SUMMARY AND RATIONALE FOR DRAFT PROPOSED SUBSTANTIVE AMENDMENTS TO RULES ON COASTAL RESOURCE AND DEVELOPMENT POLICIES

Bureau of Coastal Planning
and Development
Division of Coastal Resources
New Jersey Department of
Environmental Protection
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The Rules on Coastal Resources and Development Policies (N.J.A.C. 7:7E-1.1 et seq.) are the guidelines which the Division of Coastal Reosurces uses to make permit decisions under CAFRA, the Wetlands Act and the Waterfront Development Act. They are Departmental Rules which govern all DEP planning and regulatory actions, to the extent statutorily permisssible. They are also an element of New Jersey's federally approved Coastal Management Program.

Adopted as rules on September 28, 1978 for the Bay and Ocean Shore Segment (generally, the Coastal Area under CAFRA) of New Jersey's Coastal Zone, they were extensively amended on September 26, 1980, at which time they became applicable throughout the Coastal Zone. Since September, 1980, they have been amended four times, but never in a comprehensive fashion. In 1983, the Division of Coastal Resources undertook its first comprehensive review of the policies since September, 1980. Based upon comments from environmentalists, developers, and the general public, experience of project review officers in applying the policies and upon changing conditions in the Coastal Zone, the Division is now planning to propose a package of amendments to the Policies.

On balance, these amendements would constitute neither a strengthening nor weakening of the degree of regulatory control exercised by the Department. Rather the proposed amendments represent a refinement of the policies to make them more responsive to actual coastal issues.

The following is a summary of, and rationale for, the amendments which the Division of Coastal Resources plans to propose, followed by a bibliography of studies and reports in support of these proposed policy amendments. In the full text of the proposed amendments, language to be deleted is indicated by [brackets], and language to be added is indicated by <u>underlining</u>.

7:7E-1.6 (c)(7) Definition of Encouraged

Vague language is proposed to be deleted. Existing language could be interpreted to allow a development which is inconsistent with coastal policies, if it is encouraged under certain policies. The definition would be further amended by the replacement of an "or" by an "and" to clarify that design, purpose, effect, or location alone are not sufficient to make a development encouraged.

1.6 (c)(8) Water Dependent

The definition of water dependent is proposed to be further clarified. Economic viability is often cited as the reason a particular use is water dependent. At the same time, the distinction between economic viability (sustenance) and economic advantage (added profit) is, for all practical purposes, impossible to make. Thus, removing economic considerations from the definition, and basing it instead on functional considerations, will clarify the definition of water dependent uses.

1.6 (d), (e), (f)

These sections on pre-application conferences, project review procedures and information requirements are redundant with procedural rules and would be deleted.

1.7 Mitigation

A new policy is proposed to consolidate requirements for mitigation when Wetlands or Subtidal and Intertidal Shallows are destroyed.

3.2 Shellfish Beds

This policy would be amended to require a resurvey of the shellfish bed and possible mitigation measures in every case in which development does not occur within one year of permit issuance.

3.5 Finfish Migratory Pathways

Atlantic Sturgeon and Shortnose Sturgeon would be added to the list of species of concern.

3.10 Marina Moorings p 37

The language of this policy would be tightened to prevent the loss of marina slips and moorings open to the general public, and the rationale would be expanded

to state the concern about the public's right to use tidal water for navigation.

3.13 Shipwrecks and Artificial Reefs

As amended, this policy would be concerned with shipwrecks as a fisheries resource, whereas the Historic and Archeological Resource Special Area Policy would be concerned with shipwrecks as a cultural resource.

delete

3.14 Estuarine or Marine Sanctuaries

This policy is proposed for deletion because there are no estuarine or marine sanctuaries in New Jersey, nor are any presently contemplated.

3.16 Intertidal and Subtidal Shallows

There is presently no policy that comprehensively addresses the protection of non-vegetated shallow water habitat as the wetlands policy addresses vegetated shallow water areas. This proposed amendment to the present Intertidal Flats policy would rectify this deficiency.

3.17 Filled Water's Edge p48

This policy would be clarified and strengthened based on the recommendations of "Filled Water's Edge Policy Assessment," NJDEP-DCR, June, 1983, and "Marina Conversions: An Analysis Based on Nine Approved CAFRA Projects," NJDEP-DCR, November, 1983.

3.18 Existing Lagoon Edge

This policy has been redrafted to address the issue of bulkheading along lagoon edges.

3.19 Natural Water's Edge

This policy would be amended consistent with changes to the Filled Water's Edge Policy, and to establish a less stringent policy for infill. The intent is to have a policy in which development is more acceptable here than in Wetlands, but less acceptable than in the Filled Water's Edge.

3.25 Central Barrier Island Corridor

The barrier island region would be treated as an extension region for purposes of determining the maximum

acceptable intensities of development on barrier islands.

3.32 Farmland Conservation

The policy would be amended to remove ambiguous language about urban-agriculatural conflicts. Agriculture would be the only permitted use in Farmland Conservation Areas unless it can be demonstrated by the applicant that agriculture is not economically feasible.

3.35 Historic and Archeological Resources

Conditions for the salvage of historic shipwrecks would be added.

3.37 Endangered or Threatened Wildlife or Vegetation Species Habitat

The list of endangered or threatened species would be modified based on a proposed amendment to the list in the October 3, 1983, New Jersey Register.

3.40 Special Hazard Areas

Areas where hazardous materials are used or disposed of would be added to the examples of Special Hazard Areas.

3.42 Special Urban Areas

A 5,000 person per square mile density minimum was added to the definition to limit the policy to municipalities which are truly urban. Several suburban townships would be added to this list if a density minimum is not adopted.

3.46 Geodetic Control Reference Marks

Geodetic Control Reference Marks would be added to the list of Special Areas.

4.11 Water Use Policies

Rationales would be added to water use policies that currently lack them.

4.11 (c) Docks and Piers (for Cargo and Commercial Fisheries)

Docks and Piers for Commercial Fisheries would be moved to this less restrictive category of docks and piers from the recreational category.

4.11 (d) Docks and Piers (Recreational)

The policy would be amended to require minimization of dock size and maximization of space between planking to maximize the amount of light reaching benthic vegetation. This amendment would be consistent with present permit practice.

4.11 (e) and (f) Dredging

The standards for turbidity control would be amended to conform with Division of Water Resources rules. The standards for new dredging would be amended to take into consideration the fact that by its nature, new dredging will significantly disturb Intertidal and Subtidal Shallows.

4.11 (i) Filling

Mitigation requirements would be moved to Section 1.7, and policy would be established for the removal of unauthorized fill.

4.11 (n) Floating Homes

A new water areas use policy is proposed to prohibit floating homes because they are not water dependent, compete with recreational and commercial boats for limited marina space and have adverse water quality impacts.

4.11 (s) Miscellaneous

Except as otherwise specified, all non-water dependent uses would be discouraged in all water areas.

5.1 General Land Areas

The proposed amendment would not change existing policy but would emphasize the fact that in upland special areas both the Land Area and Special Area policies must be complied with. This statement is presently made at the introduction to the Special Area policies.

5.3 Coastal Growth Rating

The Barrier Island Region would be redefined to include back bay islands and would be classified an Extension Region for purposes of applying the Water's Edge Housing Use policy.

The Urban Areas Region would be redefined to clarify that it is the same as the Special Urban Areas (7:7E-3.42) Special Area.

5.4 Environmental Sensitivity

The presence of Agricultural Capability Class I lands are to be eliminated as a factor determining high environmental sensitivity because:

1. The Land Area policies often reduce the acceptable intensity of development on high environmental sensitivity sites, but seldom totally prohibit development. Therefore, they do not protect Class I lands for future agricultural use.

2. The current Land Area policies may preserve or reduce acceptable densities on scattered portions of Class I soils in a random fashion, without protecting portions large enough for future agricultural use.

3. Class I lands are a small percentage of all lands which are suitable for agriculture.

4. Class I lands differ from Class II lands only in slope. The current policy tends to encourage higher densities on prime agricultural lands which have a slight slope than on prime agricultural lands which are flat.

The presence of High Permeability Wet Soils as a factor determining high environmental sensitivity would be replaced by the presence of Wet or High Permeability Moist Soils to make this policy consistent with the revised Wet and High Permeability Moist Soils Policy (7:7E-8.20).

These amendments would have little net change on the amount of land acceptable for development, but would generally prevent the situation in which small packets of land must be developed at lower densities then surrounding land.

5.5 (a) Acceptable Intensity of Development

DEP has attempted to apply the acceptable intensity of development tables to land uses for which they were not intended, e.g. landfills, and obtained inappropriate policy requirements. Limitations on the use of these tables would be established.

7.2 (b)1(ii) Water's Edge Housing

This policy would be changed to remain consistent with revised Filled Water's Edge Policy.

7.2 (e) Affordable Housing

This policy would be amended in response to the Supreme Court's decisions in Mount Laurel II and In Re Egg Harbor Associates (Bayshore Center). Specific changes to the policy are as follows:

(a) Affordable carrying costs for rental housing have been increased to 27 percent of income, in accord with HUD guidelines.

(b) "Income" and "monthly carrying costs" have been defined.

(c) The policy would be applied to all residential construction without a test for need, but the Urban Areas Region, the Delaware River Region, and the Northern Waterfront Region would be exempted from the policy.

(d) The required amount of affordable housing is defined as enough so that at least 10 percent of the units to be built will be offered at prices affordable by low income households and at least 10 percent of the units will be affordable by moderate income families. This housing may be built on or off site, or through rehabilitation of existing housing. Applicants who choose not to provide affordable housing may make a contribution to a housing authority. The size of the contribution would be based on the number and affordability of the housing to be built.

7.2 (h) High Rise Housing

The use of this policy was reviewed in an October, 1982 BCPD study entitled "A Summary of All CAFRA Projects Reviewed under the High Rise Policy." Proposed amendments would:

(a) Clarify that this policy be applied to all high rise structures.

(b) Specify the minimum distance between a high rise and coastal waters as one public road or 34 feet (the standard width of the right-of-way of a two lane road).

(c) Specify when high rises must not overshadow beaches.

(d) Require that for a high rise which is not consistent with surrounding densities to be approved, it must be in conformance with a municipal comprehensive development scheme which is consistent with all applicable Coastal Resource and Development Policies.

7.3 (b) Recreation Priority

Resort and recreation uses would no longer be given priority in Cumberland and Salem Counties in recognition of the importance of industry, agriculture, mining and commercial fisheries in these two counties. Commercial fisheries would be given equal priority with resort and recreation uses in Monmouth, Ocean, Atlantic and Cape May counties in recognition of the fact that $96.5 million worth of fishery products are processed in New Jersey annually (1979).

7.3 (c) Recreation Areas within Developments

This policy presently requires that:

> "Recreation areas shall be incorporated in the design of all residential, industrial and commercial development, to the maximum extent practicable."

It is proposed to further refine this policy by defining "recreation areas" and "to the maximum extent practicable."

7.3 (d) Marinas p.149

The proposed amendment would establish DEP policy to encourage marina development on the Filled Water's Edge and discourage it on Wetlands. A 1982 DEP report "Building a Marina in New Jersey: A Handbook "indicated that regional demand cannot be met solely by upgrading or expanding existing marinas.

Policy (iii) on limiting non-water dependent uses is proposed for deletion because this issue is addressed elsewhere.

7.5 (b) Public Transportation

This policy is proposed to be expanded to address the issue or abandonment of rail rights-of-way.

7.5 (d) Parking Facilities

Although no substantive amendments are currently proposed for this policy, amendments may be proposed on the basis of the DEP/DOT/ACTA Draft Atlantic City parking policy.

7.8 Mining

The revised policy would address the issue of mining/ agricultural conflicts through emphasis on reclamation.

7.11 (b) Shore Protection Priorities

The desirability of vegetation as a shore protection technique would be emphasized, and critieria for determining the effectiveness of non-structural techniques would be set forth.

7.11 (e) Structural Shore Protection

The policy on "short retaining structures" would be deleted because the acceptability of this use would now be comprehensively addressed in the Lagoon Edge Policy. Short retaining structures would be generally acceptable only along lagoon edges.

Sloped concrete revetments are stated to be a preferred construction method, along with rip-rap.

The policy would also be amended to require that public access be required to publicly funded shore protection projects and land created thereby.

8.4 Water Quality

The requirement of consistency with the Clean Water Act would be revised but not substantively changed.

8.7 Stormwater Runoff

The policy would be amended to conform with the general standards under the Stormwater Management Act, N.J.S.A. 40:55D-1.

8.8 Soil Erosion and Sedimentation

It would be clarified tht this policy does not place any requirements on coastal development affecting less than 5,000 square feet of land.

8.12 Public Service

This policy seeks to insure that adequate public service is available to service new development, but the Division of Coastal Resources has little control over the provision of public services. The Division can, however, control the rate of new development where existing public services can not handle rapid development. Therefore, the policy has been expanded to address the rate of development.

8.13 Public Access p.197

Amendments are proposed based on DEP's Draft Ocean Beachfront Access Strategy (1983), to clarify that the policy applies to access to all coastal waterfronts, to prevent unreasonable fee discrimination between residents and non-residents, to ensure equal access to coastal waters which are impressed by the public trust doctrine regardless of race, religion, ethnic background, sex, or sexual preference, to ensure access to publicly funded shore protection projects and to waterfronts created by public projects, and to require development along the Hudson River to conform Hudson River Walkway and Design Guidelines, prepared for DEP.

8.14 Scenic Resources and Design

The scope of this policy would be narrowed to apply only to facilites, which by their size, location or design could have a signficant adverse effect on the scenic resources of the coastal zone.

8.16 Solid Waste

(a) The definition would be amended to exclude liquid waste, because liquid waste is by definition not solid waste, and is addressed by either the NJPDES program or the runoff policy. Wastes collected by swine producers would not be exempted, since this use of waste is addressed by the policy.

(b) Policy amendments would require resource and energy recovery where not infeasible and would require all residential developments of over 100 units and all

commercial and industrial facilities which generate identifiable recyclable waste products to implement a source separation and recycling plan, if economically feasible.

(c) The ruling would be amended to make it explicit that wetlands are not an acceptable site for sanitary landfills.

8.17 Energy Conservation

A number of changes are proposed to clarify this policy.

1. Only high rise and major commercial and industrial developments would be required to prepare an energy plan or audit. Most residential development will be required only to incorporate energy conservation techniques to the maximum extent practicable. If NJDOE serves as a review agency, they will advise the Division whether such techniques are incorporated to the maximum extent practicable. If NJDOE does not serve as a review agency, the Division of Coastal Resources will make this determination based on internal guidelines.

2. Standards would be set for maximum acceptable shadowing of existing solar collectors and these standards would no longer be limited to high rise buildings.

3. Municipalities with NJDOE approved energy conservation ordinances would be exempted from this policy requirement.

8.19 Traffic

Three specific requirements would be placed on new development:

(1) That it be designed and located in a manner to cause the least possible disturbance to traffic systems.

(2) That when traffic systems are disturbed by an approved development, the necessary design modifications must be prepared and implemented in conjunction with the coastal development.

(3) That new development not generate traffic in excess of specific capacity levels.

8.20 Wet and High Permeability Moist Soils

These two policies have been combined to enhance the consistency and simplicity of the policy.

8.22 Flood Hazard Areas

References to specific requirements under the Flood Hazard Area Control Act have been replaced by a general reference to the Act and rules adopted thereunder because of ongoing amendments to the rules.

BIBLIOGRAPHY OF REPORTS IN SUPPORT OF THE PROPOSED POLICY AMENDMENTS.

1. NJDEP - BCPD, "Filled Waters Edge Policy Assessment," June 1983.

2. NJDEP - BCPD, "Marina Conversions: An Analysis Based on Nine Approved CAFRA projects," November, 1983.

3. NJDEP - BCPD, "Ocean Beachfront Access Strategy," Draft, 1983.

4. Wallace, Roberts and Todd for NJDEP, Hudson River Walkway and Design Guidelines, Draft, 1983.

5. Rogers, Golden and Halpern for NJDEP, Developing a Marina in New Jersey: A Handbook, 1982.

RC/sn

2. RULES ON COASTAL RESOURCE AND DEVELOPMENT POLICIES (N.J.A.C. 7:7E-1.1 et seq.)

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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 Division [Department] to the Tidelands Resource Council on applications for riparian grants, leases, or licenses.

