetlands, or Waterfront Development permit has been granted by NJDEP to develop a site as proposed by an applicant.
- archaeological  
resources - See Chapter Four, 7:7E-3.31.
- area - See Chapter Four, 7:7E-1.6(c).
- artificial  
reef - See Chapter Four, 7:7E-3.13.

- assimilative capacity - the amount of adverse impacts (pollutants) that a water body or land area can absorb and neutralize before it begins to display a significant reduction in biological diversity, chemical, and/or physical quality.
- back bay - See Chapter Four, 7:7E-4.5.
- backfilling - the action of removing trench spoil from its temporary spoil storage site(s) by a bucket-type piece of trenching equipment and replacing it in the trench. This activity follows pipeline placement.
- bathymetry - the measurement of depths of water areas; underwater topography.
- beach - See Chapter Four, 7:7E-3.19.
- benthic - occurring or living on or in the bottom of a water body.
- biota - the plant and animal assemblage of a biological community.
- bluffs - See Chapter Four, 7:7E-3.26.
- boat ramp - See Chapter Four, 7:7E-4.10(b).
- bog - See Chapter Four, 7:7E-3.20.
- borrow pit - See Chapter Four, 7:7E-3.15 and 7:7E-3.30.
- brackish - partially saline water.
- bridge - See Chapter Four, 7:7E-4.10(m).
- built-up urban area - land areas already intensely developed for housing, commerce, industry, etc.
- cable route - See Chapter Four, 7:7E-4.10(n).
- canal - See Chapter Four, 7:7E-3.8.
- carcinogen - capable of causing cancer in humans.
- central barrier island corridor - See Chapter Four, 7:7E-3.22.
- clay lense - a lense-shaped deposit of clay.
- coastal bluff - See Chapter Four, 7:7E-3.26.
- coastal region - See Chapter Four, 7:7E-5.3.
- coastal water - all tidally influenced waters under New Jersey State jurisdiction.

- coastal wetlands - See Chapter Four, 7:7E-3.20.
- conditionally acceptable - See Chapter Four, 7:7E-1.6(c).
- cranberry bogs - See Chapter Four, 7:7E-3.23.
- creek - See Chapter Four, 7:7E-4.8.
- critical wild-life habitat - See Chapter Four, 7:7E-3.34.
- dam - See Chapter Four, 7:7E-4.10(p).
- datum - a reference point, line or plane used as a basis of measurements.
- deperuration - the process by which potentially contaminated shellfish are cleansed prior to human consumption. After harvest shellfish are held in controlled conditions for a sufficient length of time until pathogenic organisms are purged.
- detritus - particulate matter, especially of organic vegetative origin in varying stages of decomposition.
- development - a facility, use, or alteration as defined in enabling legislation. See Chapter Four, 7:7E-1.6(c).
- development potential - See Chapter Four, 7:7E-5.5.
- direct impact - a change in the built or natural environment that is either the immediate result of an impacting activity or is linked to the impacting activity through an identified chain of cause and effect without further human intervention.
- discouraged - See Chapter Four, 7:7E-1.6(c).
- disturbance - a disruption or perturbation; significant changes in the equilibrium of natural or social processes and resources from artificial or natural causes.
- diversity - the variety of species present in a habitat or ecosystem. High diversity indicates environmental health.
- dock - See Chapter Four, 7:7E-4.10(c) and (d).
- dredge spoil disposal - See Chapter Four, 7:7E-4.10(g).
- dredging (maintenance) - See Chapter Four, 7:7E-4.10(e).
- dredging (new) - See Chapter Four, 7:7E-4.10(f).

