

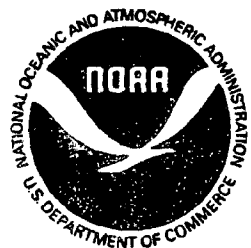


Federal Coastal Programs Review

December 1985

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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Ocean and Coastal Resource Management



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INTRODUCTION

The Federal investment in coastal areas each year is measured in the billions of dollars. For example, the Federal Emergency Management Agency's Federal Insurance Administration (FIA) reports that insurance coverage in coastal communities along the Atlantic and Gulf coasts alone is over \$54 billion. In addition, billions of dollars have been spent by the Army Corps of Engineers for port maintenance and construction for the Nation's seaports and for navigation, flood control and erosion control projects in coastal states; by the Environmental Protection Agency for wastewater treatment facilities in coastal areas; and by several Federal agencies for disaster relief.

Federal agencies are charged with administering programs with missions as diverse as the uses of the coast. In some instances, a unified national policy guides a wide range of activities and programs; however, in most cases, agencies are left to fulfill program objectives within the context of multiple congressional and executive mandates. Given finite coastal resources and limited Federal budgetary resources, Federal investments in coastal areas must be sound, effective and consistent.

This report presents the results of a review of Federal programs that affect coastal resources, required by Section 316(c)(1) of the Coastal Zone Management Improvement Act of 1980. The purpose of the review is to "[identify] conflicts between the objectives and administration of such programs and the purposes and policies of this title." The statute requires the Secretary of Commerce to submit a report to the Congress including "recommendations for changes necessary to resolve existing conflicts among Federal laws and programs that affect the uses of coastal resources." In

addition, the statute requires that Federal agencies be notified of any conflicts identified during the review. Much of this was accomplished during late 1980, in the course of conducting a similar review which resulted in submission of "The Federal Coastal Programs Review--A Report to the President" in January 1981.

The statutory requirement recognized the vital importance of an effective state-Federal partnership in the management of coastal resources. Although state and local governments have primary responsibility for resource management decisions, the Federal Government exercises considerable influence over coastal resource use through its substantial financial assistance, planning assistance and regulatory programs as well as its direct actions in the coastal zone.

The 1981 report addressed a range of issues to improve the administration of Federal programs and procedures affecting coastal resources and made detailed recommendations in a number of areas. Since 1981 there have been Federal accomplishments in many of those areas. Also, in view of the complex interactions of agencies affecting the coastal zone and competing initiatives for limited Federal dollars, there is continued interest in examining these programs. The Administration recognizes that some of the recommendations that follow may not be achievable immediately due to time and resource constraints. Nonetheless, they are worthwhile objectives. This report focuses on three issues related to the Federal coastal management role that provide opportunities to reduce inappropriate Federal expenditures and to contribute to the strength of the national economy.

1. Reducing Inappropriate Federal Investment. The Federal Government spends billions of dollars annually on infrastructure projects (e.g. roads, water distribution systems, sewage treatment facilities, port construction and maintenance) in coastal areas. Hundreds of millions of dollars more are spent on Federal flood insurance payments and disaster and reconstruction assistance programs, even in years containing low numbers of disaster events. This section of the report examines Federal infrastructure investment and emergency management programs and identifies opportunities to reduce the long-term commitments of Federal funds through these programs which support or facilitate development in hazardous coastal areas.

Federal infrastructure and disaster and reconstruction assistance programs can operate to encourage development and population growth in hazardous and otherwise unsuitable coastal areas because they do not discriminate between development in these areas and development in more economically and environmentally sound locations. Development in these sensitive areas can be environmentally damaging because it can destroy the productivity and protective features of natural areas. Such investment can be economically unsound because it commits funds to support a repetitive cycle of construction, destruction, and reconstruction in hazardous locations. In effect, the Federal Government has subsidized development that would otherwise not be economically feasible. This section examines opportunities to reduce long-term commitments of Federal funds for unsound development.

2. Increasing the Contribution of America's Ports and Coastal Areas to Economic Recovery. This section examines the specific issues surrounding America's ports and coastal areas which illustrate the nationwide conflicts between development and conservation of coastal resources. Much attention is

currently being given to developing legislative and administrative mechanisms to alleviate these problems, the resolution of which could contribute substantially to the economic health of the Nation.

The Nation's seaports are one of the most important economic entities affected by coastal management decisions. The port industry is a major U.S. employer and revenue-generator as well as vitally important to trade and national security. Resource management decisions which affect port activity also influence other development in coastal areas. This section explores issues affecting marine transportation and makes recommendations for improving intergovernmental cooperation.

3. Reducing Regulatory Delay for Coastal Development Decisions. This section examines activities that reduce delay and cost of needed economic development. The CZMA was enacted to address the problem of multiple, conflicting uses of the coastal zone. One of the successes of the program has been increased streamlining of permit processes through state coastal zone management (CZM) programs. This allows coastal economic development while protecting valuable coastal resources.