In 1977, the Commissioner of DEP submitted to the Governor and Legislature the Coastal Management Strategy for New Jersey-CAFRA Area (September 1977), prepared by the Department as required by CAFRA, N.J.S.A. 13:19-16, and submitted for public scrutiny in late 1977. The Department revised the Coastal Management Strategy for public review as the New Jersey Coastal Management Program - Bay and Ocean Shore Segment and Draft EIS. In August 1978 the Governor submitted the revised New Jersey Coastal Management Program - Bay and Ocean Shore Segment and Final EIS for federal approval, which was received in September 1978. In May 1980, the Department submitted further revisions, published as the Proposed New Jersey Coastal Management Program and Draft Environmental Impact Statement, for public review. In August 1980, the Governor submitted the final New Jersey Coastal Management Program and Final Environmental Impact Statement for federal approval, which was received in September 1980. The Rules on Coastal Resource and Development Policies constitute the substantive core of the program. The Rules were amended on June 4, 1981, January 12, 1982, April 19, 1982, and February 7, 1983.

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. 13:19A-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) and (g), of actions or decisions by the Department on uses of coastal resources within or significantly affecting 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] New Jersey 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] DIVISION OF WASTE MANAGEMENT

(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
Navigational Dredging

DIVISION OF WATER RESOURCES

Areawide water quality management ("208")

DIVISION OF ENVIRONMENTAL QUALITY

Air quality planning

DIVISION OF WASTE MANAGEMENT

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 deadlines 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 interchangably 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] and quantity of the coastal resource of concern.

(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]and 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] cannot physically function without direct access to the body of water along which it is proposed [in order to function]. Uses, or portions of uses, that can function on sites not adjacent to the water are not considered water dependent regardless of the economic advantages that may be gained from a waterfront location. 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.]

Examples of Water Dependent uses include: marina activities requiring access to the water, such as boat repairs and short-term parking for boaters, storage of boats which are too large to be feasibly transported by car trailer, industries such as fish processing plants and other industries which receive and quickly process raw materials by ship, commercial fishing operations, port activities requiring the loading and unloading of ships, and water-oriented recreation

Water dependent uses exclude, for example housing, hotels, motels, restaurants, warehouses, manufacturing facilities (except those which receive and quickly process raw materials by ship) dry boat storage for boats that can be transported by car trailer, long-term parking, parking for persons not participating in a water-dependent activity, boat sales, automobile junkyards, and non-water oriented recreation such as roller rinks and racquet ball courts.

(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 Resource 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) is 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.]

7:7E-1.7 Mitigation

When a permit shall allow the destruction of Wetlands (7:7E-3.26) or Intertidal and Subtidal Shallows (7:7E-3.16) by filling or other means, this destruction must be compensated for by the creation or restoration of an area of Wetlands or Intertidal and Subtidal Shallows at least twice the size and environmental value of the area destroyed, unless the applicant can prove that by restoring or creating a lesser area, there will be no net loss in the area or environmental value of wetlands or intertidal shallows in the estuarine system. Creation of Wetlands from existing Intertidal and Subtidal Shallows is not an acceptable form of mitigation, nor is transfer of title of existing wetlands or intertidal or subtidal shallows to a government agency or conservation organization. The filling or destruction of Wetlands and Intertidal and Subtidal Shallows, even if compensated for by mitigation, shall not be permitted unless acceptable under the applicable Special Area policy.

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 [44]45 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-3.31), Special Land Areas (7:7E-3.32 through 7:7E-3.34), and Coastwide Special Areas (7:7E-3.35 through 7:7E-3.45). 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, unless the development is of national interest and no prudent and feasible alternative sites exist. 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 new 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.

(4) Maintenance dredging of existing navigation channels is conditionally acceptable. [with] S[s]tate managed shellfish recovery programs are encouraged prior to dredging.

(5) [(4)] If there is a delay of more than one year between completion of permit application review and initiation of approved activity, the shellfish resource must be resurveyed. If there is a significant change in the resource, new mitigation measures may be required by DEP. [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] 1982 were [$3.43] $8.32 million for estuarine mollusks, with an estimated retail industry value of [$8.6] $20.8 million. The commercial harvest is estimated to support employment of 1,500 persons in fishing, distribution, processing, and retail. Sport clammers numbered [21,200] 17,907 in [1978] 1982. 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

Surf Clam Areas are [W]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] $11.7 million during [1978] 1982 and estimated retail value of [$18.9] $29.5 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 bathmetry 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 bathmetric 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.) In 1979, $178 million was spent on recreational fishing including party boats and the value of commercial fisheries landings totalled $53 million (New Jersey Coastal Fisheries Management Strategy, NJDEP, Division of Fish, Game and Wildlife, draft, 1982). 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), Atlantic sturgeon (Acipenser oxyrhynchus), Shortnose sturegon (Acipenser brevirostrum) and American eel (Anguilla rostrata).

(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 from 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

1. 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 canals are still used extensively for their original purposes. 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, docking 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] decrease the water area devoted to, or available for, slips and moorings open to the general public is discouraged.

2. Maintenance dredging in the marina mooring area 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.]

Marinas are encouraged since they benefit the state by attracting tourists and associated revenues and by providing recreational opportunities to the estimated 25% of residents that go boating in bays and coastal waters of the State (1977 Eagleton Institute Poll). Further, existing marinas are inadequate to serve current and projected demand. The vast majority of existing marinas (70%) are filled to capacity with many having waiting lists, indicating a large unmet demand ("Developing a Marina in New Jersey: A Handbook", N.J. DEP, 1982). According to the New Jersey State Comprehensive Outdoor Recreation Plan (SCORP), boating demand will increase through 1995 leaving even more New Jersey boaters without boating facilities and perhaps divering large numbers to other states.

Further, preserving slips open to the general public is necessary to protect the public's common law right to use tidal waters for navigation. In defining "slip open to the general public" slips leased only to owners of associated housing would be excluded. Slips leased only to members of a club would be excluded, unless any member of the geneal public could join by paying a reasonable fee. Slips leased only to residents of a certain municipality, and slips accommodating only boats greater than 26 feet in length would also excluded. Under the policies, an applicant could restrict the use of slips and mooring areas to the residents of a particular development only if the final configuration of the marina mooring area provides at least as many slips and at least as much mooring area to the general public as was available prior to construction.

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. Port locations in New Jersey include, among others, Newark, Elizabeth, Bayonne, Jersey City, Weehawken, Hoboken, Woodbridge, Perth Amboy, Camden, Gloucester City, and Paulsboro.

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 movements are [an] encouraged [use].

(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 is [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. (See also 7:7E-3.35, Historic and Archeological 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.] Any use, except archeological research, which would significantly adversely affect the usefulness of this Special Area as a fisheries resource is prohibited. Persons conducting archeological research which significantly affects the usefulness of a shipwreck for fisheries purpose must compensate for this loss by creation of an artificial reef of equal habitat value.

(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 cleanup efforts.

The sediments laid down in intertidal and subtidal 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.

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 paved 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 (See Figures 1 and 2).

(b) Policies

(1) On Filled Water's Edge sites which have been occupied at least in part by water dependent uses at any time since July, 1977, any non-water dependent development (see 7:7E-1.6(c)) which would adversely affect, or decrease the area devoted to, the existing or pre-existing water dependent use is discouraged.

(2) On Filled Water's Edge sites which have not been entirely occupied by water dependent uses at any time since July, 1977 and which have greater than 25 feet of water's edge adjacent to navigable water (without extensive Inter-tidal Shallows or Wetlands between the upland and open water), a contiguous area must be developed with a water dependent use, or left undeveloped for future water dependent development. This contiguous area must (a) be at least equal in size to 100 feet multiplied by the length of the site's mean high water line adjacent to navigable water; (b) have at least 30 percent of its perimeter along the navigable water's edge; and (c) be accessible to a public road.

(3) On all Filled Water's Edge sites which have greater than 25 feet of water's edge adjacent to navigable water, any use which receives no benefit from a water's edge location is prohibited on the entire site.

(4) On all Filled Water's Edge sites, development must comply with the Public Access resource policy (7:7E-8.13).

[(1) Water dependent (see section 7:7E-1.6(c) for definition) uses are acceptable in the Filled Water's 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

EXAMPLES OF ACCEPTABLE METHODS OF MEETING THE FILLED WATER'S EDGE REQUIREMENT FOR WATER DEPENDENT DEVELOPMENT

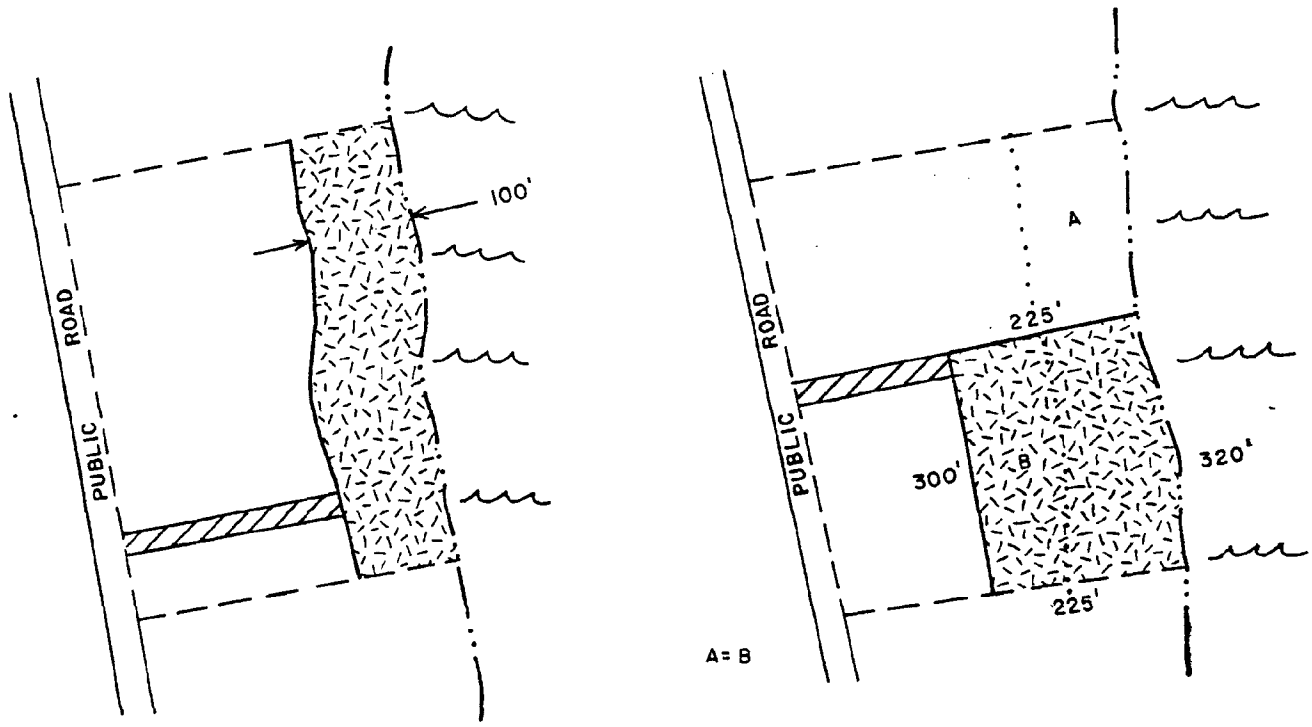

FIGURE I : UNDEVELOPED SITE

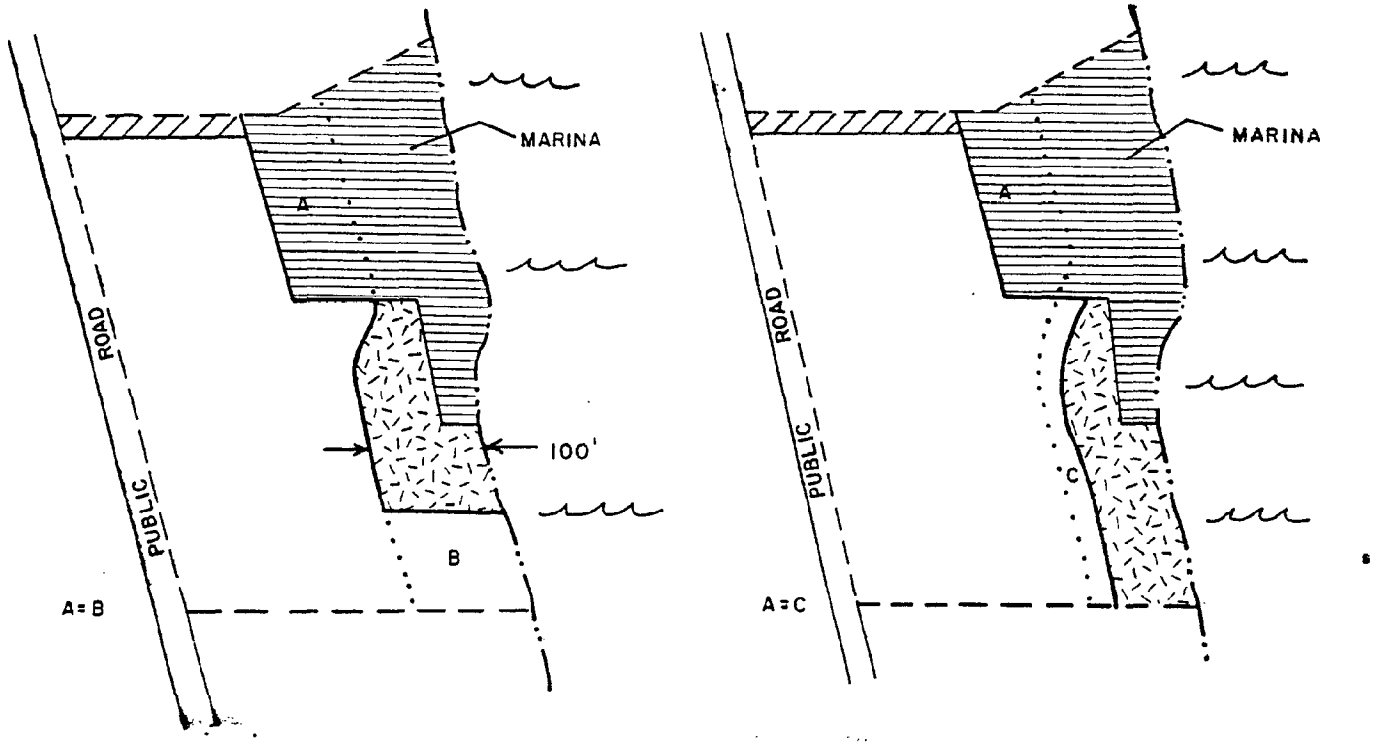

FIGURE II: PRE-EXISTING MARINA

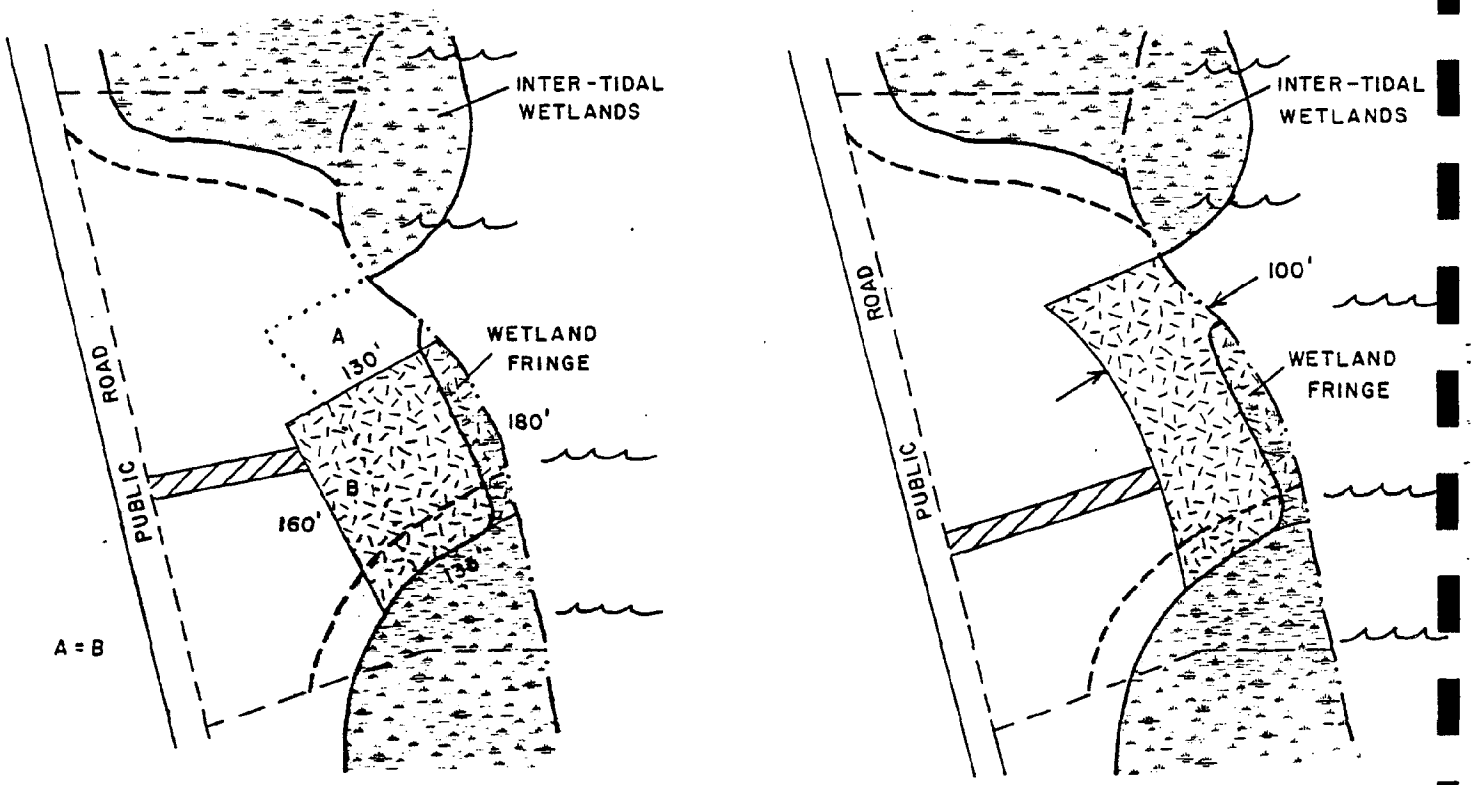

FIGURE III: SITE WITH WETLANDS

KEY:

