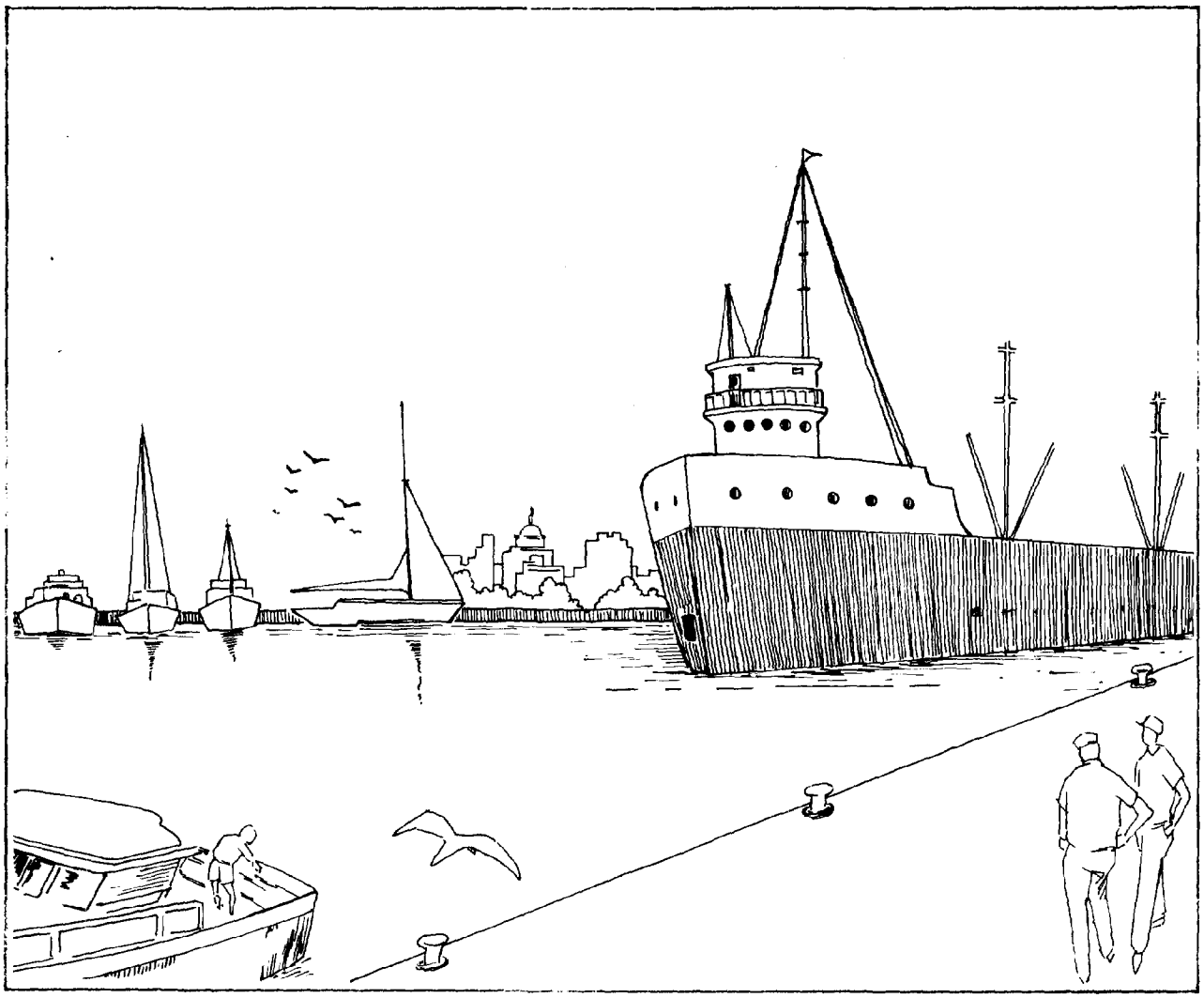
Commonwealth of Pennsylvania Coastal Zone Management Program and Draft Environmental Impact Statement

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



May 1980

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UNITED STATES DEPARTMENT OF COMMERCE

DRAFT ENVIRONMENTAL IMPACT STATEMENT

AND THE

PROPOSED COMMONWEALTH OF PENNSYLVANIA

COASTAL ZONE MANAGEMENT PROGRAM

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The Coastal Zone Management Program is partially financed by the Federal Government through the Office of Coastal Zone Management, National Oceanic and Atmosperhic Administration under Section 305 of the Coastal Zone Management Act of 1972 (P.L. 92-583) as amended.

May 1980

NOTE TO READERS

For the purposes of the Draft Environmental Impact Statement, the Executive Order and Memorandum of Understanding presented in Appendix B, Section 1 and Section 2, respectively, are referenced to as having been written and approved by the Governor or appropriate Secretary.

In the Final Environmental Impact Statement, they will appear appropriately signed and witnessed.

DESIGNATION: Draft Environmental Impact Statement

TITLE: Proposed Federal Approval of the Pennsylvania Coastal Zone Management Program

ABSTRACT: The State of Pennsylvania has submitted its Coastal Zone Management Program to the Office of Coastal Zone Management for approval. Approval would allow program administrative grants to be awarded to the State, and require that Federal actions be consistent with the program. This document includes a copy of the program (Part II) which is a comprehensive management program for coastal land and water use activities. It consists of numerous policies on diverse management issues which are enforced by various State laws, and is the culmination of several years of program development.

Approval and implementation of the program will enhance governance of the State's coastal land and water areas and uses according to the coastal policies and standards. The effect of these policies is to condition, restrict or prohibit various uses in parts of the coastal zone, while encouraging development and other uses in other parts. This program will improve decision-making processes for determining appropriate coastal land and water uses in light of resource consideration and increase public awareness in coastal resources. The program will result in some short-term economic impacts on coastal users but will lead to increased long-term protection of the State's coastal resources.

Federal alternatives include delaying or denying approval if certain requirements of the Coastal Zone Management Act have not been met. The State could modify parts of the program or withdraw their application for Federal approval if either of the above Federal alternatives result from circulation of this document.

APPLICANT: Pennsylvania Department of Environmental Resources, Office of Resources Management

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COMMENTS:	Comment period on this statement ends July 21, 1980. The Office of Coastal Zone Management will not grant any extensions beyond the 45 day comment period. Individuals receiving copies of this Draft Environmental Impact Statement will not automatically receive copies of the Final Environmental Impact Statement unless specifically requested, or unless they submit comments on the Draft Environmental Impact Statement.

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SUMMARY

SUMMARY

A. Program Summary

The Pennsylvania coastal zone consists of two widely separated coastal areas. At the extreme northwest corner of the State, a largely rural shoreline stretches 63 miles along Lake Erie between the borders of Ohio and New York. Across the State in the extreme southeast corner, the Delaware River forms a 57-mile segment of largely urbanized coastal area from the furthest extent of tidal influence near Morrisville to the border with the State of Delaware. This segment contains the City of Philadelphia, the fourth largest city in the United States. Both coastal areas share common concerns, but there are also coastal issues which are of more significance to one area than the other.

Issues

The Pennsylvania Coastal Zone Management Program (CZMP), in addressing the major coastal resource management issues of State, Federal, and local concern, has developed policies in ten areas to guide State decision-making in the coastal zones. These areas are:

1. Coastal Hazards
2. Dredging and Spoil Disposal
3. Fisheries Management
4. Wetlands
5. Public Access for Recreation
6. Historic Sites and Structures
7. Port Activities
8. Energy Facility Siting
9. Intergovernmental Coordination
10. Public Involvement

Management Techniques

Pennsylvania proposes to combine multiple authorities and programs of the Commonwealth into a set of regulatory and nonregulatory policies. These policies will be applied in a uniform fashion to address the ten coastal issues throughout the Lake Erie and Delaware Estuary coastal zones. The agencies of the Commonwealth responsible for carrying out the authorities and programs which are incorporated into the management program will be legally or administratively bound to implement them in accordance with the policies of the program by force of an Executive Order and Memoranda of Understanding with the Department of Environmental Resources.

The regulatory aspect of the program is centered around the following State authorities:

1. Dam Safety and Encroachment Act (controls obstructions and encroachments in wetlands and in the beds of Lake Erie and the Delaware River);

2. Floodplain Management Act;

3. Bluff Recession and Setback Act

4. Clean Streams Act, as amended; and

5. Air Pollution Control Act, as amended.

All activities proposed for areas within the coastal zone which are subject to the Dam Safety and Encroachments Act, the Floodplain Management Act, and the Bluff Recession and Setback Act will be subject to the management program. Activities throughout the coastal zone which are subject to the Clean Streams Law and Air Pollution Control Act will also be subject to the management program. These and other regulatory authorities which are incorporated into the management program are discussed in Appendix A.

There are provisions for local administration of two program authorities based on State standards. These are the Floodplain Management Act, administered by the Department of Community Affairs and the Department of Environmental Resources, and the Bluff Recession and Setback Act, administered by the Department of Environmental Resources.

Planning and technical assistance will be a large component of the nonregulatory aspects of the Pennsylvania CZMP. Major activities to be undertaken include:

1. Grants to local governments for updating comprehensive plans, zoning ordinances, and regulations.

2. Grants to local/regional agencies to encourage additional public access at specific sites along the shorelines of Lake Erie and the Delaware River.

3. Technical assistance to property owners to provide advice on the best techniques for preventing shoreline erosion and protecting shoreline property.

4. Planning assistance to the Ports of Erie, Philadelphia, and Chester.

5. Financial assistance to the Pennsylvania Fish Commission to develop a comprehensive coastal

fisheries management plan for the Delaware River Estuary and Lake Erie.

6. Development of a process to streamline and simplify regulatory processes in the coastal areas.

7. Acquisition of wetlands and coastal access sites with CEIP funds if the sites become available.

8. Small scale preservation and restoration projects of recreation and historic sites.

Program Monitoring and Evaluation

The CZMP will monitor the activities of the State agencies through:

1. Individual review of State permits in the coastal area.

2. Periodic review of locally administered State authorities.

3. Various project review committees such as the Coastal Zone Advisory Committee, the Water Resources Coordinating Committee, and the Water Resources Policy Advisory Committee.

4. A-95 process and the State Project Review Evaluation Process.

5. Review of the Pennsylvania Bulletin which provides official notice of actions of the Commonwealth.

Implementation of the program will be accomplished through the statutory provisions networked into the program and reliance upon the Executive Order and Memoranda of Understanding. In the case of the Bluff Recession and Setback Act and the Floodplain Management Act which are administered by local governments, the Department of Environmental Resources can bring judicial action against a municipality which it finds has failed to comply with the provisions of the Acts or the regulations. Enforcement of the program is facilitated by the fact that all of the five major regulatory authorities are administered by the Department of Environmental Resources, the lead CZM agency.

The State agencies subject to the Executive Order are:

1. Department of Commerce
2. Department of Community Affairs
3. Department of Environmental Resources
4. Department of Transportation

Agencies bound to comply with the management program by a Memorandum of Understanding are:

1. Fish Commission
2. Historical and Museum Commission
3. Public Utility Commission

In addition, navigable waters, air, wetlands, and all other public trust resources of the Commonwealth are protected by Article I, Section 27, of the Pennsylvania Constitution. The constitutional provision mandates that all State agencies, independent boards and commissions, and executive departments conduct their activities in a manner which protects these public trust resources of the Commonwealth.

Conflict Resolution

Most conflicts which arise during implementation of the program will be resolved through informal staff level discussions. In those instances where conflicts cannot be resolved informally, a number of legal and administrative mechanisms are available to resolve the conflict. The legal mechanisms available to agencies, groups, and individuals are the legislative process, the Environmental Quality Board, the Environmental Hearing Board, citizen suits under Article I, Section 27 of the Pennsylvania Constitution, and other judicial processes. Administrative mechanisms include intradepartmental processes within the Department of Environmental Resources and interdepartmental processes between State agencies which are networked into the program. These processes will involve the Governor, the Governor's cabinet, the coastal zone advisory committee, as well as informal staff level discussion.

Coastal Boundary

The boundary of the Lake Erie coastal zone is as follows:

1. Extends to the international boundary with Canada in Lake Erie.

2. Extends from 400 feet to over three miles inland from the shoreline. This area includes erosion hazard areas, wetlands, and floodplains in which the State can manage activities with direct and significant impacts on coastal waters.

3. Extends on land and water to the borders with Ohio and New York.

The boundary of the Delaware Estuary coastal zone is as follows:

1. Extends to the boundary with New Jersey in the Delaware River.

2. Extends from 1/8 to over 3-1/2 miles inland from the banks of the Delaware. This area includes wetlands and floodplains in which the State can manage activities with direct and significant impacts on coastal waters.

3. Extends on land and in water from the upper extent of tidal influence near Morrisville, Pennsylvania, to the border with Delaware.

In both areas the boundary excludes lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents.

Program Funding

The Pennsylvania Coastal Zone Management Program will be financed through funds provided by annual grants from the National Oceanic and Atmospheric Administration (NOAA) pursuant to Section 306 of the Coastal Zone Management Act, as amended, and State funds used to match the Federal funds. Up to 80 percent of the costs of program implementation can be funded with Federal monies. Approximately $1 million will be available annually in Federal funds to assist the Commonwealth in carrying out its management program. In addition, the State is eligible for funding from the Coastal Energy Impact Program (CEIP) as a result of its participation in the Federal Coastal Zone Management Program. CEIP funds are available to deal with the impacts of Outer Continental Shelf energy activities or coastal energy activities and will be used to help carry out the policies of the CZM Program.

As a result of implementing the Pennsylvania Coastal Zone Management Program, institutional, environmental, social, and economic changes are likely to result in the two coastal areas.

The following institutional changes will occur as a result of the Pennsylvania CZM Program:

1. The Executive Order and Memoranda of Understanding will direct State agencies, independent boards and commissions, and executive departments to be consistent with the policies of the management program. Formerly independent actions of State agencies will now be subject to scrutiny of the management program. This will result in an increased level of coordination and information exchange between State agencies and the Pennsylvania CZM Program.

2. Uses and resources that are in the national interest will be considered in State decision-making.

3. Measures to simplify coastal regulatory procedures and improve intergovernmental coordination in the management of coastal resources will be implemented.

4. Procedures to ensure the consistency of Federal actions in the CZM Program will be instituted.

Environmental changes will occur as the State begins to implement its new floodplain, wetlands, and erosion hazard setback authorities. Management of floodplain areas will require local participation in the National Flood Insurance Program, prohibitions against construction of certain special hazards in floodplains, and regulation of:

1. Any obstruction otherwise regulated under the Water Obstructions Act (as replaced by the Dam Safety and Encroachments Act).

2. Any flood control project constructed, owned, or maintained by a governmental unit.

3. Any highway or other obstruction, constructed, owned, or maintained by the Commonwealth or a political subdivision thereof.

4. Any obstruction owned or maintained by a person engaged in the rendering of a public utility service.

The Dam Safety and Encroachments Act gives the State authority to protect wetlands. Activities proposed for wetland areas of the coastal zone will have to meet performance standards as stated in Chapter 105 of the Pennsylvania Code of Regulations. These standards will require that the maintenance of the character and function of coastal wetlands be the primary consideration for the permitting of any action occurring in those wetlands.

Provisions of the Bluff Recession and Setback Act will require structural setbacks in erosion hazard areas. This will help to slow the rate of bluff erosion caused by the weight of structures and the additional overland runoff they induce. It will help to prevent structures, septic tanks, public infrastructure such as roads and utilities and other materials from falling into Lake Erie, thereby reducing a potentially hazardous situation in the nearshore areas of the lake. Ultimately, it will safeguard the public from hazardous development.

Social changes are likely to occur as a result of increased efforts to provide recreational access to the waters of Lake Erie for sightseers, pier fishermen and boaters. Additional access sites for pedestrians coupled with the present efforts at stocking salmonids in Lake Erie and improving water quality in

the Delaware River will increase recreational opportunities to millions of people in the Commonwealth.

Economic changes likely to result from program implementation are as follows:

1. Decrease public cost for disaster assistance as a result of inappropriate activities in flood and erosion hazard areas.

2. Decrease the cost to individuals and corporations of securing permits for coastal activities as a result of faster, more streamlined permitting systems and improved intrastate coordination and State/Federal coordination.

3. Provide increased opportunities for water dependent industry along both waterfronts.

4. Provide incentive for expanding economic development in port areas.

5. Decrease in the value of some property that will be subject to the regulatory aspects of the management program. This decrease, however, should be offset by the public values provided by the natural function of wetlands and floodplains, and decrease of public payments for victims subject to flooding and erosion losses and reduction of costs of replacing facilities constructed with public funds.

6. Increase recreational business opportunities as more people take advantage of increased recreational opportunities provided by the program.

In addition to making these major improvements to the overall management structure, the Pennsylvania Coastal Zone Management Program will also make a number of other improvements to the management system. These improvements include the following:

1. Nomination of geographic areas within the coastal boundary that are of particular concern to the State, and implementation of special management techniques for these areas.

2. Implementation of special planning procedures to work toward the resolution of specific problems in the following three areas:

   - Shoreline erosion
   - Shorefront access and protection
   - Energy facilities

3. Implementation of measures to improve public awareness of coastal issues and increase public participation in coastal decision-making processes.

4. Implementation of special measures to improve the data base for coastal management and conduct special management studies as necessary.

C. What The Program Will Not Do

The Pennsylvania Coastal Management Program is designed to provide solutions to coastal problems and issues that have a direct and significant impact on the coastal zone. However, it is not designed to:

1. Substantially alter the respective governmental jurisdiction over coastal resources, activities or land uses. Agencies currently having responsibility for management of these resources and activities will continue to exercise their authorities in accordance with the policies, standards and evaluation procedures established by the Pennsylvania Coastal Management Program. Two exceptions to this are: a) the local administration of State erosion setback regulations along the Lake Erie shoreline; and b) State control over water obstructions and encroachments in the Delaware River within the City of Philadelphia (formerly these were under the control of the City of Philadelphia).

2. Control all development in or near the coastal zone. Development is permissible and encouraged in the coastal zone as long as it meets certain performance standards in wetlands and floodplains in both coastal zones, and erosion hazard areas along Lake Erie, and air and water quality regulations throughout the coastal zone.

3. Change the existing patterns of public and private shorefront ownership, except that additional public recreational access will be encouraged through acquisition of suitable properties, when they are available, by traditional acquisition programs.

4. Provide funds for land acquisition. Grants to implement the management program prohibit land acquisition. The State will use the management program only to undertake the preliminary steps necessary to determine if acquisition to meet program objectives is feasible. However, funds from CEIP will be used to acquire wetlands and sites for public areas if and when they become available.

D. Areas of Controversy

Throughout the process of program development, some agencies and individuals have raised issues of concern regarding certain aspects of the program.

The arguments concerning these issues have been that:

1. The program was an effort by the State to exercise comprehensive control over all land use in the coastal zone.

The major goal of the CZMP is to strengthen the capacities of the State and local units of government to manage the coastal resources of the Commonwealth more efficiently, while addressing specific issues of State and local concerns including the encouragement of economic development and the protection of important natural resources. In so doing, the program recognizes the long standing authority vested in local governments to manage local affairs and it is designed to assist them wherever possible in these efforts. The program will not create a new layer of government at the Federal, State, or local level. The Pennsylvania coastal zone management program is not a zoning program. Coastal zone management in the Commonwealth is not based on, and does not advocate, Federal or State comprehensive land use regulation. Specific concerns of the coastal zone plan, such as water quality improvement, bluff recession hazards and floodplain development, can be and are addressed through specific State and local programs without intruding on the fundamental responsibilities of municipalities for land use planning and zoning. At the same time, local governments are encouraged to consider and, if possible, incorporate coastal concerns - both problems and opportunities - in carrying out municipal land use planning, subdivision and zoning efforts.

2. The program will add another layer of bureaucracy.

Other State agencies and bureaus within the Department of Environmental Resources had expressed this concern. However, the CZMP has demonstrated that through its review and monitoring of State agency activities within the coastal area, other agencies will be apprised of projects and activities concurrently. Formerly, agencies and departments may not have learned of projects outside their purview until late in project development. This effort to improve State agency coordination should result in fewer project delays and better decision-making by the responsible State agencies.

3. The program would impede or deny economic growth and development in the coastal areas because of an excessive environmental orientation.

The program will not discourage appropriate economic growth in coastal areas. In fact, the program has designated development opportunity areas as special management areas that should be used

to accommodate growth and economic development. In addition, several of the State's coastal policies encourage economic development. The State will permit development activities to occur provided they have met any regulatory standards to which the activities may be subject. Finally, the CZMP will improve and streamline the permit decision-making process in order to help encourage appropriate economic development.

E. Issues to be Resolved

At this time, the issues to be resolved prior to program approval are as follows:

1. Passage of the Bluff Recession and Setback Act.*

2. Designation of Bluff Recession Hazard Areas.

3. Adoption of final regulations for the Floodplain Management Act, Bluff Recession and Setback Act, and Dam Safety and Encroachments Act. Draft regulations for these three pieces of legislation are found in Appendix B.

F. Major Conclusions

Pending the passage of the Bluff Recession and Setback legislation and adoption of implementing regulations for the Dam Safety and Encroachments Act, the Floodplain Management Act, and the Bluff Recession and Setback Act, as well as designation of bluff recession hazard areas, OCZM has made the preliminary determination that the Commonwealth of Pennsylvania Coastal Zone Management Program has progressed sufficiently and that a Draft Environmental Impact Statement will be issued on the program.

* Signed into law May 13, 1980.

Part I

Purpose and Need

PART I

PART I - PURPOSE AND NEED

The Federal Coastal Zone Management Program

In response to the intense pressures upon, and because of the importance of the coastal zone of the United States, Congress passed the Coastal Zone Management Act (P.L. 92-583) which was signed into law on October 27, 1972. The Act authorized a Federal grant-in-aid program to be administered by the Secretary of Commerce, who in turn delegated this responsibility to the National Oceanic and Atmospheric Administration's (NOAA) Office of Coastal Zone Management (OCZM).

The Coastal Zone Management Act of 1972 developed from a series of studies on the coastal zone and its resources. National interest can be traced from the Committee on Oceanography of the National Academy of Sciences (NASCO) 12-volume report "Oceanography 1960-1970" (1959), to the report of the Commission on Marine Science, Engineering and Resources (1969), which proposed a Coastal Management Act that would "provide policy objectives for the coastal zone and authorize Federal grants-in-aid to facilitate the establishment of State Coastal Zone Authorities empowered to manage the coastal waters and adjacent land". The National Estuarine Pollution Study (1969), authorized by the Clean Water Restoration Act of 1966 and the National Estuary Study authorized by the Estuarine Areas Study Act of 1968, further documented the importance of and the conflicting demands upon our Nation's coast. These reports stressed the need to protect and wisely use the important national resources contained in the coastal zone and concurred that a program designed to promote the rational protection and management of our coastal zone was necessary.

The Coastal Zone Management Act of 1972 was substantially amended on July 26, 1976 (P.L. 94-370). The Act and the 1976 amendments will be referred to in this statement as the CZMA. The CZMA affirms a national interest in the effective protection and development of the coastal zone, by providing assistance and encouragement to coastal states to develop and implement rational programs for managing their coastal zones. The CZMA opens by stating "there is a national interest in the effective management, beneficial use, protection, and development of the coastal zone" (Section 302(a)). The statement of Congressional findings goes on to describe how competition for the utilization of coastal resources, brought on by the increased demands of population growth and economic expansion, has led to the degradation of the coastal environment, including the "loss of living marine resources, wildlife, nutrient-rich areas, permanent and adverse changes to ecological system, decreasing open space for public use, and shoreline erosion". The CZMA then states "the key to more effective protection and use of the land and water resources of the coastal zone is to encourage states to exercise their full authority over the land and waters in the

coastal zone by assisting states . . . in developing land and water use programs . . . for dealing with (coastal) land and water use decisions of more than local significance" (Section 302(h)).

While local government and Federal agencies are required to cooperate and participate in the development of management programs, the state level of government is given the central role and responsibility for this process. Financial assistance grants are authorized by the CZMA to provide states with the means of achieving these objectives and policies. Under Section 305, 30 coastal states which border on the Atlantic and Pacific Oceans, Gulf of Mexico, and the Great Lakes, and four U.S. Territories are eligible to receive grants from NOAA for 80 percent of the costs of developing coastal management programs. Broad guidelines and the basic requirements of the CZMA provide the necessary direction for developing the programs. The updated guidelines defining the procedures by which states can qualify to receive development grants under Section 305 of the CZMA, and the policies for development of a state management program, were published on March 28, 1979 (15 CFR Part 923), 44 Federal Register (61): 18590-18624). For example, during the program development, each state must address specific issues such as the boundaries of its coastal zone; geographic areas of particular concern; permissible and priority land and water uses including specifically those that are undesirable or of lower priority; and areas for preservation or restoration. During the planning process, the state is directed to consult with local governments, regional agencies and relevant Federal agencies, as well as the general public. Federal support can be provided to states for up to four years for this program development phase.

After developing a management program, the state may submit its coastal management program to the Secretary of Commerce for approval; if approved, the state is then eligible for annual grants under Section 306 to administer its management program. If a program has deficiencies which can be remedied or has not received Secretarial approval by the time the Section 305 grant has expired, the state is eligible for additional funding under Section 305(d).

Section 308 establishes a coastal impact assistance program consisting of:

1. Annual formula grants (100 percent Federal share) to coastal states, based upon specific Outer Continental Shelf (OCS) energy activity criteria (Section 308(b)).

2. Planning grants (80 percent Federal share) to study and plan for economic, social, and environmental consequences resulting from new or expanded energy facilities (Section 308(c)).

3. Loans or bond guarantees to states and local governments to improve public facilities and services required as a result of new or expanded coastal energy activity (Sections 308(d)(1), and (d)(2)).

4. Grants to coastal states or local governments if they are unable to meet obligations under a loan or guarantee because the energy activity and associated employment and population do not generate sufficient tax revenues (Section 308(d)(3)).

5. Grants to coastal states if such states' coastal zone suffers any unavoidable loss of valuable environmental or recreational resources which results from coastal energy activity (Sections 308(b) and (d)(4)).

In order to be eligible for assistance under Section 308, coastal states must be receiving Section 305 or 306 grants, or in the Secretary's view be making satisfactory progress toward the development of a management program which is consistent with the policies of Section 303 of the Coastal Zone Management Act.

Part II

Description of the Proposed Action: The Pennsylvania Coastal Zone Management Program

PART II

ACKNOWLEDGEMENTS

The Pennsylvania Coastal Zone Management Program has been prepared by the staff of the Coastal Zone Management Branch of the Office of Resources, Department of Environmental Resources, Harrisburg, Pennsylvania. Supplemental technical assistance was provided by the Delaware Valley Regional Planning Commission and the Erie County Department of Planning. The following individuals were directly responsible for its contents:

Coastal Zone Management Branch

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
P. O. Box 1467, Harrisburg, Pennsylvania 17120

May 30, 1980

In reply refer to
RM-CZM
W 69:18

Michael Glazer, Assistant Administrator
for Coastal Zone Management
Office of Coastal Zone Management
National Oceanic and Atmospheric Administration
3300 Whitehaven Street, N.W.
Washington, D.C. 20235

Dear Mr. Glazer:

I am pleased to transmit to you the Draft Environmental Impact Statement for the Commonwealth of Pennsylvania's Coastal Zone Management Program. This document has been prepared in accordance with the provisions of Section 306 of the Coastal Zone Management Act, as amended, and will hopefully lead to Federal approval of Pennsylvania's management program in September 1980.

The Draft Environmental Impact Statement will be made available for widespread distribution to affected governmental agencies, interest groups, and concerned citizens at the Federal, State and Local levels. Based upon the results of this essential review process, we anticipate working closely with you and your staff to make necessary revisions in the document in order to achieve a program that is fully acceptable to the Governor of Pennsylvania and the Office of Coastal Zone Management.

When all comments have been adequately addressed and appropriate changes made, the document will be submitted to the Governor for approval and then republished as a Final Environmental Impact Statement. The Final Environmental Impact Statement will be formally transmitted to the Office of Coastal Zone Management for final Federal review and approval.

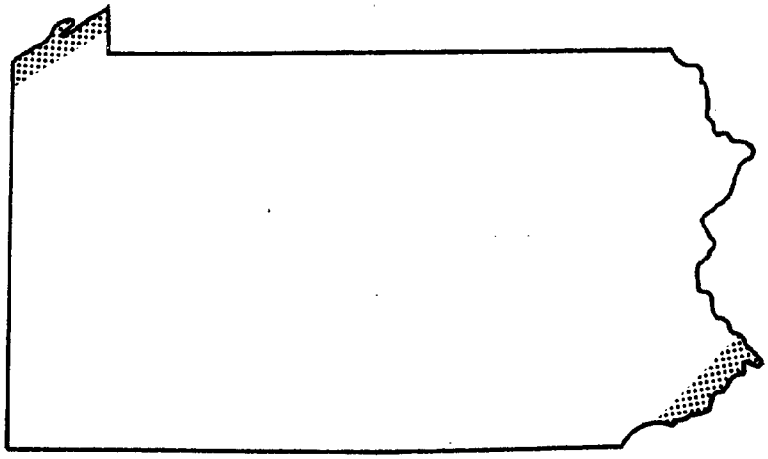
We look forward to a continued cooperative relationship throughout the review process and the final stages of developing a viable management program for Pennsylvania's Delaware Estuary and Lake Erie coastal zones. The time has come to complete the planning and refocus our attention and efforts towards implementing a sound and rational program for protecting and upgrading the Commonwealth's valuable economic and environmental coastal resources.

Sincerely,

C. H. McConnell, Deputy Secretary
Resources Management

Attachment

Chapter 1



Introduction and Overview

COASTAL ZONE MANAGEMENT IN PENNSYLVANIA

According to the definition in the Coastal Zone Management Act, Pennsylvania qualifies as a "coastal state" because of two widely separated areas. The 63-mile long Lake Erie shoreline and the 57-mile segment of the tidal Delaware River in Pennsylvania are both eligible for coastal zone management. Interestingly, Pennsylvania is the only state in the country, other than New York, with two such widely separated coastal zones. The regional location map (Figure i-1) indicates the position of Pennsylvania's two coastal zones relative to those of nearby Great Lakes, New England, and Mid-Atlantic states.

Although the Coastal Zone Management Act was passed by Congress and signed into law October 27, 1972, funding was not available until 1974. In June, 1974, the Governor designated the Department of Environmental Resources as the lead agency for Pennsylvania's Coastal Zone Management Program.

During the next three years, the Department of Environmental Resources worked with other state agencies, local study area consultants, elected officials, shorefront industries, and interested citizens to produce the Coastal Zone Management Program, which is described in this document.

Pennsylvania made special efforts to coordinate its Coastal Zone Management Program with adjacent states such as: New Jersey, Delaware, New York, and Ohio. Efforts to achieve consistency had to overcome widely different laws and regulations, as well as separate timetables and schedules.

The first year of the program was devoted exclusively to inventory work and data gathering. During the second year, work progressed on resource analysis and the development of working papers and technical memoranda on elements required by the Act and by Federal guidelines. The third year of the program was spent in preparing a 500-page Draft Technical Record including more than 50 accompanying maps. This document represented the first and most comprehensive statement prepared by the Commonwealth of Pennsylvania, which concerns both the protection and development of coastal resources. The Draft Technical Record has been distributed to local municipalities and governmental agencies throughout the coastal zones as a reference document, and used to assist in the preparation of a final and approved management program.

Efforts during the fourth year of the program focused on the refinement and finalization of policies, management authorities and implementation mechanisms for carrying out the goals and objectives of Pennsylvania's Coastal Zone Management Program. These critical elements, along with other technical requirements of the Federal Coastal Zone Management Act, are contained in this

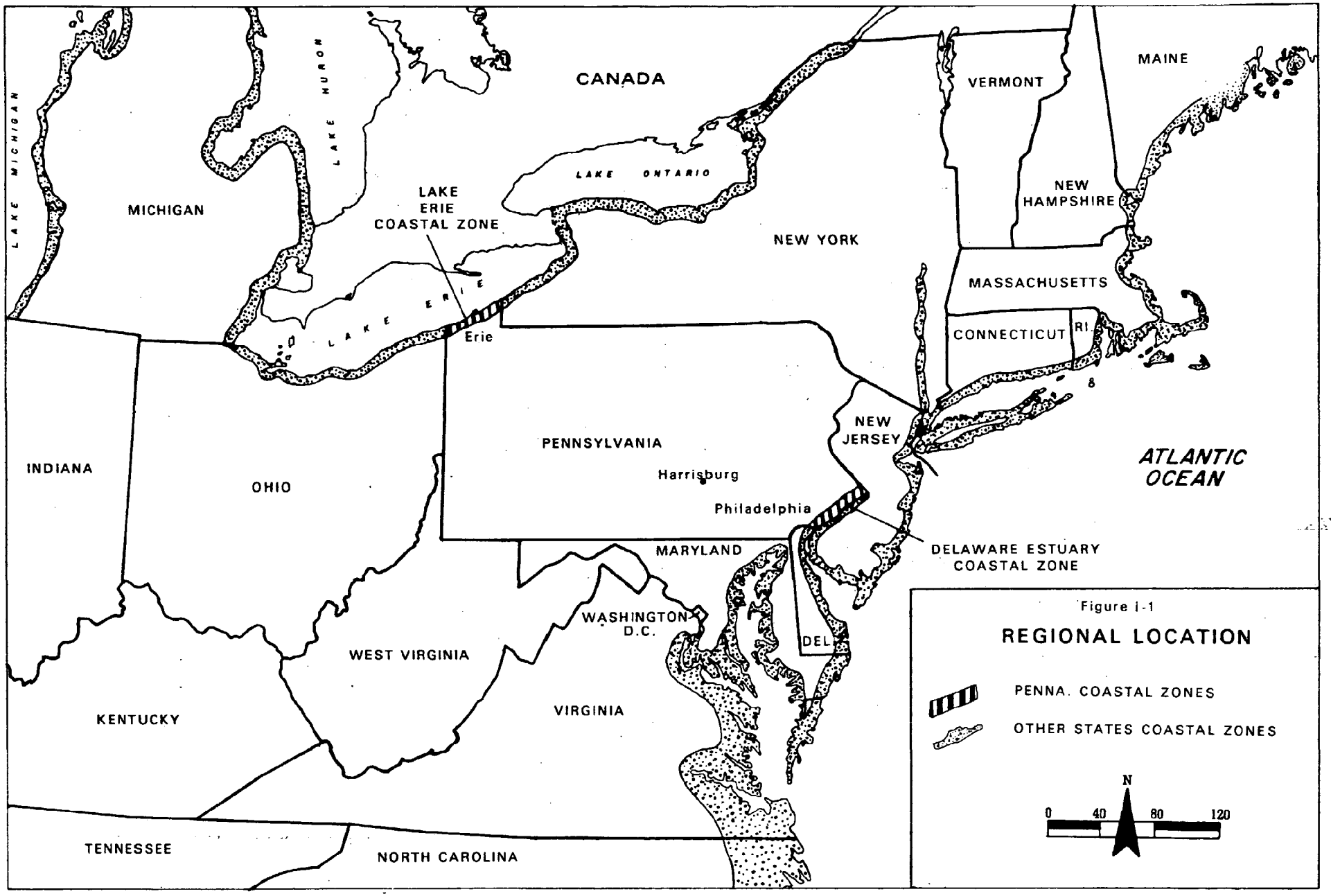


Figure i-1

REGIONAL LOCATION

COASTAL CHARACTER - DELAWARE ESTUARY

Physical and Socio-Economic Characteristics

The Delaware River stretches 330 miles from its headwaters in the Catskill Mountains of New York to the Atlantic Ocean. At Trenton, 134 miles from the sea, the river drops through its last series of rapids and becomes an estuary, subject to the ebb and flow of daily tides. The estuary is where the major ports and industrial centers of Philadelphia, Camden, Wilmington and Chester are located. Oil refineries, chemical plants, steel mills, warehouses, power plants, container terminals, railroads, highways, and bridges dominate the waterfront.

Of the 52 square miles of land area within the coastal zone, about two-thirds is developed, mostly as manufacturing or transportation facilities. There is a notable absence of recreational, cultural, and residential areas. About 33,000 people reside in the coastal zone; and in spite of the nearly 14 square miles of industrial and commercial lands, there are less than 80,000 employees.

Philadelphia County has the most completely developed waterfront with more extensive transportation facilities than the other two counties. A diverse mix of land uses occupies the rest of Philadelphia's riverfront, including manufacturing, utilities and military facilities. Philadelphia has the largest employment base of the coastal counties with 68 percent of the 78,486 workers in the Delaware Estuary coastal zone. Over half of Philadelphia's workers are in the finance, service, military and government sector, approximately double the number of workers in the manufacturing and construction category. In contrast, over 85 percent of all workers in Bucks and Delaware Counties are in the manufacturing and construction category. Philadelphia also contributes over 85 percent of coastal jobs in the transportation, communication and utilities sector.

Delaware County has the highest population within the boundaries of the coastal zone, with about 50 percent more residents than either Philadelphia or Bucks Counties. Unlike communities in Bucks County, residential areas in Delaware County do not extend right up to the riverfront. In Delaware County, a larger share of waterfront is devoted to manufacturing than in either Philadelphia or Bucks Counties. Tinicum Marsh, covering approximately 500 acres, is all that remains of the tidal wetlands which originally encompassed at least 13,000 acres between the Chester Creek in Delaware County and the Frankford

Creek in Philadelphia. Still, Tinicum Marsh contains Pennsylvania's largest tidal wetland area.

Notable features of the coastal zone in Bucks County include the 4,000 acre U.S. Steel site, which employes more than 8,000 workers, and the 2,300 acre man-made lakes created by sand and gravel extraction on property owned by the Warner Company. The shoreline of Bucks County includes a wide variety of uses; and about five miles of riverfront are occupied by residential, recreational, or cultural uses, which are unusual in the other counties.

Uses and Development

Ports and Navigation - The collective "Ports of Philadelphia" (including berths in Pennsylvania, New Jersey, and Wilmington, Delaware) comprise the largest freshwater port in the world. Philadelphia is the second largest U.S. port in number of vessels handled and the third busiest seaport in the world. Commercial shipping, both international and domestic, is a key ingredient of the region's economy. Over 9,000 manufacturing concerns and at least 100,000 job opportunities are dependent on port activities.

Water Supply - Electric generating stations withdraw twice as much water as all municipal and self-supplied industrial uses combined. In 1976, the six Philadelphia Electric Company stations in the coastal zone withdrew 1.015 billion gallons per day from the Delaware and Schuylkill Rivers. (The consumptive loss was estimated at only 4 million gallons per day, or about .4 percent of the total.)

The Delaware River is the primary water resource for municipal and industrial use. Most municipal water in the coastal zone is sold domestically. There are a few cases in which industry buys a large portion of a municipal supply. The Bristol Borough and Philadelphia Water Departments are two municipal suppliers which sell a substantial portion of their water to industry.

Waste Disposal - The three large Philadelphia plants, six smaller ones in Bucks County and thirteen plants of varying size in Delaware County, constitute the municipal dischargers in the coastal zone. Background pollution loadings from upstream tributaries and the river's main stem will, in the natural course of events, be carried into the tidal Delaware. In addition to these municipal dischargers, the coastal zone has numerous industrial waste dischargers. Because water is used for a wide range of industrial processes, industrial waste products often differ greatly from domestic wastes, thereby requiring special treatment processes. Although municipal facilities often treat industrial wastes, many industries must employ their own

pretreatment technology in order to comply with State and Federal regulations.

Recreation - In spite of the intensity of development along the Delaware River, numerous recreational areas and opportunities exist. Pressures for additional recreational sites are expected to increase in the future as travel becomes increasingly expensive and as water quality in the estuary improves in response to Federal, State, and local programs and investment.

Due to the highly developed nature of the Delaware Estuary, multiple use concepts will be encouraged to provide additional recreational opportunities in the coastal zone. These concepts stress the incorporation of recreation and public access into industrial, commercial, or residential development or redevelopment plans and proposals.

Fish and Wildlife Habitat - The estuary is extremely important to anadromous fish by providing a place for spawning. Twenty-five indigenous and anadromous species are known to frequent the estuary but at different times and in different locations during the year. Only the upper portion of the estuary is capable of supporting the full range of life functions for fish propagation, maintenance, and growth year round.

Over 250 species of birds are known to nest or migrate through the Delaware Valley. Tinicum Marsh is the main stopover and nesting coastal zone site for waterfowl.

COASTAL CHARACTER-LAKE ERIE

Physical and Socio-Economic Characteristics

Lake Erie, which covers 9,940 square miles, is the smallest of the Great Lakes except for Lake Ontario. Sixty-three miles of the southern shore of Lake Erie are in the "chimney" of Pennsylvania, between the state boundaries of Ohio and New York.

The most outstanding feature of the Pennsylvania shoreline is the seven-mile long Presque Isle Peninsula which attracts three to four million recreational visitors each year. This 3,200 acre sand spit curves out into the lake forming Presque Isle Bay and sheltering Pennsylvania's only Great Lakes port.

The beaches, dunes and lagoons of Presque Isle contrast sharply with the system of bluffs ranging in height from 10 to 170 feet which separates Lake Erie from the rest of Erie County. There are no major river systems flowing into Lake Erie in Pennsylvania; but there are 50 minor streams, some of which have cut deep gorges into the landscape.

The urban and suburban portions of the City of Erie occupy the central third of the Lake Erie shoreline. The remaining land is sparsely developed with a more rural character.

The coastal zone is strongly influenced by its proximity to the lake. In addition to the recreational activities centered at Presque Isle and a few other public and private access areas, Lake Erie provides a major source of water for both household and industrial use. Recent proposals include an electric generation station and a modern steel plant.

The climatic effect of Lake Erie extends the growing season, and moderates temperature variations which permit the production of specialty crops such as grapes and other orchard products. In the eastern portion of the Lake Erie coastal zone, almost one-third of the land is devoted to fruit production.

A total of ten municipalities and Presque Isle State Park encompass the Lake Erie coastal zone. Together this area totals approximately 52,800 acres or about 83 square miles. The population of the final coastal zone area in 1970 was 22,898. By 1975, it was estimated at 23,569 people, an increase of 2.9 percent. The projected Lake Erie coastal zone population by the year 2000 is 28,337 people, an increase of 23.8 percent over the 1970 figure.

Uses and Development

Ports and Navigation - The Erie harbor is completely surrounded by the Presque Isle Peninsula except for the channel entrance. The harbor is currently not used to capacity. The principle shipping and docking facility in the port is the Erie International Marine Terminal. Shipbuilding and repair services are a major activity of the Erie harbor. The most modern shipbuilding facility on the Great Lakes is located immediately north of German Street.

Water Supply - The Pennsylvania Electric Company (Penelec) is by far the largest water withdrawer in the Lake Erie coastal zone. It withdraws approximately 126 million gallons per day from Presque Isle Bay for use in cooling steam generators. There are four other water withdrawal systems in the study area which use Lake Erie as a water source. Two of these are municipal systems and two are industrial systems.

Waste Disposal - A total of 56 permitted sewage discharges are located in watershed tributaries to Lake Erie. Six discharge directly into Lake Erie and the remainder discharge into streams which flow into Lake Erie and Presque Isle Bay. Included within the total number are eight municipally owned facilities, 20

industrial facilities, 27 privately owned wastewater facilities, and one power generating facility.

Recreation - Recreation is by far the greatest use of coastal waters in Erie County. All types of recreation associated with water are to be found along the shore of Lake Erie and Presque Isle Bay. Some of these include: swimming, sail and power boating, water skiing, fishing, ice fishing, skating and ice boating.

Public boat launching sites include the following: Raccoon Creek County Park, Springfield Township; Pennsylvania Fish Commission site at the mouth of Walnut Creek, Fairview Township; several sites on the bay side of Presque Isle State Park; two ramps operated by the City of Erie; Shades Beach County Park, Harborcreek Township; and Dalrymple Beach operated by the Pennsylvania Fish Commission in North East Township.

Sport fishing is a year-round activity in the waters of the Erie County coastal zone. Presque Isle and Misery Bays are particularly active spots where fish are caught throughout the year.

Fish and Wildlife Habitat - There are about 40 fish species found in Pennsylvania's portion of Lake Erie coastal waters. These fish can be broken down into three main classes; rough fish (carp, suckers, etc.), forage fisn (shiners, alewife, etc.), and sport fish. Sport fish includes yellow perch, white bass, walleye, trout, and salmon. Fish which live close to the shoreline closely resemble the open-lake fishery.

Presque Isle Bay and the lagoons of Presque Isle provide various fishing opportunities. The Presque Isle sport fishing is composed of the following species: bullheads and catfish, yellow perch, northern pike, largemouth bass, bluegill, crappie, sunfish, and muskellunge.

A large variety of birds exist in the coastal area. A total of 237 species of birds have been counted on Presque Isle and its immediate vicinity; a larger number than have been identified in any other area of comparable size in Western Pennsylvania.

COASTAL ZONE PROBLEMS AND ISSUES

During the four year period in which Pennsylvania's Coastal Zone Management Program was being developed, many different problems and issues affecting Lake Erie and the Delaware Estuary were identified, discussed, and researched. Elected officials, governmental agencies, citizens, scientists, shorefront

industries, and previously prepared studies were consulted, and a long and comprehensive list of problems and issues was identified.

After a good deal of debate and discussion, the large, comprehensive list of problems was selectively narrowed to allow the Coastal Zone Management Program to focus on ten major problem areas. These problems and issues are either concentrated in coastal areas or are so important that it was determined that they must be immediately addressed by the management program.

Other problems, identified and discussed during the planning process, may be addressed at some time in the future if they become major coastal issues and have direct and significant impacts on coastal waters.

The problems and issues briefly identified below are the central focus of Pennsylvania's Coastal Zone Management Program. Additional detail appears in Chapter 2 which describes the coastal policies and Pennsylvania's regulatory and administrative authorities.

1. Coastal Hazards: Historically, development that has been permitted to occur too near the edge of the bluffs along Lake Erie has suffered major damage from erosion. Man-made structures constructed at the foot of the bluff to provide protection from erosion often interfere with water currents, thus aggravating shorefront problems. In addition, many of the State's coastal areas have experienced recurring, predictable flooding problems because of a lack of awareness or concern with the extent of the floodplain.

2. Dredging and Spoil Disposal Activities: Dredging is an activity vital to the economic health of Pennsylvania's ports. However, areas suitable for disposal of dredged materials are extremely limited and disposal may prohibit other coastal activities.

3. Coastal Fisheries: Both of Pennsylvania's coastal areas once had significant commercial fisheries. In 1896, the Delaware River produced 20 million tons of shad and 21 million tons of oysters. Commercial fishing in Pennsylvania's portion of the Delaware is nonexistent today.

   In the early 1900's, Lake Erie's commercial fishing industry produced 800,000 pounds per year. The catch declined to less than 90,000 pounds per year in the 1960's, but has since improved to about 110,000 pounds annually. Recreational fishing in Pennsylvania will continue to grow as water quality improves; however, anglers and boaters have limited access to both Lake Erie and the Delaware River.

4. Wetlands: Wetlands constitute a critical natural resource of national and statewide significance, providing fish and wildlife habitats, natural flood control, improved water quality, groundwater recharge, and environmental diversity. However, the environmental value of wetlands has not been appreciated until recently. Many coastal wetland areas have been lost to bulkheading, spoil disposal, and development. Thus, effective management and protection of the remaining wetlands is vital.

5. Public Access for Recreation: In Pennsylvania, there is a growing demand for access to Lake Erie and the Delaware River to provide both active and passive recreational activities. These demands will increase as water quality improves. Along the shores of Lake Erie, many potential areas are in private ownership while the state-owned Presque Isle Peninsula is overcrowded on busy summer weekends. Few public areas exist along the Delaware River because much of the shorefront is intensively used by industry, port facilities, and utilities.

6. Historic Sites and Structures: The Pennsylvania coastal zones possess a large concentration of historic sites; yet, there has been little conscious effort to preserve historic resources. Potentially, valuable buildings are lost each year because of lack of interest, insufficient knowledge, and the absence of timely intervention.

7. Port Activities: Pennsylvania's ports represent a vital link between water and the inland transportation systems. Changing vessels and cargo handling techniques have made certain existing port facilities obsolete. Some port areas on Lake Erie and along the Delaware River are underutilized and have fallen into disrepair. These areas are no longer economically competitive and are visually unattractive.

8. Energy Resources: There is a great deal of interest at the national, State and local levels, in the potential of the Commonwealth's coastal areas to meet future energy needs. Pertinent activities include the siting of energy facilities in both coastal zones, the development of natural gas resources in Lake Erie, and Outer Continental Shelf oil and gas development affecting the Delaware Estuary. However, two major problems have been hampering the full realization of potential energy development in the coastal areas. The first being that many citizens and special interest groups are concerned that energy resources may be developed at the expense of the environment. The second problem is the fragmented Federal, regional, interstate, State, and local permitting process, which currently makes obtaining final authorization for the siting of an energy facility in the Commonwealth a poorly defined, unpredictable process.

9. Intergovernmental Coordination: The coastal zones are affected by many regulatory programs administered by various State agencies with differing mandates and regulations. Uniform, enforceable policies are needed to prevent unnecessary delays and resolve potential conflicts. Moreover, it is a requirement of the Federal Coastal Zone Management Act that all coastal management programs must adopt, at a minimum, the requirements of the Clean Water and Clean Air Acts. The achievement of these standards is critical to the overall economic and environmental health of the State's two coastal zones. Of particular importance to these areas is the need for clean water. Clean water is important to various manufacturing processes, residential homes, fish and wildlife habitat, and certain recreational activities. Without a continuous supply of clean water, serious problems will develop which may limit manufacturing, cause health problems, reduce or imperil aquatic and terrestrial ecosystems and prohibit water related recreation.

10. Public Involvement: There is a lack of public awareness and understanding of coastal issues and problems. Most people are unaware of recent improvements in the quality of Pennsylvania's waterfront environments or the potential of the coastal zones to accommodate the compatible goals of economic growth, recreation, and aesthetics. There is a need for the provision of adequate information on these issues and opportunities for getting the public involved in seeking solutions.

DEFINING THE COASTAL ZONE BOUNDARY

Methodology

The Coastal Zone Management Act defines the coastal zone as: coastal waters . . . and the adjacent shorelands . . . including transitional and intertidal areas, salt marshes, wetlands and beaches. The zone extends inland from the shoreline only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters.

Pennsylvania determined its coastal zone boundaries in accordance with the regulations of the Federal Coastal Zone Management Act and utilizing the expertise of State, county and local planners, as well as local officials and citizens.

During the development of the Coastal Zone Management Program, discussions were held with the neighboring states of Ohio and New York (for the Erie area) and with Delaware and New Jersey (for the Delaware Estuary) to coordinate the designation of Pennsylvania's coastal boundaries.

The lateral and "seaward" boundaries were based on obvious criteria such as international and interstate boundaries, and extent of tidal influence. The inland boundaries were not based on such obvious phenonmena but were developed to include all uses with direct and significant impacts on the coastal waters.

Direct and Significant Impacts

Through meetings with the Coastal Zone Management Subcommittee and local Coastal Zone Steering Committees, the Coastal Zone Management Branch developed a definition of direct and significant impact.

- The term Direct is defined as a causal relationship in which the consequence of an action or use exerts an impact upon the coastal zone through an identifiable link or process, and

- The term Significant Impact is defined as a result of any activity which has a more than negligible effect on the coast or on coastal resources.

By using this definition and incorporating the needs and desires of the coastal residents, businesses, industries, and interest groups, and realizing the need to address national priorities such as energy development, wetland preservation, and port revitalization, it was determined that the following uses of the coastal areas constitute direct and significant impacts and would, therefore, be subject to management by the coastal zone program.

1. Activities associated with the placement and design of structures in coastal erosion and flood hazard areas, including the expenditure of State funds for public infrastructure in flood hazard areas.

2. Dredging and spoil disposal activities which could negatively impact navigation, flood flow capacity, wetlands, environmental quality, and public interest.

3. Activities which cause both positive and negative impacts upon coastal fishery populations and their aquatic habitat.

4. Activities, such as the placement of water obstructions and encroachments, that could result in the degradation or destruction of tidal or freshwater wetlands, or impact the beds of Lake Erie or the Delaware River.

5. Activities which possess the potential for providing public access sites for both passive and active forms of recreation.

6. Activities which enhance the restoration and/or preservation of historic sites and structures.

7. Activities in port areas which directly affect overall port planning development, enhancement, and revitalization.

8. Activities related to energy production and energy facility siting that have the potential to cause adverse environmental impacts to sensitive ecological areas.

9. Activities which affect air quality and water quality in the coastal zone.

In accordance with the Coastal Zone Management Act, the Commonwealth's boundaries were then established to include these uses, as they relate to coastal waters. Figure i-2 is a schematic which graphically depicts the boundary determination.

Excluded Federal Lands

In accordance with an August, 1976, ruling of the United States Department of Justice, all lands owned, leased, held in trust, or whose use is otherwise by law subject solely to the discretion of the Federal government, its officiers or agents, are excluded from the coastal zone.

The exclusion of Federal lands does not remove Federal agencies from the obligation of complying with the consistency provisions of the Act when Federal actions on these excluded lands have spillover impacts that directly affect coastal zone areas, uses or resources.

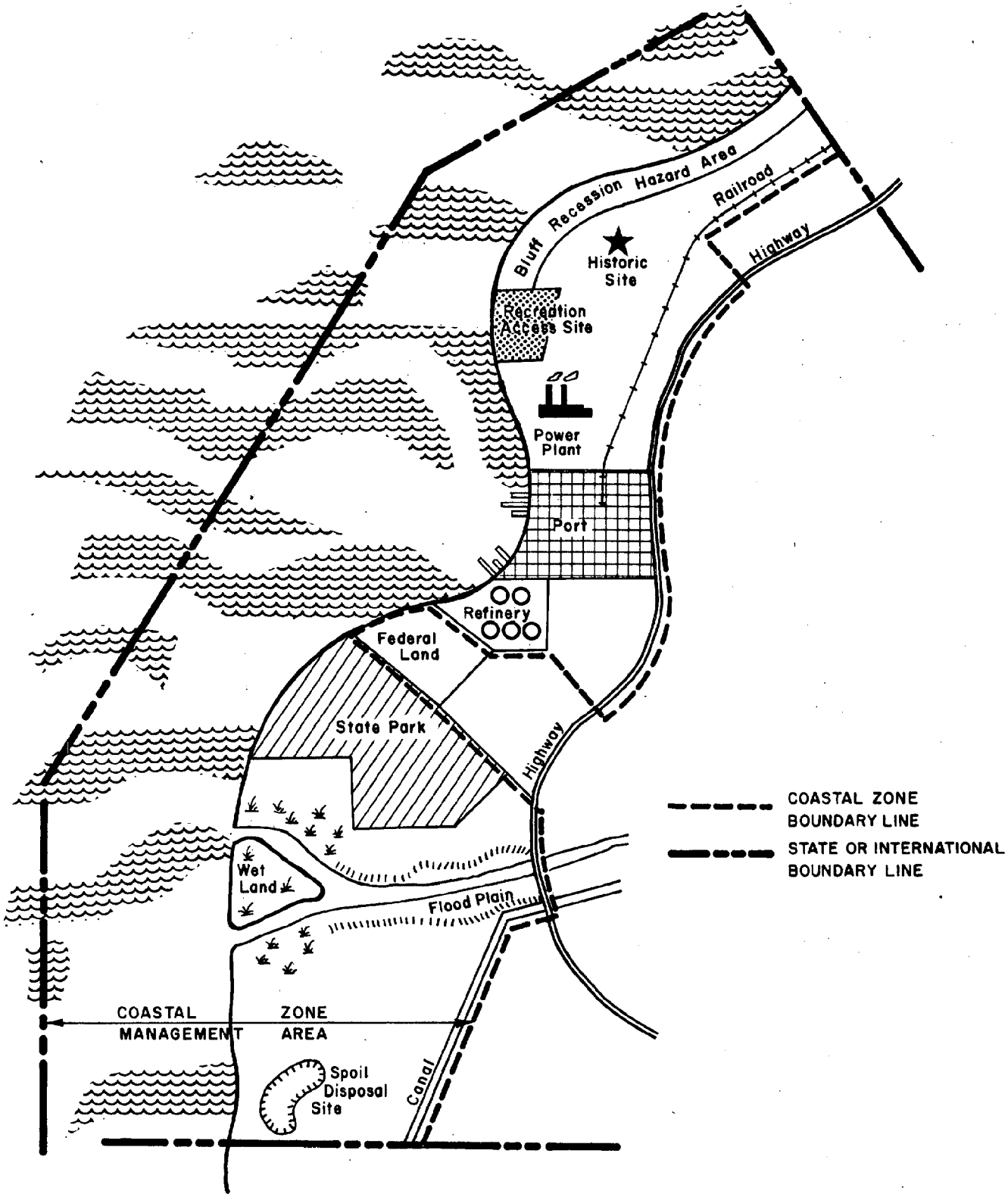
An evaluation of Federal coastal properties was conducted during the development phase of the management program, and several key sites were identified as important coastal resources. In the event such lands are declared surplus, the Commonwealth would have an interest in helping to determine the future use of these sites. Certain Federal properties are currently undergoing changes in ownership. A list of excluded Federal lands is found in Chapter 3.

Description of the Final Coastal Zone Boundary

In each coastal zone, the boundary includes the areas over which the Commonwealth has regulatory control, either directly or through the process of networking described in Chapter 4. These areas include:

FIGURE i-2

SCHEMATIC DIAGRAM OF THE
PENNSYLVANIA COASTAL ZONE BOUNDARY



1. Floodplains of the Delaware and Schuylkill Rivers and their tidal tributaries, and the floodplains of Lake Erie and tributary streams.

2. Tidal and freshwater wetlands.

3. Erosion hazard areas along Lake Erie.

4. Riparian lands where permits for structures or fill constituting encroachments are required.

For administrative purposes, the inland boundary in each coastal zone has been extended to convenient physical and cultural features and public rights-of-way, such as highways, canals, railroads, and municipal boundaries.

Delaware Estuary

The coastal zone boundary:

1. Extends eastward to the New Jersey state boundary which is the middle of the Delaware River.

2. Extends southward to the Delaware state boundary.

3. Extends northward to the falls at Morrisville where the tidal influence on the Delaware River ends.

4. Extends westward inland varying in width from 1/8 mile in urban areas like Philadelphia, Bristol and Chester to over 3-1/2 miles in Falls Township, Bucks County, to include floodplains of the Delaware and Schuylkill Rivers and their tidal tributaries, and tidal and freshwater coastal wetlands.

The 57-mile long Delaware Estuary coastal zone contains 33,042 acres with a 1970 population of 33,472 residents, and encompasses all or parts of the following municipalities:

Delaware County:
- Upper Chichester Township
- Lower Chichester Township
- Ridley Township
- Tinicum Township
- Marcus Hook Borough
- Trainer Borough
- Eddystone Borough
- Ridley Park Borough
- Prospect Park Borough
- Norwood Borough
- Folcroft Borough
- Darby Township
- Chester City

City of Philadelphia

Bucks County:
- Bensalem Township
- Bristol Township
- Falls Township
- Bristol Borough
- Tulleytown Borough
- Morrisville Borough

Figure I-3
DELAWARE ESTUARY COASTAL ZONE

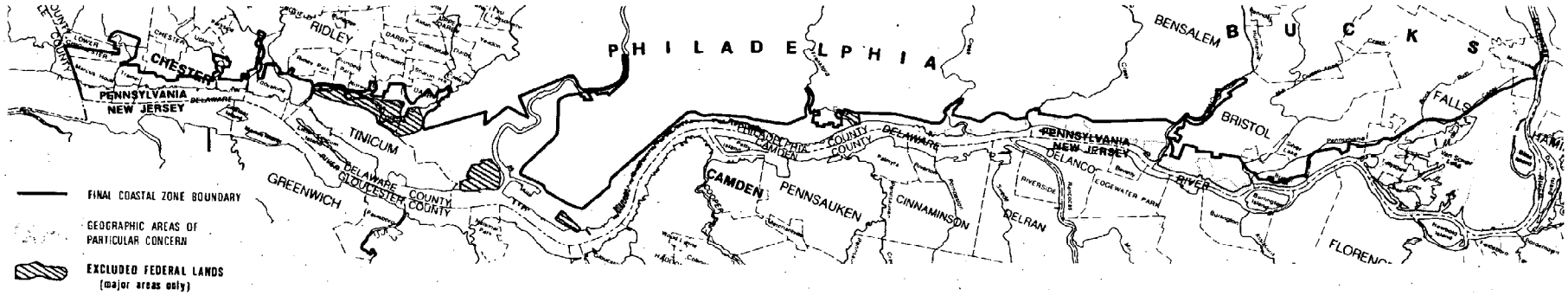


Figure I-4
LAKE ERIE COASTAL ZONE

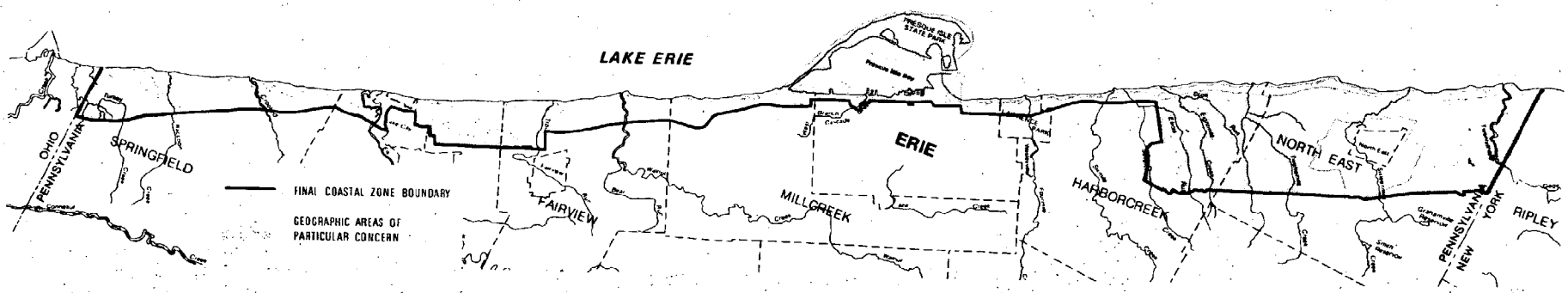


Figure i-3 is a map which graphically depicts the Delaware Estuary coastal zone boundary.

Lake Erie

The coastal zone boundary:

1. Extends northward in Lake Erie to the international boundary with Canada.

2. Extends eastward to the New York state border.

3. Extends westward to the Ohio state boundary.

4. Extends southward inland varying in width from 400 feet within places in Erie City to more than three miles in Harborcreek and North East Townships, to include the floodplains of Lake Erie and tributary streams within the coastal zone, bluff hazard recession areas, and coastal wetlands.

The 63-mile long Lake Erie coastal zone contains 52,844 acres with a 1970 population of 12,898 residents and encompasses all or parts of the following municipalities:

Springfield Township	Erie City
Girard Township	Lawrence Park Township
Lake City Borough	Harborcreek Township
Fairview Township	North East Township
Millcreek Township	North East Borough

Figure i-4 is a map which graphically depicts the Lake Erie coastal zone boundary.

PROGRAM OVERVIEW AND BENEFITS

This section summarizes the most significant features and benefits of the Pennsylvania Coastal Zone Management Program. Later chapters should be consulted for additional detail.

- Policy Framework: The Coastal Zone Management Program (in Chapter 2) outlines specific regulatory and nonregulatory policies designed to address each of the coastal problems and issues outlined in the preceding section. Some of the policies are new and have been developed in response to the coastal zone planning process. Other policies have existed for some time

but are being given increased strength and emphasis as a result of the Coastal Zone Management Program.

- Legal Basis for Program Implementation: The policies will be carried out through a "network" of existing State laws and regulations. While much of the regulatory authority existed before Pennsylvania became involved in the Coastal Zone Management Program, some statutes and regulations were specifically developed to "fill gaps" and correct deficiencies identified during the development of the Coastal Zone Management Program.

- State-Local Partnership: While all of the coastal policies will be implemented with existing State authorities, two policies will be carried out by local governments through a "State-Local Partnership". Floodplain controls and bluff setback requirements (along Lake Erie) will be enforced by local governments which will adopt State criteria and standards. Also, coastal municipalities will be encouraged to prepare stormwater management plans, based upon provisions of the Stormwater Management Act of 1978. The Program's reliance on existing legislation and the "State-Local Partnership" will eliminate the need to establish a new bureaucracy to implement the Coastal Zone Management Program. (This concept was reiterated frequently during the planning process.) The Pennsylvania Department of Environmental Resources will continue to be the lead agency to receive and administer Federal grants and to coordinate program activities.

- State Consistency: Pennsylvania's Coastal Zone Management Program relies on the coordinated implementation of various authorities administered by several State agencies. To ensure a coordinated, timely response from appropriate State agencies on decisions affecting the coastal zone, a system of "State Consistency" has been developed. Chapter 4 describes the concept, and the Executive Order that will be issued by the Governor to direct all State agencies under his administrative jurisdiction to comply with the policies of the Pennsylvania Coastal Zone Management Program. In addition, the Coastal Zone Management Branch of the Department of Environmental Resources will enter into Memoranda of Understanding (MOU) with those State agencies affecting the coastal zones. The purpose of the MOU is to make explicit the agencies' responsibilities for carrying out the policies of the management program.

- Federal Consistency: According to the Coastal Zone Management Act, Federal licenses or permits and

Federal assistance to State and local governments must be consistent with the Pennsylvania Coastal Zone Management Program. Federal activities and development projects must be consistent "to the maximum extent practicable". This will ensure compatibility of Federal action with State and local management of coastal resources.

- National Interest: Consideration of the national interest will ensure that national concerns related to energy facility siting and resource protection are expressed and dealt with in the implementation of the Commonwealth's Coastal Zone Management Program.

- Public Involvement: The Coastal Zone Management Program will continue and it will expand active citizen involvement in coastal issues as the Program moves from the development to the implementation phase. The existing Coastal Zone Steering Committees which have been operating in each coastal zone will be retained and strengthened. The Committees will provide coordination between the Pennsylvania Department of Environmental Resources (the lead State agency), and local officials, county, and regional agencies. The Committees will assist in the development of the continuing planning process, the formulation of the products and review of work programs.

  In addition, the Committees will make recommendations to the Department of Environmental Resources on the distribution of Federal funds available to municipalities. (see "Financial Incentives" below.)

  Local elected officials will meet annually (or more often) in each coastal zone to review progress and address issues of concern in the coming year.

  Citizens will have access to the Coastal Zone Management Program in several ways, including:

  1. Personal attendance at meetings of the local steering committees and the State level advisory committee.

  2. Attendance at annual public meetings held in the coastal zone as part of the continuing program review process.

  3. Public hearings and meetings on regulations, amendments to the Program, permitting decisions, judicial and administrative apeals, etc.

4. Local elected officials and county planning staffs may transmit citizens views to appropriate representatives on the local steering committees or to the staff of the Coastal Zone Management Branch.

- Financial Incentives: States which are able to successfully develop a Coastal Zone Management Program, which is approved by the Governor and the Secretary of the U.S. Department of Commerce, are eligible to receive Federal matching funds to carry out the Program. These funds are authorized by Section 306 of the Coastal Zone Management Act.

Pennsylvania can expect to receive approximately $1,000,000 per year in program implementation funds. Some of this money will be made available to local communities in the coastal zones, on a voluntary basis, to update comprehensive plans, zoning ordinances, or subdivision regulations to support the goals, objectives, and policies of the Coastal Zone Management Program. Municipalities may use planning grants and technical assistance to address such local concerns as: flooding, bluff erosion, or economic development. Special attention will be directed to problems and issues of greater-than-local concern such as the siting of large-scale energy facilities, recreation access, and port development.

Pennsylvania is also eligible to receive funds from the Coastal Energy Impact Program (CEIP). These funds are to be used for energy related planning and construction of public facilities required as a result of energy development, and amelioration of environmental damage that has resulted from coastal energy activity. Grants and loans may be used for land acquisition and for construction of public recreational, transportation, and harbor facilities, etc., required as a result of energy development. These funds will be administered by the Pennsylvania Department of Community Affairs.

To be eligible for CEIP funds, a state must be participating in Section 305 or 306 of the Federal Coastal Zone Management Program, or be making adequate progress toward achieving Federal approval of its coastal management program pursuant to Section 303 of the Coastal Zone Management Act.

In addition, Section 315 of the Coastal Zone Management Act could eventually make funds available for the development of public access areas and recreation facilities along Lake Erie and the Delaware

River. To date, no funds have been appropriated by Congress.

With the advent of an approved Coastal Zone Management Program, Pennsylvania can anticipate wiser and more efficient use of coastal resources and better coordination on coastal issues.

Figure i-5

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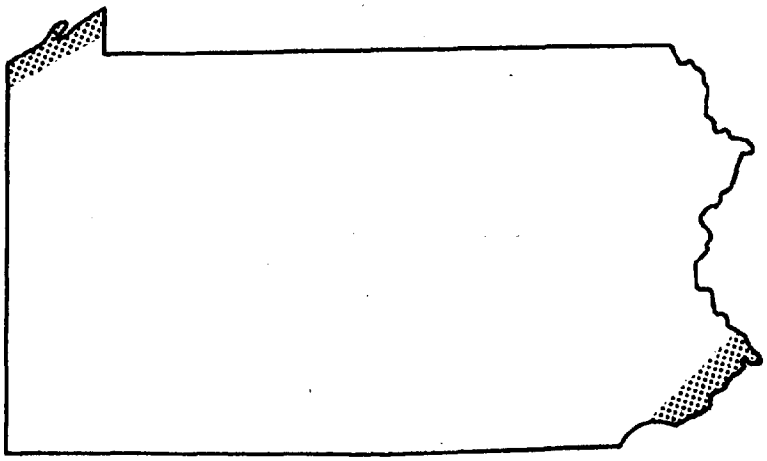
Chapter 2



Coastal Zone Policy Framework

INTRODUCTION

The resource and legal inventories, prepared during the early phases of the Coastal Zone Management Program, have provided extensive background information on environmental, social, and economic characteristics; past and present problems; future expectations; and existing legal and institutional arrangements in Pennsylvania's two coastal areas, the Delaware Estuary and Lake Erie. This background information, as well as information concerning areas of national interest establishes overall State coastal policies and forms the keystone of the Pennsylvania Coastal Zone Management Program.

The first step in the policy development process was the identification of issues and problems. General concerns and specific local issues and problems were compiled from many sources, including local governments, waterfront industries, county planning commissions, interested citizens, members of the Coastal Zone Steering Committees, and State and Federal agencies.

The second step involved the formulation of general goal statements as a response to these coastal problems and as a source of guidance for the development of the Pennsylvania Coastal Zone Management Program. Since these goals are very general and only describe desirable end results or targets, the formulation of policies was necessary to stimulate State and local commitment to effective management of coastal resources.

The third step involved developing very specific policies to guide local and State actions. The program's policies are divided into three classifications based on the method that will be used to execute the policy as follows:

<u>Enforceable/Regulatory Policies</u>: These policies are based on enforceable legislative authorities which regulate specific activities through direct State authorities or locally administered State authorities.

<u>Direct Action Policies</u>: These policies are based on nonregulatory legislative authorities which allow a certain State agency to conduct a specific activity such as the purchase of land for public access. The agency delegated these authorities will utilize them in the attainment of the policies to the maximum extent feasible dependent on the availability of funds and/or other pertinent resources. In instances where coastal zone management funding is used for the furtherance of these policies, the Coastal Zone Management Branch will enter into agreements with the agency to ensure the furtherance of the policies. These agreements will be executed when it is mutually agreed by both parties that a particular project or activity is necessary to help carry out one or more of the coastal zone management policies.

Encouragement Policies: These policies are not based on legislative authorities. Implementing these policies relies on the provision of funding, technical assistance or other resources of the appropriate agency or entity. An example of an activity undertaken to carry out an encouragement policy is the provision of funds in port planning activities.

The policies constitute the keystone of the Coastal Zone Management Program and are required to be specific enough to provide:

- A clear understanding of the program, including the identification of who will be affected and how, and

- A clear sense of direction and predictability for decision-making.

The policy framework is organized under 10 major functional headings. Under each heading there is a general problem statement. In those sections where there is more than one policy, each policy is accompanied by a specific problem statement titled "Problems Addressed". The format for each policy under a functional heading is then as follows:

- The "policy" section, which defines that policy.

- The "authorities" section, depending on the type of policy, contains either the regulations or the authorities, which will be used to implement the policy.

- The "Policy Actions" section, which defines the actions that will be precipitated as a result of the implementation of the specific policy.

The policies will be used to guide the implementation of a functional Coastal Zone Management Program. The main objective of the Coastal Zone Management Branch will be to implement the goals and policies at the local level, while at the same time ensuring a necessary degree of State involvement in addressing key issues of regional or national concern. As part of this process, the Coastal Zone Management Program will use Federal and State funds to guide and assist local and State efforts in improving coastal conditions, accommodating planned growth, and wisely utilizing valuable coastal resources.

I. COASTAL HAZARD AREAS (CHA)

Bluff erosion and coastal flooding has caused serious property damage, endangered public safety, and degraded environmental quality in the Nation's coastal areas. While flooding in Pennsylvania is common to both of Pennsylvania's coastal areas, bluff erosion is peculiar only to Lake Erie municipalities.

In Pennsylvania, fiscal constraints and lack of sufficient technical expertise have resulted in the affected municipalities addressing the problems in an uncoordinated and noncomprehensive manner, which has resulted in differing degrees of success.

POLICY I-A.1: CHA/Bluff Setback and Erosion Control/Setback

PROBLEMS ADDRESSED/Policy I-A.1

The bluff recession problem along Lake Erie has been documented and spatially delineated in a study developed by the Coastal Zone Management Program titled "Shoreline Erosion and Flooding - Erie County". Development that has occurred in bluff recession hazard areas has not only been subject to damage by bluff recession but has at times accelerated the rate of recession by increasing the static pressure on the bluffs and increasing surface runoff and groundwater seepage.

POLICY I-A.1: Enforcement/Regulations

> IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO REQUIRE MUNICIPALITIES WITH BLUFF RECESSION HAZARD AREAS ALONG THE LAKE ERIE SHORELINE AS DETERMINED IN THE "SHORELINE EROSION AND FLOODING - ERIE COUNTY" REPORT OF 1975 TO ENACT SETBACK ORDINANCES AFFECTING STATIONARY STRUCTURES. THESE ORDINANCES WILL REGULATE CONSTRUCTION WITHIN A SPECIFIED DISTANCE FROM THE EDGE OF THE BLUFF. AT A MINIMUM, THE SETBACK DISTANCE IS COMPUTED AS THE ECONOMIC LIFE OF THE STRUCTURE TIMES THE LOCAL BLUFF RECESSION RATE PER YEAR (IN FEET).

AUTHORITY(S)/Policy I-A.1

> Bluff Recession and Setback Act (NO.) which mandates coastal communities in recession hazard areas to adopt setback ordinances affecting stationary structures.
>
> Regulation(s): Title 25 Chapter 85.1 *et seq.*, which requires certain local municipalities, under the Department of Environmental Resources oversight, to develop and administer a permitting system that regulates construction activities in bluff recession hazard areas. Provisions are also made for: actions in mandamus, calculation of erosion

rates, interim controls, State/local joint review, and time limits for compliance with the Act and variances to the permit requirements.

POLICY ACTIONS/Policy I-A.1

This policy regulates the construction of stationary structures in areas where they will likely be damaged by bluff recession during their projected life time and/or exacerbate the bluff recession problem through increased pressure, runoff, groundwater seepage, etc.

Coastal zone management funds will be used to assist municipalities in developing and administering new setback ordinances and amending comprehensive plans to reflect these changes.

POLICY I-A.2: CHA/Bluff Setback and Erosion Control/Structures

PROBLEMS ADDRESSED/Policy I-A.2

Proper design, placement, construction and maintenance of shoreline protection devices is critical for ensuring that the structure protects the shoreline and does not aggravate the erosion problem. Shoreline protection structures in Pennsylvania have not always been properly designed, located or constructed in a manner that allows the structures to function as intended. Recent analysis indicates that some improperly placed structures have aggravated erosion, and that due to improper design and construction are in the process of failing.

POLICY I-A.2: Enforcement/Regulations

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO REGULATE, THROUGH PERMIT, THE SITING OF ANY WATER OBSTRUCTION OR ENCROACHMENTS ALONG LAKE ERIE, TO ASSURE PROPER PLANNING, DESIGN, CONSTRUCTION, MAINTENANCE AND MONITORING, IN ORDER TO PREVENT UNREASONABLE INTERFERENCE WITH WATER FLOW (WHICH INCLUDES SEDIMENT LADEN BEACH ENRICHING LITTORAL CURRENTS) AND TO PROTECT NAVIGATION.

AUTHORITY(S)/Policy I-A.2

Pennsylvania Constitution, Article I, Section 27. Enforcement authority is found under the provisions of The Dam Safety Act, Act of November 26, 1978, P.L. 1375, as amended (32 P.S. Sections 693.1 et seq.), and Administrative Code, Act of April 9, 1929, P.L. 177, as amended (71 P.S. Sections 194, 510-1, 510-8, 510-17, and 510-20).

Regulation(s): Title 25 Chapter 105, which requires that the proposed project or action be in compliance with the

standards and criteria of that chapter and title and with all other laws administered by the Department, and that the proposed project or action will adequately protect public health, safety and the environment through the issuance of permits.

POLICY ACTIONS/Policy I-A.2

By ensuring that no person engages in activities concerning the construction, operation, maintenance, modification, enlargement or abandonment of any dam, water obstruction or encroachment without a written permit from the Department of Environmental Resources potential adverse impacts to normal shoreline erosion processes can be mitigated. Also, unwise expenditures of money may be reduced. Technical assistance will be available from the Coastal Zone Management Branch to local governments and citizens to help ensure that future structures are properly designed, placed, constructed and maintained in the coastal waters of the Commonwealth.

POLICY I-A.3: CHA/Bluff Setback and Erosion Control /Stormwater Managemen

PROBLEMS ADDRESSED/Policy I-A.3

Development occurring along Lake Erie has led to increased stormwater runoff rates through an increase in impervious surfaces, removal of vegetation and changes in drainage patterns. The resultant increased runoff rate may lead to an acceleration of the bluff recession rate, thereby threatening existing development.

POLICY I-A.3: Direct Action

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO ASSIST ERIE COUNTY AND AFFECTED COASTAL MUNICIPALITIES IN THE PREPARATION (INDIVIDUALLY OR JOINTLY ON A WATERSHED BASIS) OF STORMWATER MANAGEMENT PLANS AND IN THE IMPLEMENTATION OF THE PLANS BY ASSISTING THEM IN ADOPTING OR AMENDING CODES, RGULATIONS, AND ORDINANCES TO REGULATE DEVELOPMENT IN SUCH A MANNER AS TO MITIGATE THE ADVERSE IMPACTS TO LAKE ERIE BLUFFS DUE TO INCREASED RATES OF STORMWATER RUNOFF. (Also see Policies I-A.4, I-B, IV).

AUTHORITY(S)/Policy I-A.3

Stormwater Management Act, Act of October 4, 1978, P.L. 864 (32 P.S. Sections 680.1 et seq.). Under the provisions of this Act and through technical assistance, the Department of Environmental Resources will encourage the immediate preparation of stormwater management plans.

POLICY ACTIONS/Policy I-A.3

Erie County and affected Erie coastal communities will be assisted in the development of stormwater management plans in those areas where increased stormwater runoff may aggravate bluff recession problems. Coastal zone management funds and technical assistance will be provided to facilitate the development of stormwater management plans in these areas.

POLICY I-A.4: CHA/Bluff Setback and Erosion Control/Technical Assistanc

PROBLEMS ADDRESSED/Policy I-A.4

The presence of high lake water levels, removal of protective vegetative cover, and the seasonal freezing and thawing of Erie County's highly erodable bluffs has generated a severe threat to many coastal properties. Solutions to protect these properties have often proved to be extremely costly and usually have had little success in reducing erosion rates. In some instances the placement of shoreline protection structures has actually caused an increase in erosion to adjacent areas.

Furthermore, attempts at shore protection by property owners have revealed that they are not fully informed of the potential cost and damage that can be associated with bluff erosion, or the potential adverse effects of the improper installation of protection structures on shoreline erosion.

POLICY I-A.4: Direct Action

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO PROVIDE TECHNICAL ASSISTANCE AND ADVICE CONCERNING THE DESIGN OF STRUCTURAL AND NONSTRUCTURAL METHODS FOR SHORE PROTECTION AND BLUFF STABILIZATION.

IN ADDITION, IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO CONTINUE TO SUPPORT SCIENTIFIC RESEARCH ON SHORE PROTECTION, RECESSION RATES, LITTORAL TRANSPORT AND OTHER ASPECTS OF THE COASTAL ENVIRONMENT OF LAKE ERIE. (Also see Policies I-A.1, I-A.2, I-A.3 X-2).

AUTHORITY(S)/Policy I-A.4

Soil Conservation Law, Act of May 15, 1945, P.L. 547, as amended (3 P.S. Sections 849 et seq.). This act provides for the creation of Conservation Districts in the Commonwealth and provides the Districts with the authority to administer technical assistance programs.

POLICY ACTIONS/Policy I-A.4

The Erie County Conservation District covering the Erie coastal area will be assisted, with Coastal Zone Management funds and expertise, in the development of programs to solicit cooperative agreements with the individual coastal land owners. These agreements may cover the development of facility design and the use of vegetative plantings to mitigate bluff erosion.

POLICY I-B: CHA/Floodplains

PROBLEMS ADDRESSED/Policy I-B and I-B.1

There is a great deal of national interest in mitigating flood damage. About 90 percent of the damage caused by natural disasters in the United States is due to floods, with annual losses averaging about $1.5 billion. When floods occur human life is endangered; the public must pay for rescue and cleanup efforts, factories and businesses are closed and/or damaged, transportation routes are disrupted, public services curtailed, soils eroded and homes destroyed. Unfortunately, floodplains are popular construction locations because of aesthetic attractiveness and innately level terrain.

Many of the Commonwealth's coastal municipalities have experienced reoccurring, predictable flooding problems because of a lack of awareness or concern with the extent of natural flooding.

POLICY I-B: Enforcement/Regulations

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM ACTING THROUGH THE DEPARTMENT OF ENVIRONMENTAL RESOURCES AND IN CONCERT WITH THE DEPARTMENT OF COMMUNITY AFFAIRS TO ACTIVELY ASSIST AND TO HELP ENSURE THAT IDENTIFIED FLOOD PRONE COASTAL MUNICIPALITIES DEVELOP STATE APPROVED FLOODPLAIN MANAGEMENT REGULATIONS THAT INCORPORATE AT A MINIMUM THE REQUIREMENTS OF THE NATIONAL FLOOD INSURANCE PROGRAM AND THE REQUIREMENTS OF THE STATE FLOODPLAIN MANAGEMENT ACT. IN ADDITION, IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO REGULATE THE CONSTRUCTION OF OR SUBSTANTIAL IMPROVEMENT TO VARIOUS TYPES OF STRUCTURES AND OBSTRUCTIONS IN THE DESIGNATED FLOODPLAINS IN ORDER TO: (i) ENCOURAGE PLANNING AND DEVELOPMENT IN FLOODPLAINS WHICH ARE CONSISTENT WITH SOUND LAND USE PRACTICES, (ii) PROTECT PEOPLE AND PROPERTY IN FLOODPLAINS FROM THE DANGERS AND DAMAGE OF FLOODWATERS AND FROM MATERIALS CARRIED BY SUCH FLOODWATERS, (iii) PREVENT AND ELIMINATE URBAN AND RURAL BLIGHT WHICH RESULTS FROM THE DAMAGES OF FLOODING, (iv) AUTHORIZE A COMPREHENSIVE AND COORDINATED PROGRAM OF FLOODPLAIN MANAGEMENT, BASED UPON THE NATIONAL FLOOD

INSURANCE PROGRAM, DESIGNED TO PRESERVE AND RESTORE THE EFFICIENCY AND CARRYING CAPACITY OF THE STREAMS AND FLOODPLAINS OF THE COMMONWEALTH, (v) ASSIST MUNICIPALITIES IN QUALIFYING FOR THE NATIONAL FLOOD INSURANCE PROGRAM, (vi) PROVIDE FOR AND ENCOURAGE LOCAL ADMINISTRATION AND MANAGEMENT OF FLOODPLAINS, AND (vii) MINIMIZE THE EXPENDITURE OF PUBLIC AND PRIVATE FUNDS FOR FLOOD CONTROL PROJECTS AND FOR RELIEF, RESCUE AND RECOVERY EFFORTS.

POLICY I-B.1: Direct Action

FURTHERMORE, IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO ASSIST LOCAL MUNICIPALITIES IN THE AMELIORATION OF PERIODIC FLOODING DUE TO INCREASED SURFACE RUNOFF FROM AREAS ADJACENT TO THE FLOODWAY BY ENCOURAGING THE DEVELOPMENT, ON A WATERSHED BASIS, OF COMPREHENSIVE STORMWATER MANAGEMENT PLANS THAT PREVENT INCREASED RATES OF RUNOFF. (Also see Policies I-A.2, I-A.4).

AUTHORITY(S)/Policy I-B

The Floodplain Management Act of October 4, 1978, P.L. 851, No. 1978-166 (32 P.S. Sections 679.101 et seq., provides for the regulation of land and water uses for flood control purposes and imposes duties and confers powers on the Department of Community Affairs, the Department of Environmental Resources, and identified municipalities. Stormwater Management Act, Act of October 4, 1978, P.L. 864 (32 P.S. Sections 680.1 et seq.) The Dam Safety Act, Act of November 26, 1978, P.L. 1375, as amended, (32 P.S. Sections 693.1 et seq.); Executive Order 1978-4.

Regulation(s): Title 16, Chapter 38, which confer powers on the Department of Community Affairs, the Department of Environmental Resources, and municipalities to develop floodplain management programs. Title 25, Chapter 105, by which the Department of Environmental Resources regulates dams, waters obstructions, and encroachments in waters of the Commonwealth.

POLICY ACTIONS/Policies I-B and I-B.1

Through the implementation of these two policies, the Commonwealth of Pennsylvania shall reduce risks of flood loss, minimize the impact of floods on human safety, health and welfare, and preserve the natural and beneficial values served by floodplains.

Flood prone municipalities are required to participate in the National Flood Insurance Program. In addition, the Department of Community Affairs has published a list of obstructions which it determined present a special hazard to the health and safety of the public or occupants or which may result in significant pollution, increased flood levels

or flows or debris endangering life and property if such obstructions are located in a designated portion of the floodplain pursuant to Section 301 of the Pennsylvania Floodplain Management Act. These obstructions are: hospitals, nursing homes, jails, new mobile home parks, subdivisions or additions to mobile home parks and subdivisions.

Construction of any structure or commencement of any activity listed as a special hazard by the Department of Community Affairs's regulations in a portion of the floodplain designed by the regulations, shall be prohibited except in accordance with a special exception issued by the municipality.

In addition, the Department of Environmental Resources has maintained exclusive jurisdiction to regulate:

1. Any obstruction otherwise regulated under the Dam Safety and Encroachments Act;

2. Any flood control project constructed, owned or maintained by a governmental unit;

3. Any highway or other obstruction, constructed, owned or maintained by the Commonwealth or a political subdivision thereof; and

4. Any obstruction owned or maintained by a person engaged in the rendering of a public utility service.

No person shall construct, modify, remove, abandon or destroy any structure or engage in any activity specified in (1) through (4) above in the 100-year floodplain unless such person has first applied for and obtained a permit from the Department of Environmental Resources.

The Department of Environmental Resources shall regulate those obstructions specified in (1) through (4) above in a manner consistent to the maximum extent possible with the standards and criteria established in municipal floodplain management regulations.

For those obstructions specified in (1) through (4) above, located in floodways or waters of the Commonwealth including wetlands, the Department of Environmental Resources must evaluate the permit applications pursuant to the requirements of the Dam Safety and Encroachments regulations (Title 25, Chapter 105, of the Pennsylvania Code of Regulations) before construction, operation, maintenance, modification enlargement or abandonment of the obstruction.

In addition, Executive Order 1978-4 states that:

Any development of new construction of, or substantial improvements to state-owned properties and facilities in

areas designated as special hazard areas by the FIA shall comply with minimum requirements for special hazard areas. These minimum requirements are set forth in the FIA's flood insurance regulations.

The Department of Environmental Resources is ordered by the Governor to comply with this Executive Order. In order to comply, the Department of Environmental Resources evaluates all applicable permit applications for compliance with these FIA regulations.