I. REDUCING INAPPROPRIATE FEDERAL INVESTMENT

A. Introduction

The coastal zone, the area affected by tides that is the junction of the land and sea and the Great Lakes, has become heavily populated and increasingly developed. Although comprising only 16 percent of the Nation's land area, the coastal zone contains more than 52 percent of its population.^{1/} At the same time, this juncture of land and sea is the site of much of the Nation's trade and industry as well as a source of recreation for millions of people annually.

A portion of this coastal population growth and economic and recreational activity has occurred within the floodplain-- that is, in low-lying areas and on barrier islands which are particularly vulnerable to coastal hazards such as hurricanes and other coastal storms, erosion, land subsidence and flooding. As a result, hazard-related property damage has climbed steadily upward. The value of property at risk has risen even more. The Federal Emergency Management Agency's (FEMA) Federal Insurance Administration (FIA) reports that insurance coverage in coastal communities along the Atlantic and Gulf coasts alone is over \$54 billion. Those areas closest to the shoreline and subject to wave action (V Zones) account for \$3.5 billion (or 6 percent of the total coverage of these communities). Approximately \$4.6 billion in disaster loans and grants for flood, mudslide, and hurricane losses within FEMA, Small Business Administration (SBA) and Farmers Home Administration (FmHA) programs have been reported for calendar years 1975-1984. (See Table 1. Note that Table 1 lists more than coastal areas.)

Policymakers now recognize that some Federal subsidies and actions have facilitated further development and population growth in hazardous and vulnerable coastal areas. Federal support for development in hazardous areas varies in nature. The effects of this support are illustrated by examining three program areas--infrastructure investment programs, the Federal flood insurance program, and post-disaster reconstruction assistance programs. These programs can support development in hazardous open ocean and estuarine areas of mainland coasts and the Great Lakes, and on barrier islands.

Table 1 - Major Declarations Involving Flood, Mudslide, and Hurricane Losses

Calendar Years	Assistance Public	SBA Loans*				FMHA Loans*	Total
		Individual Housing	Assistance IFG	Home	Business		
1975	128,596,000	8,042,000	24,800,000	33,507,000	33,494,000	34,536,000	262,975,000
1976	106,525,000	14,924,000	3,184,000	47,523,000	50,000,000	13,878,000	236,034,000
1977	175,527,000	124,450,000	31,264,000	86,925,000	126,945,000	4,087,000	549,198,000
1978	210,255,000	22,904,000	20,400,000	135,460,000	69,557,000	466,874,000	925,450,000
1979	290,413,000	24,607,000	133,390,000	185,718,000	133,540,000	141,772,000	909,440,000
1980	170,377,000	7,929,000	31,417,300	291,885,000	56,466,000	32,862,000	590,936,300
1981	19,930,000	2,037,000	7,656,500	34,747,000	16,485,000	1,989,000	82,844,500
1982	84,552,000	6,658,800	27,744,500	94,076,000	101,905,000	5,378,000	320,314,300
1983	214,997,000	10,258,000	33,135,800	87,484,000	49,563,000	32,781,000	428,218,800
1984	89,131,200	11,334,000	29,778,500	89,061,000	66,068,000	38,393,000	323,765,700
Total	1,490,303,200	233,143,800	342,770,600	1,086,386,000	704,023,000	772,550,000	4,629,176,600

*Data are based on program cost estimates provided to FEMA by SBA and FMHA

Source: FEMA

1. Examples of Infrastructure Investment Programs Affecting Coastal Areas

Infrastructure programs can provide the basis for large-scale development of hazardous areas by funding projects which provide access, water supply and waste-water treatment facilities, navigation, flood control, and erosion control projects.

For example, two agencies of the Department of Transportation, the Coast Guard and the Federal Highway Administration, play an important role in providing access to barrier islands. The Coast Guard issues permits for construction of bridges across navigable waters, and the Federal Highway Administration provides financial assistance for road and bridge construction.

Vehicular access is generally a prerequisite to any large-scale development. In the case of barrier islands, this usually means a bridge or causeway. The cost of constructing bridges and causeways, however, has become so high that without Federal assistance, most local governments and developers cannot justify the expense. For example, the bridge to Dauphin Island, Alabama, was destroyed in 1979 by Hurricane Frederick. The original bridge was constructed in 1955 at a cost of about \$1 million per mile. However, contemporary design standards coupled with inflation have significantly increased the cost of construction. Bridge replacement costs exceed \$10 million per mile. Shifting such costs from the Federal Government to the private sector would, in the words of one developer, "render economically infeasible development of any barrier island that does not already have a causeway."^{2/}

The principal Federal program providing assistance for wastewater treatment facilities is the Wastewater Treatment Construction Grants Program of the Environmental Protection Agency authorized under Section 201 of the Federal Water Pollution Control Act. Section 201 grants have covered 75 to

85 percent of the cost of constructing wastewater treatment facilities. In fiscal years 1980-1984 the Congress appropriated \$12.3 billion for the EPA construction grants program. EPA is unable to confirm what portion went to coastal area facilities; however, construction of wastewater treatment plants does facilitate development, and may be an inappropriate expenditure of Federal funds in some cases, particularly in flood hazard areas or on barrier islands.