- SITE BOUNDARY
- MHW LINE
- WETLANDS BUFFER
- ACCESS ROAD
- WETLANDS
- WETLANDS BUFFER
- AREA TO BE RESERVED FOR WATER DEPENDENT USE

FIGURE NO.	PERIMETER OF WATER DEPENDENT AREA	PERIMETER ALONG WATER'S EDGE	
I	300' + 225' + 320' + 225' = 1070'	320'	30 %
II	NOT APPLICABLE		
III	360' + 130' + 175' + 135' = 600'	180'	30 %

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.

Lagoons, as a result of limited freshwater inflow, multiple dead-end branches, and deeper bottoms than adjacent bay waters, have poor circulation which causes anoxic (devoid of oxygen) and stagnant bottoms. However, the shallow water edges of lagoons have been shown by NJDEP Bureau of Coastal Project Review (1983) to support a wide variety of fin fishes, shrimp and primary productivity. The above Existing Lagoon Edge policies are intended to conserve this aquatic productivity found along the shallow edges, while allowing use of the property by owners.

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

Development in a Natural Water's Edge-Floodplain must meet all conditions for development in a Filled Water's Edge, as well as the three following conditions:

[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 permanently 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 a 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 eutropic conditions that lead to sudden oxygen loss are concentrated by evaporation. Low levels of toxicity are quickly biomagnified 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] has less negative impact [impactive] 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 eutropication provide evidence for the need for a water quality buffer area.

7:7E-3.16 Intertidal and Subtidal Shallows [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.]

Intertidal and Subtidal Shallows include all permanently or twice-daily submerged areas from the mean high water line to a depth of 4 feet below mean low water.

(b) Policies

(1) Development, filling, new dredging or other disturbance [of intertidal flats] is generally discouraged but may be permitted in accordance with the Use Policy for the applicable water body type (see 7:7E-4). When development is permitted to destroy Intertidal and Subtidal Shallows, this development must be mitigated in accordance with the Mitigation Policy (7:7E-1.7), except when filling behind a bulkhead of 75 feet or less connecting two existing lawful bulkheads in a man-made lagoon (See 7:7E-3.18(b)2a).

(2) Submerged infrastructure is conditionally acceptable, provided that (i) there is no feasible alternative route that would not disturb intertidal and subtidal shallows[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 and Subtidal Shallows [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 and subtidal 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.

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 paved 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 (See Figures 1 and 2).

(b) Policies

(1) On Filled Water's Edge sites which have been occupied at least in part by water dependent uses at any time since July, 1977, any non-water dependent development (see 7:7E-1.6(c)) which would adversely affect, or decrease the area devoted to, the existing or pre-existing water dependent use is discouraged.

(2) On Filled Water's Edge sites which have not been entirely occupied by water dependent uses at any time since July, 1977 and which have greater than 25 feet of water's edge adjacent to navigable water (without extensive Inter-tidal Shallows or Wetlands between the upland and open water), a contiguous area must be developed with a water dependent use, or left undeveloped for future water dependent development. This contiguous area must (a) be at least equal in size to 100 feet multiplied by the length of the site's mean high water line adjacent to navigable water; (b) have at least 30 percent of its perimeter along the navigable water's edge; and (c) be accessible to a public road.

(3) On all Filled Water's Edge sites which have greater than 25 feet of water's edge adjacent to navigable water, any use which receives no benefit from a water's edge location is prohibited on the entire site.

(4) On all Filled Water's Edge sites, development must comply with the Public Access resource policy (7:7E-8.13).

[(1) Water dependent (see section 7:7E-1.6(c) for definition) uses are acceptable in the Filled Water's 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. However, 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. Only 37 percent of the State's 753 miles of shoreline along navigable waterways is filled water's edge and only 7 percent is suitable for marina development. A full service marina with 100 slips would require 3 acres of land area (Rogers, Golden and Halpern for NJDEP, Developing a Marina in New Jersey, 1982).

Therefore, the policy restricts non-water dependent redevelopment of sites currently or recently occupied by a water dependent use. July, 1977 is set as the date to define recent water dependent uses, because it is the date of the most recent comprehensive aerial photography of the Water's Edge in the possession of DEP's Division of Coastal Resources. The policy also requires that a set amount of land be set aside for present or potential water dependent uses when the site abuts navigable waters.

7:7E-3.18 Existing Lagoon Edge

(a) Definition

Existing Lagoon Edges are defined as existing man-made land areas resulting from the dredging and fill of wetlands, bay bottom and other estuarine water 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 paved public road or railroad generally parallel to the Water Area, whichever is less (Figure 3).

(b) Policy

1. Development of Existing Lagoon Edges [Areas] is acceptable provided that:

   (i)[(1)] [reclamation] restoration of the site to its former natural state is infeasible,

   (ii)[(2)] the proposed development is compatible with existing adjacent land and water uses,

(iii)[(3)] existing unstabilized slopes are stabilized using vegetation, rip rap or sloped concrete block, [to the maximum extent practicable,] and

(iv)[(4)] existing retaining structures are adequate to protect the proposed development, or [appropriate improvements are proposed for the retaining structure] the retaining structure is reconstructed without extending it outshore more than 18 inches.

2. If vegetation, rip-rap or other non-vertical stabilization methods are physically infeasible, then timber pile, concrete, or steel vertical bulkheads, with backfilling, are acceptable with the following conditions:

   a) to connect two existing lawful bulkheads which are not more than 75 feet apart, the connecting bulkhead may not extend seaward of a straight line connecting the ends of the existing bulkheads. Compliance with the mitigation policy (7:7E-1.7) shall not be required in such cases.

   b) elsewhere, bulkheading may not extend seaward of the mean high water line.

3. Filling is acceptable at the landward end of lagoons, if flushing is poor and oxygen levels are insufficient to support aquatic biota. This usually pertains only to areas where the water is more than four feet deep. Shallow areas along edges, in general, have sufficient dissolved oxygen concentrations to support organisms important to the estuarine and marine food chain.

4. In no event may wetlands be filled except under the conditions of the Wetlands Special Area Policy (7:7E-3.26).

(c) Rationale

This policy is designed to promote the [reclamation] restoration of as much filled land as possible, and the protection of productive or potentially productive shallow water areas. Filled lands adjacent to water areas, especially existing, undeveloped lagoons, represent potential problems for water quality if not stabilized. The slope must be stabilized in order to prevent erosion[,] and 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).] Rutgers University Center for Coastal and Environmental Studies and NJDEP, Division of Fish, Game and Wildlife, "Comparison of Natural and Altered Estuarine Systems", 1979. 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.

Lagoons, as a result of limited freshwater inflow, multiple dead-end branches, and deeper bottoms than adjacent bay waters, have poor circulation which causes anoxic (devoid of oxygen) and stagnant bottoms. However, the shallow water edges of lagoons have been shown by NJDEP Bureau of Coastal Project Review (1983) to support a wide variety of fin fishes, shrimp and primary productivity. The above Existing Lagoon Edge policies are intended to conserve this aquatic productivity found along the shallow edges, while allowing use of the property by owners.

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

~~(3)~~ Development in a Natural Water's Edge-Floodplain must meet all conditions for development in a Filled Water's Edge, as well as the three following conditions:

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). Development elsewhere in the Natural Water's Edge-Floodplains is discouraged unless:

   (i) it has no feasible alternate site outside of a Natural Water's Edge-Floodplain, [and] or

   (ii) [it would not preempt use of the waterfront portion of the Floodplain for potential water dependent use.]

   the site is less than 5 acres in size and the majority of the perimeter of the site, excluding wetlands or surface water areas, is adjacent to or across a public road or railroad from land that is developed with any of the following uses:

   - residential development at densities of at least one dwelling unit per two acres
   - commercial development
   - industrial development, including warehouses
   - schools and other public institutions
   - ballfields
   - public park areas developed for active recreational use
   - transportation facilities including train stations and airfields, or

   (iii) it is water dependent

2. [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).

3 [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 ecosystems, 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 or adapted forest vegetation, allowing limited exceptions for water dependent uses, infill 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 flood-proofing 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 Beaches

(a) Definition

Beaches are gently sloping unvegetated areas of sand or other unconsolidated material that extend landward from the mean high water line to either: (1) the vegetation line, (2) a man-made feature generally parallel to the ocean, inlet, or bay waters such as a retaining structure, seawall, bulkhead, road or boardwalk, except that sandy areas that extend fully under and landward of an elevated boardwalk are considered to be beach areas, or (3) the seaward or bayward foot of dunes, whichever is closest to the bay, inlet or ocean waters. Beaches can be found on all tidal shorelines, including ocean, bay and river shorelines. See Figure 4.

(b) Policies

1. Development is prohibited on beaches, except for development that has no prudent or feasible alternative in an area other than a beach, and that will not cause significant adverse long-term impacts on the natural functioning of the beach and dune system, either individually or in combination with other existing or proposed structures, land disturbances or activities. Examples of acceptable activities are:

   (i) Demolition and removal of paving and structures,

   (ii) Dune creation and related sand fencing and planting of vegetation for dune stabilization,

   (iii) The reconstruction of existing amusement and fishing piers and boardwalks,

   (iv) Temporary recreation structures for public safety such as first aid and lifeguard stations,

   (v) Linear development which meets the Policy on Location of Linear Development (7:7E-6.1).

2. Public access to beaches is encouraged. Coastal development that unreasonably restricts public access to beaches is prohibited.

(c) Rationale

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 at Geographic Area of Particular Concern (GAPC) by DEP under the federal Coastal Zone Management Act.

7:7E-3.22 Dunes

(a) Definition

A dune is a wind or wave deposited formation of vegetated or drifting wind blown sand, that lies generally parallel to, and landward of the beach, and between the upland limit of the beach and the foot of the most inland dune slope. "Dune" includes the foredune, as well as secondary and tertiary dune ridges where they exist. Formations of sand immediately adjacent to beaches that are stabilized by retaining structures, and or snow fences, planted vegetation, and other measures are considered to be dunes regardless of the degree of modification of the dune by wind or wave action or disturbance by development. A small mound of loose, wind blown sand found in a street or on a part of a structure as a result of storm activity is not considered to be a "dune".

(b) Policies

1. Development is prohibited on Dunes, except for development that has no prudent or feasible alternative in an area other than a dune, and that will not cause significant adverse long-term impacts on the natural functioning of the beach and dune system, either individually or in combination with other existing or proposed structures, land disturbances or activities. Examples of acceptable activities are:

   (i) Demolition and removal of paving and structures,

   (ii) Limited, designated access ways for pedestrian and authorized motor vehicles between public streets and the beach that provide for the minimum feasible interference with the beach and dune system and are [so] oriented so as to provide the minimum feasible threat of breaching or overtopping as a result of storm surge or wave runup,

(iii) Limited stairs, walkways, pathways and boardwalks to permit access across dunes to beaches, provided they cause minimum feasible interference with the beach and dune system,

(iv) The planting of native vegetation to stabilize dunes,

(v) Sand fencing, either a brush type barricade or a picket type, to accumulate sand and aid in dune formation.

(vi) Shore Protection Structures which meet the Use conditions of Section 7:7E-7.11(e), and

(vii) Linear development which meets the Policy on Location of Linear Development (7:7E-6.1).

(c) Rationale

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 habitats 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.

7:7E-3.23 Overwash Fans

(a) Definition

An overwash fan is a gently sloping, conical accumulation of sediment, usually sand, that is deposited landward of the beach or dune by the

rush of water up onto the beach, following the breaking of a wave, which carries sediment over the crest of a beach berm, a dune or a structure. An overwash fan may, through stabilization and vegetation, become a dune. The seaward limit of the Overwash Fan is the seaward toe of the former dune, or the landward limit of the beach, in the absence of a dune. The landward limit of overwash is the inland limit of sediment transport or the first public road, whichever comes first (see Figure 16).

(b) Policies

Development is prohibited on Overwash Fans, except for development that has no prudent or feasible alternative in an area other than an Overwash Fan, and that will not cause significant adverse long-term impacts on the natural functioning of the beach and dune system, either individually or in combination with other existing or proposed structures, land disturbances or activities. Examples of acceptable activities are:

(i) Demolition and removal of paving and structures,

(ii) Limited, designated access ways for pedestrians and authorized motor vehicles between public streets and the beach that provide for the minimum feasible interference with the beach and dune system and are so oriented as to provide the minimum feasible threat of breaching or overtopping as a result of storm surge or wave runup,

(iii) Limited stairs, walkways, pathways and boardwalks to permit access across dunes to beaches, provided they cause minimum feasible interference with the beach and dune system,

(iv) The planting of native vegetation to facilitate dune development,

(v) Sand fencing, either a brush type barricade or a picket type, to accumulate sand and aid in dune formation,

(vi) Shore Protection Structures which meet the Use conditions of Section 7:7E-7.11(e), and

(vii) Linear development which meets the Policy on Location of Linear Development (7:7E-6.1).

(viii) Removal of newly deposited Overwash Fans from public roads or developed lots.

(c) Rationale

Overwash Fans 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 Fans 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-3.24 Erosion Hazard Areas

(a) Definition

Erosion Hazard Areas are shoreline areas that are eroding and/or have a history of erosion, causing them to be highly susceptible to further erosion and damage from storms. Erosion Hazard 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) Escaped 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)

Erosion Hazard Areas extend inland to the limit of the area likely to be eroded in less than 50 years, including developed and undeveloped areas, if no shore protection project, including beach nourishment, is implemented. The risk in, and therefore the extent of, Erosion Hazard Areas can be decreased by the implementation of a shore protection project, such as creation of dunes, berms, beach nourishment, or other shore protection techniques. However, development that does not comply with the Beach or Dune policy is not acceptable on a beach or dune, even if the implementation of a shore protection project would create sufficient protection from erosion for a Beach or Dune that would otherwise be designated an Erosion Hazard Area.

(b) Policy

Development is prohibited in Erosion Hazard Areas, except for:

(i) Linear development which meets the policy on location of Linear Development (7:7E-6.1), and

(ii) Shore protection activities which meet the appropriate Coastal Engineering Use Policies (7:7E-7.11).

A development proposed in an Erosion Hazard Area may, by including a Coastal Engineering project, such as an earthen berm, mitigate the projected erosion and change the classification of the site so that it is no longer an Erosion Hazard Area.