- dry borrow pit - See Chapter Four, 7:7E-3.30.
- dumping - See Chapter Four, 7:7E-4.10(h).
- dune - See Chapter Four, 7:7E-3.19.
- ecosystem - the complex of a community and its environment functioning as an ecological unit.
- ecotone - an edge or border zone between different habitats usually with high diversity of species.
- effluent - a discharge of pollutants into the environment; untreated or partially or completely treated.
- encouraged - See Chapter Four, 7:7E-1.6(c).
- endangered - See Chapter Four, 7:7E-3.33.
- environmental sensitivity - See Chapter Four, 7:7E-5.4.
- ephemeral - lasting only a short time; temporary; transient. (See Chapter Four, 7:7E-3.27).
- erosion - the wearing away of the land surface by running water, wind, or other geological agents. (See Chapter Four, 7:7E-8.8).
- escarped foredune - wave eroded sand dune, with steep slope in ocean front adjacent to beach.
- estuarine - of, relating to, formed, or living within an estuary.
- estuarine sanctuary - See Chapter Four, 7:7E-3.14.
- estuary - any confined coastal water body with a connection to the sea and measurable quantity of marine salt in the waters; greater than 0.5 parts per thousand (ppt).
- eutrophication - nutrient enrichment, leading to excessive growth of aquatic plants, usually resulting in anoxic (lack of dissolved oxygen) water conditions.
- excluded federal land - See Chapter Four, 7:7E-3.37.
- farmland conservation area - See Chapter Four, 7:7E-3.28.
- fauna - a collective term for the animal species present in an ecosystem.
- feasible - See Chapter Four, 7:7E-1.6(b).

- feasible alternative** - an action possible using current technology and resources.
- filled water's edge** - See Chapter Four, 7:7E-3.17.
- filling** - See Chapter Four, 7:7E-4.10(i).
- finfish migratory pathway** - See Chapter Four, 7:7E-3.5.
- floodplain** - See Chapter Four, 7:7E-3.21.
- flora** - a collective term for the plant species present in an ecosystem.
- flushing rate** - the rate at which the water in a water body is replaced, usually expressed at the time needed for one complete replacement.
- food chain** - the step-by-step transfer of food energy and materials, by consumption, from the primary source in plants through increasingly higher forms of animals.
- food web** - the network of feeding (trophic) relationships in and between (a) biological community(ies).
- forage** - food source.
- freshwater wetlands** - See Chapter Four, 7:7E-3.20.
- gabion** - loose rock held together with wire mesh used to promote groundwater recharge.
- growth rating** - See Chapter Four, 7:7E-5.3.
- gut** - See Chapter Four, 7:7E-4.6.
- habitat** - place of residence of plants and animals; community of species.
- Hackensack Meadowlands District** - See Chapter Four, 7:7E-3.40.
- hazardous substances** - includes petroleum and petroleum products; all pesticides designated as "prohibited", "restricted" or "specially restricted" pursuant to New Jersey Pesticide Control Act of 1971 (N.J.S.A. 13:1F-1 et seq.) and N.J.A.C. 7:30-1.5 through 1.7 (Appendix A); and substances identified as hazardous by the Federal Environmental Protection Agency at 40FR 59961 December 30, 1975 proposed pursuant to Section 311(b)(2)(A) of the Federal Water Pollution Control Act Amendments of 1972, 33 USC 1251 et seq. (Appendix B). This definition conforms to that in N.J.A.C. 7:1E-1.1 pursuant to the Spill Compensation and Control Act of 1976 N.J.S.A. 58:1-23.11.

- high risk beach erosion area - See Chapter Four, 7:7E-3.19.
- historic resources - See Chapter Four, 7:7E-3.31.
- housing - See Chapter Four, 7:7E-7.2.
- impact - ecological or sociological effect; impinge; an impelling or compelling effect.
- impinge - to hold fast, as with finfish being held against a screen within a water intake system.
- impoundment - See Chapter Four, 7:7E-4.10(p).
- indigenous - having originated in and being produced, growing, or living naturally in a particular region or environment; native species.
- industrial wastes - an extremely wide variety of chemicals which must be disposed; potential pollutants not usually of residential origin.
- infill - development of vacant land within general built-up area; development of land parcel with at least 50% of boundary of site presently developed in the same way as that type proposed. (See Chapter Four, 7:7E-5.5(iii).
- infrastructure - a facility, frequently linear, which transports people, materials, energy or information, and directly associated point facilities.
- inlet - See Chapter Four, 7:7E-3.9.
- inorganic - non-living or of non-organic origin; mineral.
- intensity - See Chapter Four, 7:7E-5.6.
- intermittent stream - See Chapter Four, 7:7E-3.27.
- intertidal - the area between high and low tide levels, twice daily exposed and flooded.
- intertidal flats - See Chapter Four, 7:7E-3.16.
- invertebrate - animals without backbones. This composite term covers a wide variety of organisms.
- jetting - the action of liquefying and lightening of marine bottom sediments by blowing high pressure air and water into sediments from a specially designed jet sled. This alternative trenching technique has been used for laying pipelines.