The Army Corps of Engineers (Corps) is charged with a major Federal program of water resources development, including the improvement of channels and harbors for navigation and projects for flood and erosion control, which are the major types of water resources projects in coastal areas. Because of their outstanding natural features, coastal areas have drawn people and associated development at a rapid pace. Development too close to the shore has created a demand for the Corps to "stabilize" these inherently unstable areas. As a result, numerous coastal areas have been "stabilized" by erosion control structures such as jetties, groins, bulkheads and seawalls to protect development in hazardous areas. In the short-term (20 to 30 years), such structures can be effective. However, their long-term (50 to 150 years) effects can be seen in "old" shoreline communities of New Jersey such as Sea Bright, Monmouth Beach, Long Beach and Cape May. The original beaches have eroded away to the point that there are no beaches except at low tides, and massive seawalls protect the communities. The equilibrium profile (i.e., where the beach wants to be) is tens or hundreds of feet landward and the communities have become fortresses.^{3/} The question becomes should Federal expenditures continue? What level and type of protection are appropriate?

2. Flood Insurance

Under the National Flood Insurance Act of 1968, as amended, the FIA provides flood insurance to owners of property in floodplains under the National Flood Insurance Program (NFIP). The program is voluntary, and communities that choose to participate must agree to adopt and enforce certain minimum floodplain management regulations (including land use and building standards) applicable to new and rebuilt construction. Almost all coastal communities have chosen to participate in the program because failure to do so renders the community ineligible for Federal construction and disaster assistance. During the emergency phase of the program (i.e., the period of time between a community's entrance into the program and FEMA's completion of the technical studies necessary to determine actuarial rates), flood insurance for existing and new construction is provided at subsidized rates. Because a number of coastal communities are still in, and many only recently have moved from, the emergency phase, flood insurance for most existing construction is provided at the subsidized rates. The regular phase of the program begins when FEMA has completed the detailed hydrological and topographical studies necessary to determine the base flood elevation for the 100-year flood levels, and hence, has the data to determine reliable actuarial rates. (The 100-year flood level represents the flood magnitude that has a one percent chance probability of being equalled or exceeded annually.)

Since almost all parts of barrier islands are in floodplains, the availability of inexpensive flood insurance has been another incentive for development in these areas. The FIA recognized this problem and, since 1981, has made a number of changes in both the rating and coverage of the NFIP. First, it adopted an optional individual risk rating system aimed at providing

an economic incentive to build structures to safer standards to reflect hazards unique to the coastal areas. Second, in 1981, 1982 and 1983, basic rates for flood insurance were raised, representing 74%, 45% and 12% increases, respectively. The average premium for the basic rates of flood insurance rose from \$140 in 1980 to almost \$400 in late 1983. Finally, in 1981, FIA amended its insurance rating structure for V Zones and offered an optional \$3000 deductible for a reduced rate. This was a way of transferring some of the risk back to the property owner, who was compensated by being charged a lower premium. FEMA reports that this "shifting of the risk" has proven to be very popular.

3. Post-disaster Reconstruction Assistance

As residents of low-lying coastal regions know, hurricanes, tropical storms and "northeasters" present danger to life and property. For example, see the damages reported in Table 2, Costliest Hurricanes, United States 1900-1982. When disaster strikes, however, the Federal Government has a wide array of programs available to assist stricken communities and individuals. Some of the most important of these programs are authorized under the Disaster Relief Act of 1974. Under this Act, FEMA provides a wide range of emergency assistance, as well as assistance aimed at the longer-term restoration of affected areas, including grants to repair or replace infrastructure such as roads, bridges, water supply facilities, public utilities, and recreational facilities and parks. Other Federal disaster relief programs are administered by the SBA and the FmHA. The Federal investment in disaster relief is substantial--at least \$323 million in calendar year 1984 alone.

Table 2. COSTLIEST HURRICANES, UNITED STATES 1900-1982
(More than \$300,000,000 damage**)

HURRICANE	YEAR	DAMAGE (U.S.)
1. AGNES (Northeast U.S.)	1972	\$4,700,000,000
2. BETSY (Fla./La.)	1965	4,670,000,000
3. CAMILLE (Miss./La.)	1969	3,810,000,000
4. DIANE (Northeast U.S.)	1955	3,086,000,000
5. New England	1938	2,632,000,000
6. FREDERIC (Ala./Miss.)	1979	2,550,000,000
7. CAROL (Northeast U.S.)	1954	1,733,000,000
8. CARLA (Texas)	1961	1,412,000,000
9. DONNA (Fla./Eastern U.S.)	1960	1,335,000,000
10. CELIA (S. Texas)	1970	1,142,000,000
11. HAZEL (S.C./N.C.)	1954	1,057,000,000
12. Florida (Miami)	1926	963,000,000
13. ELOISE (Northwest Fla.)	1975	880,000,000#
14. DORA (Northeast Fla.)	1964	850,000,000
15. Northeast U.S.	1944	677,000,000
16. BEULAH (S. Texas)	1967	608,000,000
17. Southeast (Fla./La.-Miss.)	1947	516,000,000
18. AUDREY (La./Tex.)	1957	510,000,000
19. CLAUDETTE (Texas)*	1979	444,000,000
20. CLEO (Southeast Florida)	1964	437,000,000
21. Southwest and Northeast Fla.	1944	427,000,000
22. HILDA (Louisiana)	1964	425,000,000
23. Southeast Florida	1945	395,000,000
24. DAVID (Fla./Eastern U.S.)	1979	355,000,000
25. IONE (N. Carolina)	1955	326,000,000
26. ALLEN (S. Texas)	1980	300,000,000

#Includes \$105,000,000 in Puerto Rico.