II. DREDGING AND SPOIL DISPOSAL (DSD)

Dredging is an activity that is important to the economic vitality of Pennsylvania's ports and for the recovery of commercially valuable sand and gravel. To attract and encourage the retention of economically viable port industry, it is necessary to maintain an open channel to a depth of 40 feet in the Delaware Estuary and 29 feet in the channel entrance of the Erie Harbor area. Nevertheless, improper dredging, spoils disposal, and related activities can adversely impact navigation, flood flow capacity, public interest, and environmental quality.

POLICY II-1: DSD/Regulation

PROBLEMS ADDRESSED/Policy II-1

Improper dredging and spoils disposal activities can result in detrimental impacts to navigation, flood flow capacity, and the environment.

POLICY II-1: Enforcement/Regulation

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO ENSURE THAT DREDGING AND SPOIL DISPOSAL AND RELATED ACTIVITIES IN THE COASTAL ZONES WILL BE REGULATED TO PROTECT AGAINST OBSTRUCTION TO NAVIGATION, REDUCTIONS IN FLOOD FLOW CAPACITY, AND DAMAGES TO THE PUBLIC INTEREST, AS WELL AS MINIMIZE HARMFUL IMPACTS TO FISH AND WILDLIFE HABITATS. (Also see Policies II-2, III-1, IV, IX-A, IX-B.1, IX C).

AUTHORITY(S)/Policy II-1

Pennsylvania Constitution, Article I, Section 27. The Dam Safety Act, Act of November 26, 1978, P.L. 1375, as amended (32 P.S. Sections 693.1 et seq.); and Administrative Code, Act of April 9, 1929, P.L. 177 (71 P.S. Sections 194, 510-1, 510-8, 510-17, and 510-20, provide authority to regulate dredging and spoil disposal in the coastal zones.

Additional authorities available include Schuylkill River Pollution/Siltation Law, Act of June 4, 1945, P.L. 1383, as amended (32 P.S. Sections 751.1 et seq.); Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended (35 P.S. Sections 691.1 et seq.)

Regulation(s): 25 Pa. Code Chapter 105, which provides for the comprehensive regulation and supervision of the construction, operation, and maintenance of dams, reservoirs, water obstructions, encroachments and other actions which may affect the course, current, or cross section of any body of water in the Commonwealth.

POLICY ACTIONS/Policy II-1

This policy protects navigation, the public interest, and the environment in coastal areas from adverse impacts due to dredging and spoils disposal, by ensuring, through increased monitoring by the Coastal Zone Management Program, that all permits issued for these activities meet existing Department of Environmental Resources criteria. In addition, the Coastal Zone Management Branch will explore measures to resolve the problem of determining proper means for disposal of spoils in coastal ports resulting from vital channel dredging activities.

POLICY II-2: DSD/Hydraulic Dredging

PROBLEMS ADDRESSED/Policy II-2

Mechanical dredging has greater harmful environmental impacts than hydraulic dredging. Hydraulic dredging is not used in all cases, however, because of site location, availability of dredging equipment, options for dredged material disposal, and related economic factors.

POLICY II-2: Encouragement

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO RECOMMEND THAT HYDRAULIC DREDGING BE USED INSTEAD OF MECHANICAL DREDGING, WHENEVER FEASIBLE. (Also see Policies II-1, III-1, IV, IX-A, IX-B.1, IX-C).

AUTHORITY(S)/Policy II-2

Pennsylvania Constitution, Article I, Section 27. The Dam Safety Act, Act of November 26, 1978, P.L. 1375, as amended (32 P.S. Sections 693.1 et seq.).

POLICY ACTIONS/Policy II-2

This policy ensures that in the permitting of dredging in coastal zones consideration is given to the fact that hydraulic dredging is less environmentally damaging than mechanical dredging; and therefore, when feasible hydraulic methods will be encouraged.

III. FISHERIES MANAGEMENT (FM)

Both of Pennsylvania's coastal areas once had significant commercial fisheries. In 1896, the Delaware River system, including the estuary, produced 20 million tons of shad and 21 million tons of oysters. Commercial fishing in Pennsylvania's Delaware waters is nonexistent today. Erie's commercial fishing industry reached its peak between 1910 and 1920 with catches averaging 800,000 pounds per year. The catch declined to less than 90,000 pounds per year in the 1960's but thus far in the 1970's has improved to 110,000 pounds annually.

Recreational fishing, meantime, has been increasing at a rapid rate in the past decades. This has led to increased demand for management programs designed to increase native stocks and introduce exotic species in the coastal waters, as well as for additional access sites.

Pennsylvania waters of Lake Erie, except Presque Isle Bay, are most significantly affected by activities outside Pennsylvania's boundaries. The Delaware Estuary is a manifestation of the characteristics and activities throughout the Delaware River drainage basin, not just influences adjacent to or in the estuary. The managing of fisheries in Pennsylvania's coastal waters represents a very complex task requiring cooperation and coordination among all the various levels of governments and agencies.

POLICY III-1: FM/Support Fish Life

PROBLEMS ADDRESSED/Policy III-1

The coastal waters of the Commonwealth have experienced severe water quality problems over the past decades. These water problems have been generated from a multitude of sources, which include inadequately treated industrial and residential waters; increased turbidity due to improper dredging and spoil disposal practices; and water withdrawals for industrial, residential and electric generation use. These activities have generated severe periodic oxygen depletions, introduced toxic and hazardous wastes into the waters and lakes and stream beds and generally decreased

the availability of clean water for manufacturing and drinking purposes. In addition, the lack of dissolved oxygen and the presence of toxic and hazardous substances have decreased the ecological carrying capacity of the coastal waters and severely impaired the opportunities for water dependent activities.

POLICY III-1: Enforcement/Regulations

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO ENSURE THAT, TO THE EXTENT OF INTRASTATE CONTROL, THAT COASTAL WATERS SHALL NOT CONTAIN SUBSTANCES ATTRIBUTABLE TO POINT OR NONPOINT SOURCE WASTE DISCHARGES IN CONCENTRATION OR AMOUNTS SUFFICIENT TO BE INIMICAL OR HARMFUL TO THE WATER USES TO BE PROTECTED OR TO HUMAN, ANIMAL, PLANT OR AQUATIC LIFE INCLUDING COLD-WATER FISH, WARM-WATER FISH, OR MIGRATORY FISH. (Also see Policies I-A.2, II-1, IV, IX-A, IX-B.1).

AUTHORITY(S)/Policy III-1

Pennsylvania Constitution, Article I, Section 27. The Fish Law of 1959, Act of December 15, 1959, P.L. 1779, as amended (30 P.S. Sections 200 et seq.). The Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended (35 P.S. Sections 691.1 et seq.).

Regulation(s): 25 Pa. Code Chapter 93.

POLICY ACTION/Policy III-1

This policy ensures that pertinent authorities, funds, and resources will be utilized in a manner to improve fish populations and aquatic habitats in the coastal waters of the Commonwealth.

POLICY III-2: FM/Stocking

PROBLEMS ADDRESSED/Policy III-2

Native fish populations in the coastal areas have been depleted by pollution, overfishing, and other adverse activities. At the same time, greater demand is being placed on the coastal water by recreational fishermen to provide diversified, unique, and bountiful catches.

POLICY III-2: Direct Action

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO STOCK THE COMMONWEALTH'S COASTAL WATERS IN SUCH A MANNER AS TO AUGMENT NATIVE STOCKS AND INTRODUCE NEW EXOTIC SPECIES SUCH AS MUSKELLUNGE IN THE DELAWARE ESTUARY AND SALMONIDS IN

LAKE ERIE IN ORDER TO PROVIDE DIVERSE, UNIQUE, AND BOUNTIFUL CATCHES FOR THE COMMONWEALTH'S COASTAL FISHERMEN.

AUTHORITY(S)/Policy III-2

Fish Laws of 1959, Act of December 15, 1959, P.L. 1779, as amended (30 P.S. Section 2073).

POLICY ACTIONS/Policy III-2

This policy ensures that stocking will take place in the Commonwealth's coastal waters in such a manner that populations of the native species can be augmented, and when appropriate new and exotic species can be introduced to provide increased recreational fishing opportunities.

POLICY III-3: FM/Access

PROBLEMS ADDRESSED/Policy III-3

Recreation fishing is a major use of Pennsylvania's coastal waters and their fisheries. Sport fishing generates more dollars per fish harvested than does commercial angling. Existing access sites in the coastal areas are not sufficient to meet current and anticipated demands of sport anglers and boaters.

POLICY III-3: Direct Action

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO IMPROVE ACCESS TO THE DELAWARE ESTUARY AND THE LAKE ERIE WATERFRONTS THROUGH THE ACQUISITION OF NEW SITES AND/OR THE EXPANSION OF EXISTING SITES. (Also see Policies V-1, V-2, IX-A.1, X-1).

AUTHORITY(S)/Policy III-3:

The Fish Law of 1959, Act of December 15, 1959, P.L. 1779, as amended (30 P.S. Sections 292-295); Open Space Lands, Act of January 19, 1968, P.L. (1967) 992, (32 P.S. Sections 5001 et seq.).

POLICY ACTIONS/Policy III-3

This policy focuses State agencies attention and resources on the problem of limited boating and fishing access in the Commonwealth's coastal areas. Funding from Coastal Zone Management, Coastal Energy Impact Program, and other sources available to the Pennsylvania Fish Commission may be used to help meet current and future demands for access sites for fishing and boating activities in the Commonwealth's coastal waters.

POLICY III-4: FM/Studies

PROBLEMS ADDRESSED/Policy III-4

Coastal fisheries management decisions are hindered in Pennsylvania by a severe lack of base line data and effective methods to monitor the stability of the fish stocks. The lack of adequate information has often resulted in proposals and decision-making that have had adverse impacts on fish populations and recreational and commercial fishermen. Technical information is needed concerning long-term and short-term effects of dissolved oxygen depletion on fish, effect of toxic wastes on fish stocks, the effects on humans who consume these fish, commercial and recreational harvest data, and additional information to aid in determining the optimum harvest that can be permitted in coastal waters while ensuring the continued reproductive viability of the fish stocks.

POLICY III-4: Encouragement

> IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO UNDERTAKE DETAILED TECHNICAL STUDIES OF COASTAL FISHERIES, THEIR AQUATIC HABITATS AND ASSOCIATED ISSUES THAT IMPACT THEIR MANAGEMENT.

AUTHORITY(S)/Policy III-4:

> No authority required.

POLICY ACTIONS/Policy III-4

> This policy provides encouragement and will make Coastal Zone Management funds available to the Pennsylvania Fish Commission for the purpose of developing monitoring capabilities to acquire baseline information for making effective management decisions and to monitor stability of coastal fishing stocks.

IV. WETLANDS

Wetlands represent a vital national resource of critical importance to the coastal areas of the Nation. In addition to providing habitat areas for fish and wildlife, wetlands provide natural flood control, improved water quality, acquifer recharge, flow stabilization and environmental diversity. In spite of these benefits, the environmental value of these sensitive areas has only recently been publicized.

In the past, Pennsylvania has lost tremendous amounts of tidal and freshwater wetlands to filling, bulkheading and development.

Additionally, the remaining wetlands are being threatened by the cumulative impacts of development that is occurring in adjacent areas.

POLICY IV-1, IV-1.1: Wetlands

POLICY IV-1: Enforcement/Regulations

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO PRESERVE, PROTECT AND, WHERE POSSIBLE, ENHANCE OR RESTORE THE REMAINING TIDAL AND FRESHWATER WETLANDS WITHIN THE COMMONWEALTH'S COASTAL AREAS BY REGULATING THROUGH PERMIT: DRAINING, DREDGING, FILLING, AND OTHER ACTIVITIES THAT AFFECT WATER QUALITY COURSE, CURRENT OR CROSS SECTION OF ANY WATER COURSE, FLOODWAY OR BODY OF WATER. THIS WILL ENSURE THE CONSIDERATION OF THE WETLANDS' PUBLIC VALUES SUCH AS: AREAS OF FISH AND WILDLIFE HABITAT, STORAGE AREAS FOR FLOOD WATERS, BUFFERS AGAINST SHORELINE EROSION, AREAS OF AQUIFER RECHARGE AND WATER PURIFICATION AREAS.

POLICY IV-1.1: Direct Action

FURTHERMORE, IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO PROTECT WETLANDS FROM CUMULATIVE IMPACTS ASSOCIATED WITH INCREASED RUNOFF FROM DEVELOPMENT AND OTHER ACTIVITIES OCCURRING IN ADJACENT AREAS BY ENCOURAGING THE DEVELOPMENT OF COMPREHENSIVE STORMWATER MANAGEMENT PLANS, THAT REGULATE SURFACE RUNOFF AND THE RESULTANT INTRODUCTION OF SEDIMENT, PESTICIDES, SALTS, AND TOXIC MATERIALS INTO WETLANDS. (Also see Policies I-A.3, II-2, III-1, IX-A.1, IX-B.1, X-3).

AUTHORITY(S)/Policy IV-1, IV-1.1

Pennsylvania Constitution, Article I, Section 27. The Dam Safety Act, Act of November 26, 1978, P.L. 1375, as amended (32 P.S. Sections 693.1 et seq.); Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended (35 P.S. Sections 691.1 et seq.); Storm Water Management Act, Act of October 4, 1978, P.L. 864 (32 P.S. Sections 680.1 et seq.); Soil Conservation Law, Act of May 15, 1945, P.L. 547, as amended (3 P.S. Sections 849 et seq.).

Regulation(s): 25 Pa. Code, Chapters 91, 92, 93, 94, 95, 97, 99, 100, 101, 102, 105, 106, 107 and 109.

POLICY ACTIONS/Policy IV-1.1

This policy ensures through regulations, permit requirements, and financial assistance from the Coastal Zone Management Program that wetlands in the Commonwealth's coastal areas will be regulated in a manner that protect

them from adverse impacts. Furthermore, the policy may protect wetlands from cumulative impacts in adjacent areas, by providing encouragement and Coastal Zone Management funding for the development of comprehensive stormwater management plans that help protect wetlands from damage due to increased amounts of sediments, salts, pesticides, and other toxic materials.

V. PUBLIC ACCESS FOR RECREATION (PAR)

Both nationally and within Pennsylvania there is a growing demand for access to the shorefront of Lake Erie and the waterfront of the Delaware River. People seek access not only for traditional recreational pursuits such as boating and fishing, but increasingly for more passive forms of recreation such as walking, picnicking, or just viewing the water. In both Erie and the Philadelphia area, waterfront visitors are increasingly interested in observing the activities of a "working" port, such as vessels of many descriptions unloading cargo from around the world.

Currently, however, due to physical, fiscal, and legal constraints the demand for recreation access in the Commonwealth's coastal areas is not being adequately accommodated.

POLICY V-1: PAR/Additional Access

PROBLEMS ADDRESSED/Policy V-1

There is a severe lack of available and accessible areas suitable for active and/or passive public recreation opportunities in both coastal zones. In the Lake Erie area, private ownership of lakefront properties and physical constraints; ie., bluffs, are the principal impediments to public access. In the Delaware Estuary, intensive development and private ownership constitute the major constraints to public access.

Furthermore, with the increasing costs of acquiring properties for recreational development, alternative sources of funding as well as means other than fee simple acquisition must be fully utilized to meet increasing recreation demands.

POLICY V-1: Direct Action

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO PROVIDE ADDITIONAL PUBLIC ACCESS OPPORTUNITIES ALONG THE WATERFRONTS OF LAKE ERIE AND THE DELAWARE RIVER FOR ACTIVE RECREATION SUCH AS SWIMMING, FISHING, AND BOAT LAUNCHING, AS

WELL AS FOR MORE PASSIVE ACTIVITIES SUCH AS SIGHTSEEING AND PICNICKING. (Also see Policies III-3, V-2, IX-A).

AUTHORITY(S)/Policy V-1

Pennsylvania Constitution, Article I, Section 27. Interagency agreement through a Memorandum of Understanding (DATE) between the Department of Environmental Resources and the Department of Community Affairs, places high priority on the development of access areas within the Commonwealth's two coastal zones. Agency authority to acquire land through purchase, gift, lease, or condemnation is conferred on the Department of Environmental Resources and the Department of Community Affairs respectively, through the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, as amended, (71 P.S. Sections 510-1, 510-2, 510-4, 510-5, 510-6); and the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, (71 P.S. Section 670.101).

Additionally, authority is conferred on the State through the Open Space Lands, Act of January 19, 1968, P.L. (1967) 992 (32 P.S. Sections 5001 et seq.).

POLICY ACTIONS/Policy V-1

Access sites will be acquired through the utilization of fee simple purchase, leaseback, saleback, and other less than fee simple arrangements. Traditional sources of funds will be utilized and supplemented whenever possible with funds from the Coastal Energy Impact Program, and such other sources as may be available to State agencies and local governments. Additionally, Coastal Zone Management Program funds may be utilized for the design of recreational facilities.

POLICY V-2: PAR/Geographic Areas of Particular Concern (GAPC'S)

PROBLEMS ADDRESSED/Policy V-2

There are two types of Geographic Areas of Particular Concern (GAPC) identified for the Lake Erie and Delaware Estuary coastal zones: designated GAPC and monimated GAPC. Designated GAPC are those over which the Commonwealth has control through ownership or regulation. Nominated GAPC includes areas of significant natural value; development opportunity areas; areas of significant recreational, historic, or cultural value; and overlap areas. Although they are considered under the same general heading (GAPC), these areas exhibit different characteristics, represent different concerns, and are suited for different types of activities.

Those GAPC's nominated as having significant natural value or significant recreational, historic, or cultural value have been determined by the Coastal Zone Management Program as having high potential for offering active and/or passive forms of recreation. Efforts should be made to develop these areas in a manner that enhances this innate potential.

POLICY V-2: Encouragement

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO GIVE HIGH PRIORITY TO ACQUISITION AND/OR DEVELOPMENT OF GAPC'S, NOMINATED AS AREAS OF SIGNIFICANT NATURAL VALUE, AND AREAS OF HISTORICAL, CULTURAL OR RECREATIONAL SIGNIFICANCE, TO PROVIDE PUBLIC ACCESS OPPORTUNITIES FOR ACTIVE AND/OR PASSIVE FORMS OF RECREATION. (Also see Policies III-3, V-1, IX-A).

AUTHORITY(S)/Policy V-2

Pennsylvania Constitution, Article I, Section 27. Authorities providing acquisitionary powers to the Department of Environmental Resources and the authorities providing power to the Department of Community Affairs to make grants to municipalities for the purpose of developing recreational sites are reviewed in the authority section for Policy V-1: PAR/Additional Access.

POLICY ACTIONS/Policy V-2

As a result of this policy, pertinent Department of Environmental Resources and Department of Community Affairs funds will be judiciously administered to promote and encourage the development of public recreation opportunities in GAPC's designated as Areas of Significant Natural Value and Areas of Historic, Cultural or Recreational Significance.

VI. HISTORIC SITES AND STRUCTURES (HSS)

Historic preservation is a concern at the national, state and local level. There are many reasons that justify historic preservation, including economic, cultural, aesthetic and educational benefits. Yet, attempts to preserve valuable reminders and monuments of the past have been sporadic and unpredictable. By making history more real and less abstract, historic buildings foster an appreciation and understanding of the past. Techniques of construction and popular architectural styles can be observed first hand.

In many cases, valuable historic resources have not been consciously preserved, but instead have been spared only through

benign, temporary neglect. Unless government and private citizens begin to plan immediately for preservation and protection of significant sites and structures, they may eventually come to be viewed as "stumbling blocks" in the way of "progress".

Potentially, valuable buildings are lost each year in Pennsylvania through lack of interest, insufficient knowledge, or the absence of timely intervention.

The Commonwealth's coastal areas contain some of the State's oldest communities, with large concentrations of historic sites. Unfortunately, many of these structures are sited in such a manner as to be extremely vulnerable to future development. Local governments and historical societies find it difficult to raise the 50 percent "local share" required for Federal aid programs. In addition, maintenance of historic properties becomes expensive and is the responsibility of the government or historical society if sites are purchased for preservation.

There is a limit to the number of "home museums" that any area, no matter how historic, can support. Over-reliance on public purchase removes valuable properties from the tax roles. For this reason, the concept of "adaptive reuse" of historic structures is now well known and widely utilized. The idea involves "recycling" old buildings that are no longer suited to their original purpose. Through the use of this technique mills, barns, churches, and industrial buildings are converted to stores and shops, residences, offices, art galleries, antique centers, and community buildings.

POLICY VI: Historic Preservation

POLICY VI: Encouragement

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO ASSIST THE PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION IN THE IDENTIFICATION, RESTORATION, AND PRESERVATION OF ARCHITECTURALLY AND HISTORICALLY SIGNIFICANT SITES AND STRUCTURES IN THE COMMONWEALTH'S COASTAL ZONES. (Also see Policies IV, X-2).

AUTHORITY(S)/Policy VI

Pennsylvania Constitution, Article I, Section 27. Historic Preservation Act, the Act of November 22, 1978, P.L. 1160 (71 P.S. Sections 1047.1(a) et seq.), imposing powers and duties on the Pennsylvania Historical and Museum Commission; and requiring interagency and interdepartmental coordination with the Commission. Executive Order, Number 1975-6, Preservation of Historic Resources, May 6, 1975.

POLICY ACTIONS/Policy VI

This policy provides focus to and resources for the implementation of the Historic Preservation Act in the Commonwealth's coastal zones. Actions which will be undertaken by the Coastal Zone Management Program are: the provision of funding, dissemination of information, technical assistance, and other actions deemed appropriate to ensure that the historic resources of the coastal zones are preserved and maintained for this and future generations.

VII. PORT ACTIVITIES

Pennsylvania's ports represent a vital link between the water and the inland transportation systems and constitute a national as well as a regional resource.

The ports in the Delaware Estuary coastal zone are particularly well equipped to handle bulk cargo, with the petroleum industry accounting for much of the port's import tonnage. Exports of Pennsylvania coal to foreign countries are expected to increase markedly in the future and upgraded port facilities will be required in the coastal zone to augment throughput capacity. The port and petroleum industries, in turn, support related activities such as warehousing, trucking, chemical industries, and primary metals. The Port of Erie is one of the finest natural harbors on the Great Lakes providing excellent storm protection and winter layover areas. The Port's marine terminal boasts the largest capacity crane facilities on the U.S. side of the Great Lakes.

While the coastal ports do have their strong points, both are marked by underutilized areas that have fallen into disrepair - areas that are uneconomic as well as visually unattractive. Changing vessels and cargo handling technology have made and will continue to make various port facilities obsolete, necessitating the provision of modern port facilities, served by adequate support activities and an adequately dredged channel. Marine terminals for the handling of "containerized" cargo require vast amounts of land and superior rail and highway linkages. These problems are further accentuated in the Erie port by the lack of adequate highway access to the interstate highway system two miles to the southwest.

POLICY VII-1: Port Activities/Development

PROBLEMS ADDRESSED/Policy VII-1

Pennsylvania's port facilities along Lake Erie and the Delaware Estuary are marked by underutilized areas that have fallen into disrepair - areas that are uneconomic as well as visually unattractive. The failure to adapt to changing port technologies, natural competitive advantages held by neighboring ports, and poor inland transportation networks are part of the reason for the decline of Pennsylvania's ports.

POLICY VII-1: Encouragement

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO ACTIVELY ATTRACT AND ENCOURAGE THE SITING OF PORT DEPENDENT ECONOMIC ACTIVITIES IN THE COMMONWEALTH'S COASTAL PORTS. (Also see Policies IX-A, X-3).

AUTHORITY(S)/Policy VII-1

No specific authorities required.

POLICY ACTIONS/Policy VII-1

This policy focuses the attention and resources of pertinent State agencies toward the problems of preserving and enhancing the economic viability of the Commonwealth's coastal ports.

POLICY VII-2: Port Activities/Planning

PROBLEMS ADDRESSED/Policy VII-2

Traditionally, it has been difficult to establish cooperative planning efforts in either of Pennsylvania's coastal ports. This lack of regional cooperation among the ports, makes long-range comprehensive planning for the upgrading of port facilities difficult. In addition, institutional, financial and political problems relating to Pennsylvania's ports, remains largely unresolved.

POLICY VII-2: Encouragement

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO UTILIZE ITS FISCAL AND OTHER PERTINENT RESOURCES TO SUPPORT LONG-RANGE, COMPREHENSIVE PLANNING FOR THE FUTURE DEVELOPMENT AND GROWTH OF THE PORT OF ERIE AND THE PENNSYLVANIA PORTS OF THE DELAWARE ESTUARY, WHICH ENCOURAGES THE ATTRACTION, ENHANCEMENT, AND DEVELOPMENT OF WATER

DEPENDENT ECONOMIC ACTIVITIES. (Also see Policy V-1, IX-A, IX-C).

AUTHORITY(S)/Policy VII-2

No specific authorities required.

POLICY ACTIONS/Policy VII-2

This policy commits Coastal Zone Management funds and other pertinent resources which may become available to support long-range, comprehensive planning for the future development and growth of the Port of Erie and the ports of the Delaware Estuary. In addition, the Coastal Zone Management Branch will work more closely with the port interests and engage in further studies aimed at improving permitting and coordinating activities.

VIII. ENERGY FACILITY SITING (EFS)

Energy production is a problem of national as well as state and regional significance. Pennsylvania's coastal zones are no exception. The increasing demand for energy coupled with the inherent locational advantages the coastal zones offer to the siting of many energy facilities, makes it inevitable that additional facilities will be located in the Commonwealth's coastal areas in the future. Although these facilities are vital to the coastal areas, as well as the Commonwealth's continued economic viability, improper siting of facilities can damage fragile coastal ecosystems.

POLICY VIII-1: EFS/Permitting

PROBLEMS ADDRESSED/Policy VIII-1

The Commonwealth has an energy facility permitting process which has the ability, through the issuance of permits covering air discharges, water discharges and withdrawals, solid waste disposal, shoreline erosion control, wetlands protection and control of water obstructions and encroachments in the bed of Lake Erie and the Delaware River, to ensure that all facilities are sited in an environmentally responsible manner.

POLICY VIII-1: Enforcement/Regulations

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO ENSURE THROUGH REGULATIONS, BY PERMIT, THAT ENERGY FACILITIES SUCH AS OIL AND GAS REFINERIES, ELECTRIC GENERATING STATIONS (COAL, OIL AND GAS), ELECTRIC GENERATING

SUBSTATIONS, GAS DRILLING, AND LIQUIFICATION OF NATURAL GAS OPERATIONS LOCATING IN THE COASTAL AREAS ARE SITED IN SUCH A MANNER THAT THE COASTAL AREAS ECOSYSTEMS ARE NOT UNREASONABLY ADVERSELY AFFECTED. (Also see Policies I-B, II-1, IV-1, VIII-2, IX-A, IX-B.1, IX-B.2).

AUTHORITY(S)/Policy VIII-1

Pennsylvania Constitution, Article I, Section 27. The Solid Waste Management Act, Act of July 31, 1968, P.L. 788, as amended (35 P.S. Sections 6001 et seq.); The Air Pollution Control Act, Act of January 8, 1960, P.L. (1959) 2119, as amended (35 P.S. Sections 4001 et seq.); The Clean Streams Law, Act of June 22, 1937, P.L. 1987 (35 P.S. Sections 691.1 et seq.); The Dam Safety Act, Act of November 26, 1978, P.L. 1375, as amended (32 P.S. Sections 693.1 et seq.); Soil Conservation Law, Act of May 15, 1945, P.L. 547, as amended (3 P.S. Sections 849 et seq.); The Administrative Code, Act of April 9, 1929, P.L. 177, as amended (71 P.S. Section 510-20); Radiation Control, Act of January 28, 1966, P.L. (1965) 1625 (73 P.S. Sections 1301 et seq.); Act of July 1, 1978, P.L. 598 (66 PA. C.S. Sections 1101 et seq.).

Regulation(s): 25 Pa. Code Chapters 75, 91, 92, 93, 95, 97, 101, 102, 105, 121, 123, 124, 127, 129, 131, 133, 135, 6 Pa. Code Chapter V et seq.

POLICY ACTIONS/Policy VIII-1

The Coastal Zone Management Branch will monitor permit applications for the development of energy facilities in the Commonwealth's coastal areas to ensure these facilities are sited in an environmentally responsible manner. Additionally, coastal zone management funds and expertise will be utilized in developing studies and siting procedures designed to improve the current site selection process.

POLICY VIII-2: Energy Facilities/Natural Gas

PROBLEMS ADDRESSED/Policy VIII-2

The increasing dependence on foreign energy supplies is a problem of national concern. The coastal areas of Pennsylvania contain supplies of natural gas that could address this problem at the local level. To date, however, the development of these supplies has been delayed.

POLICY VIII-2: Enforcement/Regulations

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO FACILITATE THE PRODUCTION OF NATURAL GAS SUPPLIES IN LAKE ERIE USING PROPER ENVIRONMENTAL SAFEGUARDS THAT ARE DESIGNED

TO MINIMIZE ADVERSE AIR AND WATER QUALITY IMPACTS ASSOCIATED WITH RESOURCE EXPLORATION AND DEVELOPMENT. (Also see Policies II-1, IV, VIII-1, IX-A, IX-B.1, IX-B.2).

AUTHORITY(S)/Policy VIII-2

Pennsylvania Constitution, Article I, Section 27. The Administrative Code, the Act of April 9, 1929, P.L. 177, as amended, (71 P.S. Sections 510-2); These acts provide the Department of Environmental Resources with the authority to regulate oil and gas exploration and development. The Dam Safety Act, Act of November 26, 1978, P.L. 1375, as amended, (32 P.S. Sections 693.1 et seq.); Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended (35 P.S. Sections 691.1 et seq.); Act of July 1, 1978, P.L. 598 (66 PA. C.S. Sections 1101 et seq.).

Regulation(s): 25 Pa. Code Chapters 79, 80, 105; 66 Pa. Code Chapter 1 et seq.

POLICY ACTIONS/Policy VIII-2

This policy focuses coastal zone management funds and resources on addressing the problems currently existing in the development of energy resources in the Commonwealth's coastal areas. In addition to improving the monitoring of the current permitting system, efforts will be made to educate the public as to what the ramifications of developing these energy resources entails in the coastal zones.

POLICY VIII-3: EFS/Site Selection

PROBLEMS ADDRESSED/Policy VIII-3

Currently, the Commonwealth's coastal municipalities comprehensive plans do not contain any recommendations as to appropriate sites or a site selection process, to accommodate new energy facility development. Therefore, a key step, necessary for ensuring that energy facility siting is done in a timely and responsible manner, is missing from the site selection process.

POLICY VIII-3: Encouragement

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO UTILIZE COASTAL ZONE MANAGEMENT FUNDS AND PROVIDE OTHER PERTINENT ASSISTANCE, TO ENCOURAGE COASTAL MUNICIPALITIES TO AMEND THEIR COMPREHENSIVE PLANS TO REFLECT THE RECOMMENDATIONS CONTAINED IN THE ENERGY FACILITY SITING PLANNING PROCESS DEVELOPED BY THE COASTAL ZONE MANAGEMENT PROGRAM, WHICH AMONG OTHER THINGS RECOMMENDS THAT WHENEVER

FEASIBLE, NEW ENERGY FACILITIES ARE LOCATED ADJACENT TO EXISTING ONES. (Also see Policy X-2).

AUTHORITY(S)/Policy VIII-3

No specific authority is required.

POLICY ACTIONS/Policy VIII-3

This policy improves the energy facility site selection process in coast areas by providing a rationale for accommodating potential energy facilities development. Local Municipalities will be encouraged to incorporate the findings of the Coastal Zone Management Program's energy facility planning process into their comprehensive plans. Coastal Zone Management funds and technical advise will be available to assist in incorporating the planning process into the comprehensive plans.

POLICY VIII-4: Energy Resources/Outer Continental Shelf

PROBLEMS ADDRESSED/Policy VIII-4

Significant economic benefits may accrue to the Commonwealth, particularly the southeastern portion, if gas and oil reserves in the Baltimore Canyon prove significant and are developed. However, unless this development occurs in an environmentally responsible manner, the environment could be seriously degraded.

POLICY VIII-4: Encouragement

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO SUPPORT THE DEVELOPMENT OF OUTER CONTINENTAL SHELF OIL AND GAS RESOURCES THROUGH ALL AVAILABLE MEANS, PROVIDED THAT THE NECESSARY ENVIRONMENTAL SAFEGUARDS ARE ENFORCED THROUGH REGULATION BY THE APPROPRIATE FEDERAL AND STATE AGENCIES TO ENSURE THAT THE INTEGRITY OF THE ADJACENT FISH AND WILDLIFE HABITAT IS NOT IRREPARABLY DAMAGED DUE TO DRILLING AND OTHER DEVELOPMENT ACTIVITIES. (Also see Policies III-1, IX-B.1, IX-B.2).

AUTHORITY(S)/Policy VIII-4

No specific authority is required.

POLICY ACTIONS/Policy VIII-4

Utilizing the A-95 review process and the procedure explained in Chapter 5 for ensuring Federal consistency for OCS activities, the Coastal Zone Management Program will support all Outer Continental Shelf oil and gas development that observes pertinent environmental standards.

IX. INTERGOVERNMENTAL COORDINATION (IC)

The Pennsylvania Coastal Zone Management Program is based on a networking principle. Therefore, it is vitally important that mechanisms are developed that ensure that all departments, commissions, and other agencies which administer programs or issue permits in the Commonwealth's coastal zones, do so in a clear, concise and coordinated manner to ensure program consistency. Additionally, two areas of national importance, air and water quality standards, need to be adopted by the Program and administered in a manner consistent with national goals.

POLICY IX-A: IC/Consistency

PROBLEMS ADDRESSED/Policy IX-A

Presently, actions within the coastal zones are regulated by a variety of State agencies with varying mandates. Mechanisms need to be developed to ensure that all State actions in the coastal zones are consistent with Coastal Zone Management enforceable policies.

POLICY IX-A: Enforcement/Regulations

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO INITIATE A PROGRAM OF "STATE CONSISTENCY" TO ENSURE THAT ALL STATE ADMINISTRATIVE DEPARTMENTS AND INDEPENDENT ADMINISTRATIVE BOARDS AND COMMISSIONS AND OTHER STATE AGENCIES SHALL ENFORCE AND ACT CONSISTENTLY WITH THE ENFORCEABLE POLICIES OF THE PENNSYLVANIA COASTAL ZONE MANAGEMENT PROGRAM.

AUTHORITY(S)/Policy IX-A

Pennsylvania Constitution, Article I, Section 27. Pennsylvania Constitution Article IV, Section 2; Administrative Code of 1929, Act of April 9, 1929, P.L. 177, as amended (71 P.S. Sections 510-20, 241, 181). Executive Order (Number and Date).

POLICY ACTIONS/Policy IX-A

All administrative departments and independent administrative boards and commissions and other State agencies shall enforce and act consistently with the enforceable policies of the Coastal Zone Management Program. These actions are achieved by using an Executive Order and Memoranda of Understanding to ensure State consistency on the Commonwealth's coastal areas activities covered by the Coastal Zone Management policies.

POLICY IX-B.1: IC/Water Quality

PROBLEMS ADDRESSED/Policy IX-B.1

Improvement of water quality is a prime concern in the Commonwealth's coastal areas. Specific water quality problems include poorly or inadequately treated waste discharges from municipal, nonmunicipal, and industrial sewage treatment plants, failure of on-site disposal systems, leachate from solid waste and sanitary land fills, runoff from agricultural land and animal feed lots, poor stormwater management, and salt water intrusion of the groundwater and surface water.

POLICY IX-B.1: Enforcement/Regulations

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO ADOPT BY REFERENCE, THE REQUIREMENTS OF THE FEDERAL CLEAN WATER ACT (P.L. 95-217, AS AMENDED) AND TO INCORPORATE THESE REQUIREMENTS INTO THE COMMONWEALTH'S COASTAL ZONE MANAGEMENT PROGRAM.

AUTHORITY(S)/Policy IX-B.1

The Sewage Facilities Act of January 24, 1966, P.L. (1965) 1535, as amended (35 P.S. Sections 750.1 et seq.); the Clean Streams Law, Act of Jun 22, 1937, P.L. 1987, as amended (35 P.S. Sections 691.1 et seq.).

Regulations: 25 Pa. Code Chapters 91, 92, 93, 94, 95, 97, 99, 100, 101.

POLICY ACTIONS/Policy IX-B.1

By adopting the goals of the Clean Water Act, the Commonwealth agrees to monitor present stream, river, and coastal water quality, and set standards and objectives for future water quality; regulate present and future point source discharges through issuance of permits which establish compliance schedules based on effluent limitations and receiving water standards; plan for future waste treatment needs and construct or upgrade municipal sewer systems and treatment plants to attain a level of treatment equivalent to secondary treatment; identify waste treatment facility needs, priorities and schedules; establish a regulatory program to provide for waste treatment management on an areawide basis, the creation of new discharges, and pretreatment of industrial and commercial wastes; identify other means necessary to carry out the above; and establish a process to identify and control nonpoint sources, disposal of wastes, and the salt water intrusion of groundwater and surface water regimens.

POLICY IX-B.2: IC/Air Quality

PROBLEMS ADDRESSED/Policy IX-B.2

Improvement of air quality is a prime concern in the Commonwealth's coastal areas. The major air quality problems are that both coastal areas experience periodic violations of the National Ambient Air Quality Standards for carbon monoxide and photochemical oxidants. It is important that these periodic violations be eliminated to ensure a healthy environment for the residents of the coastal zones.

POLICY IX-B.2: Enforcement/Regulations

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO ADOPT BY REFERENCE, THE REQUIREMENTS OF THE FEDERAL CLEAN AIR ACT AND TO INCORPORATE THESE REQUIREMENTS INTO THE COMMONWEALTH'S COASTAL ZONE MANAGEMENT PROGRAM.

AUTHORITY(S)/Policy IX-B.2

Air Pollution Control Act of January 8, 1960, P.L. (1959) 2119, as amended (35 P.S. Sections 4001 et seq.); The Administrative Code of 1929, Act of April 9, 1929, P.L. 177, as amended (71 P.S. Section 510-1).

Regulation(s): 25 Pa. Code Chapters 121, 123, 124, 127, 129, 131, 133, 135, 137, 141.

POLICY ACTIONS/Policy IX-B.2

The Coastal Zone Management Program will support, with funds and technical expertise, the State Air Quality Implementation Plan in the Commonwealth's coastal areas; as the means by which to achieve the goals of the Clean Air Act.

POLICY IX-C: IC/Permit Improvement

PROBLEMS ADDRESSED/Policy IX-C

Presently, the Commonwealth's regulatory permitting system has two major drawbacks. The first being a need for improved coordination both within and between the various agencies with permitting authorities. The second problem deals with a lack of public understanding of the permitting process which may manifest itself in the following ways: a person engaging in an action may not know a permit is required, a person may know a permit is required but not how to acquire one, a person may not know if an action requires more than one permit and if it does, how to acquire the additional permits.

POLICY IX-C: Encouragement

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO PERIODICALLY INITIATE, COORDINATE, AND PARTICIPATE IN COMPREHENSIVE STUDIES AIMED AT IMPROVING THE REGULATORY PERMITTING PROCESS IN THE COMMONWEALTH'S COASTAL ZONES. (Also see Policies IX-A, X-3).

AUTHORITY(S)/Policy IX-C

Pennsylvania Constitution, Article I, Section 27. No other specific authority needed.

POLICY ACTIONS/Policy IX-C

This policy commits coastal zone management funds and resources to the development of recommendations aimed at correcting current problems existing in the permitting systems operating in the coastal zones. Furthermore, affected agencies and their staff will be encouraged to participate in the studies and assist in making recommended changes to their permitting procedures.

X. PUBLIC INVOLVEMENT (PI)

While there has been an increasing awareness of coastal issues and problems, much more needs to be done in this area. There is a need for providing adequate information and opportunities to the public so that they can be involved in helping to solve the problems associated with these coastal issues.

POLICY X-1: PI/Sunshine Law

PROBLEMS ADDRESSED/Policy X-1

The fair and adequate representation of the public interest in all decision-making activities affecting the public is in the best interests of the Commonwealth. When formal decisions are to be undertaken, the public must have adequate opportunity to provide information and comment on the proposed actions. This provision for public comment helps ensure that final decisions on the action will truly reflect the public attitude.

POLICY X-1: Direct Action

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO ENSURE THAT ALL MEETINGS, WHERE FORMAL ACTION IS TO BE TAKEN, BE OPEN TO THE PUBLIC, PRECEEDED BY PUBLIC NOTICE AND HELD IN REASONABLY ACCESSIBLE LOCATIONS.

AUTHORITY(S)/Policy X-1

Open Meeting Law, Act of July 19, 1974, P.L. 486 (65 P.S. Sections 261 et seq.).

POLICY ACTIONS/Policy X-1

This policy requires the Coastal Zone Management Program to provide public notice and hold meetings in accessible places when "formal action" is to be taken. The Act defines "formal action" as the taking of any vote on any resolution, rule, order, motion, regulation, ordinance or the setting of any official policy, 65 P.S. Section 261.

POLICY X-2: PI/Participation

PROBLEMS ADDRESSED/Policy X-2

If the public is not made aware of and not brought into the decision-making process concerning coastal issues then a valuable resource will not be utilized and the Coastal Zone Management Program will not reflect the public interest, neither will it be able to function effectively.

POLICY X-2: Encouragement

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO PROVIDE CITIZENS, SPECIAL INTEREST GROUPS, AND ALL OTHER SEGMENTS OF THE PUBLIC WITH OPPORTUNITIES FOR EARLY AND CONTINUOUS INVOLVEMENT AND PARTICIPATION IN THE COMMONWEALTH'S COASTAL ZONE MANAGEMENT PROGRAM, THROUGH THE DEVELOPMENT OF EFFECTIVE COMMUNICATION AND PARTICIPATION MEASURES. (Also see Policy X-1).

AUTHORITY(S)/Policy X-2

No specific authority is needed.

POLICY ACTIONS/Policy X-2

This policy encourages the development and use of appropriate forums to involve and educate citizens regarding projects and programs which have a significant or controversial impact on coastal resources; subject those projects and programs to public scrutiny and discussion; and encourage the submittal of recommendations concerning such projects and programs to appropriate governmental agencies.

Furthermore, the policy will encourage program participants to hold public informational meetings and involve citizens and technical members in issue study, problem identification, proposal development, and decision-making.

POLICY X-3: PI/Coastal Zone Advisory Committee

PROBLEMS ADDRESSED/Policy X-3

Presently, no formal mechanism exists at the State level to address State and local coordination on coastal issues, to review the Coastal Zone Management Program with respect to public responsiveness and fulfilling the needs of the Commonwealth, and to review the effectiveness of regulations pertaining to coastal resources.

POLICY X-3: Encouragement

IT IS THE POLICY OF THE COASTAL ZONE MANAGEMENT PROGRAM TO ESTABLISH A COASTAL ZONE ADVISORY COMMITTEE WHOSE PURPOSE WILL BE TO: PROVIDE A FORUM FROM WHICH TO ADDRESS STATE AND LOCAL COORDINATION ON COASTAL ISSUES, PERIODICALLY REVIEW THE COASTAL ZONE MANAGEMENT PROGRAM WITH RESPECT TO PUBLIC RESPONSIVENESS AND MEETING THE NEEDS OF THE COMMONWEALTH, AND TO ADVISE THE ENVIRONMENTAL QUALITY BOARD ON REGULATIONS AFFECTING COASTAL RESOURCES.

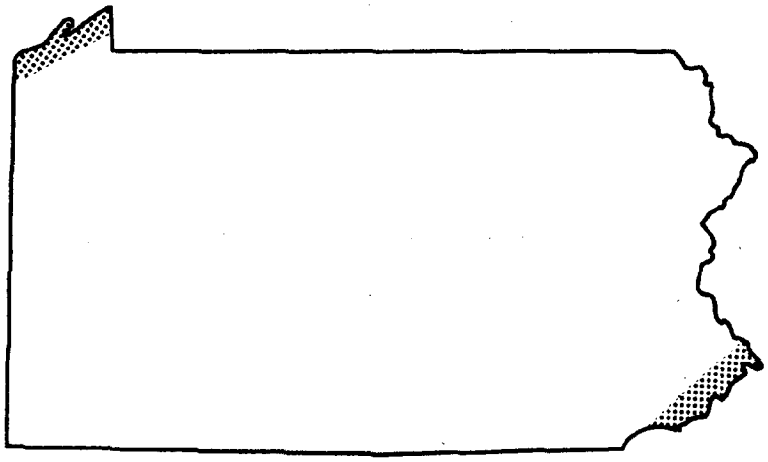
AUTHORITY(S)/Policy X-3

No specific authority is needed.

POLICY ACTIONS/Policy X-3

Pursuant to this policy, a Coastal Zone Advisory Committee comprised of all affected State agencies and representatives from coastal areas has been established. The Committee provides a forum from which to address State and local coordination regarding coastal issues, periodically reviews the Coastal Zone Management Program with respect to public responsiveness and meeting the needs of the Commonwealth, and makes recommendations for program improvements to the Coastal Zone Management Branch and advises the Environmental Quality Board on the effectiveness of regulations affecting coastal resources.

Chapter 3



Special Management Concerns

GEOGRAPHIC AREAS OF PARTICULAR CONCERN (GAPC)

Purpose of Designated and Nominated GAPC

The National Coastal Zone Management Act, while noting the importance of the entire coastal zone, declares that certain areas are of greater significance. As a requirement for program approval, the Act requires "an inventory and designation of areas of particular concern within the coastal zone" (Section 305(b)(3)).

There are two types of Geographic Areas of Particular Concern (GAPC) identified for the Lake Erie and Delaware Estuary coastal zones. These are designated GAPC and nominated GAPC. High and low priorities of use for both types of GAPC have been recommended by the Coastal Zone Management Program.

Designated GAPC - Designated GAPC are those areas which receive coastal zone management funds to further the objectives of the program. GAPC are designated by virtue of:

1. State ownership of GAPC
2. State regulation of GAPC
3. Contractual agreement with agency or entity responsible for management of GAPC

Designated GAPC and the guidelines on priorities of use, including uses of lowest priority, are as follows:

1. State owned lands which include all State parks, major fish access areas, and key historical sites in the coastal zones are managed by State agencies which have been delegated the necessary legislative authority to ensure sound management. The Department of Environmental Resources manages parks under the Administrative Code of 1929. Masterplans have been developed for each State park. These plans are designed to ensure proper development, management and protection of the parks.

   The Pennsylvania Fish Commission manages fish access areas under the Fish Laws of 1959. The Fish Commission has developed a Statewide Outdoor Recreation Plan which presents the Commission plans for providing additional fishing and boating access in the Commonwealth.

   The Historical and Museum Commission manages historical sites under the Historic Preservation Act. Commission Directives and Site Programs determine development priorities for their properties.

Therefore, high priorities for these designated GAPC will be activities advocated by the respective management agency and low priority uses would be activities which conflict with or exclude the high priority uses.

2. The Bluff Hazard Recession Area along Lake Erie is managed by the authority of the Bluff Recession and Setback Act. This area is a natural value area which has an even greater than normal degree of sensitivity caused by the bluff recession problem. Highest priority uses are to protect the natural values of the bluffs by requiring a minimum setback distance for all structures built within bluff recession hazard areas. The results will prevent and eliminate urban and rural blight which results from the damages from bluff recession, and protect people and property in bluff areas from the damages of bluff recession. Low priority uses are any activities that would disrupt the natural dynamics in a way that would lead to increased bluff recession rates.

3. Presque Isle Bay which is managed under the authorities of the Dam Safety and Encroachments Act and the Clean Streams Law, is a unique area offering a climate conducive to the development of both port and recreational activities. High priority uses include: development of coal loading and off loading facilities, increasing the port's import and export grain handling capacity, increasing the ports warehousing capacity and cability, providing better road access between the port and the local interstate highway system, improving port facilities used in support of the growing commercial fishing fleet, expanding the marina capacity of the harbor and providing better recreational access to the harbor area via the development of access roads, parking lots and service docks. Low priority uses are any used which exclude or conflict with high priority uses.

4. Coastal floodplains are managed under the authority of the Floodplain Management Act and the Clean Streams Law. These areas are managed in a manner that enhances or maintains their natural function of handling flood flow. High priority uses are recreational or development activities, which meet the requirements of the National Flood Insurance Program and the State Act, and does not adversely impact the areas function as a floodplain. Low priority uses are any uses which would exacerbate flooding by impacting the areas natural function as a floodplain or lead to a loss of public investment as a

result of flooding. Regulations governing activities in these areas are found in Appendix B.

5. Coastal wetlands are managed under the authorities of the Dam Safety Act and the Clean Stream Law. Wetlands have high public values as a result of the natural function they perform such as; areas of fish and wildlife habitat, storage area for flood waters, buffers against shoreline erosion, areas of aquifer recharge and water purification areas. Therefore, high priority uses are those which benefit from the areas natural qualities while enhancing, restoring, or preserving them, such as; nature study, hiking, and passive recreation. Low priority uses are any uses which adversely impact or limit the areas natural and public values. Regulations governing activities in these areas are found in Appendix B.

Nominated GAPC - Nominated GAPC are those areas which the public, State, and Federal agencies, interest groups, and other affected parties identified as deserving special management attention during implementation of the Pennsylvania Coastal Zone Management Program. Priority recommendations, which are listed in a following section, Priorities for Uses in Nominated GAPC, are not binding, because the State does not control them through direct ownership or regulation of specified resources areas such as bluff hazard areas, coastal floodplains and coastal wetlands. Most GAPC in Pennsylvania's coastal zones are of the nominated type. "Nominated" GAPC will be eligible to receive coastal zone management funds when they qualify for "designation" or address one of the program's principal policy areas.

In order to qualify for designation, municipalities or responsible agencies may enter into contractual agreements with the Coastal Zone Management Branch to develop technical or feasibility studies and new or revised plans and ordinances. Through the contractual process, the State will be able to require adherence to coastal management goals, policies and recommended use priorities.

Criteria for Nominated GAPC

There are four categories of nominated GAPC for the Lake Erie and Delaware Estuary coastal zones: areas of significant natural value, development opportunity areas, areas of significant recreational, historic, or cultural value, and overlap areas. Although they are considered under the same general heading, nominated GAPC, these categories exhibit different characteristics, represent different concerns, and are subject to different kinds of management problems.

Areas of significant natural value are determined according to the concentration of natural characteristics that are either

valuable as amenities or unique to the coastal environment. These land-based characteristics include woodlands, uplands, wildlife habitats, and prime agricultural and erodible soils.

Development opportunity areas are those especially suited to more intensive use through development or redevelopment. The purpose for highlighting these areas is to stimulate the economic use of the river or lake and certain related waterfront properties. In particular, some of these opportunity areas could be considered as potential locations for waterfront facilities serving the regional, State or national economic interests. These uses may include port facilities, energy facilities, or other commercial and industrial activities.

Areas of significant recreational, historic, or cultural value are areas where reclamation, restoration, public access and other remedial actions may be needed. Because of the wide range of activities and uses included in this group, criteria establishing them is flexible and responsive to individual conditions. They include the following types of areas:

Areas of reclamation or restoration include those which have experienced serious detrimental modification, but which possess potential for recovery or reuse.

Areas of existing open space that have been identified where recreational needs can be served, and public access to the water's edge exists. Other areas, that are not in their natural state, but which seem appropriate for future public access have also been identified.

Overlap Areas: In some cases, the distinction between a natural area, a recreational area, and a development opportunity area is not as easily defined. For example, many undeveloped sites are appropriate for development and also possess either natural amenities or recreational opportunities. Future economic development of these overlap areas by current or future owners should consider the natural features and/or potential access opportunities. The Van Sciver Lake area, and Biles Island in Falls Township, Delaware Estuary, are prime examples of such areas. In these two privately owned overlap areas, the land use plan of Falls Township indicates appropriate open space areas surrounding a central area which is earmarked for industrial development. The Penn's Landing area in Philadelphia and the Presque Isle Bay area and waterfront district in Erie represent areas that already combine economic development with recreational opportunities.

Priorities for Uses in Nominated GAPC

In addition to highlighting critical areas within each coastal zone, recommended priorities for future use have been developed for the first three types of nominated GAPC. More detailed study

will be encouraged to determine priority uses within overlap areas. Priorities presented range from the most desirable to least desirable from the perspective of the entire coastal zone. These priorities for future use of GAPC are designed to serve as guidelines to local governments who are responsible for land use decisions within the coastal zone. State agencies will consider the priorities and guidelines as they carry out their administrative responsibilities and exercise authorities throughout the coastal zone.

Priorities for Uses in Areas of Significant Natural Value - The wildlife and vegetation communities existing in these GAPC constitute a significant natural resource, which in many instances provide a greater than local benefit. The major goals of the management program are the protection and enhancement of these areas and the encouragement of only those uses which will not interfere with the areas natural functions.

- High Priority Activities

  1. Uses that protect, maintain or enhance natural resource functions. The protection of these areas as open space, passive recreation and wildlife preserves, restoration of natural plant communities and the removal of trash are examples of high priority activities.

  2. Uses, such as bird watching, hiking, and scientific or educational study, that take advantage of the natural amenities without destroying them.

  3. Agricultural activities which occur within prime and unique soil areas (Lake Erie coastal zone only).

- Medium Priority Activities

  1. Uses that cause minimal disturbance of ecosystems but which are supported by natural settings; for example, parks with picnic areas, ponds, trails, and limited parking.

  2. Limited development activity, such as boat launches and other recreation facilities in cases where the developed portions are on those margins of the natural area most suited to development.

  3. Utility and communication rights-of-way are acceptable only in cases where restoration of land to natural conditions can be successfully carried out, or where rights-of-way incorporate active recreation activities such as trails.

4. Agricultural activities which occur in areas not characterized by prime and unique soils (Lake Erie coastal zone only).

- Low Priority Activities

1. Any intensive development activity which will cause widepsread, irreversible destruction of natural ecosystems. This includes any development activity which involves the removal or alteration of wildlife habitat and terrain, the draining, dredging, or filling of wetland areas, and the deterioration of stream or coastal water quality.

Priority of Uses in Development Opportunity Areas - Developable lands, fully served with urban infrastructure, can be used to satisfy many essential purposes, development of new manufacturing plants, siting facilities of regional benefit and national interest, and considering, when appropriate, public access to the coastal waters. The goal is to attract uses to these areas that create jobs and enlarge the tax base, while at the same time improving the visual character of the shoreline by upgrading vacant and under-utilized lands. High priority should be given to those uses requiring large volumes of water or access to the marine channel.

- High Priority Activities

1. Development, expansion, or upgrading of the ports cargo handling capabilities to meet both current and future demands.

2. Such high impact uses as petroleum refining and dredge spoil disposal may be located in pertinent development opportunity GAPC continguous with existing refineries or disposal sites, provided a permit is received from the Department of Environmental Resources. Special care should be exercised to ensure that spoil disposal areas can be reclaimed and used for necessary, river-related activities (Development Estuary coastal zone).

3. Activities that upgrade the efficiency of highways and railroads that are conduits for goods delivered to the port.

4. Development of new manufacturing facilities considering, when appropriate, public access to the coastal waters. The public access use in industrial areas could occur during nonworking hours.

5. Provision of expanded government services to manufacturers already located within Development Opportunity Areas to make the area more attractive to manfacturing and stop the trend of relocations outside of the coastal zone.

6. Development activities which occur a safe distance back from critically eroding shorefront areas (Lake Erie coastal zone only).

- Medium Priority Activities

1. Development of commercial, warehousing, and wholesale activities, preferably designed to offer public access to the waterfront on weekends.

2. Residential or "mixed use" developments at the waterfront especially when public access is provided.

3. Development of marinas, boat launches and fishing piers and safe viewing areas. These facilities can be successfully incorporated into the "working waterfront" without increasing use conflicts.

- Low Priority Activities

1. Solid waste disposal on public and nonindustrial private lands is low priority. Such disposal is acceptable on industrial lands when strict environmental safeguards are used.

2. Any development which jeopardizes the quality of life in adjacent communities by increasing noise, traffic, and odor should be carefully scrutinized.

3. Construction of shorefront facilities within erosion hazard areas.

Priority of Uses in Areas of Significant Recreational, Historic, or Cultural Value - These areas have significant social value to citizens as a resource for recreational and cultural activities associated with the river and port. The goal of the coastal program should be to protect, maintain, or restore these areas, which include several existing State, county and local parks.

- High Priority Activities

1. Activities that maintain or increase the resource value of these GAPC such as better access and walkways, increased parking, improved

security, new park equipment, public boat launches, landscaping, etc.

2. Activities which provide financial support; e.g., subsidies, public acquisition, or fund raising.

3. For lands in private ownership, acquisition of easements that permit access to the shoreline should be encouraged.

- Medium Priority Activities

1. Commercial activities of limited extent supporting recreational activities.

2. Residential development which helps to upgrade the character of these GAPC and which furnishes recreational opportunities otherwise not provided to residents in adjacent neighborhoods.

3. Seasonal residential development which does not degrade the aesthetic appeal of the coastline, and which does not preclude recreation access to the lake waters (Lake Erie coastal zone).

- Low Priority Activities

1. Development, public or private, which fails to contribute to the cultural, recreational or historic activities in the area.

Overlap Areas Constitute a Special Case - They contain valuable natural amenities as well as offer a good climate for development. Since they offer the opportunity for different types of uses and their ultimate use will be largely determined by ownership, a listing of priority of uses would be of little utility. Therefore, the management program encourages uses which recognize the dual potential of the area and are not mutually exclusive of either.

Inventory of Nominated GAPC

The following section contains a list of the 65 GAPC identified during the development of the Coastal Zone Management Program. Maps indicating the approximate locations of the GAPC are included in Part II, Chapter 1 of this document.

Delaware Estuary Coastal Zone

Delaware County GAPC

Identification No.	Natural Value Areas	Approx. Size (Acres)
NV-1	Little Tinicum Island	103
	Development Opportunity Areas	
DO-1	Chester Terminal Area	77
DO-2	Chester Waterfront	227
DO-3	Baldwin Industrial Park	64
DO-4	Eddystone Waterfront	85
DO-5	Airport Area	250
	Recreational, Cultural, Historic Value Areas	
R-1	McClure Park	.5
R-2	Commodore Barry Bridge Area	10
R-3	Chester Creek Mouth	5
R-4	Essington Waterfront	84
R-5	Folcroft Landfill	41

Philadelphia County GAPC

	Natural Value Areas	
NV-2	Pennypack Creek	50
NV-3	Poquessing Creek	14
	Development Opportunity Areas	
DO-6	Walt Whitman Bridge Area	400
DO-7	Washington Avenue Area	170
DO-8	North Center City Area	70
DO-9	Port Richmond	245
DO-10	Cottman Avenue Area	145
	Recreational, Cultural, Historic Value Areas	
R-6	Fort Mifflin	25
R-7	Schuylkill River Park	50
R-8	Penn Treaty Park	2
R-9	Mouth of Pennypack Creek	180
R-10	Pleasant Hill Park	27
	Overlap Areas	
OV-1	Penn's Landing	38

Bucks County GAPC

Identification No.	Natural Value Areas	Approx. Size (Acres)
NV-4	Biddle-Andalusia Area	140
NV-5	Street Road Area	16
	Development Opportunity Areas	
DO-11	Burlington-Bristol Bridge Area	340
DO-12	Turkey Hill - Van Sciver Area	2,046
DO-13	Fairless Works Area	511
DO-14	Money Island Area	566
	Recreation, Cultural, Historic Value Areas	
R-11	Biddle Estate	88
R-12	Bucks County Delaware River Access Area	8
R-13	Columbus County Club	19
R-14	Philadelphia Gun Club	18
R-15	Neshaminy State Park	356
R-16	Creekroad-South	26
R-17	Riverside Avenue Redevelopment Area	
R-18	Radcliff Street	78
R-19	Pennsylvania Canal	80
R-20	Bordentown Road Causeway	62
R-21	Pennsbury Manor State Park	40
R-22	Falls Township River Access Area	16
	Overlap Areas	
OV-2	Linton Avenue - River Road	82
OV-3	Martins Creek - Van Sciver	116
OV-4	Money Island	448
OV-5	Fordmill Road	90
OV-6	Biles Island	600

Lake Erie Coastal Zone

Western Study Area GAPC

Identification No.	Natural Value Areas	Approx. Size (Acres)
NV-1	Lake Erie Bluff	-
NV-2	Crooked Creek Stream Corridor	275

NV-3	Girard And Fairview Township Prime Agricultural Lands	1,400
NV-4	Trout Run Stream Corridor	90
	Development Opportunity Areas	
DO-1	United States Steel Site	2,100
DO-2	Pennsylvania Electric Site	550
	Recreational, Cultural and Historic Value Areas	
R-1	Raccoon Creek Stream Corridor	300
R-2	Elk Creek Estuary Site	320
R-3	Lake Erie Community Park	111
R-4	Walnut Creek Access Area	40

Central Study Area GAPC

	Natural Value Areas	
NV-1	Lake Erie - Presque Isle Bay Bluff	-
	Recreational, Cultural and Historic Value Areas	
R-5	Scott Park, Sommerheim Park	108
R-6	Presque Isle State Park	3,250
	Overlap Area	
OV-1	Presque Isle Bay	400
OV-2	Port of Erie and Waterfront Area	825

Eastern Study Area GAPC

Identification No.	Natural Value Areas	Approx. Size (Acres)
NV-1	Lake Erie Bluff	-
NV-5	Harborcreek and North East Township Prime and Unique Agricultural Land	21,000
	Recreational, Cultural and Historic Value Areas	
R-7	Sixmile Access Area	75
R-8	Shades Beach County Park	50
R-9	Twentymile Creek Access Area	75

Process for Future Nomination of GAPC

During the development phase of the Coastal Zone Management Program, the local steering committees and consultants assisted the Pennsylvania Department of Environmental Resources in the identification of GAPC. Proposals were reviewed by citizens, local officials and shorefront property owners at public meetings. Many modifications and changes were made to GAPC, in both coastal zones, based on input received from interested participants.

In the future, GAPC may be nominated by any individual, group, or agency. Nominations will be accepted by each coastal zone steering committee throughout the year.

Areas nominated should be identified as:

1. Areas of significant natural value,

2. Development opportunity areas,

3. Areas of significant recreational, historic, or cultural value, or

4. Overlap areas.

Each nomination should include information on location, size, ownership and particular significance. If possible, nominations should be accompanied by recommended priorities for future use, although this may not always be possible.

Following discussion, the local coastal zone steering committee will transmit nominations, along with recommendations and documentation of support or nonsupport, to the Coastal Zone Management Branch, in Harrisburg. Once each year nominations will be reviewed by the statewide Coastal Zone Advisory Committee; and if approved, the nominated GAPC will be added to (or removed from) the State Coastal Zone Management Program.

Areas for Preservation or Restoration

The Coastal Zone Management Act requires that procedures be devised to designate specific areas "for the purpose of preserving or restoring them for their conservation, recreational, ecological or aesthetic values" (Section 306(c)(9)). The management program must establish criteria for designating these "Areas for Preservation or Restoration", so that as the program is implemented "special attention" can be focused on these areas.

Areas for Preservation or Restoration (APR) are a special type of GAPC. They will receive special management attention because of their natural resource value. Nomination and designation of APR

will occur simultaneously with nomination and designation of GAPC. To qualify as an APR, two conditions must be met:

1. The site must be currently available or capable of being made available for public use, recognizing that use restrictions or regulations may be necessary to preserve the natural character of the site. Private lands without public access cannot be designated as APR.

2. The site must have value, or potential value when restored, as a natural resource area supporting viable plant and animal communities. APR are intended to serve primarily as wildlife preserves, as waterfowl nesting and breeding grounds, and for such passive recreation as hiking, bird-watching and scientific study.

Examples of areas along the Delaware Estuary which satisfy these three criteria for APR designation include Little Tinicum Island and the mouth of the Pennypack Creek.

Examples of areas in the Lake Erie coastal zone which satisfy the criteria for APR designation include: portions of the Lake Erie bluff, the stream corridors which have cut deep gorges into the landscape (Crooked Creek and Trout Run), areas providing access to the lake (Raccoon Creek stream corridor, Elk Creek Estuary site, Walnut Creek access area, Sixmile Creek access area, and Twentymile Creek access area), and Presque Isle State Park.

In the future, additional APR may be "designated" or "nominated" through the process described previously for GAPC. Local proposals will be forwarded by the steering committee to the State with recommendations. APR will only be added (or removed) once each year.

The degree of special attention that can be devoted to APR will depend in part on the amount of financial support that Pennsylvania receives from the U.S. Department of Commerce during the implementation phase of the Coastal Zone Management Program. Other funding agencies should consider adjusting priorities and capital improvement programs to assist in the support of the areas identified as APR.

Excluded Federal Lands of Potential State Interest

Tinicum March (Delaware and Philadelphia Counties) - 1,200 acres

Fort Mifflin Disposal Area (Philadelphia County) - 420 acres

Mustin Field (Philadelphia County) - 175 acres

Frankford Arsenal (Philadelphia County) - 150 acres

A map identifying these major excluded Federal lands is located in Chapter 1 (see Figure i-3).

These areas will have a major influence on surrounding coastal uses. Although significant, these areas cannot be nominated or designated as GAPC because of the "Excluded Federal Lands" provision of the Coastal Zone Management Act. Further discussion of Excluded Federal Lands is found in Chapter 1.

USES OF REGIONAL BENEFIT

Section 306(e)(2) of the Federal Coastal Zone Management Act of 1972, as amended, requires that a state make provision within its Coastal Zone Management Program to assure that local government regulations do not unreasonably restrict or exclude land and water uses of regional benefit. The initial step of this requirement is identification of those uses which are determined to be of regional benefit. Once determined, each state's Coastal Zone Management Program must demonstrate the state's legal authority which will assure that these activities are not unreasonably excluded from locating in the coastal zone by local government actions.

Use of Regional Benefit are defined as those of "greater-than-local" concern, especially when impacts exhibit "spill over" effects beyond the project boundary or into neighboring jurisdictions, or when the use provides utility, a service, or a commodity to more than one jurisdiction.

In Pennsylvania's coastal zones, uses of regional benefit include energy facilities, water supply, waste water treatment, and coastal recreation facilities.

1. Energy Facilities as uses of regional benefit are defined to include facilities for:

   a. Production, generation, transmission, distribution or supply of natural or artificial gas, electricity, or steam for the production of light, heat, or power to or for the public for compensation;

   b. Transportion or conveyance of natural or artificial gas, crude oil, gasoline, or petroleum products, materials for refrigeration, or oxygen or nitrogen, or other fluid substance by pipeline or conduit, for the public for compensation.

2. Water Supply and Waste Water Treatment Facilities as uses of regional benefit are defined to include facilities for:

a. Diverting, developing, pumping, impounding, distributing, or furnishing water to or for the public for compensation;

b. Sewage collection, treatment, or disposal for the public for compensation.

The State can override arbitrary local exclusion of energy facilities and water supply and waste water treatment facilities through issuance of the Public Utility Commission's certificate of public convenience. Every application for a certificate of public convenience shall be made to the PUC in writing, be verified by oath or affirmation, and be in such form and contain such information, as the PUC may require by its regulations. A certificate of public convenience shall be granted by order of the Commission, only if the Commission shall find or determine that the granting of such certificate is necessary or proper for the service, accommodation, convenience, or safety of the public. The Commission, in granting such certificate, may impose such conditions as it may deem to be just and reasonable. In every case, the Commission shall make a finding or determination in writing, stating whether or not its approval is granted. Any holder of a certificate of public convenience, shall be deemed to have waived any and all objections to the terms and conditions of such certificate.

For the purpose of enabling the Commission to make such finding or determination, it shall hold such hearings, which shall be public, and before or after hearing, it may make such inquiries, physical examinations, valuations, and investigations, and may require such plans, specifications, and estimates of cost, as it may deem necessary or proper in enabling it to reach a finding or determination.

Finally, it is important to note that a certificate of public convenience does not deprive the Department of Environmental Resources of any jurisdiction, powers, or duties vested in the Department. Once the Public Utility Commission has issued its certificate of public convenience for energy facilities, water supply or waste water treatment facilities, no local jurisdiction may exclude such facility from locating within its jurisdiction.

3. Recreational Facilities - Recreational facilities located in the coastal zone are clearly of greater than local concern and as such will not be arbitrarily excluded. The Commonwealth has the ability to assure

that the public has sufficient recreational opportunities by acquiring land and locating State recreational facilities where they will provide the greatest public benefit.

The following is a list of public and quasi-public agencies pertinent to the Coastal Zone Management Program that have legislative authority to acquire land:

- Department of Environmental Resources
- Department of Community Affairs
- Pennsylvania Fish Commission

By utilizing this power and other means discussed in Chapter 3 of this document, in the section on Shoreline Access, the Commonwealth may acquire any land and locate recreation facilities regardless of local zoning ordinances.

Through the use of the aforementioned processes, the Coastal Zone Management Branch can assure that recreational facilities will not be arbitrarily excluded from the coastal zone by the action of local governments

ENERGY FACILITY PLANNING

Introduction

Section 305(b)(8) of the 1976 Amendments to the Coastal Zone Management Act of 1972 requires that each state must include in its Coastal Zone Management Program, a planning process for energy facilities likely to be located in, or which may significantly affect the coastal zone, including a process for anticipating and managing the impacts from such facilities. To meet this requirement, the following four management tasks must be addressed:

1. An identification of energy facilities which are likely to locate in, or which may significantly affect the coastal zone.
2. Procedures for assessing the suitability of sites for such facilities.
3. An articulation and identification of enforceable State policies, authorities and techniques for managing energy facilities and their impacts.

4. An identification of how interested and affected public and private parties may be involved in the planning process. (15 CFR 923.13 (March 28, 1979)

The following sections provide an identification of energy facilities that exist in or are likely to locate in the Commonwealth's Delaware Estuary and Lake Erie coastal zones. These facilities include: electric generating plants and transmission facilities; petroleum refining, distribution and related facilities; natural gas production and distribution facilities; OCS support facilities; and finally, coal transport and port facilities.

Existing Energy Facilities and Future Needs in the Delaware Estuary Coastal Zone

Electric Generating Plants and Transmission Facilities

Existing and Proposed Facilities - The Philadelphia Electric Company (PECO) provides electric service to the entire Delaware Estuary coastal zone. The utility's service area extends inland from the coastal zone to serve nearly all of Philadelphia and its Pennsylvania suburbs, and also runs southwestward into parts of northeastern Maryland and York County. Utility reports show a variety of generating technologies now being used to meet normal levels of demand.[1]

PECO currently operates seven steam generating plants in the Philadelphia area, of which six are located in the coastal zone. Oil is the principal fuel for converting water to steam at coastal zone plants, although coal is used at two units of the Eddystone plant.

Combustion turbine facilities, which provide supplemental capacity for peak demand periods, are located at eleven Philadelphia area sites, eight of which are in the coastal zone. A number of proposed actions significantly affecting PECO's generating capacity are included in utility plans.[2] These plans indicate that retirement of oil-fired intermediate load facilities is anticipated for the Richmond and Chester stations by 1985, due in part to additional nuclear capacity at Salem, New Jersey, and at the new Limerick station near Pottstown.

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[1]Mid-Atlantic Council, Regional Reliability Council Coordinated Bulk Power Supply Program, April, 1979, P. II-A-18 to II-A-21.
[2]Ibid, P. II-B-8; and Electric Utility Companies of Pennsylvania, Pennsylvania Master Siting Study, Major Electric Generating Projects, 1979-1993, Report to Pennsylvania Department of Environmental Resources, June, 1979, p. 21-22.

The existing facilities and generating capabilities for the Delaware Estuary coastal zone are summarized in the following table. While the coastal zone's contribution to PECO's capacity is considerable, it is heavily dependent on increasingly expensive and decreasingly reliable oil sources. (See Primary Fuel type in Figure iii-1). In the future, the coastal zone will provide a smaller share of PECO's capacity, and undergo some shifting from oil to coal as a fuel source. Nevertheless, coastal zone facilities will continue to provide the predominant share of peaking capacity for the PECO service area.

Electric transmission lines in the coastal zone generally follow rail and road rights-of-way, with design voltages up to 230 KV. Major Transmission lines cross the Delaware River in three locations, at the Richmond and the Eddystone power stations, and in the Marcus Hook area.[3]

Utilities located in Pennsylvania, and tied into regional networks, have increased cooperation in recent years in programming major transmission facilities (230 KV or more) within and between their service areas. While numerous 500 KV corridors surround the coastal zone, these corridors do not bisect the study area. Furthermore, utility plans indicate that major transmission line development (230 KV or more) is not anticipated to occur in the coastal zone during the next ten years.[4]

Future Facility Needs and Constraints - Based on the current programming of facilities through 1988, generating capacity is expected to increase slightly faster than demand, increasing the margin of surplus capacity over demand from about 36 percent to 38 percent.

PECO participates with ten other Mid-Atlantic region utilities in a coordinated power pool known as the Pennsylvania-New Jersey-Maryland Interconnection (PJMI). Based on data provided by the PJMI planning unit and the Mid-Atlantic Area Council (MAAC), the PJMI margin is projected to drop from the current 35 percent to 29 percent in 1988[5], potentially placing more reliance on interconnection capabilities within the pool.

Meanwhile, the PECO margin, now lower than that of the PJMI, will be in a somewhat better-than-average position relative to the overall pool by 1988. Furthermore, due to the substitution of nuclear and coal-fired base-load facilities for oil-fired equipment, PECO will reduce the amount of power purchased.

The prospective retirements of oil-fired equipment at the four Philadelphia stations raises the issue of possible additional

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[3]Mid-Atlantic Area Council, op cit., Section V-A.
[4]Ibid, Section V-A.
[5]Ibid, p. III-A-1

ELECTRIC GENERATING FACILITIES AND CAPABILITIES IN THE DELAWARE ESTUARY COASTAL ZONE

System	Location - Station Name	Unit No.	In-Service Date	Unit Type	Net Capability-NW Summer	Net Capability-NW Winter	Primary Fuel Fuel Type	Primary Fuel Transp. Method	Notes
PJMI	Chester	5,6	1941,42	ST	124	130	06	WA	Unit #5 is a "topping
	Chester City	7		GT	13	18	F02	TK	unit". 5 and 6 to be
	Delaware Cty.	8		GT	13	18	F02	TK	retired, 1982.
		9		GT	13	18	F02	TK	
		D		IC	2.7	2.7	F02	TK	
PJMI	Croydon	11		GT	49	63	F02	WA	
	Bristol Twp.	12		GT	49	63	F02	WA	
	Bucks Cty.	21		GT	49	63	F02	WA	
		22		GT	49	63	F02	WA	
		31		GT	49	63	F02	WA	
		32		GT	49	63	F02	WA	
		41		GT	49	63	F02	WA	
		42		GT	49	63	F02	WA	
PJMI	Delaware	7	1953	ST	126	128	F06	WA	
	Philadelphia,	8	1953	ST	124	128	F06	WA	
	Pennsylvania	9		GT	15	20	F02	TK	
		10		GT	13	18	F02	TK	
		11		GT	13	18	F02	TK	
		12		GT	13	18	F02	TK	
		D		IC	2.7	2.7	F02	TK	
PJMI	Eddystone	1	1960	ST	301	321	BIT	RR	
	Eddystone Boro.	2	1960	ST	334	343	BIT	RR	
	Delaware Cty.	3	1974	ST	380	380	F06	WA	
		4	1976	ST	380	380	F06	WA	
		10		GT	13	18	F02	TK	
		20		GT	13	18	F02	TK	
		30		GT	15	20	F02	TK	
		40		GT	15	20	F02	TK	

Symbol Codes

Unit Type:

ST - Steam Turbine nonnuclear
GT - Combustion Turbi
IC - Internal Combust
IC & GT generally use for peak demand.

Fuel Type:

F06 - No. 6 Fuel Oil
F02 - No. 2 Fuel Oil
BIT - Bituminous Coal

Transportation Method

WA - Water
TK - Truck
RR - Rail
PL - Pipleine

Source: See Footnotes #2 and #3.

FIGURE iii-1 (Cont)

ELECTRIC GENERATING FACILITIES AND CAPABILITIES
IN THE DELAWARE ESTUARY COASTAL ZONE

System	Station Name	Unit No.	In-Service Date	Unit Type	Net Capability-NW Summer	Net Capability-NW Winter	Primary Fuel Fuel Type	Primary Fuel Transp. Method	Notes
PJMI	Falls	1		GT	15	20	F02	TK	
	Falls Twp.	2		GT	15	20	F02	TK	
	Bucks Cty.	3		GT	15	20	F02	TK	
PJMI	Richmond	9	1950	ST	166	175	F06	WA	To be retired 1985.
	Philadelphia,	12	1935	ST	108*	115*	F06	WA	*Deactivated, shutdown
	Pennsylvania	21		GT	30	39	F02	WA	status.
		22		GT	30	39	F02	WA	
		31		GT	30	39	F02	WA	
		32		GT	30	39	F02	WA	
		41		GT	20	29	F02	WA	
		42		GT	20	29	F02	WA	
		43		GT	20	29	F02	WA	
		44		GT	20	29	F02	WA	
		51		GT	30	39	F02	WA	
		52		GT	30	39	F02	WA	
		61		GT	30	39	F02	WA	
		62		GT	30	39	F02	WA	
		71		GT	20	29	F02	WA	
		72		GT	20	29	F02	WA	
		73		GT	20	29	F02	WA	
		74		GT	20	29	F02	WA	
		81		GT	48	66	F02	WA	
		91		GT	48	66	F02	WA	
		92		GT	48	66	F02	WA	
		D		IC	2.7	2.7	F02	WA	
PJMI	Schuylkill	1	1958	ST	166	175	F06	PL	"Topping Unit"
	Philadelphia,	3	1938	ST	47	54	F06	PL	To be retired 1980
	Pennsylvania	9	1916	ST	23	28	F06	PL	
		10		GT	13	18	F02	TK	
		11		GR	15	20	F02	TK	
		D		IC	2.8	2.8	F02	TK	

FIGURE III-1 (Cont)

ELECTRIC GENERATING FACILITIES AND CAPABILITIES
IN THE DELAWARE ESTUARY COASTAL ZONE

System	Station Name	Unit No.	In-Service Date	Unit Type	Net Capability-NW Summer	Net Capability-NW Winter	Primary Fuel Fuel Type	Primary Fuel Transp. Method	Notes
PJMI	Southwark Philadelphia Pennsylvania	1	1947	ST	178	188	F06	WA	
		2	1948	ST	178	188	F06	WA	
		3		GT	13	18	F02	TK	
		4		GT	13	18	F02	TK	
		5		GT	13	18	F02	TK	
		6		GT	13	18	F02	TK	
		D		IC	2.7	2.7	F02	TK	

sitings of new coal-fired facilities in the area. However, the use of coal at such locations has been discouraged in recent years due to air emissions limitations. While there are now indications that emission constraints may be modified to accommodate national energy goals, three of the four Philadelphia stations are further constrained by insufficient storage space for coal. PECO officials have further indicated that, based on transportation economics, it would probably be preferable to locate any future coal-fired facilities near coal sources, such as exist in central and western Pennsylvania.[6] Thus, the likelihood that coal-fired plants would be developed in the Delaware Estuary coastal zone is further diminished.

There are no existing or proposed nuclear generating facilities in the coastal zone, although one was once planned nearby at Newbold Island, New Jersey. The nearest existing and proposed plants are now twenty or more miles from the coastal zone. Issues of proximity to population and, secondarily, limited availability of cooling water have virtually removed the possibility of new nuclear plants in the coastal zone.

Petroleum Refining, Distribution and Related Facilities

Existing and Proposed Facilities - Four major refineries, with a total through-put capacity of 722,000 barrels per calendar day (b/cd), are located in Pennsylvania's Delaware Estuary coastal zone.[7] The refineries and related facilities are concentrated in two areas; the Marcus Hook riverfront (Sun Oil and BP Oil Companies), and the Schuylkill River area between downtown Philadelphia and Philadelphia International Airport (Gulf Oil and Atlantic Richfield Companies). A number of (liquid/gas) bulk storage facility operators, largely handling petroleum-related products, are also concentrated in the Schuylkill River area (west bank). Additional bulk storage facilities are scattered at other coastal zone locations, both along the Philadelphia waterfront and in various suburban municipalities, such as Darby, Upper Chichester and Tullytown.

Petrochemicals production represents an important oil-related industry in the study area.[8] Two coastal zone refinery operators (Sun Oil and Gulf Oil) produce a variety of petrochemicals on-

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[6]See #5.

[7]Oil and Gas Journal, March 26, 1979; Note: "calendar day" figures indicate average daily volume which can be sustained over a year, with occasional shutdowns, and "throughout capacity" indicates the volume of crude oil entering the facility to develop, often in conjunction with other inputs, the various product outputs.

[8]See New England River Basin's Commission, Factbook - Onshore Facilities Related to Offshore Oil and Gas Development, Chapter 7, "Petrochemicals" (1978 update), 1976 with updates.

site. These chemicals include benzene, toluene and propylene, important "primary" petrochemicals from which numerous products are eventually derived. In addition to these two multinational companies, a number of independent chemical companies also produce both primary and other petrochemicals.[9]

Petroleum pipelines in the coastal zone are operated by individual oil companies, including local refinery operators, and by separate pipeline companies set up by groups of oil companies. Most of the area's pipelines carry finished products among the refineries, marine-import facilities, and principal storage-distribution depots within the Delaware Valley, as well as from such locations to more dispersed distribution points in the larger Mid-Atlantic states market area. Crude oil pipelines are generally confined to the individual refinery properties, although the ARCO refinery is linked to a separate marine facility near the airport. Pipeline alignments are most prevalent in the Schuylkill River refinery area, they parallel the Delaware River to Ridley and Crum Creeks, and then extend inland to tank farm depots at Twin Oaks (on coastal zone boundary in Upper Chichester Township) and Chelsea. Delaware River crossings occur in the vicinity of the airport, with landfalls in Philadelphia and Tinicum Township. There are no pipelines along the Delaware River upstream from the Schuylkill River area.[10]

Due to uncertainties in future crude oil supplies and related transportation/marketing needs, there are few announced plans for the siting of significant new oil-related facilities. Three of the four refineries have announced construction projects to modify their facilities, but the modifications will occur on existing sites and through-put capacity will be increased in only one case (Gulf Oil).[11] [12] [13]

Future Facility Needs and Constraints - The Pennsylvania coastal zone refinery capacity of 722,000 b/cd represents about 70 percent of the overall (seven-refinery) capability in the Delaware Valley, and nearly half the total capacity in the Northeastern United States.[14] Crude oil generally arrives in the area by tanker. Importation of finished products, however, has been increasing in recent years, and there are indications that oil-exporting nations would like to refine more crude oil at home

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[9]Worldwide Petroleum Directory, 1978, Petroleum Publishing Company, Tulsa, 1977.
[10]Delaware River Basin Commission, Petroleum Pipelines in the Delaware River Basin (maps), 1973 with 1974 update.
[11]The Philadelphia Inquirer, "ARCO Begins Construction . . .," May 22, 1979.
[12]Ibid., "Regional: Sun Company Announced . . .," July 21, 1979.
[13]The Philadelphia Bulletin, "Gulf Slates . . .," July 26, 1979.
[14]Oil and Gas Journal, op cit., (see #1).

in order to strengthen their own economies.[15] Offsetting that factor is the prospect of new supplies of crude oil which may result from Outer Continental Shelf (OCS) drilling in the Baltimore Canyon (discussed in another section of this chapter).

Pennsylvania coastal zone refineries have indicated that future facilities will generally incorporate on-site modifications including expansion of through-put capabilities as warranted.[16] It can be noted that not all refineries would appear to have space for any significant expansion. However, one refinery operator has indicated that its modernization program, which features production of fewer, more essential products using newer, more efficient equipment, is actually freeing up space for possible through-put expansion.[17]

Available literature cites land requirements of 1,000 acres or more for the siting of major new refineries (250,000 + b/d).[18] However, some industry officials indicate that the commonly cited land requirements generally apply to "integrated" refineries, having relatively diverse but interrelated product capabilities (i.e., both petrochemicals and fuels). They further note that simpler "fuel" refineries, which concentrate on gasoline and distillates, can be sited on smaller properties.[19] A recently publicized conceptualization concerning a 175,000 b/d refinery on a 150 acre site in Camden, New Jersey, is perhaps indicative of the latter perspective.[20]

Natural Gas Production and Distribution Facilities

Existing and Proposed Facilities - Natural gas service in the coastal zone is provided by two utilities. The Philadelphia Gas Works (PGW), owned by the City of Philadelphia, serves all customers in the city. The Philadelphia Electric Company (PECO) provides natural gas in coastal zone portions of Bucks and Delaware Counties, as well as in most inland areas of Philadelphia's Pennsylvania suburbs.

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[15] Platt's Oilgram News, "PIRINC Criticizes (Import) Quota Plan," September 19, 1979, p. 5.
[16] Meeting with oil company representatives (Sun Oil, BP Oil, Exxon Oil), October 31, 1979; written solicitations for input, and telephone conversations pursuant thereto, covering the four refinery operators.
[17] Merril Colmery, Plant Manager, Atlantic Richfield Company, telephone conversation October 5, 1979.
[18] New England River Basin Commission, op cit., p. G.12.
[19] Meeting of October 31, 1979 (see #10).
[20] Camden Courier Post, September 9, 1979; the article indicated the refinery was being planned by a "Houston, Texas-based consortium of four oil companies" (they were unnamed).

Major facilities related to natural gas are located at three coastal zone sites. PGW operates oil and gas manufacturing facilities, involving enrichment of inputs such as diesel oil or propane, at a Passyunk Avenue site near the Schuylkill River. The utility also uses natural gas delivered by pipeline from the Gulf states, and operates liquefaction and vaporization facilities to allow storage of fuel in liquid form (LNG) for reconversion and use during peak demand periods. This process is termed peak shaving. While PGW liquefaction equipment is located at Passyunk Avenue, most of its storage (four billion cubic feet) and vaporization (500 million cubic feet per day) capabilities are located at its Richmond site, near the Delaware River. The LNG is transported from Passyunk avenue to Richmond by truck.[21]

The principal PECO facility in the coastal zone, located at Tilghman Street in Chester, blends pipeline natural gas with a locally purchased supplemental input (methane-modulated refinery off-gas). The utility also contracts with a refinery operator in the area for underground storage of natural gas. PECO's LNG peak shaving facilities are located outside the coastal zone at West Conshohocken, in Montgomery County.[22] PGW has one additional gas production facility in the coastal zone. This facility is designed for the production of synthetic natural gas (SNG). This plant is nearing completion and is located at Passyunk Avenue. The SNG facility will manufacture natural gas from naphtha, which will be delivered by tanker, and piped to on-site storage tanks. The new plant will replace the existing oil, and gas generating facilities.[23]

The principle interstate pipeline facilities in the Philadelphia area, which bring natural gas from the Gulf states and other domestic production areas, are operated by Texas Eastern Transmission Corporation and Transcontinental Gas Pipe Line Corporation. Each coastal zone utility uses both suppliers. The Texas Eastern lines are located on the inland side of the coastal zone, while the Transcontinental lines loop the study area and are connected with the utilities on the riverfront and inland sides. Transcontinental's coastal zone river crossings occur at Marcus Hook, Chester, the Walt Whitman Bridge area, and Richmond.[24]

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[21]Frederick T. Blancard, Assistant Manager--Rates, Philadelphia Gas Works, letter dated September 18, 1979.
[22]Philadelphia Electric Company, "The Organization and Operation of Gas Operations," July, 1979.
[23]Eugene L. Cliett, Jr., Philadelphia City Controller, letter to R.J. Buckley, Chairman, Philadelphia Gas Commission (cover letter for review of operations, 1976-78), dated October 8, 1979.
[24]Philadelphia Gas Works "Natural Gas Lines Philadelphia and Vicinity", revised April 12, 1977; and Philadelphia Electric Company, "Gas Service Area", N.J.

There are no known proposals for significant new gas lines in the coastal zone. Texas Eastern is, however, planning a relocation of its existing line in the vicinity of Philadelphia National Airport.[25]

Future Facility Needs and Constraints - Since 1973, PECO and PGW have experienced zero-to-negative gas sales volume growth as a result of supply limitations. However, former sales levels are now being partially restored, and the prospect of sales to new customers is returning.[26] [27]

While the outlook for gas availability has improved, there are as yet no indications that growth rates will recover to levels requiring significant new facilities in the coastal zone. As the utility providing service to faster growing suburban areas, PECO is the more likely to experience increases in demand. PECO plans call for a continued reliance on pipeline deliveries of natural gas, and would strengthen the utility's access to such supplies through participation in joint venture drilling operations in Appalachia and the Southwest.[28]

PGW gas sales fell to 75 percent of 1971 levels in 1976, and are projected to recover to 83 percent of 1971 levels by 1984. PGW has no plans for new facilities, beyond the completion of its SNG plant.