- lagoon - an artificially created linear waterway sometimes branched ending in deadend with no significant upland drainage. See Chapter Four, 7:7E-3.18.
- lake - See Chapter Four, 7:7E-4.9.
- large river - See Chapter Four, 7:7E-4.7.
- littoral - shoreline; related to edge of the water body.
- littoral drift - the movement of sedimentary material, e.g.: sand, silt, gravel, parallel to shoreline under the influence of wind, waves, and currents; commonly used as synonymous with longshore transport.
- location - See Chapter Four, 7:7E-1.6(c).
- long - a word sometimes used to describe state programs prepared under Federal law in the format of environmental impact statements.
- major development - a facility as defined by New Jersey Coastal Area Facility Review Act of 1973 (N.J.S.A. 13:19-3 et seq.).
- marina - a waterfront facility predominantly used for the dockage (wet or dry stack) or moorage for recreational boats, for which dockage or moorage fee is charged.
- marine sanctuary - See Chapter Four, 7:7E-3.14.
- maximum extent practicable - the use on consideration of best available technology and mitigation measures resulting in selection of measures, technique, or level which produces most environmentally desirable effect. See Chapter Four, 7:7E-1.6(c).
- mean high water (MHW) - a tidal datum; the arithmetic average of the high water heights observed over a specific 18.6 year Metonic cycle (the National Tidal Datum Epoch).
- mean high water line - the line formed by the intersection of the tidal plane of mean high water with the shore.
- mean low water (MLW) - a tidal datum; the arithmetic average of the low water heights observed over a specific 18.6 water Metonic Cycle (the National Tidal Datum Epoch).
- medium river - See Chapter Four, 7:7E-4.8.
- mitigation - a measure or system of measures taken to make an action less severe.

- mooring - See Chapter Four, 7:7E-4.10(k) and 7:7E-3.10.
- multi-purpose marina - a small harbor facility that maximized diversity of user groups and activities.
- multi-use developmet - See Chapter Four, 7:7E-7.2(i).
- navigable - See Chapter Four, 7:7E-1.6.
- navigational channel - See Chapter Four, 7:7E-3.7.
- ocean - See Chapter Four, 7:7E-4.3.
- open bay - See Chapter Four, 7:7E-4.4.
- organic - living, related to living substance or living organisms. Chemical compounds formed of carbon united with hydrogen (hydrocarbons).
- outfalls - See Chapter Four, 7:7E-4.10(q).
- overhead transmission lines - See Chapter Four, 7:7E-4.10(o).
- overwash - an area on barrier island which has a history or potential to be inundated by ocean storm waves.
- pathogenic - capable of causing disease.
- perennial - present at all seasons; persisting for several years; continuing without interruption.
- permit - a writing, issued by a person in authority, empowering the grantee to do some act not forbidden by law, but not allowed without such authorization.
- photosynthesis - the vegetative manufacture of organic carbohydrates from carbon dioxide and water in the presence of chlorophyll by utilizing light energy and releasing oxygen.
- phytoplankton - the single-cell plant component of plankton.
- piers - See Chapter Four, 7:7E-4.10(d).
- Pine Barrens - See Chapter Four, 7:7E-3.39.
- Pinelands - See Chapter Four, 7:7E-3.39.
- piling - See Chapter Four, 7:7E-4.10(j).
- pipeline route - See Chapter Four, 7:7E-4.10(n) and 7:7E-6.1.
- pipes - See Chapter Four, 7:7E-7:7E-4.10(q).