(c) Rationale

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 shore protection measures and linear development is prohibited 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 Monmouth Beach
13. Raritan Bay (developed portions along bayshore)
14. Sea Isle City (southern half)

These illustrative Erosion Hazard Areas may become Overwash Fans, Guts, Ocean, or some other land or water type after a storm.

The extent of the Erosion Hazard Area may be calculated by multiplying, by fifty, the annual erosion rates found in Karl F. Nordstrom et al., Coastal Geomorphology in New Jersey (two volumes), Center for Coastal and Environmental Studies, Rutgers University for NJDEP, 1977. Center for Coastal Environmental Studies, Rutgers University for NJDEP, Division of Coastal Resources, Coastal Dunes: Their Function, Delineation and Management or other appropriate sources including verifiable aerial photography, may also be consulted.

7:7E-3.25 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, Natural 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) Policy

[(1)] New or expanded development within the Central Barrier Island Corridor is conditionally acceptable provided that the maximum acceptable intensities for development under the Land Area Policies are not exceeded, treating the Barrier Island Region as an Extension Region [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-3.26 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 regulates all wetlands north of the Raritan Basin, except for areas within the Hackensack Meadowlands District not now or formerly flowed by the tides, and all coastal wetlands in the Delaware River Basin and Raritan River Basin not regulated under the Wetlands Act.

Generalized locations of both coastal and inland Wetlands can be found at a scale of 1:24,000 on maps produced for the National Wetlands Inventory by the U.S. Fish and Wildlife Service.

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.] <u>If destruction of a wetlands takes place, mitigation must be carried out consistent with 7:7E-1.7.</u>

(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) <u>Rationale</u>

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 <u>et seq.</u>) 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 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.

White cedar is New Jersey' 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-3.27 Wetlands Buffers

(a) Definition

All land within 300 feet of Wetlands as defined in N.J.A.C. 7:7E-3.26 and within the drainage area of those Wetlands comprises an area within which the need for a Wetlands Buffer shall be determined.

(b) Policy

Development is prohibited in a Wetlands Buffer unless it can be demonstrated that the proposed development will not have a significant adverse impact and will cause minimum feasible adverse impact, through the use of mitigation where appropriate (1) on the Wetlands, and (2) on the natural ecotone between the Wetlands and the surrounding upland. The precise geographic extent of the required actual Wetlands Buffer on a specific site shall be determined on a case-by-case basis using these standards.

(c) Rationale

Development adjacent to Wetlands can adversely affect the Wetlands through increased runoff, sedimentation, and introduction of pollutants.

The coastal zone includes a diversity of types of wetlands, of varying widths, quality, and importance to the ecosystem, from large forested freshwater wetlands, to narrow strips of coastal wetlands. For this reason, the appropriate buffer necessary to protect the wetlands adjacent to proposed land disturbance must be determined on a case-by-case basis, but using a standard that requires no significant impact on, and minimum feasible disturbance to, the wetlands.

The preservation of a transitional area of native vegetation in the portion of the Wetlands Buffer adjacent to a Wetlands and the construction of detention basins or berms if necessary to control runoff, could mitigate impacts and make development permissible in the remainder of the Wetlands Buffer.

Buffers that support stands of native vegetation perform the following ecological and physical functions:

(i) Stabilization of soil and prevention of erosion,

(ii) Filtration of suspended solids (silt) to prevent their deposition on wetlands. Siltation onto wetlands can lead to undesirable changes in vegetation, e.g. from cord grass (Spartina) to reeds (Phragmites), which contribute less to the estuarine and marine food chain.

(iii) Water turbidity control,

(iv) Inhibition of pollutant introduction into wetlands soil, water and food chains. Without Wetlands Buffers, "urban" runoff from adjacent housing will almost always cause an increase in contaminants, such as coliform, following rain,

(v) Storm water storage,

(vi) Formation of a barrier to floating debris,

(vii) Contribution to estuarine productivity, especially if the buffer is a forested floodplain.

As transition areas between differing vegetation communities (habitat areas), appropriately vegetated Wetlands Buffers function as ecotones, supporting species diversity and use, and serving as wildlife movement corridors.

Wetlands Buffers are used as lookout perches for raptors; nesting sites for Marsh Hawks, Black Crowned Night Heron, and Osprey; fall migration foraging stopovers for birds, including Woodcock; nesting sites for Wood Ducks, Black Ducks, and Mallards; and forage routes into and out of Wetlands for Raccoons, Mink, Muskrat, Fox, Deer, and others. Grassy wetlands edges serve as feeding sites for Wilson's Snipe, Ruffled Grouse, Quail and song birds.

A study entitled Wetlands of the New Jersey Pinelands: Values, Functions, Impacts and a Proposed Buffer Delineation Model by C.T. Roman and R.E. Good (1983) of Rutgers University comprehensively reviews the physical and biological effects of human activities on Pine Barrens freshwater wetlands and proposes a method by which to evaluate buffer width distances.

7:7E-3.28 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-3.26).

(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-3.29 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) and 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-3.30 Coastal Bluffs

(a) Definition

A coastal bluff is a steep slope (greater than 15 percent) 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. The waterward limit of a coastal bluff is a point 25 feet waterward of the toe of the bluff face, or the mean high water line, whichever is nearest the toe of the bluff. The landward limit of a coastal bluff is the landward limit of the area likely to be eroded within 50 years, or a point 25 feet landward of the crest of the bluff, whichever is farthest inland (see Figure 5). Steep slopes (N.J.A.C. 7:7E-3.33) 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. Development is prohibited on Coastal Bluffs, except for linear development which meets the policy on Location of Linear Development (7:7E-6.1) and shore protection activities which meet the appropriate Coastal Engineering Use Policies (7:7E-7.11).

2. A development proposed landward of the crest of a Coastal Bluff may, by including shore protection measures to slow the rate of erosion, change the classification of the site so that it is no longer a Coastal Bluff.

3. The stabilization of Coastal Bluffs with vegetation is encouraged.

(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 undermines their natural resistance to wind and rain erosion increases the risk of their collapse and causes 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. A minimum construction setback on the table land is required to protect life and property, and reaffirms the setback requirement of the Erosion Hazard Area Policy (7:7E-3.24).

7:7E-3.31 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 6).

(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.

(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-3.32 Farmland Conservation Areas

(a) Definition

Large, contiguous areas of 20 acres or more (in single or multiple tracts) with soils of classification in the Capability Classes I, II and III or special soils for blueberries and cranberries as mapped by the U.S. Department of Agriculture, Soil Conservation Service, in National Cooperative Solid 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[.],unless it can be demonstrated by the applicant that new or continued use of the site for farming or farm-dependent purposes is not economically feasible, valuing the property at the normal market value in the area for acquiring farmland for agricultural purposes. Farming or farm-dependent purposes include nurseries, orchards, vegetable and fruit farming, raising grains and seed crops, silviculture (such as Christmas tree farming), floriculture (including greenhouses), wholesale and retail marketing of crops, plants, animals and other related commodities, dairying, grazing, and livestock raising.

(b) Policy

(1) Farmland Conservation Area shall be maintained and protected for open space or farming purposes.[to the maximum extent practicable.] Farming or farm-dependent uses are permitted uses in Farmland Conservation Areas. Housing is permitted only if it is an accessory use to farming. Mining is permitted only in accordance with a reclamation plan which meets the requirements of the Mining Use Policy (7:7E-7.8).

(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.]

DEP recognizes the need for preserving and reclaiming land for farmland. The Department now permits farmers to clear land for farming by burning vegetation and estimates the cost of clearing woodland by burning at $700 to $800 per acre in 1981 dollars. The cost is estimated at $1,500 to $2,000 per acre without burning. A 1980 Rutgers

University study, by R.G. Latimer and C.A. Dupras of the Cooperative Extension Service at Cook College, "Costs and Returns from Growing Christmas Trees in New Jersey," demonstrates that the net return on Christmas tree farming is over $12,000 for an 8 acre farm, or more than $1,500 per acre.

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.]farming is economically feasible.

7:7E-3.33 Steep Slopes

(a) Definition

Steep slopes are land areas with slopes greater than 15 percent, which are not adjacent to the shoreline and therefore not coastal bluffs (7:7E-3.30). Steep slopes include natural swales and ravines, as well as man-made areas, such as those created through mining for sand, gravel, or fill, or road grading. Slopes of less than 15% are not considered to be steep slopes (see Resource Policy on Soil Erosion and Sedimentation, 7:7E-8.8).

(b) Policy

Development on steep slopes is discouraged unless their use is essential to a reasonable use of the site. If some development of steep slopes meets that standard, then the development must:

1. Produce minimum feasible site disturbance,

2. Provide for maximum feasible vegetation of the steep slope, especially with native woody vegetation,

3. Be consistent with the natural contour of the site to the maximum extent feasible.

4. Include limited stabilization measures, if necessary, such as terracing and paving, that are consistent with the natural or predevelopment character of the entire site, to the maximum extent practicable, and

5. Meet the Resource Policies for Runoff and Soil Erosion and Sedimentation (7:7E-8.7 and 7:7E-8.8).

(c) Rationale

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-DCR 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-3.34 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 is 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 sewate effluent) provided groundwater 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 is all other policies are satisfied.

7:7E-3.35 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 and seascape, 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 irreversably 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.

(5) Commercial salvage of shipwrecks over 50 years old is prohibited. Salvage for research and educational purposes is discouraged, but may be permitted, subject to the following conditions:

a) The proposed excavation project is in the public interest

b) The purpose of the proposed activity is to further archeological knowledge

c) The archeological knowledge gained will outweigh the loss to future archeologists of the preserved shipwreck

d) The applicant has expertise in underwater archeology as outlined the Federal Requirements (36 CFR66, pursuant to the Archeological and Historic Preservation Act of 1974 (P.L. 93-291), and through NEPA, the National Historic Preservation Act of 1966, as amended, and Executive Order 11593)

e) A State designated archeologist will be present on location to supervise excavation

f) Recovered artifacts will be preserved and/or restored and made accessible to researchers

g) A final report is prepared for DEP giving the following information about the shipwreck and its excavation: historic background, description of environment, salvage methodology, artifact analysis, recommendations for preservation of artifacts, base map, bibliography, photographs, National or State Historic Register documentation and conclusions.

(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 Archaeological (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]New Jersey Heritage advise DEP's Division of Coastal Resources on the historic resources aspects of coastal decisions.

The ability of archeologists to retrieve intact and preserve artifacts from historic shipwrecks is gradually improving, but remains limited. Therefore, the best way to preserve historic shipwrecks is to leave them alone until retrieval and preservation techniques improve. However, when the shipwreck is threatened by development or when the research benefits of immediate retrieval outweigh the risks, salvage may be approved subject to conditions developed in consultation with the Office of New Jersey Heritage, the State Museum and other interested research and educational institutions.

7:7E-3.36 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, March-April 1981 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-3.37 Endangered or Threatened Wildlife or Vegetation Species Habitats

(a) Definition

Areas known to be inhabited on a seasonal or permanent basis by or to be critical at any stage in the life cycle of any wildlife (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 Federal listing, are considered Special Areas. The definition also includes a sufficient buffer area to insue continued survival of the species. DEP-Division of Fish, Game and Wildlife 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 an Endangered or Threatened Wildlife or Vegetation Species Habitat is prohibited unless habitat adequate to assure the survival of the species within the region surrounding the site is preserved, either on or off site. These areas preserved as habitat must be appropriately managed in accordance with a plan approved by the Division of Coastal Resources with the advice of DEP's Endangered and Non Game Species Project within the Division of Fish, Game and Wildlife or the Office of Natural Lands Management within the Division of Parks and Forestry.

(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.

The following species were listed as endangered on the State [or Federal] list[s] in March, 1981:

FISH	
Short nose Sturgeon[1]	Acipenser brevirostrum
AMPHIBIANS	
Tremblay's Salmander	Ambystoma tremblayi
Blue-spotted Salamander	Ambystoma laterale
Eastern Tiger Salamander	Ambystoma tigrinum tigrinum
Pine Barrens Treefrog	Hyla andersoni
Southern Gray Treefrog	Hyla chrysocelis
REPTILES	
Atlantic Hawksbill	Eretmochelys imbricata
Atlantic Loggerhead	Caretta caretta
Atlantic Ridley	Lepidochelys kempi
Atlantic Leatherback	Dermochelys coriacea
Bog Turtle	Clemmys muhlenbergi
Timber Rattlesnake	Crotalus horridus horridus
Corn Snake	Elaphe guttata guttata
BIRDS	
Bald Eagle[1]	Haliaeetus leucocephalus
Peregrine Falcon[1]	Falco peregrinus
Osprey	Pandion haliaetus
Cooper's Hawk	Accipter cooperii
Least Tern	Sterna albifrons
Black Skimmer	Rynchops niger
Northern Harrier	Circus cyaneus
Short-eared Owl	Asio flammeus[2]
Pied-billed Grebe	Podilymbus podiceps
Upland Sandpiper	Bartramia longicauda
Cliff Swallow	Petrochelidron pyrrhonota[2]
Sedge Wren	Cistothorus platensis[2]
Henslow's Sparrow	Ammodramus henslowii
Vesper Sparrow	Pooecetes gramineus[2]

Piping Plover	Charadrius melodus
Roseate Tern	Sterna dougallii

MAMMALS

Indiana Bat	Myotis sodalis
Sperm Whale	Physeter catodon
Blue Whale	Balaenoptera musculus
Fin Whale	Balaenopetera physalus
Sei Whale	Balaenopetera borealis
Humpback Whale	Megaptera novaeangliae
Right Whale	Eublaena glacialis

The following Species were list as threatened Species on State lists in March, 1981:

FISH

Atlantic Sturgeon	Acipenser oxyrhynchus
American Shad	Alosa sapidissima
Brook Trout (native)	Salvelinus frontinalis
Atlantic Tomcod	Microgadus tomcod

AMPHIBIANS

Long-tailed Salamander	Eurycea longicauda
Eastern Mud Salamander	Pseudotriton montanus

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1 [On both State and] Also on the Federal list[s]. [All others are on the State list only. In addition, ten marine mammals are on the New Jersey list of endangered species, but these species do not nest regularly in New Jersey.]

REPTILES

Wood Turtle	Clemmys insculpta
[Corn Snake	Elaphe guttata guttata]
Northern Pine Snake	Pituophis melanoleucus melanoleucus
Atlantic Green Turtle[1]	Chelonia mydas

BIRDS

[Pied-billed Grebe	Podilymbus podiceps]
Great Blue Heron	Ardea herodias
Red-shouldered Hawk	Buteo lineatus
Marsh Hawk	Circus syaneus[2]
Merlin	Falco columbarius
[Upland Sandpiper (Plover)	Bartramia longicauda]
[Roseate Tern	Sterna Dougallii]
Barred Owl	Strix varia]
[Short-eared Owl	Asio flammeus[2]]
Red-headed Woodpecker	Melanerpes erythrocephalus
[Cliff Swallow	Petrochelidon pyrrhonota[2]]
[Short-billed Marsh Wren	Cistothorus platensis]
Bobolink	Dolichonyx oryzivorus[2]
Savannah Sparrow	Passerculus sandwichensis[2]
Ipswich Sparrow	Passerculus sandwichensis[2] princeps
Grasshopper Sparrow	Ammodramus savannarum[2]
[Vesper Sparrow	Pooecetes gramineus[2]]
Yellow-crowned Night Heron	Nyctanassa violacca

[In addition, the Atlantic Green Turtle (Chelonia mydas), which does not nest regularly in New Jersey, is listed on both State and Federal Threatened Species lists.]

No official State of Federal list of endangered or threatened vegetation (flora) species exists, but the Federal Register, Volume 45, No. 242, December 15, 1980 lists species being considered for listing as Endangered or Threatened. 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.

To insure continuing viability of the preserved habitat, an active or passive management program must be formulated by the applicant and approved by the Division of Coastal Resources.

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[1] Does not nest regularly in New Jersey. Is listed on both State and Federal Threatened Species lists.

[2] Status designation applicable to breeding population only.

7:7E-3.38 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 march 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 prepetuate wildlife species within its borders for the use, education, research, and enjoyment by future generations.

7:7E-3.39 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-3.40 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 and areas where hazardous materials are used or disposed, including adjacent areas.

(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 and monitoring and/or clean-up programs for materials in soil and water near hazardous waste facilities may adequately address the concern in this area.