There has, however, been some concern as to long-term availability of naphtha for PGW's SNG facility. As noted in recent analysis, it was originally assumed that naphtha would be available from a local refinery.[29] However, naphtha is also used as a base for gasoline and is now more in demand as a result of oil shortages and price increases. PGW has been forced to contract for imported naptha at a unspecified price, and there are no assurances that the raw material will be available in the future at a reasonable cost. Thus, while additional manufacturing facilities do not appear necessary, facility alterations or replacements may again become appropriate.

Gas production activities, such as those which are a factor in the coastal zone, are frequently of concern from a safety viewpoint. Energy-related materials such as naptha and LNG, as well as natural gas itself, are highly volatile. LNG is considered particularly dangerous, although it should be noted that LNG peak shaving and truck transport activities do not

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[25]Philadelphia City Council, Bill No. 2148, concerning an easement agreement with Texas Eastern Transmission Corporation, introduced August 2, 1979.
[26]F.T. Blanchard, letter, op cit., (see #1).
[27]Philadelphia Electric Council, Annual Report, 1978, p. 31.
[28]Ibid, p. 9-11.
[29]E.L. Cliett, letter, op cit., (see #3).

entail the scale of risk associated with an LNG tanker import facility. (On the other hand, these lower risk activities are not dependent on their present coastal zone locations.) Given the population densities in the Pennsylvania coastal zone, safety concerns will continue to be important for any future siting of gas production activities.

Outer Continental Shelf Support Facilities

The discovery of oil or gas in the Baltimore Canyon in commercially developable quantities could require new facilities in the Mid-Atlantic states capable of supporting oil and gas development. Because such resource development would be in the national interest, the 1976 Coastal Zone Management Act Amendments stress the importance of considering related support facility needs. Outer Continental Shelf activities require on-shore bases for the fabrication, installation, maintenance and repair of off-shore drilling platforms and pipelines, as well as for ancillary industries, which provide items such as cement, drilling mud, and well-head equipment, and other various products and services necessary for platform personnel.[30]

During 1977, a special study, focusing on the Baltimore Canyon, was conducted by the Pennsylvania Governor's Energy Council as a supplement to the Pennsylvania Coastal Zone Management Program.[31] The study was designed to assess the economic, political and environmental impacts which might occur in the Delaware Estuary coastal zone as a result of exploration or production of Outer Continental Shelf oil and gas resources. The study was completed early in the exploration phase, and as a result, estimating impacts was difficult.

It is likely that prospective Outer Continental Shelf oil and gas development support base needs, initially and perhaps in the longer run, will be provided by established Gulf state bases. The most competitive Mid-Atlantic sites for such bases would, in any case, be on the Atlantic coast or in the Lower Delaware Bay.

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[30]Various support facilities are discussed in New England River Basin Commission, Factbook - Outshore Facilities Related to Offshore Oil and Gas Development, November, 1976, with periodic updates.

[31]Governor's Energy Council, Outer Continental Shelf Impact Study, Supplement to Pennsylvania's Coastal Zone Management Plan, November 30, 1977, 165 pp.

Navigational, distance and on-shore space considerations do not make Pennsylvania locations favorable.[32]

While not a likely choice for an Outer Continental Shelf support base, the Pennsylvania coastal zone possesses the resources to provide important ancillary industry support. Existing Delaware Valley industries are capable of providing numerous materials such as component parts, equipment and supplies necessary to Outer Continental Shelf development.

Coal Related Facilities

Coal is an abundant energy resource both nationally and in the State of Pennsylvania, and is thus being emphasized in energy and overall economic planning at Federal and State levels. Important coal-related facilities in the Delaware Estuary coastal zone involve coal transportation and port activities, and coke manufacturing.

Philadelphia has historically been an important coal exporting port, although annual shipments have dropped below one million tons in recent years.[33] Coal is also used as fuel by several local industries[34] and is beginning to gain importance as a fuel for electric power generation (see previous section). Whether for export or local use, coal arrives in the Philadelphia area by rail and is reasonably accessible to many riverfront areas. Principal port facilities for coal are located at the Penn Central Terminal Yard and at the Port Richmond Yard, both on the Philadelphia waterfront. Exports of Pennsylvania coal to foreign countries, especially to Asia, are expected to increase markedly in the future. Facility improvements and new equipment will become necessary as coal handling needs in the region increase.[35]

An additional coal-related activity in the coastal zone is coke manufacturing, which is currently conducted at the Philadelphia Coke Company site in Bridesburg, near the Betsy Ross Bridge and at the Fairless Works of U.S. Steel. The coastal zone has become

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[32]Ibid, Chapter 1. Also see U.S. Department of Commerce, Delaware Coastal Management Program, Energy Facilities, n.d., p. 30-33; and New Jersey Department of Environmental Protection, Energy Facility Study Issues in New Jersey's Coastal Zone; staff working paper by Helga Busemann, 1977, p. 40-61; p. 78-84.
[33]U.S. Army Corps of Engineers, Waterborne Commerce of the United States, Part 1, Waterways and Harbors Atlantic Coast, annually published, most recent available data for 1977.
[34]Delaware Valley Regional Planning Commission, Petroleum for Conversion to Coal as a Fuel in its Pennsylvania Counties of the Philadelphia Region, Technical Report No. 15, 1974.
[35]Philadelphia City Planning Commission, letter dated April 9, 1980 and follow-up telephone conversation, April 11, 1980.

a less suitable location for continued or new operations of this type due to air quality restrictions. Coke production has, however, been dropping nationally, forcing steel manufacturers to begin importing coke in recent years.[36] While a new national interest in restoring economically viable coke production capabilities may thus emerge, it is reasonable to expect that modern facilities should be constructed, in less urbanized settings than the City of Philadelphia, possibly in coal producing regions.

Existing Energy Facilities and Future Needs in the Lake Erie Coastal Zone

Electric Generating Plants and Transmission Facilities

Existing and Proposed Facilities - Electrical generation and transmission facilities within the Lake Erie coastal zone and the region immediately impacted by the coastal zone are almost wholly provided by the Pennsylvania Electric Company (Penelec). Penelec is controlled by the New York based General Public Utilities Corporation, which also owns the Metropolitan Edison Company and the Jersey Central Power and Light Company. The Erie area is linked to the Pennsylvania-New Jersey-Maryland Interconnection (PJMI), and is in turn directly connected to the New York Power Pool, Virginia-Carolinas Pool, Allegheny Power System, and the Central Area Power Coordination Group. Through PJMI and MAAC the Erie region is tied to the National Electric Reliability Council (NERC). This consideration is important because additional generating capacity is available within the same corporate structure and network exchange.

Because the coastal zone is not dependent upon local generation of power, a Great Lakes Basin Commission report, Energy Facility Siting in the Great Lakes, concluded that no new facilities were necessary in the Pennsylvania section of the Lake Erie coastal zone prior to 1995 even with an assumed annual increase in electrical energy consumption of eight percent.[37] Thus, while the Erie area is a net importer of energy, system capabilities and transmission capacities were predicted adequate to supply the immediate area without need for additional generation capacity. As this planning element documents, this view is not universally shared by the industry.

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[36]"Coking Shortages Forcing Up Imports, Researchers Say", The Philadelphia Inquirer, November 2, 1979, p. 11-C.
[37]Energy Facility Siting in the Great Lakes Coastal Zone: Analysis and Policy Options, Great Lakes Commission for the Office of Coastal Zone Management, 1977, p. 10.

Currently, the only significant electrical generation capacity within the Lake Erie coastal region is provided by The Pennsylvania Electric Company. A 118.8 mw coal-fired generation unit is located at Front Street in Erie, Pennsylvania. In addition to producing electrical power, the facility operates a steam heat system extending from the Front Street Station near the foot of French Street, to as far as Eighteenth and State Streets. Spurs radiate from this center city service area. The system, dating back to the 1890's, is currently operating at a loss and reduces the electric output of the Front Street plant by 20 megawatts. The Erie generation system is the last steam system operated by Penelec. Final analyses are under way to determine the feasibility of carrying out Pennelec's desired system phase-out of the steam heating service.

Restoring the Erie plant to only electric generation will not satisfy local electrical energy needs. Transmission facilities are necessary to guarantee an adequate bulk power supply. Two 345 KV transmission lines serve the area. One brings power from the Homer City generator in Indiana County, Pennsylvania, and one links the PJM network into a transmission artery running from Cleveland to Erie and with reduced capacity to Buffalo, New York. Lesser capacity high voltage lines extend east to the hydro-electric facility in Warren County and south to other PJM generating capacity. In 1977, the Pennsylvania Office of State Planning and Development expressed concern that the existing high voltage transmission system is a major limiting physical factor within the region defined by Ashtabula County, Ohio, and Erie and Crawford Counties, Pennsylvania. These areas are concurrent with or adjacent to the coastal zone.

Several new transmission and electrical power generation facilities are proposed for development on the Pennsylvania Lake Erie coastal zone. These include an underwater, high voltage, transmission line, a new coal-fired generation facility and a power plant within the proposed, integrated, U.S. Steel facility.

Underwater Cable - Initial economic and technical studies have been completed by the General Public Utilities Corporation for construction of an underwater cable between Canada and the Erie area. The proposed underwater transmission line would carry 1,000 megawatts of electricity. The cable would link the Erie area to a generating plant owned by Ontario Hydro at Nanticoke. A 1984 operational date is being proposed for this project.

The Coho Generating Station (Girard Township) - The Pennsylvania Electric Company has announced intention to construct a 690 megawatt fossil fuel generation plant one mile west of Lake Erie in Girard Township, Pennsylvania. Project plans require a 1,015 acre site which is currently under control of Penelec. The plant site is bounded on the north by Lake Erie, on the east by Elk Creek, on the west by a boundary approximately 9,000 feet from the mouth of Elk Creek, and on the south by the existing Erie West Substation. The plant site is divisible into three

segments: a 275 acre generation site on the eastern portion of currently held lakefront property, a 545 acre solid waste disposal plant for fly ash accumulation immediately adjacent and south of the generation site, and a 195 acre transmission corridor to widen the existing southward reaching 6.2 mile long corridor to the Erie West Substation.

The Coho I Generating facility will be co-owned by Jersey Power and Light Company (40 percent), Metropolitan Edison (20 percent) and Penelec (40 percent). The need for the plant is based upon certain load growth and system reliability considerations as they pertain to the General Public Utilities system obligations to the PJM Interconnection. The Environmental Report for Coho Generating Station Unit I does indicate, however, full retirement of the Erie generating facility by 1989/1990 making the Coho facility at that time the only primary unit for electrical generation in the Lake Erie coastal zone of Pennsylvania.[38]

It is projected that construction of the Coho I generation facility will begin in the Summer of 1983 and that the plant will be operational by May, 1989. When fully operational, the plant will consume three unit trains of western Pennsylvania bituminous coal per week. Each train will include 100 cars of 100-ton capacity each. Excellent rail accessibility to the site already exists.

Coho is being designed to produce a 690 MW gross capacity, which will be diminished by 65 MW for on-site use, leaving a 625 MW net system resource capability for the 40-year design-life of the facility. Two 345 KV transmission lines will link the generation plant to the existing PJM grid. The Pennsylvania Electric Company provides electric service at wholesale rates to 13 rural electric distribution co-ops, and also provides six municipalities, and four small investor-owned utilities. In 1977, this wholesale demand amounted to approximately five percent of Penelec's electric revenues. Load requirements for the PJM system currently show nearly equal summer-winter peaks suggesting a steady generation need.

<u>The U.S. Steel Plant</u> (Springfield Township) - To meet plant power demands, an on-site power plant fired by coal, blast furnace gas and recovered Q-BUP off-gas will be built and supplemented by outside energy sources. The system will include two 50 megawatts turbine generators and will provide approximately 25 percent of the electrical energy required by the lakefront plant. First phase development will include a 50 megawatt power station using three coal-fired boilers. A second 50 megawatt power station and two additional boilers are to be added in the second phase. Electrical energy produced by the U.S. Steel power plant will be

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[38]<u>Environmental Report for Coho Generating Station Unit I</u>, Volume I, General Public Utilities Corporation, 1979, p. 1-42.

used as the primary source for the power generation auxiliary equipment, and for the main pumphouse. Also, emergency backup power to the blast furnaces will be provided from this source. The 13.8 kilowatt power output will be stepped up to 138 KV and tied into the plant's sub-transmission system. All additional electrical needs will be purchased from a local electric utility company.[39] A bulk substation located in the southwest corner of the plant site (Conneaut Township, Ashtabula County, Ohio) will receive electrical power from the utility company at 345 KV. Substation transformers will step the voltage down to 138 KV before being linked to the internal sub-transmission of the plant.[40]

The U.S. Steel energy generation will be controlled for particulate and sulfur dioxide emissions. Particulates will be removed by the use of electrostatic precipitators while sulfur dioxide will be controlled either by use of low sulphur content coal or operation of a flue gas desulfurization system. Solid waste including fly ash will be hauled to designated on-site waste disposal areas.

Future Facility Needs and Constraints - In the immediate future, it appears that the forces of energy facility siting will outweigh any considerations for nonsiting in the Lake Erie coastal zone. Siting of any facility will be subject to the process of the Public Utility Commission and performance standards applied by the Department of Environmental Resources executing laws of the Commonwealth.

Petroleum Refining, Distribution and Related Facilities

Except for a very limited storage and transmission capability, the Lake Erie coastal zone of Pennsylvania is void of petroleum related facilities. Currently, two cribs in Fairfield Township allow for off shore unloading of refined petroleum products. The docking area at the foot of Cascade Street in Erie similarly contains facilities for unloading and storing refined petroleum products. No plans exist to expand these facilities.

The new U.S. Steel Mill anticipates import of fuel oil for use as a supplemental fuel for the strip mill, plate mill, slab reheating furnances, and as a backup fuel for the lime plant and the sinter plant. The fuel will be stored in diked, above ground, unpressurized, steel tanks on the plant site.

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[39] "Draft Environmental Impact Statement. Permit Application by United States Steel Corporation Proposed Lake Front Steel Mill", Conneaut, Ohio; Volume I (U.S. Army Corps of Engineers, Buffalo District, 1979), Section 1.223, p. 1-131.
[40] Ibid, Section 1.225, p. 1-132.

It is not anticipated that petroleum refining, distribution or related activities will constitute significant impacts on Lake Erie coastal zone. Currently, there are no plans to locate or develop offshore oil resources from Lake Erie.

Natural Gas Production and Distribution Facilities

Natural gas is stored in two storage fields in Erie County, one of which is in Summit Township. Small amounts of natural gas have been produced in the vicinity of the coastal area. Gas reserves occur in shallow and deep gas fields throughout the region including beneath the waters of Lake Erie.

Off-Shore Gas Developments - In 1957, the Pennsylvania Department of Forests and Waters (now included within the Department of Environmental Resources) leased for off-shore exploration, two physically separated blocks of submerged land totaling 36,000 acres. The lease holder, New York State Natural Gas (Pittsburgh, Pennsylvania) was unable to identify a commercially productive well on either of their leased tracts. After a decade of sporadic interest, Pennsylvania again in 1967 offered land for lease purchase to Ranger Oil Company (Alberta, Canada) and Pan American Petroleum (Fort Worth, Texas). A total acreage of 20,000 acres adjacent to the Canadian border was involved in the leasing. Actual exploration never got underway. A 1968 moratorium placed on all search activities by Pennsylvania Governor Raymond Shaefer, because of public outcry over the Santa Barbara oil spill in California, prevented any exploration in the lake. Attempts to lift the moratorium faced considerable resistence despite a demonstrated capability of exploration and production on the Canadian side of Lake Erie, in-depth analyses which indicated no significant environmental threat, and recommendations through the Governor's Energy Council to lift the moratorium. During the administration of Governor Shapp, the moratorium on off-shore drilling was allowed to expire. This action was in part due to the decreasing availability of natural gas, increasing costs of natural gas, and the overall national drive towards energy self-sufficiency.

In late 1978, the Argonne National Laboratory submitted to the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency a phase I study of the issues related to U.S. Lake Erie natural gas development.[41] Before drilling permits will be issued, a Phase II study including a draft environmental impact statement will need to be completed.

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[41] An Examination of Issues Related to U.S. Lake Erie Natural Gas Development, Prepared by the Argonne National Laboratory (Argonne, Illinois) for the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency (September, 1978), 194 pp.

Several concerns of immediate coastal zone relevance raised by off-shore drilling include:

1. Development of support services facilities.

2. Disposal of muds containing chemical agents, toxic substances, and cuttings.

3. Shoreline placement of pipelines from wells.

4. Facility failures resultant from maintenance of shipping and fishing activities on the lake.

5. Possible risks to drinking water.

6. Impacts on Lake Erie fisheries.

It is highly probable that off-shore natural gas exploration and production will occur in the future due to the national goal of energy self-sufficiency. Through existing State legislation, the Coastal Energy Impact Program, and the Department of Environmental Resources environmental protection regulations for the prevention of the deterioration of air and water quality by ensuring through permitting and monitoring that the State standards are followed and negative impacts to the coastal zone will be prevented.

<u>On Shore Natural Gas Developments</u> - Considerable on-shore drilling has occurred within the Lake Erie coastal zone. Currently, exploration is most obvious within the eastern study area of the coastal zone. As of the end of 1979, approximately 200 deep gas wells were operating within this area. The National Fuel Gas Company is actively purchasing much of this production. The Columbia Gas Company also has expressed interest in acquiring this gas production. The current production is taking place in conjunction with existing land use with minimal perceived negative impact.

In 1979, an exploratory gas well was drilled on Presque Isle with the backing of the Department of Environmental Resources and the U.S. Department of Energy. The success of this and other private ventures has encouraged numerous businesses to share the cost of a study to determine the best places for drilling wells for natural gas along the bay front of the City of Erie. Among those corporations supporting this venture are Erie Sand and Gravel Company, Erie Reduction, the GAF Corporation, Pennsylvania Electric Company, Koppers and Erie Western Pennsylvania Port Authority. The study to be done by the Monsanto Corporation under exclusive contract to the U.S. Department of Energy will, hopefully, result in gas wells for use by some city operations, particularly the water and sewer bureaus.

Although there are no plans for manufacturing oil, gas or snythetic natural gas from naphtha, there are definite plans to

expand the exploration of the Oriskany strata for reserves of natural gas. These reserves will be consumed, in part, in situ; and in part, will be linked to the existing supply network. No long term adverse affects on the landscape are anticipated from such operations.

Coal Transport and Port Facilities

Coal remains the principal industrial energy source for the region. Supplies of coal are shipped to the area by rail and truck. Given the relatively high sulphur content of Pennsylvania's bituminous coal supplies, new sources in the western states are being considered. Although no lake shipping of any consequence has been involved in the coal traffic to the area, it is conceivable that water carried coal import could occur in the future. Currently, rail transportation predominates.

The existing facilities include truck transported coal for the Penelec Generator in Erie and rail transported coal for Koppers, Hammermill and other large manufacturers in the coastal zone. The new U.S. Steel mill and the Coho I generating plant will be supplied by rail. Adjacent to the proposed steel facility in the State of Ohio is an existing coal export facility.

The chief drawback to coal use in the Lake Erie coastal zone is the control technology necessary to maintain air quality standards. The cumulative impact of coal-fired emmissions hinders planning for and siting of other energy producing or energy dependent facilities within the coastal zone. Recent relaxation (1979) of the sulfur emmission regulations within the Erie Air Basin could have a deleterious effect on the region, which is more significant than the fuel advantages generated. The Coho I plant will be designed to meet the most stringent Federal New Source Performance Standards rather than the relaxed local standards.[42]

Procedures for Assessing Suitability of Sites

Legal Mechanisms - Through the Public Utility Code's Certificate of Public Convenience, an energy facility may be located where there is a demonstrated need for the utility. This process states that the PUC will issue a certificate only when it finds or determines that the granting of such certificate is necessary or proper for the service, accommodation, convenience or safety of the public. To assist the PUC in making the finding or determination, it will hold public hearings and investigations

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[42] Environmental Report for COHO Generating Station Unit I, Volume I, General Public Utilities Corporations, 1979, p. 2-52.

(the process is discussed in more detail in Chapter 3 under Uses of Regional Benefit). Once this certificate is awarded to the utility, it may exercise the power of eminent domain and acquire the land for development. The utility is then exempt from local zoning. At this point, the utility will usually start to acquire and analyze environmental data including air and water quality studies. When sufficient data has been collected, preliminary engineering studies will be completed, and the utility will apply for the necessary Department of Environmental Resources environmental protection permits. This application is made through the existing permit process discussed in Chapter 4, Permit Monitoring.

When all of these environmental protection permits are acquired (see Chapter 2, Coastal Policy Framework, Energy Facility Siting) and any potential conflicts are resolved through the public hearing process used by the Environmental Hearing Board, the utility will begin construction of the facility. This process from initial site acquisition to plant completion may take as long as 10 to 12 years.

Administrative Mechanisms - Because the energy facility siting process requires a great deal of lead time and prompt energy facility siting decisions are important in helping Pennsylvania and the Nation meet future energy needs, the Coastal Zone Management Branch will work closely with local governments to identify suitable sites for energy development, thus reducing the lead time presently required to develop energy facilities. At the request of local governments, the Coastal Zone Management Branch will assist them in identifying energy sites that are environmentally safe, satisfactory to the community, and potentially useful to the utility. The following administrative process for assessing site suitability based on the GAPC concept will be utilized. Site suitability for a wide variety of uses has been explored for each class of nominated GAPC. As a result of this exploration, the following decisions were arrived at: GAPC nominated as (1) areas of significant natural value, or (2) areas of significant recreational, historic or cultural value, are not appropriate for future development or expansion of energy facilities, while GAPC nominated as development opportunity areas will be given high priority for energy facility siting. By local identification of potential sites for energy facilities, the process for issuing certificates of public convenience will be expedited and will be less likely challenged.

Within the Delaware Estuary coastal zone, energy activities should be developed at, or immediately adjacent, to existing energy facilities. In the Lake Erie coastal zone, new sites will be required.

As the previous section on Petroleum Refining (Delaware Estuary) indicates, on-site modifications and expansions are already underway or planned at existing locations. Peaking capacity has historically been added on the site of base load electric

generating facilities. Similar strategies are appropriate for other types of energy facilities, as long as sufficient space for expansion is available. Practical considerations have, to an extent, forced this approach in the densely developed Delaware River waterfront area, but such a strategy would minimize impacts in both coastal zones.

In cases where existing sites are not suitable for expansion, those GAPC nominated as Development Opportunity Areas would be most appropriate for new or expanded energy facilities. Each Development Opportunity Area has been selected as a GAPC because of the potential to "serve regional, State or national economic interest". (See Criteria for Nominated GAPC, Chapter 3).

Specifically, GAPC classified as Development Opportunity Areas have already been accorded high priority for such uses as petroleum refining and electrical energy generation. (See section on Priority of Uses in GAPC, Chapter 3).

Within the Delaware Estuary coastal zone, 14 areas have been identified as Development Opportunity Areas. While each one is not capable of supporting every type of future energy use, more than enough land has been identified to accommodate the relatively limited amount of energy expansion forecast earlier in this section.

In the Lake Erie coastal zone, two Development Opportunity Areas have been nominated. DO-1 is the 2,100 acre portion of the U.S. Steel property inside the coastal zone boundary. Availability of water, port facilities, rail access and highway connections were all considerations in the nomination of these areas. DO-2, the Pennsylvania Electric Company site, was also nominated as a Development Opportunity Area. On this site, Penelec intends to construct a 690 megawatt electric generating plant.

In any area selected for new or expanded energy facilities, whether an existing site, GAPC or newly-identified location, the facility must conform to the State's existing regulatory and permit structure. The Department of Environmental Resources acts for the Commonwealth and ensures that all energy facilities are located in an environmentally responsible manner by issuing permits. These permits are listed in Chapter 2 under Authorities for Energy Facility Siting.

Enforceable Policies and Authorities for Managing Energy Facilities

Coastal Zone Management development and approval provisions require coastal states to articulate coastal zone management policies, authorities and techniques for managing energy facilities and their impacts.

Pennsylvania's Coastal Zone Management policies and authorities pertinent to energy facility management are presented in detail in Chapter 2, Policies VIII-1 through VIII-4, of this document. These policies are based on legislative authority and on adopted rules and regulations of the Department of Environmental Resources and the Public Utility Commission. Because of this reliance on existing authorities and regulations, the energy facility management technique utilizes the concept of networking (which is described in Chapter 4 of this document) to implement the policies and to ensure that future energy facility siting or development occurs in a manner consistent with these policies. The key part of this strategy will be the Coastal Zone Management Branch review of all energy projects requiring the Department of Environmental Resources environmental protection permits. All energy facility development requires Department permits for both construction and operation.

Through the permit review process described in Chapter 4, the Coastal Zone Management Branch will possess a mechanism that will enable review of all energy facility development proposals that will affect the coastal zone.

Involvement of Interested Public and Private Parties

The siting of energy facilities in the Commonwealth is open to all public and private interests. Opportunities for involvement are available during initial site selection (PUC Certificate of Public Convenience Process), environmental permit review (Permit Monitoring Review Process), and after permit issuance (Environmental Hearing Board appeals process). All of these processes and the entry points for involvement in the decision making process by public and private interests are discussed in detail in Chapters 4 and 5.

In addition to the mechanisms traditionally available to the public new avenues for participation in the siting of energy facilities have been opened through the establishment of local Coastal Zone Steering Committees and the Coastal Zone Advisory Committee. Citizens and interest groups may make their views on siting issues known by:

1. Attending local Coastal Zone Steering Committee meetings.

2. Contacting local officials who participate in coastal zone meetings.

3. Contacting the county (or city) planning commission, which has a permanent seat on the Steering Committee.

4. Contacting the Coastal Zone Management Branch directly.

5. Appearing before the Coastal Zone Advisory Committee, in Harrisburg.

These new avenues for public participation, established by the Coastal Zone Management Program, are essentially two-way streets. Not only can citizens make their views known through the mechanisms described above, but the various State agencies forming the Coastal Zone Advisory Committee can solicit input and ideas from a variety of sources. Early involvement by the Coastal Zone Advisory Committee and early notification of interested participants is the most critical concern.

SHOREFRONT ACCESS AND PROTECTION PLANNING

Requirements

To fulfill the requirements of subsection 305(b)(7) of the 1976 amendments to the Coastal Zone Management Act of 1972, Pennsylvania's Coastal Zone Management Program must include a planning process that identifies public shorefront areas appropriate for increased access and/or protection.

There are three elements which must be included in the shorefront access and protection planning process:

1. A procedure for assessing public beaches and other public areas . . . which require access or protection, and a description of appropriate types of action.

2. A definition of the term "beach" . . . and an identification of public areas meeting that definition.

3. An identification and description of enforceable policies, legal authorities, funding programs and other techniques that will be used to provide shorefront access and protection. 15 CFR 923.24 (March 28, 1979)

Introduction

Although the issue of the public's right to use the Nation's shorelines has been with us for centuries, it has become a much more pressing problem in recent years. Throughout the United States, the demand for shoreline recreation areas is increasing while the supply of land available for public recreation use is diminishing. There are a number of factors involved in this growing demand/supply imbalance. A basic factor is simply the large number of people living in close proximity to shoreline areas. It is estimated that one-half of the Nation's population lives in counties bordering our oceans and the Great Lakes. With

increased leisure time and mobility, this growing population has created an intense demand for shoreline recreation. However, at the same time, land previously available to the public is being fenced off for private development of second homes and resorts, industrial and commercial facilities. Thus, access to the waterfront is becoming increasingly limited.

Riparian Ownership in Pennsylvania

In the Lake Erie coastal zone, differences in water level are dependent on hydrologic variables over the entire basin and produce changes of levels amounting to less than two feet per year, with extremes of record indicating a range of not more than five feet since 1860. Therefore, the shoreline of Lake Erie is fairly constant over time except with variations produced by extreme water level changes and shoreline erosion. The Commonwealth of Pennsylvania holds title to the land beneath Lake Erie in trust for the people of the Commonwealth.

When Pennsylvania was an English colony title to the Delaware River and its bed was vested in the British Crown. Following the American Revolution and the Treaty of September 3, 1783, all rights and sovereignty of Great Britain passed to the states. Because the Delaware River was a navigable coterminous stream between New Jersey and Pennsylvania, the title to the bed of the river extended from its respective shore to the center of the river. The Commonwealth's title on the shore of the Delaware extends to the ordinary low water mark. Such mark is defined as the height of water at ordinary stages of low water unaffected by drought or artificial means.

There is very real need for the Commonwealth, acting in concert with local authorities and utilizing the assistance of the Federal government, to deal with the access problem. It is the intent of the Commonwealth to work diligently with local governments to provide a planning process, whereby additional access can be guaranteed through restoration, acquisition, and development of lands in the coastal zone.

Definition of the Term "Beach" and Identification of Public Areas Meeting that Definition

The deposits of sand and gravel that cover the shore in many places are known as beaches. Although they appear stable under conditions of small waves, beaches are eroded so rapidly when attacked by heavy surf and storm waves that they may change their character in a few hours.

For many years Douglas W. Johnson's <u>Shore Processes and Shoreline Development</u> (1919) was the only text book related to beaches, but in recent years this has been supplemented with other works. The term beach, according to Johnson "is a deposit of material which

is in more or less active transit along shore or on-and-off shore . . ".[43]

Most authors dealing with the geomorphic aspects of coasts generally define beach in similar terms all denoting action or transition. For purposes of the Coastal Zone Management Program, Pennsylvania has defined "beach" as:

> The zone of unconsolidated material extending landward from the mean low waterline to the place where there is a change in material or physiographic form as, for example, the zone of permanent vegetation, or a cliff. The upper limit of the beach usually marks the effective limit of storm waves.[44]

Lake Erie Coastal Zone - Pennsylvania's most outstanding beaches are found at Presque Isle State Park in Erie County. Presque Isle State Park is located on a compound, recurved, sand spit which forms a bay of seven square miles and shelters one of the best natural harbors on the Great Lakes. The sand spit is highly susceptible to storm waves, especially at the long connecting "neck", and erosion has been fought by the Commonwealth and the U.S. Army Corps of Engineers since 1810. The peninsula is approximately seven miles long and covers about 3,200 acres. (See map of Lake Erie coastal zone, Chapter 2) The state park plays host to over three million visitors annually.

The rest of the Lake Erie coastline consists mainly of bluffs varying from 10 to 170 feet high. Beach formation at the base of the bluffs is marginal, because of the lack of availability of materials in the littoral transport system. Therefore, beaches east and west of Presque Isle tend to be narrow and discontinuous. Accumulations there tend to be pocket beaches or accumulations of sand associated with stream mouths.

No significant privately owned beaches exist in the Lake Erie coastal zone. Public areas which meet the definition include: Raccoon Creek County Park, Eagley Park, Presque Isle State Park, and Shades Beach County Park.

There are additional public areas where there is marginal accumulations of sand, but use of the beach in the traditional sense is limited or discouraged.

The list of publicly owned beach areas is not likely to be enlarged because of volume of sediment deposited is small and is constantly redistributed by erosion processes.

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[43]Johnson, Douglas, Wilson, Shore Processes and Development, New York, Hefner Publishing Company, 1965, facsimile of the 1919 edition.

[44]Sheppard, Francis P., Submarine Geology, Harper and Row, New York, New York; Second edition, 1963.

Private ownership of the shore of Lake Erie limits access by the general public. Pennsylvania Route 5 parallels the coast both east and west of the City of Erie. Ownership lakeward of the road follows the St. Lawrence River Valley ownership pattern with narrow, deep lots connecting the road with the shore. In many locations, the lake is not visible or accessible due to this development pattern. Similarly, the stream valleys have tended toward private ownership excluding the general public in the majority of cases.

In addition to Presque Isle State Park and State owned historic sites, the State has developed recreation facilities at the mouth of Walnut Creek. The site is managed by the Fish Commission and provided boating and fishing access to Lake Erie.

County recreation facilities exist at Raccoon Creek, Scott County Park, and Shade Beach. Local governments have developed facilities at Eagly Park (Springfield), Lake Erie Community Park (Girard), East Side Marina (Millcreek Township), Freeport Beach and Darymple Beach (North East Township). Through these efforts, the State in cooperation with local governments has provided for protection and access to public beaches of Lake Erie as well as to other public coastal areas of environmental recreational historic, aesthetic, ecological or cultural value.

Areas with future potential for recreation access (some of which are indicated on locally prepared comprehensive plans) include: Crooked Creek, Elk Creek, Trout Run, Sixmile Creek, Sevenmile Creek, Sixteenmile Creek (Orchard Beach) and Twentymile Creek. In most cases, these areas with future potential for access are not zoned for open space or recreation because they are privately owned.

Delaware Estuary Coastal Zone - An inventory of the Pennsylvania side of the Delaware Estuary reveals there are a number of public areas of recreational, historical, and ecological importance to which the Commonwealth has provided public access in cooperation with local governments.

Existing publicly-owned recreational access areas include: McClure Park, Governor Printz State Park, and Tinicum Marsh, in Delaware County; Ft. Mifflin, Penn's Landing, Penn Treaty Park, Pennypack Park, and Pleasant Hill Park, in Philadelphia County; and Neshaminy State Park, Delaware River Access Area, Pennsylvania Canal, and Pennsbury Manor, in Bucks County. Local comprehensive plans indicate recreation or open space potential at the mouth of the Chester Creek, Little Tinicum Island, mouth of the Pennypack Creek, and a "greenway" along the Delaware River in Bensalem, Bristol, and portions of Falls Townships.

As in the case of Lake Erie, most of these plans are not reflected in zoning ordinances as long as the land remains in private ownership.

No significant beaches either publicly or privated owned. At low tide, tidal flats of mud or gravel are uncovered in several locations. Recreational boaters sometimes beach their vessels on the narrow "beaches" and bars of Little Tinicum Island; Echo Beach, in Bensalem Township; a small cove in Tulleytown; and on the property of the Warner Company, above Money Island, in Falls Township. All of these locations are privately owned.

The majority of boaters using the Delaware River prefer to beach on tidal flats on the New Jersey side of the river or the islands such as Newbold, Burlington or Chester which belong to New Jersey.

One of the key goals of the Coastal Zone Management Program is to use program management funds to update local plans and revise ordinances to reflect increased public access to public coastal areas. Access will be acquired through the use of funds from the Coastal Energy Impact Program and the other programs listed later in this chapter under Federal programs.

A Procedure for Assessing Public Areas Requiring Access or Protection

Because public access to the water is so limited in Pennsylvania's two coastal zones, this section will concentrate on public areas, appropriate for access or protection. Earlier in this chapter, techniques used to identify Geographic Areas of Particular Concern (GAPC) were described. During the development of the Coastal Zone Management Program, four types of nominated GAPC areas were identified because of their critical nature or special management needs, including:

1. Areas of Significant Recreational, Historic or Cultural Value - where reclamation, restoration, public access and other remedial actions may be needed.

2. Areas of Significant Natural Value - where "overlaps" or concentrations of natural features such as woodlands, wetlands, wildlife habitats and floodplains exist.

3. Development Opportunity Areas - especially suited to more intensive development or redevelopment.

4. Overlap Areas - containing development potential and natural amenities.

The first two of these nominated GAPC types include the areas of the coastal zone most appropriate for the development, or improvement of public access. In the Lake Erie coastal zone, fourteen areas were identified as either:

1. Areas of Significant Recreational, Historic or Cultural Value, or

2. Areas of Significant Natural Value.

A list of these areas may be found in the Inventory of GAPC presented previously in the Chapter. These fourteen areas should receive the highest priority for improvement in public access.

In the Delaware Estuary coastal zone, twenty-two areas were nominated as Recreational, Cultural or Historic GAPC and five areas were nominated as Natural Value GAPC (See Inventory of GAPC). These 29 areas are suitable for development or improvement for public access.

"Areas of Preservation and Restoration (APR) identified pursuant to Section 306(c)(9) of the Coastal Zone Management Act may also require improvements for public access. These areas are described in a previous section entitled Areas for Preservation and Restoration.

If additional sites are to be identified in the future for improved public access, the GAPC methodology will be utilized.

To further improve public access to waterfronts in Pennsylvania's two coastal zones, the following process will be employed:

1. In consultation with local governments, sportsmen groups, and other interested groups or individuals, the Department of Environmental Resources will develop a needs inventory projecting anticipated demand for shore access into the next two decades.

2. An assessment of existing areas for possible expansion of access as well as possible limitations of existing use will be examined in light of projected needs.

3. The Coastal Zone Management Branch will encourage local governments to incorporate designated GAPC having significant natural value or recreation, historic or cultural value, into their comprehensive plans and zoning ordinances. Results will also be factored into SCORP.

4. The Coastal Zone Steering Committee (See Chapter 5) will recommend nominated GAPC with high priority for improved access for designation to Pennsylvania's Coastal Zone Management Branch.

5. Plans for providing additional access will be prepared with and presented to the public for advice and affirmation based on technical input.

6. To facilitate acquisition and development of access sites, traditional funding sources and potential new funding sources will be explored along with less than fee acquisition such as easements.

7. Access in coastal areas can be provided in GAPC through the expenditure of coastal zone management funds.

Demonstration Projects for Improved Public Access

In order to explore and demonstrate the manner in which Coastal Zone Management funds can be utilized by local governments, four feasibility studies for improving public access were initiated in late 1979 and early 1980. Two feasibility studies were conducted in the Delaware Estuary coastal zone and two were undertaken in the Lake Erie coastal zone. In each case, the areas studies had been previously nominated as Areas of Significant Recreational, Historic and Cultural Value (GAPC). In the Delaware Estuary feasibility studies examined:

R-1 - McClure Park in Marcus Hook Borough, Delaware County

The feasibility study examines the possibility of expanding McClure Park to include adjacent parcels along the Delaware River, including the Federal Quarantine Station. The outstanding feature of this park is its vantage point for viewing river activity. It is one of only two public access areas on the river in Delaware County.

R-22 - Falls Township Access Area, Bucks County

At the foot of Lauderback Road, adjacent to land owned by U.S. Steel is a small tract of land owned by Falls Township. The study examines the feasibility of developing this vacant site for boat launching, fishing or passive recreation.

In the Lake Erie coastal zone, the feasibility of expanding or improving access was studied for:

R-2 - Elk Creek Estuary Site, Girard Township, Erie County

This site consisting of approximately 320 acres has long been considered a potential site for recreational development. Most of the land is privately owned and the west bank of the creek mouth is owned by the Pennsylvania Electric Company. The feasibility of developing the site for public fishing, swimming and boating, while protecting the forested bluffs which surround the stream valley, is examined by the study.

R-9 - Twentymile Creek Access Area, North East Township, Erie County

This GAPC covers approximately 75 acres and is privately owned. There are about three dozen summer cottages located near the lakefront on both sides of the creek. Because of the scarcity of public access areas in the eastern portion of the Lake Erie coastal zone, the feasibility of recreational development is examined.

If the results of these studies show that it would be feasible and desirable to develop these areas for access and recreational opportunities, then efforts will be made to develop these areas using coastal zone management Section 308 Coastal Energy Impact Program funds, Section 315 coastal zone management funds (if funded), or any other available sources of funds.

Consideration of SCORP Policies

When considering areas suitable and appropriate for improved and enhanced public access, the Coastal Zone Steering Committee (CZSC) and local governments should consider the following policies contained in Pennsylvania's State Comprehensive Outdoor Recreation Plan (SCORP):

1. It is Commonwealth policy to strive for the provision of recreational opportunities for every citizen of the Commonwealth as well as visitors and tourists, in both urban and nonurban settings.

2. It is Commonwealth policy to strive for improvements in accessibility to recreation areas, facilities, and programs.

3. It is Commonwealth policy to acquire or to assist other levels of government in their acquisition of lands and waters which are identified as having significant recreational, natural, scenic, and aesthetic values and those areas which are needed to protect existing public recreation resources from encroachment.

4. It is Commonwealth policy that Pennsylvanians are to have a supply of clean, unspoiled water to meet their water-related recreation needs.

5. It is Commonwealth policy to manage the fisheries resources in a manner which provides recreation opportunities to all fishermen, from the most dedicated to the occassional.

6. It is a Commonwealth policy to manage the wildlife resources in a manner which protects natural predators as well as rare and endangered species, provides for the full diversity of species of which: Pennsylvania is ecologically capable, and fosters a naturally

bountiful supply of game which can be harvested in recreational hunting.

7. It is Commonwealth policy to identify and protect those lands which qualify as either wild or natural areas.

8. It is Commonwealth policy to place a high priority on the use of suitably identified floodplains for low density recreation areas and open space.

9. It is Commonwealth policy to regulate use of State areas and facilities in order to maintain the quality of the recreation experience and to prevent degradation of resources.

Identification and Description of Enforceable Policies, Legal Authorities and Funding Programs

Pennsylvania's specific policies dealing with public access and recreation are found in Chapter 3, Policy Framework, Section V, Policies V-1 and V-2. These policies are based on legislative authorities which allow State agencies to acquire land needed to provide access. As described earlier, the Commonwealth has provided public access to public resources in both coastal zones. Presque Isle State Park is the most heavily used of all State Parks. Pennsylvania will also assure public access to public coastal areas through the GAPC process as described earlier in this chapter. Since recreation is a use of regional benefit as defined by the Commonwealth, Pennsylvania ensures that State recreation areas which provide access to public areas of the coastal zone will not be arbitrarily excluded by actions of local governments.

Federal Programs: In addition to the State authorities, cited in Chapter 3 and Appendix B and the Coastal Energy Impact Program discussed earlier, the following Federal programs are useful for the provision of visual and physical access in the coastal zone:

a. Coastal Zone Management Program Administration

(1) Authorization: Coastal Zone Management Act of 1972, Section 306, 16 U.S.C Section 1455 (1972); Coastal Zone Management Act Amendments of 1976, Section 306, 16 U.S.C Section 1455 (1976).

(2) Administration: National Oceanic and Atmospheric Administration, Department of Commerce. Funds are channeled through the Pennsylvania Department of Environmental Resources, Coastal Zone Management Branch, to state agencies and local governments.

(3) Eligibility: Any coastal state whose Coastal Zone Management Program has been approved by the Secretary of Commerce.

(4) Types of Assistance: Project grants are available. At least 20 percent of the total project cost must be provided by the applicant. Federal funds from other sources cannot be used to match.

(5) Uses and Use Restrictions Applicable to Public Access: Grants may be used only to administer the State's approved Coastal Zone Management Program. States are encouraged to apply implementation funding for these purposes in which there are national interests including the provision of access to and use of the shorefront and urban waterfronts. Other purposes include the management of designated areas of particular concern.

b. Outdoor Recreation - Acquisition, Development, and Planning

(1) Authorization: Land and Water Conservation Fund Act of 1965, as amended, 16 U.S.C. Sections 4601-6 et seq. (1965).

(2) Administration: Heritage Conservation and Recreation Service, Department of the Interior. Funds are channeled through the Pennsylvania Department of Environmental Resources, Recreation Grants-In-Aid staff, and the Pennsylvania Department of Community Affairs, Bureau of Recreation and Conservation.

(3) Eligibility: For acquisition and development grants, the Department of Environmental Resources's Recreation Grants-In-Aid staff, may apply for assistance for itself, or on behalf of other State agencies. The Department of Community Affairs, Bureau of Recreation and Conservation, handles grants for political subdivisions, such as cities, counties, or park districts. Individuals and private organizations are not eligible.

(4) Types of Assistance: Project grants available to 50 percent of cost. Under certain conditions, all or part of the project sponsor's share may be from certain other Federal assistance programs, such as Title I Community Development. Funds are available for obligation

during the fiscal year in which appropriated and for the following fiscal years.

(5) Uses and Use Restrictions Applicable to Public Access: Acquisition and development grants may be used for a wide range of outdoor recreation projects and support facilities for these same projects. Facilities must be open to the general public. Development of basic rather than elaborate facilities is favored. Priority consideration generally is given to projects serving urban populations.

c. Economic Development - Grants and Loans for Public Works and Development Facilities.

(1) Authorization: Public Works and Economic Development Act of 1965; as amended; 42 U.S.C. Sections 3131. 3132, 3135, 3141, 3171 (1965).

(2) Administration: Economic Development Administration, Department of Commerce.

(3) Eligibility: States, local subdivisions thereof, and private or public nonprofit organizations or associations representing a redevelopment area are eligible to receive grants and loans. Corporation and associations organized for profit are not eligible.

(4) Types of Assistance: Project Grants and Direct Loans. The basic grant rate may be up to 50 percent of the project cost. Severely depressed areas that cannot match Federal funds may receive supplementary grants to bring the Federal contribution up to 80 percent of the project cost. Additionally, redevelopment areas located within designated economic development districts may, subject to the 80 percent maximum Federal grant limit, be eligible for a 10 percent bonus on grants for public works projects. Long-term (up to 40 years) low interest loans may be made to the applicant when financial assistance is not otherwise available from private lenders or Federal agencies on terms which would permit accomplishment of the project.

(5) Uses and Use Restrictions Applicable to Public Access: Grants for public tourism facilities are available. To qualify, these projects must fulfill a pressing need of the area and must: (a) tend to improve the opportunities for the successful establishment or expansion of

industrial or commercial plants or facilities, (b) assist in the creation of additional long-term employment opportunities, or (c) benefit the long-term unemployed and members of low-income families or otherwise substantially further the objectives of the Economic Opportunity Act of 1964. In addition, proposed projects must be consistent with the currently approved overall economic development program for the area in which it is located.

d. Public Land for Recreation, Public Purposes and Historic Monuments

(1) Authorization: Recreation and Public Purposes Act of June 14, 1926, as amended; 43 U.S.C. Section 869; et seq. (1926).

(2) Administration: Bureau of Land Management, Department of the Interior.

(3) Eligibility: States, Federal and State instrumentalities and political subdivisions, including counties and municipalities, and nonprofit corporations. Individuals do not quality.

(4) Types of Assistance: The sale, exchange, or donation of property and goods is available. For public recreation purposes, a price of $2.50 per acre with a minimum of $50 per transaction, lease at $0.25 per acre per year with minimum payment of $10 per lease.

(5) Uses and Use Restrictions Applicable to Public Access: Available public lands may be leased or purchased for public recreation and other recreational and public purposes. The applicant cannot secure lands under this act for any use authorized under any other public land law. If applicant attempts to change use of land to other than that for which land is conveyed, or transfer title without consent of the Secretary of the Interior, title of land will revert to the United States.

e. Disposal of Federal Surplus Real Property

(1) Authorization: Federal Property and Administrative Services Act of 1949, Section 203, as amended, 40 U.S.C. Section 484 (1949); Surplus Property Act of 1944, Section 13(g), as amended, 50 U.S.C. Section 1622 (1944); Act of May 19, 1948, 16 U.S.C.

Section 667 (1948); Act of January 2, 1971, 42 U.S.C. Section 4638 (1971).

(2) Administration: General Services Administration; applications are made to the Heritage Conservation and Recreation Service, Department of the Interior.

(3) Eligibility: States and local government agencies are eligible to apply for surplus real property for park, recreational, . . ., and general public purposes.

(4) Types of Assistance: The sale, exchange, or donation of property and goods is available.

(5) Uses and Use Restrictions Applicable to Public Access: Surplus real proper;ty may be conveyed for public park or recreation use at discounts up to 100 percent. Surplus property conveyed for public park or recreation use must be used for the purposes so conveyed in perpetuity. Surplus real property which is not deeded to public bodies is generally offered for sale to the public on a competitive bid basis.

Other Techniques for Providing or Improving Access: In addition to fee-simple and less-than-fee interests, access may be provided by:

1. Acquisition in fee by gift of land for public purposes. This is a highly desirable method of conveying property. Donation holds advantages for the donor especially with regard to tax savings, and is a relatively simple process which gives the state a measure of freedom to vary the uses of the property as it sees fit. The landowner can include use restrictions in the deed of transfer to ensure the land will be used according to the donor's wishes; and, the receiving government must accept the conditions attached to the grant.

2. Police power. The two most useful police power techniques are the application of eminent domain and the imposition of land use controls and regulations.

   Eminent domain is a process by which governmental entities can acquire proprietary interests in privately held land in exchange for compensation, regardless of the owner's willingness to sell. Compensation is usually fixed at market price. Land acquired through this process must be used for public use or benefit.

In acquiring shorelands and waters access with eminent domain, property can be condemned in fee. A second application of eminent domain is to condemn easements for public rights-of-way. Agencies in Pennsylvania, which can use eminent domain to provide public access for achieving the shorefront access objectives of the program, are the Department of Environmental Resources, the Department of Community Affairs, and the Pennsylvania Fish Commission.

A variety of land use and regulatory controls such as zoning may be applied to secure and protect public access. Of course, for these regulations to be implemented, enabling legislation must be in place.

3. Preferential taxation. This is a process which can be applied to public access acquisition. A shoreline owner can be encouraged to maintain his property for open space or agricultural uses. Taxation is based on current use rather than assessment of potential.

SHORELINE EROSION/MITIGATION PLANNING

Introduction

The Federal Coastal Zone Management Act, as amended in July 1976, acknowledges the concern of the Federal Government for coastal erosion and provides guidelines for addressing these concerns. Section 305(b)(9) provides for:

> . . . a planning process for (a) assessing the effects of shoreline erosion (however caused), and (b) studying and evaluating ways to control, or lessen the impact of, such erosion, and to restore areas adversely affected by such erosion.

Rules and regulations developed by the Office of Coastal Zone Management as a result of such legislation require the states to include: (15 CFR 923.25, March 28, 1979)

1. A method for assessing the effects of shoreline erosion and evaluating techniques for mitigating, controlling or restoring areas adversely effected by erosion.

2. An identification and description of enforceable policies, legal authorities, funding techniques . . that will be used to manage the effects of erosion.

The following section deals exclusively with erosion/mitigation planning for the Lake Erie coastal zone. Erosion has not been

identified as a significant problem in the Delaware Estuary coastal zone.

Background

Shoreline erosion and bluff recession continue to be the most significant problems of the Lake Erie shoreline. The Commonwealth, early in the coastal zone management effort, recognized the need for a comprehensive inventory of shore hazards and commissioned a study to deal with the phenomena. The results of this study are published as a separate report entitled Shoreline Erosion and Flooding: Erie County by the Department of Environmental Resources. (See Appendix D).

Two studies were developed by the Department of the Army, Buffalo District, Corps of Engineers: one, regarding shore damage statistics and costs of protection, which has been incorporated into the Chicago District's "Shoreline Damage Inventory"; and another dealing with a shore structure inventory, which is an ongoing study headed by COE Joseph Jarnot, provide useful information in establishing losses and measures taken by the public to mitigate those losses.

The Coastal Zone Steering Committee (CZSC) has, for three years, been a valuable source of information, assisting the Commonwealth in a better appreciation of the problem.

The various studies clearly demonstrate that a comprehensive planning process dealing with erosion/recession and structural or nonstructural mitigative procedures is essential. While any such process is not an end in itself, it will provide an effective means of communicating the seriousness of the problem and direct assistance to the public.

Because the shoreline of Pennsylvania on Lake Erie is relatively short, the Commonwealth, has in the past, not comprehensively addressed the problem associated with erosion. The single outstanding exception is Presque Isle State Park, a sand spit located off the City of Erie. Governmental efforts in attempting to prevent widescale beach losses on Presque Isle have been constant and costly over time. Inclusion of the Pennsylvania coast in Federal studies has generally been in conjunction with basin-wide problems and little detail emerges for any particular area. Presque Isle is an exception due to the concentrated efforts of the Corps of Engineers to solve the erosion problems there.

With the exception of Presque Isle, very little research has been accomplished relative to erosion losses and bluff recession phenomena. While other states faced with hundreds of miles of shore have been working diligently on the problem, Pennsylvania was under no particular pressure to become acquainted with the erosion problems of its Lake Erie shore. Since the advent of the

Coastal Zone Management Program, the Commonwealth has come to recognize the importance of erosion/recession to the people of Erie County. The Coastal Zone Management Branch has made attempts to accumulate additional information and has given top priority to geotechnical studies of the bluff and shore areas, in order to determine the physical and social impacts of this continuing problem.

The Problem

The coastline of Erie County, Pennsylvania, is 108 km (67 miles) long consisting mainly of bluffs of varying height above chart datum of 173.3 m (568.6') from 3 m (10') to 50 m (170'). Physiographically, the shore is divided into three segments; (a) from the Pennsylvania-Ohio boundary northeastward to the neck of Presque Isle peninsula, (b) Presque Isle peninsula, and (c) northeastward of Presque Isle to the Pennsylvania-New York Boundary.

The first segment is comprised of bluffs of glacial till and lacustrine deposits, highly erodible and prone to mass wasting. This segment is dissected by streams of varying magnitude from intermittent streams to Elk Creek, a stream of some 40 km (25 miles) in length and the largest stream in the coastal zone. The relative rate of recession in this reach varies from .6 m per year to less than .15 m per year (24" to 6"). The average rate of recession for the reach is .45 m (18") per year depending on variables of material and conditions.

The central section includes Presque Isle peninsula which forms a bay of 18 k (7 sq. mile) behind it forming one of the finer natural harbors on the Great Lakes. On the southern shore of the bay is the City of Erie, Pennsylvania's only lake port, and dependent on the spit for its harbor activities. The spit is highly susceptible to erosion during storms and control measures have been attempted by the Commonwealth and the Corps of Engineers since 1810. The spit is approximately 11 km (7 miles) long and covers 1,280 hectares (3,200 acres) in area.

The third segment is comprised of bluffs with a bedrock base overlain by glacial till and lacustrine deposits and dissected by streams varying in magnitude from weather tributaries to Twentymile Creek approximately 24 km (15 miles) in length. These bluffs are only moderately erodible due to the protection offered by the bedrock base. The relative rate of recession over this reach varies from .1 m per year to .3 m per year (4" to 12"). The average rate of recession over the reach is .15 m (6") per year.

Each of the three sections present different problems related to erosion/recession phenomena and planning efforts must accordingly differentiate between the sections if such efforts are to have maximum impact and meaning.

As discussed in the previous section on shorefront access, beach formation at the base of the bluffs is marginal, responding to availability of materials in the littoral transport system. Therefore, beaches west and east of Presque Isle tend to be narrow and discontinuous. Greater accumulations result from entrapment by shore structures (groins).

As mentioned previously, Presque Isle has extensive beaches that are under constant wave attack. The shoreline configuration is constantly changing due to erosion in conjunction with structural and nonstructural methods employed in its defense. As a result of studies made through coastal zone management efforts and the Corps of Engineers, a determination of the cause and effect relationship of erosion/recession on the shoreline can be made.

Bluff recession is defined by the Bluff Recession and Setback Act as the loss of material along the bluff face caused by the direct or indirect action by one or a combination of groundwater seepage, water currents, wind generated waves or high water levels.

Shoreline erosion is a function not only of higher lake levels, but the frequency and intensity of storm waves, as well as the sediment budget in the littoral transport system.

Conclusions drawn by the Shoreline Erosion and Flooding Report in 1975 have been modified to recognize changes since that time. These new conclusions are:

1. A majority of construction actually built assumed that average water levels on Lake Erie were a constant and could be depended upon for planning purposes.

2. Construction in the coastal zone was done without knowledge of the potential effects such construction could have on the stability of the bluff or on the shore zone.

3. Despite periodic warnings in the form of past damage, local planning agencies have never addressed the problem in a comprehensive, coordinated manner.

   (This has been corrected by coastal zone management efforts of the past four years through cooperative efforts between the Department of Environmental Resources, the Erie County Department of Planning and local governments. The result is the Bluff Recession and Setback Act.)

4. Recession as a physical force is not clearly understood, and neither is the insidious nature of the phenomena. Recession is caused by a variety of processes. Measurement has shown that those areas protected by natural or manmade features will suffer

less recession than an unprotected bluff. Experience has shown, however, that serious down-drift consequences develop in conjunction with any deterrent (either natural or man-made) to littoral drift.

5. In the past eight years, the physical processes have been operating at a higher than normal rate and have resulted in disruption, damage, and destruction. It cannot be stated with any certainty whether this accelerated activity will continue or, for how long.

6. It has been concluded that, while floodprone land makes up a small percentage of the total coastal area, persistent use of these areas for development has caused the greatest amount of damage to be concentrated in those areas. Rapid bluff recession is occurring primarily in areas of low density use and the damage is related to loss of land with occassional instances of structural loss. As recession continues and as development spreads to hazardous bluff areas, losses of existing structures will increase. The Bluff Recession and Setback Act will regulate the siting of future structures in hazard areas to prevent losses to these structures.

   (Despite the fact that losses of land to recession are greatest in undeveloped areas, it does not negate the direct effect of development on the bluff. There is a direct cause and effect relationship between land development and accelerated recession.)

7. The placement of groins by individuals has generally resulted in protection of the individual's property but, in most cases, is having direct impact on erosion down-drift. This impact is negative in that erosion losses accelerate as sand is withheld as a protective influence. The Dam Safety Act now closely regulates the siting of these structures to prevent accelerated erosion rates.

In summary, the problem is the confrontation between the completely natural forces of erosion and mass wasting and the development by man of areas where these forces are at the maximum. With a better understanding of the phenomena involved, the planning process will recommend and administer programs to encourage better utilization of coastal resources.

A Method for Assessing the Effects of Erosion/Recession

This section will deal with the physical and economic losses suffered as a result of erosion and recession. The physical losses include the loss of solid land to lake waters through erosion of beach materials and the loss of land at the top of the

bluffs to the bluff face by mass wasting and ultimately to the lake waters through erosion. Economic losses include loss of real property, loss of tax base, loss of recreational opportunity, and structural loss.

Four programs recently completed that give evidence of the degree of loss in both categories include:

1. Recession Rate Analysis (as part of the Shoreline Erosion and Flooding Report).

2. Cooperative Beach Erosion Control Project: Presque Isle (between the Commonwealth and the Department of the Army, Corps of Engineers).

3. Shore Structure Inventory (unpublished data obtained by the Edinboro Foundation for the Department of the Army, Corps of Engineers).

4. Property Damage Survey (unpublished data obtained by the Lake Erie Marine Science Center for the Department of the Army, Corps of Engineers).

Each of the above was an attempt to assess the impact of erosion/recession in the coastal zone and attempts being made to lessen (mitigate) the impact. Each effort establishes losses in both categories with some margin of error indicated and made determinations with respect to those areas most critically affected. The recession rate analysis and the locations of hazard areas, as documented in the Shoreline Erosion and Flooding Report, will be formally adopted in regulations and formally designated as bluff recession hazard areas pursuant to the Bluff Recession and Setback Act.

There is every reason to believe that, taken together, the four works provide definite information about erosion/recession and the impacts implied.

It is recommended that in order to improve existing permitting criteria for the regulation of structural or nonstructural measures to reduce erosion/recession, that a complete analysis of the lake-beach-bluff interface be undertaken to provide the information needed to improve engineering of protective devices. In order to select a solution for a particular area, the geophysical and baythymetic character of that area should be known before chosing between structural or nonstructural protection methods. Overall costs of any erosion program can be reduced if comprehensive information is available prior to construction.

Because of the tremendously complex character of the Lake Erie shoreline, very few generalizations can be made with confidence.

Recommended Study Elements

1. Institute a monitoring program of existing Commonwealth control points over time to substantiate photogrammetric data pertaining to recession rate data.

2. Establish additional control points as indicated by continuing study of causal factors.

3. Conduct full-scale geotechnical studies including:

   a. Rate of mass wasting in materials of glacial origin in relation to groundwater loading in various materials of various thicknesses;

   b. Impact of water level changes on various materials at the base of the bluff; and

   c. Sediment load measurements based on sediment size analysis of various materials commonly found in the bluffs.

4. A vegetation study to examine the alternative measures that can be taken to mitigate damage by erosion/recession.

5. Establish a data retrieval, information system to collect and store information on factors pertinent to bluff recession.

Proposed Implementation Elements

The results of these studies can be used by the Coastal Zone Management Program to:

1. Improve regulations governing the siting and design of erosion control structures.

2. Improve regulations governing the siting of structures in bluff recession hazard areas.

3. Produce information useful to homeowners, agriculturalists, and developers in assessing relative hazards in the coastal zone.

4. Improve technical data base to substantiate and expand current knowledge of erosion/recession impacts on the coastal zone.

State Policies Pertaining to Erosion/Recession

The Pennsylvania Coastal Zone Management Program outlines in Chapter 2 of this document specific erosion/recession policies and identifies the authorities and actions that will be used to implement the policies. This section in the policy framework, on Coastal Hazard Areas, provides a clearer articulation of actions that must be taken to protect people and property from the potential dangers of erosion and recession. Specific policies address the problems associated with bluff recession (Policy I-A.1); improper installation of shoreline protection structures (Policy I-A.2); reducing the volumes of surface water runoff (Policy I-A.3); the need for technical assistance to prevent increased erosion and bluff recession (Policy I-A.4); and protection of people and property from the dangers of flooding (Policy I-B). With the accomplishment of these policies, through the Coastal Zone Management Program, Pennsylvania will continue to move closer to defining a sound comprehensive policy concerning erosion/recession in the coastal zone. Additional information on Pennsylvania's authority to implement these erosion/recession policies is contained in Appendix A, Existing Management Authorities.

The Commonwealth of Pennsylvania has, for several years, been involved in a cooperative effort with the Department of the Army, Corps of Engineers, in a Cooperative Beach Erosion Control Project at Presque Isle peninsula. The most recent effort has involved a proposal by the Corps of Engineers to establish a series of segmented breakwaters as a protective device against erosion losses. The agreement established between the Corps of Engineers and the Commonwealth establishes policy by the Commonwealth with regards to eroson control. The Draft Environmental Impact Statement includes the following statement:

> "The Commonwealth of Pennsylvania, through the Department of Environmental Resources, has stated that it will act as the local sponsor for the 'permanent' beach erosion control project and provided a letter dated 7 March 1978 stating their intent to meet the terms required for cooperation in a Local Assurance Agreement.[45]

In order for a beach erosion control project to be constructed at Presque Isle, the local sponsor must give assurances satisfactory to the Secretary of the Army that it will:

1. Provide without cost to the United States all lands, easements, and rights-of-way, including suitable borrow and spoil-disposal areas as determined by the

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[45]Presque Isle Cooperative Beach Erosion Control Project; An Information Packet Summarizing Results of Investigations Undertaken Through Stage II of the Phase I Design, U.S. Army Corps of Engineers, Buffalo District, September, 1979, p. 9.

Chief of Engineers, necessary for the construction of the project;

2. Provide a cash contribution equal to the appropriate percentage of the final construction cost exclusive of lands, easements, and rights-of-way, the percentage to be in accordance with existing law and based on shore ownership and use existing at the time of construction, which contribution is presently estimated at 30 percent;

3. Pay 30 percent of annual beach redistribution and replenishment costs for the project;

4. Hold and save the United States free from damages due to the construction works;

5. Maintain and operate all the works, including periodic sand replenishment and redistribution as needed, after completion, in accordance with regulations prescribed by the Secretary of the Army;

6. Assure continued public ownership or continued public use, without cost to the United States, of appropriate access and facilities, including parking and sanitation, necessary for the realization of the public benefits upon which the Federal participation is based, and administer and maintain the beach for continued public use during the life of the project; and

7. Control water pollution to the extent necessary to safeguard the health of bathers.

As a result of information gathered during the coastal zone management efforts of the past four years, and in response to recommendations made by the Commonwealth with respect to recession, the Bluff Recession and Setback Act has been written to provide local authorities with regulation governing setback ordinances. Under "Purpose and Policy" of the Act are the following:

1. Encourage planning and development in bluff areas which is consistent with sound land use practices.

2. Protect people and property in bluff areas from the dangers and damage associated with the inevitable recession of bluffs.

3. Prevent and eliminate urban and rural blight which results from the damages of bluff recession and erosion.

4. Minimize the expenditure of public and private funds for shoreline protection and bluff stabilization structures and activities.

5. Authorize a comprehensive and coordinated program to regulate development activities through the use of setback ordinances in bluff recession hazard areas, designed to preserve and restore the natural ecological systems, and to prevent continuing destruction of private property and structures.

6. Encourage local administration and management of bluffs consistent with the Commonwealth's duty as trustee of natural resources, and the people's constitutional right to the preservation of the natural, scenic, aesthetic, and historical values of the environment.

The four coastal zone policies relating to shoreline erosion/recession establish the concern of the Commonwealth relative to erosion and measures taken to prevent it. Such policies, here combined, are a definitive statement of policy that can be used to administer and regulate activities in the coastal zone. Through continued interaction with the Coastal Zone Steering Committee, hereinafter CZSC, the Commonwealth will assist in the generation of more detailed policies concerning erosion/recession in the coastal zone.

Procedures for Designating Areas for Control, Mitigation, or Restoration

It shall be the express policy of the Coastal Zone Management Branch to interact with the CZSC in all matters pertaining to the expenditure of coastal zone management related funds for managing activities affected by or designed to control shoreline erosion. The following are criteria to be used when coastal zone management funds are involved:

1. Administration of local ordinances to implement the provisons of the Bluff Recession and Setback Act.

2. State administration and monitoring of the local administration of the Bluff Recession and Setback Act.

3. Provisions of technical assistance to local governments.

4. Administration of Dam Safety and Encroachment Act

5. Coastal zone management funds will be expended only for measures consistent with the overall Coastal Zone Management Program.

6. For expenditure of coastal zone management funds, the full range of alternative erosion control measures, including no action, must be studied.

Areas to be protected or restored shall be put forth by the CZSC on recommendations made by local authorities or nominated by private citizens. If an area has attributes that are greater than local concern, the Commonwealth may act as a nominating body of the CZSC. Within the guidelines established above, the CZSC shall designate an area for restoration or protection and seek funds for acquisition, study, and implementation.

Erosion control measures taken by private individuals on private land must conform with all requirements of the Dam Safety and Encroachments Act and the Bluff Recession and Setback Act. It shall be the function of the CZSC to assist the Coastal Zone Management Branch in regulating structural or nonstructural alternatives in a manner that considers the impacts on public health, safety, or the rights of others. While the Commonwealth may have the right to restrict structures not in conformance with the above, the CZSC will be able to help the Coastal Zone Management Program expedite formal applications for permits for structures in conformance with coastal zone management policies and standards.

Procedures for Managing the Effects of Erosion/Recession

As noted in the Coastal Zone Management Program development guidelines, erosion planning processes must consider, in addition to structural measures for erosion control, any nonstructural technique or alternative to mitigate erosion losses.

The Commonwealth has taken the position that erosion/recession is a natural phenomena which man has very little chance of controlling. Therefore, structural methods are generally seen as temporary and having generally minimal effects on reducing erosion. Also, the high costs of most structural techniques leads the Commonwealth to discourage structural alternatives to erosion/recession. The serious up and down-drift impacts of most structural alternatives is another obvious detractor from structural alternatives.

However, where valuable property is involved and the threat of loss is great, the Commonwealth acknowledges that structural alternatives may provide the best short-term solution. The nonstructural alternative usually accepts the no-win situation and carefully evaluates the temporary measure against the long-term gain. This would include the "do nothing" option.

Through the administration of the Dam Safety and Encroachments Act, Pennsylvania Department of Environmental Resources will control structural methods of controlling erosion/recession. Permits will not be issued without careful consideration of long

and short-term impacts. Criteria for issuance of permits is formed in Chapter 105, of the Commonwealth regulations (see Appendix B). The Bluff Recession and Setback Act will ensure that new structures are built outside of bluff recession hazard areas to minimize the need for structural method of protection. The two pieces of legislation are, therefore, complimentary. Together they ensure that reliance on structural methods will be carefully controlled. Coastal zone management funds will not be used to construct or repair any types of erosion or recession control structures.

As generally accepted, the following are the structural, nonstructural methods applicable to the shores of Lake Erie. Any of these activities occurring in the coastal waters will be subject to State permitting and criteria found in Chapter 105 regulations (see Appendix B).

Seawalls, Bulkheads, Revetments - The exact definition for each of the above varies from region to region. Generally, they consist of devices constructed parallel to the beach, separating the land from the erosive forces of the water. They are limited by the following:

1. Cost of properly engineered device and accompanying high construction costs;

2. Lack of access to bluff base where bluffs exceed 9 m (30') in height;

3. Lack of available natural materials when the use of concrete is discouraged;

4. Inability to cope with flanking problems on adjacent properties;

5. Loss of natural beach;

6. Lack of sufficient foundation;

7. Reduction of shore access; and

8. Fluctuation in water levels.

Generally, the cost of a seawall is discouragement enough for most private property owners. Attempts are made by many to shortcut proper engineering and construction steps with the result being structural failure. The seawall concept is discouraged by the Commonwealth except in extreme cases where the threatened loss warrants the extreme costs of a suitable structure.

The use of discarded materials for revetments is discouraged. Concrete rubble, junk cars, and similar materials have minimum

effect on reducing erosion and detract significantly from the natural scene.

Groins - A groin is defined as any measure taken to interfere with the long-shore transport system by building or placing material perpendicular to the beach face with the intent of trapping sand on the updrift side. In Erie County, the groin has been an obvious choice because of the relative low cost and the fact that the sand accumulation provides a buffer against the erosive force of the waves and provides recreational opportunity. Disadvantages to groins include:

1. Removal of sand from littoral system causing accelerated erosion downdrift of the groin;

2. Creation of a safety hazard since sand accumulation on the updrift side produces deepening on the downdrift side;

3. A general lack of sufficient foundation for the construction of the groin;

4. Breaching caused by flanking or overtopping, reducing the effectiveness of the structure;

5. A general lack of knowledge of design criteria including wave climate and water level fluctuations; and

6. Lack of sufficient sand in the transport system which negate the effectiveness of any structure.

Because of the extreme down-drift impact, the use of groins is discouraged except in the most unusual circumstances. Where loss is imminent due to extremes in environmental conditions, the use of temporary groins (gabions, tire mats, etc.) would be encouraged.

Nonstructural Techniques - Nonstructural alternatives involve a variety of techniques that attempt to produce a satisfactory response in erosion reduction. Among such alternatives are beach nourishment and sand pumping. Both procedures involve high annual costs, destroy the natural regimen and have a severe impact on aquatic life. Such techniques are discouraged. However, in cases where structural alternatives are too costly in protecting a public facility or lands of high value, these nonstructural techniques may have to be considered.

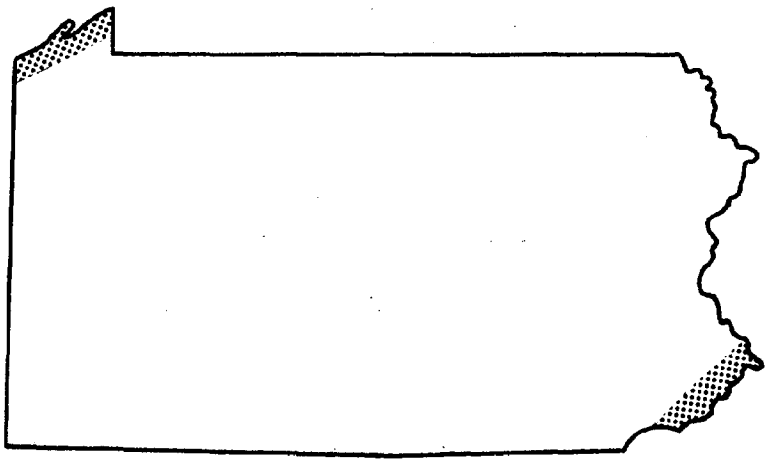
Another nonstructural technique is to do nothing. While obviously financially attractive, it remains an unsatisfactory alternative when structural, or property loss is imminent.

To prevent recurring property losses, the Commonwalth is dedicated to utilizing zoning amendments governing structural

setback requirements. The Bluff Recession and Setback Act provides that each designated coastal community acknowledge erosion/recession as a continuing phenomena and to develop ordinances that prohibit the construction or substantial improvement to structures in bluff hazard areas.

Additionally, the Commonwealth, through advisory services, educates landowners about activities that aggravate recession phenomena. Proper vegetation management, management of stormwater run-off, proper sanitary drains, and other activities that lessen mass wasting are encouraged.

Chapter 4



Program Authorities and Organization

MANAGEMENT REQUIREMENTS AND AUTHORITIES

Introduction

In order to receive approval by the Secretary of the U.S. Department of Commerce for its management program, a state must demonstrate that it has the authorities necessary to implement the program. The following is a list of requirements a state must meet to demonstrate that it is capable of and willing to manage its coastal resources in the prescribed manner.

1. A state must identify those uses of coastal resources, having direct and significant impacts upon the coastal waters, which will be subject to management by the state program.

2. A state must demonstrate that it has the necessary authorities on which to base a management program and an organizational structure that is designed in such a manner that it can and will be applied to ensure implementation of the state's enforceable Coastal Zone Management policies.

3. A state must select an implementation strategy from among the three approved implementation strategies identified in the Regulations of the Coastal Zone Management Act. The state may select one or a combination of more than one of the three strategies listed below.

   a. State establishment of criteria and standards for local implementation.

   b. Direct state land and water use planning and regulations.

   c. Case by case review of actions affecting land and water uses subject to the management program.

4. A state must describe the mechanisms that it will utilize in implementing the type of management program that it has selected.

5. A state must designate a single state agency to receive and administer Federal grants for purposes of implementing the management program.

6. A state must demonstrate that it has developed adequate processes to ensure that the management program has necessary monitoring and evaluation capabilities.

7. A state must demonstrate the adequacy of its intergovernmental coordination and review processes.

The remainder of this chapter is devoted to demonstrating how Pennsylvania has developed a management program which fulfills these requirements.

Uses Subject to Management

During the early phases of the Coastal Zone Management Program, extensive inventories were made of the Commonwealth's coastal resources and uses. Current and past problems and issues associated with the utilization of coastal resources were identified and analyzed, and future demands on the coastal resources were projected.

Utilizing the results of these studies, incorporating the needs and desires of the coastal residents, businesses, industries, and interest groups, and realizing the need to address national priorities such as energy development, wetland preservation, and port revitalization, it was determined that the following uses of the coastal areas have a direct and significant impact on coastal waters and so are subject to management by the Commonwealth's Coastal Zone Management Program.

1. Activities associated with the placement and design of structures in coastal hazard areas. Particular attention will be given to the placement of structures in coastal hazard areas where they would be subject to damage by and/or exacerbate the problems associated with flooding and erosion.

2. Activities such as dredging and spoil disposal which could negatively impact navigation, flood flow capacity, wetlands, environmental quality, and public interest.

3. Activities which cause both positive and negative impacts upon coastal fishery populations and their aquatic habitat.

4. Activities that would result in the degradation or destruction of tidal or freshwater wetland.

5. Activities which possess the potential for providing or hindering the development of public access sites for both passive and active forms of recreation.

6. Activities which adversely impact or which enhance the restoration and/or preservation of historic sites and structures.

7. Activities in port areas which directly affect overall port planning, development, enhancement, and revitalization.

8. Activities related to energy production and energy facility siting that have the potential to cause adverse environmental impacts to sensitive ecological areas.

9. Activities which affect air quality and water quality in the coastal zones.

Pennsylvania has developed a State/Local management partnership that combines both State and Local administration of State authorities. The bulk of the management program will be administered by State agencies. However, local governments will administer State authorities for floodplain management and bluff setback permitting in accordance with State standards.

All State enforceable coastal policies will be administered in a uniform fashion in the coastal areas according to the program's regulatory authorities. Through the use of an Executive Order and the Memoranda of Understanding, the Department of Environmental Resources will serve to ensure that all State nonenforceable policies are carried out in a uniform fashion throughout the coastal zone. This concept of linking various State authorities under one agency is known as networking.

Networking Mechanisms

The following mechanisms are used to achieve networking in Pennsylvania:

Executive Order - Executive Order (No. and Date) provides the basis for networking in Pennsylvania. It directs all administrative departments, independent administrative boards and commissions, and other State agencies to comply with the program's regulatory policies. It is legally enforceable in this regard to the extent that it directs the administrative departments, independent administrative boards and commissions, and other State agencies to follow the enforceable policies of the Coastal Zone Management Program. Additionally, the Executive Order designates the Department of Environmental Resources as the lead agency for implementing and administering the Pennsylvania Coastal Zone Management Program and as the single State agency to receive and administer Federal grants available for implementing the management program. The draft Executive Order is found in Appendix A.

Memoranda of Understanding - The Memoranda of Understanding are program agreements between the Department of Environmental Resources and other State agencies and commissions that administer authorities and various programs that will be used in

the implementation of the program's nonregulatory policies. The Memoranda of Understanding details the manner in which the agencies, independent boards and commissions will use their authorities in the furtherance of the program's nonregulatory policies. A draft of the standard terms of the Memoranda of Understanding is found in Appendix A.

Environmental Rights Amendment - Article 1, Section 27 of the Pennsylvania Constitution, commonly refered to as the Environmental Rights Amendment (ERA), provides another basis for networking the various statutory authorities and agencies together in conformance with Pennsylvania's Coastal Zone Management Program. The ERA states:

> "The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic, and aesthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people."

The amendment imposes the obligation on the Commonwealth to act as a trustee to conserve and maintain Pennsylvania's public natural resources. Every Commonwealth administrative agency, independent board and commission, and every local government body has the responsibility to carry out the requirements of the ERA.

The networking mechanisms provide an avenue of legal enforcement to ensure State agencies, boards and commissions comply with the program's enforceable policies and an avenue of administrative enforcement to ensure compliance with the program's nonregulatory policies.

Networked Authorities

Networking in Pennsylvania is facilitated by the fact that all authorities needed to implement the program's regulatory policies and many of the authorities needed to implement the program's nonregulatory policies are housed in the Department of Environmental Resources (DER). The Department of Environmental Resources is the lead agency for implementing and administering the Coastal Zone Management Program and the single State agency for receiving and administering Coastal Zone Management grants. These authorities are as follows:

Regulatory Authorities

1. Bluff Recession and Setback Act, Act of __, P.L. __, (__ P.S. Section __ et seq.)

2. Dam Safety Act, Act of November 26, 1978, P.L. 1375, as amended, (32 P.S. Sections 693.1 et seq.)

3. Floodplain Management Act, Act of October 4, 1978, P.L. 851 (32 P.S. Sections 679.101 et seq.)

4. Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended, (35 P.S. Sections 691.1 et seq.)

5. Pennsylvania Solid Waste Management Act, Act of July 31, 1968, P.L. 788, as amended, (35 P.S. Sections 6001 et seq.)

6. Air Pollution Control Act, Act of January 8, 1960, P.L. (1959) 2119, as amended, (32 P.S. Sections 4001 et seq.)

7. Radiation Control Act, Act of January 28, 1966, P.L. (1965) 1625 (73 P.S. Section 1301 et seq.)

8. Gas Operations Well-Drilling Petroleum and Coal Mining Act, Act of November 30, 1955, P.L. 756, as amended, (52 P.S. Sections 2101 et seq.)

9. Pennsylvania Sewage Facilities Act, Act of January 24, 1966, P.L. (1965) 1531, as amended, (35 P.S. Sections 750.1 et seq.)

Nonregulatory Authorities

1. Soil Conservation Law, Act of May 15, 1945, P.L. 547, as amended, (3 P.S. Sections 849 et seq.)

2. Open Space Lands, Act of January 19, 1968, P.L. (1967) 992 (32 P.S. Sections 5001 et seq.)

The remainder of the authorities needed to implement the program's nonregulatory policies are either State authorities applying to all agencies, or authorities administered by State agencies that have been networked under the program. The authorities are as follows:

State Authorities Applying to all Agencies

1. Article 1, Section 27 of the Pennsylvania Constitution

2. Administrative Code of 1929, Act of April 9, 1929, P.L. 177, as amended, (71 P.S. Sections 510-1 et seq.)

3. Open Meeting Law, Act of July 19, 1974, P.L. 486 (65 P.S. Sections 261 et seq.)

Networked State Agencies' Authorities

1. Fish Law of 1959, Act of December 15, 1959, P.L. 1779, as amended, (30 P.S. Sections 20 et seq.)

2. Historic Preservation Act, Act of November 22, 1978, P.L. 160 (71 P.S. Sections 1047.1(a) et seq.)

3. The Commerce Law, Act of May 10, 1939, No. 51, P.L. 111, as amended.

Networked Agencies and Intradepartmental Offices, Bureaus and Divisions - The following list contains the Department of Environmental Resources's offices, bureaus, and divisions that have been networked into the management program. A description of their activities is contained in Appendix C.

1. Office of Chief Counsel

   a. Bureau of Regulatory Counsel
   b. Bureau of Litigation
   c. Bureau of Legal Services

2. Office of Environmental Protection and Regulation

   a. Bureau of Solid Waste Management
   b. Bureau of Water Quality Management
   c. Bureau of Air Quality Control

3. Office of Resources Management

   a. Coastal Zone Management Branch
   b. Bureau of Resources Programming
   c. Bureau of Design
      (1) Division of Recreational Facilities
      (2) Division of Water Control Structures
   d. Bureau of Operations
   e. Bureau of Soil and Water Conservation
      (1) Division of Soils Resources and Erosion Control
   f. Bureau of State Parks
   g. Bureau of Dams and Waterway Management
   h. Bureau of Topographic and Geologic Survey

The following is a list of departments and commissions exclusive of the Department of Environmental Resources (the lead agency) which have been networked together under the auspicies of the Coastal Zone Management Program. For a description of how they will be utilized in the furtherance of coastal zone management goals and policies, see Appendix C.

1. Department of Commerce

2. Department of Community Affairs

3. Department of Transportation

4. Pennsylvania Fish Commission

5. Pennsylvania Historic and Museum Commission

6. Public Utility Commission

PROGRAM MONITORING AND EVALUATION

Executive Order (No. and Date) designated the Department of Environmental Resources, Coastal Zone Management Branch, as the lead agency for implementing and administering the Coastal Zone Management Program in Pennsylvania. The Coastal Zone Management Branch is responsible for monitoring and evaluating activities pertinent to coastal zone management, and ensuring compliance with the program's enforceable policies. The following mechanisms will be used by the Coastal Zone Management Branch to monitor pertinent activities in the coastal zones.

Permit Process

The permit process in Pennsylvania provides an established legal and institutional mechanism for the monitoring of the program's regulatory policies.

DER Administered Permits - Review of applications for permits by the Coastal Zone Management Branch is the primary mechanism used for monitoring compliance with the regulatory policies of the management program implemented by the Department of Environmental Resources. The Coastal Zone Management Branch will utilize the following procedures to ensure early coordination and consultation with the regional and central offices of the Department of Environmental Resources, on the issuance of all air, water, solid waste, dams and encroachments permits affecting uses subject to management by the program:

1. Regional Office Permits - Permits issued by regional offices, that will be monitored, include water, air and solid waste permits. They will be monitored in the following manner:

   a. The Coastal Zone Management Branch will receive a copy of the form #1 (permit coordination form) following composite review and comment by regional staff. A general project description will accompany the form #1 to provide this office with a better understanding of the scope of the project.

   b. Along with form #1, a copy of the acknowledgement letter will also be sent to this office at the time the letter is processed to the applicant.

c. Any additional discussion or information needed concerning an application will be provided to the Coastal Zone Management Branch upon request. This may include copies of the application and/or discussion by telephone with regional staff and Coastal Zone Management staff.

d. Any major concerns over an application affecting the Coastal Zone Management Program will be addressed in writing to the regional office. Concerns rejected by the region will involve further discussion by regional director and the Coastal Zone Management Program Manager for resolution. If these actions fail to resolve the differences, conflict resolution mechanisms as described later in this chapter will be utilized.

e. This process runs concurrently within the established permitting process and is executed within the established time frame of 60 days.

Figure iv-1 graphically depicits the permitting process utilized for regional office permits.

2. Central Office Permits - Permits issued by the central office of the Department of Environmental Resources in Harrisburg that will be monitored are Dams and Encroachments permits. They will be monitored in the following manner:

a. All applications for permits in the coastal zone, pertinent to uses subject to management, will be brought to the attention of the Coastal Zone Management Branch by the Bureau of Dams and Waterway Management via telephone or memorandum for review and comment by the Coastal Zone Management Program Manager.

b. Information provided to the Coastal Zone Management Branch will include project type, location, and description.

c. If it is determined that the proposed action has no adverse affect upon coastal resources and if it is consistent with the Commonwealth's enforceable policies, the Coastal Zone Management Program Manager will notify the Bureau of Dams and Waterway Management of such, via form letter.

d. If it is determined that the project will have an adverse affect upon coastal resources or if it is not consistent with the Commonwealth's

REGIONAL PERMIT REVIEW FLOW PROCESS

Figure iv-1

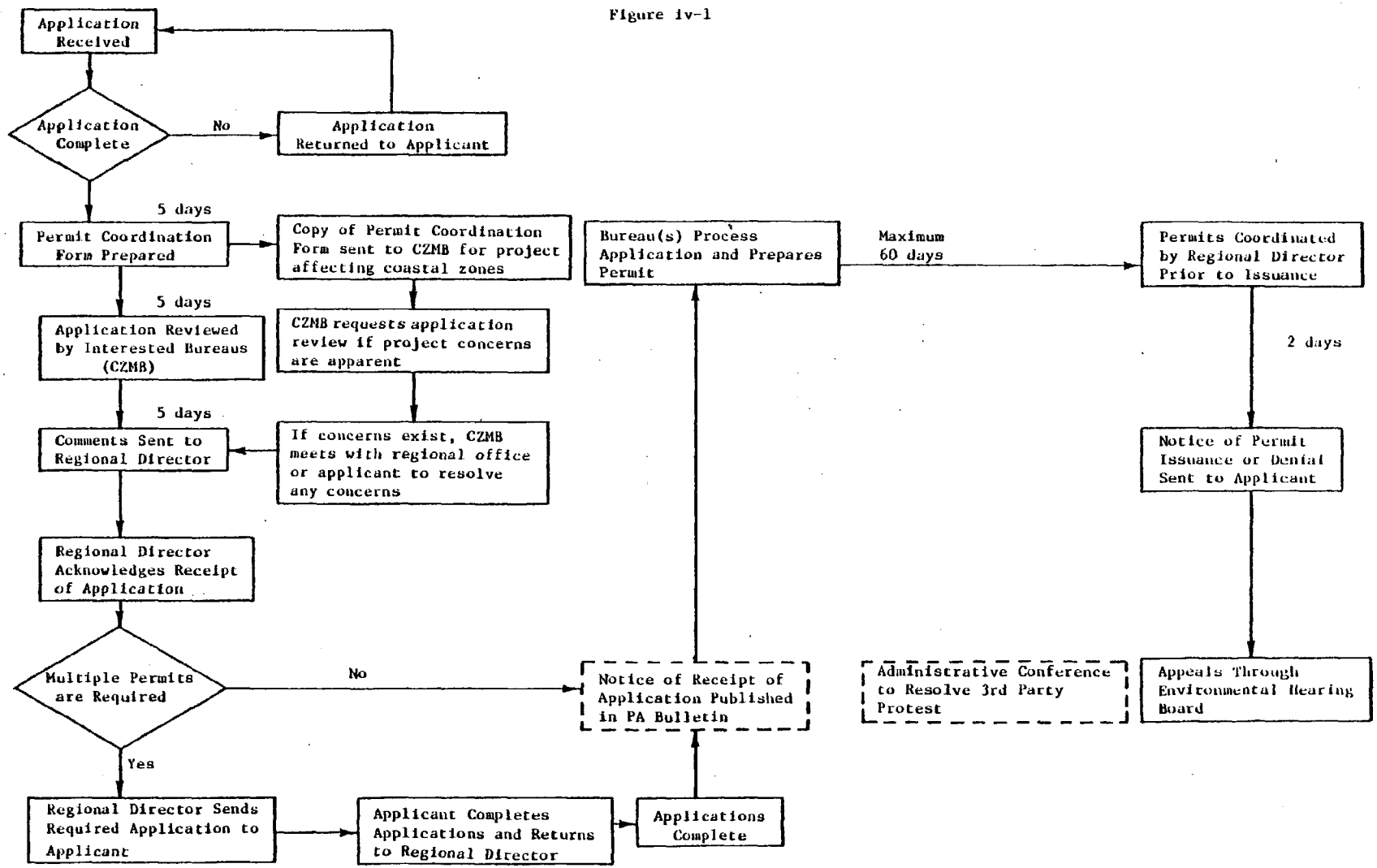
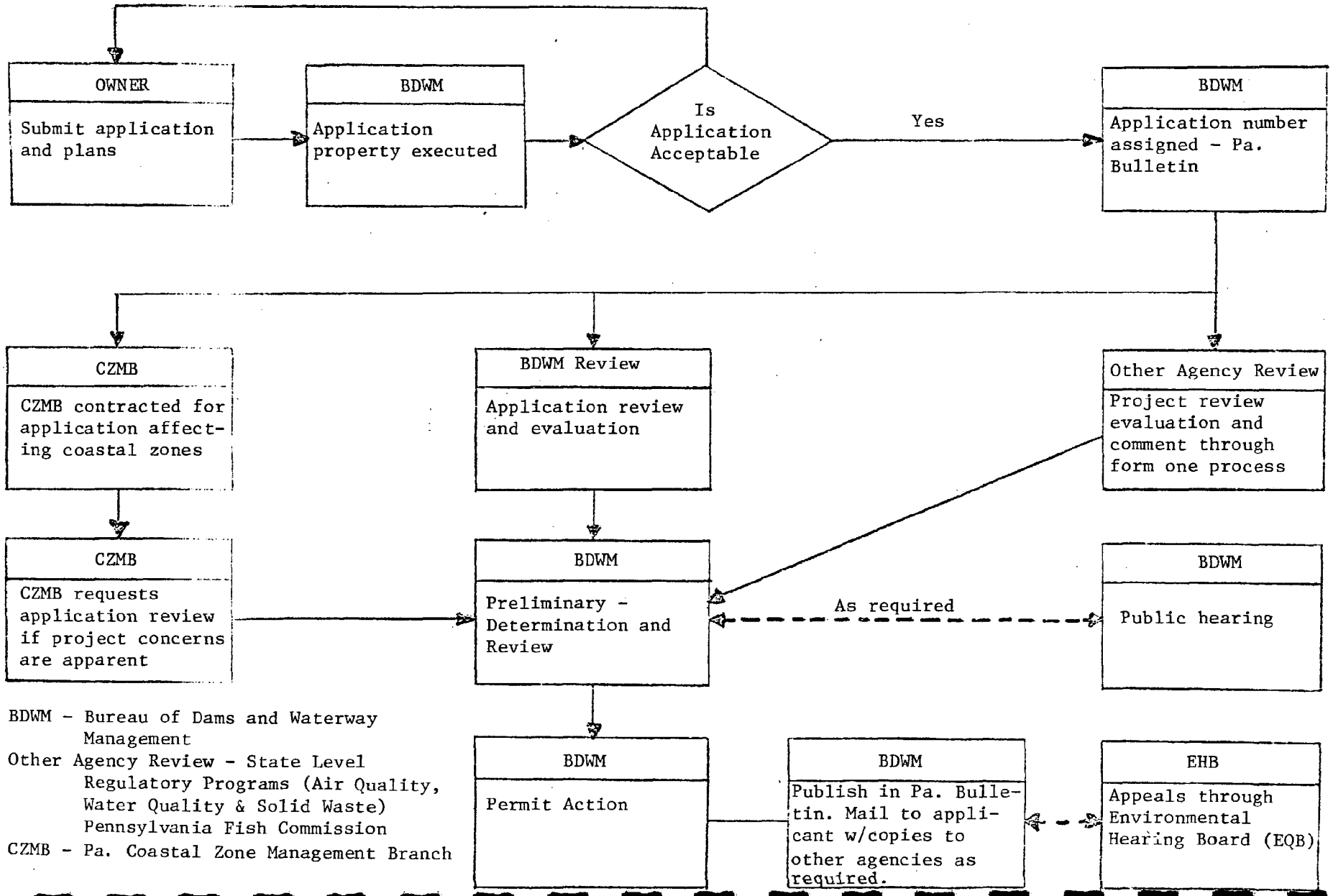


FIGURE iv-2
CENTRAL OFFICE PERMIT REVIEW FLOW CHART
BUREAU OF DAMS AND WATERWAY MANAGEMENT (DER)



BDWM - Bureau of Dams and Waterway Management
Other Agency Review - State Level Regulatory Programs (Air Quality, Water Quality & Solid Waste) Pennsylvania Fish Commission
CZMB - Pa. Coastal Zone Management Branch

enforceable policies, arrangements will be made by the Coastal Zone Management Branch to meet with the Bureau of Dams and Waterway Management to discuss and attempt to resolve any concerns that are raised.

e. Three possible actions can occur as a result of the meeting: either the Coastal Zone Management Program Manager's concerns can be addressed and he will then issue the form letter mentioned in c. above; the permit issuer will deny the permit based on the Coastal Zone Management Program Manager's concerns; or no agreement may be reached and the process of a conflict resolution will be initiated.

f. This process runs concurrently with the established permitting process and is executed within the established time frame of 60 days.