- plankton - small suspended aquatic plants and animals which passively drift or swim weakly.
- pond - See Chapter Four, 7:7E-4.9.
- potential - existing in possibility; capable of development into actuality. (See Chapter Four, Section 7:7E-5.5 for discussion of Development Potential).
- port - See Chapter Four, 7:7E-3.11.
- practicable - See Chapter Four, 7:7E-1.6(c).
- pre-application conference - informal meeting with Division of Coastal Resources staff member, prospective permit application and consultant to discuss development proposal prior to formal application, to determine consistency with coastal policies and define specific application requirements. (See Chapter Four, 7:7E-1.6(d)).
- preservation - to maintain in existing condition; protection from permanent alteration by human activity.
- prime fishing - See Chapter Four, 7:7E-3.4.
- productivity - (primary or biological) - The amount of organic matter produced by photosynthesis usually expressed as weight per area over a given period of time.
- prohibited - See Chapter Four, 7:7E-1.6(c).
- project - See Chapter Four, 7:7E-1.6(c).
- proposal - See Chapter Four, 7:7E-1.6(c).
- prudent - a wise choice. (See Chapter Four, 7:7E-1.6(b)).
- public launching facility - a facility available for use by the general public or on a free or fee basis, used for launching and returning recreational boats.
- public open space - See Chapter Four, 7:7E-3.35.
- regional impact- an economic, environmental, or sociological effect extending beyond the municipal boundary in which the causative use is located.
- reservoir - See Chapter Four, 7:7E-4.9.
- resource recovery - the extraction and utilization of materials and energy from the waste stream. Materials would include, for example, metals and glass which can be used as "raw materials" in the manufacture of new products.

- retained water's edge - See Chapter Four, 7:7E-3.17.
- retaining structure - See Chapter Four, 7:7E-7.11.
- riparian lands - land now or formerly flowed by the mean high tide.
- riprap - a foundation of stones or rocks loosely placed together without order to prevent scour and erosion.
- river - See Chapter Four, 7:7E-4.8.
- rookery - a communal breeding site for certain species of aquatic birds.
- runoff - the portion of precipitation on land that flows over the land surface; overland flow (See Chapter Four, 7:7E-8.7).
- salinity - a measure of the quantity of dissolved salts in water expressed in parts per thousand of water (ppt).
- salt water intrusion - the movement of salt water inland into subterranean aquifers.
- salt wedge - estuarine water mass of higher salinity found along the bottom over which lighter fresher waters move.
- sand and gravel extraction - See Chapter Four, 7:7E-4.10(1).
- seasonal home - a non-year round residence frequently without insulation or heating system.
- secondary impacts - See Chapter Four, 7:7E-6.3.
- sediment - material deposited by water, wind, or glaciers.
- sedimentation - the process of gravitational deposition of organic and/or inorganic suspended particles by water (See Chapter Four, 7:7E-8.8).
- semi-enclosed bay - See Chapter Four, 7:7E-4.5.
- sensitivity - the capacity of an organism, community, or area to respond to stimulation; susceptibility to disturbance and change. (See Chapter Four, 7:7E-5.4).
- shellfish - a misnomer of common use for a group of organisms none of which are true vertebrate finfish; includes mollusks and crustaceans such as clams, oysters, scallops, conchs, squid, crabs, lobsters, and shrimp. (See Chapter Four, 7:7E-3.2, 3.3, and 8.3).
- shellfish beds - See Chapter Four, 7:7E-3.2.
- shipwrecks - See Chapter Four, 7:7E-3.13.