7:7E-3.41 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. They are listed in the New Jersey Coastal Management Program (August, 1980) at page 370.

(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, New Jersey has the authority to review activities on Federal lands under Section 307 of the Act when they may have spillover impacts which would significantly affect New Jersey'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-3.42 Special Urban Areas

(a) Definition

Special urban areas [are] consist of Atlantic City and those [areas] municipalities with a population density greater than 5000 persons per square mile 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. In 1983, this Special Area include[s]d the following [21]20 coastal municipalities:

Asbury Park	Elizabeth	Long Branch	Passaic
Atlantic City	Hoboken	[Millville]	Perth Amboy
Bayonne	Jersey City	[Neptune Twp]	Rahway
Belleville	Keansburg	New Brunswick	Trenton
Bridgeton	[Lakewood]	Newark	West New York
Camden		North Bergen	Weehawken

(b) Policy

(1) Development that will help to restore the economic and social viability of special urban area is encouraged. Development that would adversely affect the economic well being of these areas is discouraged, when an alternative more beneficial to the Special Urban Areas 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 over only one water area type, Large Rivers, and only when located on structurally sound existing pilings, provided public access between the development and the water body is not unreasonably restricted.

(3) Housing, hotels, motels and mixed use development are acceptable in Filled Water's Edge Areas, provided public access is provided for, as required by 7:7E-8.13, and provided that Special Areas are adequately protected.

(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, in all cases. 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, and urban policy. This would also be true for such development over water areas. However, new development over water areas would have to meet three conditions:

(i) It must be limited to Large Rivers (the Delaware, Hudson and Raritan) where danger from storm surge is minimal,

(ii) It must make use of structurally sound existing pilings, to prevent the extension of non-water dependent uses into previously undeveloped Water Areas, and

(iii) It must not unreasonably restrict public access between the development and the water body. Public access must be allowed since the water area over which the structure is to be built is an area impressed with the public trust doctrine. To forbid access along the water's edge on decks built in conjunction with the development would be an unreasonable restraint on public access. However, it would not be unreasonable to limit night access by the general public in residential areas over the water.

7:7E-3.43 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 7). 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**

Cape May County

Dennis Township	Upper Township
Middle Township	Woodbine Borough

Cumberland County

Maurice River Township

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-3.44 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 8).

(b) Policy

The HMDC will as 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 and the Hackensack Meadowlands District is designated a Geographic Area of Particular Concern.

(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-3.45 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.

(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 polluted. 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 substantial shoreline development, that may have undergone substantial impoundment or diversion, but which remains suitable for a variety of recreational uses.

7:7E-3.46 Geodetic Control Reference Marks

(a) Definition

Geodetic Control Reference Marks are traverse stations and benchmarks established or used by the New Jersey Geodetic Control Survey pursuant to P.L. 1934, C116. They include the following types:

1. Monument-(Mon), Disk-(Dk): A standard United States Coast and Geodetic Survey or New Jersey Geodetic Control Survey disk set in a concrete post, pavement, curb, ledge rock, etc., stamped with a reference number, and used for both horizontal and vertical control.

2. Point-(Pt.): A State Highway, Tidelands (Riparian), City, etc. survey marker represented by a chiseled cross, punch hole, brass plug, etc. used for horizontal and vertical control. These stations are not marked, but if there should be an enclosing box, the rim is stamped with a number.

3. Rivet-(Rv.): A standard metal rivet set by the New Jersey Geodetic Control Survey, used for vertical control.

4. Mark-(Mk.): Same as Point, but used only for vertical control. In the description of such marks there should appear a mark number followed by an equality sign and then the original name or elevation of the bench mark, and in parentheses the name of the organization which established the mark.

(b) Policy

The disturbance of a Geodetic Control Reference Mark is discouraged. When a Geodetic Control Reference Mark must be moved, raised or lowered to accommodate construction, the New Jersey Geodetic Control Survey shall be contacted at least sixty days prior to disturbance, and arrangements shall be made to protect the position. If the position can not be protected, it may be altered in position after approval by the New Jersey Geodetic Control Survey and under the supervision of a licensed professional engineer or land surveyor using standard methods. Copies of field notes and instruments, tape, and rod specifications including calibration data, shall be submitted to the New Jersey Geodetic Control Survey.

(c) Rationale

Geodetic Control Reference Marks provide the horizontal and vertical references used by land surveyors and engineers to determine most accurately location and elevations on the earth's surface. The rapid disappearance of survey marks and monuments necessitates the implementation of notification procedures prior to the removal, alteration or destruction of such marks or monuments. This policy was instituted because of the monuments' relative geographic scarity, their importance to the surveying and engineering community, and the high cost of relocation or referencing a removed, altered, or destroyed mark or monument.

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 time 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 9) 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-4.11.

7:7E-4.3 Ocean

(a) Definition

This basin type has two depth levels (0'-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 10).

(b) Policy

See Policy Summary Table, Section 7:7E-4.2.

WATER AREA POLICY SUMMARY TABLE

Note: Depths are mean depth of water

Use	Water Area Type	Ocean 18'+,0-18'		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 Reserviors	Man-Made Harbors
Aquaculture		C	C	C	C	C	C	C	C	C	C	C	C
Boat Ramps		/	P	/	C	C	C	C	C	C	C	C	C
Docks (cargo)		C	C	C	C	C	C	C	P*	C	C	/	C
Docks (recreation)		C	C	C	C	C	C	C	C	C	C	C	C
Dredging (maintenance)		C	C	C	C	C	C	C	C	C	C	C	C
Dredging (new)		C	C	D	D	D	D	D	D*	C	C	C	D
Spoil Disposal		C	C	C	C	D	C	D	P*	C	P	C	P
Dumping		P	P	P	P	P	P	P	P	P	P	P	P
Filling		D	D	P	D	D	D	D	D	D	D	P	D**
Piling		D	C	D	C	C	C	C	C	C	C	D	C
Mooring		C	C	C	C	C	C	C	C	C	C	C	C
Sand, Gravel Extraction		C	D	D	D	D	D	D	P	C	C	P	C
Bridges		/	/	D	D	D	D	D	C	C	C	P	P
Submerged Infrastructure		C	C	C	C	C	C	C	D*	C	C	C	C
Overhead Lines		/	/	P	P	P	P	P	C	D	C	P	C
Dams & Impoundments		/	/	/	/	/	P	D	P	P	D	/	/
Outfalls & Intakes		C	C	C	C	C	C	C	C	C	C	C	C
Realignment		/	/	D	D	D	D	D	D	D	D	D	D
Floating Homes		P	P	P	P	P	P	P	P	P	P	P	P

Figure 9

WATER AREA POLICY SUMMARY TABLE

Note: Depths are mean depth of water

Use	Water Area Type	Ocean		Open Bay			Semi-Enclosed and Back Bay		Tidal Guts	Large Rivers	Medium Rivers, Creeks and Streams	Lakes Ponds and Reserviors	Man-Made Harbors
		18'+,0-18'		18'+,6-18',0-6'			6'+,0-6'						
Miscellaneous ***		C	C	C	C	C	C	C	C	C	C	C	C

*Conditionally acceptable in the Arthur Kill and Kill Van Kull, and in all guts for Commercial fishing piers.

P=Prohibited
D=Discouraged

C=Conditionally Acceptable
/=Impratical

**Conditionally acceptable in Lagoons

***Discouraged if not water dependent

Figure 9

(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 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 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 assimulative capacity is not unlimited however. Shallow water area 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 freshwater 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 Cover, 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] a point approximately 1.5 miles upstream from the Landing Lane 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 with the Bay and Ocean Shore Segment. These factors allow for flushing of pollutants, although extensive portion 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 manmade (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 Man-made Harbor

(a) Definition

Man-made harbors are semi-enclosed or protected water areas which have been developed for boat mooring or dockage. This general water area type includes Marinas (7:7E-3.10), Ports (7:7E-3.11), semi-enclosed water bodies created by man-made jetties or similar structures, fishing ports and harbors, and lagoons (see 7:7E-3.18).

(b) Policy

See Policy Summary Table, Section 7:7E-4.2.

(c) Rationale

Man-made Harbors were created or modified for the purposes of facilitating navigation, for commercial or recreational purposes. They are previously disturbed water features, often with dredged bottoms and bulkheaded shorelines. They are essential to the coastal economy and to meeting recreational needs, and should be maintained for commercial or recreational boating use.

7:7E-4.11 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.

3. Rationale

Aquaculture is a means of food production which can be at least as efficient as land-based agriculture. It is, therefore, permitted provided it does not unreasonably affect the coastal recreational economy, the coastal eco-system or 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 subaqueous 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.

3. Rationale

Boat ramps serve owners of small boats, and are important to the coastal recreational economy. Therefore, they are permitted provided they are constructed in an environmentally sensitive manner.

(c) Docks and Piers (for Cargo and Commercial Fisheries [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 or to commercial fishing facilities. Policies for docks and piers intended for multiple uses may be found under Use Policies for Port 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 and commercial fisheries 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.

3. Rationale

Water dependent industry and commercial fishing are important components of New Jersey's economy. Docks for these purposes are permitted, therefore, provided they will not interfere with navigation, and that the associated facility is consistent with the Coastal 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, are used for the docking of boats which are used for recreation or fishing or for the mooring of boats are used for recreation or fishing, [including] except 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 construction minimizes adverse environmental impact to the maximum extent feasible, (iii) the docks and piers are located so as to not hinder navigation or conflict with overhead transmission lines, [and] (iv) there is minimum feasible interruption of natural water flow patterns[.], (v) space between horizontal planking is maximized and width of horizontal planking is minimized to the maximum extent practicable, (vi) the width of the structure is minimized relative to height above the water, to the maximum extent practicable, especially where crossing above vegetated wetlands or submerged vegetation, and except under unusual

circumstances the width does not exceed 8 feet, and (vii) in lagoons the structure extends no more than 20 percent of the width of the lagoon from bank to bank.

Docks and piers on pilings or cantilevered or floating docks and piers shall be preferred to construction on fill. Repairs and maintenance of existing docks and piers are generally acceptable.

3. Rationale

Docks and piers constructed through filling would permanently destroy most ecological value of the area filled and are consequently discouraged. Docks and piers with the maximum spacing between horizontal planking and of the minimum practicable width will allow sunlight penetration into the water and onto the bottom, thus allowing continued photosynthesis by plants underneath the structure. Also, spaced planking helps protect loosening of boards during high water levels and wave slap from underneath.

Docks and piers built on pilings will undergo ice heaving, frequently leading to structural damage, during thick ice conditions in areas with significant tidal action. Normal length pilings need to be resunk annually due to ice raising unless some type of water circulation system is installed or ice is broken up daily. Floating docks need to be removed before winter and bottom flotation needs to be serviced annually. Cantilevered docks at a height above winter ice and tidal action levels do not have these problems but have limits in load bearing capacity and must be fastened to a bulkhead.

(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) at both the dredge site and the disposal site, and does not exceed DEP's surface water quality standards for turbidity (7:9-4).

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.

3. Rationale

Maintenance dredging is necessary to provide access to marinas, docks, ports, and other appropriate water dependent development, but it must be carried out in such a way that environmentally sensitive areas are not unnecessarily disturbed.

(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 other than Intertidal and Subtidal Shallows, (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) at both the dredge site and the disposal site, and does not exceed DEP's surface water quality standards for turbidity (7:9-4).

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, Man-made Harbors and Guts is discouraged.

New dredging is conditionally acceptable to control siltation in Lakes, Ponds and Reservoirs.

3. Rationale

New dredging is sometimes necessary if water dependent elements of New Jersey's economy are to expand, but as with maintenance dredging, environmentally sensitive Special Areas must not be unnecessarily disturbed.

(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 Guts, Man-made Harbors, 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.

3. Rationale

Dredge spoil disposal can have significant adverse effects, such as introduction of heavy metals, burial of benthic flora and fauna and increased turbidity. Therefore, dredge spoil disposal is prohibited or discouraged in smaller water bodies which have lesser assimilative capacities and is conditionally acceptable in larger water bodies if in conformance with USEPA guidelines.

(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.

3. Rationale

Dumping of solid and semi-solid waste in coastal waters would have significant adverse environmental and aesthetic effects and would be harmful to the coastal recreational economy. The existence of land and deep ocean disposal sites makes coastal dumping unnecessary.

(i) Filling

1. Definition

Filling is the deposition of 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, [e.g. by compensating for the loss of aquatic habitat by creation of an area of equivalent or greater environmental value elsewhere in the same estuary, and] (f) minimal feasible interference is caused to Special Areas, and (g) pilings and columnar support or floating structures are unsuitable for engineering or environmental reasons.

(iii) 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.

(iv) The following policies govern the removal of unauthorized fill.

(a) for filling which took place prior to September 26, 1980 (the effective date of the Rules on Coastal Resource and Development Policies, N.J.A.C. 7:7E-1.1 et seq.), or prior to September 28, 1978 for areas within the coastal area defined at N.J.S.A. 13:19-4 (CAFRA), removal shall be required only if the fill has resulted in ongoing significant adverse environmental impacts, such as the blocking of an otherwise viable tidal wetland or waterbody, and its removal will alleviate the adverse impacts.

(b) for filling which took place subsequent to September 26, 1980 (or subsequent to September 28, 1978 for areas within the coastal area defined at N.J.S.A. 13:19-4), removal shall be required if it violates the acceptability conditions for filling in water areas set forth at N.J.S.A. 7:7E-4.10(i).

[(iv) Filling is acceptable at the landward end of lagoons when flushing is poor, and water quality is significantly degraded. This usually pertains only to the deep water in the lagoon. Shallow areas will not, in general, have low oxygen concentrations.] NOTE: For the policy on filling in lagoons see the Special Area Policy on Existing Lagoon Edges (7:7E-3.18).

3. Rationale

Filling is generally discouraged because it results in:

(a) Loss of aquatic habitat, including nursery areas for commercially

or recreational important species.

(b) Loss of estuarine productivity since shallow estuarine water frequently has a higher biological value and is more important than deeper water.

(c) Loss of habitat important for certain wading birds and waterfowl.

(d) Loss of dissolved oxygen in the water body since the shallows facilitate oxygen transfer from air to water.

Pilings and columnar support structures are often unsuitable for support of docks and quays when a large area is required for loading and unloading ships. The large surface would prevent light from reaching the estuarine bottom, and heavy loads would require dense pilings, thereby destroying aquatic habitat almost as completely as would fill. As surface area and load bearing requirements increase, the use of pilings can become infeasible for engineering reasons, as well as ineffective in achieving environmental objectives.

[(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.]

(j)[(k)] Mooring

1. Definition

A boat mooring is a temporary or permanent 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.

3. Rationale

Moorings do not have adverse environmental impacts and are, therefore,

permitted provided they are not a hazard to navigation.

(k)[(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, Man-made Harbors 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, priority will be given to sand extraction for beach nourishment, and 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 consistent with the Department's Surface Water Quality Standards standards (N.J.A.C. 7:9-4) 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[.],

(v) the mining will not increase shoreline erosion, and

(vi) the mining will not create anoxic water conditions.

3. Rationale

The long-term demand for sand resources is not known, and may exceed the supply. If all envisioned beach nourishment projects in the Shore Protection Master Plan were implemented, for example, 24 million cubic yards of sand would be needed. Care must be taken, therefore, so the extraction is properly managed and will not adversely affect the Special Areas or water quality.

(l)[(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 all water area types 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 Location Policies on Secondary Impacts and Linear Development, (iii) pedestrian and bicycle use is provided for unless it is demonstrated to be inappropriate, and (iv) fishing catwalks and platforms are provided to the maximum extent practicable.

3. Rationale

Bridge crossings over bays, rivers, streams and other water areas are often necessary to provide continuity in the transportation system and, in the case of barrier islands, to link otherwise isolated land areas. The need to replace or upgrade bridges to safely maintain a transportation system is well recognized. However, the need for new bridges to accommodate additional traffic must be clearly demonstrated to justify potential adverse environmental effects on shellfish beds, fish spawning grounds and migratory pathways, destruction of wetlands as well as aesthetic and air quality impacts. Bridges to barrier islands, in particular, must be reviewed against the General Location Policy on Secondary Impacts.

(m)[(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.

3. Rationale

The installation of submerged infrastructure will disrupt the ecosystem in which it is placed and so is strongly discouraged in Special Areas which are environmentally sensitive. Installing submerged infrastructure in tidal guts is discouraged because it will unacceptably disturb the sensitive estuarine ecology found there (See 7:7E-4.6).