*Only of Tropical Storm intensity, but included because of high damage amount.

**Adjusted to 1980 dollars on basis of U.S. Department of Commerce composite construction cost indexes.

Adapted from: The Deadliest, Costliest, and Most Intense United States Hurricanes of this Century (and other Frequently Requested Hurricane Facts). (updated January 1983) National Hurricane Center, Miami, Florida. NOAA Technical Memorandum NWS NHC 18.

B. Federal Accomplishments

A major element in achieving the aim of restoring strength to the national economy is reducing economic intervention by the Federal Government that distorts the free market and results in uneconomic development. The Federal Government has taken several positive steps in the direction of reducing unnecessary intervention and uneconomic investment.

1. Coastal Barriers

On October 18, 1982, President Reagan signed the Coastal Barrier Resources Act (CBRA) into law. This action was the culmination of a number of executive and legislative actions to limit Federal support of development on undeveloped coastal barriers. These included the convening of a Task Force of the President's Cabinet Council on Natural Resources and the Environment to develop an Administration position on coastal barrier protection and the passage of a provision in the 1981 Omnibus Budget and Reconciliation Act (OBRA) ending Federally-subsidized flood insurance for new construction or substantial improvements to existing structures on designated undeveloped coastal barriers after October 1, 1983.

The purpose of the CBRA is to restrict growth-inducing Federal expenditures and financial assistance in remaining undeveloped coastal barrier areas. The Act establishes the Coastal Barrier Resources System (CBRS), composed of undeveloped coastal barriers along the Atlantic and Gulf Coasts that are depicted on a set of maps codified as part of the legislation. The Act also provides that persons owning or having a controlling interest in undeveloped coastal barrier areas not within the original system can elect to have their areas added within one year of enactment. The CBRA prohibits new Federal expenditures and financial assistance for development within the

units of the CBRS; financial assistance as defined by the Act specifically includes Federal flood insurance.

The enactment of the CBRA represents the establishment of a consistent Federal coastal barriers policy that the important natural values of remaining undeveloped barrier areas should be conserved, that growth in these areas is unwise, and that the Federal Government should not continue to subsidize this growth.

The Act directed the Secretary of the Interior to report to Congress within three years of passage of CBRA with recommendations for conservation of natural resources based upon management alternatives as well as recommended boundary changes for the CBRS. The Coastal Barrier Resources System Draft Report to Congress was sent to reviewers May 1, 1985, for public comment until July 15, 1985 (extended to September 30, 1985). The Secretary of the Interior is developing recommendations which will be released for public comment in February 1986 prior to transmittal of the final report to Congress in the spring of 1986.

2. State/Local Cost Sharing Policy in Disaster Relief

FEMA has established a new policy requiring 25% state/local cost sharing in disaster relief costs that previously were borne 100% by the Federal Government. It is estimated that this new cost sharing policy will encourage more cost effective disaster response efforts and that it will provide an important incentive for increased state and local attention to hazard mitigation and preparedness measures to reduce future hazards losses and disaster relief costs.

3. Efforts to Eliminate Flood Insurance Subsidies

The FIA promulgated new regulations on October 1, 1981, for insuring new construction or substantial improvements to existing structures in high

velocity zones. These "V Zones" are defined technically as those areas which (because of astronomical tides, storm surge, topography, or other conditions) will support a three foot or higher wave and therefore, are the areas where risk of harm or loss are greatest. The intent of the new rate structure is to approximate actual losses for new construction or substantial improvements in V Zones. Removing the Federal subsidy for flood insurance in V Zones will provide an economic incentive to locate development in safer areas and to build to the highest hazard-resistant construction standards.

Recently, FEMA established an agency goal "to implement a self-supporting nationwide flood insurance program by 1988..." This effort will involve broadened rate restructuring; trimming coverage; increased marketing of flood insurance, particularly in the flood fringes; and aggressive efforts to collect underpayments and pursue subrogation. In addition, FEMA's Office of Loss Reduction will be making efforts to ensure compliance with the land use and construction standards of the National Flood Insurance Program (NFIP) and to reduce the subsidy associated with existing development in floodplains through mitigation. FEMA also has established a goal to convert all remaining emergency phase communities to the regular phase of NFIP by 1990. These actions, by shifting more of the risks and costs of floodplain occupancy from the general taxpayer to the floodplain occupant, will save the government money as well as increase incentives for individual action to locate and build more safely.