Figure iv-2 graphically depicits the permitting process utilized for central office permits.

3. Locally Administered Permits - Compliance with two enforcement policies will be monitored via permitting delegated to local governments. Local governments are required to develop and adopt State approved permitting programs covering activities in floodplains and bluff recession hazard areas. State criteria and standards contain provisions for periodic inspections to assure that the affected municipalities are enforcing the programs in a uniform and coordinated manner and are in compliance with the intent of the acts. This enables the Coastal Zone Management Branch to monitor these activities with respect to compliance with the policies of the Coastal Zone Management Program.

a. Floodplain Management - This Act requires local governments to qualify for the National Flood Insurance Program. Municipalities identified by the Department of Housing and Urban Development as having areas subject to flooding are required to develop zoning ordinances, subdivision regulations, building codes, and other special purpose ordinances which will minimize the effects of flooding on life and property. The Act places joint responsibility for administration with the Department of Community Affairs and the Department of Environmental Resources and specifies penalties for failure to comply. The Coastal Zone Management Branch will assist the Department of Community Affairs when requested in review of municipal implementation

and administration of local ordinances to ascertain compliance or noncompliance with any applicable floodplain management regulations. The Department of Environmental Resources's assistance in the review is predicated upon the provisions of the Floodplain Management Act.

b. Bluff Recession and Setback Act - Requires communities designated as having bluff recession hazard areas to develop and submit to the Department of Environmental Resources bluff setback ordinances that meet the minimum requirements of the Act. Regulations developed pursuant to the Act require the Department to review municipal implementation and administration of the local ordinance at least once a year to verify that the municipality is providing uniform and coordinated enforcement of the bluff setback ordinance.

Project Review Process

The following mechanisms will be used to monitor and evaluate activities pertinent to coastal zone management that do not require a permit and will also be used to help ensure that the Coastal Zone Management Branch is aware of all pertinent permitting activities.

1. Pennsylvania Bulletin - Is the official gazette of the Commonwealth of Pennsylvania. It contains notices, regulations, and other documents filed with the Legislative Reference Bureau and supplements the Pennsylvania Code - a loose-leaf codification of administrative regulations, legislative documents, court rules, and home rule charter documents.

2. The A-95 review process established by the Intergovernmental Cooperation Act of 1968 provides for a network of State and areawide clearinghouses for the purposes of reviewing and commenting on all notices of intent to apply for Federal aid in Pennsylvania. The purpose of the review process is to provide Federal cooperation with State and local governments in the evaluation, review, and coordination of Federal and Federally assisted programs and projects.

3. Federal Environmental Impact Statement Process - All Federal, State, and local projects involving the expenditures of Federal funds will be monitored via the Environmental Impact Statement process. This process is incorporated in the A-95 review process.

4. Project Review and Evaluation Process (PREP) - Departmental PREP review is an internal departmental review of departmental actions. In addition, extradepartmental activities are channeled into the PREP process for departmental review. The following are the types of departmental and extradepartmental projects processed through the review system.

   a. Applications for Federal Categorical Funds, OMB Circular A-95, Part I

   b. Direct Federal Development Projects, OMB Circular A-95, Part II

   c. National Environmental Policy Act Documents (E.I.A.'s negative declarations and EIS's)

   d. State Plans, OMB Circular A-95, Part III

   e. Multijurisdictional Area Planning Coordination Agreements, OMB Circular A-95, Part IV

   f. Park Projects Funded Under Pennsylvania's Project 500

   g. Act 120 Transportation Projects

   h. Federal Regulations

   i. Intra-Departmental Project Reviews to resolve internal differences

   As described earlier in this report, all applications for Federal aid requiring A-95 clearance generated within the Department of Environmental Resources are subject to an internal review. This review is designed to resolve internal differences before the application is submitted to the State Clearinghouse.

   These nine project types constitute the range of projects currently being reviewed through the Department's project review system. One of the assets of the project review system is that it can be used to accommodate a variety of new project or program types. The most important features of the program are the procedures which obtain input from the various bureaus in the Department and provide for resolving differences that end in formulating a single departmental position. Because of this, PREP provides a rather flexible mechanism that can be used to review a variety of projects, proposals, and plans.

5. Water Resources Policy Advisory Committee (WRPAC) - Is a statewide level water resources advisory committee

which advises the Department of Environmental Resources on legal, institutional, and policy issues regarding water planning management.

6. The Coastal Zone Advisory Committee - Whose membership and activities are described in Chapter 5.

7. The Coastal Steering Committees - Whose membership and activities are described in Chapter 5.

CONFLICT RESOLUTION

The Pennsylvania Coastal Zone Management Program is designed to balance the protection and preservation of coastal resources with use and development. Because of the scarcity of space in the coastal zone, conflicts often arise over uses. To resolve the conflicts, Pennsylvania will use a set of existing legal and administrative mechanisms. These mechanisms will provide Federal, State, regional, and local agencies, as well as citizens and special interest groups a forum to express their views, enter into the decision-making process and challenge actions of the Coastal Zone Management Program. It is anticipated that most of these potential conflicts will be resolved through informal staff meetings. However, in the event that these informal meetings do not resolve the conflict, legal and administrative processes are available.

The actions of the program to which legal or administrative conflict resolution mechanisms may apply are:

1. Legislative initiatives

2. Rule making and formal designations pursuant to existing state authority

3. Permit issuance or denial

4. Findings of inconsistency of agency actions with policies of the Coastal Zone Management Program

5. Failure to enforce the Coastal Zone Management Program

6. Administrative decision-making

The legal mechanisms include the:

1. Legislative process

2. Environmental Quality Board

3. Environmental Hearing Board

4. Citizen suits to enforce Article I, Section 27 of the Pennsylvania Constitution

5. Judicial procedures pursuant to State statutes

6. Judicial procedures pursuant to local administration of State statutes.

The Administrative mechanisms include:

1. Interdepartmental resolution

2. Intradepartmental resolution

Legal Conflict Resolution

The purpose, structure, and means by which agencies, individuals, and groups can become involved in the legal processes are discussed in the following sections.

Legislative Process

Interested parties are notified of proposed bills via special mailings by the House in which the bill originated, news releases, and T.V. and radio coverage. The public may express their concerns directly at committee hearings on the proposed legislation, or may express their concerns to committee members. All sessions of either House where legislation is acted on is open to the public. All committee meetings are open to the public, and all during the legislative process anyone can make his interests known by contacting any elected member of the legislature.

Environmental Quality Board

The purpose of the Environmental Quality Board (EQB) is to propose and adopt regulations to implement State authorities administered by the Department of Environmental Resources (DER).

By law, the EQB is comprised of the Secretaries of Agriculture, Commerce, Community Affairs, Environmental Resources, Health, Labor and Industry, and Transportation; the Executive Directors of the Fish Commission, Game Commission, Historical and Museum Commission, and State Planning Board; the Chairman of the Public Utility Commission; four members of the General Assembly, and five members of the Department of Environmental Resources's Citizens Advisory Council. The Secretary of Environmental Resources serves as chairman.

There are three opportunities for a person (person is defined as "any individual, partnership, association, corporation, political subdivision, municipal authority, or other entity") to enter the EQB rulemaking process. These are:

1. Proposal of Regulations - Any program unit, the EQB, the Environmental Hearing Board, any staff member of such boards, official of the Department of Environmental Resources, legal counsel (which includes the Chief Counsel or any member of his staff) or a member of the public may propose regulations to implement state authority. Presentation of proposed regulations to the EQB must be made by legal counsel of the Department of Environmental Resources. The EQB, at its discretion, will determine whether the proposed regulations shall be rejected, considered for adoption, or returned to the person or unit initiating the proposed regulations for resubmission at a later date.

2. Public Hearing on Proposed Regulations - Proposed regulations which are considered for adoption by the EQB will at the discretion of the EQB, unless otherwise mandated by law, be subject to public hearings. Public notice of the hearing is generally provided 30 days in advance of the hearing in the Pennsylvania Bulletin. However, this notice of hearings is subject to the discretion of the EQB.

3. Written Testimony on Proposed Regulations - Agencies, individuals, and groups unable to attend a public hearing(s) on proposed regulations have an opportunity to express their reviews in writing to the EQB during the period of public notices prior public hearing(s) and for a period of time after the public hearing(s). The length of these periods in which the record is open for written testimony is subject to the discretion of the EQB and is so stated in the Pennsylvania Bulletin. Generally, the period to receive written testimony remains open 30 days after completion of public hearing(s).

Following formal adoption of the regulations by the EQB, any aggrieved person would have to challenge the applicability of the regulations to the Environmental Hearing Board. This process is reviewed in the following section.

Environmental Hearing Board

The purpose of the Environmental Hearing Board (Board) is to hold hearings and issue adjudications on actions of the Department of Environmental Resources. An "action" is defined as an order, decree, decision, determination or ruling by the Department affecting personal or property rights, privileges, immunities, duties, liabilities or obligations of any person, including but not limited to, denials, modifications, suspensions and revocations of permits, licenses and registrations; orders to cease the operation of an establishment or facility; orders to correct conditions endangering waters of the Commonwealth; orders

to construct sewers or treatment facilities; orders to abate air pollution; and appeals from and complaints for the assessment of civil penalties. This includes actions of the Pennsylvania Coastal Zone Management Program. The membership of the Board consists of its Chairman and two members appointed by the Governor.

Any "person" aggrieved by an action of the Department of Environmental Resources may enter the appeals process by addressing the specific objections to the action of the Department of Environmental Resources in writing. Upon receiving the appeal, the Board shall provide notice in the Pennsylvania Bulletin and the opportunity for any "person" to provide pertinent testimony. "Person" refers to anyone except the applicant, appealee, plaintiff, dependent or intervenor.

Upon completion of the hearing process, final orders of the Board will be issued.

The appelant may appeal the decision of the Board to the Commonwealth Court provided the appeal is filed 30 days after final orders of the Board. Further appeal to the Pennsylvania Supreme Court is a matter of judicial discretion. Petitions for allowance for appeal to the Supreme Court must be filed within 30 days after the decision of the Commonwealth Court.

Citizen Suits Under the Environmental Rights Amendment - Article I, Section 27 of the Pennsylvania Constitution provides that:

> "The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and aesthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all people."

The section was placed in Article I, the portion of the Constitution which guarantees political rights such as due process, freedom of speech, and freedom of religion to Pennsylvania citizens. The amendment creates important personal "environmental rights" which citizens can assert on their own, if necessary, in the courts. The remaining portion of the amendment imposes duties on the Commonwealth to act as trustee to "conserve and maintain" Pennsylvania's "public natural resources".

When citizens bring suit in Commonwealth Court against the Commonwealth or its representatives for actions that are challenged as improper under Article I, Section 27, the court has developed a three-fold test to resolve the issue. This test, evolved from the Payne vs. Kassab Commonwealth Court decision and has become the standard test used in all subsequent court

decisions. The test asks three basic questions to resolve the issue:

1. Was there compliance with all applicable statutes and regulations relevant to the protection of the Commonwealth's public natural resources?

2. Does the record demonstrate a reasonable effort to reduce the environmental incursion to a minimum?

3. Does the environmental harm which will result from the challenged decision or action so clearly outweigh the benefits to be derived therefrom that to proceed further would be an abuse of discretion?

Judicial Procedures Pursuant to State Administration of State Statutes - The Pennsylvania Coastal Zone Management Program relies in part on seven legislative acts, which delegate administration of the acts to the Department of Environmental Resources. These are the Dam Safety Act, Clean Streams Law, Solid Waste Management Act, Air Pollution Control Act, Radiation Control Act, Gas Operations Well Drilling Petroleum and Coal Mining Act, and Sewage Facilities Act. These acts provide that the Department of Environmental Resources may institute suits in law or equity to abate violations of either the act or regulations. These suits are instituted in Commonwealth Court. Appeals from such suits are taken, as a matter of right, to the Pennsylvania Supreme Court. Such appeals must be filed within 30 days following the decision of the Commonwealth Court.

Judicial Procedures Pursuant to Local Administration of State Statutes - The Pennsylvania Coastal Zone Management Program relies in part on two legislative acts which delegate administration of State authorities to local governments. These are the Floodplain Management Act and the Bluff Recession and Setback Act. Both laws provide that the Department of Environmental Resources or any affected county, municipality or aggrieved person may institute suits in law or equity to abate violations of either Act or regulation. These suits are to be instituted in the Commonwealth Court. Appeals from such suits are taken to the Pennsylvania Supreme Court as a matter of right. Such appeal must be filed within 30 days following the decision of the Commonwealth Court.

Persons may become involved in the administration of the Floodplain Management Act and the Bluff Recession and Setback Act at the local level according to the formal provisions of the Pennsylvania Municipalities Planning Code or other applicable enabling legislation.

Persons have two opportunities to become involved in the local administration of these statutes. These are:

1. Public hearings prior to enactment of local zoning ordinances.

2. Appeals on the validity of local zoning ordinances or the application of these ordinances. (see Figure iv-3.)

Administrative Conflict Resolution

Through the use of the monitoring mechanisms described in this chapter, the Coastal Zone Management Branch, hereinafter the Branch, will be informed of all major activities in the coastal zones.

Most decisions and actions of the Pennsylvania Coastal Zone Management Program will occur at the staff level. Occassionally, there may be instances when intra- and interagency staff level discussion may not produce agreement on an action that is taken or proposed to be taken by the Program. On these occassions, it may be necessary for the heads of agencies to administratively resolve these conflicts.

Intradepartmental Conflict Resolution

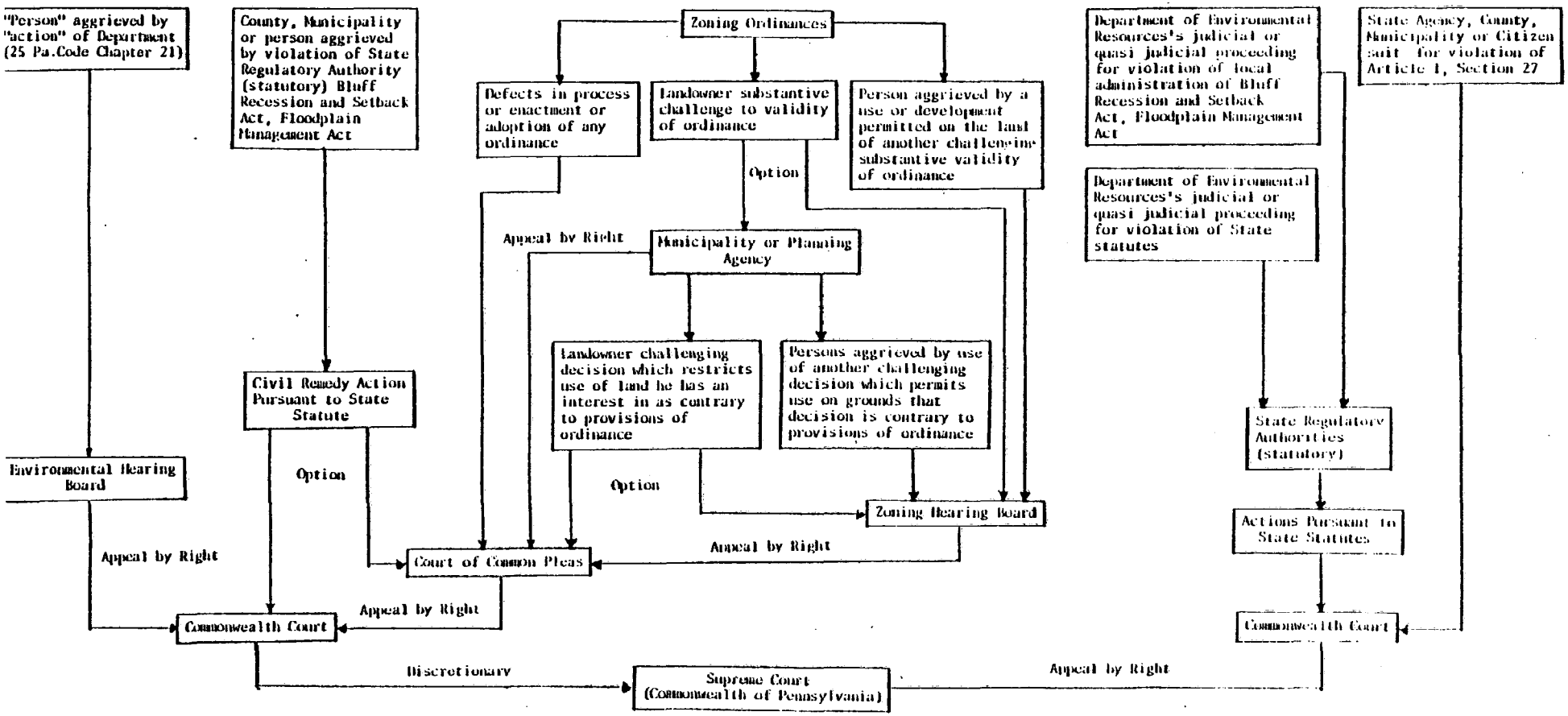
When the Branch is informed of an activity (not requiring Department permits), it will contact the appropriate bureau and request detailed information on the activity. This detailed information will include drawings, activity descriptions, proposed time frames for completion and any other information that may be required to evaluate the activity. On receipt of this information, the Branch will notify the chairman of the appropriate coastal zone steering committee of the proposed activity and request that he and his committee provide the Branch with their opinion of the activity. The Branch will also review the activity for consistency with the program policies. If the review by the Branch and the coastal zone steering committee indicate that the activity is consistent with the program, the Branch will indicate this fact to the bureau. The Branch will continue to monitor the activity for continued compliance with the program.

In the event the activity is found to be inconsistent, the Program Manager will schedule a meeting with the appropriate bureau to discuss and resolve the conflicts. If this meeting does not resolve the conflicts, a meeting will be scheduled with the Deputy Secretary for Resources Management to assist in resolving the conflict.

The Branch is located in this Deputate; and for conflicts between the Branch and any bureau of this Deputate, the Deputy Secretary will resolve the conflict.

Figure iv-3

APPEALS PROCESS



If the conflict is with a bureau in another Depu ate, the Deputy Secretary for Resources Management will request a meeting with the appropriate Deputy Secretary to resolve the conflict. If this meeting fails to resolve the conflict, the Deputy Secretary for Resources Management will request a meeting with the Secretary of the Department of Environmental Resources to resolve the conflict. The Secretary will issue a decision that is administratively binding on all parties involved in the activity. (see Figure iv-4).

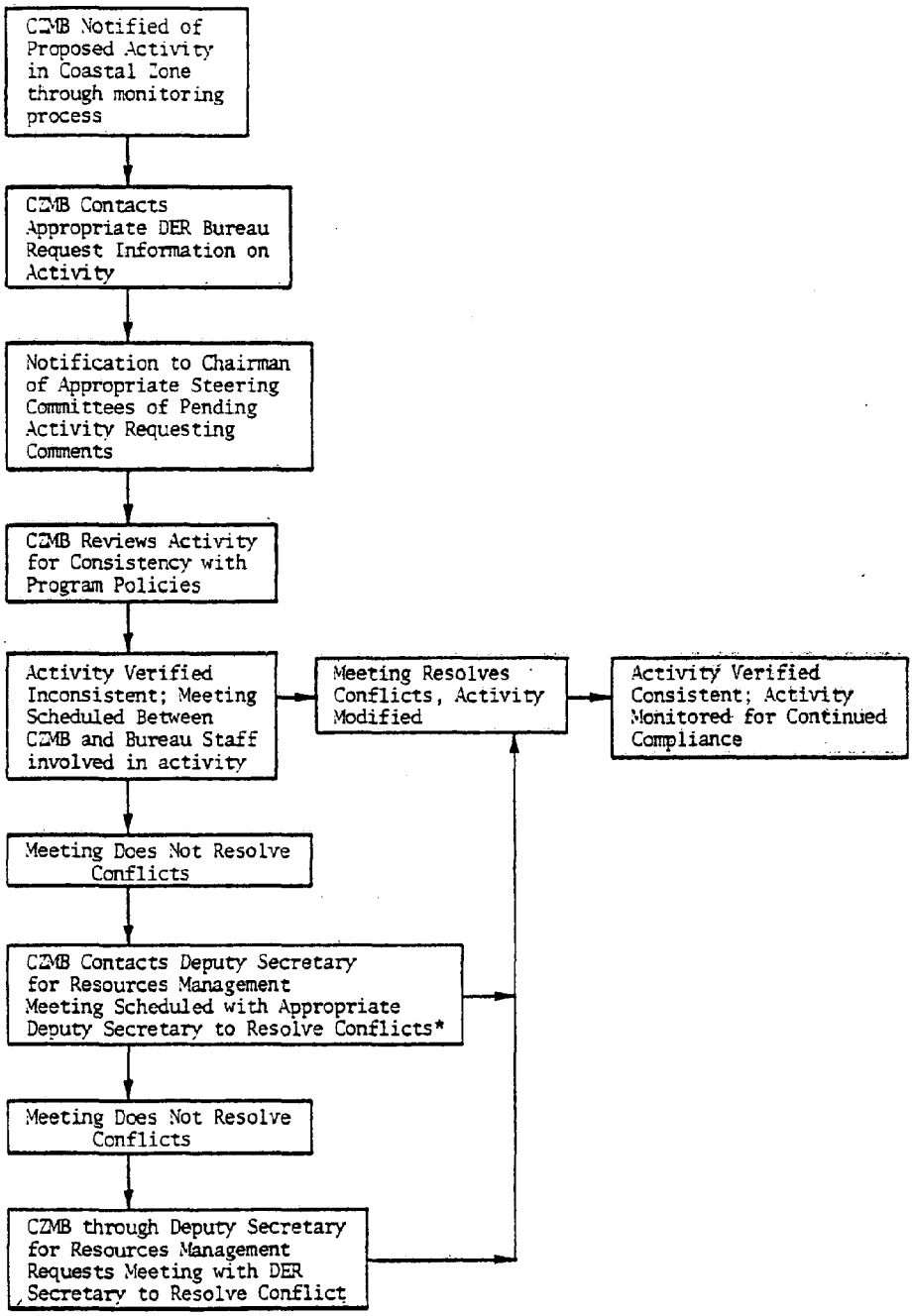
Interdepartmental Conflict Resolution

The first steps of this process are identical to the intradepartmental conflict resolution process. The major difference in the two processes occurs when an activity is proposed by another State agency and is determined to be inconsistent. In this event, the Program Manager for the Branch will meet with the appropriate representatives from the agency to resolve the conflict. If the meeting fails to resolve the conflict, the Program Manager will request that the Deputy Secretary for Resources Management schedule a meeting with appropriate representatives of the agency to resolve the conflict.

If this meeting fails to resolve the conflict, the Deputy Secretary for Resources Management shall contact the Secretary of the Department of Environmental Resources and request that a meeting be scheduled with the appropriate representatives of the agency to resolve the conflict. If this meeting also fails to resolve the conflict, the Secretary of the Department of Environmental Resources may request the Governor to review the conflict and issue an order resolving the conflict. This order will be administratively binding on all parties under the Governor's jurisdiction. (see Figure iv-5.)

Figure iv-4

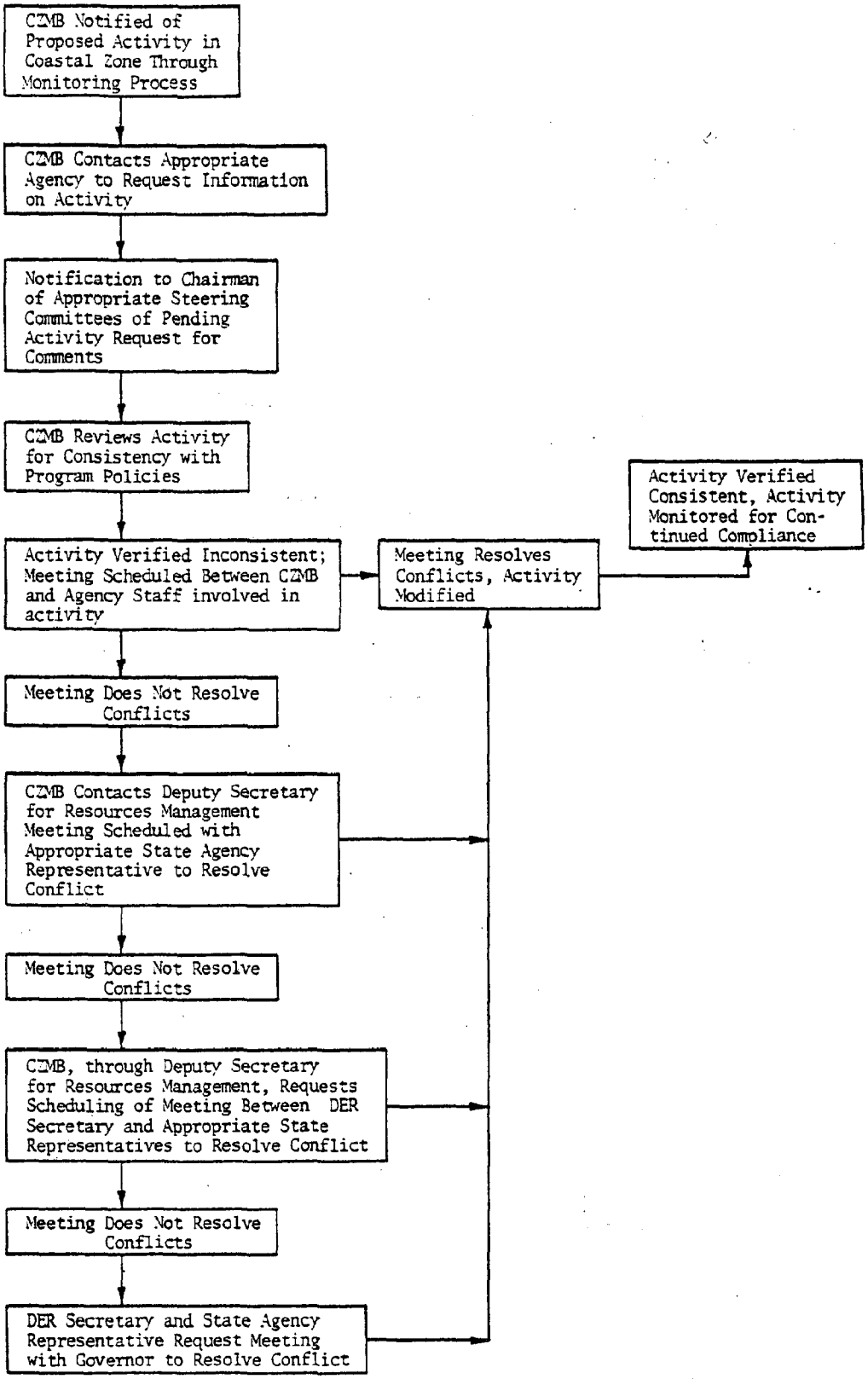
DER ADMINISTRATIVE CONFLICT RESOLUTION
FOR NONENFORCEABLE POLICIES



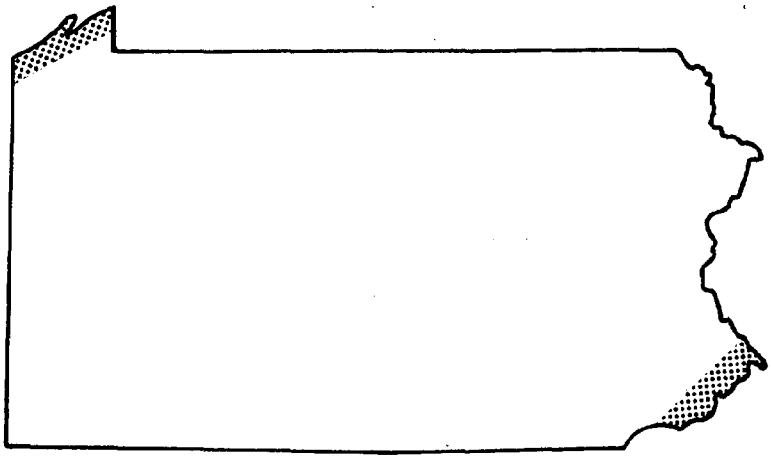
* The CZMB is located in the Offices of Resources Management of the DER. Therefore, the Deputy Secretary will resolve conflicts between Bureaus in this Deputate and CZMB.

Figure iv-5

STATE AGENCY ADMINISTRATIVE CONFLICT RESOLUTION
FOR NONENFORCEABLE POLICIES



Chapter 5



Intergovernmental/ Public Coordination and Review

INTRODUCTION

This chapter presents the institutional and administrative mechanisms that will be utilized to coordinate with and review activities of various governmental units as well as the public. The coordination and review activities are presented at the Federal, interstate, State and local levels. Plan coordination (Section 306(c)(2)(A) of the Federal Coastal Zone Management Act) has been handled through these mechanisms at the interstate, State and local levels. Plan coordination entailed the coordination of the management program with pertinent local, areawide, and interstate plans, which included; plans prepared pursuant to the Housing and Urban Development Act of 1968, the Clean Water Act, the Flood Insurance Act, regional and interstate highway plans and fishery management plans.

FEDERAL COORDINATION ACTIVITIES

Federal Agency Consultation

The preparation and implementation of the Pennsylvania Coastal Zone Management Program included the development of processes and mechanisms designed to facilitate coordination between various Federal agencies and the management program, and ensure that the national interest is adequately considered in coastal decision-making. These mechanisms are designed to help resolve conflicts between various programs, projects and plans.

Pennsylvania began the process of Federal involvement in April of 1975. Since that time, the Coastal Zone Management Branch has requested input on the program from Federal agencies and the appointment of a Federal contact who would be responsible for coordinating Pennsylvania's coastal zone management activities with the Federal agency. The list of Federal agencies and bureaus include:

1. U.S. Department of the Interior

    a. National Park Service
    b. Fish and Wildlife Service
    c. Bureau of Land Management
    d. Bureau of Mines
    e. Heritage Conservation and Recreation Service
    f. Geological Survey

2. U.S. Department of Defense

    a. U.S. Navy
    b. U.S. Air Force
    c. U.S. Army Corps of Engineers (Philadelphia and Buffalo Districts)

3. Federal Energy Regulatory Commission

4. Energy Research and Development Administration

5. Environmental Protection Agency

6. General Services Administration

7. Department of Housing and Urban Development

8. Federal Energy Administration

9. U.S. Department of Transportation

   a. Federal Highway Administration
   b. Federal Railroad Administration
   c. Federal Aviation Administration
   d. U.S. Coast Guard (9th District, Cleveland, Ohio; 3rd District, New York, New York)

10. U.S. Department of Commerce

   a. Maritime Administration
   b. Economic Development Administration
   c. National Marine Fisheries Service
   d. National Oceanic and Atmospheric Administration
   e. National Weather Service

11. U.S. Department of Agriculture

   a. Soil Conservation Service
   b. Forest Service

12. U.S. Department of Health, Education and Welfare

13. Mid-Atlantic Fisheries Management Council

A summary of all input received from Federal agencies is presented in Appendix C. This established mechanism of Federal/State coordination and consultation will be continued throughout program implementation and will provide the State with an early warning mechanism of pending and/or continuing Federal program activities. A list of Federal activities, permits, and funding programs to be reviewed with respect to consistency with the Pennsylvania Coastal Zone Management Program, along with mechanisms for review and comment, will be presented in the next section. As Federal activities change or are modified, this list will be updated to reflect the changes. Final changes will only be made after receiving an acknowledgement from the Federal agency of the proposed change.

Other mechanisms to help achieve adequate Federal/State consultation will be the utilization of the Federal A-95 review process, review of Environmental Impact Statements issued in response to the National Environmental Protection Act, and

multistate regional commissions. In Pennsylvania, because of the separation of the coastal zones, two such commissions (the Great Lakes Basin Commission and the Delaware River Basin Commission) will be utilized. Since representatives of Federal agencies and adjacent states including Pennsylvania are participants in these multipurpose commissions, a forum for increased coordination and representative decision-making is provided that can be effectively utilized to further coastal zone management interests and accomplishment of recommendations.

Federal Consistency

The Federal Coastal Zone Management Act requires that Federal agency activities including development projects directly affecting the coastal zone must be consistent with approved state coastal zone management programs to the maximum extent practicable. Federally licensed and permitted activities described in detail in Outer Continental Shelf (OCS) plans, and Federal assistance programs to state and local governments must be consistent with the Pennsylvania Coastal Zone Management Program.

The Coastal Zone Management Branch, in the Office of Resources Management of Pennsylvania's Department of Environmental Resources, will be responsible for coordinating Federal consistency review of these activities and concurring with or objecting to the consistency determinations of Federal agencies and consistency certifications of applicants for Federal licenses or permits, or Federal assistance.

The following Federal activities or development projects, activities requiring a Federal license or permit, OCS exploration, development and production activities, and Federal assistance to State and local governments, will be subject to consistency procedures.

1. U.S. Department of the Interior

    a. Proposed Bureau of Land Management OCS lease sales.

    b. Proposed National Park Service acquisition in or directly affecting the coastal zones.

    c. HCRS assistance for historic preservation, waterfront redevelopment and state outdoor recreation planning and development in or directly affecting the coastal zones.

    d. Proposed U.S. Fisheries and Wildlife acquisitions in or directly affecting the coastal zones.

2. U.S. Department of Defense

   a. U.S. Army Corps of Engineers dredge and fill permits, channel works, breakwaters, erosion control.

   b. Structures, beach replenishment and dams in or directly affecting the coastal zones and on or in rivers directly discharging into coastal waters.

3. Federal Energy Regulatory Commission

   a. Permits for the construction and operation of interstate gas pipelines and storage facilities in or affecting the coastal zones.

4. Environmental Protection Agency

   a. Construction grants for wastewater treatment works in the coastal zones.

   b. Water pollution control and areawide waste treatment program grants.

   c. Water pollution control state and interstate program grants.

   d. Air quality maintenance planning

5. General Services Administration

   a. Location and design of proposed Federal government property, acquisition and building construction in or directly affecting the coastal zones.

   b. Disposal of surplus Federal lands in or directly affecting the coastal zones.

6. Department of Housing and Urban Development

   a. "701 Planning" open space and housing plan development in or affecting the coastal zones.

   b. Housing and Community Development Act (block grants)

   c. Public housing - acquisition and construction in or directly affecting the coastal zones.

   d. Administration of the Federal Flood Insurance Program

e. Mortgage Insurance

7. U.S. Department of Transportation

a. Federal aviation administration airport planning program and airport development aid program for projects in or directly affecting the coastal zones.

b. Federal highway administration highway research planning and construction activities in or directly affecting the coastal zones.

c. Federal railroad administration, activities affecting railroad expansions, new construction or abandonments in or directly affecting the coastal zones.

d. U.S. Coast Guard changes in regulations affecting port and waterway safety, designation of anchorage grounds and issuance of permits for the construction and modification of bridges or causeways in navigable waters, and the location of new or enlarged Coast Guard Stations, bases and lighthouses within the coastal zones.

8. U.S. Department of Commerce

a. Proposed activities relating to port development and promotion and intermodel planning grants.

b. Proposed port expansion planning assistance for new terminals and harbors.

c. Grants and loans for public works and development facilities in or directly affecting the coastal zones.

d. Planning and technical assistance projects in or directly affecting the coastal zones.

e. Public works impact program projects in or directly affecting the coastal zones.

f. Emergency port planning program projects in or directly affecting the coastal zones.

The preceeding list of Federal activities, permits, or assistance projects requiring a consistency determination certification has been compiled in part through Federal agency consultation. Because Federal agencies may engage in a variety of other actions which could indirectly impact the land and water uses of the coastal zone, the Pennsylvania Coastal Zone Management Branch will review such actions by means of the A-95 process and

Environmental Impact Statement process, and will request that Federal agencies notify it if they are considering actions, such as technical assistance to local governments for which A-95 review is not required. By reviewing Federal actions which may affect the coastal zone directly or indirectly, comprehensive and coordinated planning and decision-making by all levels of government in the coastal zone will be reinforced.

Review Process for Assuring Consistency: The Pennsylvania Coastal Zone Management Branch will utilize the following processes to verify consistency with previously mentioned Federal agency action. These mechanisms will be modified if the Federal consistency regulations promulgated by the Secretary of Commerce mandate changes or if unforeseen deficiencies or conflicts arise in utilizing this mechanism. Necessary changes made to correct deficiencies or conflicts will be submitted to all Federal agencies and bureaus, for comment. Following a reasonable review period, all received comments will be evaluated and a new review mechanism will be developed. This new mechanism will then be utilized in the review of Federal actions requiring consistency.

The existing review mechanisms for consistency are as follows:

- The Review of Federal Activities Including Development Projects covers any Federal development project involving the planning, construction, modification or removal of public works, facilities, or other structures, and the acquisition, utilization, or disposal of land or water resources and any Federal activities which may be classified as a residual category covering Federal actions which are neither development projects nor activities covered by the Federal license, permit and assistance, or subparts of the Federal consistency regulations.

- At the earliest practicable time, Federal agencies are required to notify the State that they are planning to undertake an activity or development project directly affecting the coastal zones, and whether or not it is consistent to the maximum extent practicable with Pennsylvania's management program. The Federal agency will communicate to the Department of Environmental Resources its consistency determination through the OMB A-95 review process, Environmental Impact Statement process, and direct communication with the Coastal Zone Management Branch. This consistency determination will include a brief statement on how the "proposed action will be undertaken in a manner consistent, to the maximum extent practicable, with the State's approved management program, a detailed description of the proposed action, its associated facilities, its combined coastal effects and will be presented in sufficient detail to support the Federal agency's consistency statement". As appropriate and

at the request of the Federal agency, the Department of Environmental Resources's Coastal Zone Management Program Manager will assist the agency in making the consistency determination concerning the proposal. Consistency determination will only be required to be consistent with the program's enforceable policies and to give consideration to those policies defined in Chapter 2 as direct action or encouragment policies.

- Upon receipt of the consistency determination and other required information, the Coastal Zone Management Branch will, in cooperation with other appropriate State agencies and affected coastal municipalities, review the consistency determination and respond to the Federal agency within the time period and in the manner prescribed by 15 CFR, Section 930.41. Should the Coastal Zone Management Branch disagree with the Federal agency's consistency determination and fail to resolve its differences with the Federal agency through personal meetings, the Coastal Zone Management Branch will request mediation by the Secretary of Commerce and will represent Pennsylvania in the dispute settlement process established by 15 CFR, Section 930.42-44. The Federal agency will, after the mediation process, proceed with its activities or revise them to comply with the Pennsylvania program. Should Pennsylvania be dissatisfied with the outcome of the dispute mediation process, it may elect to pursue remedies in the Federal courts.

- Federal Licenses and Permits: Any individual or organization, except a Federal agency, who files for a Federal license or permit, approval or other forms of permission to conduct an activity in or likely to affect a state's coastal zone must certify consistency with the approved State Coastal Zone Management Program before the Federal agency will issue the license or permit (15 CFR, Section 930.50 et seq.). This section does not address licenses or consistency requirements issues pursuant to the OCS Lands Act (43 USC Section 1331 et seq.). To assist Federal agencies and applicants in determining whether or not licenses or permits for an activity will require a consistency certification with the Pennsylvania Coastal Zone Management Program, the following list of licenses and permits is offered. It should be noted that the list is not static, other permits and licenses may be added as further needs are indicated. As this list is modified, the Coastal Zone Management Branch will communicate the changes, to the appropriate Federal agencies, and the Federal Office of Coastal Zone Management.

- Environmental Protection Agency

  Water pollution control

  Clean air

- Nuclear Regulatory Commission

  Licenses for nuclear generating stations, fuel storage and processing centers.

  Siting and operation of nuclear power plants (state permits required)

- Federal Energy Regulatory Commission

  Licenses required for nonfederal hydroelectric projects and associated transmission lines

Certificates required for the construction and operation of natural gas pipeline facilities, defined to include both interstate pipeline and terminal facilities.

  Permission and approval required for the abandonment of natural gas pipeline facilities

- Department of Defense - Army Corps of Engineers

  Excavation and fill permits, construction in navigable waters

  Discharge of dredge and fill material

  Hazardous substances and materials

- Department of Transportation

  Construction and modification of bridges, causeways in navigable waters (U.S. Coast Guard)

  Construction of airports

Any applicant requiring a Federal license or permit or development of an Environmental Impact Statement for a project that affects land or water uses in the coastal zone should consult with the Coastal Zone Management Branch to assure that the proposed activity will be conducted in a manner consistent with the Coastal Zone Management Program.

Persons or agencies required to obtain Federal licenses or permits designated by the State as requiring consistency review, or determined by the

Federal agency to require review because of effects on land or water uses in the coastal zone shall: submit a copy of the license or permit application to the Coastal Zone Management Branch indicating that the proposed activity will comply with and be conducted in a manner consistent with the management program. Upon receipt of the application, certification, and any additional necessary information, the Coastal Zone Management Branch will provide public notice including requests for hearings and/or comments through the Pennsylvania Bulletin.

In the case of an application for a permit or license determined to require State consistency review, the Department of Environmental Resources will make its decision within 90 days of receipt of the certification. If the Department of Environmental Resources has not replied within 180 days of receipt of the certification materials, concurrence will be presumed. The consistency decision will, in either case, be communicated to both the applicant and the Federal agency, to which the permit application was filed.

If the Department of Environmental Resources concurs with the certification, the Federal agency may proceed with normal processing of the application.

If a disagreement concerning a consistency certification arises, the Coastal Zone Management Branch will forward in writing to the applicant and to the proper Federal agency the reasons the application was determined to be inconsistent. The letter will also include the appropriate recommendations for making the application consistent with Pennsylvania's program. If the disagreement continues, the applicant, Federal representative, and the Coastal Zone Management Branch will meet at a mutually agreed upon time and place to attempt to resolve the differences. If this meeting fails to generate positive steps towards solving the conflict, the applicant may file an appeal with the Secretary of Commerce within 30 days of receipt of the State's objections. The Secretary of Commerce shall then determine whether the activity is consistent with the objectives of the Federal Coastal Zone Management Program or is necessary in the interest of national security. If the Secretary finds that the proposal meets with either of these requirements, the Secretary will approve the activity. If neither of these requirements are met, then the Secretary shall notify the Federal agency that it may not issue the permit.

Federal Assistance Program: The Coastal Zone Management Branch will review all Federal assistance activities that will potentially affect the environmental, economic, and social resources of the Commonwealth's coastal zones. Monitoring of these activities will be accomplished through the utilization of the OMB A-95 review process. The Coastal Zone Management Branch will be notified by the Pennsylvania A-95 Clearinghouse, and also through the Department of Environmental Resources's A-95 internal Project Review Evaluation Process (PREP), of all proposals that may potentially affect the coastal zones.

The Coastal Zone Management Branch will utilize the Pennsylvania Bulletin as a check should the Pennsylvania Clearinghouse fail to provide notice to the Coastal Zone Management Branch of a pending Federal assistance activity. In the event that the Coastal Zone Management Branch determines that it was not notified of proposed Federal assistance program that will affect the coastal zone, the Coastal Zone Management Branch will notify the Pennsylvania A-95 Clearinghouse and request the appropriate information needed to make a consistency decision.

In the case of planning and development assistance applications, the Department of Environmental Resources will forward the application and supporting material to the identified coastal municipality and it will have 30 days to review the application and provide any comments on the activity. The State will then have 30 days to make its consistency decision. The State will prepare a consistency approval or objection statement and send copies to the appropriate clearinghouse and the applicant.

In responding through the Department of Environmental Resources's A-95 PREP review process, if the Coastal Zone Management Branch does not object, the Federal agency may proceed with the processing of the application.

In the event the Coastal Zone Management Branch does object to the Federal agency's proposal, the Coastal Zone Management Branch will note its objection and forward its reasons, supporting information and alternative measures which will make the proposed project consistent with the program through the Department of Environmental Resources's A-95 internal PREP to the Pennsylvania Clearinghouse.

The Pennsylvania Clearinghouse will then notify the applicant, State agency, and the Federal agency of the

Coastal Zone Management Branch's objection to providing Federal assistance, and as a result the Federal agency may not provide the assistance.

The applicant agency may appeal a negative decision; first by contacting the Coastal Zone Management Branch to arrange a meeting to discuss or clarify the intent of the assistance and to resolve the conflicts; or failing this approach, file within 30 days of receiving State notification of the objection, an appeal to the Secretary of Commerce requesting review. Following public notice, receipt of comments and in some cases a hearing, the Secretary of Commerce shall determine whether or not the activity is consistent with the objectives of the Federal Coastal Zone Management Program, or is necessary in the interest of national security. If the Secretary determines that the activity meets either of the above requirements, the Secretary shall approve the proposal. If the Secretary feels that the activity does not meet either of the two requirements, the Federal agency may not provide the aid.

Outer Continental Shelf Activities: Exploration, development or production activities requiring a Federal license or permit and described in detail in an OCS plan for any area which has been leased under the OCS Lands Act (43 USC, Section 1331 et seq.), and which affect the coastal zone, must be conducted in a manner consistent with an approved state coastal zone management program. The applicant submitting the OCS development plans to the U.S. Department of the Interior must provide a consistency certification. The Department of the Interior will then forward a copy of the OCS plan, excluding privileged information and the applicants consistency certification to the Department of Environmental Resources requesting an opinion on the applicants certification.

The Department of Environmental Resources, acting as the representative of Pennsylvania, shall, at the time it receives the certification and necessary supporting information, provide public notice in the Pennsylvania Bulletin. This notice will include a summary of the proposal and an announcement stating that comments on this proposal or requests for additional information should be sent (made) to the Department of Environmental Resources, Coastal Zone Management Branch. In addition to utilizing the Pennsylvania Bulletin, the Coastal Zone Management Branch will contact the appropriate coastal community representative and request comments concerning this action be forwarded to the Coastal Zone Management Branch. The Coastal Zone Management Branch will then

notify the Assistant Administrator and the Federal agency of its decision.

The Department of Environmental Resources's Coastal Zone Management Branch will issue to the applicant and the Department of the Interior a response within three months of receiving from the Department of the Interior the consistency certification and supporting information.

In the event that the Department of Environmental Resources objects to the consistency certification made by the applicant, the Department will notify the applicant, the Department of the Interior and the Assistant Administrator of the reasons why the State objects to the action. Additionally, the applicant will be provided with the following: suggestions for correcting the proposal so that it will comply with the program, notice that the applicant may appeal to the Secretary of Commerce, and that the Coastal Zone Management Branch in the Department of Environmental Resources will at the request of the applicant or Department of the Interior schedule a meeting to attempt to resolve the differences.

If a meeting or other attempts prove unsatisfactory, then the applicant may file an appeal with the Secretary of Commerce. If the applicant pursues this course of action, the applicant must provide copies of the appeal and supporting information to the Department of Environmental Resources in Harrisburg, Pennsylvania.

The Secretary of Commerce, following public notice, receipt of comments and in some cases a public hearing shall make a decision on whether or not the activity should be approved or disapproved. If the Secretary finds the activity is in keeping with the goals and objectives of the Federal Coastal Zone Management Program or is in the interest of national security, the Secretary will notify the Department of the Interior that it may issue its permits. In the event the Secretary does not feel either of these requirements are met then the applicant will be requested to submit, an amended, or new OCS plan to the Department of the Interior and a new consistency certification to the Department of Environmental Resources.

Excluded Federal Lands: Section 304(1) of the act provides that lands, the use of which is subject solely to the discretion of the Federal government or which are held in trust by the Federal government, are excluded from the coastal zone. The Department of Justice has interpreted this to include all lands owned by the

United States. Even though Federal lands are excluded from the coastal zone, the uses of these lands are subject to the Federal consistency requirements of the act where their use directly affects the coastal zone. However, even though Federally owned lands are excluded from state coastal zone management programs, the Coastal Zone Management Act requires that certain activities, which may have significant spillover impacts on uses or resources under the purview of the state's management program, to be consistent with the state's program.

Incorporation of Water Pollution and Air Pollution Requirements

Section 307(f) of the Coastal Zone Management Act and 15 CFR Section 923.44 of the approval regulations calls for the "incorporation" of the requirements of the Federal Water Pollution Control Act, as amended, and the Clean Air Act, as amended, into coastal zone management programs. The Department of Environmental Resources as the lead State agency is the single institutional focus for integrating the standards, regulations, and guidelines necessary to achieve the related requirements of these programs and any changes to these programs that may occur in the future. The Coastal Zone Management Program through State law will incorporate the requirements of the Federal Water Pollution Control Act and the Clean Air Act into the Pennsylvania Coastal Zone Management Program. Any action or proposal which would violate State air or water quality laws and regulations is considered to be inconsistent with the Pennsylvania State Coastal Zone Management Program. Water and air permits will be monitored by the Coastal Zone Management Branch following the process outlined on Page II-4-7.

National Interest

Section 306(c)(8) of the Federal Coastal Zone Management Act requires that the national interest receive adequate consideration in planning for and siting facilities which are necessary to meet requirements which are "more than local in nature". The requirement is intended to assure that national concerns over facility siting and resource protection are expressed and dealt with in the development and implementation of the Coastal Zone Management Program.

In order to meet the requirements of Section 306(c)(8), Pennsylvania must:

1. Describe the national interest in the planning for and siting of facilities considered during program development.

2. Indicate the sources relied upon for a description of the national interest.

3. Indicate how and where the consideration of those national interests is reflected in the program.

4. Describe a process for continued consideration of the national interest . . . during program implementation.

- 15 CFR 923.52 (March 28, 1979).

Early in the development of Pennsylvania's coastal program, efforts were begun to identify activities and facilities located in each coastal zone that involve the national interest. A concerted effort was made to inform involved Federal agencies of the Pennsylvania Coastal Zone Management Program. This was accomplished through correspondence with Federal agency representatives as described in Appendix C, (Intergovernmental and Public Participation Activities). Members of the public as well as interest groups are also involved in identifying uses of the Pennsylvania coastal zone that are in the national interest.

As program planning progressed, identified Federal agencies were provided further opportunities for input. Copies of the Draft Technical Record were mailed to each agency requesting comments on goals and objectives, policies, and recommendations of the Pennsylvania Coastal Zone Management Program.

Through this involvement, national interests have been considered throughout the development of the management program. Approximately 30 Federal representatives have been contacted and offered an opportunity to consult on the definition of "national interest". Comments received have been carefully considered and responses prepared.

The Pennsylvania Coastal Zone Management Program evaluated, and will continue to evaluate, the following sources for policies and information to adequately consider the national interest in planning and management responsibilities:

1. Federal laws and regulations.

2. Policy statements or Executive Orders from the President of the United States (e.g., National Energy Plan).

3. Special reports, studies and comments from Federal and State agencies.

4. Testimony received at public meetings on the Pennsylvania Coastal Zone Management Program.

5. Certificates, policy statements and solicited opinions issued on specific projects by Federal regulatory agencies.

6. Statements of national interest issued by Federal agencies.

The following concerns are considered by Pennsylvania to be of such long-range, comprehensive importance as to be in the national interest: National Defense, Energy Production and Transmission, Recreation Facilities, Air and Water Quality, Historic Sites, Wetlands, and Ports and Navigation.

The Pennsylvania Coastal Zone Management Program does not exclude any national interests as long as they conform to requirements of applicable Commonwealth authorities. This represents a performance approach for assuring both proper resource protection and management in facility siting. Consideration of the national interest in program development is represented in the Coastal Zone Policy Framework (Chapter 2), Designation of Geographic Areas of Particular Concern (Chapter 3), and Broad Priorities of Uses for GAPC (Chapter 3).

National Defense - In determining the national interest in defense, the Departments of Defense and the Army, Navy, Air Force, U.S. Coast Guard, and U.S. Army Corps of Engineers were contacted during the period of program development. The following are the major objectives for national defense:

1. To ensure sovereignty of the Nation and protect its citizens from physical harm or expropriation, and

2. To establish and maintain the facilities necessary to carry out the first objective.

No goal or policy found in the Pennsylvania Coastal Zone Management Program contradicts or interferes with the siting of facilities in the national defense.

The Pennsylvania Coastal Zone Management Program recognizes the importance of national defense facilities to ensure the Nation's sovereignty and to protect her citizens. Strategically located defense facilities are necessary to achieve these ends. Defense facilities in the coastal zone are located on Federally owned land and are thus excluded from the coastal zones. However, activities related to defense facilities must be consistent with the Pennsylvania Coastal Zone Management Program to the maximum extent practicable to the extent that they directly affect the coastal zone.

Energy Production and Transmission - The energy facilities and activities which are considered to be in the national interest are all those defined in Section 304(5) of the Coastal Zone Management Act and include electric generating plants, petroleum refineries and associated facilities, gasfication plants, facilities associated with liquified natural gas, uranium enrichment or nuclear fuel processing facilities, and oil and gas facilities. The Energy Facility Planning Process (Chapter 3)

fully discusses the regulatory authority, policies and planning process for facilities and activities associated with energy production and transmission.

To determine the national interest in activities related to energy production and transmission, the following legislation, documents, and Federal agencies were consulted:

National Energy Plan

Department of Energy Reorganization Act

Outer Continental Shelf Lands Act

Energy Research and Development Administration

U.S. Department of Energy

Bureau of Land Management

U.S. Geological Survey

According to the sources listed above, the major national interests in energy in the Pennsylvania coastal zones involve:

1. Reductions of dependence on foreign oil and vulnerability to supply interruptions.

2. Maintenance of U.S. oil imports at levels low enough to weather the period when world oil production approaches its limit.

3. Development of renewable and virtually inexhaustible energy sources for sustained economic growth.

4. Development of Outer Continental Shelf oil and gas resources to reduce dependence on foreign oil and gas supplies.

5. Siting of energy facilities such as power plants and refineries in the coastal zone in an environmentally responsible manner.

Pennsylvania's specific policies dealing with energy facility siting include:

1. Policy VIII-1 - Improve upon and monitor the existing energy facility permitting process.

2. Policy VIII-2 - Develop intrastate natural gas supplies.

3. Policy VIII-3 - Encourage coastal municipalities to plan for energy facilities.

4. Policy VIII-4 - Support development of OCS oil and gas resources.

5. Policy IX-C - Improve the regulatory permitting process in the coastal zone (See Chapter 2, Coastal Zone Policy Framework).

Recreation Facilities - To determine the national interest in recreation, the following documents, legislation, and Federal agencies have been consulted: Statewide Comprehensive Outdoor Recreation Plan, Heritage Conservation and Recreation Service, National Park Service, Fish and Wildlife Service, Historic Preservation Act, and Land and Water Conservation Fund Act.

The Coastal Zone Management Program has determined that the major objectives of the national interest in recreation are:

1. High quality recreation opportunities for all citizens consistent with environmental protection.

2. Increased public recreational opportunities in high density areas.

3. Access to and management of recreation areas should be improved.

Specific policies dealing with recreation include:

1. Policy III-1 - Ensure that coastal waters support fish populations to provide increased fishing opportunities.

2. Policy III-2 - Ensure that stocking of coastal waters is done in a way to augment native stocks and introduce new species.

3. Policy III-3 - Fishing and boating access shall be improved through acquisition and improvement of sites.

4. Policy V-1 - Provide additional public access for active and passive recreation.

5. Policy V-2 - High priority will be given to acquisition or development of GAPC nominated for their recreational value.

Air and Water Quality - In determining the national interest in air and water quality, the following documents, legislation, and Federal agencies were consulted: Federal Water Pollution Control Act, Federal Clean Air Act, and U.S. Environmental Protection Agency.

The national interest in air and water pollution control is to provide clean air and water to enhance the quality of life for all citizens of the Nation.

Specific policies dealing with air and water quality are:

1. Policy IX-B.1 - Adopt by reference the requirements of the Clean Water Act (95-217) and to incorporate these requirements into the Coastal Zone Management Program.

2. Policy IX-B.2 - Adopt by reference the requirements of the Clean Air Act (P.L. 95-95) and to incorporate these requirements into the Coastal Zone Management Program.

Historic Sites - In determining the national interest in historic sites, sources consulted by the Coastal Zone Management Program include: The Antiquities Act of 1906, Historic Site Act of 1935, National Historic Preservation Act of 1966, Archaeological and Historic Preservation Act of 1974, National Historic Preservation Act of 1974, and National Environmental Policy Act of 1969.

Major objectives of the national interest in historic and archaeological sites are:

1. To afford protection for designated historic sites from adverse impacts.

2. To consider cultural resources in assessing the environmental impacts of proposed activities.

Specific Coastal Zone Management policies dealing with historic sites include:

1. Policy VI - Assist the Pennsylvania Historic and Museum Commission in the identification, restoration, and preservation of architecturally and historically significant sites.

Wetlands - In determining the national interest in wetlands, the following agencies, legislation and documents were consulted: Fish and Wildlife Service, U.S. Army Corps of Engineers, National Marine Fisheries Service, Fish and Wildlife Coordination Act, Marine Protection, Research and Santuaries Act of 1972, Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, Executive Order No. 11990 (protection of wetlands), Executive Order No. 11988 (floodplain management), and Fishery Conservation and Management Act of 1976.

Objectives of the national interest in wetlands include:

1. To avoid to the greatest extent possible the long- and short-term adverse impacts associated with the disruption or modification of wetlands.

2. Provide means whereby ecosystems upon which endangered and threatened species depend may be preserved.

4. Regulation of placement of dams, water obstructions, and encroachments in such a manner as to protect wetlands and their valuable contribution to the coastal ecosystem.

3. Make use of wetlands as outdoor classrooms through the acquisition and/or development of appropriate sites.

Ports and Navigation - To determine the national interest in ports and navigation, the following documents, legislation, and Federal agencies have been consulted: Department of Transportation Act, U.S. Coast Guard, Maritime Administration's Office of Port and Intermodal Development, and U.S. Army Corps of Engineers.

The national interest in ports and navigation has been incorporated in the Pennsylvania Coastal Zone Management Program through the following policies:

1. Policy VII-1 - To actively attract and encourage the siting of water dependent economic activities in the Commonwealth's coastal ports.

2. Policy VII-2 - Support long-range, comprehensive planning for future development and growth of Pennsylvania's ports.

Process for Continued Consideration of National Interest

Means for continued consideration of the national interest is provided by the following:

1. Permit procedures

2. The Executive Order

3. Memoranda of Understanding between the Department of Environmental Resources and other State agencies

To ensure that the national interest is being considered in permitting procedures, citizens, Federal agencies, and interest groups can become involved in this process through both the legal and administrative mechanisms available for conflict resolution described in Part II, Chapter 4. These include the legislative process, the Environmental Quality Board, and the Environmental Hearing Board, citizen suits under Article I, Section 27 of the Pennsylvania Constitution, judicial appeals on State and local administration of State statutes and informal discussions with Coastal Zone Management staff and Coastal Zone Steering Committees. In addition, consideration of the national interest

and the siting of facilities is provided in the process of the Public Utility Commission certificate of public convenience. This process is described under Uses of Regional Benefit, Part II, Chapter 3. In accordance with the Governor's Executive Order and pursuant to the Memoranda of Understanding between the Department of Environmental Resources and agencies of the Commonwealth, all State agencies networked in the program are required to consider the national interest in their decision-making.

INTERSTATE COORDINATION ACTIVITIES

The following mechanisms are utilized in the coordination and review of interstate agencies activities affecting Pennsylvania's management program. As noted previously, these same mechanisms were used to achieve plan coordination at the interstate levels.

1. GLBC (Great Lakes Basin Commission) - Is a formal organization of the Great Lakes states and several Federal agencies. The states and agencies formed the Commission in 1967 so that they could work together at planning for water resources in the Great Lakes area. The Commission works closely with the International Joint Commission and Canadian personnel to encourage international cooperation in addressing the problems faced in managing the Great Lakes. The GLBC has a special standing committee on coastal zone management.

2. DRBC (Delaware River Basin Commission) - Was created by interstate Federal compact in 1961 to establish coordinated multipurpose regional planning, management and protection of water resources associated with the Delaware River, which impacts the four state (New York, Pennsylvania, New Jersey and Delaware) areas water resources associated with the Delaware.

3. GLC (Great Lakes Commission) - The purposes of the GLC compact are, through means of joint or cooperative action:

   a. To promote the orderly, integrated, and comprehensive development, use, and conservation of the water resources of the Great Lakes Basin (hereinafter called the Basin).

   b. To plan for the welfare and development of the water resources of the Basin as a whole as well as for those portions of the Basin which may have problems of special concern.

   c. To make it possible for the states of the Basin and their people to derive the maximum benefit

from utilization of public works, in the form of navigational aids or otherwise, which may exist or which may be constructed from time to time.

d. To advise in securing and maintaining a proper balance among industrial, commercial, agricultural, and water resources of the Basin.

e. To establish and maintain an intergovernmental agency to the end that the purposes of this compact may be accomplished more effectively.

STATE COORDINATION ACTIVITIES

The following mechanisms are utilized in the coordination and review of State agencies activities affecting the management program. As noted previously, these same mechanisms were used to achieve plan coordination at the State level.

1. Coastal Zone Advisory Committee - The Coastal Zone Advisory Committee (CZAC) was established by the Department of Environmental Resources to advise and assist the Coastal Zone Management Branch in the design, implementation and administration of the Commonwealth's Coastal Zone Management Program. It is a State level committee comprised of representatives from State agencies, commissions, offices, etc., that administer and/or are affected by the administration of programs in the Commonwealth's coastal areas. In addition, the CZAC also has representatives from the local Coastal Steering Committees and from certain interstate and Federal agencies.

   The CZAC membership is as follows:

   Department of Environmental Resources

   Coastal Zone Management Branch
   Office of Chief Counsel
   Bureau of Environmental Planning
   Bureau of Water Quality Management
   Bureau of Topographic and Geologic Survey
   Bureau of Dams and Waterway Management
   Bureau of Soil and Water Conservation

   Other State Agencies

   Department of Commerce
   Historical and Museum Commission
   Public Utility Commission
   Department of Community Affairs
   Governor's Office of Policy and Planning

Pennsylvania Fish Commission
Pennsylvania Game Commission
Department of Transportation
Governor's Energy Council

Federal and Regional Agencies

Erie County Department of Planning
Delaware Valley Regional Planning Commission
Federal Office of Coastal Zone Management
Delaware River Basin Commission

In a program such as Pennsylvania's, which is based on networking, it is important to develop the program in such a manner as to have close coordination between the designated agency and the other State agencies involved in implementing the program. Under the planning phase, the CZAC has been instrumental in helping to design a program which provides for the necessary coordination. The activities undertaken by the CZAC under the planning phase are described in Appendix C.

The CZAC will perform the following tasks during the program's implementation phase.

1. Address State consistency

2. Address State and local coordination on actions of the Coastal Zone Management Program

3. Advise the Coastal Zone Management Branch of effectiveness of regulations pertaining to coastal resource management.

4. Participate in the continuing program review process.

Project Coordination: The purpose of this function is to ensure that projects or activities proposed for funding under the Coastal Zone Management Program are in concert with planned or existing State agency activities. Coordination is achieved in the following manner. All projects and actions funded or otherwise, proposed by the local Coastal Zone Steering Committees or the Coastal Zone Management Branch are reviewed by the CZAC members with respect to coordination with their agency's programs and actions. Additionally, members of the CZAC propose projects or actions for consideration for Coastal Zone Management funding and/or support. These projects are reviewed by other CZAC members, as well as the affected Coastal Zone Steering Committee with respect to coordination with their actions and programs. Besides determining consistency, CZAC members also comment on the relative importance their agency attaches to the proposed program or action.

Whenever a project or action is found to be in concert, the Coastal Zone Management Branch is notified. The Coastal Zone

Management Branch then utilizes the resources of the CZAC and, if pertinent, the local Coastal Zone Steering Committee, to address the problem of achieving coordination. If coordination cannot be achieved through these mechanisms, then the Coastal Zone Management Branch will drop the project or action from further consideration or resubmit the proposal to the originator with suggested modifications.

Address State and local coordination on actions of the Coastal Zone Management Program: Once all projects or actions proposed for Coastal Zone Management funding and/or support are reviewed by the Coastal Zone Steering Committees and the CZAC, the Coastal Zone Management Branch will make a final determination of what projects or actions are to be undertaken. Following this determination, the CZAC will then be notified. Each agency, committee, commission, etc., conducting activities in the coastal zones pertinent to the implementation of the adopted programs or activities will utilize its regional offices, local contacts, the local Coastal Zone Steering Committee, etc., to ensure that its agencies actions consider local actions and the actions of other agencies. The review will also focus on determining whether or not all Commonwealth offices and agencies are cooperating and participating to the fullest extent possible in the achievement of the goals and policies of the Coastal Zone Management Program. The committee then makes recommendations to the Coastal Zone Management Branch on how to improve the program such as by modifying existing policies, developing new policies, placing more emphasis on certain policies, developing Memoranda of Understanding, implementing new coordinative mechanism, etc. The Coastal Zone Management Branch will prepare a report based on these comments and submit it to the Secretary of the Department of Environmental Resources. Upon the Secretary's review and his determination of any actions which should be undertaken, the Coastal Zone Management Branch, with the assistance and cooperation of the CZAC, will implement the charges. Any amendment to the management program is subject to the approval of the Office of Coastal Zone Management.

Advise Coastal Zone Management Branch on regulations affecting coastal resources: Periodically, CZAC members will be asked to review the effectiveness of regulations, affecting coastal resources which they are mandated to administer, with respect to achieving the policies and goals of the Coastal Zone Management Program. If a regulation is found to be deficient, the Coastal Zone Management Branch will be notified along with a recommendation on how the problem may be rectified. Upon review of the problem, the Coastal Zone Management Branch may bring the problem to the attention of the Environmental Quality Board and recommend a change in the regulations or the development of new regulations.

Participation in continuing program review process: Annually, the CZAC will review the Coastal Zone Management Program with respect to its achievements in attaining the goals of the Coastal

Zone Management Program and meeting the needs of the Commonwealth coastal areas. The review will also focus on determining whether or not all Commonwealth offices and agencies are cooperating and participating to the fullest extent possible in the achievement of the goals and policies of the Coastal Zone Management Program. The committee then makes recommendations to the Coastal Zone Management Branch on how to improve the program such as by modifying existing policies, developing new policies, placing more emphasis on certain policies, developing Memoranda of Understanding, implementing new coordinative mechanisms, etc. The Coastal Zone Management Branch will prepare a report based on these comments and submit it to the Secretary of the Department of Environmental Resources. Upon the Secretary's review and his determination of any actions, which should be undertaken, the Coastal Zone Management Branch with the assistance and cooperation of the CZAC will implement the changes.

2. Pennsylvania Bulletin

The Pennsylvania Bulletin is the official gazette of the Commonwealth of Pennsylvania. It contains notices, regulations, and other documents filed with the Legisaltive Reference Bureau and supplements the Pennsylvania Code, a loose-leaf codification of administrative regulations, legislative documents, court rules, and home rule charter documents. The bulletin contains lists of permits, legal notices, legal actions, etc.

3. Project Review Evaluation Program (PREP)

The PREP review is an internal review of departmental actions. In addition, extra departmental coordination mechanisms are channeled into the PREP process. A detailed explanation of the PREP review is contained in Chapter 4.

As described earlier in this report, all applications for Federal aid requiring A-95 clearance generated within the Department of Environmental Resources are subject to an internal review. This review is designed to resolve internal differences before the application is submitted to the State Clearinghouse.

These nine project types constitute the range of projects currently being reviewed through the Department of Environmental Resources's project review system. One of the assets of the project review system is that it can be used to accommodate a variety of new project or program types. The most important features of the program are the procedures which obtain input from the various bureaus in the Department and provide for resolving differences that end in formulating a single departmental position. Because of this, PREP provides a rather flexible mechanism that can be used to review a variety of projects, proposals and plans.

4. Water Resources Policy Advisory Committee (WRPAC)

The WRPAC is a state level water resources advisory committee which advises the Department of Environmental Resources on legal, institutional and policy issues regarding water planning and management.

LOCAL COORDINATION ACTIVITIES

The Coastal Zone Steering Committees (CZSC) are utilized in the coordination and review of areawide and local governmental activities. As noted previously, these mechanisms were used to achieve plan coordination at the areawide and local governmental level.

The Coastal Zone Steering Committees have been operating in the Lake Erie and Delaware Estuary areas since 1975. They have played a major role in determining the goals, policies, scope and objectives of the Pennsylvania Coastal Zone Management Program. They have been instrumental in providing coordination between the Coastal Zone Management Branch and local elected officials, and providing a mechanism for incorporating public interest and values in the management program. Appendix C contains a detailed outline of the activities that the CZSC have engaged in during the planning phase of the management program.

Under the implementation phase of the management program, the structure of the CZSC will be revised and their focus of attention will be shifted. The Commonwealth's two coastal areas contain distinctly different political and social structures, and the committees have evolved somewhat differently in adopting to these different structures.

Lake Erie Coastal Zone Steering Committees

In the Lake Erie coastal zone, the Department of Environmental Resources's consultant, Erie County Department of Planning (ECDP), is responsible for providing each of the three committees with technical support that enables the western, eastern and central committee members to make effective coastal zone management decisions. These committees are comprised of representatives from the following municipalities:

<u>Western Study Area Committee</u>

Springfield Township
Girard Township
Lake City Borough
Fairview Borough

Eastern Study Area

Harborcreek Township
North East Township
North East Borough

Central Study Area

Millcreek Township
City of Erie
Lawrence Park Township
Erie City Council
Erie City Planning Commission
Erie/N.W. Pa. Port Authority

Additionally, each committee has three citizen representatives who have been appointed by the committee. In addition, the Executive Director of the Erie County Department of Planning sits on each of the committees and acts as their representative to the Coastal Zone Advisory Committee.

The Erie CZSC will perform the following tasks during program implementation:

1. Priority Setting: The CZSC develops and sets priorities on lists of requests for coastal zone management funding on technical assistance in their area.

2. Consistency: The CZSC reviews all proposed State level coastal zone management activities with respect to consistency with local goals and actions.

3. Conflict Resolution: The CZSC provides a forum for discussion and a focal point for the collection of information and ideas, should problems or conflicts occur at the local level.

4. Monitoring: The CZSC provides a means for local monitoring of coastal uses subject to the management program with respect to compliance with the program's policies.

5. Program Review: Participates in the State's continuing program review process. The CZSC annually reviews the State's Coastal Zone Management Program with respect to the effectiveness of the Coastal Zone Management policies and goals in their respective areas, and makes recommendations for improvement when pertinent.

6. Local Contact: The CZSC provides a local and highly visible contact for all coastal publics interested in

participating in or interacting with the management program.

Delaware Estuary Steering Committee

The Delaware Estuary Steering Committee (DESC) covers areas of three counties: Bucks, Philadelphia and Delaware. The committee is staffed with representatives from regional and local agencies conducting activities in the coastal zone. The Delaware Valley Regional Planning Commission, consultant for the Coastal Zone Management Branch, provides technical support to the steering committee. A representative from the Delaware Valley Regional Planning Commission is a member of the committee and represents them on the CZAC.

The permanent membership of the steering committee is as follows:

Bucks County Planning Commission
Bucks County Municipal Governments (coastal)
Philadelphia City Planning Commission
Delaware County Planning Department
Delaware County Municipal Governments (coastal)
Chester City Planning Department
Delaware River Basin Commission
Delaware River Port Authority
Water Resources Association
League of Women Voters
Academy of Natural Sciences
Army Corps of Engineers
Environmental Protection Agency
Pennsylvania Department of Community Affairs (Philadelphia Office)
Warner Company
Sun Oil Company
Philadelphia Electric Company
Greater Phialdelphia Partnership

In addition to the permanent members, different members are appointed each year, from interest groups existing in the region to represent the public in the following areas; recreation, historic preservation, port revitalization, and environmental protection. All committee meetings are advertised and open to the public.

It is important to note that the close coordination with the local governments, inherent in the Lake Erie CZSC, is achieved in the Delaware Estuary by Delaware Valley Regional Planning Commission holding two meetings annually in each of the three counties included in the coastal zone. At the first of the two meetings, of which officials from all the coastal municipalities in the county are invited, a status report of the management program's activities is given, and funding levels for the next year are discussed. At the second annual meeting, the local officials provide their input into the program's continuing

review process and present lists of projects and activities for consideration for Coastal Zone Management Program funding and/or sponsorship.

The DESC will perform the following tasks during program implementation:

1. Priority Setting: Utilizing information acquired in annual local officials meetings, the DESC develops and prioritizes a list of requests for Coastal Zone Management funding and/or technical assistance for the area.

2. Consistency: The DESC reviews all proposed State level coastal zone management activities with respect to consistency with local goals and actions.

3. Conflict Resolution: The DESC provides a forum for discussion and a focal point for the collection of information and ideas, should problems or conflicts occur at the local level.

4. Monitoring: The DESC provides a means for local monitoring of coastal uses subject to the management program with respect to compliance with the program's policies.

5. Program Review: Participates in the State's continuing program review process. The DESC annually reviews the State's Coastal Zone Management Program with respect to the effectiveness of achieving the coastal zone management policies and goals in their respective areas, and make recommendations for improvement when pertinent.

6. Local Contact: The DESC provides a local and highly visible contact for all coastal publics interested in participating in or interacting with the management program. This is achieved through the annual meetings with the local officials and the Delaware Valley Regional Planning Commission and the county planning departments (who are represented on the DESC) close day to day contact with the public concerning coastal issues.

PUBLIC INVOLVEMENT

The Coastal Zone Management Program represents significant amounts of citizen energy which was utilized in improving the data base, verifying Coastal Zone Management information, determining program goals and objectives, and incorporating local values and concerns. The public involvement activities that have

been undertaken during the Coastal Zone Management Program's planning process are described in Appendix C.

These activities will culminate with the holding of public hearings in both coastal areas. These joint State/Federal hearings, for which 30 days notice will be given, will be designed to obtain the views of all interested parties on the management program's Section 306 document and Draft Environmental Impact Statement. These hearings will fulfill the requirements of Section 923.58 of the Federal regulations of the Coastal Zone Management Act. Additionally, transcripts of hearings on bluff setback regulations will be furnished to the Office of Coastal Zone Management.

The Pennsylvania Coastal Zone Management Program will utilize the following means and mechanisms to ensure opportunity for full participation by all interested parties both public and private under program implementation.

1. The Lake Erie CZSC and the DESC as outlined in their respective tasks in the previous section on steering committees.

2. The holding of annual public meetings as part of the continuing program review process.

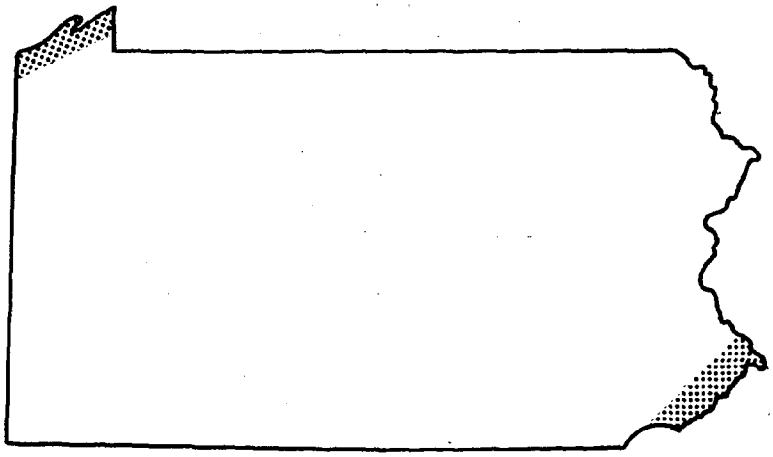
3. Adherence to the Pennsylvania "Sunshine Law' concerning all meetings where formal decisions are to be undertaken.

4. The distribution of a newsletter, "Coastal Tidings", and other informational materials concerning the program and its activities.

5. Utilization of the A-95 review process and the Pennsylvania Bulletin.

6. Other formal and informal means such as news releases, ad hoc meetings, public displays, and speaking engagements will be utilized when pertinent to afford interested parties every opportunity to participate in the management program.

Appendix A



Existing Management Authorities

INTRODUCTION

The Federal Coastal Zone Management Act requires coastal states to identify the means by which the state proposes to manage land and water uses subject to the program, including a listing of relevant constitutional provisions, laws, regulations and judicial decisions. This appendix provides a detailed explanation of those authorities which will be utilized in carrying out the policies of Pennsylvania's Coastal Zone Management Program. The authorities are presented in the following numerical sequence:

1. Pennsylvania Constitutional Provision
2. Bluff Recession and Setback Act
3. Dam Safety Act
4. Soil Conservation Law
5. Floodplain Management Act
6. Clean Streams Law
7. Open Space Lands
8. Pennsylvania Solid Waste Management Act
9. Air Pollution Control Act
10. Radiation Control Act
11. Administrative Code of 1929
12. Gas Operations Well-Drilling Petroleum and Coal Mining Act
13. Pennsylvania Sewage Facilities Act
14. Schuylkill River Pollution/ Siltation Law
15. Fish Laws of 1959
16. Historic Preservation Act
17. Stormwater Management Act
18. Open Meeting Law
19. Executive Order
20. Memoranda of Understanding

EXISTING MANAGEMENT AUTHORITIES

1. Pennsylvania Constitutional Provision

On May 18, 1971, the Pennsylvania Constitution was amended by adding a new section (hereinafter referred to as Article 1 Section 27 or Environmental Rights Amendment):

> Article I Section 27 Natural resources and the public estate
>
> The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and aesthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

The Environmental Rights Amendment was placed in Article I, the portion of the Constitution which guarantees political rights such as due process, freedom of speech, and freedom of religion to Pennsylvania citizens. The first sentence does create important personal "environmental rights" which citizens can assert on their own, if necessary, in the courts. Pennsylvania Gas and Water Co. v. Kassab, et al, 14 Pa. Cmwlth. 564, 322 A2d

775 (1974); Payne v. Kassab, 11 Pa. Cmwlth. 14, 312 A2d 86 (1973), aff'd 468 Pa. 226, 361 A2d 263 (1976). The remaining portion of Article I Section 27 imposes new duties on the Commonwealth to act as a trustee to "conserve and maintain Pennsylvania's public natural resources".

Initially, there was a question as to whether adoption of Article I Section 27 alone created citizen rights and Commonwealth duties. The courts have settled the question by holding that the amendment is "self-executing" Commonwealth v. National Gettysburg Tower, Inc., 8 Pa. Cmwlth. 231, 302 A2d 586 (1973), aff'd 454 Pa. 193, 311 A2d 588 (1973); Accord, Payne, v. Kassab, 11 Cmwlth. 14, 312 A2d 86 (1973) aff'd without a general ruling on self-execution 468 Pa. 226, 361 A2d 263 (1976). This means that although the Legislature may pass legislation further explicating the meaning of the amendment, no such legislation is required before rights and duties created by Article I Section 27 will be enforced by the courts.

The Department of Environmental Resources (hereinafter Department) is a trustee of the Commonwealth's public natural resources by virtue of Article I Section 27. Concerned Citizens for Orderly Progress v. Commonwealth, Department of Environmental Resources, 36 Pa. Cmwlth. 192, 387 A2d 989, 993-94 (1978). It is thus the Department's duty to conserve and maintain these resources for the benefit of the people. This duty attaches in its clearest sense to publicly owned lands such as parks, Payne v. Kassab, 468 Pa. 226, 245, 361 A2d 263, 272 (1976). Where public lands are involved, even a statute might have to give way if it is inconsistent with Article I Section 27, Klink v. Commonwealth, PennDOT 29 Pa. Cmwlth. 106, 370 A2d 389 (1977). In addition to publicly owned land, air and water are included in the public trust. Commonwealth v. Barnes & Tucker Co., 455 Pa. 392, 412, 319 A2d 871, 872 (1974), DER v. Locust Point Quarries, 27 Pa. Cmwlth. 270, 396 A2d 1205, 1209 (1979). Article I Section 27 also protects natural, scenic, aesthetic and historic values. Commonwealth v. National Gettysburg Tower, Inc., 8 Pa. Cmwlth. 231, 302 A2d 586 (1973), aff'd 454 Pa. 193, 311 A2d 558 (1973).

It should be noted that the Environmental Rights Amendment imposes on every administrative agency the responsibility to meet the requirements of the amendment. Bruhin et al. v. Commonwealth et al., 14 Pa. Cmwlth. 300, 306-307, 320 A2d 907, 910-911 (1974). Local governments also must fulfill trusteeship responsbilities imposed by Article I Section 27, particularly with respect to local land use planning. Community College of Delaware County v. Fox, 20 Pa. Cmwlth. 335, 358-359, 342 A2d 468, 482 (1975).

In Payne v. Kassab, 11 Pa. Cmwlth. 14, 29-30, 312 A2d 86, 94 (1973) aff'd 468 Pa. 226, 361 A2d 263 (1976), the Commonwealth Court applied a three-fold test for reviewing agency actions which are challenged as improper under Article I Section 27:

1. Was there compliance with all applicable statutes and regulations relevant to the protection of the Commonwealth's public natural resources?

2. Does the record demonstrate a reasonable effort to reduce the environmental incursion to a minimum?

3. Does the environmental harm which will result from the challenged decision or action so clearly outweigh the benefits to be derived therefrom that to proceed further would be an abuse of discretion?

It should be kept in mind that the Payne test was developed as a standard for courts to use when reviewing agency actions where citizens alleged that the agency failed to meet minimum duties imposed by Article 1 Section 27. Thus, the test identified minimum elements that must be incorporated into agency procedures.

2. Bluff Recession and Setback Act, Act of ___, P.L. ___, (___ P.S. Section ___ et seq.)

The policy and purpose of this Act is to:

1. Encourage planning and development in bluff areas which are consistent with sound land use practices.

2. Protect people and property in bluff areas from the dangers and damage associated with the inevitable recession of bluffs.

3. Prevent and eliminate urban and rural blight which results from the damages of bluff erosion and recession.

4. Minimize the expenditure of public and private funds for shoreline protection and bluff stabilization structures and activities.

5. Authorize a comprehensive and coordinated program to regulate development activities through the use of setback ordinances in bluff recession hazard areas, designed to preserve and restore the natural ecological systems, and to prevent continuing destruction of private property and structures.

6. Encourage local administration and management of bluffs consistent with the Commonwealth's duty as trustee of natural resources, and the people's constitutional right to the preservation of the natural, scenic, aesthetic and historic values of the environment.

The Act outlines a procedure whereby the Department of Environmental Resources (hereinafter Department) conducts studies to identify municipalities with bluff recession hazard areas. The Department then notifies municipalities identified and submits a report to the Environmental Quality Board (hereinafter EQB). The EQB, following notice and public hearing, may designate municipalities with bluff recession hazard areas. Municipalities so designated must, within six months, adopt bluff setback ordinances requiring permits for all proposed construction, installation or substantial improvement of structures or water, sewage, electric or gas utility services located in designated bluff recession hazard areas. These ordinances are subject to review and approval by the Department, and must meet the minimum standards delineated by the EQB.

Sanctions are imposed for failure to adopt and enforce ordinances by designated municipalities, and for violation of the provisions of the Act, any bluff setback ordinance, or regulation. The sanctions include mandamus actions and withholding funds to municipalities, as well as civil remedies and criminal penalties.

3. Dam Safety Act, Act of November 26, 1978, P.L. 1375, as amended (32 P.S. Sections 693.1 et seq.)

The purpose of this Act is to:

1. Provide for the regulation of dams and reservoirs, water obstructions and encroachments in the Commonwealth, in order to protect the health, safety and welfare of the people and property.

2. Assume proper planning, design, construction, maintenance, monitoring and supervision of dams and reservoirs, including such preventative measures as are necessary to provide an adequate margin of safety.

3. Protect the natural resources, environmental rights and values secured by the Pennsylvania Constitution and conserve the water quality, natural regime and carrying capacity of watercourses.

4. Assume proper planning, design, construction, maintenance and monitoring of water obstructions and encroachments, in order to prevent unreasonable interference with waterflow and to protect navigation.

The Act outlines a permitting procedure, and no person may construct, operate, maintain, modify, enlarge or abandon any dam, water obstruction or encroachment without a permit from the Department of Environmental Resources (hereinafter Department).

The EQB has the power and duty to adopt regulations necessary to carry out the purposes of the Act.

The term encroachment means any structure or activity which in any manner changes, expands or diminishes the course, current or cross section of any water course, floodway, or body of water. A "body of water" is defined as any natural or artificial lake, pond, reservoir, swamp, marsh or wetland.

Thus, the Department has the authority and duty to regulate dredging and filling activities (as encroachments). The Department also has the authority and duty to regulate all dams, water obstructions and encroachments in wetlands (as bodies of water).

Since the Commonwealth holds the beds in trust for the public, the Act also gives the Department the right, subject to approval by the Governor, to grant an easement, right-of-way, license or lease to occupy submerged lands of the Commonwealth in any navigable lake or river or stream declared a public highway or any dam, water obstruction or encroachment which is constructed for the purpose of:

1. Improving navigation or public transportation;

2. Recreation, fishing or other public trust purposes;

3. Protecting public safety or the environment;

4. Providing water supply, energy production or waste treatment;

5. Providing a public utility service by a government agency or subdivision or public utility or electric cooperative; or

6. Other activities which require access to water.

Sanctions imposed for violations of the Act or any regulation promulgated thereunder, include enforcement orders and civil and criminal penalties. The Department may issue enforcement orders for any purpose necessary to aid in the enforcement of the Act.