Backfilling trenches is required to prevent damage to pipelines by currents, storm waves, sea clam dredges, anchors, and other marine equipment. If a pipeline is not buried deep enough to avoid uncovering by erosion, it will be susceptible to breakage when left uncovered. Pipeline damage or breakage will cause release of the transported substances into the ocean water with potentially adverse effects to the marine environment.

Bottom contours must be reestablished following trenching and backfilling to maintain a stable bottom for the marine life found there.

(n)[(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 Guts, 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.

3. Rationale

Overhead transmission lines produce a negative environmental impact because they are aesthetically unattractive. They are prohibited or discouraged because the visual impact is so great that it counters the Coastal Management Program's Scenic Resources and Design Policy (See 7:7E-8.14). The use of underground transmission lines, however, minimizes the visual impacts. Siting overhead transmission lines over such narrow water bodies as rivers, streams, creeks and tidal guts, is conditionally acceptable because the aesthetic impacts would not be as severe as the impacts of siting transmission lines over wider water bodies.

(o)[(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.

3. Rationale

Dams can have an adverse environmental impact by reducing the amount of downstream flow and raising salinity levels. Impoundments can reduce the flow of water reaching Wetlands or Intertidal and Subtidal shallows. Therefore, dams and impoundments are prohibited unless essential for water supply or wildlife habitat purposes.

(p)[(q)] Outfalls and Intakes

1. Definition

Outfalls and intakes are pipe openings 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. In particular, stormwater discharge pipes shall comply with the Runoff Policy (7:7E-8.7) and provide appropriate filtration methods. The Water Areas policy

applies only to the location of the mouth of the pipes, not to the effluent or the amount of diversion.

3. Rationale

Outfalls can introduce contaminated runoff into a water body unless adequate filtration is provided.

(q)[(r)] Realignment of Water Areas

1. Definition

Realignment of water areas means changing the surface configuration of any water area.

2. Acceptability Conditions

(i) Realignment of [natural (]naturally occurring, unaltered[)] water areas is discouraged.

(ii) Realignment of previously realigned water areas 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, and no Resource Policies will be contravened by the realignment; and that a net recreational/ecological benefit will demonstrably accrue.

3. Rationale

Replacement of water areas normally reduces shallow water habitat, decreases water's edge vegetation, and can increase water flow with consequent increases in flooding and erosion. However, a previously realigned water area can be further realigned to enhance its environmental productivity and flood carrying capacity.

(r) Floating Homes

1. Definition

A floating home is any waterborne structure designed or intended primarily as a permanent or seasonal dwelling, not for use as a recreational vessel, which will remain stationary for more than 30 days.

2. Policy

Floating homes are a prohibited use in the Coastal Zone.

3. Rationale

The primary function of a floating home is as a residence. Floating homes, therefore, are not water-dependent, and should not be permitted

to pre-empt limited land's edge locations from water dependent uses such as boating. Boats which are used for navigation and serve a secondary function as houses are not considered floating homes and are not prohibited. There is currently a shortage of marina slips in New Jersey, with 70 percent of New Jersey's marinas at full capacity (NJDEP, "Developing a Marina in New Jersey: A Handbook", 1982). Floating homes should not be allowed to compete for limited marina space with recreational and commercial boats. Floating homes should not be allowed outside of marinas because they must be tied into land-based holding tank pumpout facilities if they are to avoid adverse effects on water quality. They also have an adverse impact on water quality through grey water discharges. The proliferation of houseboats in New Jersey would have a cumulative adverse affect on water quality, navigation and aesthetics.

(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

Water dependent u [U]ses 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. Non-water dependnet uses are discouraged in all water areas.

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. These land area policies apply in all General Land Areas, including those land areas that are also Special Areas, where both the General Land Area and Special Area Policies must be complied with.

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 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 11). 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 infill development. In accordance with the coastal policy on concentration of development, development in this region is preferred over development in other regions, other actors begin 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, with the exception of development which meets the requirements of the Large-Scale Residential Development Policy (N.J.A.C 7:7E-7.2(ii)).

(b) Barrier Island Region

[The o]Oceanfront and back bay [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. For purposes of applying the Water's Edge Housing Use Policy (7:7E-7.2b) this region shall be considered an Extension Region.

(c) Urban Areas Region

The Urban Area Region consists of all Special Urban Areas (see 7:7E-3.42). This region is a Development 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

Monmouth
Asbury Park
Keansburg
Long Branch
Neptune Township

Ocean
Lakewood

Passaic

Newark

Hudson
Bayonne
Hoboken
Jersey City
North Bergen
West New York

Mercer
Trenton

Passaic

Union
Elizabeth
Rahway

Middlesex
New Brunswick
Perth Amboy]

(d) North Shore Region

The North Shore Region includes those portions of Monmouth and Middlesex County that are within the Coastal Zone [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] Coastal Zone that are north of State Highway 37 and west of the Garden State 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 includes those portions of Ocean County south of State Highway 72 except for the Tuckerton Region, all of Bass River Township, Burlington County, and those portions of Atlantic County north of County Road 561 (Jimmy Leeds Road), located within the Coastal Zone [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 Coastal Zone [Bay and Ocean Shore Region], except for that portion in the Great Egg Harbor River Basin and Barrier Island Region, is designated an Extension Region.

(m) Delaware Bayshore Region

All of Cumberland County and Salem County subject to CAFRA [within the Bay and Ocean Shore Region] is designated a Limited Growth Region, with the exception of the [Cities]City of Bridgeton [and Millville] which [are]is designated a Development Region.

(n) Delaware River Region

The areas north of the [Delaware Memorial Bridge] CAFRA regulated area 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] and soils[, and (3) high permeability wet soils -- that]. [t]These factors 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] two factors.

(b) High Environmental Sensitivity

High Environmental Sensitivity Areas are land areas with: (1) forest vegetation, and (2) [agricultural Capability Class I or] Wet or H[h]igh P[p]ermeability [wet] Moist [s]Soils adjacent to a stream channel (permanent or ephemeral), as defined below.

(c) Moderate Environmental Sensitivity

Moderate Environmental Sensitivity Areas are neither High nor Low Environmental Sensitivity Area.

(d) Low Environmental Sensitivity

Low Environmental Sensitivity Areas are areas with depth to seasonal high water greater than five feet and: (1) onsite paving or structures or (2) areas with bare earth or herbaceous vegetation or early successional meadow with Agricultural Capability Class V-VIII Soils, except soils suitable for blueberry production[, and depth to seasonal high water table greater than five feet].

(e) Definitions of Environmental Sensitivity Factors

1. Forest vegetation is defined as an area of trees and shrubs where a majority of the trees are four inches in diameter breast high (dbh) or greater.

2. [High permeability we 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 is likely to include primarily the following coastal soils series: Atsion (At), Hammonton (HaA), Klej (KmA), and Lakehurst (LmA and LhA).]

   Wet or High Permeability Moist Soils are soils with a depth to seasonal high water table less than, or equal to, three feet, unless the soils are loamy sand or coarser in which case they are soils with a depth to seasonal high water table less than, or equal to, 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 areas types are important. First, a]A combination of valuable resources exists where forest vegetation coincides with [the most productive] wet and high permeability moist 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, t]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 area, 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. Therefore, they should be left undeveloped or developed at a lower density than lands which are not of high environmental 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.]acceptable intensity of development policy (7:7E-5.6) is not applicable to that type of development.

(b) Residential Development Potential

1. Scope

The Residential Development category includes housing, including retirement communities, hotels, motels, minor commercial facilities of a neighborhood or community scale, and mixed use developments that are predominantly residential.

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 likely to be generated by the proposed 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) Infill - A majority of the perimeter of the site, excluding wetlands or surface water areas, is adjacent to or across a public road or railroad from land that is developed, or a majority of the land within 1,000 feet of the site, is developed. Developed land, for infill purposes for determination of high, medium, or low potential, means:

- residential development at densities of at least one dwelling unit per two acres
- commercial development,
- industrial development, including warehouses
- schools and other public institutions
- ballfields
- public park areas developed for active recreational use
- transportation facilities including train stations and airfields.

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 in Limited Growth or Extension Regions meet any one of the following criteria:

   one of the 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, and soils unsuitable for on-site sewage disposal systems.

   (ii) Infill - No land is developed adjacent to the site boundary.

5. 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.

   (ii) Infill - No requirement.

(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 create 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, and 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.

(ii) 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 soil 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 as determined by consulting the Land Acceptability Table for the appropriate region. The acceptable intensities of development are expressed in terms of maximum and minimum acceptable percentages of area that may be, or must be, used for structures, herbs and shrubs, or forests. Permeable paving provides a 2 to 10% bonus over the permitted maximum level for structures and impervious paving.

The acceptable maximum and minimum figures are percentages of each portion of the site with a given acceptable intensity of development. Thus, if a site contained 100 acres of land and the analysis showed acceptability for high intensity development on 60 acres and moderate intensity development on 40 acres, then 80 to 90 percent of the 60 acre portion and 30 to 40 percent of the 40 acre portion could be developed.

Special Area portions of a site landward of the Special Water's Edge are separately delineated. If the appropriate Special Area policy allows development, then the acceptable intensity of development is the maximum consistent with the Special Area policy or the maximum allowable using the Land Area Tables, whichever is less.

(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.

(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 very low density development compatible with agriculture, forestry and rural residential uses, which meets the following intensity requirements.

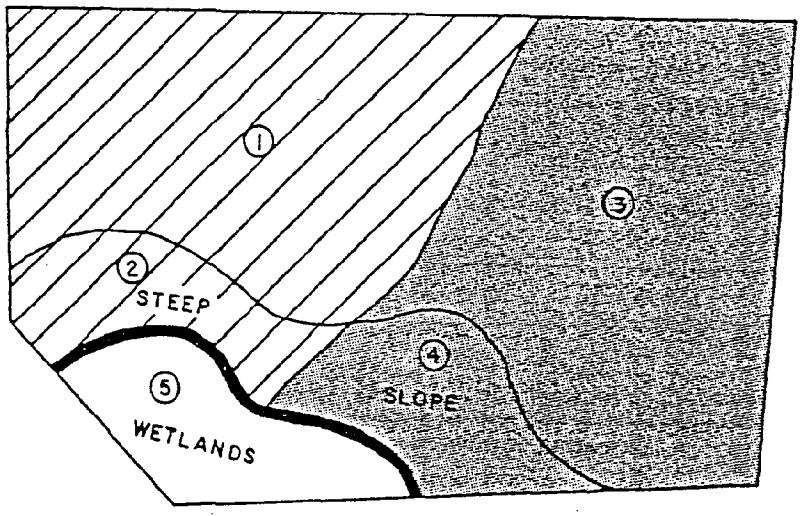
Low Intensity Development	Structures and Impervious Paving	Structures and Permeable Paving	Herb and Shrub	Forest
Maximum	3%	5%	95%	-
Minimum	-	-	-	5%

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.

ACCEPTABLE INTENSITY OF DEVELOPMENT



Inland limit of Special Waters Edge

Moderate intensity development rating

High intensity development rating

This site consists of five distinct portions, each with a different acceptable intensity of development:

Portion 1 - 30 to 40 percent may be developed with structures and paving

Portion 2 - 30 to 40 percent, or the maximum percentage permitted by the steep slopes policy, whichever is less, may be developed with structures and pavement

Portion 3 - 80 to 90 percent may be developed with structures and pavement

Portion 4 - 80 to 90 percent, or the maximum percentage permitted by the steep slopes policy, whichever is less may be developed with structures and pavement

Portion 5 - The land area policy does not apply here. The acceptable intensity of development is based solely on the wetlands policy

Land Acceptability Table: Development Region

(Urban Areas, Northern Waterfront, Northern, Central, Absecon-Somers Point Regions, and Delaware River)

Area Type Number	DEVELOPMENT POTENTIAL			ENVIRONMENTAL SENSITIVITY			ACCEPTABLE DEVELOPMENT INTENSITY		
	High Intensity	Medium	Low	Low	Medium	High	High Intensity	Moderate Intensity	Low
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: Extension Region

(Southern, Western Ocean, and Barnegat Corridor Regions)

Area Type Number	DEVELOPMENT POTENTIAL			ENVIRONMENTAL SENSITIVITY			ACCEPTABLE DEVELOPMENT INTENSITY		
	High Intensity	Medium Intensity	Low	Low	Medium	High	High Intensity	Moderate Intensity	Low
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: Limited Growth Region

(Mullica-Southern Ocean, Great Egg Harbor River Basin, and Delaware Bayshore Regions)

Area Type Number	DEVELOPMENT POTENTIAL			ENVIRONMENTAL SENSITIVITY			ACCEPTABLE DEVELOPMENT INTENSITY		
	High Intensity	Medium	Low	Low	Medium	High	High Intensity	Moderate Intensity	Low
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 areas 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 ares. 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 continuous 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 may 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 los 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 or 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 Regions, 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 development.

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 weighted more heavily than in 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.

Areas 1 & 2

These areas show moderate intensity development. acceptable in sites with high development potential and low or moderate environmental sensitivity. This allows a limited amount of growth within existing settlements especially where development had leapfrogged in the past leaving pockets of undeveloped land. Moderate intensity development is also acceptable in large-scale residential developments which meet the requirements of the Large-Scale Residential Development Policy (7:7E-7.2(i)).

Areas 3 to 9

In these ares 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 ares 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 location 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 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 including floating homes is prohibited in Water Areas, except for reconstruction of existing 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 is also acceptable over only Large Rivers on structurally sound existing pilings, provided public access between the residential units and the water body is not unreasonably restricted.

(ii) [Outside of Special Urban Areas, new] Housing 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 Policy criteria for the intensity of development proposed, and (c) public access along the water's edge, as required by 7:7E-8.13, is not unreasonably restricted. In Special Urban Areas, Housing in Filled Water's Edge Areas is acceptable, provided public access requirements (7:7E-8.13) are complied with and Special Areas are adequately protected.]it meets the requirements of the Filled Water's Edge Policy (7:7E-3.17) and the Public Access Policy (7:7E-8.13). The acceptable intensity of residential development shall be determined by applying the criteria of the General Land Area Policy (7:7E-5).

(iii) New housing 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) Affordable Housing

1. Definitions

(i) "Affordable" means housing with monthly carrying costs which are no greater than [25] 27 percent of a household's gross monthly income for rental housing, and no greater than 30 percent of a household's gross monthly income for housing offered for sale.

(ii) "Affordable housing" means housing which is affordable by low or moderate income households.

(iii) "Low income household" means a household [eligible for Section 8 housing income less than 80 percent of the region's median income adjusted for household size, as determined by the U.S. Department of Housing and Urban Development).]which has an income that is 50 percent or less of regional median household income.

(iv) "Moderate income household" means a household [eligible for Section 235 housing (income less than 95 percent of the region's median income, adjusted for household size, as determined by the U.S. Department of Housing and Urban Development).]which has an income which is between 50 and 80 percent of the regional median household income.

(v) "Income" means all forms of taxable income that must be reported to the U.S. Internal Revenue Service.

(vi) "Monthly carrying costs" consist of mortgage payments, real estate tax and insurance for housing offered for sale, and consist of rent payments which include payments for heat, but not for other utilities, for housing offered for rent.

2. Policy

(i) All residential development in the coastal zone must meet the location policies. In addition, development which is not located in the Urban Areas Region, the Delaware River Region or the Northern Waterfront Region (See 7:7E-5.3) must provide an appropriate amount of affordable housing for low and moderate income families.

(ii) The appropriate amount of affordable housing is enough so that at least 10 percent of the units to be built will be offered at prices affordable by low income households and at least 10 percent of the units will be offered at prices affordable by moderate income households.

[(i) New residential developments shall provide an appropriate amount of affordable housing for low and moderate income households, where needed and feasible.

(ii)](iii) The number of bedrooms in the affordable housing shall be appropriate to the size of the families needing affordable housing in the region.

(iv)[(iii)] Appropriate agreements shall ensure that the sale, resale and rental of affordable housing is limited to households eligible for low and moderate income housing, and that the units remain affordable for a period of at least 20 years.

(v) The "10 percent low income/10 percent moderate" income requirement may be met by any of three methods.

1) Construction of the affordable units on site.

2) Construction of or rehabilitation of the affordable units offsite but within the coastal zone portion of the county.