4. FmHA Regulations

The FmHA in January 1984 issued a comprehensive set of environmental regulations that address both the Coastal Barrier Resources Act and the Coastal Zone Management Act (7CFR 1940 .301 - .350). The regulations establish that the FmHA will not normally participate in any proposal that

would affect a floodplain or wetland. The only exception to this policy is if FmHA determines (i) there is a demonstrated, significant need for the project, (ii) there is no practicable alternative that would avoid the impact, and (iii) all practicable measures are being taken to reduce the adverse impact.

C. Further Steps To Consider

The following discussion focuses on improvements in Federal programs that can reduce further economically unsound Federal expenditures in coastal areas, while conserving the natural resources base which supports long-term economic growth.

1. Improving Federal Infrastructure Investment Policies to Minimize Hazardous Development.

Although Federal agencies generally have broad statements of policy to avoid economically unsound investment, very often their policies are too vague to ensure consistent and predictable implementation and do not discriminate adequately between development in hazardous areas and development in more economically sound locations. As a result, Federal infrastructure investment can facilitate improperly located development involving substantial future Federal cost for flood insurance, disaster relief, and flood and erosion control, as well as increased risks of loss of life.

One area where the lack of clear policy is particularly felt is in the assessment of secondary and cumulative effects of infrastructure projects, especially growth-inducing impacts. Instead, Federal agency policies and procedures for avoiding hazardous development and preserving the storm protective and natural resource values of hazard-prone coastal areas tend to concentrate on avoiding or mitigating the direct impacts of infrastructure projects.

An unintended effect of this piecemeal approach to development is often the further expenditure of funds to ameliorate situations that result from an initial Federal investment or approval. For example, the Monmouth County Planning Board (New Jersey) reported that the Northeast Monmouth County Regional Wastewater Treatment Facility made possible development of high density housing (townhouses, apartments, highrise condominiums) in coastal towns previously served by small treatment plants. According to the Board, this secondary development has destroyed wetlands, increased traffic congestion and local demands for better highways, increased air pollution, and exposed more people and property to the hazards of coastal storms and flooding, thus increasing the demand for flood protection.

In part, the lack of attention to induced and cumulative impacts can be traced to the difficulty of identifying these impacts with certainty. However, population forecasting, use of project data collected for other purposes, and other techniques can be reasonably applied to assess these impacts.

Recommendation:

On August 26, 1982, the President's Task Force on Regulatory Relief requested that the FEMA review the regulatory burden imposed by Federal floodplain management policy as established by Executive Order No. 11988, "Floodplain Management." Due to the success of the Executive Order, the Office of Management and Budget (OMB) agreed with FEMA's recommendation that the Executive Order be retained in its current form. At the same time OMB indicated that "it appear[ed] possible to improve agency implementation of the Executive Order," noting "several agencies have not yet adopted final implementing regulations."

Consistent with the principles of Executive Order 11988, Floodplain Management, and the Interagency Agreement on Hazard Mitigation (1981), the

OCRM encourages the Federal infrastructure agencies participating in the Interagency Agreement on Hazard Mitigation (discussed on page 21) to negotiate and implement an Annex to their Agreement containing a common policy for day-to-day project decisions that incorporates the following precept:

Actions which permit or encourage new development in coastal hazard areas should be avoided unless the proponent of the action can clearly demonstrate that:

- (a) there is a public need for the action;
- (b) the public need outweighs the future costs (including environmental costs) and risks of loss of life and property; and
- (c) there is no less hazardous practicable alternative.

Within these discussions, consideration should be given to monitoring the Annex to the Interagency Agreement on Hazard Mitigation (i.e. whether monitoring should be undertaken; and if so, what agency should be responsible for monitoring).

2. Federal Flood Insurance

New development in flood hazard areas should receive no subsidy, and FEMA is moving towards this goal. Two concerns are discussed below along with the measures that FEMA has taken regarding these concerns.

First, concern exists that many communities remain in the emergency phase of the NFIP, where there is no distinction in rates for new construction versus existing construction. While this new construction is subsidized, FEMA has taken steps to minimize potential losses. FEMA has established an agency goal and special conversion process to convert remaining emergency phase communities to the regular program by 1990. FEMA has indicated that for the most part the 700 communities which remain to be converted to the regular program "represent the lowest national priorities as there is little

development in their floodplain and little, if any, likelihood for any significant development in the foreseeable future." Thus FEMA states that their approach, which addresses the most hazardous areas first, brings about a greater return to the taxpayer.

Second, a concern exists that the Flood Insurance Rate Maps completed for the coastal communities in the regular phase of the program may underestimate flood risk. Until 1980, these maps were based on stillwater flood elevations and did not account for wave heights, which are important determinants of storm-related coastal flood damage. FEMA is in the process of revising the Rate Maps to account for wave heights according to a generally accepted methodology developed in 1978 by the National Academy of Sciences (NAS). V Zones are 100-year flood areas along the coast, which are subject to wave action. FIA began its flood elevation mapping which included wave heights in 1980 and expects to complete it in 1985. On October 1, 1981, FIA promulgated new regulations for insuring new construction in V Zones. Under the new rate structure established by the regulations, the actuarial rate structure for new construction in these areas will be based on approximate wave heights developed using the NAS methodology in areas where true wave height data are unavailable. FEMA also has begun a map initiative program to improve existing maps and compress the current 68 flood zones to 8.