4. Soil Conservation Law, Act of May 15, 1945, P.L. 547, as amended (3 P.S. Sections 849 et seq.)

The Act declares that it is the policy of the Commonwealth to provide for the conservation of the soil, water and related resources of this Commonwealth, and for the control and prevention of soil erosion, and, thereby, to preserve natural resources; assist in the control of floods; prevent impairment of dams and reservoirs; assist in maintaining the navigability of rivers and harbors; preserve wildlife; preserve the tax base; protect public lands; and protect and promote the health, safety and general welfare of the people of the Commonwealth.

The Act provides for the creation of Conservation Districts managed by a board of district directors. The directors have the power, among other things:

1. To conduct surveys, investigations and research relating to the character of soil erosion and the preventive control measures needed.

2. To carry out preventive and control measures within the district.

3. To cooperate or enter into agreements with, and to furnish financial or other aid to, any agency, governmental or otherwise, or any occupier of lands within the district in carrying on erosion control and prevention operations.

4. To obtain options upon, and to acquire by purchase, exchange, lease, gift, grant, bequest, devise or otherwise, any property real or personal or right or interests therein; to maintain, administer and improve any properties acquired; to receive income from such properties and to expend such income in carrying out the purposes and provisions of this Act; and to sell, lease or otherwise dispose of any of its property or interests therein in furthernace of the purposes and the provisions of this Act.

5. To construct, improve and maintain such structures as may be necessary or convenient for the performance of any of the operations authorized in this Act.

6. To develop comprehensive plans for the conservation of soil resources and for the control and prevention of soil erosion within the district.

7. To accept contributions of any character from any source whatsoever, but only with the consent and approval of the State Soil and Water Conservation Commission, unless specifically authorized so to do by this Act.

8. To sponsor projects under the Watershed Protection and Flood Prevention Act, U.S. Public Law 566, of 1954, as amended, and the Resource and Conservation and Development Program authorized by Public Law 87-703, and the Food and Agriculture Act of 1962, as amended.

5. Floodplain Management Act, Act of October 4, 1978, P.L. 851 (32 P.S. Sections 679.101 et seq.)

The policy and purpose of this Act is to:

1. Encourage planning and development in floodplains which are consistent with sound land use practices.

2. Protect people and property in floodplains from the dangers and damage of floodwaters and from materials carried by such floodwaters.

3. Prevent and eliminate urban and rural blight which results from the damages of flooding.

4. Authorize a comprehensive and coordinated program of floodplain management, based upon the National Flood Insurance Program, designed to preserve and restore the efficiency and carrying capacity of the streams and floodplains of the Commonwealth.

5. Assist municipalities in qualifying for the National Flood Insurance Program.

5. Provide for and encourage local administration and management of floodplains.

7. Minimize the expenditure of public and private funds for flood control projects and for relief, rescue and recovery efforts.

The Act requires that each municipality, which has been identified by the United States Department of Housing and Urban Development as having an area or areas subject to flooding, shall adopt such floodplain management regulations, and amendments thereto, as are necessary to comply with the requirements of the National Flood Insurance Program. The identified municipality has six months after a floodplain map is approved or promulgated for the municipality by the United States Department of Housing and Urban Development to adopt the required ordinance.

The Department of Community Affairs, in consultation with the Department of Environmental Resources must review and approve all municipal floodplain management regulations for assuring compliance with the National Flood Insurance Program. The Department of Community Affairs is authorized to administer grants to municipalities and counties to assist or reimburse them for costs in preparing official plans and actual administrative enforcement and implementation costs and revisions to official plans for floodplain management required by this Act, and for carrying out related studies, surveys, investigations, research and analyses.

Sanctions for violating the requirements of the Act include withholding funds and civil penalties. If after 180 days notice of violation of the Act a municipality has failed to comply, the Secretary of Community Affairs shall notify the State Treasurer

to withhold payment of all funds payable to the municipality from the General Fund or any other fund. The State Treasurer is to hold funds in escrow until the municipality complies.

The Floodplain Management Act also confers powers on municipalities administering floodplain management regulations to require special regulation of hospitals, nursing homes, jails, new mobile home parks, subdivision or substantial additions to mobile home parks or subdivisions. The municipality is responsible for administering this provision with oversight by the Department of Community Affairs. The Department of Environmental Resources is responsible for administering Section 302 of the Act, which gives the Department exclusive jurisdiction to regulate through permit:

1. Any obstruction otherwise regulated under the Water Obstructions Act;

2. Any flood control project constructed, owned, or maintained by a governmental unit;

3. Any highway or other obstruction constructed, owned or maintained by the Commonwealth or a political subdivision thereof; and

4. Any obstruction owned or maintained by a person engaged in the rendering of a public utility service.

6. Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended (35 P.S. Sections 691.1 et seq.)

It is the policy of the Act that:

1. Clean, unpolluted streams are absolutely essential if Pennsylvania is to attract new manufacturing industries and to develop Pennsylvania's full share of the tourist industry;

2. Clean, unpolluted water is absolutely essential if Pennsylvanians are to have adequate out of door recreational facilities in the decades ahead;

3. It is the objective of the Clean Streams Law not only to prevent further pollution of the waters of the Commonwealth, but also to reclaim and restore to a clean unpolluted condition every stream in Pennsylvania that is presently polluted;

4. The prevention and elimination of water pollution is recognized as being directly related to the economic future of the Commonwealth; and

5. The achievement of the objective herein set forth requires a comprehensive program of watershed management and control.

The Department of Environmental Resources (hereinafter Department) has the power and duty to (among other things) review plans, issue permits, modify, suspend or revoke permits, and issue correction and cease operation orders.

Powers under this Act are broad due to the definition of "pollution" and "waters of the Commonwealth". Pollution means contamination of any waters of the Commonwealth such as will create or is likely to create a nuisance or to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life, including but not limited to such contamination by alteration of the physical, chemical, or biological properties of such waters, or change in temperature, taste, color or odor thereof, or the discharge of any liquid, gaseous, radioactive, solid or other substances into such waters. The Department shall determine when a discharge constitutes pollution, as herein defined, and shall establish standards whereby and wherefrom it can be ascertained and determined whether any such discharge does or does not constitute pollution as herein defined.

"Waters of the Commonwealth" shall be construed to include any and all rivers, streams, creeks, rivulets, impoundments, ditches, water courses, storm sewers, lakes, dammed water, ponds, springs and all other bodies or channels or conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this Commonwealth.

In addition, the Department is approved to operate NPDES permit system under the Federal Clean Water Act (25 Pa. Code Chapter 92).

Sanctions for violation of this Act include criminal and civil penalties as well as equity actions restraining violations of the Act, and enforcement orders to ensure municipal compliance.

7. Open Space Lands, Act of January 19, 1968, P.L. (1967) 992 (32 P.S. Sections 5001 et seq.)

It is the purpose of this Act to clarify and broaden the existing methods by which the Commonwealth may preserve land in or acquire land for open space in and near urban areas to meet needs for recreation, amenity, and conservation of natural resources, including farm land, forests, and a pure and adequate water supply. The acquisition and resale of property interests authorized by this Act are hereby declared to be for the public benefit, for the advancement of the public health, safety, morale

and general welfare of the citizens of the Commonwealth, and for the promotion of sound land development by preserving suitable open space and concentrating more dense development in nearby areas.

The Act provides that the Commonwealth through the Department of Environmental Resources may acquire any interest in real property by purchase, contract, condemnation, gift, devise or otherwise, for any of the following purposes:

1. To protect and conserve water resources and watersheds;

2. To protect and conserve forests and land being used to produce timber crops;

3. To protect an existing or planned park, forest, wildlife preserve, nature reserve, or other recreation or conservation site by controlling the use of contiguous or nearby lands in order to protect the scenic, aesthetic or watershed values of the site;

4. To protect and conserve natural or scenic resources, including but not limited to soils, beaches, streams, floodplains or marshes;

5. To protect scenic areas for public visual enjoyment from public rights of way;

6. To preserve sites of historic, geologic or botanic interest;

7. To promote sound, cohesive, and efficient land development by preserving open spaces between communities; and

8. To limit the use of the real property so as to achieve open space benefits by reselling real property acquired in fee simple, subject to restrictive covenants or easements limiting the use thereof for the purposes specified in clauses (1) through (7) hereof.

8. Pennsylvania Solid Waste Management Act, Act of July 31, 1968, P.L. 788, as amended (35 P.S. Sections 6001 et seq.)

Since improper and inadequate solid waste practices create public health hazards, environmental pollution and economic loss, it is the purpose of the Act to:

1. Establish and maintain a cooperative State and local program of planning and technical and financial assistance for comprehensive solid waste management;

2. Utilize, wherever feasible and desirable, the capabilities of private enterprise in accomplishing the desired objectives of an effective solid waste management program; and

3. Require permits for the operation of processing and disposal systems.

The Act requires municipalities with specified population densities to submit for Department of Environmental Resources (hereinafter Department) approval a plan for a solid waste management system within the municipality's jurisdiction. Each plan is to consider all aspects of planning, zoning, population estimates, economics, etc., so as to project the municipality's solid waste needs for ten years. The Department may bring actions in mandamus against municipalities which fail to submit adequate plans.

The Act also provides for a permit procedure administered by the Department. It is unlawful for any person, municipality, county or authority to use or continue to use their land (and/or the land of any other person, municipality, county or authority) as a solid waste processing or disposal area without obtaining a permit from the Department.

"Solid waste" means garbage, refuse and other discarded materials including, but not limited to, solid and liquid waste materials resulting from industrial, commercial, agricultural and residential activities. "Solid waste management system" means the entire process of storage, collection, transportation, processing and disposal of solid wastes by any person engaging in such process as a business or any municipality, authority, county or any combination thereof.

Sanctions for violation of this Act include criminal and civil remedies as well as suits in equity restraining violations of the Act and compliance orders to municipalities to comply with the Act.

9. Air Pollution Control Act, Act of January 8, 1960, P.L. (1959) 2119, as amended (35 P.S. Sections 4001 et seq.)

The Act declares that it is the policy of the Commonwealth to protect the air resources of the Commonwealth to the degree necessary for the (i) protection of public health, safety and well-being of its citizens; (ii) prevention of injury to plant and animal life and to property; (iii) protection of the comfort and convenience of the public and the protection of the recreational resources of the Commonwealth; and (iv) development, attraction and expansion of industry, commerce and agriculture.

The Department of Environmental Resources (hereinafter Department) has, among other powers, the power to develop a plan

for abatement, control and prevention of air pollution, to regulate the amount of air pollution allowed, to issue orders for compliance with Departmental regulations, and to institute proceedings in court to compel compliance with any Departmental orders. Such orders may be for cessation of operation, reduction of emissions, modification or repair or maintenance of pollution control devices, installation of pollution control devices or institution of process changes.

The Act also provides for a permit procedure administered by the Department. No person shall construct, assemble, install or modify any stationary air contamination source, or install thereon any air pollution control equipment or device or reactivate any air contamination source after said source has been out of operation or production for a period of one year or more unless such person has applied to and received from the Department written approval to do so. No person shall operate any stationary air contamination source which is subject to the provisions of subsection (a) of this section unless the Department shall have issued to such person a permit to operate such source in response to a written application for a permit.

"Air pollution" is defined as the presence in the outdoor atmosphere of any form of contaminant including but not limited to the discharging from stacks, chimneys, openings, buildings, structures, open fires, vehicles, processes, or any other source of any smoke, soot, fly ash, dust, cinders, dirt, noxious or obnoxious acids, fumes, oxides, gases, vapors, odors, toxic or radioactive substances, waste, or any other matter in such place, manner, or concentration inimical or which may be inimical to the public health, safety, or welfare or which is, or may be injurious to human, plant or animal life, or to property, or which unreasonably interferes with the comfortable enjoyment of life or property. "Stationary air contamination source" is any place, facility or equipment stationary or mobile, at, from or by reason of which there is emitted into the outdoor atmosphere any contaminant other than any place facility or equipment which, when operated, moves in a given direction under its own power.

Sanctions for violation of this Act include criminal and civil remedies, as well as enforcement orders, injunctions and petitions to enforce.

10. Radiation Control Act, Act of January 28, 1966, P.L. (1965) 1625 (73 P.S. Sections 1301 et seq.)

This Act designates the Department of Environmental Resources (hereinafter Department) as the agency of the Commonwealth which shall be responsible for the control and regulation of radiation sources, but the Department shall not have the power to regulate, license, or control nuclear reactors or facilities or operations incident thereto in duplication of any activity of the Federal government without the consent of the Federal government.

The Act makes it unlawful for any person to use, manufacture, produce, transport, transfer, receive, acquire, own, possess, or dispose of any radiation source contrary to the provisions of the Act or any rules or regulations issued thereunder.

Sanctions for violation of this Act include criminal penalties as well as equitable actions including injunctions.

11. Administrative Code of 1929, Act of April 9, 1929, P.L. 177, as amended (71 P.S. Sections 510-1 et seq.)

Section 510-1 provides for the transfer of powers and duties from numerous Departments to the Department of Environmental Resources.

Section 510-2(13) provides that the Department of Environmental Resources (hereinafter Department) shall, with the approval of the Governor, have the authority to enter into agreements with owners or lessees of property or property rights located in the same area as lands owned or leased by the Commonwealth, for the protection, preservation or recovery of metalic or nonmetalic ore, fuel, oil, natural gas, or any other mineral deposits underlying said lands, provided the said deposits are owned by the Commonwealth.

Section 510-8(d) transfers to the Department the powers and duties exercised by the Water and Power Resources Board with regard to permits for the construction of dams, and other water obstructions, or of any change therein or addition thereto, and consents or permits for changing or diminishing the course, current, or cross section, of any stream or body of water.

Section 510-17 gives the Department the power and duty to order nuisances to be abated or removed. This includes any condition which is declared to be a nuisance by any law administered by the Department, or any activities which exposes the people of the Commonwealth to unsanitary conditions.

12. Gas Operations Well-Drilling Petroleum and Coal Mining Act, Act of November 30, 1955, P.L. 756, as amended (52 P.S. Sections 2101 et seq.)

This is an Act relating to coal mining, well operations, and the underground storage of gas. The Act further describes procedures for the safety or personnel and facilities engaged in the activities mentioned above, and prescribes the rights and duties of well operators and coal mine operators.

The Act provides for a permit procedure for drilling any type of oil and gas wells.

Sanctions for violation of this Act include criminal penalties as well as equitable actions including injunctions.

13. Pennsylvania Sewage Facilities Act, Act of January 24, 1966, P.L. (1965) 1531, as amended (35 P.S. Sections 750.1 et seq.)

It is the policy of the Commonwealth of Pennsylvania through this Act:

1. To protect the public health, safety and welfare of its citizens through the development and implementation of plans for the sanitary disposal of sewage waste.

2. To promote intermunicipal cooperation in the implementation and administration of such plans by local government.

3. To prevent and eliminate pollution of waters of the Commonwealth by coordinating planning for the sanitary disposal of sewage wastes with a comprehensive program of water quality management.

4. To provide for the issuance of permits for on-lot sewage disposal systems by local government in accordance with uniform standards and to encourage intermunicipal cooperation to this end.

5. To provide for and ensure a high degree of technical competency within local government in the administration of this Act.

6. To encourage the use of the best available technology for on-site sewage disposal systems.

7. To ensure the rights of citizens on matters of sewage disposal as they may relate to this Act and the Constitution of this Commonwealth.

The Act outlines a procedure whereby each municipality shall submit to the Department of Environmental Resources (hereinafter Department) an officially adopted plan for sewage services for areas within its jurisdiction, and submit revisions to that plan from time to time as required by the Department. The Department is authorized to approve or disapprove all municipal plans.

The Act also provides for a permitting procedure administered by the local agencies with Department overview. The Act declares:

> No person shall install, construct, or request bid proposals for construction, or alter an individual sewage system or community sewage system or construct, or request bid

proposals for construction, or install or occupy any building or structure for which an individual sewage system or community sewage system is to be installed without first obtaining a permit indicating that the site and the plans and specifications of such a system are in compliance with the provisions of this Act and the standards adopted pursuant to this Act. No permit may be issued by the local agency in those cases where a permit from the Department is required pursuant to the Act of June 22, 1937 (P.L. 1987, No. 394), known as the "The Clean Streams Law", as amended, or where the Department pursuant to its rules and regulations, determines that such permit is not necessary either for a rural residence or for the protection of the public health.

"Sewage" means any substance that contains any of the waste products or excrement or other discharge from the bodies of human beings or animals and any noxious or deleterious substances being harmful or inimical to the public health, or to animal or aquatic life, or to the use of water for domestic water supply or for recreation, or which constitutes pollution under the Act of Jun 22, 1937 (P.L. 1987, No. 394), known as "The Clean Streams Law, as amended.

"Individual sewage system" means a system of piping, tanks, or other facilities serving a single lot and collecting and disposing of sewage in whole or in part into the soil or into any waters of this Commonwealth or by means of conveyance to another site for final disposal; an alternate individual sewage system shall mean an individual sewage system not heretofore recognized by rules, regulations and standards of the Department.

"Community sewage system" means any system, whether publicly or privately owned, for the collection of sewage or industrial wastes of a liquid nature from two or more lots, and the treatment and/or disposal of the sewage or industrial waste on one or more of the lots or at any other site.

Sanctions for violations of this Act include criminal and civil remedies as well as suits in equity to enjoin violation of the Act and enforcement orders to municipalities to ensure their compliance with the Act.

14. Schuylkill River Pollution/Siltation Law, Act of June 4, 1945, P.L. 1383, as amended, (32 P.S. Sections 751.1 et seq.)

It is the intent and purpose of this Act to carry into effect a project to prevent the future accumulation of wastes including coal, silt, industrial processes and municipal sanitation, and the prevention of pollution in the Schuylkill River and its tributaries, and to dredge and dispose of the existing accumulations in the Schuylkill River above the Norristown dam at

Norristown, Pennsylvania. Such project, among other things, will involve the acquisition of dams, canals, lands, easements, right-of-ways and other rights, and of properties for the disposal of material dredged from the Schuylkill River and its tributaries; the construction, repair and maintenance of dams required to carry on dredging operations; the construction of dikes and other protective works at disposal areas and physical dredging operations.

The Department of Environmental Resources is authorized to clean out, widen, alter, dredge, deepen or change the course, current or channel of the Schuylkill River, or any of the tributaries; to fill up any abandoned canal or water course; to construct and maintain levees, dikes, walls, revetments, dams, reservoirs, and other works and improvements deemed necessary to carry out the purpose of this Act and to prohibit any dredging operation deemed inimical thereto. It also has the power to control and regulate the flow of the Schuylkill River and its tributaries during the period of the execution of the project; to construct or enlarge bridges and culverts; to construct and relocate public highways; to construct any of said works and improvements across or through any public highway, canal, railroad right-of-way or tracks; to remove, change the location of, or construct any of the above mentioned strucutres and facilities, or such other structures or facilities as are necessary to carry out the intent of the Act.

15. Fish Laws of 1959, Act of December 15, 1959, P.L. 1779, as amended, (30 P.S. Sections 1 et seq.)

This Act is a comprehensive statute relating to fish and fishing in the Commonwealth. It covers the following general subject areas:

1 Fishing Regulations applying to inland waters.

2. Fishing Regulations applying to boundary lakes

3. Fishing Regulations applying to boundary rivers

4. Seine Licenses

5. Artificial Propagation Licenses

6. Dams, fishways, barbacks, obstructions, etc.

7. Pollution, trespass on State hatcheries

8. Sale of fish

9. Fishing Licenses

10. Complimentary Licenses

11. General powers of the Fish Commission

12. Sunday fishing

13. Enforcement of the Act

14. The Fish Fund

15. Frogs, tadpoles and turtles

16. Historic Preservation Act, Act of November 22, 1978, P.L. 1160 (71 P.S. Sections 1047(o) et seq.)

It is the policy of this Act that:

1. Section 27 of Article I of the Constitution of Pennsylvania makes the Commonwealth trustee for the preservation of the historic values of the environment.

2. The conservation of Pennsylvania's historic heritage and the preservation of public records, historic documents and objectives of historic interest, and the identification, restoration and preservation of architecturally and historically significant sites and structures are duties vested primarily in the Pennsylvania Historical and Museum Commission.

3. The irreplaceable historical, architectural, archeological and cultural heritage of the Commonwealth should be preserved and protected for the benefit of all of the people, including future generations.

4. The preservation and protection of historic resources within the Commonwealth promotes the public health, prosperity and general welfare.

5. The rapid social and economic development of our contemporary society threatens to destroy the remaining vestiges of our historic heritage.

6. It is in the public interest for the Commonwealth, its citizens and its political subdivisions to engage in comprehensive programs of historic preservations for the enjoyment, education and inspiration of all the people, including future generations.

The Act further provides that all public officials shall cooperate fully with the commission in the preservation, protection and investigation of archeological sites.

17. Stormwater Management Act, Act of October 4, 1979, P.L. 864 (32 P.S. Section 680.1 et seq.)

The policy and purpose of this Act is to:

1. Encourage planning and management of stormwater runoff in each watershed which is consistent with sound water and land use practices.

2. Authorize a comprehensive program of stormwater management designed to preserve and restore the flood carrying capacity of Commonwealth streams; to preserve to the maximum extent practicable natural stormwater runoff regimes and natural course, current and cross-section of water of the Commonwealth; and to protect and conserve groundwaters and groundwater recharge areas.

3. Encourage local administration and management of stormwater consistent with the Commonwealth's duty as trustee of natural resources and the people's constitutional right to the preservation of natural, economic, scenic, aesthetic, recreational and historic values of the environment.

The Act requires that each county prepare and adopt a watershed stormwater management plan for each watershed located in the county as designated by, and through the, guidelines prepared by the Department of Environmental Resources. The management plans will be prepared in consultation with the municipalities located within each watershed and shall periodically review and revise such plan at least every five years. Each watershed stormwater plan will include specific criteria outlined in the Act for uniformed management and consistency for all the counties.

18. Open Meeting Law, Act of July 19, 1974, P.L. 486 (65 P.S. Sections 261 et seq.)

This Act requires that the meetings or hearings of every agency at which formal action is scheduled or taken are public meetings and shall be open to the public at all times. No formal action shall be valid unless such formal action is taken during a public meeting.

"Formal action" means the taking of any vote on any resolution, rule, order, motion, regulation or ordinance or the setting of any official policy.

The Act requires public notice of all public meetings in a newspaper of general circulation and posting of notice in the principal office of the agency holding the meeting.

Intentional violation of this Act is a summary offense and carries up to a $100 fine.

19. Executive Order

The Governor of the Commonwealth of Pennsylvania has the power and it is his duty to take care that the laws of the Commonwealth are faithfully executed, Pa. Constitution of 1960, Article IV, Section 2; 71 P.S. Section 241 (1929).

In carrying out this power, the Governor may issue executive orders. There are three types of executive orders. The first type includes formal, ceremonial and political orders which are often issued as proclamations. The usual purpose of a proclamation is to declare some special day or week in honor of or in commemoration of some special thing or event. It is issued to make the public aware of the commemoration and usually has no legal effect. Shapp v. Butera, 22 Pa. Cmwlth. 229, 348 A2d 910, 913 (1975). The second type of executive order is intended for communication with subordinate officials in the nature of requests or suggested directions for the execution of the duties of the executive branch of the government. Like the first classification, this class is not legally enforceable. Shapp, supra, 348 A2d at 913. The third type includes those executive orders which serve to implement or supplement the Constitution or statutes. These executive orders have the force of law. Shapp, supra, 348 A2d at 913; U.S. v. Messer Oil Corp., 391 F. Supp 577 (D C Pa. 1975); Farmer v. Philadelphia Elec. Co. 329 F2d 3 (CA Pa. 1964).

Executive Order (number and date) is a mixture of the second and third type of order identified above. See Section 1 of this Appendix for the text of the Executive Order. As it relates to carrying out the law, Executive Order (number and date) is legally enforceable against all administrative departments, independent administrative boards and commissions and other State agencies. However, where this executive order merely suggests directions for the execution of duties, it is only administratively enforceable.

20. Memoranda of Understanding

The statutory basis for agreements between agencies is the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, as amended (71 P.S. Section 181) which provides:

> Coordination of Work: The several administrative departments, and the several independent administrative and departmental administrative boards and commissions, shall devise a practical and working basis for cooperation and coordination of work, thereby eliminating duplication and overlap of functions, and shall, so far as practical,

cooperate with each other in the use of employees, land, buildings, quarters, facilities, and equipment. The head of any administrative department, or any independent administrative or departmental administrative board or commission, may empower or require an employee of another such department, board, or commission, subject to the consent of the head of such department or of such board or commission, to perform any duty which he or it might require of the employees of his or its own department, board, or commission; provided, however, that employees shall not be assigned to another department, board or commission in order to circumvent appropriation limits. See Section 2 of this Appendix for the text of the Memoranda of Understanding.

SECTION 1

DRAFT EXECUTIVE ORDER
PENNSYLVANIA COASTAL ZONE MANAGEMENT PROGRAM

WHEREAS, the Commonwealth of Pennsylvania is one of the foremost states in the nation in leading the battle to improve the quality of our environment; and

WHEREAS, there is a need to ensure the wise utilization of the valuable and unique natural resources of the Commonwealth of Pennsylvania's coastal areas which are currently being threatened by competing development interests; and

WHEREAS, there is a need to ensure that the inherent economic and social potential of the Commonwealth of Pennsylvania's coastal areas be wisely utilized; and

WHEREAS, the Department of Environmental Resources, with the advice of local governments, the general public, industry groups, other branches of State government and appropriate Federal agencies, has been developing the Pennsylvania Coastal Zone Management Program; and

WHEREAS, the Federal Coastal Zone Management Act of 1972 provides funds to states who voluntarily implement a Federally approved Coastal Zone Management Program; and

WHEREAS, pursuant to Federal regulations, one condition of Coastal Zone Management Program approval is demonstration that the program, as approved, is enforceable; and

WHEREAS, several State departments and agencies have authority for enforcing the Commonwealth of Pennsylvania's Coastal Zone Management Program and for making rules affecting the program's enforcement.

THEREFORE, by virtue of the authority vested in me as Governor of the Commonwealth and in furtherance of the purposes and policies of Pennsylvania Constitution, Article I, Section 27; Bluff Recession and Setback Act, Act of ___, P.L. ___ (__ P.S. Sections ___ et seq.); The Dam Safety Act, Act of November 26, 1978, P.L. 1375, as amended (32 P.S. Sections 693.1 et seq.); Stormwater Management Act, Act of October 4, 1978, P.L. 864 (32 P.S. Sections 680.1 et seq.); Soil Conservation Law, Act of May 15, 1945, P.L. 547, as amended (3 P.S. Sections 849 et seq.); The Floodplain Management Act, Act of October 4, 1978, P.L. 851 (32 P.S. Sections 679.101 et seq.); Schuylkill River Pollution/Siltation Law, Act of June 4, 1945, P.L. 383, as amended (32 P.S. Sections 751.1 et seq.); Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended (35 P.S. Sections 691.1 et seq.); The Fish Law of 1959, Act of December 15, 1959,

P.L. 1779, as amended (30 P.S. Sections 200 et seq.); Open Space Lands, Act of January 19, 1968, P.L. (1967) 992 (32 P.S. Sections 5001 et seq.); Historic Preservation Act, Act of November 22, 1978, P.L. 1160 (71 P.S. Sections 1047.1 et seq.); The Solid Waste Management Act, Act of July 31, 1968, P.L. 788, as amended (35 P.S. Sections 6001 et seq.); The Air Pollution Control Act, Act of January 8, 1960, P.L. (1959) 2119, as amended (35 P.S. Sections 4001 et seq.); Radiation Control Act, Act of January 28, 1966, P.L. (1965) 1625, (73 P.S. Sections 1301 et seq.); Gas Operations, Well Drilling, Petroleum and Coal Mining Act, Act of November 30, 1955, P.L. 756, as amended (52 P.S. Sections 2101 et seq.); Act of July 1, 1978, Public Utility Code, No. 1978-116, as amended; The Sewage Facilities Act, Act of January 24, 1966, P.L. (1965) 1535, as amended (35 P.S. Sections 750.1 et seq.); Open Meeting Law, Act of July 19, 1974, P.L. 486 (65 P.S. Sections 261 et seq.); The Administrative Code of 1929, Act of April 9, 1929, P.L. 177, as amended (71 P.S. Sections 181, 194, 241, 510-1, 510-2, 510-4, 510-5, 510-6, 519-8, 510-17, 510-20.

I hereby endorse the policies of the Pennsylvania Coastal Zone Management Program and direct the following steps be taken:

1. The Department of Environmental Resources, Coastal Zone Management Branch, is designated as the lead agency for implementing and administering the Federal Coastal Zone Management Program for the Commonwealth of Pennsylvania; and

2. To the maximum extent permitted by law, all administrative departments, independent administrative boards and commissions, and other State agencies shall, upon Federal approval of the Pennsylvania Coastal Zone Management Program, enforce and act consistently with the goals, policies and objectives of that Coastal Zone Management Program; and

3. To the maximum extent permitted by law, all administrative departments, independent administrative boards and commissions, and other State agencies shall, upon Federal approval of the Pennsylvania Coastal Zone Management Program, provide for adequate consideration of the national interest involved in planning for and siting of facilities, and the use of resources in the coastal zones when such planning, siting, and uses are of more than local interest.

4. Each administrative department, independent administrative boards and commissions, and other State agencies shall, upon Federal approval of the Pennsylvania Coastal Zone Management Program and thereafter, notify the Department of Environmental Resources, Coastal Zone Management Branch, pursuant to the policies distributed to members of the Coastal

Zone Advisory Committee of any and all proposed activities having an effect on the coastal resources; and

5. The Department of Environmental Resources, Coastal Zone Management Branch, shall provide technical advice, assistance, and coordination to other agencies and act as a forum for conflict resolution between agencies in connection with their duties and responsibilities under this order; and

6. The Department of Environmental Resources shall be the single State agency to receive and administer the Federal Coastal Zone Management grants for implementing the management program.

7. Conflicts between the fiscal, developmental, service, or regulatory activities of State agencies which have a direct and significant impact on the coastal zone, that cannot be resolved through available administrative resolution mechanisms, shall be resolved by the Governor.

SECTION 2

INTERAGENCY
MEMORANDUM OF UNDERSTANDING
CONCERNING COASTAL ZONE MANAGEMENT

PENNSYLVANIA COASTAL ZONE MANAGEMENT PROGRAM

THIS AGREEMENT, entered into this _____ day of _____, 1980, between the lead agency for implementation of the State Coastal Zone Management Program, the Pennsylvania Department of Environmental Resources, hereinafter called "DEPARTMENT", and the Pennsylvania _____, hereinafter referred to as the "AGENCY".

W I T N E S S E T H:

WHEREAS, the parties recognize and acknowledge the need to preserve, protect, develop, and where possible, restore or enhance the resources of the Pennsylvania's coastal areas for this and succeeding generations; and

WHEREAS, the parties further recognize the need for full governmental coordination and public involvement in the Commonwealth's Coastal Zone Management Program, and the need to give due consideration to the significance of coastal resources to Pennsylvania; and

WHEREAS, the AGENCY recognizes that its programs and activities within Pennsylvania's coastal zones may have a direct and significant impact on the Commonwealth's coastal environment; and

WHEREAS, the Federal Coastal Zone Management Act of 1972 (P.L. 92-583, as amended) provides funds to states to implement Federally approved state coastal zone management programs; and

WHEREAS, pursuant to Federal regulations, one condition of coastal zone management program approval is demonstration that the program, as approved, will be enforced; and

WHEREAS, several State departments and agencies have authority for enforcing the Commonwealth of Pennsylvania's Coastal Zone Management Program and for making rules affecting the Program's enforcement.

NOW, THEREFORE, the DEPARTMENT and the AGENCY in accordance with these considerations, and to promote and carry out Executive Order No. (XX), issued on _____, 1980, do hereby agree as follows:

A. To the maximum extent permitted by law, the AGENCY agrees to:

1. Act consistently with the Commonwealth's Coastal Zone Policies set forth by the Executive Order No. (XX) and the Pennsylvania Coastal Zone Management Program.

2. In managing its programs having an affect on the coastal areas: (a) fully consider the DEPARTMENT'S adopted positions and coastal policies; (b) fully consider the national interest in the siting of facilities that are other than local in nature, through intergovernmental coordination; and (c) act appropriately upon these considerations.

3. Fully consider the compatibility of its plans and programs with the policies of the DEPARTMENT'S Coastal Zone Management Program and notify the DEPARTMENT of any incompatibility.

4. Provide an agency staff representative to serve on the Coastal Zone Advisory Committee of the DEPARTMENT'S Coastal Zone Management Program.

5. Keep the DEPARTMENT'S Coastal Zone Management Program advised of the initiation and status of projects or programs likely to have a direct and significant impact on the coastal environment, including but not limited to the established policies of the Coastal Zone Management Program.

6. Give due consideration to comments and/or recommendations of the DEPARTMENT as they relate to AGENCY actions affecting the Coastal Zone Management Program.

7. Provide access, through the Coastal Zone Advisory Committee representative, to AGENCY staff and information gathered by the AGENCY to allow the DEPARTMENT to have the best information available for its decision-making process.

8. Review and comment on all policies, plans and other actions of the DEPARTMENT'S Coastal Zone Management Program that apply to the AGENCY.

B. The DEPARTMENT shall:

1. Solicit comments from the AGENCY for due consideration concerning the implementation of coastal zone policies and programs that relate or could relate to the policies, programs and statutory responsibilities of the AGENCY.

2. As it deems appropriate or when so requested by the AGENCY, comment in a timely manner on proposed projects and programs likely to have an impact on the coastal environment, including proposed facilities and resources in which there may be a national interest.

3. Encourage and facilitate coordinated activities by Federal, State and local agencies whose activities affect the coastal environment.

4. Provide a forum, when appropriate, for the resolution of conflicts between the AGENCY and Federal, State or local agencies whose activities affect the coastal environment, when no such forum exists by law.

5. Provide such financial assistance as is at its disposal and is appropriate to the AGENCY to assist in the implementation of AGENCY programs and policies in the coastal zones.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed the day and year first above written.

ATTEST:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

_____

_____
Clifford L. Jones, Secretary

Approved as legality and form

_____
Assistant Attorney General
Department of Environmental Resources

ATTEST:

COMMONWEALTH OF PENNSYLVANIA

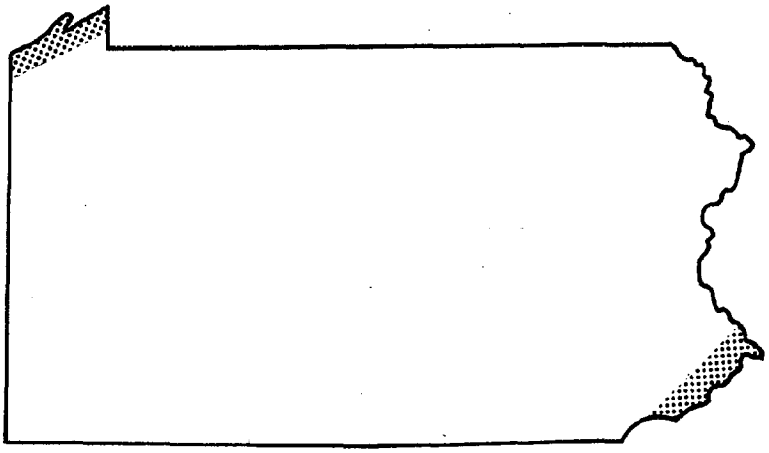
_____
(Title)

_____
(Title)

Approved as to legality and form

_____
Assistant Attorney General

Appendix B



Key Program Regulations

INTRODUCTION

This appendix contains the following key regulations which will be used to carry out the major State authorities (Bluff Recession and Setback Act, Dam Safety Act, and Floodplain Management Act) networked into Pennsylvania's Coastal Zone Management Program:

Title 25 DER Regulations (Subpart C) - Chapter 85
Bluff Recession and Setback

Title 25 DER Regulations (Subpart C) - Chapter 105
Dam Safety and Waterway Management

Title 16 DCA Regulations (Subpart G) - Chapter 38
Floodplain Management

It should be noted that these regulations are draft but will become final prior to Federal program approval. Persons wishing to comment on Chapters 85 and 105 regulations should contact E. James Tabor, Manager of the Coastal Zone Management Branch, and Gilbert E. Kyle, Director of the Bureau of Dams and Waterway Management, respectively, prior to July 1, 1980. The comment period for Chapter 38 regulations is closed, and final adoption of these regulations is scheduled for Summer, 1980.

DRAFT

TITLE 25 RULES AND REGULATIONS
PART I. DEPARTMENT OF ENVIRONMENTAL RESOURCES
SUBPART C PROTECTION OF NATURAL RESOURCES

CHAPTER 85 BLUFF RECESSION AND SETBACK

Authority

The provisions of this Chapter 85 issued under Act of XXX XX, 1980, XX.

Source

The provisions of this Chapter 85 adopted XXX XX, 1980, effective XXX XX, 1980.

General Provisions

Section 85.1. Definition

The following words and terms, when used in this Chapter, shall have the following meanings, unless the context clearly indicates otherwise:

"Act". Refers to the Bluff Recession and Setback Act, Act of ___, 1980, P.L. ___, No. ___ (32 P.S. Section __ et seq.).

"Bluff". Any high bank or bold headland with a broad precipitous cliff face overlooking a lake.

"Bluff Line". The edge or crest of the bluff.

"Bluff Recession". The loss of material along the bluff face caused by the direct or indirect action by one or a combination of groundwater seepage, water currents, wind generated water waves, or high water levels.

"Bluff Recession Hazard Area". An area or zone where the rate of progressive bluff recession creates a substantial threat to the safety or stability of nearby existing or future structures or utility facilities.

"Bluff Setback Ordinance and Regulations". Building codes, zoning ordinances, subdivision regulations, health regulations, special purpose ordinances, and other applications of the police power, which provide standards for the location of structures and facilities in bluff recession hazard areas.

"Department". The Department of Environmental Resources of the Commonwealth of Pennsylvania.

"Development":

(i) The improvement of one lot or two or more contiguous lots, tracts or parcels of land for any purpose including but not limited to:

(A) a group of two or more buildings; or

(B) the division or allocation of land or space between or among two or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups, or other features.

(ii) A subdivision of land

"High Bank". Any bank over five feet high.

"Lake". A body of fresh water covering at least 9,000 square miles.

"Market Value". The value of a structure determined by a certified appraisal or by determination through the assessed value of a structure and applying the assessment ratio of the county in which the structure is located to establish a market value.

"Minimum Bluff Setback Distances". The shortest horizontal distance from any point on the bluff line to any point on a structure.

"Municipality". A city, borough, town or township, or any county or other governmental unit when acting as an agent thereof, or any combination thereof acting jointly.

"Person". An individual, partnership, public or private association or corporation, firm, trust estate, municipality, governmental unit, public utility or any other legal entity whatsoever when is recognized by law as the subject of rights and duties. Whenever used in any section prescribing or imposing a penalty, the term "person" shall include the members of a partnership, the officers, members, servants and agents of an association, officers, agents, or servants of a corporation, but shall exclude any department, board, bureau, or agency of the Commonwealth.

"Parcel". A piece of ground that existed as an independent tax lot on the records of the county prior to its inclusion in a municipality's designated bluff recession hazard areas.

"Plat". A map, drawing or print accurately drawn to scale showing the proposed or existing location of all structures as herein defined.

"Structure". Any man-made object having an ascertainable stationary location on or in land whether or not affixed to the land. For the purposes of these regulations, structures are classified into three categories; residential, commercial, and light and heavy industrial.

(i) Residential structures are defined as a place providing habitation for an individual or group of individuals. Structures in this category include, but are not limited to, single family homes, duplexes, and summer cottages, as well as any secondary structure that is associated with the residential structure.

(ii) Commercial structures are defined as a place where commodities are exchanged, bought or sold. Structures in this category include, but are not limited to, grocery stores, hardware stores, clothing shops, and pharmacies, as well as any secondary structure that is associated with the commercial structure.

(iii) Light and heavy industrial structures are defined as a place where materials are refined, produced, or fabricated, and stored prior to shipment to commercial establishments. Structures in this category include, but are not limited to, factories, power plants, and warehouses, as well as any secondary structure that is associated with the industrial structure.

(iv) Hospitals, nursing homes, schools and other public service facilities, because of the dangers inherent in bluff recession, will be subject to the same setback requirements as light and heavy industries.

"Structure Life Span". The useful life of the structure considering both economic and physical factors.

"Substantial Improvement":

(i) Any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

(A) Before the improvement or repair is started; or

(B) If the structure has been damaged and is being restored, before the damage occured,

(ii) Any repairs, reconstructions, or improvements of a structure occurring over a five year period, the aggregate cost of which equals or exceeds 50 percent of the market value of the structure either:

(A) Before the first improvement or repair is started; or

(B) If the structure has been damaged, and is being restored, before the damage occurred.

(iii) For the purpose of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structure part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include any project for improvement of a structure to comply with existing State or local health, sanitary or safety specifications which are solely necessary to assure safe living conditions; or any alteration of a structure listed on the National Register of Historic Places or a State inventory of historic places.

"Quality Board". Refers to the Environmental Quality Board established by the Administrative Code of 1929, P.L. 177, as amended, (71 P.S. Section 510-21(e)).

Section 85.2. Scope

The provisions of this Chapter are adopted in accordance with the duties placed on the Department by the Act, and they shall apply to all municipalities designated as having bluff recession hazard areas and to all persons constructing, installing, or engaging in substantial improvement to any structure or utility facility within bluff recession hazard areas.

Section 85.3. Purpose of Regulations

The basic purposes of the Act and these regulations are as follows:

(1) Encourage planning and development in bluff areas which is consistent with sound land use practices.

(2) Protect people and property in bluff areas from the dangers and damages associated with the inevitable recession of bluffs.

(3) Prevent and eliminate urban and rural blight which results from the damages of bluff erosion and recession.

(4) Minimize the expenditure of public and private funds for shoreline protection and bluff stabilization structures and activities.

(5) Authorize a comprehensive and coordinated program to regulate development activities through the use of setback ordinances in bluff recession hazard areas The program is designed to preserve and restore the natural ecological systems, and to prevent continuing destruction of property and structures.

(6) Encourage local administration and management of bluffs consistent with the Commonwealth's duty as trustee of natural resources, and the people's constitutional right to the preservation of the natural, scenic, aesthetic and historic values of the environment.

Section 85.4. Violations

A municipality that fails to adopt and submit a bluff setback ordinance and regulations or fails to properly administer the provisions of these regulations shall be found in violation and subject to the penalties of the Act. A person who violates the provisions of the Act or a municipal ordinance will be subject to the appropriate penalties of the Act.

SUBCHAPTER A. PROCEDURE FOR DESIGNATION OF AREAS WITH BLUFF RECESSION HAZARDS

Section 85.11. General Requirements

The Department is authorized by Section 4 of the Act to identify areas in the Commonwealth which have Bluff Recession Hazard Areas. Prior to formal designation by the Quality Board, the tentatively identified municipality will be invited to submit comments to the Department concerning the designation.

Section 85.12. Identification of Bluff Recession Hazards

(a) Pursuant to Section 4 of the Act, studies will be conducted when necessary to identify bluff recession hazard areas in the Commonwealth. Studies prepared for these purposes shall:

(1) Identify the geographic location of the potential hazard area(s); County, Township, etc.

(2) Define and evaluate the bluff recession hazard in relation to geophysical processes such as recession and erosion-related phenomena and examine the causative factors.

(3) Review and evaluate existing and potential damage to property and structures caused by progressive bluff recession.

(4) Develop a recession rate based on historical evidence.

(5) Develop conclusions and recommendations based on the findings of the studies.

(b) To prevent the unnecessary expenditure of public funds, the Department shall inventory, identify, and evaluate previous studies that may have already been completed. If the

studies meet the requirements of th se regulations, such studies may be utilized for purposes of Section 4 of the Act.

Section 85.13. Department Notification to Municipalities

Following completion of the study, the Department shall, by certified letter, notify the governing body of the municipality that it has been tentatively designated as possessing a bluff recession hazard area. The letter shall contain the following information:

(1) The geographic location of the hazard area;

(2) A summary of the findings of the Department's study;

(3) The historic recession rate and the process used to calculate this rate;

(4) The minimum bluff setback distances that will be required by the Department;

(5) A request for comments from the municipality concerning the tentative designation and setback distances;

(6) Specification of the time limits for comment; and

(7) Notice that a public hearing will be held concerning the designation of bluff recession hazard areas by the Quality Board prior to formal designation.

Section 85.14. Municipal Response on Designation

Each municipality tentatively identified by the Department as possessing a bluff recession hazard area(s) shall be invited to submit written comments concerning the tentative designation to the Department within 60 days of receiving the Department's notification letter.

Section 85.15. Department Notification of the Environmental Quality Board

(a) When the Department receives comments from a tentatively designated municipality, it will prepare and transmit to the Quality Board a request for formal designation of the municipality's bluff recession hazard area(s) and the establishment of bluff setback distances in the bluff recession hazard area. The request shall contain at a minimum the following:

(1) The Department's findings concerning the location and determination of the bluff recession hazard area in the municipality;

(2) The nature of the existing and potential damage to property and structures;

(3) All comments received from the affected municipality; and

(4) A recommendation, incorporating consideration of the comments received from the municipality, that the area be designated as a bluff recession hazard area(s) and subject to Subchapter C of these regulations.

(b) In the event a municipality disagrees with the Department's letter tentatively designating it as possessing a bluff recession area(s) and the required setback distances and has not submitted comments acceptable to the Department, the appropriate representatives of the Department shall contact and offer to meet with representatives of the municipality to review, discuss, and attempt to resolve the differences. This meeting will be held within 30 days from the date of the letter received from the municipality.

(c) In the event a municipality fails to comment within the time prescribed in these regulations, the Department shall assume the municipality is in agreement, and shall note that municipality provided no comment concerning the designation and the required setback distance within the allotted time.

(d) Following transmittal of the Department's request to the Quality Board, the Quality Board will give public notice and hold public hearings on the request to formally designate areas within municipalities as subject to bluff recession hazards.

(e) Following public hearings, the Department shall consider the comments received at the public hearing and make appropriate revisions to the request and resubmit it to the Quality Board for final action. Following an affirmative action by the Quality Board, the Department shall notify the municipality that it must within six months comply with the provisions of the Act and these regulations.

SUBCHAPTER B. BLUFF RECESSION HAZARD AREAS DESIGNATION AND SETBACK REQUIREMENTS

Section 85.21. General Requirements

Pursuant to Section 5 of the Act, this subchapter provides procedures for calculation of minimum bluff setback distances and the limitations of activities associated within minimum bluff setback distances in designated bluff recession hazard areas.

Section 85.22. Methods of Determining Minimum Bluff Setback Distances

(a) The Department shall develop minimum bluff setback distances for each municipality tentatively designated as having a bluff recession hazard area(s) by applying the following formula:

Rate of Bluff Recession	X	Appropriate life span of structure	=	Minimum Bluff Setback Distance

(1) The rate of bluff recession in the formula in Section 85.22. subsection (a) is the average rate of recession for all the municipality's bluff as calculated by the Department.

(2) The appropriate life span in the formula is 50 years for residential homes; 75 years for commercial structures, and 100 years for light and heavy industrial structures.

(b) In no case shall the minimum bluff setback distance be less than 50 feet. When use of the formula identified in subsection (a) above would produce a minimum bluff setback distance of less than 50 feet, the formula shall not apply and 50 feet will be the minimum bluff setback distance.

Section 85.23. Modification of Minimum Bluff Setback Distances

A minimum bluff setback distance for a municipality may be modified upon presentation of formal studies acceptable to the Department documenting annual recession rates at variance with the Department's recession rate data. Upon Department review and acceptance of the data as accurate and compatible with the objectives of the Act, a new minimum bluff setback distance shall be calculated. The Department will request the Quality Board to amend the designation in accordance with the provisions set forth in these regulations concerning the minimum bluff setback distances.

Section 85.24. Activities Within A Bluff Recession Hazard Area(s)

In any area designated as having bluff recession hazard, no person shall construct, install or engage in substantial improvement to any structure, or any utility facility such as but not limited to water, sewage, electric, gas, oil or telephone facilities within the minimum bluff setback distances established pursuant to Section 85.22 except as provided under Section 85.25 or Section 85.37, subsection (4) of these regulations.

Section 85.25. Variances Granted by the Department

(a) During the period between Quality Board designation of a bluff recession hazard area(s) and the Department's approval of a municipality's bluff setback ordinance and regulations, the Department may grant variances to the bluff setback requirements for all construction in a designated bluff recession hazard area(s). A property owner shall file an application with the Department for a variance to allow construction on his property.

(b) When the Department receives the completed application, it shall review the application based on the criteria for a variance pursuant to Section 85.37, subsection (4).

(c) Within 45 calendar days, the Department shall review the application and send a registered letter to the applicant approving or disapproving the variance. A copy of this letter will be sent to the municipality for its permanent record. If the Department does not take action regarding the application within 45 days, the application shall be deemed approved.

Section 85.26. Minimum Bluff Setback Distances of a Designated Municipality

The minimum setback distance for the various categories of structures will be adopted by the Environmental Quality Board based on the Department's report.

SUBCHAPTER C. MUNICIPAL BLUFF SETBACK ORDINANCE AND REGULATIONS

Section 85.31. General Requirements

As required by Section 6 of the Act, designated municipalities shall adopt and implement a bluff setback ordinance and regulations. Subchapter C of this Chapter 85 outlines the procedures for meeting these requirements.

Section 85.32. Time Limit for Municipal Adoption of Bluff Setback Ordinance and Regulations

Each municipality, following formal Quality Board designation of a bluff recession hazard area, shall within six months of receiving notification amend or adopt and implement a bluff setback ordinance and regulations which are consistent with the requirements of Section 85.37.

Section 85.33. Municipal Adoption and Administration

Each designated municipality is required to adopt and administer a bluff setback ordinance and regulations in a manner consistent with the provisions of the Pennsylvania Municipalities Planning Code or other applicable enabling legislation.

Section 85.34. Geographic Limit of Bluff Setback Ordinance and Regulations

A municipality may adopt a bluff setback ordinance and regulations for a bluff recession hazard area without adopting an ordinance and regulations governing any other area of the municipality, notwithstanding any provision of the Pennsylvania Municipalities Planning Code or other applicable enabling legislation.

Section 85.35. Municipal Adoption of More Restrictive Ordinance

No provision of the Act shall be construed as in any way limiting the power of any municipality to adopt more restrictive ordinances, codes, or regulations governing construction and development in bluff recession hazard area(s) that are established pursuant to Sections 85.22-85.24 of these regulations.

Section 85.36. Procedures for Submission of an Ordinance and Regulations by a Municipality

(a) A municipality in developing a bluff setback ordinance may use an existing ordinance and regulations, amend an existing ordinance and regulations, or develop a new ordinance and regulations.

(1) When an existing ordinance and regulations is utilized, the municipality shall forward one copy of the proposed ordinance and regulations to the Department along with comments on how the ordinance and regulations meets the requirements of the Act and these regulations.

(2) When an existing ordinance and regulations is amended to meet the requirements of the Act, the municipality shall forward one copy of the ordinance and regulations and amendments to the Department along with comments on how the proposed ordinance and regulations meets the requirements of the Act and these regulations.

(3) When the municipality develops a new ordinance and regulations, the municipality shall forward one copy of the ordinance and regulations to the Department along with comments on how the proposed ordinance and regulations meets the requirements of the Act and these regulations.

Section 85.37. Contents of the Ordinance and Regulations Submitted by a Municipality

(a) The ordinance and regulations submitted by a municipality to the Department shall include at a minimum the following components:

(1) A setback ordinance and regulations that meet the minimum requirements and contain a minimum setback distance for each class of structure pursuant to these regulations.

(2) The municipality shall provide a mechanism for permitting all proposed construction, installation or substantial improvement of structures, or any utility facilities such as but not limited to water, sewage, electric, gas, and telephone facilities in designated bluff recession hazard areas. This bluff setback permitting process may be incorporated into any existing permitting process administered by a municipal building code or zoning officer. At the request of the municipality, the Department will provide assistance to the municipality in developing this procedure.

(3) A municipality shall provide a procedure, as a part of the ordinance and regulations, that enables monitoring of substantial improvements to structures bisected by or within the bluff setback distance. The procedure must ascertain the market value of the property prior to the first improvement (Section 85.1) and document subsequent improvements to the structure to ensure that they do not exceed 50 percent of the market value for a consecutive five year period. At the request of the municipality, the Department will provide assistance to the municipality in developing this procedure.

(4) The municipality shall provide for a variance to its bluff setback ordinance and regulations only in the following cases:

(i) When an established setback distance prevents construction on a parcel of land in a bluff recession hazard area, a variance may be applied for. The variance shall be granted only when the following criteria are met.

(A) The structure and all associated structures and utilities facilities shall be located on the property as far landward of the bluff line as allowed by other municipal ordinances.

(B) The structure shall be designed and constructed to be movable in accordance with proper engineering standards and

building moving restrictions applicable to the subject area prior to damage by bluff recession. Structures in this category may include trailers or modular homes. Review and approval of the design shall be incorporated into the municipalities permit process. All construction materials, including foundations, shall be removed or disposed of as part of the moving operation. Access to and from the structure site shall be of sufficient width and acceptable grade to allow for moving of the structure.

(ii) When a structure or utility facility requires access to a lake over or through the bluffs for operating purposes.

(A) A variance granted under this section shall apply only to the discharge and withdrawal lines (infrastructure) that provide the facility with lake water for operating purposes. All other structures must observe the local setback distance.

(B) During the construction, the applicant or persons engaged in the actual placement of the infrastructure must utilize sound land use practices which will reduce disruption of the bluff edge and bluff face. These sound land use practices include, but are not limited to, methods to minimize: stormwater run-off, increased soil erosion, changes to local drainage patterns, and changes to protective vegetative cover.

(C) The infrastructure providing the utility facility or structure access to the lake will be designed and constructed so that it is adequately protected from the dangers of bluff recession and does not increase bluff recession. To achieve adequate protection of the bluff, the construction of the infrastructure will occur in a manner that minimizes potential adverse or long-term disruption of the bluff face and in conformance with the provisions of Title 25, Chapter 102, Erosion Control.

(5) The municipality must provide a procedure to amend municipal setback ordinances. The Department will, at the request of the affected municipality(ies), provide

assistance in incorporating revisions to these regulations into the municipal ordinance and regulations.

(6) The Department will suggest an administrative procedure for maintaining records of all correspondence, applications for permits, and issuance and denial of such permits. On February 28th of each year, a copy of the records from the preceding calendar year shall be submitted to the Department for its review and permanent record. This procedure shall require that all necessary records include the name and address of the applicant and the location and description for the following activities:

(i) Construction, installation, or engagement in any substantial improvement to structures affected by the minimum bluff setback distance;

(ii) Improvement projects for any existing structure located within the minimum bluff setback distance; and

(iii) Variances granted by the municipality in bluff recession hazard areas.

(7) The municipality has and will continue to alert permit applicants, when permits are granted, that the bluff setback requirements are at best a minimum distance and, because of variations in local bluff recession rates, cannot guarantee that a property located in a bluff recession hazard area will not be endangered by bluff recession within its useful life span.

SUBCHAPTER D. DEPARTMENT OVERSIGHT OF MUNICIPAL COMPLIANCE

Section 85.41. General Requirements

As required by Section 7 of the Act the Department shall adopt procedures and regulations for the review and approval of municipal ordinance and regulations.

Section 85.42. Department Review and Approval of a Municipal Setback Ordinance and Regulations

(a) The Department shall, within 90 days of receiving a written request to approve a municipality's bluff setback ordinance and regulations, review the proposal pursuant to the requirements contained in Section 85.37.

(b) The Department shall, upon ascertaining that the proposed bluff setback ordinance and regulations meet the aforementioned minimum requirements, notify the municipality

by certified letter of the approval of the ordinance and regulations.

(c) Should the Department fail to respond within the allotted 90 day time limit, the ordinance and regulations shall be deemed to be approved and the municipality shall use that ordinance and regulations to enforce the provisions of the Act.

(d) Should the Department, during the review of the proposed ordinance and regulations, find that the ordinance and regulations does not meet the minimum requirements of these regulations, the Department will disapprove the ordinance and regulations and will notify the municipality. The letter will contain the reasons for disapproval and suggestions for correcting the problem(s). Upon receipt of this letter, the municipality will have 30 days to correct the problem(s) and resubmit the proposed ordinance and regulations. If the municipality disagrees with the Department's findings, the municipality may appeal the Department's decision pursuant to the procedures outlined in these regulations.

(e) If the municipality fails to adopt or submit a bluff setback ordinance and regulations to the Department, the Department may institute an action in mandamus to compel the municipality to comply with the requirements of the Act and these regulations.

Section 85.43. Department Review of Implementation and Administration of Municipal Setback Ordinance and Regulations

(a) The Department shall review the implementation and administration of the municipal bluff setback ordinance and regulations at least once a year to assure coordinated and consistent enforcement of its bluff setback ordinance and regulations. The review will occur on a date and location mutually agreed upon by the representative of the Department and the appropriate municipal officials.

(b) If the Department finds that a municipality has failed to implement and enforce, in a consistent and effective manner the bluff setback ordinance and regulations required by the Act and these regulations, then the municipality shall be subject to the sanctions provided in the Act. The municipality will be deemed to have implemented and enforced in a consistent and effective manner the bluff setback ordinance and regulations when in any area designated as having a bluff recession hazard, no person shall have constructed, installed, or engaged in a substantial improvement to any structure, or any utility facility in violation of the bluff setback requirements established pursuant to the Act and these regulations.

(c) When the Department finds that a municipality has failed to implement and enforce the bluff setback ordinance and regulations as required by Section 85.43. subsection (b) of these regulations, the Department shall, as it deems necessary, conduct additional reviews of the municipality's implementation and enforcement of the bluff setback ordinance and regulations to ensure that the appropriate changes have been made which assure coordinated, consistent, and effective enforcement of the municipal ordinance and regulations.

Section 85.44. Coordination With Environmental Protection Programs

The Department and all municipalities designated as having a bluff recession hazard area(s) are still subject to requirements of other environmental protection programs. These programs include but are not limited to: erosion and sedimentation control, water obstruction, clean water, sewage treatment facilities, gas well drilling, stormwater management, and floodplain management.

SUBCHAPTER E. GRANTS AND REIMBURSEMENTS TO MUNICIPALITIES

Section 85.51. General Requirements

The Department is authorized by Section 11 of the Act to administer grants to municipalities to assist or reimburse them for costs incurred in complying with requirements of the Act. Grants and reimbursements shall be made available from and to the extent of Federal funding augmentation under the Coastal Zone Management Act of 1972, as appropriated by the General Assembly for such purposes.

Section 85.52. Limitation of Grants and Reimbursements

Grants shall be available from the Department to municipalities to reimburse them for allowable costs incurred in complying with the requirements of the Act. Grants shall be limited to:

(1) Seventy-five (75) percent of the costs incurred for the development and implementation of a bluff setback ordinance and regulations required by these regulations; as well as 75 percent for the costs incurred by a municipality in revising a setback ordinance and regulations, established prior to the Act, to comply with the requirements of these regulations.

(2) Fifty (50) percent of the allowable costs for the ongoing administration of an ordinance incurred by and municipality. Allowable costs for administration of

bluff setback ordinance shall not include those costs which are offset by reasonable permit fees imposed by the municipality.

Section 85.53. Applications for Grants and Reimbursements

(a) All applications for grants shall be made on forms provided by and in a manner prescribed by the Department and shall contain and be supplemented with such information as may be required by the Department.

(b) Applications will only be accepted by the Department during the first quarter of the Commonwealth's fiscal year. The Department shall notify the municipality, during the fourth quarter of the preceeding fiscal year, that grant funds, for the upcoming fiscal year, will be available for the administration of their bluff setback ordinance and regulations.

Section 85.54. Disclaimer for Grants and Reimbursements

Nothing in this section shall be construed to impair or limit application of this Act to any municipality or person, or to relieve any municipality or person of duties imposed under this Act.

Section 85.55. Records and Audits

(a) Municipalities shall maintain books, records, documents, correspondence and other evidence pertaining to the costs and expenses incurred pursuant to Section 85.52 of these regulations, to the extent and in such detail as will properly reflect all costs, direct and indirect, of labor, materials, equipment, supplies and services, and other costs and expenses of whatever nature for which funding has been provided under the provisions of the grant. Such records shall be maintained in accordance with generally accepted accounting principles. A detailed explanation of the accounting procedures and types of records are contained in the "Manual of Accounting and Related Financial Procedures for Pennsylvania Municipalities", published and distributed by the Pennsylvania Department of Community Affairs.

(b) It will be necessary for a municipality to maintain accounting records and supporting documentation which identify all revenue and costs from the effective date to expiration date of the grant. As a minimum, the following books of account shall be used:

(1) Cash receipts journal

(2) Cash disbursement journal

(3) Payroll journal

(4) General journal

(c) In the event a municipality records tranactions by the accrual method of accounting, additional records are required.

(d) The following documentation should be retained in file: copies of revenue documents, original vendor invoices, payroll records, cancelled checks, worksheets used to prepare grant reports and other related grant information. All records should be retained for a period of three years from the grant expiration date or until all pending matters are resolved.

SUBCHAPTER F. APPEALS

Section 85.61. Appeals

(a) Any person or municipality aggrieved by an action of the Department shall have the right within 30 days of the receipt of the notice of such action to appeal such action to the Environmental Hearing Board, pursuant to Section 1929-A of the Act of April 9, 1929 (P.L. 177, No. 175), known as "The Administrative Code of 1929", and the "Administrative Agency Law".

(b) An appeal of any action under the Act shall not act as a supersedeas. A supersedeas may be granted by the Environmental Hearing Board upon a showing by the petitioner:

(1) That irreparable harm to the petitioner or other interested parties will result if supersedeas is denied;

(2) That there is a likelihood of the petitioner's success on the merits; and

(3) That the grant of a supersedeas will not result in irreparable harm to the Commonwealth.

DRAFT

TITLE 25. RULES AND REGULATIONS
PART I. DEPARTMENT OF ENVIRONMENTAL RESOURCES
Subpart C. PROTECTION OF NATURAL RESOURCES
ARTICLE II. WATER RESOURCES

CHAPTER 105. DAM SAFETY AND WATERWAY MANAGEMENT

Authority

The provisions of this Chapter 105 issued under Act of November 26, 1978, P.L. 1375, Sections 5, 7, 10, 11, and 17, as amended, (32 P.S. Sections 693.5, 693.7, 693.10, 693.11, and 693.17); Act of October 4, 1978, P.L. 851, Sections 302 and 402 (32 P.S. Sections 679.302 and 679.402); Act of June 14, 1923, P.L. 704, Section 7 (32 P.S. Section 597); Act of June 22, 1937, P.L. 1987, Sections 5 and 402 (35 P.S. Sections 691.5, 691.402); and Administrative Code, Act of April 9, 1929, P.L. 177, as amended, Sections 514, 1901-A, 1908-A, 1917-A, and 1920-A (71 P.S. Sections 194, 510-1, 510-8, 510-17, and 510-20).

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Subchapter A. GENERAL PROVISIONS

§105.1. Definitions.

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise:

"Appurtenant works." Structures or materials incident to or annexed to dams or water obstructions which are built or maintained in connection with such dams or water obstructions and are essential to their proper functioning. For dams, appurtenant works include but are not limited to such structures as spillways, either in the dam or separate therefrom; low level outlet works; and conduits such as tunnels, pipelines or penstocks through the dam or its abutments.

"Body of water." Any natural or artificial lake, pond, reservoir, swamp, marsh or wetland.

"Bridge." A structure and its appurtenant works erected over the regulated waters of this Commonwealth.

"Commercially navigable waters of the Delaware River and its navigable tributaries." Those portions of the Delaware River from the Delaware border in the south to the railroad bridge at Morrisville in the north and those portions of the Schuylkill River below Fairmount Dam; Chester Creek below Ninth Street; Crum Creek below the Route 291 (Industrial Highway) Bridge; Darby Creek below 84th Street; Neshaminy Creek below the Route 13 Bridge; Pennypack Creek below the Frankford Avenue Bridge; and Ridley Creek below the Baltimore and Ohio Railroad Bridge in Chester.

"Construct." To erect, build, place or deposit, including preliminary preparation of a site for construction.

"Course." The path taken by a stream.

"Cross section." The area from the top of the bank to the top of the opposite bank of a stream channel as cut by a vertical plane passed at a right angle to the course of the stream.

"Culvert." A structure with appurtenant works which carries a stream under or through an embankment or fill.

"Current." The rate or velocity of flow of water in a stream.

"Dam." Any artificial barrier, together with its appurtenant works, constructed for the purpose of impounding or storing water or any other fluid or semifluid; or any refuse bank, fill, or structure for highway, railroad, or other purposes which does or may impound water or any other fluid or semifluid.

"Dam Safety and Encroachments Act." The Act of November 26, 1978 (P.L. 1375, No. 325), as amended, (32 P.S. §693.1 - 693.27).

"Department." The Department of Environmental Resources of the Commonwealth.

"Design flood." A specified discharge for which the hydraulic capacity of a structure is designed.

"Discharge of dredged material." Any addition, deposit, disposal, or discharge of dredged material into the regulated waters of the Commonwealth, including but not limited to, the addition of dredged material to a specific disposal site located in the regulated waters of the Commonwealth and the runoff or overflow of dredged material from a contained land or water disposal area. The term does not include plowing, cultivating, seeding and harvesting for the production of food, fiber, and forest products.

"Discharge of fill material." Any addition, deposit, disposal, or discharge of fill into the regulated waters of the Commonwealth, including, but not limited to the following activities: placement of fill that is necessary to the construction of any structure in any regulated waters of the Commonwealth; the building of any structure or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; dams and dikes; artificial islands; property protection and/or reclamation devices such as riprap, groins, seawalls, breakwaters, and revetments; levees, fill for structures such as sewage treatment facilities; intake and outfall pipes associated with power plants and subaqueous utility lines; and artificial reefs. The term does not include plowing, cultivating, seeding and harvesting for the production of food fiber and forest products.

"Dredge." To remove sand, gravel, mud, or other materials from the beds of regulated waters of the Commonwealth.

"Dredged material." Any material that is excavated or dredged from the regulated waters of the Commonwealth.

"Encroachment." Any structure or activity which in any manner changes, expands or diminishes the course, current or cross-section of any watercourse, floodway or body of water.

"FEMA." The Federal Emergency Management Agency.

"Fill." Sand, gravel, earth or other material placed or deposited so as to form an embankment or raise the elevation of the land surface; includes material used to replace an area with aquatic life with dry land or to change the bottom elevation of any regulated waters of the Commonwealth.

"Flood." A general but temporary condition of partial or complete inundation of normally dry land areas from the overflow of streams, rivers or other waters of this Commonwealth.

"Flood Plain Management Act." The act of October 4, 1978 (P.L. 851, No. 166) (32 P.S. §§679.101 - 679.601).

"Floodplain." The lands adjoining a river or stream that have been or hereafter may be expected to be inundated by flood waters in a 100-year frequency flood.

"Floodway." The channel of the watercourse and those portions of the adjoining floodplains which are reasonably required to carry and discharge the 100-year flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the 100-year floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the stream to fifty (50) feet from the top of the bank of the stream.

"Freeboard." The vertical distance between the water surface elevation experienced during the design flood and the crest elevation of a dam levee, floodwall, or other embankment.

"Height of dam." The vertical measurement expressed in feet as measured from the downstream toe of the dam at its lowest point to the elevation of the top of the dam.

"Levee." An earth embankment or ridge constructed along a water-course or body of water to confine water within prescribed limits; it is also known as a dike.

"Limited Water and Power Supply Act." The act of June 14, 1923, P.L. 704, as amended, (32 P.S. §§591-625).

"Navigation Commission." The Navigation Commission for the Delaware River or its navigable tributaries.

"100-year frequency flood." The flood magnitude expected to be equaled or exceeded on the average of once in 100 years; it may also be expressed as the flood having a 1.0% chance of being equaled or exceeded in any given year.

"Operation." Elements of the use, control and functioning of a facility during the lifetime of the facility, including its removal, which may affect primarily the storage, release or flow of water, the structural safety of a facility, or navigation, with due consideration of the other purposes of the Dam Safety and Encroachments Act.

"Owner." Any person who owns, controls, operates, maintains, or manages a dam or reservoir, water obstruction or encroachment.

"Person." Any natural person, partnership, association, corporation, public utility, municipality, municipal authority, political subdivision of the Commonwealth, receiver, trustee, and any department, board, commission or authority of the Commonwealth.

"Political subdivision." Any county, city, borough, incorporated town, township, school district, authority, or other governmental unit or any combination thereof acting jointly.

"Probable maximum flood or PMF." The flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in an area; the PMF is derived from the probable maximum precipitation (PMP) as determined on the basis of data obtained from the National Oceanographic and Atmospheric Administration (NOAA).

"Public service corporation or public utility." A corporation, association, or other corporate body having any of the powers and privileges of corporations not possessed by individuals or partnerships which entity renders a public utility service; the term shall not include any municipality or municipal authority.

"Public service line." Includes, but is not limited to, electric transmission lines, gas pipelines, telephone lines, water lines, railroad trackage, and other facilities owned or operated by public service corporations.

"Public utility service." The rendering of the following services for the public:

(1) gas, electricity, or steam production, generation, transmission or distribution;

(2) water diversion, pumping, impoundment or distribution;

(3) railroad transportation of passengers or property;

(4) operation of a canal, turnpike, tunnel, bridge, wharf or similar structure;

(5) transportation of natural or artificial gas, crude oil, gasoline or petroleum products, materials for refrigeration or other fluid substances by pipeline or conduit;

(6) telephone or telegraph communications; and

(7) sewage collection, treatment or disposal.

"Regulated waters of the Commonwealth." All watercourses, streams or bodies of water, and their floodways, wholly or partly within, or forming part of the boundary of this Commonwealth.

"Reservoir." Any basin, either natural or artificial, which contains or will contain the water or other fluid or semifluid impounded by a dam.

"Safety." Security from the risk or threat of significant loss or injury to life, health, property and the environment.

"Solid Waste Management Act." The Pennsylvania Solid Waste Management Act (35 P.S. §§6001-6017).

"Spillway." Any device which safely conveys the design flood of a dam without endangering its safety or integrity.

"Storage capacity." The volume as expressed in acre-feet of the impounded water to the maximum storage level, that is, the top of the dam.

"Storm Water Management Act." The act of October 4, 1978 (P.L. 864, No. 167) (32 P.S. §§680.1 - 680.17).

"Stream." See the definition of watercourse.

"Stream crossings." Any pipeline, aerial cable, or similar structure which is placed in, along, under, across, or over the regulated waters of the Commonwealth.

"Stream enclosure." Any bridge, culvert, or other structure in excess of 100 feet in length upstream to downstream and which encloses any regulated waters of the Commonwealth.

"Submerged lands of the Commonwealth." All waters and permanently or periodically inundated lands owned or held in trust by the Commonwealth, including all navigable lakes and rivers and streams declared public highways.

"Water Obstruction." Any dike, bridge, culvert, wall, wingwall, fill, pier, wharf, embankment, abutment or other structure located in, along, across or projecting into any watercourse. floodway, or body of water.

"Watercourse or stream." Any channel of conveyance of surface water having a defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

"Water Obstructions Act." The act of June 25, 1913, (P.L. 555, No. 355)(32 P.S. §§681-691), repealed by section 27 of the Dam Safety and Encroachments Act.

"Wetlands." Those areas that are inundated or saturated by surface or ground 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, including swamps, marshes, bogs and similar areas. For purposes of this Chapter, wetlands include, but are not limited to, wetland areas listed in the State Water Plan, the U. S. Forest Service Wetlands Inventory of Pennsylvania, the Pennsylvania Coastal Zone Management Plan, and any wetland area designated by a river basin commission.

§105.2 Purposes.

The purposes of this Chapter are to:

(1) Provide for the comprehensive regulation and supervision of dams, reservoirs, water obstructions and encroachments in the Commonwealth in order to protect the health, safety, welfare, and property of the people.

(2) Assure proper planning, design, construction, maintenance, monitoring and supervision of dams and reservoirs, including such preventative measures as are necessary to provide an adequate margin of safety.

(3) Assure proper planning, design, construction, maintenance and monitoring of water obstructions and encroachments, in order to prevent unreasonable interference with water flow and to protect navigation.

(4) Protect the natural resources, environmental rights and values secured by Article I, Section 27 of the Pennsylvania Constitution, and conserve and protect the water quality, natural regime and carrying capacity of watercourses.

§105.3. Scope.

The following structures or activities are regulated pursuant to the Dam Safety and Encroachments Act and section 302 of the Flood Plain Management Act (32 P.S. §679.302):

(1) All dams on a natural or artificial watercourse, other than those licensed pursuant to the Federal Power Act (16 U.S.C. §§791a et seq.) where:

(i) The contributory drainage area exceeds 100 acres; or

(ii) the greatest depth of water at maximum storage elevation exceeds 15 feet; or

(iii) the impounding capacity at maximum storage elevation exceeds 50 acre-feet.

(2) All dams used for the storage of water not located on a watercourse and which have no contributory drainage, where the greatest depth of water at maximum storage elevation exceeds 15 feet and the impounding capacity at maximum storage elevation exceeds 50 acre-feet.

(3) All dams used for the storage of fluids or semifluids other than water, the escape of which may result in air, water or land pollution, or may result in danger to persons or property.

(4) All water obstructions and encroachments other than dams, located in, along, across or projecting into any watercourse, floodway or body of water, whether temporary or permanent.

(5) All flood control projects constructed, owned or maintained by a governmental unit.

§105.4. Delegations to Local Agencies.

(a) Pursuant to section 17 of the Dam Safety and Encroachments Act, and subject to the provisions of this section, the Department may by written agreement delegate to a county conservation district or other county agency one or more of its regulatory functions including enforcement and the power to permit, inspect, and monitor the following categories of water obstructions and encroachments: any category of water obstruction or encroachment, including culverts, fills, streambank retaining devices, stream crossings, outfalls and headwalls, which do not have the potential of endangering public safety or property or causing significant damage to the environment.

(b) No delegation shall be made affecting the following categories of activities:

(1) any dam;

(2) any water obstruction or encroachment extending below the low water mark of any navigable stream;

(3) any water obstruction or encroachment located in, along or across any stream or reach of stream included in the Federal Wild and Scenic Rivers System or State Wild and Scenic Rivers System;

(4) any flood control structure constructed, owned, or maintained by a governmental unit;

(5) any structure involving the handling or storage of any toxic or hazardous material as defined by the Federal Clean Water Act or Federal Resource Conservation and Recovery Act.

(c) No delegation shall be made of the authority to issue permits for any water obstruction or encroachment constructed, owned or maintained by the Commonwealth, any political subdivision, or any public utility. Delegations may be made of the powers to inspect and monitor such activities, providing that the Department retains final authority to approve or disapprove permits, and concurrent authority to inspect, monitor and enforce the provisions of this act.

(d) To the extent delegated by the agreement, such delegations may include the authority to enforce the Dam Safety and Encroachments Act and regulations adopted thereunder, and to exercise such other powers and duties otherwise vested in the Department to implement the act, with respect to the categories of water obstructions and encroachments covered by the delegation.

(e) Each delegation agreement shall:

(1) specify the powers and duties to be performed by the delegated agency;

(2) specify the categories of water obstructions and encroachments activities to be covered by the delegated agency;

(3) provide for the commitment by the delegated agency of sufficient trained staff and resources to perform the powers and duties to be delegated;

(4) require the delegated agency to maintain records of activities performed under the delegation;

(5) provide for monitoring and supervision by the Department of performance by the delegated agency of the functions delegated under the agreement.

(f) Any permit for a water obstruction or encroachment issued by a delegated agency shall be subject to review by the Department, unless the right of review is waived by the Department. A permit issued by a delegated agency shall become effective 30 days following the receipt of notice by the Department of issuance, unless the permit is disapproved by the Department or an appeal is filed with the Department pursuant to section 17 of the Dam Safety and Encroachments Act.

(g) Where the Department delegates one or more of its regulatory functions to a local agency, the Department shall in all cases retain the concurrent power to inspect and monitor all categories of water obstructions and encroachments, and to enforce the Dam Safety and Encroachments Act and regulations adopted thereunder.

PERMIT APPLICATIONS

§105.11. Permit Requirements.

(a) No person shall construct, operate, maintain, modify, enlarge or abandon any dam, water obstruction, or encroachment without first obtaining a written permit from the Department.

(b) Any existing dam, water obstruction, or encroachment constructed pursuant to a license or permit issued in compliance with the provisions of the Act of June 8, 1907 (P.L. 496, No. 322), entitled "An act to establish a Board of Commissioners of Navigation for the river Delaware and its navigable tributaries; regulating their jurisdiction over ships,

vessels, and boats, and wharves, piers, bulkheads, docks, slips, and basins; and exempting cities of the first class from certain of its provisions; and making an appropriation therefor," or the Water Obstructions Act, shall be deemed to comply with the construction and operating permit requirements of this section. All such projects shall hereafter comply with the operating, maintenance, monitoring and other requirements of this Chapter.

(c) The owner of any existing dam, water obstruction, or encroachment who does not hold a permit issued pursuant to the Act of June 8, 1907 (P.L. 496, No. 322), or the Water Obstructions Act, shall apply for and receive a permit pursuant to the Dam Safety and Encroachments Act on or before January 1, 1981. All such projects shall comply with the operating, maintenance, monitoring and other requirements established pursuant to the Dam Safety and Encroachments Act.

(d) Any permit issued by the department after the effective date of the Dam Safety and Encroachments Act for the construction and operation of a water obstruction or encroachment shall incorporate authorization for normal repairs and maintenance of permitted structures conducted within the original specifications for the water obstruction or encroachment. Any repairs or maintenance involving modification of the water obstruction or encroachment from its original specifications and any repairs or reconstruction involving a substantial portion of the structure, shall require the prior written permit of the department pursuant to subsection (a) of this section.

§105.12. Waiver of Permit Requirements.

(a) The following structures or activities do not require a dam or encroachments permit, pursuant to Section 7 of the Dam Safety and Encroachments Act:

(1) The construction of a dam not exceeding three feet in height in a stream not exceeding fifty feet in width, where such dam is constructed for the sole purpose of creating a pool for fish and fishing purposes.

(2) The placing of any water obstruction in a stream with a drainage area of 320 acres or less after the Department has determined, on the basis of preliminary data submitted by the applicant, that the water obstruction cannot imperil life or property, have a significant effect on coastal resources, or adversely affect the environment.

(b) All such structures and activities shall meet the construction, operating, maintenance, monitoring and other requirements of this Chapter. No other permits which may be required under any law other than the Dam Safety and Encroachments Act are waived by this section.

§105.13. Permit Applications--Information and Fees.

(a) Application for permits pursuant to this chapter shall be submitted to the Department in writing, upon forms provided by the Department.

(b) Each application for a permit pursuant to this Chapter, except applications submitted by Federal, State, county or municipal agencies or a municipal authority for a dam, water obstruction or encroachment shall be accompanied by a check payable to "Commonwealth of Pennsylvania" in accordance with the following schedule:

1. DAMS

Class A	$200	(Based on Size Classi-
Class B	$200	fication as defined
Class C	$ 50	in §105.91)

2. WATER OBSTRUCTIONS and ENCROACHMENTS

Bridges Over 15 foot Span	$100
Stream Enclosures	$100
Channel Changes	$100
Commercial Dredging	$100
All other Water Obstructions and Encroachments	$ 50

(c) Each application for a permit shall be accompanied by such information, maps, plans, specifications, design analyses, test reports, and other data as may be specifically required by the provisions of this chapter and such additional information as may be required by the Department to determine compliance with the provisions of this chapter.

(d) Each application for the following categories of activities shall include an environmental assessment, on a form established by the Department:

(1) Any dam or reservoir for the storage of water of size classification A or B, or hazard classification 1 as defined in §105.91.

(2) Any dam or reservoir used for the storage of fluids or semifluids other than water, the escape of which may result in air, water or land pollution, or may result in danger to persons or property.

(3) Any dam, bridge, culvert, stream crossing, stream enclosure, dike, levee, flood wall, or stream relocation located in, along or across a stream identified candidates for or included in the Federal or State wild and scenic river systems.

(4) Any stream enclosure, stream relocation or any other activity or facility which the Department determines may have a significant impact on the environment.

(e) Based on the results of the environmental assessment, the Department may require the submission of an environmental report. The environmental report shall contain studies, analyses, maps, or other information regarding one or more of the following, as found necessary by the Department:

(1) The potential impacts to the extent applicable of the proposed activity on water quality, stream flow, fish and wildlife, aquatic habitat, Federal and State forests, parks, recreation, instream and downstream water uses, prime farmlands, areas or structures of historic significance, streams which are identified candidates for or included within the Federal or State wild and scenic river system and other relevant significant environmental factors.

(2) Alternatives to the proposed action, including alternative locations, routings or designs to avoid or reduce significant adverse environmental impacts;

(3) Actions to be taken, through design, location, or operation of the proposed structure or other activities, to mitigate any unavoidable significant environmental impacts created by the proposed project.

(f) All applications for permits pursuant to this chapter shall be accompanied by an erosion and sedimentation control plan for all activities in the stream and all earthmoving activities, which plan shall conform to the requirements contained in Chapter 102 of this title (relating to erosion control) and which shall include a copy of a letter from the conservation district in the county where the project is located, indicating that the district has reviewed the applicant's erosion and sediment control plan and considered it to be satisfactory.

(g) Each application shall be signed by the owner or owners of the proposed dam or water obstruction or the person or persons undertaking

the regulated activity. In the case of a partnership, one or more members of the partnership authorized to sign on behalf of the entire partnership shall sign the application. In the case of a corporation, it shall be signed by the president, vice-president, or other responsible official empowered to sign for the corporation, with the corporate seal or other proof of authorization to sign for the corporation affixed. In the case of a political subdivision, it shall be signed by the chief officer or officers of the political subdivision, with the seal affixed and attested by the clerk.

§105.14. Engineer's Certification.

All plans, specifications, and reports accompanying applications for dams, bridges, and such other obstructions which would pose a threat to human life and property in the event of failure shall be affixed with the seal of a registered professional engineer and his certification, which shall read as follows:

"I (name) do hereby certify that the information contained in the accompanying plans, specifications, and reports has been prepared in accordance with accepted engineering practice, is true and correct, and is in conformance with the rules and regulations of the Department of Environmental Resources."

§105.15. Review of Applications.

(a) All applications shall be reviewed in accordance with prevailing practices in the engineering profession.

(b) In reviewing any permit application under this chapter, the Department will consider the following factors:

(1) Potential threats to life or property created by the project.

(2) The effect of the proposed project on the property or riparian rights of owners above, below, or adjacent to the project.

(3) The effect of the proposed project on the regimen and ecology of the watercourse or other body of water, water quality, stream flow, fish and wildlife, aquatic habitat, instream and downstream uses, and other significant environmental factors.

(4) The impacts of the proposed project on any nearby national wildlife refuge, national natural landmark, national or state park or recreation area, or national or state historical site.

(5) Compliance by the proposed project with all applicable laws administered by the Department, the Pennsylvania Fish Commission, and any river basin commission created by interstate compact.

(6) Alternatives in location, design and construction which are available to minimize the adverse impact of the project upon the environment and to protect the public natural resources of the Commonwealth.

(7) Present conditions and the effects of future development within the affected watershed above and below the project which can be expected during the lifetime of the structure:

(i) Any dam, water obstruction, or encroachment shall be designed, constructed, and operated so as to assure adequacy and compliance with the rules and regulations of this chapter throughout its lifetime, taking into account all development within the affected watershed.

(ii) In assessing the impact of future development upon a dam, water obstruction, or encroachment, the Department may require the applicant to submit data regarding estimated development potentials and municipal, county, and regional planning related to the affected watershed.

(8) Consistency with state and local floodplain and storm water management programs, the State Water Plan, and the Coastal Zone Management Plan.

(9) Consistency with the designations of wild, scenic and recreational streams under the National Wild and Scenic Rivers Act of 1968 or the Pennsylvania Scenic Rivers Act, Act of December 5, 1972, P.L. 1277.

§105.16. Public Benefits.

(a) No application for a permit under the provisions of subchapter D (relating to stream enclosures), subchapter E (relating to channel changes and dredging for facility construction and maintenance), subchapter F (relating to fills, levees, floodwalls, and streambank retaining devices), subchapter I (relating to commercial dredging), and subchapter J (relating to discharges of dredged or fill material) of this chapter shall be approved by the Department unless the applicant demonstrates, and the Department finds, that the public benefits of the proposed project outweigh the harm to the public natural resources and that the project is consistent with the conservation and maintenance of public natural resources. Where the Department finds that a proposed project may have significant adverse impacts on the environment or public natural resources, alternatives to the proposed project shall be considered, and mitigation shall be provided by the applicant for all unavoidable adverse impacts on public natural resources.

(b) No application for a permit shall be approved by the Department in the following areas unless the applicant demonstrates, and the Department finds, that the project will have no significant adverse impact upon the public natural resources when:

(1) Any project located in or within 100 feet of any watercourse or body of water that has been designated as a national or state wild or scenic river in accordance with the National Wild and Scenic Rivers Act of 1968 or the Pennsylvania Scenic Rivers Act, Act of December 5, 1972, P.L. 1277.

(2) Any project located in or within 100 feet of a federal wilderness area designated in accordance with the Federal Wilderness Act of 1964 or the Federal Eastern Wilderness Act of 1975.

(3) Any project located within an area which serves as a habitat of a rare or endangered species protected by the Federal Endangered Species Act of 1973.

(4) Any project located in a Special Protection Watershed, as designated in 25 Pa. Code Chapter 93.

(c) In reviewing permit applications, it will be the policy of the Department to encourage development that protects the natural condition of the watercourse or other body of water.

§105.17. Projects Affecting Commercially Navigable Waters of the Delaware Basin.

(a) No individual or general permit for a dam, water obstruction or encroachment in the commercially navigable waters of the Delaware River or its navigable tributaries shall be issued without notice to and approval by the Navigation Commission.

(b) When the Department receives a completed application containing sufficient information to determine compliance with the standards of this chapter, it shall provide notice to the Navigation Commission and forward a copy of the application to the Navigation Commission for review.

(c) The Navigation Commission may request from the applicant such additional information as the Commission determines is necessary to complete its review.

(d) Any individual permit application or general permit not acted upon by the Navigation Commission within 60 days following notice to the Commission, or within 60 days following receipt of any additional information required by the commission, shall be deemed approved by the Navigation Commission.

(e) A record of all permits issued for facilities in the commercially navigable waters of the Delaware River or of its navigable tributaries shall be forwarded by the Department to the Navigation Commission.

§105.18. Projects Affecting Wetlands.

(a) No permit will be granted for work in or within 300 feet of any wetlands or otherwise affecting any wetlands unless the applicant demonstrates, and the Department concludes, that the public benefits of the project outweigh the damage to the wetlands resource and that the project is necessary to realize the public benefits. In evaluating whether a particular project is necessary, the Department shall consider whether the wetlands perform any of the following functions important to the public interest:

(1) Wetlands which serve important natural biological functions, including food chain production, general habitat, and nesting, spawning, rearing and resting sites for aquatic or land species;

(2) Wetlands set aside for study of the aquatic environment or as sanctuaries or refuges;

(3) Wetlands, the destruction or alteration of which would affect detrimentally natural drainage characteristics, sedimentation patterns, salinity distribution, flushing characteristics, natural water filtration processes, current patterns, or other environmental characteristics;

(4) Wetlands which are significant in shielding other areas from wave action, erosion, or storm damage. Such wetlands are often associated with barrier beaches, island, reefs and bars;

(5) Wetlands which serve as valuable storage areas for storm and flood waters;

(6) Wetlands which are prime natural recharge areas. Prime recharge areas are locations where surface and ground water are directly interconnected.

(b) The Department shall consider whether feasible alternative sites not in close proximity to the aquatic environment are available. The applicant must provide sufficient information on the need to locate the proposed activity in the wetland and must provide data on the basis of which the availability of feasible alternative sites can be evaluated.

(c) In evaluating an application for work affecting wetlands, the Department shall consider whether the cumulative effect of numerous such piecemeal changes may result in a major impairment of the wetland resources; the Department shall evaluate a particular wetland site for which an application is made with the recognition that it is part of a complete and interrelated wetland area.

(d) Mitigation of a form approved by the Department shall be provided by the applicant for any unavoidable adverse impacts on wetlands created by a project.

§105.19. Complete Applications.