3) Contribution which is dedicated to the State Housing Finance Agency, County Improvement Authority or Local Housing Authority to be used for the construction or rehabilitation of housing units elsewhere in the coastal zone portion of the county, as specified by the Division of Coastal Resources. A plan of how affordable housing will be provided with these funds must also be produced. The appropriate contribution shall be based upon the number of units built, the selling or rental prices of the units, and the median household income for the region. The following formula shall be used to determine the contribution:

$$\text{Contribution} = 24 \times (MCC - .24RMI) \times DU \times \frac{(MCC - .24RMI)}{MCC}$$

MCC= average monthly carrying cost of all units built
RMI= average monthly household income for the region
DU = number of dwelling units built

[(iv) In determining the need for affordable housing, the following factors shall be considered:

(1) The present and projected future shortage of affordable housing in the region, normally at least in a county.

(2) The number of jobs for low and moderate income people in the region.

(3) The number of existing affordable housing units in the municipality and the need for additional units in the municipality and region.

(v) In determining the feasibility of providing affordable housing the following factors shall be considered:

(1) The size and type of the development;
(2) The mix of unit types being built;
(3) Whether the size of affordable units would be comparable to established standards for minimum floor space for bedroom size involved.
(4) The absence of frills or unnecessary cost generating features from the unit;
(5) The allocation of land costs and on-site improvements among the affordable units and the other units;
(6) Whether the developer can make a fair return on the entire development if affordable housing is required;
(7) The availability of federal and state housing subsidies;
(8) The availability of special financing for affordable housing through agencies such as county improvement authorities;
(9) The developer's commitment to building least cost units on-site or affordable units off-site, if affordable units on-site are infeasible.]

3. Rationale

(i) Parts of the coastal zone are experiencing increasing employment opportunities for low and moderate income workers without similar increases in housing opportunities for such workers. The result is extreme competition for existing affordable housing, continued occupation of substandard housing, and energy consumptive long distance commutation. [This situation is most severe in Atlantic County, but shortages of affordable housing also occur elsewhere in the coastal zone.]

(ii) In March 1975, the New Jersey Supreme Court, in Southern Burlington County NAACP v. The Township of Mount Laurel 67 N.J. 151 (1975) (Mount Laurel I) 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 statewide fair share housing allocation plan.] In January, 1983, the New Jersey Supreme Court, in Southern Burlington County NAACP v. The Township of Mount Laurel (1983) (Do. No. A/135/36/172) (Mount Laurel II) strongly reaffirmed this doctrine and held that government is obligated to use affirmative techniques to ensure that housing is made available for low moderate income households. This

Affordable Housing Policy implements this State Constitutional objective of providing a realistic opportunity for affordable housing by requiring that new residential developments provide affordable housing to the maximum extent appropriate and feasible, given the particular circumstances of the development.

(iii) [In recent CAFRA decisions, the Department of Environmental Protection has determined that major developments of more than 500 units on the Atlantic County mainland must provide at least 10 percent of the units at price affordable by moderate income households and at least 10 percent at price affordable by low income households as an appropriate contribution of affordable housing to comply with this policy and the policy on Large Scale Residential Development (N.J.A.C. 7:7E7.2(i)).]

In August, 1983 the New Jersey Supreme Court upheld a CAFRA permit (Bayshore Center, Permit No. 79-321-5) which required the construction of low and moderate income housing as part of the development (In re Egg Harbor Associates - NJ - 1983). The Court held that DEP may, under the powers delegated by the Legislature through CAFRA, regulate land use within the coastal zone to promote the general welfare. Mount Laurel II together with In re Egg Harbor Associates indicate the Court's support for this policy.

(iv) To insure that the requirements are feasible and will not deprive the developer of a fair return on investment, the appropriate contribution will vary by [region and by size of development] the number of units to be built and their sale or rental prices in response to the criteria of this policy.

(v) Since the land areas acceptable for residential development have been deliberately restricted by these Rules on Coastal Resource and Development Policies as part of the coastal management strategy required by N.J.S.A. 13:19-16 (CAFRA) which has the unintended side effect of making it more difficult for low and moderate income households to afford housing in the coastal zone, this Affordable Housing Policy is a necessary land use planning technique to offset this unintended effect and promote the public health, safety, and welfare and recognize the economic aspirations of the inhabitants of the coastal area, as required by N.J.S.A. 13:19-2 (CAFRA). Therefore, this policy is applied only in that portion of the Coastal Zone subject to CAFRA.

This is consistent with the finding of the Supreme Court in In re Egg Harbor Associates that requiring the provision of affordable housing is an authority delegated to DEP under CAFRA. The policy, however, does not require that DEP approve applications to build affordable housing where the housing would not be acceptable under the Location Policies. This is consistent with the Supreme Court's opinion in Mount Laurel II that municipalities are not obligated to approve applications to build

affordable housing on environmentally sensitive sites.

(vi) This policy also is not applied in the Urban Areas Region because the Special Urban Areas of the State have absorbed more than their fair share of the State's low and moderate income housing. It is intended that by not applying this policy in the Urban Areas Region, developers will be encouraged to build middle and upper income housing in this region.

[(vi) 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]

Note: This policy is proposed to be expanded into a High Rise Structures policy found at 7:7E-7.14.

[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 area 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, to the maximum extent practicable,

(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)](h) 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. (See also 7:7E-7.10 hotels and motels; and 7:7E-5.5(d), campgrounds)

(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, public access to the water will not be eligible for Green Acres or Shore Protection

Bond Funding.

(ii) Resort/Recreation Uses and commercial fisheries 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 environmental provides numerous opportunities for recreation which should be expanded by public policy and action, including priority setting.

(c) Recreation Areas Within Developments

1. Definition

"Recreation areas" include a variety of types and sizes of open space adequate to accommodate appropriate recreational activities or facilities.

The "maximum extent practicable" will be determined based on guidelines of the Green Acres Program which consider the recreation resource supply and demand, the natural characteristics of the site, and the ability to identify a public agency or other organization willing to manage, maintain and develop the open space as a recreational resource.

1. Policy

[Recreation areas shall be incorporated in the design of all residential, industrial and commercial development, to the maximum extent practicable.]

Appropriate recreation areas shall be incorporated in the design of all residential, industrial and commercial development to the maximum extent practicable, to ensure that on-site recreation opportunities will not be precluded by a lack of suitable open space.

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.]

Recreation is increasingly being considered as vital to a person's

mental and physical well being. The 1983 New Jersey Outdoor Recreation Plan determined that in 1980 the existing supply of facilities was inadequate to meet the demands for 22 of the 23 recreation activities analyzed in detail, and projected a need to double New Jersey's recreation facility capacity by the year 2000. The plan also noted that a large share of the State's recreation needs were for facilities in close proximity to users to satisfy the close-to-home recreation demands. The plan determined that the open space owned by municipalities and counties met only 25% of their projected future open space and recreation land needs.

Development, especially residential development, increases the local demand for close to home recreation opportunities, yet, consumes open space necessary for such opportunities. In the absence of adequate existing or planned recreation resources, suitable on-site open space needs to be incorporated in the design of development to assure that sufficient opportunities will be available to the future residents or workforce.

(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]

(a)[(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

(b)[(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.]

(iii)[(iv)] Public funded marinas shall be designed to be part of multiple use parks, to the maximum extent practicable.

(iv)[(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.

(v)[(vi)] New marinas are prohibited on wetlands unless the wetlands area lost to marina development is minimal and is compensated for by the creation or restoration of wetlands elsewhere, consistent with the Mitigation Policy (7:7E-1.7).

(vii) New marinas are encouraged to locate on Filled Water's Edge sites, where minimal dredging is required.

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. Marina development is encouraged to take place on Filled Waters Edge lands since they are of low environmental sensitivity and prohibited on wetlands because they are among the most environmentally sensitive coastal environments.

(d)[(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, park, or boardwalk does not unreasonably conflict with aesthetic values, ocean views, other beaches 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 be 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 12). 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.

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 is 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 location 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 that 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 13 -- 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 the 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.

However, these impacts used 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 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.

(l) 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 located 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 if 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 tankers 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 waterways, (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 counties. 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 must be consistent with the Policy on Location of Linear Development and 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) provisions 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) visual and physical access to the coastal waters is maintained, to the maximum extent practicable, 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

(i) New and improved needed public transportation facilities, including bus, rail, air, [and] boat travel, innovative people mover systems and related parking facilities, are encouraged.

(ii) Existing rail right-of-ways may not be converted to other uses, unless DEP determines that the route is not critical for public transportation or public access reasons.

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, e]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, and from the water body to the nearest public road, 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 include[s] a broad range of public works for production, transfer, transmission, and recovery of water, sewerage and other utiilities. The presence of an adequate infrastructure makes possible future development and responds to the needs created by present development.

[(b) General Public Facilities

1.](b) Policy

1. All Facilities

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.

[(c) Solid Waste

1. Policy]

2. Solid Waste Facilities

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 are located 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.

Sanitary landfills are prohibited in Wetlands.

3.[(d)] Wastewater Treatment Facilities

[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.

(c)[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.

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 regulation of DEP's [Solid Waste Administration] Division of Waste Management.

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 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 industrial 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 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 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

(a) 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 Policies):

(i) the location of mining operations, such as pits, plants, pipelines, and access roads, cause 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 within two years of the termination of mining operations,

(vi) the mining operations control and minimize to the maximum extent practicable adverse impacts from noise and dust, surface and groundwater 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 longlasting 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.

(vii) <u>The mine development and reclamation plan minimizes the area and time of disruption of agricultural operations and provides for storage and restoration of all Agricultural Class I, II, and III soils, so that there will be no net loss in the area covered by these soils</u>.

(b) <u>Rationale</u>

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 provide 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 and impacts on agriculture. 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 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 hotels and motels are conditionally acceptable provided that the development: (1) 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.

(iii) In special Urban areas, now hotel and motel development is acceptable in the Filled Water's Edge and over Large Rivers on structurally sound existing pilings, provided it is consistent with Policy 7:7E-3.42.

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 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 and over Large Rivers on structurally sound existing pilings as part of mixed use developments, provided that the development is consistent with Policy 7:7E-3.42.

(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 consistent with the Special Area Policy for the Filled Water's Edge, 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, dredge 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 users associated with ports, commerce, and industry.

(b) Shore Protection Priorities

1. Policy

Non-structural solutions to shoreline erosion problems are preferred over structural solutions. Vegetative shore protection measures have been proven effective, and are preferred at shoreline sites in which they are feasible. Feasibility is dependent on the following factors: shoreline geometry, shoreline slope, sediment type, boat traffic, wind and extent of exposed land/water surface (fetch). 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 is acceptable only if it meets all of the following seven conditions:

(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, or the structure is essential to mitigate, through, for example, the construction of a retained earthern berm, the projected erosion in an Erosion Hazard Area along a headland and provide erosion protection for a development that is otherwise acceptable under the Coastal Resource and Development Policies.

(2) The structure will not cause significant adverse impacts on local shoreline sand supply.

(3) The structure will not create net adverse shoreline sand movement conditions downdrift, including erosion or shoalings.

(4) The structure will cause minimum feasible adverse impact to living marine and estuarine resources.

(5) The structure is consistent with the New Jersey [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)) and all other relevant coastal policies.

(7) The structure is designed, and will be maintained, for at least a 50-year period of intended use.

[(ii) A new, short retaining structure that connects two existing lawful retaining structures is normally acceptable provided that extensive filling is not involved.]

(ii) [(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.

(iii) [(iv)] Stone r[R]ip-rap is [a] the preferred construction material for retaining structures [as it provides a habitat for aquatic life and helps absorb wave energy]. Sloped concrete revetments are also acceptable.

(iv) Public access must be provided to publicly funded shore protection structures and to waterfront land created by public projects, unless public access would create a safety hazard to users. Physical barriers or local regulations which unreasonably interfere with access to along or across a structure are prohibited.

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 acceptable in some cases because of the need to protect existing development or to allow limited appropriate new development[, or mitigate or eliminate a trap formed by an existing, usually adjacent bulkhead construction at an angle of less than 90 degrees from the shoreline].

Sloped revetments allows vegetation to recolonize a site. Both rip-rap and sloped concrete revetments absorb wave energy without reflecting it back into the water to create turbulence and erosion of existing areas. Rip-rap also provides a habitat for aquatic life.

The Public Trust Doctrine requires that access be provided to publicly funded shore protection structures and that such structures not be used to impede access.

The New Jersey Supreme Court in Borough of Neptune v. Avon-By-The-Sea 61 NJ 296 (1972) held that:

... at least where the upland sand area is owned by a municipality - a political subdivision and creature of the state - and dedicated to public beach purposes, a modern court must take the view that the public trust doctrine dictates that the beach and the ocean waters must be open to all on equal terms and without preference and that any contrary state or municipal action is impermissible. (61 N.J. at 308-309).

Such structures, when located on wet sand beaches, tidally-flowed or formerly tidally-flowed lands, are subject to the Doctrine. Once built, most publicly funded shore protection structures become municipal property and are, therefore, subject to the Doctrine in the same manner as municipally owned dry beaches.

7:7E-7.12 Dredge Spoil Disposal on Land

(a) Definition

Dredge spoil disposal is the discharge 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

1. 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.

2. Dredge spoil disposal is prohibited on natural undisturbed wetlands, and on formerly spoiled wetlands that have revegetated with wetland species.

3. 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.

4. 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.

5. 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.

6. 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 C[c]oastal P[p]olicy 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 coastally 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.

7.14 High Rise [Housing] Structures

Note: This policy is now found at 7:7E-7.2(n) as a High Rise Housing policy.

1. Policy

All high rise structures [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 area 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 (at least 34 feet) 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, to the maximum extent practicable,

(iv) the structure must not overshadow the lower half of a dry sand beach between 10 a.m. and 4 p.m. between June 1 and September 20, and 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 municipal comprehensive development scheme requiring an increase in height and density which is consistent with all applicable Coastal Resource and Development Policies.

(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. As of October, 1982, under these rules [Under CAFRA], DEP has approved [several] 36 high-rise structures [in Atlantic City] and denied 4 [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]. The policy seeks not to ban high-rise structures, but to provide criteria for their development suitable locations in the coastal zone.

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 participate 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 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] 1982 were [$3.43] $8.32 million for estuarine mollusks, with an estimated retail industry value of [$8.7] $20.8 million. The commercial harvest is estimated to support employment of 1,500 persons in fishing, distribution, processing, and retail. Sport clammers numbered [17,000] 17,907 in [1976] 1982. 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.).]

These requirements include not only the minimum requirements imposed under the Clean Water Act but also the additional requirements adopted by states, localities, and interstate agencies pursuant to Section 510 of the Clean Water Act and such statutes as the New Jersey Water Pollution Control Act. In the Delaware River Basin, the requirements include the prevailing "Basin Regulations-Water Quality" adopted by the Delaware River Basin Commission as part of its Comprehensive Plan. In the waters under the jurisdiction of the Interstate Sanitation Commission in the New Jersey-New York metropolitan area, the requirements include the Interstate Sanitation Commission's Water Quality Regulations. NJDEP rules related to water pollution control and applicable throughout the entire coastal zone include, for example, the NJDEP Surface Water Quality Standards (N.J.A.C. 7:9-4.1 et seq.), the NJDEP rules concerning Treatment of Waste Water Discharged Into Surface Waters of the State (N.J.A.C. 7:9-5.1 et seq.), the NJDEP Ground-Water Quality Standards (N.J.A.C. 7:9-6.1 et seq.), and the NJDEP Regulations Concerning the New Jersey Pollutant Discharge Elimination System (N.J.A.C. 7:14A-1 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.]

Coastal development which would violate the federal Clean Water Act, or State laws, rules and regulations adopted pursuant thereto, is prohibited. In accordance with such rules as may be adopted by NJDEP concerning the Water Quality Management Planning and Implementation process, coastal development that is inconsistent with an approved Water Quality Management (208) Plan under the New Jersey Water Quality Planning Act is prohibited.

(c) Rationale

Most of the natural, commercial, recreational, industrial, and aesthetic resources of the coastal zone affect or are affected by surface and groundwaer quality. Specific coastal zone water quality problems include pollution by nutrients, pathogenic organisms, toxic and hazardous wastes, thermal discharges, suspended sediments, oxygen demanding wastes 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] pursuant to 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 uses 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 cources. 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 Basin [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 Stormwater Runoff

(a) Definition

Stormwater Runoff is [that portion of precipitation on the land which is not absorbed by the soil, but instead runs off to surface water bodies.] flow on the surface of the ground, resulting from precipitation.