FEMA's actions represent important steps forward. However, two problems remain. The first problem is that the methodology used still does not and cannot account for shoreline erosion, particularly short term erosion. Because of this, for example, a technical study completed for FEMA of Ocean City, Maryland, assumed a shoreline that was several feet underwater. (FEMA indicates that there is no established methodology for calculating short

term storm-induced erosion; however, long term erosion can be calculated where there are long term historical records.) The second problem is that the maps are often locally incorrect because they do not account for the individual characteristics and dynamics of the shoreline in specific locations. As a result, even in communities in the regular phase of the program, inappropriate new development may be subsidized.

Two additional concerns with the operation of the NFIP were noted in the President's "Private Sector Survey on Cost Control" (the Grace Commission Report). First, the Report cited a General Accounting Office review of the program which revealed that "an estimated \$5 million per year is not collected because of improper procedures used by private sector underwriters contracted to administer the program. These underwriters are not liable for insurance losses which may result from their errors."^{4/} FEMA indicates that there are no private sector underwriters contracted to underwrite the program and that FIA is the sole underwriter of flood insurance under the NFIP. There is, however, a servicing company that is contracted to service the flood policies which are sold by licensed insurance agents. FEMA also indicates that due to efforts begun by FIA during 1983 and 1984, there has been rigorous pursuit of risk rate verification at loss adjustment time. In addition, FIA signed a contract in the fall of 1985 to have a private contractor verify the rates and premiums charged to approximately 100,000 risks. This is similar to standard industry practices and is intended to become a routine annual practice.

Second, communities are not required to purchase flood insurance to be eligible for Federal Disaster Relief assistance until after a flood occurs. This so called "one-bite" free provision from the Treasury encourages

communities to wait until a flood occurs before joining the flood insurance program. FEMA has proposed legislation in the past two Congresses to eliminate this provision but it has not been enacted.

The Grace Commission Report recommended the following remedial actions:

Flood insurance should be limited to those areas that have instituted appropriate floodplain management procedures and the after-the-fact provision should be eliminated. Further, individuals should not receive disaster assistance for [otherwise] insurable items. The Federal Emergency Management Agency (FEMA), which administers the flood insurance program, should upgrade underwriting standards to arrive at proper risk ratings. In addition, FEMA should apply sanctions -- through legal action where appropriate -- against agents who abuse the program. [Potential] Savings are estimated at \$95 million over three years.^{5/}

FEMA appears to be making a good faith effort to comply with these recommendations. For example, in addition to the above mentioned risk rate verification measures undertaken, the agency has developed policy guidance on compliance with the NFIP and has been developing detailed procedures regarding community program deficiencies and violations. The agency has set specific goals for cost control and procedures to prevent fraud and abuse.

The Grace Commission Report also noted that "little historical data [are] collected by the National Flood Insurance Program (NFIP) to establish a sound basis for anticipating future needs. Without adequate information, the NFIP cannot ensure the accomplishment of its objectives. The Grace Commission Report estimates that three-year savings of \$662 million can be achieved by increasing premium rates, raising deductibles, and putting the program on a sound actuarial basis, reducing subsidized rates." ^{6/} As noted earlier in this document, FEMA has set a major goal to implement a self-supporting flood insurance program by FY 1988, and has taken a number of initiatives to accomplish this goal, including raising the basic rates for flood insurance

in 1981, 1982, and 1983, and providing for an optional increased deductible for a reduced rate in V Zones.

Recommendations:

a. The FIA should consider imposing an interim rating system for communities in the emergency phase that differentiates between new and existing construction. Construction during the emergency phase should not receive as high a premium subsidy as construction existing prior to the community's entry into the program. Also construction during the emergency phase should be required to meet some minimum standards.

b. In conducting its technical studies, FEMA should require its contractors to make more use of state capabilities. States often have detailed data and knowledge of their coastlines. This is an important consideration in adapting the standardized methodology to specific areas of shoreline. Current FEMA regulations at 44 CFR 60.25(4) and (7) call for states to cooperate with FEMA by providing relevant technical data and recommendations for ratemaking studies. FEMA should be encouraged to continue close cooperation with state and local agencies.

3. Disaster Assistance - Hazard Mitigation Planning

The Disaster Relief Act of 1974 was designed to provide Federal assistance to supplement the efforts and resources of state and local governments and voluntary relief organizations. A Presidential declaration of a "major disaster" authorizes a wide range of assistance under the Disaster Relief Act, including assistance directed at emergency disaster relief and assistance for repair and reconstruction. The latter category includes grants to states and local governments to repair or replace roads, bridges, water control facilities (i.e., dikes, drainage facilities, levees, etc.), public buildings and public utilities. Other Federal disaster relief programs

include programs of the SBA and the FmHA which provide low interest loans and other forms of financial assistance to individuals, businesses and farmers.