(a) The Department shall publish a notice in the Pennsylvania Bulletin upon receipt of a complete application for a permit and again upon the issuance of a permit by the Department.

(b) No application for a permit is complete until all necessary information and requirements under the Dam Safety and Encroachments Act and this Chapter, including Proof of Financial Responsibility, have been satisfied by the applicant.

(c) Whenever the Department determines that an application is incomplete or contains insufficient information to determine compliance with the standards of this chapter, it will notify the applicant in writing. The applicant shall then have sixty (60) days to complete his application, or the Department will return the application to the applicant as incomplete.

§105.20. Proof of Financial Responsibility.

(a) Prior to the approval of any permit under this chapter for any dam, water obstruction, or encroachment which may present a substantial potential risk to life or property, the Department will require proof of financial responsibility or security for continued operation and maintenance during the lifetime of the facility. Categories of dams, water obstructions, or encroachments which are subject to the proof of financial responsibility requirement include, but are not limited to, Category 1 and 2 dams, (Hazard Potential Classification, as defined in §105.91), stream enclosures, and bridges.

(b) As proof of such responsibility or security, the Department may require one or more of the following:

(1) A Certificate of Public Convenience from the Public Utility Commission if the owner of the proposed facility is subject to

regulation under the Act of May 28, 1937, P.L. 1053, No. 286 (66 Pa. C.S. §§101-3315), known as the "Public Utilities Law," and 66 Pa. C.S. §§101-3315.

(2) Ownership or management of the facility by an agency of the Federal, Interstate compact, State, county, or municipal government.

(3) A bond or other legal device of a form acceptable to the Department, payable to the Commonwealth, which guarantees proper construction, repair, operation, and maintenance, inspection and monitoring of the facility and removal, if necessary. The amount of such shall be sufficient to cover all costs of entry, repair, correction, operation, maintenance, inspection, monitoring, or removal of the facility by the Commonwealth in the event of failure of the owner to comply with orders of the Department, terms and conditions of the permit, the provisions of this Chapter, and the laws under which this Chapter is adopted.

PERMIT ISSUANCE, TRANSFER, AND REVOCATION

§105.21. Issuance of Permits.

(a) The Department may grant a permit if it determines that:

(1) the application is complete;

(2) the proposed project or action complies with the standards and criteria of this chapter and title, and with all other laws administered by the Department, the Pennsylvania Fish Commission and any river basin commission created by interstate compact;

(3) The proposed project or action will adequately protect public health, safety, and the environment.

(4) the proposed project or action is consistent with the environmental rights and values secured by Article I, §27 of the Constitution, and with the Commonwealth's duties as trustee to conserve and maintain Pennsylvania's public natural resources.

(b) Any permit issued pursuant to this Chapter shall be subject to such general and special conditions regarding construction, operation, maintenance, inspection and monitoring of a project or action as the Department may deem necessary to assure compliance with the requirements and purposes of the chapter, the Dam Safety and Encroachments Act, the Flood Plain Management Act, and other laws administered by the Department, the Pennsylvania Fish Commission and any river basin commission created by interstate compact.

§105.22. Denial of Permits.

The reason for denial of any permit application shall be communicated in writing to the applicant.

§105.23. Compliance With Other Applicable Statutes.

Receipt of a permit under the provisions of this chapter shall not relieve the permittee of the obligation of complying with all Federal, Interstate compact, and State laws, regulations, and standards applicable to the construction, operation, or maintenance of the dam or water obstruction.

§105.24. Transfer of Permits.

(a) Permits may be reissued in a new name if there is a change of ownership of the dam, water obstruction, or encroachment.

(b) A permit may be transferred only upon application to and approval by the Department.

(c) No permit shall be transferred if a violation exists at the time of application for transfer unless the transfer will expedite correction of the violation.

(d) The applicant for a transfer shall expressly agree to abide by all permit conditions and shall provide the Department with proof of financial responsibility and security in accordance with §105.20 of this title (relating to proof of financial responsibility).

(e) The original permittee shall not be relieved of any obligation to comply with the provisions of this chapter, the terms and conditions of the permit, or any order issued by the Department until the transfer has been approved.

§105.25. Revocation and Suspension of Permits.

Failure to comply with any provision of this chapter, any order of the Department, or any term or condition of a permit issued pursuant to this chapter shall be cause for the Department to revoke or suspend any permit.

SUBMERGED LANDS OF THE COMMONWEALTH -
LICENSES AND ANNUAL CHARGES

§105.31. Property Rights.

(a) Except as provided in §§105.32 and 105.33 of this title (relating to licenses for public service corporations), no permit issued pursuant to the provisions of this chapter shall give any real or personal property rights nor grant any exclusive privileges, nor shall it be construed to grant or confer any right, title, easement, or interest in, to, or over any lands belonging to this Commonwealth.

(b) No permit for a dam, water obstruction or encroachment extending below the low water mark of a navigable river or stream shall be issued by the Department until the applicant has first obtained:

(1) an easement, right-of-way, license or lease from the Department pursuant to section 15 of the Dam Safety and Encroachments Act (32 P.S.§693.15) and §105.32 of this Chapter;

(2) a license pursuant to section 514 of The Administrative Code of 1929 (71 P.S. §194) and §105.33 of this title (relating to licenses for public service corporations); or

(3) a license, easement, right-of-way, or other interest in the submerged lands below the low water mark granted pursuant to specific statutory authority from the General Assembly.

§105.32. Projects Affecting Submerged Lands of the Commonwealth - Proper Purpose.

(a) If the applicant does not have an estate or interest in the submerged lands of the Commonwealth pursuant to other specific authority from the General Assembly at the time of application for a permit pursuant to the Dam Safety and Encroachments Act, the Department may, with the approval of the governor, grant an easement, right-of-way, license or lease to occupy submerged lands of the Commonwealth in any navigable lake or river or stream declared a public highway, for any dam, water obstruction, or encroachment regulated under this Chapter which is constructed for the purpose of:

(1) improving navigation or public transportation;

(2) recreation, fishing or other public trust purposes;

(3) protecting public safety or the environment;

(4) providing water supply, energy production or waste treatment;

(5) providing a public utility service by a government agency or subdivision, public utility or electric cooperative; or

(6) other activities which require access to water.

(b) The total area of land which any such project may occupy under one or more easements, rights-of-way, licenses or leases granted by the Department pursuant to this Section shall not exceed twenty-five acres.

§105.33. Licenses for Public Service Corporations.

In accordance with section 514 of The Administrative Code of 1929 (71 P.S. §194), any permit issued to a public service corporation to place a public service line upon, in, or over submerged land of this Commonwealth shall incorporate a license for the privilege of crossing Commonwealth lands.

§105.34. Navigation and Public Trust.

No easement, right-of-way, lease or license will be granted by the Department if it may adversely affect navigation or significantly impair the public's right in lands held in trust by the Commonwealth.

§105.35. Charges for Use and Occupation of Submerged Lands of the Commonwealth.

(a) Except as provided in subsections (b) and (c), the following charges shall apply to the granting of an easement, right-of-way, license or lease to occupy submerged lands of the Commonwealth issued pursuant to section 15 of the Dam Safety and Encroachments Act and section 105.32 of this Chapter:

(1) For commercial utility and other dams, water obstructions, and encroachments (except as listed below):

(a) Charge for preparation of agreement and related papers - $100.

(b) Annual rental charges:

(i) For areas occupied by facilities - $50 per acre, determined in tenths of an acre;

(ii) For barge fleeting areas - $25 per acre, determined in tenths of an acre;

(iii) Minimum annual charge - $25.

(2) For private recreation docks, for use by no more than three boats, owned and used solely by the owners of adjacent riparian property (unless the project is otherwise authorized by a general permit issued pursuant to §7 of the Dam Safety and Encroachments Act) an annual charge of $25.

(3) No charge shall be imposed for the following:

(a) Any project constructed or operated primarily for the benefit of a State building or State institution, or constructed or operated by the Commonwealth;

(b) Any project or activity constructed or operated to provide access by the general public to aters for purposes of recreation, where such access is provided without charge or on a non-profit basis;

(c) Any project or activity constructed or operated by a political subdivision which relates to a service for which no charge or fee is collected by the political subdivision.

(b) Licenses for public service lines crossing or occupying submerged lands of the Commonwealth, issued pursuant to section 15 of the Dam Safety and Encroachments Act or section 514 of the Administrative Code, shall be subject to the following schedule of annual charges:

Length of Crossings (in feet)	Charges (in dollars)
Less than 500	$ 25
500 to 999	50
1000 to 1499	100
1500 to 1999	150
2000 to 2499	200
2500 to 2999	250
3000 to 3499	300
3500 to 3999	350
4000 to 4499	400
4500 to 4999	450
5000 and over	500

(c) No charges shall be imposed pursuant to section 15 of the Dam Safety and Encroachments Act or section 514 of the Administrative Code for the following categories of activities and structures:

(1) Any activity or structure constructed, owned or operated by a department, commission or agency of the Commonwealth or Federal government;

(2) Any facility constructed or operated primarily for the benefit of a state building or state institution;

(3) Any flood control project constructed, owned or operated by an agency of the Commonwealth, the Federal government, or a municipality;

(4) Any facility constructed, owned or operated by a political subdivision of the Commonwealth in connection with a service for which no fees or charges (other than general taxes) are imposed;

(5) Any facility to provide access to the general public to water for recreational boating, fishing, hunting, swimming or other recreation, operated on a non-profit basis;

(6) Any structure or facility constructed and operated exclusively to improve fish habitat, pursuant to a cooperative agreement with the Pennsylvania Fish Commission;

(7) Any private recreational dock constructed pursuant to a general permit.

(d) The annual charges imposed in subsections (a) and (b) of this §105.35 may be revised by the Environmental Quality Board at such future time after approval by the Governor and reasonable notice to the holder of any license issued under this section.

(e) This section shall not apply to any crossing contiguous to or in a State park or State forest lands. Easements for such crossings shall be administered in accordance with section 514 of The Administrative Code of 1929 (71 P.S. §194) and the park and forest land management practices of the Department.

(f) The removal of sand, gravel and other valuable minerals from submerged lands of the Commonwealth shall be subject to the royalty and agreement provisions established pursuant to section 1908-A of the Administrative Code and the Act of July 31, 1970 (P.L. 699, No. 225).

§105.41. Notices and Reports.

(a) The permittee shall notify the Department, in writing, of the proposed time for commencement of work, at least 5 days prior to the commencement of construction.

(b) The Department may require submission of such reports as it deems necessary on the status of construction.

§105.42. Acknowledgement of Conditions.

(a) The permittee shall fully inform any engineer or contractor responsible for the supervision and conduct of work covered by any permit issued pursuant to this chapter of all terms, conditions, restrictions, and covenants of the permit.

(b) Prior to the commencement of any construction, the permittee shall file with the Department in writing, on a form provided by the Department, a statement signed by the permittee and any individual responsible for the supervision or conduct of the construction work acknowledging and accepting the general and special conditions contained in the permit. Unless such acknowledgement and acceptance have been filed, the permit shall be null and void.

(c) A copy of the permit and the acknowledgement shall be available at the work site for inspection upon request by any officer or agent of the Department or any other Federal, State, county, or municipal agency.

§105.43. Time Limits.

(a) The Department will set such time limits for the commencement and completion of work pursuant to any permit issued under this chapter as it deems reasonable and appropriate to carry out the purposes of this chapter.

(b) If such work is not completed on or before the dates set by the Department, unless extended by the Department in writing, the permit shall become null and void without further notification being required.

§105.44. Implementation of Work According to Specifications.

(a) All work undertaken pursuant to a permit issued under this chapter shall be conducted in accordance with the maps, plans, profiles, and specifications as approved by the Department.

(b) No changes in the maps, plans, profiles, and specifications for work covered by a permit which would affect the waterway area or structural stability of the project shall be made except with the written approval of the Department. Upon written approval by the Department, such changes shall become part of the permit.

(c) The Department shall have the right during the progress of work to require such changes or modifications in the maps, plans, profiles, and specifications for work covered under any permit as it may determine are necessary and proper to protect the public health, safety, and the environment.

§105.45. Inspections.

All work, structures, and land covered under a permit issued pursuant to this chapter shall at all times be subject to inspection by representatives of the Department, and the permittee shall allow any representative of the Department to enter any property, premises, or place associated with such permit for the purposes of such inspection.

§105.46. Implementation of Erosion and Sedimentation Control Plans.

(a) At all times during the construction of any dam, water obstruction, or encroachment, the permittee shall follow the erosion and sedimentation control plan prepared in accordance with Chapter 102 of this title and submitted with and approved as part of his application.

(b) Construction shall be done in a manner so as to minimize erosion of banks and bed of the stream and disturbance of the regimen of the stream.

§105.47. Removal of Structures.

(a) If all construction work has not been completed within the time specified in the permit and the time limit specified in the permit has not been extended in writing by the Department or if a permit has been revoked for any reason, the permittee shall, at his own expense, in such manner as the Department may prescribe, remove all or any portion of the work as the Department requires and restore the water course and floodplain to their former condition.

(b) Prior to discontinuing use or abandonment, the owner of any structure covered by this chapter, regardless of whether or not it was constructed under a permit from this Department or its predecessors, shall remove all or part of the facility and take other actions as are necessary to protect safety and the environment in accordance with a permit issued by the Department.

(c) The owner shall make no claim against the Commonwealth or any of its officers or agents on account of any such removal or alteration of any structure.

OPERATION, MAINTENANCE, AND INSPECTION

§105.51. Operation and Maintenance.

(a) The permittee or owner of any dam, water obstruction, or encroachment shall at all times operate and maintain the facility and all appurtenant structures in a safe condition in accordance with all permit terms and conditions and the provisions of this Chapter, so that the facility cannot imperil life, health, safety, or property located above or below the facility.

§105.52. Inspection.

Regardless of the date of construction of a dam, water obstruction, or encroachment or whether or not it was permitted by the Department or its predecessors, it shall be the duty of the permittee or owner of a dam, water obstruction, or encroachment to evaluate the safety of the facility and all appurtenant structures and to modify the facility in accordance with the permit requirements of §105.11, to ensure its safety in accordance with changed conditions and current safety criteria.

§105.53. Inspections By Owners and Inspection Reports.

The permittee or owner of any dam, water obstruction, or encroachment shall inspect the facility and all appurtenant works according to the following schedule:

(a) All dams, reservoirs, and their appurtenant works shall be inspected at least once every three months.

(b) For all Category 1 or Category 2 dams, Hazard Potential Classification as defined in §105.91 of this Title, annual reports regarding the condition of the dam, certified by a registered professional engineer, shall be submitted to the Department on or before October 1 of each year. More frequent reports of dam conditions may be required by the Department, if in its discretion, conditions indicate such reports are necessary to assure adequate protection of health, safety, and property.

(c) For all local flood protection projects, annual reports regarding the condition of the flood protection facility shall be submitted to the Department on or before October 1 of each year.

(d) The owner of any water obstruction or encroachment shall conduct periodic inspections to ensure the safe operation, monitoring, and

maintenance of the facility in accordance with the rules and regulations of the Department, terms and conditions of the permit, and approved operating or monitoring plans.

(e) The owner shall retain records of such inspections, including records of actions taken to correct conditions found in such inspections. Copies of such records shall be provided to the Department on request.

(f) The Department may, through terms and conditions of the permit or by request at any time, require the owner to submit certified reports regarding the condition of the facility to the Department.

(g) In lieu of inspections conducted by the owner and certified reports submitted by the owner, the Department may accept reports of equivalent inspections conducted and prepared by governmental agencies.

§105.54. Monitoring Systems.

The permittee or owner of any dam, water obstruction, or encroachment shall set up and implement such monitoring systems as are required by the Department in the terms and conditions of the permit.

INVESTIGATION AND CORRECTION OF UNSAFE CONDITIONS--
EMERGENCY PROCEDURES

§105.61. Procedures for Investigations.

The Department may, if it finds there is reasonable cause to suspect the existence of conditions adversely affecting the safety of a dam, water obstruction, or encroachment, order the owner to conduct such investigations, studies, tests, and analyses as may be required to properly evaluate the safety of the structure. Such investigations, studies, tests, and analyses shall be accomplished under the supervision

of a registered professional engineer, experienced in the design, construction, operation, and maintenance of such facilities and approved by the Department, and in accordance with such methods as the Department may prescribe. Failure to provide such investigation results to the Department on request shall constitute adequate grounds for revocation or suspension of a permit.

§105.62. Correction of Unsafe Conditions.

(a) If the Department determines that any dam, water obstruction or encroachment is unsafe or adversely affects property or the environment or has not been properly constructed, operated, monitored, or maintained in compliance with all legal requirements, it may require the owner of the facility to repair, alter, maintain, or remove the facility or take such other action as necessary to carry out the purposes of this Chapter within such time as prescribed by the Department.

(b) The Department or its authorized agents may enter and conduct such investigations, tests, and analyses or take such corrective action as required to carry out the purposes of this Chapter if one or more of the following conditions exist:

(1) the owner cannot be ascertained or found;

(2) the owner refuses or fails to comply with an order issued by the Department pursuant to Section 14 of the Dam Safety and Encroachments Act or this section; or

(3) the condition of the facility is so dangerous as to require immediate remedial action.

The Department thereafter may recover from the owner, in the name of the Commonwealth, the expenses incurred in taking such action in the same manner as debts are recoverable by law.

§105.63. Emergency Procedures.

(a) The permittee or owner of any dam, water obstruction, or encroachment shall immediately notify the Department and responsible authorities in adjacent and downstream communities, including emergency management authorities, of any condition which may threaten the safety of the facility, and take all necessary actions to protect life and property, including any action required under an emergency plan or Department order issued pursuant to the Dam Safety and Encroachments Act.

(b) The permittee or owner of any dam or reservoir shall immediately notify the Department, and responsible Emergency Management authorities in adjacent and downstream communities of any conditions which may indicate a potential dam hazard emergency, including, but not limited to, any of the following conditions:

(1) Sliding of upstream or downstream slopes or abutments contiguous to the dam.

(2) Sudden subsidence of the crest of the dam.

(3) Longitudinal or transverse cracking of the crest of the dam.

(4) Unusual release of water from the downstream face and/or toe of the dam.

(5) Any other unusual conditions at the downstream slope of the dam.

(6) Significant landslides in the reservoir area.

(c) Telephone calls to the Department pursuant to this section should be directed to the following numbers:

Norristown Region - (215) 631-2422
For the following counties:

Berks	Delaware	Northampton
Bucks	Lehigh	Philadelphia
Carbon	Monroe	Pike
Chester	Montgomery	Schuylkill

Carnegie Region - (412) 276-111
For the following counties:

Allegheny	Crawford	Lawrence
Armstrong	Elk	McKean
Beaver	Erie	Mercer
Butler	Fayette	Potter
Cambria	Forest	Somerset
Cameron	Greene	Venango
Clarion	Indiana	Warren
Clearfield	Jefferson	Washington
		Westmoreland

Harrisburg Region - (717) 783-9726
For the following counties:

Adams	Franklin	Lancaster
Bedford	Fulton	Lebanon
Blair	Huntingdon	Mifflin
Cumberland	Juniata	Perry
Dauphin		York

Wilkes-Barre Region - (717) 826-2371
For the following counties:

Bradford	Luzerne	Sullivan
Centre	Lycoming	Susquehanna
Clinton	Montour	Tioga
Columbia	Northumberland	Union
Lackawanna	Snyder	Wayne
		Wyoming

(d) In the event that no contact is made with the Regional Office, calls should be directed to the Harrisburg Central Office at (717) 787-4467 or (717) 783-1384, or to the Pennsylvania Emergency Management Agency at the following number: (717) 783-8150.

SUBCHAPTER B. DAMS AND RESERVOIRS

GENERAL PROVISIONS

§105.71. Scope.

Except as provided in §§105.3 and 105.12 of this title (relating to scope and waiver of permit requirements), provisions of this subchapter shall govern the construction, alteration, enlargement, repair, maintenance, operation, and removal of any dam or reservoir regulated under the Dam Safety and Encroachments Act.

PERMITS

§105.81. Permit Application.

(a) In addition to the information required by §§105.13 and 105.14 of this title (relating to permit application information and engineer's certification), all permit applications pursuant to this subchapter shall give the following information:

(1) The name and address of the applicant.

(2) The location, type, size, height, and purpose of the proposed dam and reservoir and appurtenant works.

(3) For projects involving storage of fluids or semi-fluids other than water, information concerning the chemical content, viscosity, and other pertinent physical characteristics of the fluid or semi-fluid impounded.

(4) The storage capacity and reservoir surface areas for normal pool and maximum high water.

(5) Plans for proposed permanent monitoring of performance by instrument installations in the dam, including the purposes of the instrumentation. If no instrumentation is considered necessary, reasons for this judgment shall be stated.

(6) As accurately as may be readily obtained, the area of the drainage basin, pertinent rainfall and streamflow records, and flood flow records and estimates.

(7) The proposed time for commencement and anticipated completion of construction.

(8) The method and schedule of operation of the dam, including an emergency warning plan.

(9) Plans for control of erosion and water pollution during the anticipated construction operations, including plans for adequate measures to limit the erosion of the soil from exposed slopes after completion of construction. Such plans shall indicate that adequate control measures will be taken during construction to protect the quality of stream flow below the project site. The application shall include a copy of a letter from the Conservation District in the county where the project is located indicating that the District reviewed the applicant's erosion and sediment control plan and considers it to be satisfactory.

(10) Proof of title or adequate flowage easements for all land area below the top of the dam elevation that is subject to inundation.

(11) Such other information as the Department may require.

(b) The application shall be accompanied by a design report, construction plans, and specifications, all in sufficient detail to evaluate the safety, adequacy, and suitability of the proposed work.

(c) The applicant shall conduct and submit the results of such investigations and tests as the Department, in its judgment, believes are necessary to determine the safety, adequacy, and suitability of design, including but not limited to:

(1) Data concerning subsoil and rock foundation conditions and the materials entering into the construction of the dam or reservoir.

(2) Data concerning exploratory pits, drilling, coring, and tests to determine seepage rates.

(3) Data concerning the strength tests necessary to measure the physical properties and behavior of foundation and embankment materials at the dam or reservoir site.

(4) Data concerning the geology of the dam or reservoir area, indicating possible hazards such as faults, weak seams, and joints.

(5) Data concerning availability and quality of construction materials.

(6) Such other information as may be necessary, including the design calculations for the dam, which shall be made available to the Department on request.

(d) All plans and specifications and the results of any tests or investigations shall be prepared under the supervision of and certified by a registered professional engineer experienced in dam design and construction and assisted by qualified engineers, geologists, and other specialists, when necessary.

CLASSIFICATION AND DESIGN CRITERIA

§105.91. Classifications of Dams and Reservoirs.

(a) Each dam or reservoir shall be assigned a classification by the Department, in accordance with the potential damage which might occur in the event of an operational or structural failure. In assigning such damage potential classification, the Department will consider, without limitation:

(1) the height of the dam and storage capacity of the reservoir;

(2) the physical characteristics and degree of actual and projected development of the dam site and downstream areas; and

(3) the relationship of the site to existing or projected industrial, commercial, and residential areas and other land uses downstream which may be affected by a dam failure.

(b) The following shall be the classifications and descriptions as used in this Subchapter B:

SIZE CLASSIFICATION*

Class	Impoundment Storage (Acre Feet)	Dam Height (Feet)
A	Equal to or greater than 50,000	Equal to or greater than 100
B	Less than 50,000 but greater than 1000	Less than 100 but greater than 40
C	Equal to or less than 1000	Equal to or less than 40

*NOTE: Size classification may be determined by either storage or height of structure, whichever gives the higher category.

HAZARD POTENTIAL CLASSIFICATION

Extent of Development

Category	Loss of Life	Economic Loss
1	Substantial	Excessive (extensive residential, commercial, agricultural and substantial public inconvenience)
2	Few (no rural communities or urban developments and no more than a small number of habitable structures)	Appreciable (damage to private or public property and short duration public inconvenience)
3	None expected (no permanent structure for human habitation)	Minimal (undeveloped or occasional structures with no significant effect on public convenience)

§105.92. Foundations.

(a) The foundation of any dam or reservoir shall be stable under all probable conditions.

(b) In analyzing the stability of the foundation of any proposed or existing dam or reservoir, the applicant must consider all of the following factors:

(1) The seismic forces at the site.

(2) The shearing strength of the foundation.

(3) Settlement and subsidence.

(4) Leakage, permeability, and solubility.

§105.93. Design Stress.

In the construction of all dams and reservoirs, allowable stresses shall conform to the current standards accepted by the engineering profession.

§105.94. Spillways.

(a) Every dam shall be provided with a spillway system which is capable of safely conveying the design flood of the dam without endangering the safety or integrity of the dam.

(b) Each spillway shall include a satisfactory means of dissipating the energy of flow at its outlet to assure conveyance of flow without endangering the safety and integrity of the dam or the natural environment of the stream.

§105.95. Freeboard.

Sufficient freeboard shall be provided to prevent overtopping of the dam during the design flood of the dam and to allow for wave and ice action.

§105.96. Outlet Works.

(a) All dams shall include a device to permit the draining of the reservoir within a reasonable period of time as determined by the Department, unless the Department determines that an outlet works is not feasible for a specific dam.

(b) In determining the reasonable time period for drainage of the reservoir, the Department may consider, without limitation, the following factors:

(1) The damage potential posed by possible failure of the dam.

(2) The risk and nature of potential failure and the time likely to be available to avert such failure after notice of conditions threatening the safety or stability of the dam.

(3) The purpose of the dam and reservoir.

(4) The capacity and stability of available drainage courses to convey the waters released from the reservoir in the event of emergency drainage.

(5) The influence of rapid drawdown on the stability of the dam, its appurtenant works, and the upstream natural slopes of the reservoir.

(c) Each outlet works shall include a means of dissipating the energy of flow at its outlet to assure conveyance of flow without endangering the safety and integrity of the dam or the natural environment of the stream.

§105.97. Stability of Structure.

(a) All dams shall be structurally sound and shall be constructed of sound and durable materials. The completed structure shall be stable under all probable conditions of operation.

(b) In reviewing the stability of a structure, the Department may consider, without limitation, the following:

(1) The physical properties of the materials available for construction.

(2) The seismic and hydraulic forces affecting the structure.

(3) The methods of construction.

(4) The conditions of operation of the dam and reservoir.

§105.98. Design Flood Criteria.

(a) The discharge capacity or storage capacity, or both, should be capable of safely accommodating the recommended design flood for the size and hazard potential classification of the dam as determined by §105.91 of this title (relating to classification of dams and reservoirs). The design flood is intended to represent the largest flood that need be considered in the evaluation of a given project. Where a range of design flood is indicated, the magnitude that most closely relates to the size and hazard potential should be selected. Design flood criteria shall be as indicated in the following table:

Size and Hazard Potential Classification	Design Flood
A-1, A-2, B-1	PMF
A-3, B-2, C-1	1/2 PMF to PMF
B-3, C-2	100 year to 1/2 PMF
C-3	50 year to 100 year frequency

(b) The Department may, in its discretion, require consideration of a minimum design flood for any class of dams or reservoirs in excess of that set forth in subsection (a) of this section where it can be demonstrated that such a design flood requirement is necessary and appropriate to provide for the integrity of the dam or reservoir and to protect life and property with an adequate margin of safety.

(c) The Department may, in its discretion, consider a reduced design flood for any class of dams or reservoirs where it can be demonstrated that such design flood provides for the integrity of the dam or reservoir and protects life and property with an adequate margin of safety.

§105.99. Dams in Subdivision Developments.

Wherever a dam or reservoir is proposed to be constructed in or as a part of any existing or proposed subdivision development, the Department will include in the permit such conditions as are necessary to prevent construction of structures on lands which may be subject to flooding caused by the maximum pool of the dam and to require the permittee to adequately inform potential buyers or lessees of such restrictions.

CONSTRUCTION REQUIREMENTS AND PROCEDURES

§105.101. Notices and Reports.

At least 15 days prior to commencement of construction, the permittee shall notify the Department, in writing, of the proposed time for commencement of work. Thereafter, a detailed report on the status of construction shall be submitted monthly to the Department of Environmental Resources, Division of Dam Safety, P.O. Box 2357, Harrisburg, Pa., 17120, until all construction work has been completed.

§105.102. Personnel and Supervision.

(a) All work shall be conducted under the direction of a competent engineer, approved by the Department, and such engineer or a competent representative shall be on the work site at all times during construction and until completion of the dam.

(b) The permittee shall file with the Department at least 15 days prior to the commencement of construction a statement setting forth the name of the contractor or contractors conducting the work authorized by the permit and the names and employers of all personnel responsible for the supervision of construction.

§105.103. Weather and Ground Conditions.

(a) No earth or other embankment material which is in a frozen condition shall be covered or placed in embankments.

(b) Masonry and concrete shall not be placed in freezing weather, except under conditions approved by the Department.

§105.104. Removal and Disposal of Vegetation.

(a) All work shall be conducted in such a manner as to minimize the destruction of, or damage to trees and other vegetation on and adjacent to the construction site.

(b) Vegetation cleared and removed from the site shall be disposed of in accordance with all applicable laws and regulations.

§105.105. Collection and Disposal of Waste Materials.

All waste materials, scrap, or excess construction materials shall be collected, stored, and disposed of in accordance with the Solid Waste Management Act and Chapter 75 of this title (relating to solid waste management). In no event shall waste or scrap materials be stored or disposed of in or along any stream or other body of water or in a manner which could cause pollution of the air and waters of this Commonwealth.

§105.106. Activities and Facilities on The Construction Site.

All activities and facilities on the construction site shall be conducted and operated in such manner as to avoid pollution of the air and waters of this Commonwealth and in accordance with all applicable laws and the provisions of this title.

§105.107. Completion Certificate and Final Plans.

(a) Within 30 days after the completion of all work authorized by a permit issued under this subchapter, the permittee shall file with the Department a certified statement, signed by the supervising engineer and by the permittee, that all work has been performed in accordance with the terms and conditions of the permit; with the approved maps, plans, profiles, and specifications; and with all applicable laws and the provisions of this title.

(b) Within 90 days after the completion of all work, the permittee shall file with the Department a set of final "as built" plans for the project, showing all changes from the original plans and specifications.

§105.111. Commencement of Water Storage.

The permittee shall notify the Department, in writing, at least one week in advance of the date proposed for the commencement of water storage in the reservoir or pond created by the dam for which the permit is issued. The Department may, at its discretion, require that a representative of the Department be at the site before or during the filling of the pond or reservoir.

§105.112. Stream Flow During Construction, Filling, and Repair.

During the period of construction, alteration, enlargement, or repair and during the period that the pond or reservoir is being filled, the permittee shall allow a sufficient flow of water, as determined by the Department, into the stream below the dam to support fish and other aquatic life and to preserve the water quality in the stream.

§105.113. Releases.

(a) The Department will impose such general and special conditions regarding release rates in any permit for a dam or reservoir as it deems necessary to maintain stream flows for the purposes of protection of public health, water quality control, conservation of fisheries and aquatic habitat, improvement of creation, and protection of instream and downstream water uses.

(b) For all dams or reservoirs constructed after August 28, 1978:

(1) The minimum release rate shall be the average consecutive seven-day flow having a recurrence interval of once in ten years (Q 7-10) plus an additional release rate determined by the following formula:

Release rate (csm)	=	Q 7-10 + PDF (.25 csm - Q 7-10 csm)
where PDF	=	the percentage factor based on the storage capacity of the reservoir measured as percent of average annual runoff retained in the reservoir. This factor is explained in Planning Principles, State Water Plan SWP-1 (March, 1975).
.25 csm	=	.25 cubic feet per second of flow per square mile of watershed.
Q 7-10 csm	=	The seven-day, ten-year low flow, in cubic feet per second per square mile of watershed.

The minimum release rate determined by this formula shall not exceed 0.25 cubic feet per square mile of watershed.

(2) The release rate may be modified or additional releases required by the Department to provide for the purposes stated in subsection (a), and to satisfy particular stream requirements or downstream, riparian rights.

(c) For dams and reservoirs constructed prior to August 28, 1978, the Department shall determine a reasonable schedule for release rates, considering:

(1) The purposes stated in subsection (a), and the particular needs of instream and downstream water uses on the affected stream;

(2) The capacity of existing release works at the dam, and feasibility of potential modification of such release works;

(3) The yield of the reservoir, and its capability to meet release requirements and satisfy the purposes and uses of the reservoir.

(d) Every dam shall at all times be operated in such manner as to allow the required flow of water into the stream below the dam, as established pursuant to this section, and as otherwise necessary to support fish and other aquatic life and to assure compliance with the water quality criteria set forth in Chapter 93 of this title (relating to water quality criteria), and to provide for other instream uses for the affected stream or streams.

PROTECTION AND RESTORATION OF AQUATIC LIFE

§105.121. Fishways.

Upon the request of the Fish Commission, the permittee shall install and maintain such chutes, slopes, fishways, gates, or other devices as the Fish Commission may require pursuant to the provisions of section 185-187 of The Fish Law of 1959 (30 P.S. §§185-187).

§105.122. Drawdown of Impounded Waters.

Impounded waters which are inhabited by fish shall not be drawn down except with the written approval of the Fish Commission issued in accordance with section 191 of The Fish Law of 1959 (30 P.S. §191).

§105.123. Restoration of Aquatic Life.

If the Department finds that construction of a dam or reservoir has so substantially disrupted aquatic life as to preclude natural restoration of the stream ecology within a reasonable period of time, the permittee shall be required to submit and implement a plan to restore the aquatic life of the stream to its prior condition, to the maximum extent possible. The plan shall be subject to review and modification by the Department in consultation with the Fish Commission and shall include but not be limited to:

(1) placement of bed gravel;

(2) stabilization of banks and bed;

(3) installation of stream improvement devices;

(4) revegetation of stream and banks; and

(5) stocking of fish and other aquatic life.

OPERATION, MAINTENANCE, AND EMERGENCIES

§105.131. Operation and Monitoring Plans.

(a) In addition to the requirements of §§105.51 through 105.54 of this Title, the permittee or owner of any dam or reservoir shall at all times follow the method and schedule of operation of the dam or reservoir, including the emergency warning plan, as approved by the Department, and shall implement any plan approved by the Department for permanent monitoring of performance by instrument installation in the dam.

(b) No permittee or owner of any dam or reservoir shall modify or cease implementation of all or part of the approved plans and methods of operation or monitoring without the prior approval of the Department.

§105.132. Inspection.

The permittee or owner of any dam or reservoir shall follow the inspection schedule set forth in §105.53 of this Title.

§105.133. Directed Repairs.

The permittee shall immediately take any and all such steps as the Department may prescribe as necessary to preserve the structural stability and integrity of the dam and protect health, safety, and property.

§105.134. Emergency Warning System and Operation Plan.

The owner of any dam or reservoir that may cause loss of life or serious damage to property should a failure of the dam occur shall develop an emergency warning system and operation plan to be followed in the event of a dam hazard emergency. The emergency warning system and operation plan shall be submitted to and approved by the Department and local emergency management officials prior to commencement of water storage in the reservoir or pond created by the dam during any stage of construction of the dam. The emergency warning system and operation plan shall, at a minimum, contain the following elements:

(a) An identification of the area below the dam which may be threatened with loss of life or serious damage to property should a failure of the dam occur.

(b) A listing of key municipal and emergency management officials and their telephone numbers. Such list shall be readily available at the dam site near a telephone or other means of communication, if available.

(c) An identification of handicapped or other persons who may have difficulty evacuating the area which may be threatened should a failure of the dam occur. Procedures for evacuating such people in a dam hazard emergency should be developed in cooperation with local and emergency management officials.

§105.135. Dam Hazard Emergencies.

(a) For the purposes of this section, a dam hazard emergency shall mean any condition which the Department, permittee, or owner of the dam reasonably finds constitutes an imminent threat to life or property above or below a dam, whether arising from the condition of the dam and appurtenant works or extraordinary natural conditions, affecting the safety and stability of the dam, including, but not limited to, flood, earthquake, fire, and ice jam.

(b) The emergency procedures and the emergency warning plan required by §§105.63 and 105.134 of this title shall be followed by the permittee and owner of any dam or reservoir in the event of any actual or potential dam hazard emergency.

(c) If a dam hazard emergency exists, the Department and the permittee or owner of the dam shall immediately notify appropriate emergency management officials of the existence of the hazard and advise such authorities of appropriate steps to be taken to assure protection of life and property; and

(d) The Department will notify or order the permittee or owner immediately to take such steps as the Department determines are necessary to prevent dam failure or loss of life or property, including, but not limited to, the following:

(1) Draw down of the reservoir;

(2) Reinforcement of the dam structure;

(3) Breach or removal of the dam;

(4) Removal of debris;

(5) Repair or installation of structures necessary to assure the stability and safety of the dam.

§105.136. Unsafe Dams.

(a) For purposes of this section, an unsafe dam shall mean a dam which meets one or more of the following criteria:

(1) A dam with deficiencies of such a nature that if not corrected could result in the failure of the dam with subsequent loss of lives or substantial property damage. This determination is based on good engineering judgment or the application of the guidelines established for the National Dam Inspection Program.

(2) A dam classified as unsafe pursuant to the National Dam Inspection Program.

(3) A dam declared as unsafe by the Department.

(b) The owner of any unsafe dam shall:

(1) Immediately notify the Department upon receipt of any information indicating the dam is unsafe.

(2) Drain the dam as approved or required by the Department.

(3) Within time limits established by the Department, submit a plan for removal of the dam, a plan for repair of the dam, or an application for a permit authorizing modification of the dam pursuant to subsection (c) of this section.

(4) Following approval of the plan or permit by the Department, undertake and complete actions to remove or repair the dam or implement the modifications to the dam within the time limits set by the Department.

(c) The Department may issue a permit for modification of an unsafe dam, pursuant to §9 of the Act, which authorizes the owner of an unsafe dam to modify the dam within such time as prescribed in the permit to meet the requirements of the Dam Safety and Encroachments Act and this Chapter. Any such permit shall be conditioned upon:

(1) compliance by the owner of the dam with a prescribed schedule for correction or modification of the unsafe condition within the shortest time period technically feasible and economically achievable;

(2) implementation by the owner of the dam of such measures as are deemed necessary by the Department to reduce risks to health and safety pending correction or modification of the unsafe condition, including but not limited to special provisions relating to operation, emergency planning, monitoring and warning systems, and development of an alternative source of water supply, if the dam serves as a water supply dam.

(d) In determining whether to require removal of an unsafe dam or to permit the owner to modify the dam, the Department shall consider whether there is a substantial adverse impact to the public health and safety which will result from the draining and removal of the dam, and whether that adverse impact outweighs the danger to public health and safety which will result in allowing the unsafe dam to remain until it has been modified.

(e) At the discretion of the Department, a public hearing may be held in the affected area prior to the issuance of any permit authorizing modification of an unsafe dam over a period of more than six months, to inform affected communities of the risks which may result from allowing the unsafe dam to remain standing or to impound water during the time necessary to complete the modifications.

(f) If, for any reason, the Department finds that conditions upon which the permit authorizing modification was issued have substantially changed or that the owner will not meet the schedule for modification contained in such permit, the Department shall review the status of the dam. An extension of the time period for completion of a modification may be issued by the Department, if the owner has proceeded in good faith with the previous schedule of modification and the requirements of subsections (c) and (d) of this §105.136 are met.

(g) Nothing in this section shall be construed to limit the power of the Department to take immediate action, prior to a public hearing, to:

(1) revoke or suspend any permit where deemed necessary by the Department to protect public health and safety.

(2) order correction or abatement of a dam hazard emergency pursuant to §105.135; or

(3) take any other action authorized by law.

Subchapter C. CULVERTS AND BRIDGES

GENERAL PROVISIONS

§105.141. Scope.

Except as provided in §§105.3 and 105.12 of this title (relating to scope and waiver of permit requirements), the provisions of this subchapter shall govern the construction, alteration, enlargement, repair, maintenance, and removal of any bridge or culvert located in, along, or across, or projecting into the regulated waters of the Commonwealth.

§105.142. Applicability of Stream Enclosure Rules.

Any culvert of greater than 100 feet in upstream to downstream length shall be considered to be a stream enclosure, subject to subchapter D of this title (relating to stream enclosures).

PERMITS

§105.151. Permit Applications.

In addition to the information required pursuant to §§105.13 and 105.14 of this title (relating to permit application information and engineer's certification), all applications for permits pursuant to this subchapter shall contain the following:

(1) Plans showing the location, type, size, and height of the proposed bridge or culvert and detailing the topographic features, elevations, and structures, so as to enable an appraisal of the hazard potential of the structure.

(2) A description of the character of the stream bed and banks and a profile of the stream for a reasonable distance above and below the proposed site, showing slopes of bed, normal water surface, and flood water surface.

(3) A hydrologic and hydraulic analysis which shall include: data on size, shape, and characteristics of the watershed; the amount and frequency of the design flood; the hydraulic capacity of the structure; the

hydraulic capacity of the channel upstream and downstream; and where flooding is a problem, flood damage and backwater analysis.

(4) Such other information as the Department may require.

DESIGN CRITERIA

§105.161. Hydraulic Capacity.

(a) Bridges and culverts shall be designed and constructed in accordance with the following criteria:

(1) The structure shall pass flood flows without loss of stability.

(2) The structure shall not create or constitute a hazard to life or property, or both.

(3) The structure shall not materially alter the natural regimen of the stream.

(4) The structure shall not so increase velocity or direct flow so as to result in erosion of stream bed and banks.

(b) In determining flood flows and frequencies for purposes of this subchapter, hydrologic analysis shall be by methods generally accepted in the engineering profession.

(c) The general criteria for design flows are as follows:

(1) Rural area - 25-year frequency flood flow.

(2) Suburban area - 50-year frequency flood flow.

(3) Urban area - 100-year frequency flood flow.

(d) The determination of flood flows for design shall be made with reasonable consideration of development which may alter the runoff characteristics of the watershed during the anticipated life of the structure. Specific design requirements in subsection (c) of this section may be varied to fit the conditions at the site and the requirements of flood plain management regulations and ordinances.

§105.162. Multiple Pipes and Spans.

Multiple pipes and multiple span bridges and culverts which may tend to collect debris, contribute to the formation of ice jams, and increase head losses shall be avoided to the maximum practicable extent. Crossings of less than 15 feet shall be by one span, except where conditions make it impractical to effect the crossing without multiple spans.

§105.163. Bridge Piers.

(a) Bridge piers shall be kept to a minimum in number and cross-sectional area and shall be designed to offer the least obstruction to the passage of water and ice, consistent with safety.

(b) Bridge piers in channels subject to unstable or super critical flow shall require special investigation and shall be so designed as to prevent the creation of excessive backwater and waves downstream of the pier.

§105.164. Bridge Abutments.

(a) Bridge abutments shall be set well into the banks, in such manner as to assure minimal increase in flood elevations.

(b) Bridge abutments shall be aligned with the flow of the stream. The Department may require, in its discretion, the construction of wing walls at the upstream side of the bridge to assist in directing flood flows through the bridge opening.

§105.165. Height of Bridges and Culverts.

All bridges and culverts shall be of sufficient height and clearance to allow the use of the stream or other body of water in its customary manner.

§105.166. Placement of Culverts.

(a) All culverts shall be aligned with the stream flow.

(b) Culverts shall be of sufficient width to minimize narrowing of the stream channel.

(c) The upstream side of all culverts shall be protected by wing walls or other structures sufficient to assist in directing flood flows to and through the culvert opening.

OPERATION AND MAINTENANCE

§105.171. Maintenance.

(a) The owner or permittee of any culvert or bridge shall be responsible for maintaining the structure opening thereof in good repair and assuring that the flood carrying capacity of the structure is maintained at all times. The owner or permittee shall inspect the opening and approach of the culvert or bridge at regular intervals of not less than once each year and shall, after obtaining the verbal or written approval of the Department, remove all silt and debris which might obstruct the flow of water through the structure. It shall be assumed that the flow of water is obstructed when there has been a reduction of the effective area of the structure opening of greater than 10%. All debris shall be disposed of in accordance with the provisions of the Solid Waste Management Act and Chapter 75 of this title (relating to solid waste management).

(b) No heavy equipment, such as bulldozers, drag lines, backhoes, bucket loaders, front-end loaders, and similar mechanized equipment, shall be used in the cleaning of structures or stream channels without the written approval of the Department.

(c) All cleaning and maintenance operations shall be so conducted as to minimize erosion and sedimentation resulting therefrom.

§105.172. Inadequate or Collapsed Structures.

(a) The owner or permittee of any bridge or culvert shall immediately inform the Department of the collapse of the structure or any portion thereof or of the existence of any unusual conditions threatening the structural integrity of the bridge or culvert, including, but not limited to, the following:

(1) Undercutting of piers or abutments.

(2) Excessive cracking of bridge or culvert surfacing.

(3) Severe deterioration of piers and supports.

(4) Diversion of all or part of the stream flow through a channel not within the normal span of the structure.

(b) Whenever a bridge or culvert or any portion thereof has collapsed or is in imminent danger thereof, the owner or permittee thereof shall immediately remove any and all collapsed portions to an area outside the floodplain of the stream and either:

(1) completely remove the structure; or

(2) repair the structure in accordance with plans submitted to and approved by the Department.

(c) If the Department finds that the inadequate size, improper placement, collapse or imminent collapse of any bridge or culvert creates such an immediate danger of stream obstruction and a hazard to life or property as not to permit the issuance of an order or notice to the owner or permittee or if the owner or permittee cannot be readily contacted in sufficient time to assure adequate protection of life or property, the Department may exercise its powers pursuant to section 14 of the Dam Safety and Encroachments Act (32 P.S. §693.14) to remove or repair such conditions and take such actions as it deems necessary to protect life and property and recover the cost and expense thereof from the owner or permittee.

Subchapter D. STREAM ENCLOSURES

GENERAL PROVISIONS

§105.181. Scope.

Except as provided in §§105.3 and 105.12 of this title (relating to scope and waiver of permit requirements), the provisions of this subchapter shall apply to the construction, alteration, enlargement, repair, and removal of any stream enclosure or any culvert in any of the regulated waters of the Commonwealth of upstream to downstream length in excess of 100 feet.

PERMITS

§105.191. Permit Applications.

In addition to the information required by §§105.13 and 105.14 of this title (relating to permit application information and engineer's certification), all applications for permits pursuant to this subchapter shall contain the following information:

(1) The location, type, size, and height of the proposed stream enclosure.

(2) A profile of the stream for a reasonable distance above and below the proposed site, showing slopes of bed, normal water surface, and flood water surface.

(3) Estimates of flood frequencies and flood flows at the site of the proposed structure, including such information as can be reasonably obtained regarding actual rainfall and flood flow records on the stream.

(4) An analysis of the hydraulic capacity of the proposed structure.

(5) A description of the purposes of the proposed structure.

(6) A complete listing and description of all other enclosures and all culverts, bridges, dams, and other water obstructions located a reasonable distance upstream and downstream of the proposed enclosure.

(7) Proof of title or adequate flowage and other easements for all lands included in the site of the proposed structure, including all lands which may be subject to flooding by backwater from such structure during a 100-year flood.

(8) Such other information as the Department may require.

CRITERIA FOR APPROVAL

§105.201. Hydraulic Capacity.

All stream enclosures shall be so designed and constructed as to be capable, at a minimum, of passing without substantial hindrance the flows from a flood of 100-year frequency, based upon the degree of development of the contributing watershed projected throughout the lifetime of the structure; provided that the Department, at its discretion, may require capacity in excess of that necessary to carry the flows from a 100-year flood if it determines such capacity is necessary to protect the structure or to assure the safety of life and property above or below the enclosure.

§105.202. Local government approval.

No political subdivision shall issue any building or other permit which allows for the construction of a stream enclosure unless and until the Department has approved such enclosure.

MAINTENANCE

§105.211. Maintenance.

(a) All stream enclosures shall be maintained in accordance with §§105.171 and 105.172 of this title (relating to maintenance and collapsed structures).

(b) All stream enclosures shall include provisions for adequate access to allow maintenance of the entire length of the enclosure. Such access points shall be protected, to the maximum extent possible, in a manner which will prevent the entrance of unauthorized persons.

Subchapter E. CHANNEL CHANGES AND DREDGING FOR FACILITY CONSTRUCTION AND MAINTENANCE

§105.221. Scope.

Except as provided in §§105.3 and 105.12 of this title (relating to scope and waiver of permit requirements), the provisions of this subchapter apply to all channel changes in the regulated waters of the Commonwealth, and to dredging in the regulated waters of the Commonwealth conducted for purposes of construction, operation or maintenance of any dam, water obstruction, or encroachment.

PERMITS

§105.231. Permit Applications.

(a) In addition to the information required by §§105.13 and 105.14 of this title (relating to permit application information and engineer's certification), all permit applications pursuant to this subchapter shall contain the following information:

(1) The location and length of the proposed channel change or dredging.

(2) A stream profile for a reasonable distance upstream and downstream of the proposed change or dredging, showing bed slopes, normal water surface and depths, flood water surfaces, existing obstructions, and the location of public and industrial water supply intake.

(3) Such cross-channel sections as are necessary to indicate the scope of the proposed work.

(4) Estimates of flood frequencies and flood flows at the site of the proposed channel change or dredging, including such information as is reasonably available regarding actual rainfall and flood flow records on the stream.

(5) A description of the purposes of the proposed channel change or dredging.

(6) A description of the equipment to be employed in any dredging operations, and its capabilities.

(7) A plan for the disposal of dredge spoil.

(8) Proof of title or adequate flowage and other easements for all lands included in the site of the proposed channel change or dredging.

(b) The Department may require additional information or waive the requirements of subsection (a) of this section in specific cases.

§105.232. Maintenance Dredging.

Permits issued for the construction, operation and maintenance of any dam, dock, wharf, bulkhead, bridge, stream crossing, or flood control structure may include specific authorization for periodic dredging in order to:

(1) maintain adequate depths for navigation;

(2) asure proper passage of ice and flood flows; or

(3) preserve the safety, stability and proper operation of the facility.

§105.233. Removal of Sand, Gravel, and Other Valuable Minerals.

The removal of sand, gravel, or other valuable minerals from submerged lands of the Commonwealth in quantities which are commercially usable or marketable, in conjunction with a channel change or dredging permitted under this Chapter, shall be subject to the royalty and agreement provisions of the Act of July 31, 1970, (P.L. 699, No. 225) and Act of December 3, 1970 (P.L. 834, No. 275).

CRITERIA FOR APPROVAL AND OPERATIONS

§105.241. Flood Effect.

No channel change which will create a flooding potential greater than that created by the natural conditions of the existing channel will be approved.

§105.242. Channel Alignment and Cross Section.

(a) Abrupt bends in channel changes shall be prohibited, unless necessitated by the alignment of existing bridges or encroachments.

(b) The relocated channel shall rejoin the natural channel of the stream at such point on the permittee's property as to insure that alignment of stream flow at the downstream property line is identical to the flow alignment prior to the channel change.

(c) Any grade of the changed channel shall not be significantly greater than or significantly less than the grade of the original channel, unless the length of the relocated channel prevents such.

(d) Where the width of a channel change is greater than the width of the preexisting channel, provision shall be made to assure proper depth and velocity of normal flows; subchannels, and installation of stream habitat improvement devices.

(e) In streams having substantial fisheries value, provision shall be made in all channel changes to maintain existing pool-riffle ratios.

§105.243. Temperature of Water and Shading.

All channel changes shall be so designed and implemented to assure that the water temperature will not substantially increase over that in the preexisting channel. Where necessary, provisions shall be made to provide adequate shading of the relocated channel to duplicate, to the maximum extent possible, the preexisting conditions.

§105.244. Protection of Fish Life.

A low flow channel and habitat improvement device will be required when, in the opinion of the Fish Commission, it is necessary to provide a satisfactory channel for maintenance of fish life.

§105.245. Disposal of Waste Materials.

(a) Discharge of dredged material into the regulated waters of the Commonwealth shall be subject to subchapter J of this Title (relating to discharges of dredged and fill material).

(b) Dredged spoil and sludge deposits collected during the operation shall be deposited in a location and a manner approved by the Department.

(c) Bilge, ballast, or wastewater from dredging operations shall not be discharged to the stream without removal of oils. petroleum products, or toxic or hazardous compounds, as defined by the Federal Conservation and Recovery Act, in a manner approved by the Department.

Subchapter F. FILLS, LEVEES, FLOODWALLS AND STREAMBANK RETAINING DEVICES

GENERAL PROVISIONS

§105.251. Scope.

Except as provided in §§105.5 and 105.12 of this title (relating to scope and waiver of permit requirements), the provisions of this subchapter shall apply to the construction, alteration, enlargement, repair, or removal of fills, levees, floodwalls, and stream bank retaining walls located in or along the regulated waters of the Commonwealth.

PERMITS

§105.261. Permit Applications.

In addition to the information required by 105.13 and 105.14 of this title (relating to permit application information and engineer's certification), all applications for permits pursuant to this subchapter shall contain the following information:

(1) A plan detailing the location of all structures and properties 1000 feet upstream and downstream of the proposed fill, levee, or similar structure and within the flood plain of the flood of record on both sides of the stream or body of water.

(2) Basement and first floor elevations of structures indicated on the plan required by paragraph (1) of this subsection.

(3) A complete hydraulic and hydrologic report on the proposed project, including, if the Department so requires a backwater analysis of the project.

(4) Complete cross sections of the stream and floodway of the flood of record.

(5) Stream profiles, showing the bed slope and the normal and flood water elevations for points sufficiently upstream and downstream in effect on the project.

(6) The type of all materials to be used on the fill, levee or similar structure.

(7) Plans for the protection of the fill, levee, or similar structure from erosion, both during and after construction.

(8) The design flood for the fill, levee, or similar structure.

(9) A copy of the local flood plain management regulations or ordinances.

(10) Plans for interior drainage.

(11) Such other information as the Department may require.

DESIGN CRITERIA

§105.271. General Criteria.

(a) An application for any proposed levee, fill, or similar structure in or along the regulated waters of the Commonwealth will not be approved by the Department where:

(1) it will increase flood heights, either on the opposite bank or upstream, and flood easements or flood protection has not been provided;

(2) it will create erosive velocities in the stream and appropriate protection has not been provided;

(3) it will increase flood damages downstream through a loss of flood plain storage.

(b) An application for any proposed levee, fill, or similar structure within the floodway of a regulated water of the Commonwealth will not be approved by the Department, unless the applicant demonstrates that the project is consistent with local floodplain management programs.

§105.272. Waste Materials.

No waste materials of any type shall be used in the construction of fills, levees, or similar structures, except in accordance with the provisions of the Solid Waste Management Act and Chapter 75 of this title (relating to solid waste management).

§105.273. Slopes.

The slope of any fill, levee, or similar structure shall not be steeper than two horizontal to one vertical, unless special circumstances are demonstrated and adequate steps are taken to assure permanent stabilization of the slope.

§105.274. Top Width of Levees.

The top width of any levee shall not be less than ten feet.

§105.275. Interior Drainage.

Adequate facilities shall be provided to drain the interior area behind the levee or floodwall.

§105.276. Freeboard Allowance.

The height of a levee or floodwall shall provide an allowance for freeboard above the design flood of the structure.

MAINTENANCE AND REPAIR

§105.281. Maintenance and Repair of Levees or Floodwalls.

(a) The owner of any levee or floodwall shall inspect the levee or floodwall and all appurtenant structures, including drainage facilities, at least annually and shall comply with §105.53(c).

(c) Trees and other vegetation with deep roots shall not be allowed on any levee used for flood control purposes, and vegetation shall at all times be controlled.

§105.282. Maintenance of Fills.

Fills shall at all times be maintained in a manner to prevent erosion and to assure the stability of the slopes.

Subchapter G. STREAM CROSSINGS, OUTFALLS AND HEADWALLS

GENERAL PROVISIONS

§105.291. Scope.

Except as provided in §§105.3 and 105.12 of this title (relating to scope and waiver of permit requirements), the provisions of this subchapter shall apply to all stream crossings, outfalls, headwalls, pipelines, and aerial crossings and other analogous structures which are place in, along, across, over, or under the regulated waters of the Commonwealth.

PERMITS

§105.301. Permit Applications.

In addition to the information required pursuant to §§105.13 and 105.14 of this title (relating to permit application information and engineer's certification), applications for stream crossings shall contain the following, where applicable:

(1) The shore lines of the affected body of water, including both high and low water marks.

(2) Existing structures and stream crossings in the vicinity of the proposed crossings.

(3) The alignment of the proposed pipe or cable.

(4) The depth of the proposed pipe or cable and the clear depth below the data plane to be afforded by the pipe or cable in navigable channels.

(5) A profile, including the bottom of the stream from bank to bank with the location of the stream crossing to be affixed thereon.

(6) In the case of outfalls, the discharge capacity of such structures.

(7) A statement indicating the purpose of the proposed stream crossing.

(8) The amount and type of cover material.

(9) Adequate provisions for shut-off in the event of break or rupture.

(10) Such other information as the Department may require.

CRITERIA FOR APPROVAL

§105.311. General Criteria.

In evaluating applications for stream crossings, outfalls, headwalls, pipelines, aerial crossings, and other analogous structures, the Department will not approve an application if:

(1) the stream crossings are placed in such a manner as to be displaced by flood waters;

(2) the stream crossing alters the cross section of the stream and its banks;

(3) there is unnecessary paralleling or crossing of streams by pipelines or cables; or

(4) pipelines or cables are placed on the bed of streams.

§105.312. Cover Material.

No waste material of any type shall be used as cover material for stream crossings.

§105.313. Pipelines Under Stream Beds.

(a) Pipelines under stream beds shall be located such that there will be a minimum of three feet of cover between the top of the pipe or

encasement and the lowest point in the stream bed; provided, that if the pipeline is in rock, it shall have the depth of granular soil plus six inches for cover, but never less than one foot of total cover.

(b) Pipelines under the stream bed shall be as near to horizontal as possible.

(c) The Department may require additional information and/or waive the requirements of subsection (a) of this section in specific cases.

§105.314. Pipelines along streams.

Pipelines along streams shall be located a sufficient distance away from the bank to prevent damage to the bank as a result of erosion; pipelines shall be located a minimum of 25 feet away from the stream bank unless other erosion protection measures are approved by the Department.

Subchapter H. DOCKS, WHARVES AND BULKHEADS

GENERAL PROVISIONS

§105.321. Scope.

Except as provided in §§105.5 and 105.12 of this title (relating to scope and waiver of permit requirements), the provisions of this subchapter shall apply to the construction, operation, and maintenance of docks, wharves, and bulkheads in the regulated waters of the Commonwealth.

PERMITS

§105.331. Permit Applications.

In addition to the information required pursuant to §§105.13 and 105.14 of this title (relating to permit application information and engineer's certification), applications for docks, wharves, and bulkheads shall contain the following information:

(1) The exact location of the structure.

(2) The dimensions of the structure.

(3) A plan indicating the relation of the structure to the banks and channel, neighboring structures, and the navigation channel.

(4) Cross sections indicating elevations of structures, location of pilings, and water depth.

(5) The purposes for which the structure will be used.

(6) Such other information as the Department may require.

§105.332. Riparian Property.

When an applicant proposes location of a structure on or in front of riparian property not owned by the applicant, the applicant shall obtain and furnish to the Department notarized and signed releases from the owners of all affected riparian property.

CRITERIA FOR APPROVAL

§105.341. Passage of Ice and Flood Waters.

Structures must be able to pass flood waters and ice without property damage and without increasing the upstream flood hazard.

OPERATION AND MAINTENANCE

§105.351. Removal of Structure.

Upon termination of the useful life of the structure, the owner shall remove it completely and restore the banks.

Subchapter I. COMMERCIAL DREDGING

GENERAL PROVISIONS

§105.361. Scope.

Except as provided in §§105.3 and 105.12 of this title (relating to scope and waiver of permit requirements), the provisions of this subchapter shall apply to dredging in the regulated waters of the Commonwealth for sand, gravel, and other minerals for the purposes of commercial exploitation. The provisions of this subchapter shall not be construed to restrict the Department, in managing the Commonwealth's proprietary interests pursuant to the act of July 31, 1970 (P.L. 699, No. 225),

repealed by the act of December 3, 1970 (P.L. 834, No. 275) (71 P.S. §468(d) (repealed 1970 - see Note following §§461-469 in 1978 Supp.)), Section 15 of the Dam Safety and Encroachments Act, and 1908-A(3) of The Administrative Code of 1929 (71 P.S. §510-8(3)), from exercising its discretion to issue or not to issue permit agreements or to impose such terms and conditions in permit agreements as it deems to be in the best interests of the Commonwealth; in the event, however, that the Department issues a permit agreement conveying the Commonwealth's proprietary interests in any such deposit of sand, gravel, or other minerals, the provisions of this subchapter shall constitute the minimum requirements for dredging pursuant to the Commonwealth's regulatory authority under the Dam Safety and Encroachments Act.

PERMITS

§105.371. Permits: Content of Application.

In addition to the requirements of §§105.13 and 105.14 of this title (relating to permit application information and engineer's certification), all applications for commercial dredging permits shall contain the following information:

(1) The delineation of areas to be dredged, with reference to river miles of distances from fixed reference points or sufficient courses and distances referenced to permanent shore points to allow a fix to be made on the boundary points of a dredging area in a lake.

(2) Stream depths in the proposed dredging area.

(3) The equipment to be employed in the dredging operation and its capabilities.

(4) Test borings indicating the depth, extent, and nature of the deposit to be dredged.

(5) The proposed rate of production.

(6) The location of public and industrial water supply intakes.

(7) A plan for the disposal of solid waste, dredge spoil, and sewage from the dredging vessel.

(8) Such other information as the Department may require.

§105.372. Prior Requisite Approvals.

Provided the other requirements of this subchapter are met, approval by the Department of dredging permit applications is conditioned upon the applicant's obtaining a permit/agreement under the act of July 31, 1970 (P.L. 699, No. 225), repealed by the act of December 3, 1970 (P.L. 834, No. 275) (71 P.S. §168(d) (repealed 1970 - see Note following §§461-469 in 1978 Supp.)), or an interest in land pursuant to Section 15 of the Dam Safety and Encroachments Act, where the bed of the regulated waters is owned by the Commonwealth.

OPERATIONAL CRITERIA

§105.381. Location of Dredging.

(a) Dredging shall not occur within 500 feet of any bridge piers or abutments.

(b) Dredging shall not occur within 5000 feet above any public water supply intake, unless the applicant can satisfactorily demonstrate to the Department that drinking water standards for turbidity shall not be exceeded and no other adverse effects on the operations of any water user shall occur. Water supplies within five miles downstream of the dredging operation shall be notified of proposed dredging or start up, or both, of operations. Applicant/permittee shall provide proof of such notification.

(c) Dredging shall not occur within a distance of the channel or island shore line at normal pool less than the depth of the dredging, but in no event, less than 50 feet.

(d) Dredging shall not occur in reaches of streams where water levels are controlled by dams if the water depth is less than six feet at normal pool.

(e) Dredging shall not occur in, encroach upon, or cause siltation in areas of riffles or shallow pools whenever such areas are contributing to the sustenance of game fish or rare and endangered species in any free-flowing reach of a stream. Game fish shall include all those species and varieties defined as such by section 10 of The Fish Law of 1959 (30 P.S. §10). Rare and endangered species shall include those species so defined by the Fish Commission, pursuant to section 251.1 of The Fish Law of 1959 (30 P.S. §251.1) or defined by 50 C.F.R. §17.12. A free-flowing reach of a stream shall include any reach, segment, or area of a stream except where a pool has been created by a dam.

§105.382. Washing and Classification of Materials.

(a) Wash water from the classification process shall not be returned to the stream, unless a permit in accordance with The Clean Streams Law (P.S. §§691.1-691.1001) has been obtained.

(b) Suspended material which has been removed from the wash water shall be disposed of in such a manner that will prevent discharge to waters of the Commonwealth.

§105.383. Disposal of Waste Materials.

(a) The permittee shall not throw, discharge, or deposit or cause or permit to be thrown, discharged, or deposited from or out of any ship, barge, or other floating craft employed in the dredging operation any refuse matter, including oil and petroleum products.

(b) Bilge, ballast, or wastewater pumped from barges shall not be discharged to the stream without acceptable removal of oils or toxic compounds, in a manner approved by the Department.

(c) Discharge of dredged material into the regulated waters of the Commonwealth shall be subject to the provisions of subchapter J of this title (relating to discharges of dredged or fill material).

(d) Dredge spoil and sludge deposits collected during the operation shall be deposited in a location and a manner approved by the Department.

(e) Litter, refuse, and sanitary waste from dredging vessels shall be disposed of in a manner approved by the Department.

§105.384. Protection of stream users.

(a) A dock or portage must be constructed around the upstream face of the operation in order to facilitate navigation of small craft where the dredging operation will substantially obstruct the waterway.

(b) The permittee shall post signs 1000 feet upstream of where the dredge is operating and 500 feet from the downstream end of the dredging area warning users of the stream that dredging operations are in progress; such warnings shall be in large block printing, readable at a distance of 300 feet, and contain the warning, "DANGER, DREDGING 1000 FEET AHEAD" or "DANGER, DREDGING 500 FEET AHEAD."

§105.385. Reporting.

The permittee shall submit to the Department an annual report indicating the amount of sand, gravel, or other minerals dredged from the stream bed during the preceding calendar year.

Subchapter J. DISCHARGES OF DREDGED OR FILL MATERIAL

GENERAL PROVISIONS

§105.391. Scope.

Except as provided in §§105.3 and 105.12 of this title (relating to scope and waiver of permit requirements), the provisions of this subchapter shall apply to the discharge of dredged or fill material into the regulated waters of the Commonwealth.

PERMITS

§105.401. Permit Applications.

In addition to the requirements of §§105.13 and 105.14 of this title (relating to permit application information and engineer's certification) and other applicable requirements of this chapter, all applications for discharges of dredged or fill material into the regulated waters of the Commonwealth shall contain the following information:

(1) The location of any public water supply intakes located within one mile upstream and ten miles downstream;

(2) The location of any areas of shellfish production;

(3) The impact of the activity upon any threatened or endangered species as identified under the Endangered Species Act, and the critical habitat of such species;

(4) The impact of the activity upon those species of aquatic life indigenous to the waterbody;

(5) The amount or percentage of the discharge that will consist of toxic material regulated pursuant to Section 6 of the Toxic Substances Control Act, 15 U.S.C.A. §2605, or hazardous materials as defined by the Federal Resource Conservation and Recovery Act in other than trace quantities; and

(6) Such other information as the Department may require.

CRITERIA FOR APPROVAL

§105.411. General Criteria.

The Department will not approve an application to discharge dredged or fill material, unless the applicant demonstrates to the Department a public benefit which outweighs the damage to the public natural resources, if:

(a) The discharge is to a spawning area during spawning season.

(b) The discharge would restrict or impede the movement of aquatic species indigenous to the waters or the passage of normal or expected

high flows or cause the relocation of the waters (unless the primary purpose of the fill is to impound waters);

(c) The discharge is into wetlands areas; or

(d) The discharge is into breeding and nesting areas for migratory waterfowl.

OPERATION AND MAINTENANCE

§105.421. General.

Discharges of dredged or fill material shall be properly maintained to prevent erosion and other types of pollution.

§105.422. Use of Heavy Equipment.

Heavy equipment used in wetlands shall be placed on mats where practicable.

§105.423. Removal of Temporary Fill.

All temporary fill shall be completely removed.

Subchapter K. DISBURSEMENTS OF MONIES FROM THE DAMS AND ENCROACHMENTS FUND

§105.431. General Provisions.

(a) All fines collected under the penal provisions of the Dam Safety and Encroachments Act and all civil penalties collected under that act shall be paid into the Treasury of the Commonwealth in a special fund known as the Dams and Encroachments Fund.

(b) Monies paid into the Dams and Encroachments Fund may be disbursed at the Department's discretion for use in the elimination of hazards to life, property, and the environment resulting from unsafe dams, water obstructions, and encroachments. Such monies shall be available for use of the Bureau of Dams and Waterway Management in addition to funds otherwise available to it.

(c) For purposes of this chapter, the full and normal range of activities of the Bureau shall be considered to contribute to the elimination of hazards from unsafe dams, water obstructions, and encroachments pursuant to subsection (b) above. Disbursement of monies from the Dams and Encroachments Fund monies may therefore be made for, but shall not be limited to, the following purposes:

(1) Conducting of such investigations, tests and analyses as required to carry out the purposes of the Dam Safety and Encroachments Act, including costs of entry, testing and sampling, or examining books, papers, or records;

(2) Undertaking corrective action, repair work, or removal to eliminate any actual or potentially dangerous or hazardous condition of any dam, water obstruction, or encroachment as provided under Section 14(c) of the Dam Safety and Encroachments Act.

(3) Purchase of contractual services and consultation from firms and individuals with relevant expertise in the field of safety of dams, water obstructions, and encroachments.

(4) Purchase of materials, services, and travel necessary for personnel training and for provision of information and educational materials on the safety of dams, water obstructions, and encroachments to schools, colleges, institutions, and citizens.

(5) To cover any extraordinary costs of litigation arising out of the enforcement of dam safety and encroachments laws of the Commonwealth, such as the printing of briefs and records, taking of depositions, and expert witness fees.

§105.432. Authorization for Disbursement.

The Director of the Bureau of Dams and Waterway Management shall authorize the use of all monies disbursed from the Dams and Encroachment Fund, consistent with the Department's established policies and procedures. For disbursements from the fund not falling within the explicit categories established in §105.431, the Director of the Bureau of Dams and Waterway Management shall submit a request to the Secretary of the Department of Environmental Resources requesting an authorization to disburse the funds for the project in question.

Proposed Rule Making

DEPARTMENT OF COMMUNITY AFFAIRS

BUREAU OF COMMUNITY PLANNING

[16 PA. CODE CH. 38]

Flood Plain Management Program

Notice is hereby given that the Department of Community Affairs, Bureau of Community Planning, pursuant to the authority of section 2501-C of The Administrative Code of 1929, act of April 9, 1929 (P. L. 177) as amended (71 P. S. § 670.101), and the Flood Plain Management Act, act of October 4, 1978 (P. L. 851, No. 166) (32 P. S. §§ 679.101 — 679.601), proposes to amend 16 Pa. Code by adopting a new Chapter 38 (relating to flood plain management), as set forth in Annex A to this notice.

These regulations are intended to implement the Department's flood plain management program. The regulations establish the various administrative procedures to be followed by municipalities and the Department relative to the duties and responsibilities of each under the Flood Plain Management Act.

Note should be made that the Flood Plain Management Act also assigns certain duties and responsibilities to the Department of Environmental Resources. For coordination and information purposes, the Department of Environmental Resources will be participating in the public hearings which have been scheduled. This notice, however, contains only the proposed regulations for the Department of Community Affairs. The proposed regulations pertaining to the duties and responsibilities of the Department of Environmental Resources will be published separately in the near future.

The Flood Plain Management Act requires each municipality, when it has been notified by the Federal Emergency Management Agency that it has been identified as having an area or areas which are subject to flooding, to participate in the National Flood Insurance Program and to comply with all the requirements of that program. The act also requires all such municipalities to comply with the regulations adopted by the Department within six months of the effective date of such regulations.

The regulations establish procedures to be followed by municipalities and the Department regarding the submission and processing of applications by municipalities for eligibility to participate in the National Flood Insurance Program. Procedures are also established for the submission of flood plain management regulations to the Department for review and approval. In addition, procedures are set forth concerning the processing of special permits for particular obstructions, inspection activities by the Department, and various other administrative activities. Finally, procedures and requirements are established concerning the administration of grants and reimbursements by the Department.

Public hearings will be held to provide the opportunity for all interested persons to offer comments and suggestions. The locations, dates, and times of the public hearings are as follows:

January 3, 1980 — Pittsburgh, Allegheny Co. Community College, North Side Campus.

January 8, 1980 — Wilkes-Barre, Luzerne Co. Court House, Court Room # 3.

January 9, 1980 — Chambersburg, Scotland School, Auditorium.

January 10, 1980 — West Chester, West Chester State College, New Main Auditorium.

January 15, 1980 — Altoona, Penn State Campus, Slep Center.

January 16, 1980 — Indiana, Indiana University of Pa., Pratt Auditorium.

January 17, 1980 — Lock Haven, Lock Haven State College, Planetarium.

January 22, 1980 — E. Stroudsburg, E. Stroudsburg State College, 113 Stroud Hall.

January 24, 1980 — Harrisburg, Education Building, Forum.

January 28, 1980 — Meadville, City Hall, Council Chambers.

January 29, 1980 — Erie, City Hall, Council Chambers.

The starting time for all the hearings will be 7:30 p.m. Persons who intend to speak at the public hearings are requested to notify the Bureau of Community Planning, at the address below, of their interest at least three days prior to the date of the hearing. All interested persons are also invited to submit written comments and suggestions on the proposed regulations within 45 days after the publication of this notice in the *Pennsylvania Bulletin* to the Director, Bureau of Community Planning, P. O. Box 155, Harrisburg, Pa. 17120. Additional copies of the proposed regulations may be obtained at that address or by calling the Bureau at 717-787-7400.

SHIRLEY M. DENNIS,
Secretary

Fiscal Note for the Documents Filed with the Legislative Reference Bureau

Agency ID #: DCA 79-005.

Fiscal Note as required by section 612, Act 149 of 1978 (See 4 Pa. Code § 7.231 (9 Pa. B. 129, January 13, 1979)).

(a) This action will result in an increase in program costs to local governments and in the General Fund as estimated below.

(b) Appropriation: Act 9-A, 1979.

(c) Estimate for:

	Commonwealth	Local Governments
implementing year is	$2,357,000	$2,000,000
1st succeeding year is	$2,792,000	2,400,000
2nd succeeding year is	$3,231,000	2,800,000
3rd succeeding year is	$3,674,000	3,200,000
4th succeeding year is	$4,121,000	3,600,000
5th succeeding year is	$4,573,000	4,000,000

(d) A three-year history of program costs:

fiscal year 79-80	$2,357,000
fiscal year 78-79	$ 93,000
fiscal year 77-78	Not applicable

(e) Recommendation: The Secretary of Budget and Administration recommends adoption of this regulatory action or administrative procedure. These proposed regulations reflect the Department of Community Affairs' and local governments' responsibilities for administering, enforcing and implementing the Flood Plain Management Act of 1978. These regulations do not include the respective duties and responsibilities of the Department of Environmental Resources which will be published separately at a later date.

ROBERT WILBURN,
Secretary of Budget and Administration

Annex A

TITLE 16. COMMUNITY AFFAIRS

PART I. DEPARTMENT OF COMMUNITY AFFAIRS

Subpart G. BUREAU OF COMMUNITY PLANNING

CHAPTER 38. FLOOD PLAIN MANAGEMENT

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§ 38.1. Definitions.

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise:

Act — The Pennsylvania Flood Plain Management Act (32 P. S. §§ 679.101 — 679.601).

Department — The Department of Community Affairs of the Commonwealth.

Development — Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations.

FEMA — The Federal Emergency Management Agency, successor to the United States Department of Housing and Urban Development, Federal Insurance Administration.

Flood — A general, but temporary condition of partial or complete inundation of normally dry land areas from the overflow of streams, rivers, or other waters of this Commonwealth.

Flood plain — The 100-year floodway and that maximum area of land that is likely to be flooded by a 100-year flood as shown on the flood plain maps provided by FEMA to the municipality.

Flood plain management — The operation of a program or activities, which may consist of both corrective and preventive measures for reducing flood damage, including but not limited to such things as emergency preparedness plans, flood control works, and flood plain management regulations.

Flood plain management regulations — Zoning ordinances, subdivision and land development regulations, building codes, health regulations, special purpose ordinances, and other applications of the police power. The term describes such State or local regulations in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Floodproofing — Structural or other changes or adjustments to properties or obstructions for the reduction or elimination of flood damages to such properties and obstructions, or to the contents of any structure.

Floodway — The portion of the 100-year flood plain, including the watercourse itself and any adjacent land area, that must be kept open in order to carry the water of a 100-year flood. At a minimum, any floodway must be large enough to carry the water of the 100-year flood without causing an increase of more than one foot in the elevation of the existing 100-year flood.

Identified municipality — A municipality which has been formally notified by FEMA that it has been identified as having an area or areas subject to flooding.

Mobile home — A transportable, single-family dwelling intended for permanent occupancy, office, or place of assembly, contained in one unit, or in two units designed to be joined into one integral unit capable of again being separated for repeated towing, which arrives at a site complete and ready for occupancy except for minor and incidental unpacking and assembly operations, and constructed so that it may be used without a permanent foundation. The term does not include recreational vehicles or travel trailers.

Municipality — A city, borough, town, township, or any similar general purpose unit of government, or county or other governmental unit when acting as an agent thereof, or any combination thereof acting jointly.

New mobile home park or mobile home subdivision — A parcel of land which is divided into two or more lots for rent or sale, upon which a mobile home is to be located. For the purpose of this chapter, a mobile home park or mobile home subdivision shall be considered new if construction of any of the facilities or improvements — including at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads, and the construction of streets — and servicing the lots, is completed on or after the effective date of the flood plain management regulations adopted by a municipality.

Obstruction — Any structure or assembly of materials including fill above or below the surface of land or water, and any activity which might impede, retard, or change flood flows. The planting, cultivation, and harvesting of field and orchard crops or the grazing of livestock, including the maintenance of necessary appurtenant agricultural wire fencing up to five wire strands, shall not be considered an obstruction under this definition and shall not be subject to regulation.

100-year flood — The highest level of flooding that, on the average, is likely to occur every 100 years, that is, that has a 1% chance of occurring each year.

100-year flood plain — The 100-year floodway and that maximum area of land that is likely to be flooded by a 100-year flood as shown on the flood plain maps provided by FEMA to the municipality.

Pollution — The addition of any element or substance known to be unwholesome or unhealthy to living things.

Program — The National Flood Insurance Program.

Special permit — A special exception. For the purposes of this chapter, the term "special permit" is being substituted for the term "special exception" as used in section 301 of the act (32 P. S. § 679.301). A special permit is required for the uses and activities listed in section 38.6 of this chapter (relating to regulation of particular obstructions).

Structure — Any man-made object having an ascertainable stationary location on or in land or water.

Substantial additions to mobile home parks — Any repair, reconstruction or improvement of an existing mobile home park or mobile home subdivision, where such repair, reconstruction, or improvement of the streets, utilities, and pads will equal or exceed 50% of the value of the streets, utilities, and pads before the repair, reconstruction, or improvement is started.

Substantial improvements — Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure either before the improvement or repair is started, or, if

the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition, substantial improvement is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either any project for improvement of a structure to comply with existing State or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or any alteration to a structure listed on the National Register of Historic Places of the State Inventory of Historic Places.

Watershed — The entire region or area drained by a river or other body of water, whether natural or artificial.

§ 38.2. Purpose and intent.

(a) The basic purpose of the act, as set forth in section 103 of the act (32 P. S. § 679.103), and of this chapter, is to:

(1) Encourage planning and development in flood plains which are consistent with sound land use practices.

(2) Protect people and property in flood plains from the dangers and damage of floodwaters and from materials carried by such floodwaters.

(3) Prevent and eliminate urban and rural blight which results from the damages of flooding.

(4) Authorize a comprehensive and coordinated program of flood plain management, based upon the program, designed to preserve and restore the efficiency and carrying capacity of the streams and flood plains of the Commonwealth.

(5) Assist municipalities in qualifying for the program.

(6) Provide for and encourage local administration and management of flood plains.

(7) Minimize the expenditure of public and private funds for flood control projects and for relief, rescue and recovery efforts.

(b) This chapter is intended to set forth procedures and requirements to be followed by the State and local municipalities in carrying out the various duties and responsibilities assigned to each by the act so as to avoid unnecessary expenditures of time, effort, and money, thereby making all flood plain management activities undertaken within this Commonwealth as effective and beneficial as possible.

(c) The standards and requirements of the program and the act concerning flood plain management are minimal only. The act specifically states that it contains no provisions that limit the powers of any municipality from adopting more restrictive codes, ordinances, and regulations concerning the management of its flood-prone areas.

(d) A good program of flood plain management involves more than simply meeting the minimum Federal and State requirements. The Department will be available to assist any interested municipality in developing a better management program.

§ 38.3. Municipal participation in the program.

(a) Each identified municipality is required by the act to gain eligibility to participate in the program within six months of the effective date of the act, or six months from the date of notification by FEMA that it has been identified as having an area subject to flooding, whichever is first. Such eligibility is gained by submitting an application to FEMA, requesting acceptance into the program.

(b) The Department will contact all identified municipalities not participating in the program for the purpose of bringing to their attention the fact that participation is required, and to offer technical assistance to help the municipality apply for eligibility to participate in the program.

(c) In applying for eligibility to participate in the program, a municipality shall forward three copies of its application and flood plain management regulations to the appropriate regional office of the Department for review. The Department will check the application for general content, and will, in consultation with the Department of Environmental Resources, review the municipality's flood plain management regulations for compliance with the requirements of the act and this chapter. If the application and flood plain management regulations are found to be acceptable, the Department will submit the application to FEMA for approval and acceptance of the municipality into the program. If the Department finds the application or required flood plain management regulations to be deficient in any respect, it will notify the municipality within ten working days and explain in what way the application or regulations are deficient and what must be done to correct the deficiency. The Department will also send a copy of such notification to the county planning commission. In addition, the Department will offer to assist the municipality in correcting the deficiencies.

(d) Applications from municipalities applying for eligibility to participate in the program shall be in accordance with the requirements of the program. At a minimum, such applications shall consist of the following:

(1) A program application form which asks for general information to be provided about the municipality and its flood-prone areas and problems. Reference should be made to Appendix I of this chapter.

(2) A resolution from the governing body stating an interest in the program, and assuring the Federal government that the municipality will regulate development occurring within its flood plain areas. Reference should be made to the sample resolution in Appendix I of this chapter.

(3) Copies of the adopted codes, ordinances, or regulations meeting the requirements of the program.

(e) Application forms, information, and assistance may be obtained from any regional office of the Department.

§ 38.4. Adoption of flood plain management regulations by identified municipalities.

(a) Each identified municipality is required by the act to adopt flood plain management regulations which, at a minimum, comply with the requirements of the program, the act, and this chapter. Adoption of the required regulations by a municipality shall occur within six months after the date of receipt from FEMA of a Flood Hazard Boundary Map or Flood Insurance Study.

(b) All municipalities required to adopt flood plain management regulations will be notified by the Department and requested to forward three copies of the adopted regulations and any amendments thereto to the appropriate regional office of the Department for review and approval, and to assure that the regulations comply with program requirements.

(c) The Department shall, in consultation with the Department of Environmental Resources, review all such required flood plain management regulations and shall notify each municipality of the acceptability of the regulations within 30 days. If the regulations are not approved, the Department will explain in what ways they are deficient and what must be done in order to correct the deficiency. In addition, the Department will offer the technical assistance the municipality may need in order to correct the deficiencies. If the regulations are acceptable, the Department will forward

a copy of the regulations to FEMA for approval and action by FEMA.

(d) When the Department receives notification from FEMA that FEMA has approved the regulations for any municipality, the Department will notify the appropriate county planning commission.

§ 38.5. Municipal loss of eligibility to participate in the program.

(a) If a municipality is suspended or loses its eligibility to participate in the program for any reason, it is required by the act to regain such eligibility from FEMA within 90 days of the date of suspension or loss of eligibility.

(b) In regaining its eligibility, a municipality shall send copies of all required information and documentation to the appropriate regional office of the Department for review or approval or both. The Department will, in consultation with the Department of Environmental Resources, review any flood plain management regulations which may be included for compliance with the act and this chapter and will notify the municipality of its findings within 15 days following receipt of the information. If the regulations are not approved, the Department will explain in what ways they are deficient and what must be done in order to correct the deficiency. In addition, the Department will offer the technical assistance the municipality may need in order to correct the deficiencies. If the regulations are acceptable, the Department will forward a copy of the regulations to FEMA for approval and action by FEMA.

§ 38.6. Regulation of particular obstructions.

(a) The Department is required by section 301 of the act (32 P. S. § 679.301) to publish a list of certain obstructions which present a special hazard to the health and safety of the public or occupants, or may result in significant pollution, increased flood levels or flows, or debris endangering life and property, when such obstructions are located in all or a designated portion of a flood plain. The construction, enlargement, or expansion of any structure, or commencement of any activity listed as a special hazard shall be prohibited in a flood plain, unless a special permit has been issued for the proposed construction or activity.

(b) In accordance with section 301 of the act (32 P. S. § 679.301), the following list of obstructions and activities which present special hazards in flood plains is included in this chapter:

(1) hospitals — public or private;

(2) nursing homes — public or private;

(3) jails;

(4) new mobile home parks and mobile home subdivisions, and substantial improvements to such existing parks and subdivisions; and

(5) facilities necessary for emergency response such as fire, ambulance, police stations, civil defense preparedness buildings and facilities, emergency communications facilities, evacuation, and emergency medical centers.

(c) No construction, enlargement, or expansion of any of the obstructions, or commencement of any of the activities listed in subsection (b) of this section shall be undertaken unless a special permit has been issued to the applicant either by the municipality within which the use or activity is proposed, or by the Department, whichever is applicable.

(d) Municipalities administering flood plain management regulations, and which are in compliance with the requirements of the act and this chapter, may issue special permits.

(e) If a municipality has been notified by the Department that it is in violation of the act or this chapter, it shall not issue special permits. A municipality that has been notified by the Department that it is in violation of this chapter and therefore not authorized to issue special permits may forward applications for special permits to the Department for review and approval.

(f) Application procedures for special permits shall be as follows:

(1) In municipalities issuing special permits, the following procedures shall apply:

(i) Applications shall be submitted to the municipality for review and processing in accordance with all the applicable procedures and requirements of the municipality and of subsection (g) of this section.

(ii) If a municipality receives an application which is incomplete it shall notify the applicant in writing, stating in what respects the application is deficient.

(iii) When a municipality approves an application for a special permit it shall file written notice of such approval, together with the application and all pertinent information, with the Department within five working days after approval, by registered or certified mail.

(iv) The special permit shall not become effective until 30 days after the notice has been received by the Department, unless the Department disapproves the special permit.

(v) The Department will review the application and communicate its decision or any comments to the municipality within 30 days after it has received the notice, or the Department will forfeit its right to do so.

(vi) Review by the Department will be limited to checking for compliance with the requirements of the act and this chapter.

(vii) If the special permit is disapproved by the Department, it shall notify the municipality and applicant in writing, by registered or certified mail, of its reasons for the disapproval.

(2) When a municipality is not authorized to issue special permits and if forwards an application to the Department for review and approval, the following procedures shall apply:

(i) Applications shall be forwarded to the Department, Bureau of Community Planning, Harrisburg, Pennsylvania 17120. A completed application shall consist of all the items specified in subsection (g) of this section.

(ii) Upon receipt of a completed application, the Department will forward a copy of the application and all pertinent information to the county planning commission for its review and comment, by registered or certified mail, within three working days following receipt of the completed application. The county planning commission shall have 30 days from the date of receipt of the application to submit any comments to the Department.

(iii) The Department will either approve or disapprove the application and send written notification of its decision to the applicant within 45 days following receipt of the application. The Department will also send written notification to the municipality and county planning commission, within five days, of the determination the Department makes concerning all applications it receives for special permits.

(iv) If the Department receives an application which is incomplete, it will send written notification to the applicant, within five working days after the Department receives the incomplete application, stating in what respects the application is deficient.

(g) Applications for special permits shall consist of five copies of the following items:

(1) A written request including a completed application form. Reference

should be made to Appendix II of this chapter for sample application form.

(2) A plan of the entire site, clearly and legibly drawn at a scale of one inch being equal to 100 feet or less, showing the following:

(i) north arrow, scale and date;

(ii) a map, which may be drawn at a smaller scale, of the general area of the municipality, which provides enough information to enable a person who is unfamiliar with the municipality to accurately determine the location of the site or property involved;

(iii) topography based upon the National Geodetic Vertical Datum of 1929, showing existing and proposed contours at intervals of two feet;

(iv) all property and lot lines including dimensions, and the size of the site expressed in acres or square feet;

(v) the location of all existing streets, drives, and other accessways with information concerning widths, pavement types and construction, and elevations;

(vi) the location of any existing bodies of water or watercourses, buildings, structures and other public or private facilities, including railroad tracks and facilities, and any other natural and man-made features affecting, or affected by, the proposed activity or development;

(vii) the location of the flood plain boundary line, information and spot elevations concerning the 100-year flood elevations, and information concerning the flow of water including direction and velocities; and

(viii) a general plan of the entire site accurately showing the location of all proposed buildings, structures, utilities, and any other improvements.