- significant - a measurable change in the built or natural environment that is cause for concern.
- silt - fine particulate matter suspended in water and later deposited on water body bottom.
- sludge dumping - See Chapter Four, 7:7E-4.10(h).
- spawn - the reproductive act of lower organism where fertilization of eggs is usually external.
- special hazard area - See Chapter Four, 7:7E-3.36.
- special urban area - See Chapter Four, 7:7E-3.36.
- specimen tree - See Chapter Four, 7:7E-3.32.
- steep slope - See Chapter Four, 7:7E-3.29.
- storm surge - the piling up of water against (or withdrawal from) a coast by strong winds and reduced atmospheric pressure such as that accompanying a hurricane or ther intense storms.
- streams - See Chapter Four, 7:7E-4.8.
- submerged infra-structure - See Chapter Four, 7:7E-4.10(n).
- submerged vegetation - See Chapter Four, 7:7E-3.6.
- successional - plant species or vegetative community which will be successively replaced by more stable communities. A sub-climax vegetation type.
- surf clam area - See Chapter Four, 7:7E-3.3.
- surface water runoff - See runoff (See Chapter Four, 7:7E-8.7).
- surrounding region - See Chapter Four, 7:7E-1.6(c).
- swale - a low lying or depressed land area commonly wet or moist; an intermittent drainage way.
- tertiary water treatment - a process following secondary treatment involving filtration, activated carbon, and chlorination. In the process, the effluent is subjected to denitrification and phosphorus precipitation.
- tidal flooding - inundation of land caused by an abnormally high tidal water having an average frequency of once in 100 years, although the event may occur in any year.

tidal influence- water which measurably rises and falls with twice-daily tides.

tide - the periodic rise and fall of the water resulting from gravitational interaction between the sun, moon, and earth. The vertical component of the particulate motion of a tidal wave. In each lunar day of 24 hours and 49 minutes there are two high tides and two low tides.

tidelands - those lands now or formerly flowed by the mean high tide, held in trust by the State unless alienated.

toxic substance - a poison.

transferred impacts - See Chapter Four, 7:7E-6.4.

trenching - the action of removing sediments or substrate for the purpose of installing a linear facility accomplished by use of a backhoe, bucket, clam, dragline, shovel or similar method.

turbidity - reduced water clarity resulting from presence of suspended matter.

use - See Chapter Four, 7:7E-1.6(c).

water areas - See Chapter Four, 7:7E-4.1.

water access - direct physical availability to water body.

water dependent- use which requires navigation in, or direct physical contact with, water body. (See Chapter Four, 7:7E-1.6(c)).

water disturbance - measurable change in biological, chemical, or physical water quality.

water oriented - use with strong need for water access.

waterfowl - a group of aquatic birds within the family Anatidae which includes ducks, geese, swans, and mangansers.

wet borrow pits- See Chapter Four, 7:7E-3.15 and 7:7E-3.25.

wetlands - inundated areas supporting emergent aquatic plants (See Chapter Four, 7:7E-3.23 and Chapter Five.

white cedar stands - See Chapter Four, 7:7E-3.23.

wildlife - a collective term used for living organisms neither human or domesticated (See Chapter Four, 7:7E-3.33, 3.34, and 8.10).

zooplankton - the animal component of the plankton.

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APPENDIX J - PREPARERS OF THE NEW JERSEY COASTAL MANAGEMENT PROGRAM AND  
FINAL ENVIRONMENTAL STATEMENT

The National Oceanic and Atmospheric Administration - Office of Coastal Zone Management (NOAA-OCZM) in the United States Department of Commerce together with the Bureau of Coastal Planning and Development in the Division of Coastal Resources, New Jersey Department of Environmental Protection prepared this document with the assistance of present and former staff of the entire Department of Environmental Protection, other state, federal and local agencies, interest groups and citizens. The preparers are listed below and, as required by regulations of the Council on Environmental Quality (1502.17), academic degrees and the number of years of relevant experience of the primary authors are listed in parentheses.

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OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT  
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RE: Request for total federal funding allocated to the New Jersey Coastal  
Management Program from 1980 through the present.

Dear Ms. Gibbons,

This letter is in response to your email request dated 11/27/2006 regarding the New Jersey Coastal Management Program. According to our best available records, the New Jersey Coastal Management Program has received \$70,684,500 total federal funding under the Coastal Zone Management Act since 1980.

This number is calculated from a funding spreadsheet that our office maintains. There is not a published source that includes compiled annual funding for each state coastal zone management program. Annual funding figures are published in the Biennial Report to Congress.

Should you have any additional questions, please contact Kris Wall at kris.wall@noaa.gov or at (301) 713-3155 extension 168.

Sincerely,

John King, Chief  
Coastal Programs Division