The Disaster Relief Act contains two important planning requirements. First, Section 201 of the Act authorizes the development of disaster preparedness plans involving all appropriate state agencies. Under this section, financial and technical assistance is provided to states in developing comprehensive disaster plans and programs, including hazard reduction, avoidance and mitigation. All states have already received a \$250,000 maximum one-time development grant. Remaining funds provide 50/50 matching grants up to \$25,000 annually per state for updating and improving the states' preparedness plans and capabilities.

Second, Section 406 of the Act which conditions loans and grants made under the Act on agreement by state or local governments to evaluate the natural hazards of the area in which the grants or loans are to be applied and to take appropriate actions to avoid these hazards in the future. Many of FEMA's hazard mitigation activities are premised on this section because grants or loans can be withheld until the state or local unit of government agrees to implement a hazard mitigation program.

The Interagency Agreement on Hazard Mitigation, signed in January 1981, is an important initiative that could result in significant reductions of risks to property from hazards during the post-flood recovery effort. The Agreement was developed in response to an Office of Management and Budget directive to develop and implement a common policy for flood disaster planning and post-flood recovery to ensure that Federal financial assistance minimizes future flood losses. FEMA was designated the lead agency. Other participants are the Departments of Agriculture, Army, Commerce, Housing and Urban Development, and the Interior; the Environmental Protection Agency and the

Small Business Administration. Under the Agreement, hazard mitigation teams are mobilized when major disasters are declared. They recommend actions by Federal agencies and state and local governments to reduce future hazard losses. Federal agencies have agreed to comply with the recommendations of the team reports to the maximum extent possible. Under Section 406, state and local governments can be required to comply with the recommendations as a prerequisite for obtaining Federal disaster assistance.

Hazard mitigation planning involves two major components:

(1) developing policies for the proper location/construction of development, and (2) developing policies to guide reconstruction following a disaster. In part, the policies for proper location and construction of development are guided by community participation in the NFIP which requires that communities adopt floodplain management and construction standards in order to qualify for Federal flood insurance. However, as noted above, many communities are in the emergency phase of the NFIP, where the requirements are minimal. Even when communities enter the regular phase, the required standards have only one locational requirement in that construction must be located landward of mean high tide, and meet minimal building standards. This still permits construction in V zones where hazard risks are greatest, although the insurance rate is higher here than inland, reflecting the greater coastal risk. (FEMA notes that an optional rating system for property owners in V Zones offers the opportunity to construct a safer structure taking into account all the related flooding risk elements such as structural stability, dunes, and setbacks, in return for a significantly reduced flood insurance rate. This option encourages less hazardous locational construction.)

Reconstruction policies following a disaster are often inadequate. The post-disaster period is a critical time for hazard mitigation. It is

a time when fundamental decisions are made that will determine the pattern of development for years to come--or at least until the next disaster. Sound decisions at this time can substantially reduce Federal costs for flood insurance, disaster relief, erosion control structures and infrastructure investment, as well as future exposure of lives and property to hazards losses. Unfortunately, such planning is usually neglected until a disaster strikes. At that point, quick action is required and short-term recovery is emphasized over long-term hazard mitigation.

Section 406, which reflects Congressional recognition of the important long-term implications of investment decisions in the post-disaster period, presents a significant opportunity to minimize future losses through sound hazard management. The promise of Section 406, however, has not been achieved for two reasons.

First, FEMA's regulations provide neither guidance for preparation of such plans nor criteria for approving them once prepared. Instead, considerable discretion is left to the FEMA Regional Director, in consultation with the Governor and local governments, in applying the requirements of Section 406. As a consequence, post-disaster hazard mitigation plans typically have been general in content, particularly with respect to location of development, and have emphasized warning and evacuation efforts and provision of emergency assistance rather than prevention of damage to property. FEMA is attempting to address this problem in two ways: (1) by carrying out the Section 406 requirements in conjunction with the hazard mitigation team review under the Interagency Agreement, and (2) by proposing to develop detailed regulations for Section 406 planning.

Second, and more importantly, Section 406 planning requirements can only be invoked after a disaster has occurred. On the one hand, the immediate

post-disaster period is the time when community leaders are most aware of, and concerned about, hazard planning, and are more apt to take action. On the other hand, it is difficult to develop the mitigation elements of the plan immediately following a disaster because they involve making hard decisions about the location of development and rebuilding policies at a time when there is great sympathy for the victims' wishes to rebuild to the original state. To withstand this pressure, reconstruction policies need to be in place to take advantage of mitigation opportunities (be they relocation of infrastructure and residences, reconstruction of facilities to safer standards, acquisition of high hazard areas for public open space, etc.) that occur following a disaster. Unless prudent reconstruction policies are implemented more widely, hazard losses will be repeated again and again.