(3) Plans of all proposed buildings, structures and other improvements, clearly and legibly drawn at suitable scale showing the following:

(i) sufficiently detailed architectural or engineering drawings including floor plans, sections, and exterior building elevations, as appropriate;

(ii) the proposed finished floor elevations of any proposed building;

(iii) complete information concerning the hydrostatic and hydrodynamic forces and pressures that will exist during the course of a 100-year flood, including impact loads;

(iv) detailed information concerning any proposed floodproofing measures;

(v) cross-section drawings for all proposed streets, drives, and accessways showing all rights-of-way and pavement widths;

(vi) profile drawings for all proposed streets, drives, and vehicular accessways including existing and proposed grades; and

(vii) plans and profiles of all proposed sanitary and storm sewer systems, water supply systems, and any other utilities and facilities.

(4) The following data and documentation:

(i) certification from the applicant that the site upon which the activity or development is proposed is an existing separate and single parcel, owned by the applicant or the client he represents;

(ii) certification from a registered professional engineer, architect, or landscape architect that the proposed construction has been adequately designed to protect against damage from the 100-year flood;

(iii) the appropriate component of the Department of Environmental Resources' "Planning Module for Land Development";

(iv) where any excavation or grading is proposed, a plan meeting the requirements of the Department of Environmental Resources to implement and maintain erosion and sedimentation control; and

(v) an evacuation plan which fully explains the manner in which the site will be safely evacuated before or during the course of a 100-year flood.

(h) No application for a special permit will be approved by either a municipality or the Department unless it can be determined that the structure or activity will be located, constructed, and maintained in a fashion which will:

(1) Protect the health and safety of the public and occupants. At a minimum, all new structures shall be designed, located, and constructed so that:

(i) the structure will survive inundation by waters of the 100-year flood without any lateral movement or damage to either the structure itself, or to any of its equipment or contents below the 100-year flood level;

(ii) the first-floor elevation will be at least 1½ feet above the 100-year flood elevation; and

(iii) the occupants of the structure can be safely evacuated at any time during a 100-year flood.

(2) Prevent any possibility of pollution, increased flood levels or flows, or debris endangering life and property. At a minimum, all new structures shall be designed and constructed so that:

(i) there will be no pollution from the structure or activity during the course of a 100-year flood;

(ii) there will be no increase in the 100-year flood elevation;

(iii) there will be no loose buoyant materials of any kind below the 100-year flood elevation.

(3) Comply with the requirements of the program. Reference should be made to Appendix II of this chapter.

§ 38.7. Development which may endanger human life.

(a) Section 207 of the act (32 P. S. § 679.207) requires the Department to prohibit the construction or substantial improvement of structures which may endanger human life within any area which has been determined to be a flood hazard area by the Environmental Quality Board.

(b) The flood plain management regulations adopted by municipalities shall include provisions regulating the construction or substantial improvement of any structure located within a flood hazard area, which will be used for the production or storage of any material or substance listed in subsection (c) of this section, or which will be used for any activity requiring the maintenance of a supply — more than 550 gallons or other comparable volume — of any such materials or substances on the premises. Such regulations adopted by municipalities shall require at a minimum the following:

(i) That within any flood hazard area as determined by the Environmental Quality Board, except for any delineated floodway area, such construction or substantial improvement shall be prohibited unless it is elevated, or floodproofed to remain dry, up to at least 1½ feet above the 100-year flood elevation.

(ii) That within any delineated floodway area, such construction or substantial improvement shall be prohibited.

(c) The following list of materials and substances shall be considered dangerous to human life:

(1) Acetone.

(2) Ammonia.

(3) Benzene.

(4) Calcium carbide.

(5) Carbon disulfide.

(6) Celluloid.

(7) Chlorine.

(8) Hydrochloric acid.

(9) Hydrocyanic acid.

(10) Magnesium.

(11) Nitric acid and oxides or nitrogen.

(12) Petroleum products — gasoline, fuel oil, and the like.

(13) Phosphorous.

(14) Potassium.

(15) Sodium.

(16) Sulphur and sulphur products.

§ 38.8. Coordination and uniform enforcement of municipal flood plain management regulations.

(a) Section 205 of the act (32 P. S. § 679.205) requires the Department to adopt regulations establishing certain criteria and standards for the coordination and uniform enforcement of municipal flood plain management regulations. In order to carry out this responsibility, the following criteria, standards, and requirements are established:

(1) As municipalities develop their individual flood plain management plans, programs and regulations, consideration shall be given to the comprehensive planning and land use activities being undertaken by other municipalities within the watershed.

(2) The flood plain management plans, programs, and activities undertaken by individual municipalities within a watershed shall be coordinated and compatible with the needs and circumstances of the watershed generally, and with any flood plain management or storm water management plan which has been adopted by any group of municipalities, county, or river basin commission.

(3) The technical aspects and requirements of the flood plain management regulations enacted by individual municipalities within a particular watershed shall be coordinated and compatible with those of other municipalities within the watershed. In addition, the flood plain management regulations enacted by any municipality shall comply with any pertinent requirements or regulations adopted by the river basin commission serving the area in which it is located.

(4) Flood plain delineations shall be continuous from one adjacent municipality to another and coordinated throughout the watershed.

(5) At a minimum, the flood plain management regulations of municipalities shall apply to the following kinds of construction and development activities within areas subject to the 100-year flood:

(i) completely new buildings or structures;

(ii) substantial improvements to existing buildings or structures; and

(iii) any man-made change to improved or unimproved real estate, including but not limited to such things as filling, grading, paving, excavation, mining, dredging, or drilling operations.

(6) The flood plain management regulations enacted by municipalities shall be thoroughly and equitably administered by each municipality or combination of municipalities.

(7) All identified municipalities shall forward a complete set of up-to-date flood plain management regulations to the Department and county planning commission and shall also notify the Department and county planning commission of any future changes or amendments to those regulations within 30 days following the date any change or amendment is enacted.

(8) All identified municipalities shall forward a copy of the annual report required by FEMA to the appropriate regional office of the Department, as well as any other pertinent information or report that may be requested by the Department in order for the Department to satisfactorily carry out its responsibilities.

(b) Where the flood plain management regulations or activities of a municipality are uncoordinated or inconsistent with those of another, the Department will be available to assist with the resolution of the situation. Where two or more municipalities are unable to reconcile any such problems or differences, the Department will make a final determination which will be based upon the needs and circumstances of the municipalities involved and of the watershed generally.

§ 38.9. Inspections.

(a) Sections 402 and 403 of the act (32 P. S. §§ 679.402 and 679.403) give municipalities and the Department the authority to investigate complaints, enter upon land for the purpose of surveying flood plains, enter any land in a flood plain for the purpose of ascertaining the location and condition of obstructions, and to enter land or, while under construction, any structure located in a flood plain, for the purpose of ascertaining the compliance or noncompliance with any applicable flood plain management regulations.

(b) No employe or agent of the Department will undertake any of the activities listed in subsection (a) of this section except in accordance with the following:

(1) The municipality within which the activity is to occur shall be given prior notification of the activity, at least 24 hours in advance.

(2) The owner or occupant, or both, of a premises shall be given prior notice of the activity at least 24 hours in advance.

(3) The activities shall take place only during normal weekday business hours unless other suitable arrangements are made.

(4) The individual conducting the inspection shall present his Department employe identification card prior to the inspection, and upon request during the inspection.

(c) Whenever an agent or employe of the Department or a municipality has been refused access to property for the purposes of conducting a survey or inspection, or reasonably requires access to such property without prior notice to the owner, such agent or employe may apply for an inspection warrant to any Commonwealth official authorized by law to issue a search or inspection warrant, to enable him to have access and inspect such property. It shall be sufficient probable cause to issue an inspection warrant that the inspection is necessary to properly enforce the provisions of the act and this chapter.

§ 38.10. Enforcement by the Department and appeals.

(a) When the Department finds that a municipality has failed to comply with any of the requirements of the act or any regulations adopted by the Department pursuant thereto, the following procedures shall apply:

(1) The Department shall send a written notice of violation to the municipality by registered or certified mail. The notice shall state the nature of the violation and what the municipality must do in order to correct the violation.

(2) Within 60 days of receipt of the notice of violation, the municipality shall report to the Department the action which the municipality is taking to comply with the requirement or regulations.

(3) If the municipality has failed to comply with such requirement or regulation within 180 days of the receipt of the notice of violation, the Department will notify the State Treasurer, who shall hold in escrow all funds payable to the municipality from the General Fund, or any other fund.

(4) When a municipality achieves or regains compliance, the Department will notify the State Treasurer accordingly, within three working days after the Department has been notified or has determined that such compliance has occurred.

(b) The Department may also enforce any violation of the act or this chapter by instituting a civil action to restrain, prevent, or abate such violation.

(c) Any person aggrieved by any action of the Department shall have the right to appeal such action and request a hearing in accordance with 2 Pa. C. S. §§ 501 — 508 and 701 — 704. Such appeal and request for a hearing shall be taken within 30 days of receipt of the notice of such action taken by the Department.

§ 38.11. Reimbursements and grants to municipalities.

(a) Section 404 of the act (32 P. S. § 679.404) authorizes the Department to administer reimbursements and grants to municipalities to assist or reimburse them for costs incurred in complying with the requirements of the act. Grants and reimbursements shall be available from the Department in accordance with the provisions of this section, provided that money is appropriated by the General Assembly for such purposes.

(b) Grants shall be available from the Department to municipalities to reimburse them for allowable costs incurred in complying with the requirements of the act. Reimbursements will be for the following activities:

(1) Fifty per cent of the allowable costs set forth in subsection (d) of this section incurred for the preparation and enactment, including any required revisions, of the flood plain management regulations necessary to comply with the requirements of the act and this chapter.

(2) Fifty per cent of the allowable costs set forth in subsection (d) of this section for the administration, enforcement, and implementation activities undertaken as required by the act.

(c) Grants shall also be available from the Department to municipalities to reimburse them for allowable costs incurred in complying with the program prior to October 4, 1978, the effective date of the act. Such reimbursements shall be for the following activities:

(1) Fifty per cent of allowable costs set forth in subsection (d) of this section incurred for the preparation and enactment, including any required revisions, of the flood plain management regulations necessary to comply with the requirements of the program.

(2) Fifty per cent of the allowable costs set forth in subsection (d) of this section incurred for the administration, enforcement, and implementation activities undertaken as necessitated by the requirements of the program.

(d) Allowable costs shall be those expenses incurred by a municipality in order to comply with the requirements of the act and this chapter. Allowable costs shall not include those costs which are offset by permit fees imposed by the municipality. Costs incurred for the following items and activities shall be considered allowable costs for the purposes of this chapter:

(1) Preparation and enactment of flood plain management regulations, including the following:

(i) costs of technical and legal services necessary to prepare regulations, administrative forms, maps and the like required by the act;

(ii) costs of technical and legal services necessary for required public hearings; and

(iii) costs of technical and legal services necessary for enactment of the required regulations.

(2) Administrative, enforcement, and implementation activities, including the following:

(i) costs of review and processing of applications for required permits, including clerical activities;

(ii) fees of special consultants necessary for technical consultation or plan review and permit processing matters;

(iii) costs of monitoring and inspection activities, including fees for special consultants for technical consultation on specific matters;

(iv) costs of technical and legal services incurred in enforcing the regulations, including the restraining of violations, prosecutions, and defending against appeals; and

(v) mileage expenses incurred by the permit officer in undertaking any of the administrative activities set forth in subparagraphs (i) — (iv) of this paragraph.

(e) The Department will not reimburse municipalities for legal fees resulting from an appeal or suit against the Commonwealth, for the purchase of any clothing, or clothing allowance, the printing or reproduction of regulations, forms, or maps, or for any other activity or expense not directly related to the requirements of the act or this chapter.

(f) Requests for all reimbursements shall be submitted to the appropriate regional office of the Department and shall be made in accordance with the following:

(1) Requests shall be submitted annually, within three months after the end of the fiscal year for which reimbursement is being requested, using an application form provided by the Department.

(2) An itemized statement shall accompany the application which statement provides the following information:

(i) the total expenses incurred and paid by the municipality in performing the duties necessitated by the requirements of the act;

(ii) the total amount of fees and other money earned — including uncollected fees — by the municipality in performing its duties;

(iii) the difference between expenses incurred and income, and the amount of reimbursement being requested; and

(iv) certification as to the accuracy of the information being submitted by the chief executive officer of the municipality and the individual who prepared the statement.

(g) If, in any fiscal year, appropriations are insufficient to cover the reimbursements and grants to municipalities for compliance with the requirements of the act and this chapter, the Department will report this fact to the General Assembly and will request the appropriation of additional funds. If such a deficiency appropriation is not enacted, any municipality which has not received its reimbursement because of the lack of funds will be given first priority when funds next become available.

(h) Grants may also be made by the Department to municipalities for certain other activities such as surveys, studies, investigations, research, and analyses related to the specific purposes and requirements of the act. Such grants will be made at the sole discretion of the Department and will not be awarded unless there is a thoroughly documented need or value to such undertaking. Requests for any such grant shall be submitted to the Department, Bureau of Community Planning, Harrisburg, Pennsylvania 17120, for consideration. Any such request shall be in the form of a written proposal consisting of a narrative which clearly and thoroughly describes the work proposed to be undertaken and the itemized cost estimate, including a complete list of the people to be involved and their specific re-

sponsibilities regarding the work to be undertaken. In addition, the Department may require any other reasonable information it deems necessary in order to satisfactorily evaluate any proposal or to satisfactorily monitor any work being undertaken, or both.

(i) Grants from the Commonwealth shall be in addition to grants for similar purposes made to any municipality by the Federal government, provided that all such grants shall be limited so that the total of all State and Federal grants does not exceed 50% of the allowable costs incurred by the municipality.

(j) Application forms and related information concerning reimbursements may be obtained from any Department regional office.

(k) Municipalities shall keep accurate records and accounts of all allowable costs incurred for a period of three years following the submission of an application to the Department for reimbursement. During this time the Department shall, upon request, have access to all such records and accounts for monitoring and auditing purposes.

APPENDIX I

DCA-65 (1-79)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF COMMUNITY AFFAIRS
BUREAU OF COMMUNITY PLANNING

NATIONAL FLOOD INSURANCE PROGRAM APPLICATION FORM

GENERAL INFORMATION

Name of Municipality	County

Brief History of Flooding along with a list of names of streams which overflow:

Indicate all conditions contributing to runoff, such as ground water problems, land development, etc. if applicable:

Specify other conditions which contribute to flooding but are not mentioned above (i.e. mine drainage, limestone caverns, etc.) if applicable:

Estimates for Flood-prone Areas:

	Totals Communitywide	Totals in Flood-prone Areas
1. Population -		
2. Residential Structures -		
3. Business Structures -		
4. Other Structures -		

These figures are estimates, and are necessary to complete your application.
Please do not leave blank.

Addresses:

Local Repository

(The address of a local repository, such as a municipal building, where the flood insurance and flood hazard maps may be available for public inspection.)

Name of Community: _____

Address: _____

_____

_____ Zip _____

Responsible Person - Program Coordinator

(The name, address and telephone number of the person in the community who can be contacted during the day concerning first floor elevations and other flood plain conditions.)

Name: _____

Title or Position: _____

Address: _____

_____ Zip _____

Telephone: _____ Area Code: _____

Building Permit Officer, Zoning Officer, etc.

(The name, address, and telephone number of the person who issues permits for all new construction, reconstruction, relocation, alterations, enlargements and major repairs of any building and/or structures undertaken within the community.)

Name: _____

Address: _____

_____ Zip _____

Telephone: _____ Area Code: _____

DCA-619 (7-72)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF COMMUNITY AFFAIRS
BUREAU OF COMMUNITY PLANNING

MODEL RESOLUTION
for the
FLOOD INSURANCE PROGRAM

WHEREAS, the * _____
of ** _____
being cognizant of the recurring flooding and the threat of flooding of *** _____
_____
and the resulting damage to property located within ** _____
_____; and,

WHEREAS, there is a desire and need for the program of insurance coverage for those who reside or hold title to property located within such flood-prone areas; and,

WHEREAS, relief is available in the form of flood insurance as authorized by the National Flood Insurance Act of 1968, as amended; and,

WHEREAS, the regulations promulgated by the Federal Insurance Administrator under said Act require: (1) an official legislative or executive act indicating a local need for flood insurance and a desire to participate in the National Flood Insurance Program and (2) assurances in the form of action by the appropriate local legislative body committing the local legislative body to certain future courses of action; and,

WHEREAS, the * _____
of ** _____
is the appropriate local legislative body as authorized by the Pennsylvania Municipalities Planning Code (P. L. 247 of July 31, 1968) to define watercourses and to regulate the use of the land by enacting flood regulations.

NOW, THEREFORE, be it resolved by the * _____
_____ of the ** _____
_____:

THAT, ** _____
hereby evidences a positive interest in securing flood insurance coverage under the National Flood Insurance Program because of a clear danger of flooding and the resultant damage to property in the ** _____ ; and,

THAT, it will comply with the regulations of the National Flood Insurance Program:

(1) To recognize and duly evaluate flood hazards in all official actions relating to land use in the areas having special flood hazards, consistent with the criteria set forth in Section 1910.

(2) To take such other official action as may be reasonably necessary to carry out the objectives of the program. Such actions include, but will not be limited to:

(a) Delineating or assisting the Administrator, at his request, in the delineation of the limits of the flood plain having special flood hazards on available local maps of sufficient scale to identify the location of building sites.

(b) Providing such information as the Administrator may request concerning present uses and occupancy of the flood prone areas.

(c) Maintaining for public inspection and furnishing, upon request, with respect to each area having special flood hazards, information on elevations (in relation to mean sea level) of the lowest floors of all new or substantially improved structures and, where there is a basement, the distance between the first floor and the bottom of the lowest opening where water flowing on the ground will enter.

(d) Cooperating with Federal, State and local agencies and private firms which undertake to study, survey, map and identify flood prone areas in order to prevent aggravation of the flooding problem.

(e) Notifying the Administrator in writing whenever the boundaries of the community have been modified.

(3) To appoint or designate **** _____
_____

with the responsibility, authority and means to implement the commitment made herein and to submit, on each anniversary date of the community's eligibility, an annual report to the Administrator on the progress made during the past year within the community in the development and implementation of flood plain management measures.

Adopted this _____ day of _____ 19_____.

Signed: _____

Attest: _____

* Name of Legislative Body
** Name of Municipality
*** Source of Flooding
**** Name of Appointed Agency or Official

DCA-627
11-79

SPECIAL PERMIT APPLICATION

NOTE: THIS FORM TO BE USED WHEN APPLICATION IS BEING MADE FOR A SPECIAL PERMIT AS REQUIRED BY THE PENNSYLVANIA FLOOD PLAIN MANAGEMENT ACT.

I. Identification

	NAME	Mailing address - Number, street, city and state ZIP Code	Telephone No.
1. Applicant			
2. Owner of Land			
3. Contractor			

I hereby certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his agent.

Signature of Applicant	Address	Application Date

II. Purpose of Proposed Development

- ☐ Hospital
- ☐ Nursing Home
- ☐ Jail
- ☐ New Mobile Home Park or Subdivision
- ☐ Other (Indicate)

III. Site Location

Municipality: _____ County: _____

At (Location): _____
(No.) (Street or Road)

First Floor Elevation: _____

Basement Elevation (If Applicable): _____

100 Year Flood Elevation: _____

IV. Selected Characteristics of Improvements

TYPE OF SEWAGE DISPOSAL

- ☐ Public or Private Company
- ☐ Private (septic tank, etc.)

TYPE OF WATER SUPPLY

- ☐ Public or Private Company
- ☐ Private (well, etc.)

V. Description of Proposed Project

Estimated Starting Date: _____

Estimated Completion Date: _____

Estimated Total Cost: _____

VI. Proposed Floodproofing Methods and Materials

Describe the methods and materials that will be used to minimize flood damage. Attach plans and elevations in sufficient detail to enable the reviewer to determine that the proposed work will meet all applicable Local and State requirements.

VII. Fees

Estimated Total Cost (from Item V): $

Permit Fees

Up to $200.00	: No Charge	$ NO CHARGE
$201.00 to $1,000.00	: $5.00	$
Each additional $1,000.00 (or part thereof	: $1.00	$
	TOTAL	$

NOTE: The fees listed above are suggested amounts; actual charges are decided locally.

DO NOT WRITE BELOW THIS LINE

VIII. Action Taken by Department

☐ Approved Date: _____

☐ Disapproved

☐ Other

Reviewed By: _____

APPENDIX III. RECOMMENDATIONS AND SUGGESTIONS TO MUNICIPALITIES

While not required by the act, the National Flood Insurance Program, or these regulations, the following recommendations and suggestions are offered to municipalities for their consideration as they undertake their various flood plain management activities:

(a) Municipalities are encouraged to contact any regional office of the Department for any information or assistance they may need concerning the act, the National Flood Insurance Program, and flood plain management generally.

(b) There are numerous other excellent sources of information and assistance such as county and regional planning commission, the U. S. Corps of Engineers, the U. S. Soil Conservation Service, the U. S. Geological Survey, the Federal Insurance Administration, and the various river basin commissions.

(c) Flood plain management should involve more than the adoption of codes and ordinances which regulate development in areas subject to flooding. Among other things, flood plain management can and should include many other activities such as the establishment of flood warning systems, evacuation and recovery plans, relocation and redevelopment efforts to reduce or eliminate problems, and the promotion of flood insurance.

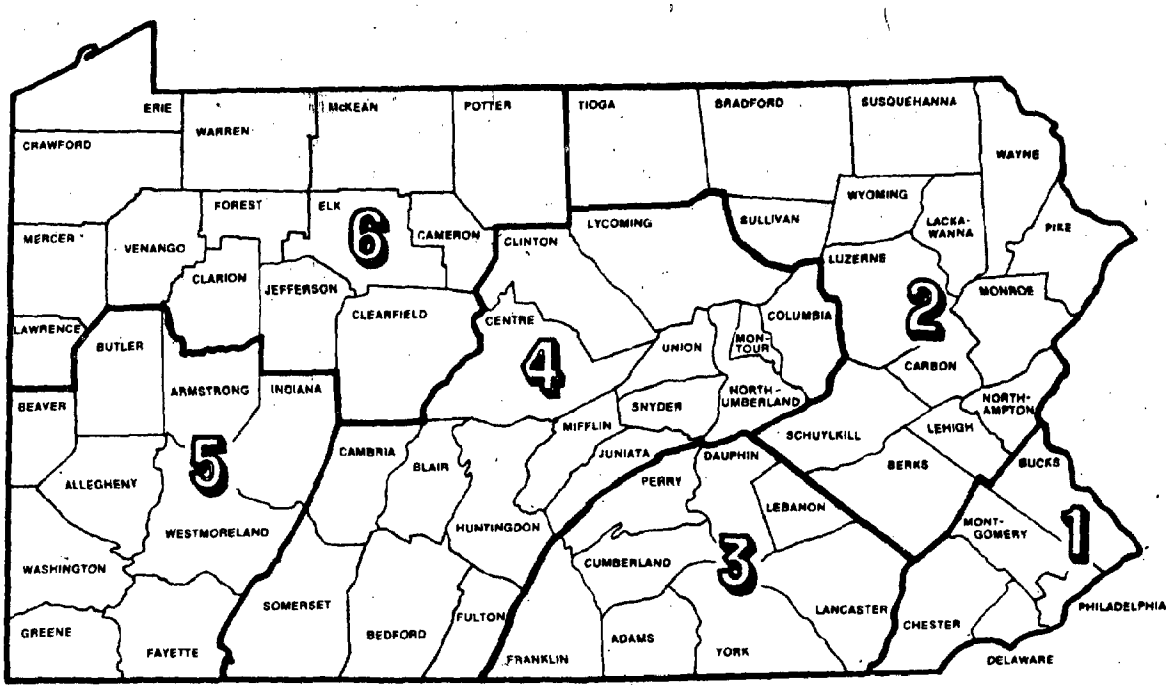
(d) Despite its obvious importance as an individual issue, flood plain management is nevertheless only one of numerous other community planning and development considerations. Thus, any flood plain management activities undertaken by a municipality must be coordinated and integrated with other planning and related efforts underway locally and at other levels.

(e) Municipalities are encouraged to adopt regulations which more adequately control the use and development of areas which are subject to flooding. For example, a municipality could more closely regulate the kinds of uses and activities locating within its flood-prone areas. It could also require new buildings and other structures to be elevated or flood-proofed up to an elevation (preferably 1½ feet) above the existing 100-year flood elevation. Numerous other possibilities also exist.

(f) Before adopting any regulations, municipalities are encouraged to send a copy of the proposed regulations to the Department for review and comment. This should avoid the need for a municipality to go back and amend a recently enacted ordinance or code because something was deficient or omitted.

APPENDIX IV

DCA regions



Regional office locations

Region 1—Philadelphia Office
908 State Office Building
Broad and Spring Garden Streets
Philadelphia, 19130
Phone: 215-238-6280

Region 2—Scranton Office
360 State Office Building
100 Lackawanna Avenue
Scranton, 18503
Phone: 717-961-4571

Region 3 and 4—Harrisburg Office
Riverside Office Center Building
Third Floor
2101 North Front Street
Harrisburg, 17110
Phone: 717-787-7347

Region 5—Pittsburgh Office
413 State Office Building
300 Liberty Avenue
Pittsburgh, 15222
Phone: 412-565-5002

Region 6—Erie Office
Third Floor, Carlisle Building
824 Peach Street
Erie, 16501
Phone: 814-871-4241

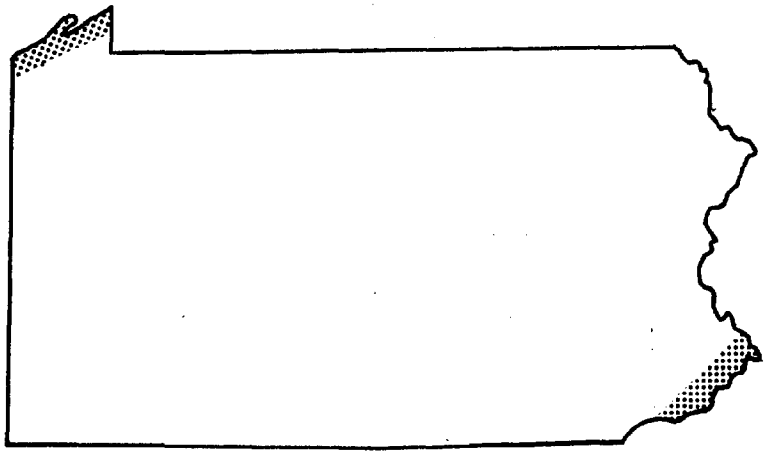
[Pa. B. Doc. No. 79-1801. Filed December 14, 1979, 9:00 a.m.]

ERRATA:

Section 38.11 Reimbursements and grants to municipalities.

(c) Grants shall also be available from the Department to municipalities to reimburse them for allowable costs incurred in complying with either section 1910.3(c) or (d) of the program prior to October 4, 1978, the effective date of the act. Such reimbursements shall be for the following activities:

Appendix C



Intergovernmental and Public Participation Activities

INTRODUCTION

A major part of preparing Pennsylvania's Coastal Zone Management Program entailed the development of processes and mechanisms to facilitate coordination between the program and various entities. This appendix outlines the various activities undertaken to coordinate with the following entities: Federal agencies, interstate agencies, State agencies and local governments/publics, in the designing of the management program, and in the development of mechanisms to ensure continued coordination during the implementation phase of the program. This appendix addresses these four levels of coordination in the following manner:

Federal Coordination (Page II-C-4)

This section is a condensed documentation of the Federal consultation process. It contains a listing of each Federal agency's national interest, coastal facilities, and those activities which require review by the Pennsylvania Coastal Zone Management Program during program implementation. This information is presented in a chart which also gives a brief synopsis of the interactions which occurred. In addition to the formal activities listed here, much pertinent information flowed between the Pennsylvania Coastal Zone Management Branch and the various Federal agencies via correspondence and telephone calls.

Interstate Coordination (Page II-C-39)

This section documents the various formal and informal coordinative activities engaged in between the Pennsylvania Coastal Zone Management Branch and the various interstate agencies that have and will continue to interact with the program. Again, much information and coordinative activities transpired via correspondence and telephone calls.

State Agency Coordination (Page II-C-46)

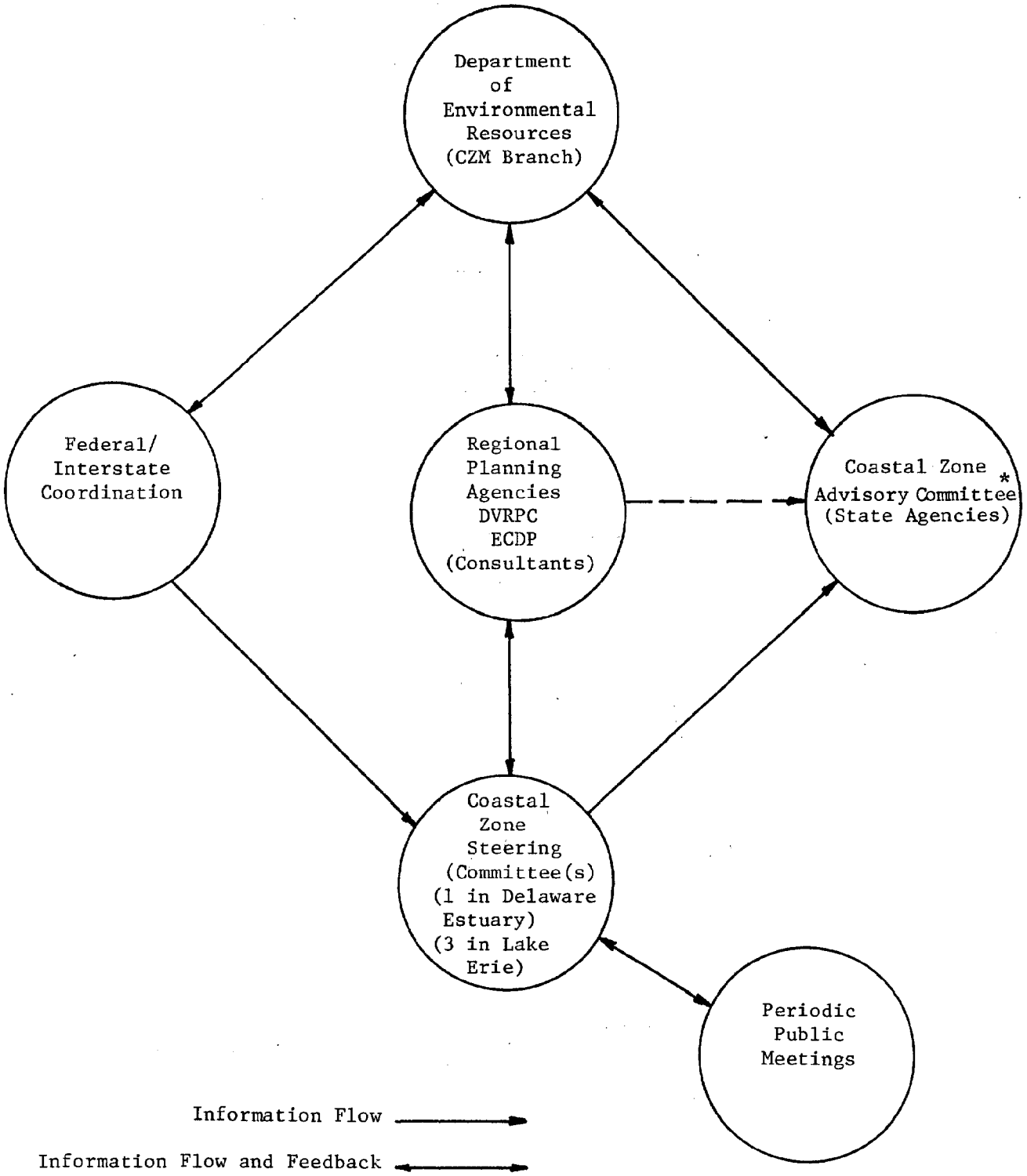
This section documents the various formal coordinative activities engaged in between the Pennsylvania Coastal Zone Management Branch and various State agencies that have and will continue to participate in the management program. The major portion of this section is devoted to outlining the activities engaged in by the Coastal Zone Advisory Committee, the primary mechanism used for providing program coordination at the State level. Also included is a detailed listing of State agencies, commissions, bureaus, etc., that will participate in the management program and a description of their activities.

Local Governmental and Public Coordination (Page II-C-64)

This section documents the various formal coordinative activities engaged in between the Pennsylvania Coastal Zone Management Branch and the various local governments and the coastal publics.

The major portion of this section deals with Coastal Zone Steering Committee meetings, the means by which much of this coordination was and will continue to be handled. In addition to the meetings and formal activities mentioned, a good deal of communication has transpired via newsletter, correspondence and telephone calls.

CZM INTERGOVERNMENTAL AND PUBLIC COORDINATIVE PROCESS



Information Flow ⟶

Information Flow and Feedback ⟷

* The CZAC was known as the CZM Subcommittee during the Section 305 phase of Pennsylvania's Coastal Zone Management Program

FEDERAL COORDINATION

List of Contact Agencies as of 3/31/80

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AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. DEPARTMENT OF THE INTERIOR 1. National Park Service (NPS) 2. Fish & Wildlife Service (FWS) 3. Bureau of Land Management (BLM) 4. Bureau of Mines (BOM) 5. Heritage Conservation and Recreation Service (HCRS) 6. Geological Survey (GS)	A broad and general expression of policy with regard to the Department's National Interests in these seven major resource responsibility areas: 1. Natural, cultural, historical and archeological values 2. Fish and wildlife resources 3. Energy and mineral resources 4. Recreational resources 5. Water resources 6. Food and fiber 7. Trust responsibilities	Tinicum Marsh Wildlife Center Independence Mall Historical Park	4/75-Maps of agency owned lands and operational plans and procedures 8/75-Follow-up requesting coordination and official contact officer 10/75-Review of final goals and objectives 1/76-Invitation to attend Federal consistency meeting 11/76-Agency review of applicable sections of the CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 5/79-Transmittal of Draft Technical Record and request for comments 10/79-Transmittal of Executive Summary of CZM program	4/75-(GS) No agency controlled lands, sent list of activities and contact man appointed (HCRS) not a land management agency but available for technical assistance. Appointment of contact man 6/75-(BOM) list of state liaison officers, no agency controlled lands, technical assistance, contact men 10/75-DOI guidelines and procedures to assist in CZM development 1/76-Statement of National Interest in the Coastal Zone (DOI) 2/76-Attended Federal Consistency meeting in Harrisburg (DOI, BOM, GS) 10/76-(BOM) Statement of National Interest	Tinicum Marsh Plan Outdoor recreation acquisition and development State outdoor recreation planning Historic preservation

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. DEPARTMENT OF THE INTERIOR (cont.)			3/80-Transmittal of Draft CZM Program Approval Document and request for comments	12/76-(BOR) No comments and list of applicable sections BOR desires to review 1/77-(BLM) General comments on GAPC's in the Delaware Estuary 2/77-(FWS) Corrections regarding GAPC's in Delaware CZ 2/77-(BOM) Comments on GAPC's, draft policy framework, and off-shore gas drilling in Lake Erie 6/77-(BLM) Comments on National Interest section 8/77-(GS) Comments and corrections on draft chapters 8/77-(FWS) Comments and corrections for draft chapters 10/77-(FWS) Postpones formal response to remaining draft chapters	

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. DEPARTMENT OF THE INTERIOR (cont.)				10/77-(BOM) Comments and corrections for draft chapters 1/78-(GS) Postpones formal response to remaining draft chapters 2/78-(GS) Prescribes national interests of the Geological Survey 3/78-(BLM) Outlines agency's CZM coordinative procedures and assigns staff contacts 9/78-(NPS) Reassigns new agency contact person 11/78-(DOI) Designates Regional officers to coordinate CZM policy 12/78-(DOI) Letter detailing procedures for effecting coordination 1/79-(DOI) Letter updates list of Federal contacts 10/79-(DOI) Comments to the Draft Technical Record	

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. DEPARTMENT OF THE INTERIOR (cont.)				3/80-Attended Federal agency briefing on draft program in Philadelphia 4/80-(DOI) Comments to the Draft CZM Program Approval Document	

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
DEPARTMENT OF THE AIR FORCE	1. The essential role of the Air Force in the National Defense 2. The potential to expand defense requirements on land, in the air, on and under the water in the coastal zone. Thereby making it a high priority use of coastal resources	Air Force Station at the Phila. International Airport (Delaware Estuary)	2/76-Invitation to attend Federal Consistency meeting in Harrisburg 11/76-Agency review of preliminary sections of the draft CZM documents 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 5/79-Transmittal of Draft Technical Record and request for comments 10/79-Transmittal of executive summary of the CZM program 3/80-Transmittal of Draft CZM Program Approval Document and request for comments	4/76-Statement of policy on CZM plans 5/76-Air Force facilities in the coastal zone 11/76-Request additional data on exclusion of Federal lands and Federal agency consistency, also identify Air National Guard Station 5/77-Agree with the content of the draft chapters. Reserve approval of Federal consistency until new regs. are published 8/77-Comments and revisions to draft chapters 6/79-Comments to the Draft Technical Record, including recommendations 3/80-Comments to the Draft CZM Program Approval Document	NONE

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
DEPARTMENT OF THE NAVY	National defense and national security are among the top priorities for management of the Coastal Zone	MUSTIN FIELD U.S. Naval Base, Phila. Pa. (Delaware Estuary)	4/75-Maps of agency owned lands and current plans and operational procedures 8/75-Follow-up requested coordination and official contact 10/75-Review of goals and objectives 1/76-Invitation to attend Federal consistency meeting in Harrisburg 11/76-Agency review of applicable sections of the draft CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 5/79-Transmittal of Draft Technical Record and request for comments	4/75-Maps of agency owned lands and appointment of contact man 1/76-Statement of National Interest in the coastal zone 2/76-Attended Federal consistency meeting in Harrisburg 11/76-Should exclude Mustin Field Air Base as a GAPC, and also specified sections of draft document to review 11/77-Related concerns on draft chapters pertaining to Federal consistency and National Interest 6/79-Comments on the Draft Technical Record and questions on Federal consistency and National Security 3/80-Attended Federal Agency briefing on draft program in Philadelphia	NONE

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
DEPARTMENT OF THE NAVY (Cont.)			10/79-Transmittal of Executive Summary of CZM program 3/80-Transmittal of Draft CZM Program Approval Document and request for comments	4/80-Comments to the Draft CZM Program Approval Document	

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U. S. ARMY CORPS OF ENGINEERS Philadelphia District (P) Buffalo District (B)	No statement of National Interest was received	C.O.E. dredge maintenance station Phila. Pa. (Delaware Estuary)	4/75-Maps of agency owned lands and current operational plans and procedures 8/75-Follow-up request for coordination and official contact person 10/75-Review of final goals and objectives 1/76-Invitation to attend Federal consistency meeting in Harrisburg 11/76-Agency review of applicable sections of the draft CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 5/79-Transmittal of Draft Technical Record and request for comments	4/75-(B) No lands under agency control. Technical assistance offered and contact man 5/75-(P) Maps of agency owned lands 2/76-(B) Attended Federal consistency meeting in Harrisburg 12/76-(B) No comments, and specified sections of final document 3/80-(B) Attended Federal Agency briefing on draft program in Philadelphia	Dredge and fill permits Beach erosion control projects

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U. S. ARMY CORPS OF ENGINEERS Philadelphia District (P) Buffalo District (B) (cont.)			10/79-Transmittal of Executive Summary of the CZM program 3/80-Transmittal of Draft CZM Program Approval Document and request for comments		

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
FEDERAL ENERGY REGULATORY COMMISSION	To achieve and assure an abundant supply of electrical energy throughout the United States with the greatest possible economy and with regard to the proper utilization of natural resources and comparable responsibilities under the natural gas act	NONE	4/75-Maps of agency owned lands and current operational plans and procedures 8/75-Follow-up requesting official agency status on coordination and contact person 10/75-Request for comments and input on program goals and objectives 1/76-Invitation to attend Federal consistency meeting in Harrisburg 11/76-Agency review of applicable sections of the draft CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program	8/75-List of concerns, and official agency contact 2/76-Attended Federal consistency meeting in Harrisburg 7/77-Recommendation to consider bulk electric energy requirements 3/80-Attended Federal agency briefing on draft program in Philadelphia	Natural Gas Act - Permits for construction and operation of interstate gas pipelines and storage facilities

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
FEDERAL ENERGY REGULATORY COMMISSION (cont.)			5/79-Transmittal of Draft Technical Record request for comments 10/79-Transmittal of Executive Summary of CZM program 3/80-Transmittal of Draft CZM Program Approval Document and request for comments		

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION	No statement of National Interest was received	NONE	4/75-Maps of agency owned lands and current operational plans and procedures 10/75-Follow-up requesting official agency status in coordination and contact person 10/75-Request for review of program goals and objectives 1/76-Invitation to attend Federal consistency meeting in Harrisburg 11/76-Agency review of applicable sections of the draft CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program	11/76-No comments presently, but would like to review the complete document 6/77-No comments but would like to review the complete document 9/77-Review and approval of draft chapters. Request consideration of geological factors	NONE

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION (cont.)			5/79-Transmittal of Draft Technical Record and request for comments 10/79-Transmittal of Executive Summary of CZM program 3/80-Transmittal of Draft CZM Approval Document and request for comments		

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
ENVIRONMENTAL PROTECTION AGENCY	No statement of National Interest was received	NONE	4/75-Maps of agency owned lands and current operational plans and procedures 10/75-Request for review of program goals and objectives 1/76-Invitation to attend Federal consistency meeting in Harrisburg 11/76-Agency review of applicable sections of the draft CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 5/79-Transmittal of Draft Technical Record and request for comments 10/79-Transmittal of Executive Summary of CZM program	5/75-No Federal land under agency control. Designated program coordinator 2/76-Attended Federal consistency meeting in Harrisburg 2/24/78-Letter providing water quality information on Pennsylvania portion of Lake Erie	Federal Water Pollution Control Act Clean Air Act Construction grants for wastewater treatment works Water Pollution Control and Area Wide Waste Treatment Management program grants Water Pollution Control State and Interstate Program grants Air quality maintenance planning

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
ENVIRONMENTAL PROTECTION AGENCY (cont.)			3/80-Transmittal of Draft CZM Program Approval Document and request for comments		

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
GENERAL SERVICES ADMINISTRATION	No statement of National Interest has been received	NONE	4/75-Maps of agency owned lands and current operational plans and procedures 10/75-Request for review of program goals and objectives 1/76-Invitation to attend Federal consistency meeting in Harrisburg 11/76-Agency review of applicable sections of the draft CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of CZM document 8/78-Relate current status of CZM program 5/79-Transmittal of Draft Technical Record and request for comments 10/79-Transmittal of Executive Summary of CZM program	5/75-No agency owned or controlled lands. Appointment of control officer	NONE

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
GENERAL SERVICES ADMINISTRATION (cont.)			3/80-Transmittal of Draft CZM Program Approval Document and request for comments		

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT	Consistency of planning activities between CZM and other plans	NONE	4/75-Agency owned lands and current operational plans and procedures 8/75-Follow-up requesting official agency status on coordination and contact person 10/75-Request for review of program goals and objectives 1/76-Invitation to attend Federal consistency meeting in Harrisburg 11/76-Agency review of applicable sections of the draft CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 5/79-Transmittal of Draft Technical Record and request for comments	9/75-Appointment of official agency contact 11/76-Insure adequate level of detail in Lake Erie section and review of complete document 3/78-Request to assist in a Federal Flood Insurance Study of shoreline erosion along Lake Erie	"701 Planning" open space and housing Housing and Community Development Act Public housing - acquisition and construction Mortgage Insurance

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (cont.)			10/79-Transmittal of Executive Summary of CZM program 3/80-Transmittal of Draft CZM Program Approval Document and request for comments		

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
FEDERAL ENERGY ADMINISTRATION	The overriding concern of the FEA is that the siting of energy facilities is not excluded or unreasonably restricted	NONE	4/75-Agency owned lands and current operational plans and procedures 8/75-Follow-up requesting official status of coordination and contact person 10/75-Request for review of program goals and objectives 1/76-Invitation to attend Federal consistency meeting in Harrisburg 11/76-Agency review of applicable section of the draft CZM document 5/77 Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 5/79-Transmittal of Draft Technical Record and a request for comments	9/75-Official agency contact man appointed 11/76-Review the complete final document with main interest in specific criteria and regulations for siting facilities of regional benefit 8/77-Clarification of major energy development issues 6/79-Designation of technical point of reference for coordinating DOE responses for CZM	NONE

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
FEDERAL ENERGY ADMINISTRATION (cont.)			10/79-Transmittal of Executive Summary of CZM program 3/80-Transmittal of Draft CZM Program Approval Document and request for comments		

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. DEPARTMENT OF TRANSPORTATION Federal Highway Administration (FHA) Federal Railroad Administration (FRA) Federal Aviation Administration (FAA) U.S. Coast Guard (see separate listing)	The development of a balanced National Transportation System, including well articulated and integrated surface, air, water and subsurface modes	NONE	4/75-Maps of agency owned lands and current operational plans and procedures 8/75-Follow-up request for official agency status for coordination 10/75-Request for review of program goals and objectives 1/76-Invitation to attend Federal consistency meeting in Hbg. 11/76-Agency review of applicable sections of the draft CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 5/79-Transmittal of Draft Technical Record and request for comments	4/75-(FHA) Transportation facilities under state and local control, appointment of contact person 4/75-(FRA) No agency involvement 5/75-(FAA) No agency responsibility or involvement. Appointment of contact men 9/75-Clarification of DOT coordination 10/75-Requested addition of transportation oriented goal 12/76-(DOT) Comments concerning GAPC and Coast Guard responsibilities, review of complete document 6/77-(DOT) Comments are being compiled and will be sent 7/77-(DOT) Comments and revisions for draft chapters	Airport development aid program (FAA) Airport planning grant program (FAA) Highway research planning and construction (FHA)

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. DEPARTMENT OF TRANSPORTATION (cont.)			10/79-Transmittal of Executive Summary of CZM program 3/80-Transmittal of Draft CZM Program Approval Document and request for comments	9/77-(DOT) Additional comments and revisions for draft chapters 8/79-(DOT) Comments on Draft Technical Record	

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. COAST GUARD * 9th District Cleveland, Ohio (9) * 3rd District New York, N.Y. (3) *Note-U.S. Coast Guard is under the administrative jurisdiction of the U.S. Department of Transportation	Same as the U. S. Department of Transportation	Presque Isle Coast Guard Station (Lake Erie) Presque Isle Light Station	4/75-Maps of agency owned lands and current operation plans and procedures 10/75-Request for review of program goals and objectives 1/76-Invitation to attend Federal consistency meeting in Harrisburg 11/76-Agency review of applicable sections of the final CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 5/79-Transmittal of Draft Technical Record and request for comments 10/79-Transmittal of Executive Summary of the CZM program	5/75-Maps of agency controlled lands sent. Appointment of contact man (3) (9) 1/76-No comments on program goals and objectives (3) (9) 11/76-Clarification of CZM lakeward boundary description (9) 5/77-Clarification of points in National Interest section (9) 9/77-Change of official agency contact person and revised list of Coast Guard controlled owned land in Lake Erie coastal zone (9) 4/78-Request for comments on draft waterfront facility regulation (3) 8/78-Request for comments on draft safety regulations (3) 11/78-Request for comments on draft BLM Interim Policies and internal procedures concerning wetlands protection (3)	Water Safety Zone Port and Waterway safety and fishing zones Anchorage grounds Hazardous substances and materials Permits for the construction and modification of bridges, causeways, dams or dikes in navigable waters of the U.S.

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. COAST GUARD (cont.) * 9th District Cleveland, Ohio (9) * 3rd District New York, N.Y. (3)			3/80-Transmittal of Draft CZM Program Approval Document and request for comments	1/79-Request for (3) comments on NOAA CZM program approved regulations (12/29/78) 7/79-Comments provided concerning the Draft Technical Record and activities requiring program consistency (9) 3/80-Attended Federal agency briefing on draft program in Philadelphia (3)	

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. DEPARTMENT OF COMMERCE Maritime Administration (MARAD) Economic Development Administration (EDA) National Marine Fisheries Services (NMFS) National Oceanic & Atmospheric Administration (NOAA) National Weather Service (NWS)	Consider the Great Lakes and the Delaware Estuary as a prime resource providing essential transportation for both domestic and international commerce. Development program of the maritime industry should be given prime consideration as they relate to the economic benefit of the coastal communities and the inland industrial and urban centers which coastal port facilities serve. (MARAD) Preserve or enhance the remaining ecologically sensitive areas. (NMFS)	Weather recording substations in both coastal zones	4/75-Maps of agency owned lands and current operational plans and procedures 10/75-Request for review of program goals and objectives 1/76-Invitation to attend Federal consistency meeting in Harrisburg 1/76-Agency review of applicable sections of the draft CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 4/79-Transmittal of Draft Technical Record and a request for comments 10/79-Transmittal of Executive Summary of CZM program	4/75-(MARAD) No Federal lands under agency control and appointment of designated officer 5/75-(NMFS) No Federal lands under agency control, appointment of contact officer 5/75-(NWS) List of weather stations in the coastal zones and contact man appointed 8/75-(EDA) Desired coordination with CZM program 10/75-(NMFS) Concurred with program goals and emphasize preservation of ecologically sensitive areas 2/76-(MARAD, NMFS, NOAA) Attended Federal consistency meeting in Harrisburg 11/76-(MARAD) Consideration should be given to four major maritime related areas	Port development and promotion and intermodal planning grants Port expansion planning assistance for new terminals and harbors Grants and loans for public works and development facilities Planning and Technical Assistance Public works impact program

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. DEPARTMENT OF COMMERCE (cont.)			3/80-Transmittal of Draft CZM Program Approval Document and request for comments	11/76-(NMFS) Close coordination between states is important and preserve unique wetlands 4/77-(EDA) Review and general approval of preliminary materials 6/77-(NMFS) Comments and revisions to draft chapters 10/77-(NMFS) Comments and revisions to draft chapters 4/80-(MARAD) Comments to the Draft CZM Program Approval Document 4/80-(DOC) Comments to the Draft CZM Program Approval Document	

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. DEPARTMENT OF AGRICULTURE Soil Conservation Service (SCS) Forest Service (FS)	No statement of National Interest has been received	NONE	4/75-Maps of agency owned lands and current operational plans and procedures 8/75-Request official agency status for coordination and contact person 10/75-Request for review of program goals and objectives 1/76-Invitation to attend Federal consistency in Harrisburg 11/76-Agency review of applicable sections of the draft CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 4/79-Transmittal of Draft Technical Record and request for comments 10/79-Transmittal of Executive Summary of CZM program	4/75-(FS) No Federal lands under agency control and designated contact man 4/75-(SCS) No Federal lands under agency control and appointment of contact man 8/75-(SCS) Appointment of agency contact 2/76-(SCS) Attended Federal consistency meeting in Harrisburg 7/77-(SCS) General comments on boundaries, GAPC's and final product outline 10/77-(SCS) Comments and revisions to draft chapters 3/80-(SCS) Comments to the Draft CZM Program Approval Document	Watershed protection and flood prevention SCS soil and water conservation Resources conservation and development

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. DEPARTMENT OF AGRICULTURE Soil Conservation Service (SCS) Forest Service (FS) (cont.)			3/80-Transmittal of Draft CZM Program Approval Document and request for comments		

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. DEPARTMENT OF HEALTH EDUCATION AND WELFARE	No statement of National Interest has been received	Parcels of land	4/75-Agency owned lands and current operational plans and procedures 8/75-Follow-up request for official status on agency coordination and contact person 10/75-Review of program goals and objectives 1/76-Invitation to Federal consistency meeting in Harrisburg 11/76-Agency review of applicable sections of the draft CZM document 5/77-Review and comment on draft chapters of the CZM document 8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 4/79-Transmittal of Draft Technical Record and request for comments 10/79-Transmittal of Executive Summary of CZM program	8/75-No current land maps, some parcels of land, appointment of contact person	

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
U.S. DEPARTMENT OF HEALTH EDUCATION AND WELFARE (cont.)			3/80-Transmittal of Draft CZM Program Approval Document and request for comments		

AGENCY	NATIONAL INTEREST	FACILITIES	INTERACTIONS		ACTIVITIES REQUIRING CONSISTENCY
			REQUEST / DATE	REPLY / DATE	
MID-ATLANTIC FISHERY MANAGEMENT COUNCIL		NONE	8/77-Review and comment on draft chapters of the CZM document 8/78-Relate current status of CZM program 4/79-Transmittal of Draft Technical Record and request for comments 10/79-Transmittal of Executive Summary of CZM program 3/80-Transmittal of Draft CZM Program Approval Document and request for comments	8/77-Comments to draft chapters	NONE

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
APRIL 9 1974	Great Lakes Basin Commission (GLBC) Standing Committee on CZM Chicago, Illinois	Organization meeting Boundary determinations Determination of permissible land and water uses
MAY 21 1974	GLBC Standing Committee on CZM Schiller Park, Illinois	Discussion on CZM grant application CZM committee structure
JULY 12 1974	GLBC Standing Committee on CZM Detroit, Michigan	Report on mapping activities in the Great Lakes Discussions on various lake activities
SEPTEMBER 20 1974	GLBC Standing Committee on CZM Romulus, Michigan	Discussions of committees, state programs Planning and design manuals
DECEMBER 5 1974	GLBC Standing Committee on CZM Romulus, Michigan	Recession rate workshop Discussion on . Strategy alternatives . National interests . Committee work plans
FEBRUARY 20 1975	GLBC Standing Committee on CZM Detroit, Michigan	CZM boundary and segmentation workshop Discussion on . Out of State travel problems . Nuclear power siting

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
JUNE 20 1975	MIDATLANTIC COASTAL STATES (MAS) Annapolis, Maryland	State planning programs discussed Program development requirements Administrative issues
OCTOBER 1 1975	GLBC Standing Committee on CZM Chicago, Illinois	Review of Federal regulations Committee future activities
OCTOBER 10 1975	MIDATLANTIC COASTAL STATES Sandy Hook, New Jersey	OCS development Program approval by NOAA
DECEMBER 9 1975	GLBC Standing Committee on CZM Madison, Wisconsin	Discussion on . Federal Insurance Administration . Erosion hazard guidelines
JANUARY 23 1976	MIDATLANTIC COASTAL STATES New York, New York	Discussion of threshold papers
FEBRUARY 4 1976	GLBC Standing Committee on CZM Cleveland, Ohio	Discussion of potential areas of planning conflict with CZM, 208 and 701 programs

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
MAY 5 1976	GLBC Standing Committee on CZM Detroit, Michigan	Discussion on . Status reports . Shore erosion . State-Federal consultation & Federal consistency . Uses of regional benefit . Organization of State CZM programs to implement the plan
JUNE 3 1976	GLBC Standing Committee on CZM Energy Steering Committee Romulus, Michigan	Detailed breakdown of the work elements
JULY 14 1976	GLBC Standing Committee on CZM Duluth, Minnesota	Development of the Great Lakes Regional public awareness program
JULY 28 1976	MIDATLANTIC COASTAL STATES Lewes, Delaware	Introduction to the latest CZM amendments State submission schedule Tour of various projects at the College of Marine Studies
AUGUST 30 1976	MIDATLANTIC COASTAL STATES Annapolis, Maryland	Discussions on . CZM Act amendments . CZM boundaries . Permissible uses
SEPTEMBER 13 - 14 1976	GLBC Energy Steering Committee Romulus, Michigan	Project overview Unit reports Assignment of work projects

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
SEPTEMBER 29 - 30 1976	GLBC Standing Committee on CZM Buffalo, New York	Public involvement workshop
OCTOBER 13 1976	GLBC CZM Energy Steering Committee Romulus, Michigan	Progress reports by project managers
OCTOBER 15 1976	MIDATLANTIC COASTAL STATES Cape Charles, Virginia	Discussion on . GAPC's . Interstate coordination . Federal level interest
DECEMBER 1 - 2 1976	GLBC Standing Committee on CZM Chicago, Illinois	Vegetation workshop Discussions on . Fisheries management . Federal consistency . Great Lakes shoreline damage . Energy facilities siting
FEBRUARY 2 1977	GLBC Standing Committee on CZM Detroit, Michigan	Discussion on Federal Insurance Administration plans for Great Lakes Region Discussion on vegetation publication Discussion on budget
JUNE 7 1977	GLBC Standing Committee on CZM Detroit, Michigan	Discussion on FIA/CZM Committee findings Discussion on . Hazardous materials transportation . Vegetation publication . Damage survey . Winter navigation programming Federal consistency discussion

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
NOVEMBER 29 1977	Meeting of Great Lakes Basin States Chicago, Illinois	Discussion on . Shoreline erosion . U.S. Flood Insurance Program . Recreational access
DECEMBER 13 1977	DRBC Level 'B' Interstate Coordinative Meeting Trenton, New Jersey	Discussion of the CZM aspects of navigation and energy on the Delaware River
MAY 4 1978	GLBC Standing Committee on CZM Romulus, Michigan	Subcommittee reports on . Great Lakes fisheries management . Indian involvement . Recreational access . Erosion/hazard management Discussion of Congressional Oversight Hearings Discussion of urban waterfront restoration
JULY 7 1978	Atlantic Coastal States Conference Buena Vista, Delaware	Discussion of proposed regional organization to conduct ocean policy and the use of ocean resources
AUGUST 25 1978	DRBC Level 'B' Interstate Coordinative Meeting Trenton, New Jersey	Discussion of the CZM aspects of navigation and energy on the Delaware River
SEPTEMBER 26 - 28 1978	Fourth Annual Meeting of the Coastal Society Burlington, Ontario	Discussion and analysis of coastal access issues and man's reaction to changing coastal conditions Topical presentations . Access in urban areas . Industry/port access issues . Impacts of access . Management of the coast . Considerations in protecting the coast

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
SEPTEMBER 29 1978	GLBC Standing Committee on CZM Burlington, Ontario	Subcommittee reports on . Recreational access to the Great Lakes . Erosion/hazard management . Great Lakes fishery management Discussion of Great Lakes urban waterfronts Discussion of future role of the Standing Committee
APRIL 18 - 19 1979	GLBC Standing Committee on CZM	Discussion on reauthorization of the CZM act, Great Lakes wetlands and water quality, fisheries management, erosion, urgan waterfronts, and recreation access
JULY 18 1979	GLBC Standing Committee on CZM Detroit, Michigan	Discussion on the Great Lakes Strategic Fisheries Management Plan, coastal process, CZM reauthorization, winter navigation, dredging and CEIP
OCTOBER 24 - 25 1979	GLBC Standing Committee on CZM Erie, Pennsylvania	Discussion on CZM reauthorization, "Great Lakes Decisions", Pennsylvania CZM Program, Great Lakes Dredging Workshop, and coastal processes and hazards
FALL 1979	Informal Contacts With New Jersey and Delaware CZM Programs	Use of similar planning methodology in Delaware tidal estuary Guidance relative to achievement of an approvable Section 306 program
JANUARY 16 - 17 1980	GLBC Standing Committee on CZM Chicago, Illinois	Discussion on CZM reauthorization, coastal hazards, strategic fisheries plan, role of Standing Committee, and permit processing, simplification and coordination

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
APRIL 16 - 17 1980	GLBC Standing Committee on CZM Detroit, Michigan	Discussion on CZM reauthorization, Great Lakes Information Center, coastal hazards initiative, coal transshipment, and urban waterfronts

STATE AGENCY COORDINATION - State Coordinative Meetings

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
JANUARY 10 1975	CZM Subcommittee	Introduction to CZM Act Role of CZM subcommittee Discussion on ecological analysis Designation of special task force
JANUARY 20 1975	CZM Subcommittee	Discussion of CZM program goals and objectives Roles and responsibilities of Task Force Members Task Force work assignments
FEBRUARY 14 1975	CZM Subcommittee	Recommendations of interim CZM boundaries Discussion of State role in program development and implementation Discussion of CZM "critical path" for three year work program Discussion of environmental element master list
FEBRUARY 21 1975	CZM Subcommittee	Role of local citizen advisory committees Presentation of task force recommendations Advisory membership extended to public planning agencies Discussions by NOAA representatives
MARCH 12 1975	CZM Subcommittee	Discussions on program responsibilities DVRPC scope of work presentation Local steering committee status
MARCH 20 1975	CZM Subcommittee	Task Force report Revised CZM subcommittee role Task Force deactivated

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
APRIL 17 1975	CZM Subcommittee	Discussion on three year planning process Discussion of draft second year grant application
JUNE 3 1975	CZM Subcommittee	DVRPC review of first year work on the program Presentation of slides on the Delaware Estuary
JULY 16 1975	CZM Subcommittee	ECMPC presentation of first year work completed Slide presentation and narration describing the organization of public participation mechanisms in the Lake Erie coastal zone
AUGUST 28 1975	CZM Subcommittee	Status report on second year activity Discussion on DVRPC draft copy of "Direct and Significant Impact of land use on coastal water"
OCTOBER 9 1975	CZM Subcommittee	Outlined the revised critical path diagram Work activity status report Discussion on DVRPC paper on "Interrelationships between the CZM program and other planning efforts"
NOVEMBER 19 1975	CZM Subcommittee	Results of DVRPC Transportation Study Program coordination with all other ongoing State and Federal programs

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
JANUARY 15 1976	CZM Subcommittee	Status at second year work activities Revised program goals and objectives discussed Discussion on final product, Federal requirement and threshold papers
MARCH 11 1976	CZM Subcommittee	Presentation on "Inventory and analysis of Lake Erie ecologically sensitive coastal area" Update on inventory and analysis of Delaware Estuary GAPCs Discussions on means and organizational structure for CZM program implementation
MAY 12 1976	CZM Subcommittee	GAPCs for Delaware Estuary and Lake Erie presented Discussions on CZM program implementation
JUNE 18 1976	CZM Subcommittee	Presentation of conceptual framework for developing coastal zone management policies Policy framework format accepted
AUGUST 18 1976	CZM Subcommittee	Coastal zone policy framework revised Discussion on State level policy making committee
OCTOBER 28 1976	CZM Subcommittee	Status report on third year work activities ECDP and DVRPC delineation of final coastal zone boundaries Report by Governor's Energy Council on OCS impact study

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
NOVEMBER 1976	Erie legislative delegation briefing	Briefing on CZM program Discussion on legislative alternatives
DECEMBER 14 1976	CZM Subcommittee	Status report on third years activities Discussion on implementation Discussion on priorities
FEBRUARY 10 1977	CZM Subcommittee	Status report on third year activities Discussion on legislative alternatives Discussion of implementation Comments on Delaware Estuary citizen involvement meetings
FEBRUARY 1977	Erie Legislative Delegation CZM briefing	Background to CZM program Lake Erie film presentation Legislative alternatives Future CZM funding
MARCH 1 1977	Philadelphia Legislative Delegation CZM briefing	Background to CZM program Delaware Estuary slide presentation Legislative alternatives Future funding for CZM
MARCH 21 1977	Bucks and Delaware Legislative Delegation CZM briefing	Background to CZM program Delaware Estuary slide presentation Legislative alternatives Future funding for CZM

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
APRIL 19 1977	CZM Subcommittee	Status report on third year work activities Discussion on potential implementation alternatives Discussion draft chapters
JUNE 16 1977	CZM Subcommittee	Status report on third year work activities Discussion on local coordinative efforts Review of document conflicts Discussion of 4th year work activities
SEPTEMBER 30 1977	CZM Subcommittee	Status report on third year work activities Discussion of program continuation efforts Review comments and further development of draft CZM program document
OCTOBER 20 1977	CZM Meeting NOAA/State Officials	General status of Pennsylvania CZM program Discussion of needs for program continuation Assignment of 4th year grant prerequisites
DECEMBER 28 1977	CZM Meeting NOAA/State/Local Officials	Further progress of Pennsylvania CZM effort Formulation of a viable and acceptable implementation strategy
SEPTEMBER 25 1978	CZM Subcommittee	Current status of Pennsylvania CZM program Discussion of recommended implementation strategy Review and approve Draft Coastal Zone Policy Framework

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
FEBRUARY 14 1979	CZM meeting NOAA/State officials	Status of Pennsylvania CZM Program Review Coastal Zone Policy Framework and management requirements Discussion of fourth year CZM grant
JUNE 8 1979	CZM meeting NOAA/State officials	Review of Pennsylvania's legal analysis and proposed management structure Review of legislative outline, timeframe and key participants for proposed Bluff Setback Law Discussion on use of executive order, secretarial directive and MOU, and details of program implementation
JUNE 13 1979	CZM Subcommittee	Current status of Pennsylvania CZM Program. Discussion of recommended implementation strategy and organizational structure Review technical and coordinative activities in Delaware Estuary and Lake Erie coastal zones
AUGUST 15 1979	State Second Class Township Supervisors	Brief the officers on the status and intent of the Pennsylvania CZM Program
SEPTEMBER 13 1979	CZM Subcommittee	Current status of proposed CZM related legislation Discussion of education/involvement process with local officials and coastal public Review of technical and coordinative activities in Delaware Estuary and Lake Erie coastal zones
SEPTEMBER 18 1979	NW Pennsylvania Delegation CZM Briefing	Status and intent of Pennsylvania CZM Program Legislative requirements and support

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
OCTOBER 30 - 31 1979	CZM meeting NOAA/State officials	Discussion of following program elements . State consistency - networking . CZM Policy Framework . Scheduling for Bluff Setback and S.B. 181 legislation and regulations . Use of Technical Record as "306" document
NOVEMBER 9 1979	State First Class Township Commissioners and Borough Supervisors	Brief the officers on the status and intent of the Pennsylvania CZM Program
JANUARY 9 1980	CZM Subcommittee	Current status of CZM Program and CZM related legislation Review of technical and coordinative activities in Delaware Estuary and Lake Erie coastal zones Discussion of Interagency MOU and Executive Order
JANUARY 18 1980	CZM Subcommittee	Review of revised Coastal Zone Policy Framework Discussion of future role of CZM Subcommittee
APRIL 15 1980	CZM Subcommittee	Current status of CZM Program and Bluff Setback legislation Review of technical and coordinative activities in Delaware Estuary and Lake Erie coastal zones Discussion on CZM "306" Program approval document

State Agency Responsibilities

A. Department of Commerce: This Department is responsible for the promotion and development of business, industry and commerce in the Commonwealth. This duty is partially carried out by: making low interest loans to help finance new facilities or expand older facilities; providing grants to municipalities, municipal authorities, industrial development agencies or State agencies for the construction, rehabilitation, alteration, expansion, or improvement of water facilities, sewage collection lines, and channel realignment; information dissemination projects conducted by State institutions for the benefit of Pennsylvania industry to ensure more jobs for Pennsylvania; and finally by promoting stimulating and encouraging basic and applied scientific research and development in Pennsylvania which will assist in the advancement of the Commonwealth's economic growth.

B. Department of Community Affairs: This Department, which was created by the General Assembly in 1966, provides a direct link between the State government and the more than 2,600 local governments. The Department provides technical and financial assistance to address a wide range of issues. These issues include but are not limited to assistance to communities in applying for State and Federal aid programs in the areas of urban renewal, and housing and community development; technical and financial help to develop local recreation, conservation and historically oriented plans and programs; and the responsibility for administering the Federal Flood Insurance Program and other sections of the Pennsylvania Floodplain Management Act.

C. Department of Environmental Resources

1. Office of Chief Counsel - This Office is the Department's legal agency. It represents program bureaus in the courts and before the Environmental Hearing Board. The office also offers legal advice and other related services to the Department. There are three bureaus in this office. They are: the Bureau of Regulatory Counsel, the Bureau of Litigation and the Bureau of Legal Services.

   a. Bureau of Regulatory Counsel - This Bureau is responsible for providing program advice to the Office of Environmental Protection on regulatory and enforcement policies. The Bureau also reviews the Office of Environmental Protection's administrative mechanisms, which include orders, permit decisions and plan reviews.

b. Bureau of Legal Services - This Bureau acts as a general law firm providing varied services to the Department of Environmental Resources.

c. Bureau of Litigation - This Bureau is responsible for representing the Department in enforcement actions before the Environmental Hearing Board and State and Federal courts. The Bureau also conducts conferences and negotiates consent agreements.

2. Office of Environmental Protection - This Office is responsible for developing and carrying out programs to identify environmental problems and to correct them. The programs work for total coordinated solutions to environmental problems and provide guidelines and assistance to local governments, private organizations and citizens to abate pollution. The Bureaus in this office that are included in Pennsylvania's Coastal Zone Management Program are the Bureau of Solid Waste Management, Bureau of Water Quality Management, and the Bureau of Air Quality Control.

a. Bureau of Solid Waste Management - This Bureau is divided into three Divisions. The Divisions' responsibilities are as follows -

(1) Division of Operations - The Division is responsible for all investigation, inspection and enforcement in the solid waste management program and for the issuance of permits. The Division conducts an inventory program and operates the Bureau's Data Management System. The Division is also responsible for program evaluation, resource allocation and the coordination of emergency response efforts.

(2) Division of Municipal Services - The Division of Municipal Services is responsible for the preparation and updating of the State Solid Waste Management Plan and for implementation of the local and regional solid waste planning mandated by Act 241. The Division provides staff services to the Governor's Solid Waste Management Advisory Committee and provides liaison with county health department solid waste programs. The Division is also responsible for the Department's resource recovery grant and

loan program and for the Bureau's sewage sludge management program.

(3) Division of Hazardous Waste Management - The Division of Hazardous Waste Management is responsible for the development and implementation of a hazardous waste management regulatory program as required by the Federal Resource Conservation and Recovery Act, including the drafting of legislation, regulations, and standards that will enable Pennsylvania to achieve program delegation. The Division provides technical services to the regional offices on the disposal of industrial and hazardous wastes and provides liaison with the toxic substances control program of the Department. The Division provides staff services to the Department's Industrial Advisory Committee.

b. Bureau of Water Quality Management - This Bureau is responsible for directing all State efforts to provide clean water for a variety of uses to the people of Pennsylvania. The Bureau has two Divisions pertinent to the Coastal Zone Management Program; they are the Division of Water Quality and the Division of Nonpoint and Industrial Sources:

(1) Division of Water Quality - This Division is responsible for establishing water quality standards for surface and groundwaters, monitoring of water quality and laboratory services.

(2) Division of Nonpoint and Industrial Sources - This Division is responsible for establishing criteria and standards for industrial waste management programs. In addition, the Division is responsible for developing programs and methodologies to reduce nonpoint source pollution discharges into the Commonwealth's waters.

c. Bureau of Air Quality Control - This Bureau establishes methods and procedures that identify and provide solutions to abate air pollution problems. The Bureau has three Divisions pertinent to the Coastal Zone Management Program; they are the Division of Abatement and Compliance, the Division of Air Resources Management, and the Division of Technical Services and Monitoring.

(1) Division of Abatement and Compliance - This Division is responsible for determining and enforcing compliance with rules, regulations, and orders of the Department through the review of plans for construction of air contaminant sources, review of operating permits for air contaminant sources, and investigation of complaints of air pollution. The Division is also responsible for implementing air pollution emergency control actions and noise control.

(2) Division of Air Resources Management - This Division is responsible for developing air quality regulations, air resources management techniques, and assisting in air pollution control efforts for municipal governments and citizen groups

(3) Division of Technical Services and Monitoring - This Division is responsible for providing current and historical data on air pollution levels and source emissions through monitoring programs and laboratory services. This Division also initiates air pollution emergency control programs.

3. Office of Resources Management - This Office plans, directs, and coordinates the Department's programs associated with the management of the Commonwealth's natural resources. Areas under the purview of this Office include outdoor recreation, forestry, flood control and water conservation, mining area pollution abatement and restoration, water resources planning, and development and related engineering and operations activities. The Office also administers plans and regulates the Department's programs for water obstructions and encroachments, floodplain management, stormwater management, dam safety responsibilities and water allocations authority, and coastal zone management. In addition to these responsibilities, the Office also plans, administers, and conducts comprehensive and detailed surveys of the geology, mineral resources, topography, and groundwater resources of Pennsylvania. This Office has seven Bureaus which are affected by the Coastal Zone Management Program. These Bureaus include the Bureau of Resources Programming, the Bureau of Design, the Bureau of Operations, the Bureau of Soil and Water Conservation, the Bureau of State Parks, the Bureau of

Dams and Waterway Management, and the Bureau of Topographic and Geologic Survey.

a. Bureau of Resources Programming - The Bureau is responsible for conducting investigations, surveys, studies and research to determine statewide needs. This information is then used as a basis for development of long-range comprehensive planning.

(1) Division of Comprehensive Resources Programming - This Division is responsible for developing coordinated comprehensive programs for the planning and development of water resources management in the Commonwealth. The Division also acts as coordinator for the development of these programs with Federal agencies, other State agencies, local planning groups, and private citizens.

(2) Division of Water Resources Projects - This Division is responsible for conducting engineering investigations and feasibility studies of proposed projects for flood control. Their study results are designed to show an analysis of benefits, alternative solutions, costs and an overall environmental assessment of the proposed project.

b. Bureau of Design - This Bureau is responsible for designing projects which are to be constructed by the Department and acts as coordinator for projects constructed for the Department by the Department of General Services. This Bureau has two Divisions which will be affected by the Coastal Zone Management Program. These include the Division of Recreational Facilities and the Division of Water Control Structures.

(1) Division of Recreational Facilities - This Division is responsible for the design of public recreational facilities for the Commonwealth.

(2) Division of Water Control Structures - This Division is responsible for designing projects for the control of surface water including levees, flood walls, pumping stations, channel improvements and dams for recreation, flood, control,

irrigation, low flow augmentation and water supply.

c. Bureau of Operations - This Bureau is responsible for inspecting the construction of dams, flood control projects, recreational areas and State parks, new and rehabilitative work and other similar projects. The Bureau monitors construction of water pollution abatement and control structures, mine subsidence protection and restoration projects, and projects for the elimination of mine and refuse bank fires. The Bureau also operates and maintains specific Departmental projects on a permanent basis. It will periodically inspect and report to the Secretary on conditions of projects built by the Department to ensure that proper maintenance and operation functions are being performed by those responsible. The Bureau also investigates, designs, administers, and constructs Departmental stream improvement projects and provides advisory services to other agencies and local governments on remedial construction methods. The Coastal Zone Management Program impacts one Division in this Bureau - the Division of Completed Projects.

(1) Division of Completed Projects - This Division operates and maintains specific Department projects on a permanent basis. Provides inspection service for completed Commonwealth flood protection projects of all types, as well as for specific Federal flood protection projects where Commonwealth-owned land is involved.

d. Bureau of Soil and Water Conservation - This Bureau acts as coordinator for the 66 state conservation districts; its mandated responsibilities include small watershed projects, establishment of priorities for watershed project installations, and implementing erosion and sedimentation control regulations. There is a Division and a Branch that are affected by the Coastal Zone Management Program. These are the Division of Soil Resources and Erosion Control and the Watershed Branch.

(1) Division of Soil Resources and Erosion Control - This Division is responsible for implementing the soil resources conservation and the soil erosion and sedimentation control programs of the

Department of Environmental Resources. Additional responsibilities include providing assistance to the Bureau of Water Quality Management in developing programs, evaluating erosion and sedimentation control measures and securing compliance to Erosion Control Rules and Regulations of Chapter 102.

(2) Watershed Branch - The Branch assists local governments in developing upstream watershed and flood protection programs for watersheds of less than 250,000 acres.

e. Bureau of State Parks - The Bureau administers the overall operation, maintenance and management of the Pennsylvania State Park system, which provides year-round outdoor recreational opportunities and experiences for all Pennsylvania residences and visitors. The Bureau also engages in the interpretation of State Park ecological systems which it utilizes, protects which are perpetuates as a principal heritage of the natural environment and importance to the recreational opportunities of the State Park system. There are two Divisions which are affected by the Coastal Zone Management Program. These are the Division of Maintenance and Environmental Management and the Division of Outdoor Recreation.

(1) Division of Maintenance and Environmental Management - The Division's main objectives are to maintain and conserve the physical and natural resources of the State Park system through the planning, development, and proper utilization. These objectives are realized by improving, protecting and as appropriate preserving the natural physical resources of the State Park system.

(2) Division of Outdoor Recreation - The Division conducts recreation surveys and evaluations to determine supply, demand, and utilization of existing public recreation facilities and trends in outdoor recreation activities as they relate to the State Park system.

f. Bureau of Dams and Waterway Management - This Bureau administers and enforces laws and regulations related to floodplain management, stormwater management, dams and water

obstructions. The Bureau also plans, directs and coordinates statewide programs for these activities, processes permits for the regulation of facilities required by various laws, administers grant programs to counties for stormwater management planning, and closely coordinates all program activities related to Federal, State and local agencies and related nonofficial agencies. There are two Divisions within the Bureau which are affected by the Coastal Zone Management Program. These are the Division of Obstructions and Floodplain Management and the Division of Stormwater Management.

(1) Division of Obstructions and Floodplain Management - This Division is reponsible for regulating all water obstructions and changes to the course, current, cross section or location of any stream, and its related 100-year floodplain in the Commonwealth in a manner that protects life, property, safety and riparian rights of the public. To accomplish this responsibility, the Division conducts investigations, surveys, and develops standards and policies related to floodplain management and water obstructions. Further, the Division provides assistance to local municipalities and coordinates with related Federal, State governmental agencies, and nongovernmental agencies.

(2) Division of Stormwater Management - This Division is responsible for administering the Stormwater Management Act. Proper administration requires the promulgation of guidelines and model ordinances, designation of watersheds, review and approval of county watershed stormwater plans, and provision of technical assistance.

g. Bureau of Topographic and Geologic Survey - The Bureau is responsible for planning, administering and conducting comprehensive detailed surveys of the geology, mineral resources, topography and groundwater resources of the Commonwealth. The Bureau is the only agency in Pennsylvania (including the government, academic, industrial and private sectors) which is systematically mapping the geologic resources of Pennsylvania. Divisions

within the Bureau which the Coastal Zone Management Program affect include the Division of Geologic Mapping, Division of Mineral Resources, Division of Oil and Gas Geology, Division of Environmental Geology, and the Division of Oil and Gas Regulation.

(1) Division of Geologic Mapping - This Division prepares detailed geologic maps and reports of all geological features and their environmental impact on an area-by-area basis for the entire State. The maps are used in land use planning, engineering and construction design, environmental protection, agriculture development, road building, and recreation planning.

(2) Division of Mineral Resources - This Division conducts field and laboratory studies of known and potential mineral resources in Pennsylvania for the purpose of maintaining reserves for Pennsylvania's billion dollar a year mineral industry and being able to continue to supply the raw material needs for industry and construction.

(3) Division of Oil and Gas Geology - This Division conducts geologic investigations and studies of existing and potential oil and gas producing areas of Pennsylvania to maintain vitally needed energy reserves and to assure orderly development of these resources. Assembles geologic data from each new oil and gas well as drilled and makes regional maps and cross sections which serve as a guide to the oil industry for future oil and gas prospecting and development.

(4) Division of Environmental Geology - This Division prepares comprehensive area maps and reports defining geologic conditions which affect the environment and land use planning. Identifies geologic hazards, urban-geology problems, and all factors affecting waste disposal, transportation routes, recreation, and reviews environmental impact statements. Provides geologic services to all State agencies, industry and the public.

(5) Division of Oil and Gas Regulation - This Division, under Act 225 of November 30,

1955, and amendments, permits, regulates and inspects wells drilled for oil and natural gas, wells used for underground storage of natural gas and wells to be plugged and abandoned.

D. Pennsylvania Fish Commission: This Commission is responsible for making, administering and enforcing rules and regulations relating to boating; the protection, propagation, and distribution of fish; and from the angling, catching, or removal of fish from any waters artificially or otherwise, wholly within this Commonwealth or in waters lying between this Commonwealth or any other state. The Commission is also responsible for the control and management of all hatching stations and fish cultural establishments and the making of free distribution or planting of fish, produced at State fish hatcheries or otherwise acquired.

E. Pennsylvania Historical and Museum Commission: This Commission is responsible for the advancement and protection of historical interests in the Commonwealth. The Pennsylvania Administrative Code designates the Commission as the official State agency for the conservation of Pennsylvania's historic heritage, the preservation of public records and historic documents. The proper conservation of Pennsylvania historic resources requires the Commission to approach the problem from the following perspectives: the need to protect historic buildings, historical relics and historical records; initiation of an active program to develop and promote interest in Pennsylvania's historic heritage; increased research, writing, and publication of documents that satisfy our interest in history; and close working communication with historical societies and other institutions dedicated to furthering the knowledge of the Commonwealth's history.

F. Public Utility Commission: This Commission is an independent, quasi-judicial agency created by the legislature in 1937 to establish and maintain resonable rates and safe and adequate service through the regulation of the State's public utilities. The Commission, which is organized into eight bureaus, regulates the nearly 5,000 utilities which provide in-state services for compensation to consumers. These services include electricity, natural gas, telephone, telegraphic, water, sewage collection and disposal, steam heat, transportation of passengers or property, and pipeline transmission of gas and oil.

G. Pennsylvania Game Commission: This Commission is an independent administrative agency charged with the responsibility of protecting, propagating, managing and preserving game, furbearing animals, and protected birds in the Commonwealth. The Commission also manages State Game

Lands to provide the highest possible sustainable yield of wildlife and timber to furnish outdoor recreation in the form of sport hunting and compatible recreational activities for the enjoyment of Pennsylvania residents and visitors.

H. Department of Transportation: This Department is charged with the responsibility of developing programs to assure adequate, safe and efficient transportation facilities and services at the lowest reasonable cost to Pennsylvania residents. The Department also coordinates Federal, State and local facility requirements to help achieve transportation goals in the Commonwealth. These goals include providing needed facilities for the movement of people and goods, stimulating technological advancement in transportation facilities, providing leadership to identify and solve transportation problems, and develop and apply multimodal approaches to transportation policy and programs.

LOCAL GOVERNMENTAL AND PUBLIC COORDINATION (DELAWARE ESTUARY)

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
JUNE 5 1974	1st Delaware Estuary Ad Hoc Steering Committee	Discussion of grant application to NOAA DVRPC support Discussion of program basics
OCTOBER 9 1974	2nd Delaware Estuary Ad Hoc Steering Committee	Overview of CZM Act First year work elements and program Discussion of program basics
JANUARY 30 1975	3rd Delaware Estuary Steering Committee	Steering committee membership and roles established Two step process for boundary delineation
FEBRUARY 28 1975	4th Delaware Estuary Steering Committee	Discussion of . Initial inland boundary . Citizen participation . Local government participation
MARCH 26 1975	Delaware County Citizens Meeting	Election of local representative to steering committee
APRIL 3 1975	Bucks County Citizens Meeting	Discussion on election of local representative to steering committee - no representative elected

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
MAY 2 1975	5th Delaware Estuary Steering Committee	Work program introduced Citizen participation meetings discussed Defined direct and significant impacts
MAY 22 1975	Bucks County Citizens meeting	Election of local representative to the steering committee
JUNE 17 1975	Delaware County Citizens meeting	Discussion of . Nature of program . Objectives and policies . Slide show
JUNE 24 1975	Bucks County Citizens meeting	Discussion of . Nature of program . Objectives and policies . Slide show
JUNE 26 1975	Philadelphia County Citizens meeting	Discussion of . Nature of program . Objectives and policies . Slide show
JULY 1975		Marine Advisory Services evaluate Coastal Zone Management Program

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
JULY 17 1975	6th Delaware Estuary Steering Committee	Steering committee chairman elected Goals and objectives discussed Review and evaluate Citizen Questionnaire
AUGUST 28 1975	7th Delaware Estuary Steering Committee	Review of second year contract Review of MAS evaluation Discussion on papers on problems and issues and direct and significant impacts
SEPTEMBER 25 1975	8th Delaware Estuary Steering Committee	Discussion on citizen participation program revision Discussion of paper on interrelationships of CZ program with other planning programs
OCTOBER 22 1975	9th Delaware Estuary Steering Committee	Discussion of . Transportation systems paper . Direct and significant impact methodology . Marine Advisory Service recommendations
NOVEMBER 1975		Pennsylvania Coastal Zone Management Program brochure is published
NOVEMBER 18 1975	Delaware County Citizens Meeting	Meeting held jointly with Delaware County Planning Department . Overview concept of CZM . Citizen participation information . CZM boundary discussion

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
NOVEMBER 24 1975	Bucks County Citizens Meeting	Problems and issues within and affecting the coastal zone Public access to river
DECEMBER 2 1975	Philadelphia County Citizens Meeting	Overview concept of CZM Citizen participation information CZM boundary discussion
DECEMBER 17 1975	10th Delaware Estuary Steering Committee	Discussion on . Geographic areas of particular concern (GAPC) . Areas of natural value . Alternatives for economic analysis
JANUARY 1976		"TIDINGS" Volume 1 #1 (Delaware Estuary Coastal Zone Newsletter)
JANUARY 21 1976	Philadelphia County Citizens Meeting	GAPC's discussion CZM boundary discussion
JANUARY 26 1976	Bucks County Citizens Meeting	GAPC's discussion CZM boundary discussion

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
JANUARY 29 1976	Delaware County Citizens Meeting	Problems and issues within and affecting the coastal zone GAPC discussion
FEBRUARY 4 1976	11th Delaware Estuary Steering Committee	GAPC's discussion of development opportunity areas Discussions on final CZM documents to be produced
MARCH 1976		"TIDINGS" Volume 1 #2 Published
MARCH 4 1976	12th Delaware Estuary Steering Committee	Final product outline Discussions of legal aspects of State and County Agenda for citizen meetings
MARCH 25 1976	Bucks County Citizens Meeting	Discussions on impact assessment methodology Discussion of possible implementation schemes GAPC's discussed
MARCH 29 1976	Delaware County Citizens Meeting	Discussion of . Working methodology . Policy framework . Possible implementation schemes . GAPC's

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
MARCH 31 1976	Philadelphia County Citizens Meetings with "208" Water Quality Study	Discussion of . Working methodology . Program elements . Possible implementation schemes
APRIL 8 1976	Pennsylvania Intergovernmental Committee on Land Use	Coastal Zone Management and State planning efforts
APRIL 22 1976	13th Delaware Estuary Steering Committee	Means of implementation Discussion on areas for preservation and restoration (APR's) Impact analysis for direct and significant and permissible uses
MAY 20 1976	14th Delaware Estuary Steering Committee	Means of program implementation GAPC's and APR's discussion Resource types for coastal activities
JUNE 1976		"TIDINGS" Volume 1 #3 Published
JUNE 3 1976	Philadelphia County Citizens Meeting	Discussion on . Final management boundary . Ongoing impact analysis . Implementation advantages . Final designation of Philadelphia GAPC's

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
JUNE 10 1976	Bucks County Citizens Meeting	Discussion of . Ongoing development of policies, objectives, program authorities and results . Final management boundary
JUNE 15 1976	Delaware County Citizens Meeting	Discussion of . Final management boundary . Ongoing development of policies, objectives, program authorities and results
JUNE 17 1976	15th Delaware Estuary Steering Committee	Review of CZM steering committee role Draft CZM policy framework Means of program implementation Impact analysis and determination of permissible uses for final boundary
JULY 30 1976	16th Delaware Estuary Steering Committee	Discussion of impact assessment network (IAN) List of coastal resources for impact analysis presented Discussion of tentative inland boundary in Delaware County
SEPTEMBER 16 1976	17th Delaware Estuary Steering Committee	Discussion of IAN Discussion of Philadelphia inland boundary
SEPTEMBER 30 1976	DVRPC sponsored boat tour of the Delaware Estuary	Explanation of CZM program Reconnaissance of Philadelphia County shoreline from the Delaware River

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
OCTOBER 5 1976	Bucks Audubon Society Lecture	Slide show on coastal problems in Bucks County
OCTOBER 22 1976	18th Delaware Estuary Steering Committee	State authorities needed to implement CZM program Report on study of "Four Environmentally Sensitive Areas"
DECEMBER 3 1976	19th Delaware Estuary Steering Committee	Means of Implementation Policy priorities for legal analysis Discussion on approach to permissible analysis Schedule of products through March 1977
JANUARY 27 1977	20th Delaware Estuary Steering Committee	Various implementation alternatives Procedures for delineation and layout of final boundary (Bucks Co.) Description of three step permissibility analysis
JANUARY 31 1977	Bucks County Citizen Meeting	Discussion on policy framework Legislative alternatives for implementation Procedure for delineation and physical layout of final Bucks Co. CZM boundary
FEBRUARY 7 1977	Philadelphia County Citizen Meeting	Discussion on three major implementation alternatives Status report on OCS impact study Discussion on draft policy framework Procedure for delineating and physical location of final Philadelphia Co. CZM boundary

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
FEBRUARY 9 1977	Delaware County Citizen Meeting	Summary of CZM program Discussion of three major implementation alternatives Review of finalized coastal zone policy framework
FEBRUARY 18 1977	21st Delaware Estuary Steering Commiittee	Discussion on various aspects of implementation Comments on working paper and final document draft chapters Discussion of new legislation
MARCH 18 1977	22nd Delaware Estuary Steering Committee	Discussion on draft chapters Outline of final permissibility analysis work Outline of current NOAA shoreline access funding
APRIL 20 1977	23rd Delaware Estuary Steering Committee	Discussion on draft chapters Explanation of use priorities Discussion of fourth year work tasks
APRIL 1977		"TIDINGS" VOLUME 2 #1 PUBLISHED
MAY 2 1977	Delaware County Citizens Meeting	Discussions on roles of LOWV and DCPD Presentation on overview of current and future status of the CZM program Presentation on specific problems, issues, goals, and objectives General CZM discussions

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
MAY 6 1977	CZSC Workshop	Review of chapter organization Comments on Draft Chapters 1, 2, 3
MAY 19 1977	CZSC Workshop	Review of Recreation section Comments on Draft Chapter 5 Comments on Draft Chapter 6
JUNE 10 1977	CZSC Workshop	Discussion and comments on draft . Draft Chapter 4 . Draft Chapter 7 . Draft Chapter 8
JULY 29 1977	CZSC Workshop	Review Chapter 4 Comments on Draft Chapter 9 Comments on Draft Chapter 10
AUGUST 23 1977	CZM Task Force (Petroleum Industries)	Discuss State's proposed CZM Plan with Delaware Estuary oil industries officials
OCTOBER 15 1977	LOWV Sponsored Boat Tour of the Delaware Estuary	Review CZM plan recommendations with legislators, local officials, and interested citizens Reconnaissance of Delaware and Philadelphia County shorelines from the Delaware River

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
MAY 11 1978	LOWV Sponsored Boat Tour of the Delaware Estuary	Review CZM/Level B studies with legislators, local officials, and interested citizens Reconnaissance of Philadelphia and Bucks County shoreline from the Delaware River
AUGUST 17 1978	24th Delaware Estuary Steering Committee	Review current status of CZM program Preliminary input into development of revised policy framework
SEPTEMBER 20 1978	25th Delaware Estuary Steering Committee	Discussion and review of Draft Chapters 5 and 10 (revised version)
MAY 2 1979	26th Delaware Estuary Steering Committee	Update on status of CZM Program Discussion of DVRPC and LOWV contracts, legal analysis, executive summary, and benefits of CEIP Program
JULY 19 1979	27th Delaware Estuary Steering Committee	Review and discussion of new organizational structure for program implementation and pending bluff setback legislation Summary of public participation and education activities
SEPTEMBER, OCTOBER, NOVEMBER 1979	Meetings with local officials of 20 coastal municipalities	Brief local officials on CZM activities, and overall legislative intent and local requirements

DATE	MEETING AND LOCATION	SUMMARY OF THE MEETING
OCTOBER 17 1979	28th Delaware Estuary Steering Committee	Progress Report on bluff setback legislation and local officials meetings Description of three waterfront demonstration projects Discussion on developing a mechanism to involve local officials and citizens in CZSC functioning
JANUARY 23 1980	29th Delaware Estuary Steering Committee	Review of pending legislation, passage of Act 70, and revised policy framework Discussion of Section 306 program approval process and mechanisms to involve citizens in CZSC functioning
JANUARY 31 1980	Bucks County Citizens meeting	Review of CZM Program activities and overall program changes Slide presentation on CZM policies Future CZM Program activities and citizen entry points
FEBRUARY 4 1980	Delaware County Citizens meeting	Review of CZM Program activities and overall program changes Slide presentation on CZM policies Future CZM Program activities and citizen entry points
FEBRUARY 14 1980	Philadelphia County Citizens meeting	Review of CZM Program activities and overall program changes Slide presentation on CZM policies Future CZM Program activities and citizen entry points

DATE	EAST STUDY AREA STEERING COMMITTEE	CENTRAL STUDY AREA STEERING COMMITTEE	WEST STUDY AREA STEERING COMMITTEE
MARCH 5 1975	Program work objectives and specific elements established. Purpose of and membership on the steering committee.		
MARCH 19 1975	Citizen Advisory Committee established, steering committee members appointed and election of steering committee chairman.		
MAY 6 1975			Program work objectives and specific elements established. Purpose of and membership on the steering committee.
MAY 14 1975			Steering committee members appointed and chairman elected.
MAY 21 1975		Program work objectives and specific elements established. Purpose of and membership on the steering committee.	
JUNE 26 - 27 1975	NEWSPAPER ARTICLES CALLING FOR PUBLIC PARTICIPATION IN THE COASTAL ZONE MANAGEMENT PROGRAM		

DATE	EAST STUDY AREA STEERING COMMITTEE	CENTRAL STUDY AREA STEERING COMMITTEE	WEST STUDY AREA STEERING COMMITTEE
JULY 1975	MARINE ADVISORY SERVICES EVALUATE PENNSYLVANIA CZM PROGRAM		
JULY - AUGUST 1975	CZM STAFF TELEVISION INTERVIEW WICU (July 14) - - - - WSEE (August 21)		
AUGUST 26 1975		Election of steering committee chairman	
SEPTEMBER 16 1975		CZM background information. Public opinion survey. Bluff recession and shoreline erosion presentation.	
OCTOBER 21 1975	Erie Coastal Resource Analysis distributed. Public Opinion Survey. Discussions on various coastal zone topics.		
OCTOBER 22 1975			Draft copy of Pennsylvania goals and objectives distributed. Bluff recession and shoreline erosion presentation. Public opinion survey.