(b) Policy

1. Flood and Erosion Control

The flood and erosion control standard for detention requires that volumes and rates be controlled so that after development the site will generate no greater peak runoff from the site than prior to development, for a 2-year, 10-year, and 100-year storm considered individually. These design storms shall be defined as either a 24-hour storm using the rainfall distribution recommended by the U.S. Soil Conservation Service when using U.S. Soil Conservation Service procedures, (such as U.S. Soil Conservation Service, "Urban Hydrology for Small Watersheds," Technical Release No. 55,) or as the estimated maximum rainfall for the estimated time of concentration of runoff at the site when using a design method such as the Modified Rational Method. For purposes of computing runoff, all lands in the site shall be assumed, prior to development, to be in good condition (if the lands are pastures, lawns or parks), with good cover (if the lands are woods), or with conservation treatment (if the land is cultivated), regardless of conditions existing at the time of computation.

2. Water Quality Control

(i) The water quality requirement for detention will require prolonged retention of a small design storm which shall be either a one year frequency 24-hour storm using the rainfall distribution recommended for New Jersey by the U.S. Soil Conservation Service or a storm of 1¼ inches of rainfall in two hours. Provisions shall be made for it to be retained and released so as to evacuate ninety percent in approximately 18 hours in the case of residential developments and 36 hours in the case of other developments. This is usually accomplished by a small outlet at the lowest level of detention storage, with a large outlet or outlets above the level sufficient to control the small design storm. If the above requirement would result in a pipe smaller than three inches in diameter, the period of retention shall be waived so that three inches will be the minimum pipe size used.

(ii) Where soils have sufficient permeability, the production of zero runoff from the site under conditions of the 1¼ inch water quality storm will be considered sufficient to meet the water quality requirement for residential developments, provided that the seasonal high groundwater does not rise to within two feet of the bottom of the detention basin. For other than residential developments, approvals will be on a case-by-case basis after technical review. The object of this review will be to avoid pollution of groundwater.

[(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 swales 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 impact of 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).]

3. Detention Ponds and Swales

[(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 1½ 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 within the area of soils with seasonal high water tables between 1½ 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 areas, detention and retention basins, or any other techniques of delaying runoff are prohibited in soils with a seasonal high water table of 1½ feet or less, and in riverine floodplains.

4. Alternatives to Detention Basins

(i) It is not necessary that basic requirements for water quantity and quality control be satisfied by means of detention basins. Measures including but not limited to rooftop storage, tanks, infiltration pits, porous pavement, dry wells, gravel layers underneath paving, or sheet flow through vegetated areas may be used for the purpose, with appropriate consideration for length of life and feasibility of continued maintenance in accordance with technical guidance from the Department. Vacuum street sweeping may be substituted for the water quality requirement, in cases in which continuity of the service can be assured, and where the pollution in question originates on the pavement.

(ii) Non-structural management practices, including but not limited to cluster land use development, open space acquisition, stream encroachment and flood hazard controls, protection of wetlands, steep slopes and vegetation should be coordinated with detention requirements. Changes in land use can often reduce the scope and cost of detention provisions required by means of appropriate changes in runoff coefficients.

5. Maintenance and Repair

Maintenance of detention basins and infiltration means, or of other alternatives, is a very important aspect of a storm water management program. Control measures shall be designed to provide for mechanical maintenance operations. Resposibility for operation and maintenance of storm water management facilities including periodic removal and disposal of accumulated particulate material and debris, unless assumed by a governmental agency, shall remain with the property owner and shall pass to any successor or owner. In the case of developments where lots are to be sold, permanent arrangements, satisfactory to the approving agency shall be made to insure continued performance of these obligations.

6. Storm water Point Source Discharges

Storm water point source discharges may not flow into sanitary

sewer systems.

[Stormwater runoff calculations shall be developed and used in designing the site plan, including retention basins and storm drains based on 24 hour storms of at least 10 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. Stormwater runoff calculations shall be based on 24 hour storms of at least 10 years frequency in designing storm drains and of at least 100 years frequency in designing detention basins. Site plans shall make maximum use of overland swales and minimum use of closed pipes.]

(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[d] these concerns and treat a development site as a closed system within which drainage systems must be designed using best available technology to contain runoff and ground and surface water pollution increase within the site in order to minimize offsite impacts. [The 100 year detention basin standard will ensure use of basins of sufficient size to control off-site impacts from major storms.]

The policy requirements are adapted from standards under the New Jersey Storm Water Management Act, N.J.S.A. 40:55D-1 et seq.

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 affecting more than 5,000 square feet of land 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] as amended, and any other soil conservation 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.).

(c) Rationale

Erosion is the detachment and movement of soil and 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 with 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 food, 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 vegetation 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 slaine 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 population 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 drainage ways 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) Policy

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 Northern Waterfront and Delaware River areas of the coastal zone violate 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. Development may be required to be phased in over a period of time to prevent overloading of public services.

(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] Waterfront

(a) Definition

Public access to the [shorefront] waterfront 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

1. Coastal development adjacent to all coastal waters, including both natural and [built-up] developed waterfront areas, shall provide perpendicular and linear access to the waterfront to the maximum extent practicable, including both visual and physical access. [Shorefront d] Development that limits public access and the diversity of [shore] waterfront experiences is discouraged.

2. 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] accessway on either side of the site[, and] the continuation of which is not feasible within the boundaries of the site, [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] connect[s]ing to the [other] adjacent parts, or potential parts of the waterfront path system in adjacent parcels must be provided.

3. 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.

4. Public access must be clearly marked, and designed to encourage the public to take advantage of the waterfront setting, and must be barrier free where practicable.

5. A fee for access to or use of publicly owned waterfront facilities must be no greater than is required to operate and maintain the facility and must not discriminate between residents and non-residents except that municipalities may set a fee schedule that charges up to twice as much to non-residents for use of marinas and boat launching facilities for which local funds provided 50 percent or more of the costs.

6. No establishment, including marinas and beach clubs, which

controls access to tidal waters may discriminate among patrons on the basis of race, religion, residence, ethnic background, sex, or sexual preference.

7. Public access must be provided to publicly funded shore protection structures and to waterfronts created by public projects unless such access would create a safety hazard to the user. Physical barriers or local regulations which unreasonably interfere with access to, along or across a structure are prohibited.

8. Development along the Hudson River must conform with the Hudson River Walkway and Design Guidelines (Wallace, Roberts and Todd for NJDEP, 1983).

(c) Rationale.

New Jersey's coastal waters and adjacent shorelands are a valuable but limited public resource[s 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] Existing development[s have] often block[ed] s the waters from public view and/or [made] makes physical access to the waterfront difficult or impossible. In addition, [some municipalities which own] private ownership of land immediately inland of publicly [the state]-owned [riparian] tidelands [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.] often limits public access to those lands and the waters which flow over them. This has limited access to and enjoyment of public resources by citizens who, through taxes, support their protection and maintenance.

The public trust doctrine, which was annunicated by the New Jersey Supreme Court in Neptune City v. Avon-by-the-Sea 61 NJ 296 (1972) and reaffirmed and expanded in Van Ness v. Borough of Deal 78 NJ 174 (1978) requires that tidal water bodies be accessible to the general public for navigation, fishing and recreation. DEP, therefore, has an obligation to ensure that the common law right is not abridged. This obligation remains even after the State has conveyed tidelands to a private owner.

[Projects such as the experimental Beach Shuttle, 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] These linear walkways 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.

The Public Trust Doctrine requires that access be provided to publicly funded shore protection structures and that such structures not be used to impede access. The New Jersey Supreme Court in Borough of Neptune v. Avon-by-the-Sea 61 NJ 296 (1972) held that:

> ...at least where the upland sand area is owned by a municipality - a political subdivision and creature of the state - and dedicated to public beach purposes, a modern court must take the view that the public trust doctrine dictates that the beach and the ocean waters must be open to all on equal terms and without preference and that any contrary state or municipal action is impermissible. (61 N.J. at 308-309, emphasis added).

Such structures, when located on wet sand beaches, tidally-flowed or formerly tidally-flowed lands are subject to the Doctrine. Once built, publicly funded shore protection structures which become municipal property are subject to the Doctrine in the same manner as municipally owned by beaches.

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.]

"Scenic resources" include the views of the natural and/or built landscape.

"Large-scale Elements of Building and Site Design" are defined as the elements that compose the developed landscape such as size, geometry, massing, height and bulk of structures.

(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.]

New coastal development is encouraged to be visually compatible with its surroundings in terms of building and site design, and to enhance scenic resources. New Coastal development that is not visually compatible with existing scenic resources in terms of large scale elements of building and site design is discouraged.

(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."]

A project which is of a scale and location that has a significant effect on the scenic resources of a region is considered to have a regional impact and to be of State concern. This policy will be applied only to facilities, which by their size, location and design could have a significant adverse effect on the scenic resources of the coastal zone. Restoration of areas of low scenic quality, such as abandoned port facilities and blighted urban areas, through large-scale new construction and design that is compatible with the surrounding region is also encouraged by this policy. Specific issues of concern include those addressed by the policies on Historic and Archeological Resources, High Rise Housing, Public Access, Neighborhoods and Special Communities, Buffers and Compatibility of Uses.

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 uses 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) or residential or recreational uses, is prohibited unless the impact is mitigated by an adequate buffer. 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.

A specific policy for buffers around wetlands may be found at 7:7E-3.27.

(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. Examples of possible incompatibility of uses include factories or expressways next to housing, residential developments next to farms, and residential, commercial or industrial development adjacent to wetlands or Endangered or Threatened Wildlife or Vegetation Species Habitat. 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 infeasible [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] Division of Waste Management.

[Large-scale Residential Developments (7:7E-8.2i) and commercial developments, including hotels and restaurants, with over 300 parking spaces or a seating capacity over 150 persons shall develop source separation and recycling plans, unless it can be demonstrated that such plans are not economically feasible.]

Residential developments larger than 24 units and all commercial and industrial developments shall be designed to provide an opportunity for source separation and collection of recyclables on site which is convenient, easy to use and accessible by truck.

Residential developments of over 99 units and all commercial and industrial developments which generate identifiable recyclable waste products, shall develop and implement a source separation and recycling plan to include collection methods and schedules, unless it can be demonstrated that such plans are not economically feasible. Demonstration of planned participation in an existing municipal or county recycling program, if in operation, shall meet this policy requirement.

(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 soild 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 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. State of the art separation, collection and recovery methods allow for the economically viable recovery of material at the development level.

7:7E-8.17 Energy Conservation

(a) Definition

Energy Conservation is the use of construction and siting techniques which minimize the amount of non-renewable energy used by a facility

and maximize the productivity of the energy that is used.

(b) Policy

1. 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.

   NOTE: At the end of this compliation of proposed amendments there are draft guidelines for determining whether energy saving techniques are adequate to meet this policy condition. These guidelines would be used by DCR staff to evaluate permit applications.

2. For all high rise construction (as defined at 7:7E-7.2h) and for commercial and industrial construction costing $1 million or more, the [The] technical and economic feasibility of employing such measures shall be evaluated in an energy [plan] audit prepared by the applicant. [The] An accompanying 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.

3. New [high rise] buildings shall be situated and designed [to minimize shadows on] so that they do not block solar access by existing [and potential active and passive solar energy systems to the maximum extent practicable.] collectors more than 20 percent of the time from 9 a.m. to 3 p.m. between December 21 and February 2.

4. This policy will not be applied in municipalities which have energy conservation ordinances which have been approved by the New Jersey Department of Energy.

(c) Rationale

This policy assists the Department of Energy and Community Affairs in implementing New Jersey's State Energy Master Plan, Recycling Plan, Energy Conservation Plan, the Energy subcode of the Uniform Construction Code (N.J.S.A. 52:27D-119 et seq.) and the Municipal Land Use Law.

The Energy Master Plan supports energy conservation for four reasons: conservation produces a new energy supply; conservation keeps energy prices low; conservation programs contribute to the State's economic health; and conservation improves environmental quality. Conservation techniques could save nationwide 12.5 million barrels of oil a day by 1990. The Recycling Plan states that energy conservation will save New Jersey 1.9 million barrels or oil per year by 1986.

A 1980 amendment to the Municipal Land Use law adds an energy conservation plan as an item to be included in a municipality's master plan.

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.

New high rise buildings should be situated and designed, using techniques such as reduced floor space on higher floors, to minimize shadows on existing solar collectors. It is recognized that it may be impossible to use a site for high rise construction without reducing sunlight to some solar collectors. In this case, the project would be acceptable if designed to minimize impacts on solar collectors to [to maximum extent practicable.] less than 20 percent of peak collection hours during the shortest days of the year.

An active solar energy system is a system for space heating and cooling and domestic hot water that uses outside energy to transfer collected solar energy and distribute it for use. An active system consists of a solar collector, transfer medium and storage device.

A passive solar energy system is a system of collecting, storing, and using solar energy with a minimal use of low power fans and pumps. Energy is collected through south-facing glazing, stored in the building mass, and distributed by natural means such as conduction, connection or radiation.

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] or 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.]

1. Coastal development shall be designed and located in a manner to cause the least possible disturbance to traffic systems.

2. When traffic systems are disturbed by approved development, the necessary design modifications must be prepared and implemented in conjunction with the coastal development, to the satisfaction of the New Jersey Department of Transportation.

3. Development which will generate traffic in excess of capacity Level D is discouraged. Development which will generate traffic in excess of Capacity Level E is prohibited. Determinations of traffic levels which will be generated will be made by the New Jersey Department of Transportation.

(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 perennial stream channels with a depth to seasonal high water table less than 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 (7:7E-5.4(e)3).

(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 shall 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.JA.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] 20 Wet Soils and High Permeability Moist Soils

(a) Definition

Wet soils and High Permeability Moist 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.] unless the soils are loamy sand or coarser, in which case they are soils with a depth to seasonal high water table less than, or equal to, five feet.

(b) Policy

[Development in wet soils is discouraged unless the following conditions are met:] Development must avoid portions of a site which consist of Wet or High Permeability Moist Soils, to the maximum extent practicable. Where construction is permitted on Wet or High Permeability Moist soils, the following conditions apply:

(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 1½ 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 1½ feet or less.

(ix) Placement of fill is limited to areas where structures or pavement will be placed.

(x) The development is designed, to the maximum practicable, to concentrate development on portions of the site where the soils are least permeable (fine soils) and where depth to seasonal high water table is greatest.

(c) Rationale

Wet soils exhibit a number of environmental values as well as problems and constraints to construction. Wet soils are not suited for septic systems. Basements in wet soils frequently fill with water and cause dampness or mildew in the above ground structure. Basements in wet soils can interfere with groundwater flow or introduce contaminants into groundwater through leaching of construction materials. Freeze and thaw heaving of foundation materials can cause structural deterioration. Runoff from impervious surfaces in wet soils can cause an increase in pollutant loads to groundwater due to rapid transmission of pollutants through wet soils. Fertilizer used on lawns can enter groundwater rapidly, due to limited renovation capacity of the soil. Methane gas generation is a potential problem in wet soils with a high organic content.

Soils with shallow seasonal high water tables and coarse (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.

The placement of fill over wet soils should be minimized because it increases runoff, destroys existing vegetation and wildlife habitat, and creates an unsuitable living area as the fill becomes wet through capillary action.

7:7E-8.[22] 21 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 distubing 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 irreperably lost. The Farmland 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] 22 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 river, 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 Flood[plain] Hazard Area. 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 14).

A complete list of streams where DEP has 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 not 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 the Flood Hazard Area Control Act and rules, in the floodway portion of fluvial flood hazard areas, including uses such as placing, depositing or dumping soild wastes on the delineated floodways; processing, storing or disposal of pesticides, domestic or industrial wastes, radioactive materials, 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 in the fluvial flood fringe are also regulated[,] under the State Flood Hazard Area Control Act and rules, [in the fluvial 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.]

Development in flood hazard areas subject to fluvial flooding must conform with the Flood Hazard Area Control Act and rules adopted thereunder.

iii[(iv)] Construction acceptable in flood hazard areas subject to tidal flooding must conform with applicable Federal 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.] found at 44 CFR 60.

(iv)[(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] 23 Decomissioning 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 other than those for residential developments 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] 24 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] 25 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 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.