DATE	EAST STUDY AREA STEERING COMMITTEE	CENTRAL STUDY AREA STEERING COMMITTEE	WEST STUDY AREA STEERING COMMITTEE
NOVEMBER 17 1975		Presentation by Pennsylvania Fish Commission and discussion on "Salmon in Lake Erie." Public opinion survey.	
NOVEMBER 1975	"PUBLIC PARTICIPATION" INTERIM REPORT -- ERIE COUNTY PENNSYLVANIA COASTAL ZONE MANAGEMENT BROCHURE		
JANUARY 1975	PUBLIC VALUES AND PREFERENCES STUDY FOR THE LAKE ERIE COASTAL ZONE MANAGEMENT PROGRAM		
FEBRUARY 10 1976		Discussions on legal problems in the coastal zone. Goals and objectives approved.	
FEBRUARY 18 1976	Discussions on legal problems in the coastal zone. Goals and objectives approved.		
APRIL 14 1976			Discussions on statewide and specific local goals. Discussions on GAPC's and tentative CZM boundary.

DATE	EAST STUDY AREA STEERING COMMITTEE	CENTRAL STUDY AREA STEERING COMMITTEE	WEST STUDY AREA STEERING COMMITTEE
APRIL 20 1976	Discussions on statewide and specific local goals. Discussion on GAPC's and tentative CZM boundary.		
APRIL 21 1976		Discussion on statewide and specific local goals. Discussion on the GAPC's and tentative CZM boundary.	
JUNE 15 1976		Final CZM boundary approved. Discussions on GAPC's. Presentation on Great Lakes' Lake levels.	
JUNE 16 1976	Final CZM boundary approved. Discussion on GAPC's. Presentation on Great Lakes' Lake levels.		
JUNE 17 1976			Final CZM boundary approved Presentation on Great Lakes' Lake levels.
SEPTEMBER 27,28,29 1976	Joint Meeting with Municipal Officials DISCUSSIONS ON FEDERAL LEGISLATION AND FUNDING		

DATE	EAST STUDY AREA STEERING COMMITTEE	CENTRAL STUDY AREA STEERING COMMITTEE	WEST STUDY AREA STEERING COMMITTEE
OCTOBER 21 1976			Fairview Township Municipal officials meeting.
NOVEMBER 1976	Northeast Township supervisors meeting (11/8) Harborcreek Twp. supervisors meeting (11/10)		Springfield Township supervisors meeting (11/1) Girard Township supervisors meeting (11/9)
NOVEMBER 15 1976	COMPLETION OF FILM ON THE LAKE ERIE COASTAL ZONE (ECDP)		
MARCH 8 1977	CITIZENS CONCERNED WITH COASTAL ZONE MANAGEMENT IN ERIE COUNTY (informal meeting)		
MARCH 14 1977	Discussion on legislative alternatives.		
MARCH 16 1977			Discussion on legislative alternatives.

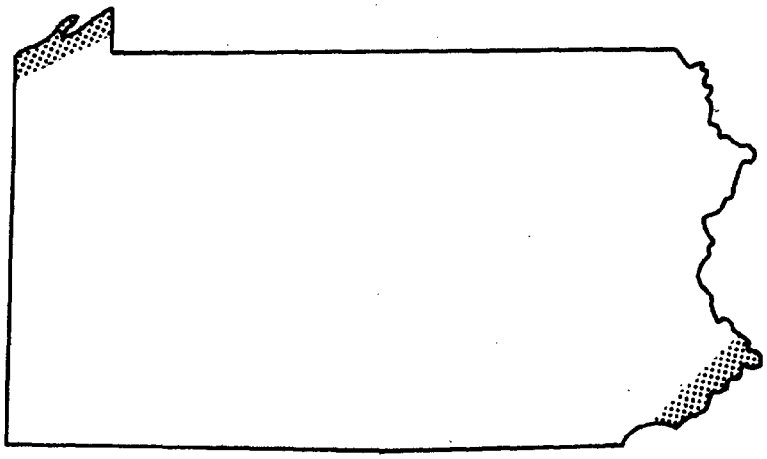
DATE	EAST STUDY AREA STEERING COMMITTEE	CENTRAL STUDY AREA STEERING COMMITTEE	WEST STUDY AREA STEERING COMMITTEE
MARCH 21 1977		Discussion on legislative alternatives.	
SEPTEMBER 8 1977	CZM boat trip sponsored by the League of Women Voters for local coastal officials. Inspection of bluff erosion zones east of Erie City and problem areas in Erie harbor.		
JANUARY 12 1978	CZM informational presentation for local land use conference at Mercyhurst College in Erie City.		
JULY 24 1978	Meeting between the Department, ECMPC and DVRPC in Erie City to discuss a strategy, make assignments and establish a schedule for the development of a revised policy framework.		
APRIL 16 - 25 MAY 6 JUNE 5 1979	Series of Lake Erie Technical Coordinating Committee meetings to discuss and determine courses of action relative to developing a CZM work program for Erie County.		
JULY 9 1979			Outline of changes to policy framework and scope of work for 4th grant period. Presentation of benefits package.

DATE	EAST STUDY AREA STEERING COMMITTEE	CENTRAL STUDY AREA STEERING COMMITTEE	WEST STUDY AREA STEERING COMMITTEE
JULY 10 1979	Outline of changes to policy framework and scope of work for 4th grant period. Presentation of benefits package.		
JULY 11 1979		Outline of changes to policy framework and scope of work for 4th grant period. Presentation of benefits package.	
AUGUST 23 1979	Meeting of Lake Erie Technical Coordinating Committee to discuss and guide public participation and education activities and establish guidelines for energy facilities planning process.		
SEPTEMBER 6 1979	DER Secretary Jones participated in an Erie coastal visitation, including a coastal tour, TV and newspaper interviews, and meetings with the Chamber of Commerce, Manufacturers Association of Erie, Erie Task Force and Conference, and the Erie County Legislative delegation.		
SEPTEMBER 11 1979	Meeting of Lake Erie Technical Coordinating Committee to review proposed bluff setback legislation and develop agenda for upcoming round of steering committee meetings.		
SEPTEMBER 19 1979			Discussion of bluff recession and setback legislation and local requirements with municipal officials. Slide presentation of Policy Framework.

DATE	EAST STUDY AREA STEERING COMMITTEE	CENTRAL STUDY AREA STEERING COMMITTEE	WEST STUDY AREA STEERING COMMITTEE
SEPTEMBER 20 1979	Discussion of bluff recession and setback legislation and local requirements with municipal officials. Slide presentation of policy framework.		
OCTOBER 15 1979		Discussion of bluff recession and setback legislation and local requirements with municipal officials. Slide presentation of policy framework.	
NOVEMBER 27 1979	Meeting of Lake Erie Technical Coordinating Committee to discuss and guide public participation and education activities and establish assignments and schedules for providing input into the draft "306" program document.		
FEBRUARY 26 1980			Discussion of future role of steering committee and Section 306 approval schedule. Review "306" program document.
FEBRUARY 27 1980	Discussion of future role of steering committee and Section 306 approval schedule. Review "306" program document.		
FEBRUARY 28 1980		Discussion of future role of steering committee and Section 306 approval schedule. Review "306" program document.	

DATE	EAST STUDY AREA STEERING COMMITTEE	CENTRAL STUDY AREA STEERING COMMITTEE	WEST STUDY AREA STEERING COMMITTEE
APRIL 19 1980	Public Workshop in Erie City to review and discuss the various methods for mitigating bluff and shoreline erosion along Lake Erie		
MAY 13 1980			Citizens meeting to review activities and changes in the CZM Program, and discuss policies, benefits and citizen entry points to the program.
MAY 14 1980	Citizens meeting to review activities and changes in the CZM Program, and discuss policies, benefits and citizen entry points to the program.		
MAY 15 1980		Citizens meeting to review activities and changes in the CZM Program, and discuss policies, benefits and citizen entry points to the program.	

Appendix D



Technical Support Information

INTRODUCTION

The coastal zone is a complex system made up of many smaller processes functioning as a unit. In order to understand the coastal zone, it is necessary to break the large unit into smaller, more easily studied systems. As the preliminary step in developing the Coastal Zone Management Program, extensive technical baseline studies were conducted by the program staff and consultants. These studies involved the physical as well as the socioeconomic characteristics of both Pennsylvania coastal zones. The baseline studies enabled the coastal zone staff to thoroughly understand the complex system and from there, to make perceptive decisions and recommendations on the wise use of our coastal zone and its resources.

This appendix is a compilation and synopsis of the basic technical support studies and material that were utilized in the development of this document. Most of the information is listed by functional areas, except for maps, the Draft Pennsylvania Coastal Zone Management Program, and the Coastal Zone Management Program Technical Record. The Technical Record is given special attention because it incorporates the findings of many of the studies and material listed in this appendix, and served as the basis for much of the Draft Pennsylvania Coastal Zone Management Program Document and the Draft Environmental Impact Statement.

The following support documents are available on a limited basis, to those interested, from the offices of the Delaware Valley Regional Planning Commission (Philadelphia, Pennsylvania), Erie County Department of Planning (Erie, Pennsylvania), and the Department of Environmental Resources, Coastal Zone Management Branch (Harrisburg, Pennsylvania).

DRAFT PENNSYLVANIA COASTAL ZONE MANAGEMENT PROGRAM

This document which is a draft of the proposed Pennsylvania Coastal Zone Management Program was prepared by the Coastal Zone Management Branch, Office of Resources Management, Department of Environmental Resources in February 1980. The Coastal Zone Management Program represents a plan for managing important land and water resources in the Commonwealth's coastal areas located along Lake Erie and along the tidal reach of the Delaware River. In accordance with the prescribed Federal review and approval requirements, this draft document was submitted to the National Oceanic and Atmospheric Administration to determine if basic program requirements had been fulfilled and if Pennsylvania was eligible for Section 306 program approval. Based upon the findings of this review, together with comments of affected Federal, State, and local agencies, the Draft Pennsylvania

Coastal Zone Management Program Document was molded into a required Draft Environmental Impact Statement.

TECHNICAL RECORD

This document which represents four years of cooperative effort by the Department of Environmental Resources, the Delaware Valley Regional Planning Commission, and the Erie County Department of Planning, was completed in December, 1978. The document is a comprehensive and detailed statement of land and water use inventories, technical findings and recommendations, policies, and standards regarding the protection and development of coastal resources in the Commonwealth of Pennsylvania. It consists of 506 pages and 63 maps and has been designed to fulfill the need for a well organized, readily usable source of coastal information, as well as to present the technical elements and details of the proposed Coastal Zone Management Program.

SUPPORT DOCUMENTS BY FUNCTIONAL AREA

Uses Subject to Management

Atlas Descriptions for the Delaware Estuary:
Delaware Valley Regional Planning Commission
August 1975 - 37 Pages
This is a summary of the description, significance and source for each of the maps developed in the inventory phase of the Coastal Zone Management Program. These maps include environmental, ecological, demographic, and economic parameters within the Delaware Estuary. There are 35 maps described, and they are prepared at a scale of 1" = 2000'.

Socio-economic Data for Coastal Zone Planning in the Delaware River Estuary:
Delaware Valley Regional Planning Commission
August 1975 - 27 Pages
This report summarizes various demographic and socioeconomic characteristics within the coastal zone. The parameters studied include total population, black population, employment, median income, families with poverty level income, and housing tenure. This baseline study is useful in describing the residents and background characteristics of the Delaware River Estuary.

Problems and Issues Within and Affecting the Delaware Estuary Coastal Zone:
Delaware Valley Regional Planning Commission
September 1975 - 58 Pages
This paper discusses the problems which face coastal zone management. It represents the first element in the development

of a policy framework by identifying problems and initiating agency involvement in the Coastal Zone Management Program.

Pennsylvania Coastal Zone Resources Analysis for Lake Erie:
Erie County Department of Planning
September 1975 - 340 Pages
The purpose of this analysis is to determine the condition of the physical, social, and economic resources as they presently exist and to project their cumulative effect by the year 2000 in the Lake Erie coastal zone. These effects will be used to determine which uses will exert a direct and significant impact on the coastal waters of Lake Erie. Also included in this report is a general description of the Lake Erie coastal zone environment, and a summary of the issues and problems confronting the coastal zone.

Transportation Systems in the Delaware Estuary Coastal Zone:
Delaware Valley Regional Planning Commission
October 1975 - 35 Pages
This paper studies transportation systems which help to shape the patterns of urban life and the spatial structure of a community. The study considers the general problems of transportation systems and includes a cursory examination of highways, public transportation, highway network, freight rail facilities, airport facilities, and port facilities.

Desired Coastal Water Characteristics as Proposed for the Erie County Coastal Zone Management Program:
Erie County Department of Planning
October 1975 - 2 Pages
This cursory paper discusses those water quality characteristics of the Lake Erie coastal waters and the minimum water quality criteria which should be met.

Working Paper on Alternatives for Economic Analysis:
Delaware Valley Regional Planning Commission
December 1975 - 6 Pages
This paper discusses two general methodologies to analyze direct and indirect economic impacts. The first analytical method involves the matrix or checklist approach. The second method requires mathematical modeling or simulation.

Lake Erie Offshore Ecological Investigation:
Marine Science Consortium
June 1976 - 488 Pages
This investigation represents a baseline study of offshore and nearshore areas. Included in this study are the analysis of nearshore sediment transport processes and the analysis of the environmental implications of offshore gas drilling. The report also examines existing water quality conditions and any trends which might have a direct and significant impact on aquatic organisms found in Lake Erie. The study also identifies areas where water quality is severely affected by onshore land use activities and the factors which cause the adverse conditions.

Coastal Recreational Analysis:
Department of Environmental Resources, Coastal Zone Management Branch (Delaware Estuary and Lake Erie coastal zones)
October 1976 - 30 Pages
This analysis includes an examination of the coastal zone recreation issues, an analysis of regional data to formulate trends in coastal recreation. The paper also identifies the coastal recreation resources and the selection of sites to meet future recreational demands.

Capability and Suitability of Lake Erie Coastal Zone to Meet State Needs:
Erie County Department of Planning
October 1976 - 7 Pages
This report addresses each general category of State needs and determines whether or not the Lake Erie coast is capable and suitable for meeting the needs.

Analysis of State Needs Which Will be Most Effectively Met Through Coastal Land and Water Uses:
Erie County Department of Planning
October 1976 - 3 Pages
This brief working paper analyzes the Pennsylvania needs which can best be met through coastal land and water uses in the Lake Erie coastal zone.

Outer Continental Shelf Impact Study - Supplement to Pennsylvania's Coastal Zone Management Plan:
Governor's Energy Council
November 1977 - 165 Pages
This study presents an assessment of the economic, social, political and environmental impacts which may result in Pennsylvania's Delaware Estuary coastal zone because of drilling for oil and natural gas in the OCS of the Middle Atlantic.

Special Management Areas

Shoreline Erosion and Flooding:
Great Lakes Research Institute
June 1975 - 160 Pages
This study identifies and classifies erosion and bluff recession hazard areas along approximately 51 miles of Erie County lakeshore and 12 miles of bayshore. The rates of bluff recession have increased significantly along with the shoreline erosion rate in recent years. The higher than normal lake levels have been the major cause of these severe problems. There are 109 sites classified as either critical (44), moderate (51), or limited (10) hazard areas.

Geographic Areas of Particular Concern - Areas of Significant Natural Value Within the Pennsylvania Coastal Zone of Lake Erie:
Edinboro Foundation
February 1976 - 200 Pages

This report considers 20 major sites of natural significance. Streams, wetlands, forests, beaches and steep slopes are used as the parameters. A comparative secondary analysis is made of each selected site to determine uniqueness. A matrix type evaluation is used to evaluate the impact of natural processes. Each of the 20 areas is then designated as either a preservation area, a conservation area or a recreation area with recommendations on the maintenance of these areas included in the report.

Geographic Areas of Particular Concern (GAPC) in the Delaware Estuary Coastal Zone:
Delaware Valley Regional Planning Commission
April 1976 - 52 Pages
This paper identifies those critical areas where some form of State interest is required in order to deal with land use issues of greater than local concern. Four types of GAPC are identified for the Delaware Estuary: "areas of significant natural value", "development opportunity areas", "areas of significant recreational, historic, or cultural value" and "overlap areas".

Geographic Areas of Particular Concern (GAPC) in the Lake Erie Coastal Zone:
Erie County Department of Planning
April 1976 - 5 Pages and 5 Pages on revision
This paper identifies those critical areas where some form of State interest is required in order to deal with issues of greater than local concern. Three types of GAPC have been identified. The first are "areas of economic opportunity", the second are "areas of significant natural value" and the third is "areas of significant recreational, historic or cultural value".

Procedure Used to Define Permissible Uses:
Erie County Department of Planning
July 1976 - 11 Pages
This report determines which land uses are appropriate for different areas of the Lake Erie coastal zone. The permissibility is based on the ability of coastal resources to support a land use and to absorb the imapcts resulting from that land use. A three tier approach was used to determine permissible uses.

Determining Permissible Uses in the Coastal Zone of the Delaware Estuary:
Delaware Valley Regional Planning Commission
November 1976 - 13 Pages
The objective of this report is to determine those land uses which are appropriate for different areas of the coastal zone. The permissibility of uses is based on the ability of coastal resources to support land use. Three major steps are used to determine permissible uses. The first is an inventory, the second is impact analysis, and the third is the actual determination of permissibility.

Four Environmentally Significant Areas:
Delaware Valley Regional Planning Commission
November 1976 - 58 Pages
The purpose of this study is to determine the significance of four environmentally sensitive areas by studying the relationships of the living organisms and their physical environment. The four areas which were determined to be of significant natural value during the initial study include: Tinicum Marsh, Little Tinicum Island, Warner Lakes, and Biles Island.

Boundaries

Discussion of Techniques for Determining the Initial Inland Boundary of the Coastal Zone Study Area:
Delaware Valley Regional Planning Commission
January 1975 - 2 Pages
This is a brief paper describing the pros and cons of six techniques for determining the initial inland boundary.

Working Paper on the Definition of Direct and Significant Impact:
Delaware Valley Regional Planning Commission
May 1975 - 9 Pages
This paper discusses the legislative requirements and problems associated with defining direct and significant. Four alternative methods are discussed and recommendations are included.

Direct and Significant Impact of Land Use on Coastal Water:
Delaware Valley Regional Planning Commission
August 1975 - 18 Pages
The basic purpose of this early paper was to suggest a list of resources and goals with which the Coastal Zone Management Program is concerned. Included in this paper is a matrix to display affect, along with additional comments on impacts.

Proposed Definitions of Direct and Significant Impact for the Erie County Coastal Zone Management Program:
Erie County Department of Planning
October 1975 - 5 Pages
This paper discusses the working definitions of impact, direct impact and significant impact as applied to coastal zone permissible uses. This was then used to establish a list of resources and goals with which the Coastal Zone Management Program concerns itself.

Desired Categories of Significant Impact (Beneficial Impacts):
Erie County Department of Planning
October 1975 - 1 Page
This brief working paper establishes those significant impacts which are to be considered beneficial in seven coastal problem areas.

A Brief Impact Assessment Methodology for the Lake Erie Coastal Zone of Pennsylvania:
Erie County Department of Planning
May 1976 - 1 Page
This very brief paper discusses the methodology for assessment of impacts in the coastal zone. The impacts were assessed to determine priorities of uses and whether those uses exert a direct and significant impact on coastal waters.

Authorities and Organization

Preliminary Statement of Planning Goals and Objectives for the Delaware Estuary:
Delaware Valley Regional Planning Commission
June 1975 - 9 Pages
This paper is a preliminary set of seven goals with objectives. These goals and objectives were drafted in response to problems identified in the Delaware Estuary study area.

Goals and Objectives of the Pennsylvania Coastal Zone Management Program:
Department of Environmental Resources, Coastal Zone Management Branch
February 1976 - 5 Pages

Legal Analysis of Existing State and Local Authorities:
Department of Environmental Resources, Office of Chief Counsel
September 1976 - 53 Pages
This report identifies and analyzes the current legal constraints and prohibitions in determining the sufficiency of current State and local authorities for implementing a management program. The paper also takes the initial steps in the development of legal techniques, implementation authorities, and administrative procedures needed for program implementation. An investigation of the need for new State legislation is also discussed.

Outline of Potential Coastal Zone Management Legislation:
Department of Environmental Resources, Office of Chief Counsel
June 1977 - 12 Pages
This is an initial working paper of generalized legislative outlines that present possible implementation alternatives. The three major legislative alternatives investigated include direct State planning and regulation of GAPC and projects of greater than local concern; State legislation with State guidelines and local enforcement; and networking of current statutes with some type of legislation to allow State intervention in and override of local decisions.

Coastal Zone Policy Framework:
Department of Environmental Resources, Coastal Zone Management Branch:
October 1978 - 39 Pages

This document establishes overall State coastal policies that will be used to guide the development of updated shoreline management tools by local coastal communities and affected State agencies. These refined and more specific policies both indicate a narrower program focus and present a realistically achievable Coastal Zone Management Program for Pennsylvania.

A Strategy and Organizational Structure for Implementation:
Department of Environmental Resources, Coastal Zone Management Branch
May 1979 - 9 Pages
This paper outlines a new implementation strategy which relies on a combination of two techniques specified in the Coastal Zone Management Act of 1972, including direct state planning and regulation and state establishment of criteria and standards for local implementation. The new strategy relies heavily on a "network" of existing and currently pending state authorities.

Coastal Zone Management Policy Framework and Authority Summary:
Department of Environmental Resources, Coastal Zone Management Branch
June 1979 - 32 Pages
This paper summarizes Pennsylvania's specific coastal policies and identifies relevant constitutional provisions, statutes, regulations, case law and such other legal instruments (including Executive Order and Interagency Memoranda of Understanding) that will be used to carry out the management program.

Legal Analysis-Existing and Proposed Authorities:
Department of Environmental Resources, Office of Chief Counsel
June 1979 - 79 Pages
This paper presents an updated legal analysis of existing authorities relative to their adequacy to implement the policies and organizational structure of the management program, including the identification of legal gaps that must be filled to implement the management program.

<u>Coordination, Public Involvement and National Interest</u>

Discussions on Membership and Role of the Delaware Estuary Coastal Zone Steering Committee:
Delaware Valley Regional Planning Commission
January 1975 - 3 Pages
This paper discusses the make-up and responsibilities of the steering committee in light of Federal requirements. Also included are recommendations for voting and nonvoting members. This paper was followed by a compromise paper in February.

Working Paper on Citizen Participation in the Delaware Estuary:
Delaware Valley Regional Planning Commission
February 1975 - 5 Pages

This paper discusses reasons for and problems involving citizen participation mechanisms. This paper also includes an analysis of alternative approaches and recommendations.

Role of the Coastal Zone Management Subcommittee:
Department of Environmental Resources, Coastal Zone Management Branch
April 1975 - 4 Pages
This paper describes the responsibilities of the State agencies as applied to the Coastal Zone Management Subcommittee. Each of the cooperating State agencies is listed with its coastal zone program responsibilities.

Interrelationships between the Coastal Zone Management Program and Other Planning Efforts Impacting the Coastal Zone:
Delaware Valley Regional Planning Commission
September 1975 - 27 Pages
This report summarizes fourteen key planning efforts in the Delaware Estuary coastal zone by various State, Federal, interstate and regional agencies. The summary of each plan includes the title, the purpose, the source of funding and the role of Delaware Valley Regional Planning Commission in the program. Also included is a discussion of the relationship to the Coastal Zone Management Program and conflicts which might arise.

Interrealtionships Between the Coastal Zone Management Program and Other Planning Efforts Impacting the Coastal Zone:
Erie County Department of Planning
September 1975 - 22 Pages
This report summarizes all of the planning efforts in the Lake Erie coastal zone by various agencies. The summary of each plan includes the title, the purpose and a description of the funding. The paper also describes the role of Erie County Department of Planning within the program, the relationship of the program to the coastal zone study and any conflicts which might occur.

Public Values and Preferences Survey for the Erie County Coastal Zone Management Program:
Erie County Department of Planning
October 1975 - 22 Pages
This is a compilation of the results from the public survey questionnaire. The questionnaire was used to gather citizens input from Erie County. The values and preferences are important to formulate an acceptable Coastal Zone Management Program.

Public Participation Interim Report (Erie County):
Erie County Department of Planning
November 1975 - 45 Pages
This report describes the public participation processes in the Lake Erie coastal zone. The description of the committees, their functions, and their memberships are included in this report.

Pennsylvania Coastal Zone Management Program:
Department of Environmental Resources, Coastal Zone Management Branch
November 1975
The purpose of this brochure was to increase public awareness of the program so as to increase and improve participation in the coastal zone program.

"Lake Erie Coastal Zone Management Program":
Erie County Department of Planning
November 1977
This film documents the attributes and problems of the Lake Erie coastal zone and the reasons and benefits of Pennsylvania's Coastal Zone Management Program.

Pennsylvania's Coastal Zone Management Program:
League of Women Voters
November 1979
This informational flyer addresses the structure and benefits of Pennsylvania's Coastal Zone Management Program in an attractive and easily understandable manner. Five thousand copies were printed for widespread public distribution in both coastal zones.

Future Role of the Coastal Zone Management Subcommittee:
Department of Environmental Resources, Coastal Zone Management Branch
December 1979 - 4 Pages
This discussion paper outlines the role of the State level Coastal Zone Management Subcommittee under the implementation, or Section 306, phase of the management program.

"Tidings":
Delaware Valley Regional Planning Commission
Volume One: #1 (1/76), #2 (3/76), #3 (6/76)
Volume Two: #1 (4/77)
This newsletter passed Coastal Zone Management information to the residents of the Delaware Estuary coastal zone.

"Coastal Tidings":
Department of Environmental Resources, Coastal Zone Management Branch
Volume One: #1 (9/79), #2 (11/79)
Volume Two: #1 (1/80), #2 (3/80)
This newsletter serves as a key mechanism for keeping governmental agencies, special interest groups, and concerned citizens informed of all pertinent aspects of the Pennsylvania Coastal Zone Management Program.

"News":
Erie County Department of Planning
This newsletter, published quarterly, is financed by HUD and passes important coastal zone management information to its readers.

Miscellaneous

Development Program Design for Coastal Zone Management:
Department of Environmental Resources, Coastal Zone Management Branch
November 1974 - 14 Pages
This early working paper set up the three phase program design. The first phase is policy development and problem identification, the second phase is the technical plan and management program, and the third phase is the program resolution and adoption. The paper describes the purpose of each phase and its scope.

Coastal Zone Management Program General Project Overview:
Department of Environmental Resources, Coastal Zone Management Branch
November 1974 - 10 Pages
This paper briefly describes the necessity and purposes of the program, the goals and objectives, and the resources inventory, the boundaries, the permissible uses, the standards and implementation possibilities. Also included is a flow chart of the Coastal Zone Management Act of 1972.

Principles for Guidance of Pennsylvania's Coastal Zone Management Program:
Department of Environmental Resources, Coastal Zone Management Branch
January 1975 - 2 Pages
This is a brief paper listing those principles which give overall direction to the program. All subsequent actions are evaluated for consistency with these three principles.

Three Year Planning Process for the Pennsylvania Coastal Zone Management Program:
Department of Environmental Resources, Coastal Zone Management Branch
March 1975 - 9 Pages
This paper is the three year program development outline. It identifies major work tasks with the needed completion time. The chart uses the "critical path" format.

Coastal Zone Management Program - Executive Summary:
Department of Environmental Resources, Coastal Zone Management Branch
September 1979 - 24 Pages
This summary, which is a condensed version of the comprehensive draft Technical Record, is designed to facilitate public understanding of the Coastal Zone Management Program. It is more current and supercedes the Draft Technical Record in those areas which the two are in conflict, until such time as the Technical Record is updated and finalized.

This section contains a list and description of the Delaware River Estuary Inventory Maps. The maps are hand colored mylar (nonreproducible) and are prepared at a scale of 1" = 2000' (1:24000).

TITLE	SOURCE	MAP DESCRIPTION
WILDLIFE HABITATS	Pa. Fish Commission Birds of Delaware Valley Guide to Bird Finding DVRPC Natural Inventory	Indication of areas that are suitable for wildlife habitats. Six classes are used; wildlife sanctuaries, areas of known concentration, warm water fishing, undeveloped areas, permanent open space areas and general habitat areas.
CHLORIDE CONCENTRATION	Philadelphia Water Department Sample Records 1972	This map shows the mean average summer chloride concentration for 1972 (June through August). This study was done during the low flow because the chloride concentrations are the highest.
DISSOLVED OXYGEN	Philadelphia Water Department Sample Records 1972	This shows the mean dissolved oxygen concentrations of weekly daytime samples for June through August, 1972.
WATER TYPES	USGS 7.5' Quadrangles. DER Water Resource Bulletin. Dams, Reservoirs and Natural Lakes - USACOE Flood Reports	Identification of different types of water areas. Various areas include tidal, intertidal or tidal flat and tributaries to the Delaware River which are under tidal influence. Also identified are reservoirs and other man-made impoundments.
DREDGE DISPOSAL AREAS	Delaware River Dredging U. S. Army COE	Location of areas used for the disposal of spoil material dredged from the navigable stretches of the Delaware.
MUNICIPAL AND INDUSTRIAL DISCHARGERS: DRBC BOD ALLOCATIONS	Delaware River Basin Commission Reports	This map shows the maximum allowable amount of biochemical oxygen demand (BOD) that may be discharged by each discharger. This amount has been determined by the DRBC.
WETLANDS	Delaware River Estuary Marsh Survey Philadelphia Academy of Natural Sciences (1975)	Display of areas with emergent vegetation along the Delaware River and its tributaries. Communities differ in their composition of vegetative species and these various communities have been mapped.

TITLE	SOURCE	MAP DESCRIPTION
SOIL EROSION HAZARD	Bucks Co. Interim Soil Survey Report (1970). Soil Survey of Chester & Delaware Counties (1959). SCS, USDA. Land Treatment Alternatives Technical Guide, Penna. 7/71	By applying the universal soil loss equation to those nonurban soil areas, erosion hazard potential is determined and displayed on this map. The areas shown were undeveloped at the time of the field survey.
PRIME AGRICULTURAL LAND	Soil Surveys of Bucks (1970 Interim), Chester (1959) and Delaware (1959) Counties. SCS, USDA	Land is classified by the Soil Conservation Service according to its capability to support agricultural activity. There are eight agricultural capability land classes. Land in classes I and II is considered prime agricultural land.
	Soil Survey of Bucks (1970 Interim Report). Chester (1959) and Delaware (1959) Counties. SCS, USDA	The capacity of soils to accept effluent from home septic systems is restricted by various factors. Soil is classified in five degrees of suitability; severe, slight, moderate, variable, sewered (usually urban).
SEWAGE DISPOSAL PROBLEM AREAS	Bucks County, Pennsylvania Sewerage Facilities Plan 6/70	Indicates where failure of onlot septic systems have occurred. Approximately 20% or more of the septic systems in these areas are malfunctioning.
CRITICAL GROUNDWATER RECHARGE AREAS	COWAMP Resources Inventory COWAMP Chapter IV Preliminary Draft	This map shows the zones which recharge is critical to supply the large amounts of groundwater demanded by residential, commercial and industrial users.
AREAS OF GROUNDWATER OVERPUMPING	COWAMP Resources Inventory COWAMP Chapter IV Preliminary Draft	Displays areas which the users of groundwater may be extracting the groundwater at a rate in excess of that which is being replaced by the aquifer.
WOODED AREAS	DVRPC Interpretation of High Altitude Aerial Photography	This map shows the areas vegetated with several kinds of forest cover. Coniferous, deciduous, combined, recent forest growth (secondary successional), and orchards and indicated.

TITLE	SOURCE	MAP DESCRIPTION
EXISTING LAND USE	DVRPC 1970 Land Use File	This map depicts 13 categories of land use within the coastal zone: 1) Residential single family detached, 2) Residential multiple units, 3) Manufacturing, 4) Transportation, 5) Communication, 6) Commercial, 7) Community service, 8) Military, 9) Recreational and cultural, 10) Agricultural, 11) Mining, 12) Forests and undeveloped, 13) Water areas
PROPOSED LAND USE CATEGORIES	Land Use Plans of Local Municipalities	A composite of recent land use plans for each municipality. The categories have been organized into ten uniform classes. Five show various densities of residential development. The others are commercial, industrial, institutional, open space, transportation and utility
HISTORICAL SITES	DVRPC Inventory of Historic Sites 1969. Updated by Pa. Historical & Museum Commission 1975	Location of over 300 sites of historical and cultural interest. Shows historic districts comprised of concentrated multiple sites in a compact area.
CENSUS TRACTS	U. S. Bureau of the Census 1970	The 1970 Census tracts and boundaries and identifying numbers for the Delaware Estuary coastal zone.
GENERALIZED ZONING	Zoning Ordinances of Municipalities	Compilation of the most recent zoning maps of municipalities using a uniform set of categories. Shows eight classes of density related residential activity, as well as commercial, industrial, institutional and open space.
EMPLOYMENT	DVRPC Employment File 1970	This map shows the number of people employed in each cnesus tract. There are five general categories: 1) Agriculture & Mining, 2) Construction & Manufacturing, 3) Transportation & Communication, 4) Wholesale & Retail, 5) Finance, Government & Military.
TOTAL POPULATION	U. S. Bureau of Census Tracts	The total population of each census tract is given on this map.

TITLE	SOURCE	MAP DESCRIPTION
SPANISH SPEAKING POPULATION	U. S. Bureau of Census 1970	Shows the percentage of the total population that is Spanish speaking as one of five categories: 1) less than .5%, 2) .5-.9%, 3) 1-4.9%, 4) 5-14.9%, 5) more than 15.0%.
PERSONS 65 YEARS AND OLDER	U. S. Bureau of Census 1970	Illustrates the percentage of persons 65 years and older in the total population as one of five categories: 1) less than 5.0%, 2) 5-9.9%, 3) 10-14.9%, 4) 15-19.9%, 5) more than 20%.
FAMILIES WITH FEMALE HEADS	U. S. Bureau of Census 1970	This map shows the percentage of families in the total population that are headed by females as a percentage category. 1) less than 2.5%, 2) 2.5-4.9%, 3) 5-9.9%, 4) 10-29.9%, 5) more than 30%
MEDIAN SCHOOL YEARS COMPLETED	U. S. Bureau of Census 1970	The average number of school years completed by adults in each census tract as one of the following five categories: 1) less than 8 years, 2) 8-9.9 years, 3) 10.0-11.9 years, 4) 12.0-13.9 years, 5) 2-14 years.
MEDIAN INCOME	U. S. Bureau of Census 1970	The median income of families within each census tract is shown as one of the following five categories: 1) less than $7,000, 2) $7,000-9,499, 3) $9,500-11,999, 4) $12,000-13,999, 5) more than $14,000.
FAMILIES WITH INCOME BELOW POVERTY LEVEL	U. S. Bureau of Census 1970	The percentage of families with income below the poverty level ($3,743 for a family of four in 1969). 1) less than 3.0%, 2) 3.0-7.9%, 3) 8.0-15.9%, 4) 16.0-24.9%, 5) more than 25%.
MAJOR POWER GENERATING FACILITIES	DRBC Master Siting Study 12/71	This map shows electrical power generating stations that are presently located along the Delaware River. Plants which are planning expansions are shown. No new facilities are (shown) being planned.

TITLE	SOURCE	MAP DESCRIPTION
STRUCTURES BUILT PRIOR TO 1939	U.S. Bureau of Census 1970	The percentage of all structures built before 1939 is shown in one of five categories for each census tract: 1) less than 10%, 2) 10-29.9%, 3) 30-59.9%, 4) 60-89.9%, 5) more than 90%.
MEDIAN CONTRACT RENT MONTHLY	U.S. Bureau of Census 1970	The median rent paid by tenants in each tract is shown in one of five categories: 1) less than $60, 2) $60-79, 3) $80-109, 4) $110-139, 5) more than $140.
PERSONS IN GROUP QUARTERS	U.S. Bureau of Census 1970	The percentage of the population living in group quarters for each census tract is shown in one of five categories: 1) less than 0.5%, 2) .5-.9%, 3) 1.0-9.9%, 4) 10-39.9%, 5) more than 40%.
BLACK POPULATION	U.S. Bureau of Census 1970	This map shows the percentage of the total population that is Black. There are five categories: 1) less than 3.0%, 2) 3-14%, 3) 15-39%, 4) 40-74%, 5) more than 74%.
TENURE (OWNER, RENTER)	U.S. Bureau of Census 1970	Shows the total number of owner and renter occupied housing units for each census tract.
MEDIAN VALUE OF OWNER-OCCUPIED HOUSING	U.S. Bureau of Census 1970	The median value of owner occupied housing units is shown as one of five categories: 1) less than $7,000, 2) $7,000-9,999, 3) $10,000-14,999, 4) $15,000-19,999, 5) more than 20,000.
EXTRACTIVE RESOURCES	USGS 7.5' Quadrangle DVRPC Aerial Photo	Any currently operating sand and gravel pits located in the coastal zone are shown on this map.

This section contains a list and description of the Lake Erie Coastal Zone Inventory Maps. The scale of these maps is generally 1" = 1 mile but the scale may vary from map to map.

TITLE	SOURCE	MAP DESCRIPTION
WASTEWATER DISPOSAL 3 STUDY AREAS	USGS 7.5' Quadrangle. (Base) Dept. of Env. Resources, Bureau WQM, COWAMP, Erie County Health Dept.	These maps show the location of private, municipal, industrial and electrical generating wastewater disposal sites.
CLIMATE FEATURES ERIE COUNTY	U.S. Weather Service	These charts and maps show the various meteorological aspects of the Erie coastal zone. Characteristics shown include; Average depth of snow, avg. air temperature, precipitation (maximum, ave., minimum), and wind direction and velocity.
MINERAL EXTRACTION 3 STUDY AREAS	USGS 7.5' Quadrangle. (Base) and information Pa. DER - Bureau of Geology	These maps show the extraction resources in the Erie coastal zone. These include active and closed gas wells, gravel pits and salt brine wells.
LAND AND WATER FORMS ON THE PRESQUE ISLE PENINSULA	U.S. Army Corps of Engineers, Buffalo District	This map shows the land and water forms which exist on the Presque Isle peninsula. The forms are of two general kinds; dunes or bays and ponds.
SUCCESSION STAGES ON PRESQUE ISLE	Michael Baker Jr., Inc.	This cross sectional diagram show the land formations which occur on Presque Isle as well as their accompanying vegetation.
PRESQUE ISLE STATE PARK SHORE LINE CHANGES	Presque Isle State Park Master Plan Pa. Dept. of Env. Resources	This map illustrates the everchanging shore line of the Presque Isle Peninsula from 1819 through 1969.
BEACHES INTENSE STUDY AREA	ECMPC from Aerial Photo	This map shows the beach areas along the Erie coast in Pennsylvania.

TITLE	SOURCE	MAP DESCRIPTION
REGIONAL LOCATION COASTAL ZONE, ERIE CO., PA.	Erie County Metropolitan Planning Commission (ECMPC)	Shows the location of the Erie coastal zone in Pennsylvania in relation to the Great Lakes and the Middle Atlantic Seaboard.
ERIE COUNTY COASTAL ZONE INTENSE STUDY AREA	ECMPC	Illustrates Erie County (Pa.), the three study areas, the Erie Basin boundary, and the townships and boroughs in the County.
ERIE COUNTY MAJOR WATERSHEDS 3 STUDY AREAS	USGS 7.5' Quadrangle (Base) ECMPC Information	These maps show the watersheds within the Erie coastal zone intense study area.
EXISTING LAND USE 3 STUDY AREAS	USGS 7.5' Quadrangle (Base)	These maps show the present land use in the intense study area. Land uses fall into one of fourteen classes.
COMMERCIAL NAVIGATION & FISHING FACILITIES (CENTRAL AREA)	USGS 7.5' Quadrangle (Base). Pa. Fish Commission Port Development Plan 1968. Erie Port Authority	This map shows those areas in the Erie City Port which are used as facilities for navigation (oil, grain, etc.) and fishing.
SURFACE WATER WITHDRAWAL SITES (CENTRAL AREA)	USGS 7.5' Quadrangle. Dept. of Env. Resources. COWAMP. County Water Authority	This map shows the location of water intakes in the lake for the municipal water supply.
RECREATIONAL WATER USES 3 STUDY AREAS	USGS 7.5 Quadrangle. (Base) ECMPC Information	These maps show the shore and near-shore recreational water uses. These uses are divided into two general categories; swimming and general fishing and boating.

TITLE	SOURCE	MAP DESCRIPTION
FISH & WILDLIFE HABITATS 3 STUDY AREAS	USGS 7.5' Quadrangle (Base) Pa. Fish Commission ECMPC	These maps show the native fish in the coastal zone and tributary streams. Also shown are any unusually high wildlife concentrations or sanctuaries.
STREAMS, WETLANDS & FLOOD PRONE AREAS 3 STUDY AREAS	USGS 7.5' Quadrangle (Base) and information. U. S. Army Corps of Engineers	These maps show the streams, wetlands, small bodies of water and areas prone to flooding in the Erie Coastal Study Area.
SLOPES AND SOILS 3 STUDY AREAS	USGS 7.5' Quadrangle Erie County Soil Survey - SCS 12/60	These maps show the slopes on the Lake Erie coastal zone.
GENERAL SOIL MAP 3 STUDY AREAS	USGS 7.5' Quadrangle Erie County Soil Survey - SCS 12/60	These maps show the general types of soil which occur in the study area.
GENERAL GROUND WATER AVAILABILITY 3 STUDY AREAS	USGS 7.5' Quadrangle (Base) ECMPC	These maps show the areas which may produce reliable supplies of groundwater as well as those areas of unreliable supply and those areas with public supplies.
NATURAL & SCENIC HISTORICAL & ARCHAEOLOGICAL 3 STUDY AREAS	USGS 7.5 QUADRANGLE (Base) Erie County Historical Society ECMPC	These maps show those areas of greater than local interest. These areas are natural or historical.
OWNERSHIP PATTERNS 3 STUDY AREAS	USGS 7.5' Quadrangle (Base) County Tax Assessment Maps	These maps show the ownership patterns for the coastal zone. The ownership is divided into four categories; public, semi-public, private and roads.

TITLE	SOURCE	MAP DESCRIPTION
ZONING DISTRICTS BY MUNICIPALITY 3 STUDY AREAS	USGS 7.5' Quadrangle (Base) Municipal Zoning Maps	Illustration of the zoning districts of each municipality along the coastal zone.
MULTIMODAL TRANSPORTATION SYSTEMS 3 STUDY AREAS	USGS 7.5" Quadrangle (Base) PennDOT ECMPC	These maps show the transportation systems within the coastal zone including highways, railroads, airports, and ferry boats.
HIGHWAY IMPROVEMENTS CENTRAL & EAST AREAS	USGS 7.5' Quadrangle (Base) PennDOT Erie Area Transportation Study	These maps show planned improvements to the highway system and their priority for completion.
ERIE WATERFRONT OWNERSHIP	ECMPC Base Port Development Plan	This map shows the existing ownership of the property on the Erie City waterfront.
ERIE WATERFRONT DEVELOPMENT PLAN	NOAA Base Map Port Development Plan	This is a general map of the Erie waterfront showing the three main zones.
PRESENT FACILITIES EAST BAY AREA	ECMPC Base Map Port Development Plan	This map illustrates the existing facilities for handling shipping commerce in the East Bay area of the Erie waterfront.
PLANNED FACILITIES EAST BAY AREA	ECMPC Base Map Port Development Plan	This map illustrates the planned improvements for expanding the East Bay area marine terminal facilities.

TITLE	SOURCE	MAP DESCRIPTION
EXISTING AND PROPOSED MARINAS AND BOAT LAUNCHING FACILITIES	NOAA Base Map - ECMPC Presque Isle Master Plan Port Development Plan	This map shows the recreational boating facilities in Erie Harbor. This includes existing and proposed marinas as well as public and private boat launching ramps.
ERIE WATERFRONT DEVELOPMENT PLAN PROPOSED WATERFRONT IMPROVEMENTS	ECMPC Base Map Port Development Plan	The map shows the planned improvements to the whole Erie waterfront.

Part III

Alternatives to the Proposed Action

PART III

PART III - ALTERNATIVES TO THE PROPOSED ACTION

Given the nature of the proposed action, which is approval of the Pennsylvania Coastal Program, all Federal alternatives involve a decision to delay or deny approval. In approving a coastal management program, the Assistant Administrator for the Office of Coastal Zone Management must find that a state has met over twenty requirements. Delay or denial of program approval could be based on failure of the Pennsylvania program to meet any one of the requirements of the Federal Coastal Zone Management Act (CZMA), as amended.

The Pennsylvania Coastal Zone Management Program is a network of State authorities designed to manage coastal resources according to a uniform set of State policies. Agencies responsible for administering the authorities are directed by an Executive Order or have agreed through a Memorandum of Understanding to carry out their authorities in a way that is consistent with the policies of the management program. The major regulatory authorities that are to be incorporated into the program are: the Floodplain Management Act, the Dam Safety and Encroachments Act, and the Bluff Recession and Setback Act. Draft regulations for each of these authorities have been developed and will become final prior to Federal approval of the Pennsylvania Coastal Zone Management Program. The draft regulations are included in Appendix B of this Draft Environmental Impact Statement (DEIS).

In order to elicit public and agency comment and assure that the Assistant Administrator's initial determination is correct, this section identifies areas where there are possible deficiencies, and considers alternatives of delay or denial based upon each. Before examining the alternatives, the following section identifies the generalized impacts that would result from delay or denial on any basis.

1. <u>Loss of Federal funds to administer the program.</u> Under Section 306 of the CZMA, as amended, Pennsylvania would receive approximately $1 million per year to administer its coastal management program. Most basic to a loss of Federal funds will be the inability of the State to provide adequate staffing and administrative support to coordinate and evaluate State and Federal coastal actions and permits, to assure that government agencies operate consistently with coastal policies, to enforce State regulatory authorities in the coastal area, and to provide funds to State agencies and local governments that will encourage port development, coastal access, development of local plans and zoning ordinances, and provide for technical assistance for solving coastal resource problems.

2. Loss of consistency of Federal actions with Pennsylvania's Coastal Zone Management Program and its policies. Program approval would mean that Federal actions, in or affecting the Pennsylvania coastal zone, would have to be consistent with the State's program under Section 307(c) of the CZMA. This consistency provision is of particular concern to the Commonwealth of Pennsylvania as its coastal zone, especially the Delaware River, is heavily influenced by Federal activity. Loss of Federal consistency in the State's coastal zone could have significant effects on the coastal resources by continuing the present practice of conducting Federal activities, issuing Federal licenses and permits, and providing Federal assistance in the coastal zone for potentially uncoordinated and conflicting objectives.

3. Loss of adequate consideration of the national interest in the siting of facilities which are other than local in nature as required by Section 306(c)(8) of the CZMA. By delaying or denying program approval, the State would be under no obligation to give adequate consideration to coastal resources and facilities that are of national interest. This could result in loss of public benefit that the use of such resources may provide. For example, failure to allow expansion of port facilities to accommodate transshipment of coal for energy production in the Port of Erie could result in the need for use of different energy sources. This may add to higher energy costs to the public. However, the national interest also encompasses a concern for the protection of resources such as water, air, wetlands and wildlife. Consideration of the need for the national interest in facilities would take into account the impacts of facilities on these key resources.

   Program approval would mean that the State could undertake increased technical assistance to local governments and improve implementation of existing State programs. This would give the State and local governments an opportunity to give balanced consideration to both facilities and resources in the national interest, through mechanisms such as the Environmental Quality Board for adoption of regulations, the Environmental Hearing Board for administrative appeals of State actions, and the courts for judicial appeals. Lacking program approval, these considerations affecting resources in the national interest might not be made.

4. Potential loss of eligibility of funds available under the Coastal Energy Impact Program(CEIP). No coastal

state is eligible to receive financial assistance under the CEIP unless the state:

a. Has a management program approved under Section 306 of the CZMA;

b. Is receiving a grant under Section 305(c) or 305(d) of the CZMA; or

c. Is making, in the judgment of the Assistant Administrator for Coastal Zone Management, satisfactory progress toward development of a management program which is consistent with the policies of Section 303 of the Coastal Zone Management Act.

The Pennsylvania Coastal Zone Management Program is currently operating under a grant pursuant to Section 305(c) of the CZMA. The grant is scheduled to expire on September 30, 1980. Since the authority to make grants under Section 305 has expired, the State will not be able to receive any more 305 grants. If OCZM is unable to find that the State has met all the requirements for program approval during the remainder of the 305 grant period, OCZM would be forced to delay or deny program approval. In order to then be eligible for CEIP funds, Pennsylvania would have to show that it was making satisfactory progress under Section 303 of the CZMA. This process could consume a long period of time during which the State would be ineligible to receive CEIP funding.

Alternative I - The Assistant Administrator could delay or deny program approval if there is no means to implement and enforce the management program.

As part of an earlier program proposal, Pennsylvania proposed a management scheme which involved a complex relationship between the State, counties, townships and municipal governments. As it was proposed, this scheme would not meet Federal program approval regulations for the following reasons:

1. A timetable for local adoption of erosion, floodplain and wetland controls pursuant to State legislation and State guidelines was not provided.

2. There was no provision for State enforcement of erosion, floodplain and wetland controls prior to certification by the State that local governments are able to implement these controls.

Two new authorities have been enacted since Pennsylvania made its initial program proposal. These provide a means for State protection of floodplain and wetlands areas. These are the Floodplain Management Act and the amendments to the Water

Obstructions Act, or as it is now called as a result of the amendments, the Dam Safety and Encroachments Act.

Under the provisions of the Floodplain Management Act, local governments which have been notified by the U.S. Department of Housing and Urban Development as having an area or areas subject to flooding are required to participate in the National Flood Insurance Program within six months of notification. Failure to comply with this requirement will result in legal action by the State against that municipality which has failed to comply. Under Section 302 of the same law, the Commonwealth is required to directly regulate certain obstructions such as public utility services in floodplains. This will provide a means of protecting State investments in public infrastructure in areas of the coastal zone subject to flooding.

Under the Dam Safety and Encroachments Act, the State exercises direct regulatory authority over water obstructions and encroachments that would occur or be placed in wetlands of the Commonwealth. Regulations to implement this new authority will be found in draft form in Appendix B of the DEIS. Final regulations will be adopted prior to program approval.

A third new authority, necessary for program approval, is currently pending before the State legislature. This bill, known as the Bluff Recession and Setback Act, provides that within six months following identification and designation of areas subject to bluff recession hazards, each municipality with such areas shall implement ordinances and regulations necessary to regulate construction and development activities in those areas subject to bluff recession hazards. The State may file suit to restrain, prevent or abate violations of this Act or municipal ordinances or regulations designed to implement this Act. Prior to local implementation of ordinances and regulations in bluff recession hazard areas, the Commonwealth will control the placement of structures in these areas.

The Pennsylvania program relies on an Executive Order and Memoranda of Understanding between State agencies to require that all program policies and authorities are carried out in a uniform and consistent fashion. The Executive Order that will be issued to implement and enforce the policies of the coastal management program will direct State administrative departments and other State agencies under jurisdiction of the Governor to act consistently with the State authorities that are part of the management program. The Governor has the responsibility under the Pennsylvania Constitution to ensure that the laws of the Commonwealth are enforced, and the issuance of an executive order is one means by which the Governor can execute the laws of the Commonwealth.

In addition, Article I, Section 27 of the Pennsylvania Constitution, also known as the Environmental Rights Amendment, provides for the conservation and maintenance of public trust

resources. In executing the laws which are incorporated into the management program, the State will also rely on Article I, Section 27 as a mandate to carry out and enforce the regulatory statutes in a manner that carries out the provisions of Article I, Section 27.

Under Pennsylvania law, three administrative agencies with responsibilities in the coastal zone are not legally bound by an Executive Order. They are the Fish Commission, the Historical and Museum Commission, and the Public Utility Commission. Memoranda of Understanding will be developed between the DER and these agencies. The Memoranda developed between the agencies will outline the processes by which these agencies shall be consistent with the policies of the coastal program, fully consider the national interest in the siting of facilities that are other than local in naturel, and report the status of its projects to the Coastal Zone Management Program.

Alternative II - The Assistant Administrator could delay or deny program approval if regulations to implement the State authority over activities in wetlands have not been adopted.

Pennsylvania is developing regulations as a basis for reviewing activities proposed to occur or be located in coastal wetlands. These regulations will delineate the specific criteria the State will use to issue or deny permit requests for activities in coastal wetlands and for other activities in the bed of Lake Erie and the Delaware River subject to the Dam Safety and Encroachments Act. Draft regulations will be found in Appendix B of the DEIS. Prior to program approval, final regulations will be adopted.

Alternative III - The Assistant Administrator could delay or deny approval if the Commonwealth did not have the necessary authorities to deal with the significant problems and issues of the two Pennsylvania coastal areas.

During the development of the State's coastal management program, it became clear that the State would require additional authority to address development in wetlands, floodplains, erosion hazard areas, and activities in the Delaware River within the city limits of Philadelphia. Over the past two years, the Pennsylvania General Assembly has acted to close these substantive gaps in State authority. It passed the Floodplain Management Act, which was signed into law by the Governor on October 4, 1978. The Act mandates that municipalities which have an area or areas subject to flooding shall participate in the National Flood Insurance Program. In addition, it also provides that the State, acting through the Department of Community Affairs and the Department of Environmental Resources, shall regulate particular obstructions in the floodplain. These obstructions include hospitals, nursing homes, jails, new mobile

home parks, subdivisions, or substantial additions to mobile home parks or subdivisions. Under the same act, the State Department of Environmental Resources has exclusive jurisdiction to regulate:

1. Any obstruction otherwise regulated under the Water Obstructions Act;

2. Any flood control project constructed, owned or maintained by a governmental unit;

3. Any highway or other obstruction, constructed, owned or maintained by the Commonwealth or a political subdivision thereof; and

4. Any obstruction owned or maintained by a person engaged in the rendering of a public utility service.

This law now provides the necessary State authority to manage activities in coastal area floodplains.

During the same session of the General Assembly, a bill amending the Water Obstructions Act was passed on November 26, 1978, enabling the State to regulate water obstructions and encroachments in coastal wetlands. Also, other amendments passed in 1979 clarified what the State must consider in promulgating the regulations pursuant to Chapter 105 of the Pennsylvania Code of Regulations relating to water obstructions and encroachments. (These amendments also changed the title of the bill to the Dam Safety and Encroachments Act.) Included in these regulations must be consideration of:

1. The state of scientific and technological knowledge and good engineering practice relating to various types of water obstructions and encroachments;

2. The economic impact upon the Commonwealth and its citizens;

3. The relationship of water obstructions and encroachments to hydrologic management in the watershed as a whole; and

4. The impacts of water obstructions and encroachments upon water quality and the environment.

In addition, the 1978 amendments provide that the State shall have control over water obstructions and encroachments which in any manner changes, expands or diminishes the course, current or cross-section of any watercourse, floodway, or body of water within the city limits of Philadelphia. Under previous legislation, control over the Delaware River within the City of Philadelphia had been granted to the city. Because of significant coastal activities within the city along the Delaware

River, this was identified as a gap in State authorities. As a result of the amendments to the Water Obstructions Act, the State now has direct control of activities in the Delaware River within Phialdelphia.

Finally, the State identified the need for legislation to deal with the problem of bluff recession along the shores of Lake Erie. The Bluff Recession and Setback Act, now before the General Assembly, must be enacted into law in order for the Pennsylvania program to receive consideration for Federal approval. The bill requires a setback of all new structures outside the erosion hazard area and generally prohibits reconstruction or improvements exceeding 50 percent of the market value of the structure. Prior to receiving program approval, bluff recession hazard areas must be designated and regulations implementing the bill must be adopted. Local governments have six months after designation of bluff recession hazard area and the adoption of State regulations to enact ordinances that meet the requirements of the Act. During the six month period, the Department of Environmental Resources will enforce provisions of the Act in any municipality which does not have its own ordinance which meets the requirements of the Bluff Recession and Setback Act.

With the enactment of this piece of legislation, the State will have the necessary management authorities needed to address the scope of its program.

Alternative IV - <u>The Assistant Administrator could delay or deny program approval if the coastal policies are not sufficiently specific</u>.

Pennsylvania's coastal policies have undergone extensive review and examination to ensure that they provide persons affected by the program clear understanding of the content of the program and a clear sense of direction and predictability for decision-makers who must take actions pursuant to or consistent with the management program.

If the policies are not sufficiently specific, the likely results would be as follows:

1. A higher percentage of disputes between State and Federal agencies over actions which must be consistent with the management program or consistent to the maximum extent practicable.

2. Lack of clear understanding over what specific actions the program is trying to accomplish.

3. Conflict between the Commonwealth and the Office of Coastal Zone Management over funding proposals for

program implementation and how such proposals are designed to carry out program policies.

4. Delay in the process of program approval as persons reviewing the program seek clarification and understanding of policies which are not specific.

Regulations which implement the State authorities over floodplains, erosion hazard areas, and wetlands will be adopted prior to approval of the management program. These regulations spell out in greater detail how the State will apply the authorities to carry out the policies of the management program.

Part IV

Affected Environment

PART IV

PART IV - AFFECTED ENVIRONMENT

Part II includes a chapter entitled Introduction and Overview, which includes sections on Coastal Character and Defining the Coastal Boundary. The following section presents a brief summary of those sections describing Pennsylvania's two coastal zones. Additional information may be found in Part II, which also includes maps of each coastal zone.

Delaware Estuary Coastal Zone

The Delaware Estuary coastal zone extends 57 miles from Marcus Hook, to Morrisville on the Pennsylvania side of the Delaware River. The coastal zone is irregular in shape, varying in width from 1/8 mile to urban areas like Philadelphia and Bristol, to over 3-1/2 miles in Falls Township, Bucks County. The Delaware Estuary coastal zone includes all or part of 20 municipalities. The 1970 population in the coastal zone was 33,500. Employment totaled 78,500 in 1970, with manufacturing and construction as the largest categories.

Philadelphia has the most completely developed waterfront with more extensive transportation facilities than the other two counties. A diverse mix of land uses occupies the rest of Philadelphia's riverfront, including manufacturing, utilities and military facilities. In Delaware County, a larger share of waterfront is devoted to manufacturing than in either Philadelphia or Bucks Counties. Tinicum Marsh, covering approximately 500 acres, is all that remains of the tidal wetlands which originally encompassed at least 13,000 acres between the Chester Creek in Delaware County and the Frankford Creek in Philadelphia County. Still, Tinicum Marsh contains Pennsylvania's largest tidal wetland area. The shoreline of Bucks County includes a wide variety of uses; and about five miles of riverfront are occupied by residential, recreational, or cultural uses, which are unusual in the other counties.

Notable features of the coastal zone in Bucks County include the 4,000 acre U.S. Steel site, which employes more than 8,000 workers; and the 2,300 acre man-made lakes created by sand and gravel extraction on property owned by the Warner Company.

Lake Erie Coastal Zone

The Lake Erie coastal zone covers 63 miles between the State's borders with New York and Ohio. The most outstanding feature of the Pennsylvania shoreline is the seven-mile long Presque Isle Peninsula which attracts three to four million recreational visitors each year. This 3,200 acre sand spit curves out into the lake forming Presque Isle Bay and sheltering Pennsylvania's only Great Lakes port.

The beaches, dunes and lagoons of Presque Isle contrast sharply with the system of bluffs ranging in height from 10 to 170 feet which separates Lake Erie from the rest of Erie County. There are no major river systems flowing into Lake Erie in Pennsylvania; but there are 50 minor streams, some of which have cut deep gorges into the landscape.

The urban and suburban portions of the City of Erie roughly occupy the central third of the Lake Erie shoreline. The remaining land is sparsely developed with a more rural character. The two largest land uses are agriculture and forest/undeveloped.

The coastal zone is strongly influenced by its proximity to the lake. The climatic effect of Lake Erie extends the growing season, and moderates temperature variations which permit the production of specialty crops such as grapes and other orchard products. In the eastern portion of the Lake Erie coastal zone, almost one-third of the land is devoted to fruit production.

Part V

Environmental Consequences

PART V

PART V - ENVIRONMENTAL CONSEQUENCES

Direct Effects of Federal Approval

The intent of the Federal Coastal Zone Management Act is to promote the wise use of the Nation's coasts. The Act encourages states to achieve this goal through better coordination of government activities, recognition of the long-term consequences of development decisions, and the initiation of a more balanced decision-making process.

Most of the environmental and socioeconomic impacts that will result from Federal approval of Pennsylvania's program will be beneficial. This is initially guaranteed by the language of the Act itself and the regulations promulgated by the Office of Coastal Zone Management to guide program development and approval. The Coastal Zone Management Act makes it national policy to "preserve, protect, develop and, where possible, restore our coastal resources".

The Pennsylvania Coastal Zone Management Program provides a balanced approach to economic development and coastal resource protection. It is the first state program submitted to NOAA-OCZM that deals with two geographically distinct, widely separated and fundamentally different coastal zones. It is this tremendous diversity and the need to develop a common, statewide approach to coastal issues that has produced such a well-balanced program.

1. Program Funding - Federal approval will permit the Office of Coastal Zone Management to award program administrative grants (Section 306) to the Pennsylvania Department of Environmental Resources, Coastal Zone Management Branch. This funding, totaling approximately $1 million per year, will:

    a. Improve resource management decision-making at Federal, State and local levels in both the Delaware Estuary and the Lake Erie coastal zones.

    b. Allow more efficient review of waterfront activities.

    c. Conduct technical studies related to human and natural resources and the overall management process in order to upgrade the information base on which coastal decisions will be made.

    d. Permit Pennsylvania to continue to cooperate with neighboring coastal states (several of which have received Federal approval) on matters of mutual concern.

e. Provide funds to coastal municipalities and governmental agencies to plan for and manage the development of certain types of coastal related facilities (i.e., recreational access, ports, historical restoration) as prescribed in the Coastal Zone Policy Framework.

f. Perhaps most importantly, allow the Pennsylvania Department of Environmental Resources to make grants available to coastal municipalities who wish to update comprehensive plans, zoning ordinances and other regulations in response to coastal zone management goals and objectives.

Of the 30 municipalities in Pennsylvania's two coastal zones, several have never prepared comprehensive plans. Many of the plans and zoning ordinances that exist are more than 20 years old and do not reflect current ideas for coastal development, protection or wise use. Such comprehensive plans could be entirely revamped and modernized through assistance to local coastal governments.

In order for Pennsylvania to have eligibility for Section 308 Coastal Energy Impact Program funds and Formula Grants, the State must be actively participating in Sections 305 or 306 of the Coastal Zone Management Program, or be making adequate progress toward meeting the goals of Section 303. This Section 308 assistance could aid substantially in ameliorating the possible impacts of offshore (Outer Continental Shelf) oil and gas production on Pennsylvania's coastal areas. Grants for recreational facilities could do much to heighten the public's appreciation for, and awareness of, the coastal zone. Federal approval would ensure that at least $550,000 worth of Coastal Energy Impact Program grants would be administered annually by the Pennsylvania Department of Community Affairs.

Additional funding for interstate coordination, beach and island preservation and access, research, and training also may become available if funding for these purposes is authorized in new legislation.

2. Federal Consistency - Federal approval and State implementation of Pennsylvania's Coastal Zone Management Program will have implications for Federal agency actions. Approval of the State's program will lead to the implementation of the Federal consistency provisions of the CZMA (Section 307(c) and (d)). These provisions, and the manner in which Pennsylvania

intends to implement them, are described in Chapter 5 of Part II.

The purpose of the Federal Consistency provisions is to require Federal actions to be consistent with State coastal policies as well as to allow closer cooperation and coordination among Federal, State, and local government agencies involved in coastal related activities and management. This desirable impact is one of the principal objectives of the CZMA.

3. National Interest - Federal approval of Pennsylvania's program will certify that the State has an acceptable procedure to ensure the adequate consideration of the national interest involved in the siting of facilities and management of areas that are of greater-than-local concern. National interest is described in Chapter 5 of Part II.

   This requirement of the Coastal Zone Management Act is intended to assure that national concerns related to facility siting are expressed and dealt within the development and implementation of a state's coastal management program. The requirement should not be construed as compelling Pennsylvania to propose a program which accommodates certain types of facilities, but to assure that such national concerns are considered in the decisions of the management program. In the absence of an approved Coastal Zone Management Program, such considerations could be ignored or implemented haphazardly.

Indirect Impacts of Federal Approval

1. Socioeconomic Impacts - Pennsylvania's four years of participation in the development of a Coastal Zone Management Program has awakened people in both coastal areas to the possibilities that exist for protecting fragile environmental features, expanding waterfront access and promoting sound coastal development. Federal approval of Pennsylvania's program would have the indirect affect of allowing this understanding to spread more widely throughout the coastal zone and to attract the attention of citizens living in inland areas.

   Participation in the Coastal Zone Management Program will show Pennsylvania residents that both the Delaware River and Lake Erie are worthy of renewed attention and emphasize their importance to the respective regions. With renewed interest and respect will come private investment, following the lead offered by public agencies. For example, once local

governments invest in waterfront properties, local industries can be expected to do likewise. Coastal goals of multiple use should become easier to implement.

As the Coastal Zone Management Program restores faith in the value of shorefront properties, land value will increase. Even in advance of Federal approval, knowledge of events occurring in other waterfront communities has spurred development and redevelopment plans.

Although several new permits now exist and are administered by the Pennsylvania Department of Environmental Resources, any increased costs of development will be more than offset by savings in internal coordination and improvement in overall permit administration. Prompt notification of all permits which will be required will ultimately be viewed as a valuable and money-saving proposal. These savings will involve less time and confusion for applicants and reduced government manpower costs. In addition, there will be an availability of preapplication education for complex projects.

Significantly, if the Coastal Zone Management Program in Pennsylvania is not approved, waterfront development and restoration efforts will be uncoordinated and less effective. A major force for regional cooperation will be lost and local triumphs in one area will be reversed by mistakes made in neighboring communities. Some will fix up and restore while others will ignore and despoil. A good measure of predictability and investor confidence will be sacrificed.

Approval of Pennsylvania's Coastal Zone Management Program will mean the beginning of the provision of additional, close-to-home recreational facilities. Travel times and trip costs will be reduced and waterfront recreation activities will become much more available to a larger segment of the State's population. Certain water related sporting equipment and recreational suppliers will benefit first, as increased coastal accessibility begins to materialize.

2. Natural Environment Impacts - Impacts on the natural environment will result from:

   a. Enhanced enforcement and administration of State authorities.

b. Technical assistance to local governments in the planning and management of Geographic Areas of Particular Concern.

The major State authorities which will be incorporated into the program and which will have an impact on the natural environment are:

a. The Dam Safety and Encroachments Act - This provides for protection of wetlands and State owned submerged lands by regulating obstructions and encroachments in these areas. Enforcement of the wetlands provision will occur for the first time as a result of participation by the Commonwealth in the Coastal Zone Management Program. This is as a result of revisions to Chapter 105 of the Pennsylvania Code of Regulations.

b. The Floodplain Management Act - This provides for direct State control of highways, public utility facilities, and certain other obstructions in floodplains. It also requires local adoption of floodplain ordinances sufficient to meet the standards of the National Flood Insurance Program. This will result in the maintenance of the structure and function of floodplains by limiting development in these areas.

c. The Bluff Recession and Setback Act - This requires structures to be setback from bluff areas determined to be hazardous as a result of shoreline erosion. This will result in fewer structures being lost to the effects of shoreline erosion and will reduce the amount of hazardous debris that enter Lake Erie and will reduce the level of pollutants added to the lake as fewer septic tanks and sewer lines are washed into the lake. Passage of this Act is a direct result of the Commonwealth's participation in the Coastal Zone Management Program. Regulations to implement the law are also directly attributable to participation in the program.

Other State laws listed in Appendix A will be incorporated into the program. While their impacts on the natural environment will not be as significant as those above, improvements in their utility as tools to manage the natural environment is expected by participation in the program. The strategies applied to make these improvements will also be applied to the laws listed above. These are:

a. Enhanced monitoring of statutes.

b. Improved regulations to provide clearer standards and criteria for resources protection.

c. Enhanced enforcement of regulatory statutes designed to protect coastal resources.

In summary, the Pennsylvania Coastal Zone Management Program will provide that State authorities designed to manage the natural environment will be improved, or in some cases, implemented for the first time. This will result in enhanced manpower to provide protection of fish and wildlife habitat, improvements to air and water quality, control of development in erosion and flood hazard areas, prevention of stream scour, and enhanced fisheries management.

Participation in the Coastal Zone Management Program will also provide protection of the natural environment through the GAPC process as explained in Part II, Chapter 3. The State already has control to protect the natural environment in many of its GAPC, such as wetlands and floodplains.

In other GAPC, the State will be working with local governments to provide protection of areas nominated as GAPC for their value as natural areas. This will require a commitment from the local government with management control over these areas. This commitment, designating a GAPC, will be made through contractual agreement with the State. In this instance, the local government agrees to maintain the natural value of the area in exchange for State Coastal Zone Management funds to develop an appropriate management scheme and local management tools to provide protection for the designated GAPC.

The GAPC process will also be used to support development activities in other areas of the coastal zone. The effect of this will be to guide development away from areas of natural value into areas where development is more appropriate.

In summary, the effects of program approval on the natural environment will be positive. Improved administration of State authorities and technical assistance to local governments will provide the stimulus.

3. <u>Institutional Impacts</u> - Unfortunately, from the perspective of local governments, the State is often viewed as an uncompromising "enforcer" rather than a

useful partner. Coastal zone management represents a real opportunity to demonstrate the meaningful assistance that the State can provide to local governments.

The program is partially based on a "State/Local" partnership in which the State performs many regulatory functions, but relies on local ordinances for managing activities in floodplains and erosion hazard areas.

One result of improving State/Local relations in the coastal zone is that the concept might spread to inland areas as well. If it is demonstrated that coastal municipalities materially benefited from the coordination of State programs and the availability of funding, services and technical advice, inland municipalities might be tempted to explore such partnerships.

Without Federal approval of the Coastal Zone Management Program, these efforts will be dealt a significant setback.

An important institutional impact of program approval will be on citizen participation. A Coastal Zone Management Program in Pennsylvania will open new doors to citizens who wish to get involved in permit decisions, energy facility siting, recreation planning, wetland protection, water quality improvement, and resource management. Also, there will be a heightened public awareness of governmental processes (i.e., Environmental Hearing Board, Environmental Quality Board, public hearings) which will be used in the conflict resolution aspects of the Coastal Zone Management Program. Program approval will ensure that the decision-making process of the Commonwealth will consider the national interests in the Pennsylvania coastal zones. In addition, these same decision-making processes, especially the permitting process, will be streamlined to provide greater certainty and consistency in permit decisions as well as a decreased time for permit issuance. Without Federal approval, there will be no Coastal Zone Steering Committees, and less access to county and State managers. Without the continuity of a solid funding base, built upon Federal approval, the main supporters of coastal zone management will gradually drift away, and be drawn to other pressing crisis areas. Finally, the coastal zone, as a concept people are just coming to understand, will disappear as a separate entity.

Possible Conflicts Between the Proposed Action and the Objectives of Federal, Regional, State, and Local Land Use Plans, Policies, and Controls for the Area Concerned

Prior to granting approval to a management program submitted by a coastal state, the U.S. Secretary of Commerce shall find that the state has coordinated the contents of its management program with local, areawide or interstate plans applicable to areas within the coastal zone existing on January 1 of the year in which the state's management program is submitted to the Assistant Administer for approval (Coastal Zone Management Act, subsection 306(c)(2)(A)).

The Pennsylvania Coastal Zone Management Program has accomplished these requirements, as documented in Chapter 5 of Part II, and will continue to consider the interests and needs of local, county, regional, and Federal agencies, authorities and affected bodies. Comments have been quite favorable on the amount of coordination that occurred with plans of other agencies. Because such extensive coordination has occurred, many of the coastal zone goals are becoming reality, through implementation by a wide variety of agencies.

Careful coordination with local, county, and regional land use plans (where available) has usually been repaid with continuing support. On-going Federal studies and plans have been consulted frequently. Many ideas proposed in Pennsylvania's Coastal Zone Management Program are, in fact, not original but are adapted from other sources. This concept has served to make acceptance of coastal management easier and has added impetus to local proposals.

If any major conflict can be identified, it is between local plans and the Coastal Zone Management Program in the area of public access, recreation and historic/cultural resources. Local plans rarely show as many areas reserved for such purposes as the Coastal Zone Management Program which stressed these areas extensively. Following program approval, local units of government will be eligible for planning grants to enable them to "rethink" or "replan" for these activities.

Environmental Effects of Alternatives

Since the alternatives deal with approval or denial of the Coastal Zone Management Program, environmental impacts are also based on approval or denial. As discussed briefly under the Indirect Impacts of Federal Approval section above, the decision to disapprove Pennsylvania's program will not have a major immediate impact on the natural environment of the coastal zones. Resource management programs would continue to function and resource protection permits would still be required, reviewed, and acted upon regardless of the status of the Coastal Zone Management Program. However, a major blow would be struck

against coordination of permits and cooperation among State agencies. The Coastal Zone Advisory Committee, the major coordinating body of the State level would cease to function without a Coastal Zone Management Program and coastal management staff. Immediately, several important ties between Harrisburg, Erie, and Philadelphia would be terminated. The Department of Environmental Resources would effectively lose its local focal points of communication in each coastal area. Any semblance of program involving a balance between growth and resource protection would evaporate and the situation would likely revert to the situation that existed before 1974 and Pennsylvania's entrance into the Federal Coastal Zone Management Program. Issues would be seen as black and white; develop or preserve. Mechanisms to trade-off and balance resource management decisions would disappear.

Important coastal policies on floodplains, erosion control structures and dredging would lose a local sponsor. The policies would technically still exist, but without the mechanism of "State Consistency" little heed would be paid to them - except perhaps by a particular State agency that happened to have statutory authority.

Alternatively, the environmental impacts of the alternatives involving program approval appear very positive. The tangible benefits to residents and businesses in Pennsylvania resulting from an ongoing Coastal Zone Management Program have been pointed out previously. A balanced program, featuring a mechanism to resolve conflicts and coordinate State regulatory agencies would be extremely desirable.

Finally, Pennsylvania's Coastal Zone Management Program had to initially overcome its own image as a noncoastal state and to resolve differences between widely separated coastal areas. There is little doubt, however, that the Pennsylvania Coastal Zone Management Program has improved attitudes and expectations.

Means to Mitigate Adverse Environmental Impacts

The program's management philosophy is to encourage economic growth while protecting and enhancing environmental quality. The Pennsylvania Coastal Zone Management Program will mamage short-term uses in a balanced manner by taking into account both economic and environmental concerns. It recognizes that some energy facilities and coastal dependent developments and activities have adverse environmental consequences, but they may still be located in the coastal zone to help provide orderly economic development, and to consider the national interest.

In those instances where an action of the program will result in adverse environmental impacts, such as loss of wetlands, the program will require that steps be taken to offset the losses.

This will be accomplished through changes to regulations under Chapter 105 of the Pennsylvania Code of Regulations.

In addition, the Commonwealth will provide funds in Areas of Preservation and Restoration to restore them to their natural condition or to upgrade the environmental quality of these areas.

Part VI

List of Preparers

PART VI

PART VI - LIST OF PREPARERS

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Part VII

List of Agencies, Organizations and Persons Receiving Copies of the DEIS

PART VII

PART VII - LIST OF AGENCIES, ORGANIZATIONS AND PERSONS RECEIVING COPIES OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

Federal Agencies

Advisory Council on Historic Preservation
Department of Agriculture
Department of Commerce
Department of Defense
Department of Energy
Department of Health, Education & Wlefare
Department of Housing & Urban Development
Department of the Interior
Department of Justice
Department of Labor
Department of Transportation
  U.S. Coast Guard
Environmental Protection Agency
Federal Energy Regulatory Commission
General Services Administration
Marine Mammal Commission
Nuclear Regulatory Commission

National Interest Groups

A.M.E.R.I.C.A.N.
AFL-CIO
American Association of Port Authorities
American Bureau of Shipping
American Farm Bureau Federation
American Fisheries Society
American Gas Association
American Industrial Development Council
American Institute of Architects
American Petroleum Institute
American Shore and Beach Preservation Association
American Society of Civil Engineers
American Society of Landscape Architects, Inc.
American Society of Planning Officials
American Waterways Operators
Amoco Production Company
Atlantic Richfield Company
Atomic Industrial Forum
Boating Industry Association
Bultema Dock & Dredge Company
Center for Law and Social Policy
Center for Natural Areas
Center for Urban Affairs
Center for Urban and Regional Resources
Chamber of Commerce of the United States
Chevron U.S.A., Inc.
Cities Service Company
Coast Alliance

Conservation Foundation
Continental Oil Company
Council of Lake Erie Ports
Council of State Planning Agencies
The Cousteau Society
CZM Newsletter
Edison Electric Institute
El Paso Natural Gas Company
Environment Canada
Environmental Policy Center
Environmental Defense Fund, Inc.
Environmental Law Institute
EXXON Company, U.S.A.
Friends of the Earth
Great Lakes Basin Commission
Great Lakes Commission
Great Lakes Fisheries Commission
Great Lakes Tomorrow
Gulf Energy and Minerals, U.S.
Gulf Oil Company
Gulf Refining Company
Industrial Union of Marine & Shipbuilding
  Workers of America
Institute for the Human Environment
Interstate Natural Gas Association of America
Lake Michigan Federation
Marathon Oil Company
Marine Technology Society
Mobil Oil Corporation
Mobil Exploration & Producing, Inc.
Murphy Oil Company
National Association of Conservation Districts
National Association of Counties
National Association of Home Builders
National Association of Realtors
National Audubon Society
National Coalition for Marine Conservation, Inc.
National Farmers Union
National Federation of Fisherman
National Fisheries Institute
National Forest Products Association
National Marine Manufacturers Association
National Ocean Industries Association
National Parks and Conservation Association
National Recreation and Park Association
National Research Council
Natural Resources Law Institute
National Society of Professional Engineers
National Waterways Conference
National Waterways Conference
National Wildlife Federation
Natural Resources Defense Council
The Nature Conservancy
Norfolk Dredging Company

Outboard Marine Corporation
Resources for the Future
Rose, Schmidt & Dixon
Shell Oil Company
Sierra Club
Skelly Oil Company
Soil Conservation Society of America
Sport Fishing Institute
Standard Oil Company of Ohio
State University Law School
State University of New York

State and Local Agencies

Bensalem Township
Bensalem Township Planning Commission
Bristol Borough
Bristol Borough Planning Commission
Bristol Township
Bristol Township Planning Commission
Bucks County Conservation District
Bucks County Planning Commission
Chester City Planning Commission
City of Chester
City of Erie
City of Philadelphia
County of Bucks
County of Delaware
County of Erie
Darby Township
Darby Township Planning Commission
Delaware County Conservation District
Delaware County Planning Department
Delaware River Basin Commission
Delaware Valley Regional Planning Commission
Eddystone Borough
Eddystone Borough Planning Commission
Erie City Bureau of Water
Erie County Department of Planning
Erie Housing Authority
Erie Redevelopment Authority
Fairview Township
Falls Township
Falls Township Planning Commission
Folcroft Borough
Folcroft Borough Planning Commission
Girard Township
Governor's Office of Policy and Planning
Governor's Energy Council
Harborcreek Township
Lake City Borough
Lawrence Park Township
Lower Chichester Township
Marcus Hook Borough

Millcreek Township
Millcreek Township Planning Commission
Morrisville Borough
Morrisville Borough Planning Commission
North East Borough
North East Township
Northwest Pennsylvania Regional Planning
and Development Commission
Norwood Borough
Pennsylvania Department of Environmental Resources
Pennsylvania Department of Commerce
Pennsylvania Department of Community affairs
Pennsylvania Department of Education
Pennsylvania Department of Transportation
Pennsylvania Fish Commission
Pennsylvania Game Commission
Pennsylvania Historical and Museum Commission
Pennsylvania Public Utility Commission
Philadelphia City Department of Commerce
Philadelphia City Federal Programs Unit
Philadelphia City Planning Commission
Philadelphia City Water Department
Philadelphia Redevelopment Authority
Prospect Park Borough
Prospect Park Borough Planning Commission
Ridley Park Borough
Ridley Township
Ridley Township Planning Commission
Springfield Township
Tinicum Township
Tinicum Township Planning Commission
Trainer Borough
Tullytown Borough
Upper Chichester Township

State and Local Interest Groups

Allied Chemical Corporation
API-Pennsylvania
Association of Preservation of Darby Creek Valley
Atlantic Richfield Company
B.P. Oil Corporation
Bayfront NATO, Incorporated
Behrend College
Bicycle Trail Commission of Erie County
Boeing Vertol Company
Bucks County Audubon Society
Bucks County Conservancy
Bucks County Courier Times
Bucks County Historical Society
Center City Residents Association
Columbia Gas Transmission, Inc.
Concerned Area Residents for Preservation
of Tinicum Marsh

Corinthian Yacht Club
Darby Creek Watershed Association
Delaware County Chamber of Commerce
Delaware-Chester County Regional Council
Delaware County Conservation Alliance
Delaware River Port Authority
Delaware Valley Citizens for Clean Air
DELCO Federation of Sportsmen's Clubs
DELCORA
Delmarva Power and Light Company
Eastwick Project Area Committee
Edinboro State College
Erie County Audubon Society
Erie County Council of Garden Clubs
Erie County Sportsmen League
Erie-N.W. Pennsylvania Port Authority
Erie Times-News
Erie Tourist and Convention Bureau, Inc.
Erie Yacht Club, Kohkwa Park
Gannon College
General Electric Corporation
Greater Erie Industrial Development Corporation
Grundy Memorial Library
Historical Society of Erie County
Holmesburg Club
Homebuilders Association of N.W. Pennsylvania
Homebuilders Association of Philadelphia
Horticultural Society of Erie County
Hunting and Fishing Club of North East
Kerr-McGee Chemical Corporation
League of Women Voters of Pennsylvania
Lower Bucks County Canal Conservation Committee
Millcreek Chamber of Commerce
National Fuel Gas
National Sugar Refining Corporation
Neshaminy Valley Watershed Association
Old Philadelphia Development Corporation
Olde City Civic Association
PENNJERDEL Open Space Committee
Penn's Landing Corporation
Pennsylvania Boating Association, Inc.
Pennsylvania State Association of Township Supervisors
Pennsylvania State University
Pennwalt Corporation
Penn Warner Club
Pennypack Park Civic Association
Philadelphia Academy of Natural Sciences
Philadelphia Coke
Philadelphia Electric Company
Philadelphia Evening Bulletin
Philadelphia Federation of Sportsmen's Clubs
Philadelphia Industrial Development Corporation
Philadelphia International Airport
Philadelphia Partnership

Philadelphia Port Corporation
Poquessing Watershed Association
Presque Isle Yacht Club
Protect Your Environment Club
Publicker Industries
Reynolds Metals Company
Rohm and Haas Company
Scott Paper Comapny
Slippery Rock State College
Silver Lake Outdoor Education Center
Society Hill Civic Association
Stauffer Chemical Company
Sun Oil Company
Sun Shipbuilding and Drydock Company
Temple University
Trout Unlimited-Bucks County Chapter
U. S. Flotilla 5-2
U. S. Flotilla 5-3
U. S. Steel Corporation
University City Science Center
Warner Company
Westinghouse Electric Corporation
West Torresdale Civic Association

Others Receiving Copies

All other agencies, groups and persons expressing an interest in receiving a copy of the Draft Environmental Impact Statement Moreover, all major municipal libraries in the two coastal zones will receive copies for reference.

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