Pre-disaster preparedness planning under Section 201 also has not filled the void. Although Section 201 lists as one of the purposes of such planning the reduction of the effects of hazards through sound location and construction practices, state disaster preparedness plans again have typically focused on warning, evacuation, and emergency relief procedures rather than hazard mitigation (reduction of property loss).

These considerations argue strongly that the difficult decisions required for an effective hazard mitigation plan should be made, at least in broad scope, before a disaster occurs, and that post-disaster investments should be made in conformance with that plan.

Many state coastal management programs already contain an active coastal hazard element, and the 1980 amendments to the CZMA require that state programs devote greater attention to this issue. In its statement of policy, Congress declared that "... it is the national policy to encourage and assist the state to exercise effectively their responsibilities in the coastal zone

through the development and implementation of management programs ...which should at least provide for ...the management of coastal development to minimize the loss of life and property caused by improper development in flood-prone [sic], storm surge, geological hazard, and erosion-prone areas and in areas of subsidence and saltwater intrusion, and by the destruction of natural protective features such as beaches, dunes, wetlands, and barrier islands .." Section 303(2)(B).

An example of the improvements envisioned under this national policy is North Carolina's requirement that all local Land Use Plans incorporated into the North Carolina Coastal Management Program include storm hazard mitigation policies. These must identify local hazardous areas, and provide a post-disaster reconstruction plan based on a risk analysis of people and structures within the hazardous areas. This new requirement will improve local abilities to respond to problems and take advantage of mitigation opportunities following coastal storms.

FEMA's regulations thus could rely on state planning through the coastal zone program to satisfy at least part of Section 406 requirements. However, pre-disaster hazard mitigation plans must be coordinated with the recommendations of the hazard mitigation teams mobilized under the Interagency Agreement to assure that other Federal assistance in the post-disaster period is consistent with the plans.

Recommendations:

a. A task force should be convened to develop hazard mitigation policies on which to base detailed requirements for hazard planning under Section 406 of the Disaster Relief Act in concert with existing Executive Order No. 11988, Floodplain Management, and Executive Order No. 11990, Protection of Wetlands. These policies should deal with when and whether to rebuild infrastructure,

and how to compensate communities and individuals for hazards losses without subsidizing rebuilding in the same hazardous locations. The policies should limit future Federal costs for flood insurance, disaster relief and reconstruction, and flood and erosion control.

b. FEMA should amend its regulations to set forth detailed requirements for approval of hazard mitigation plans under Section 406, including requirements for reconstruction policies to limit future Federal costs. FEMA and NOAA should take action to encourage that planning to satisfy such requirements take place under Section 201 of the Disaster Relief Act and through approved state coastal management programs before a disaster occurs, and to strengthen the long-term mitigation component of planning under Section 201 and under the Coastal Zone Management Act.

c. FEMA should ensure that hazard mitigation teams mobilized under the Interagency Agreement coordinate their recommendations with any pre-disaster hazard mitigation plan which meets the requirements of Section 406 of the Disaster Relief Act.

4. Community Development Block Grant (CDBG) Program and Rental Rehabilitation Program

The Department of Housing and Urban Development (HUD) administers the State Community Development Block Grant (CDBG) program and Rental Rehabilitation program. The States' CDBG program is authorized under Title I of the Housing and Community Development Act of 1974 (42 U.S.C. §5301-5317); the Rental Rehabilitation program is authorized under Section 17 of the United States Housing Act of 1937 (42 U.S.C. §1437-1437j).

Section 102 of the Flood Disaster Protection Act of 1973 (the 1973 Act) provides that no Federal financial assistance for acquisition or construction purposes for use in any identified flood-prone area shall be approved, if

Federal flood insurance has been made available for that area, unless the structure in question and any personal property to which the financial assistance relates is covered by flood insurance in amounts specified by the statute (42 U.S.C. §4012a). In addition, section 202(a) of the 1973 Act (42 U.S.C. §4106(a)) provides that no Federal financial assistance may be approved for acquisition or construction purposes for use in any identified flood-prone area, unless the community in which the area is located is participating in the National Flood Insurance Program. For purposes of both provisions, section 3(a)(3) of the 1973 Act (42 U.S.C. §4003(a)(3)) defines "financial assistance" as follows:

"financial assistance" means any form of loan, grant, guaranty, insurance, payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect Federal assistance, other than general or special revenue sharing or formula grants made to States. [emphasis added]

Thus, formula grants to states are exempted from the 1973 Act. HUD has determined that the State CDBG program and the State portion of the Rental Rehabilitation program are "formula grants made to States," and, therefore, exempt from the 1973 Act's coverage. The effect of the exemption is that physical development activities under these programs can be carried out in flood-prone and other coastal areas without regard to Federal flood insurance requirements--a result in clear conflict with Federal floodplain and coastal resource policies and the National Flood Insurance Program objective of encouraging community participation in the program.

While maintaining the State formula grant exemption would be consistent with the flexibility and local control philosophy underlying the State CDBG program and the State-run part of the Rental Rehabilitation program, this consideration does not outweigh the desirability of a consistent approach to Federal floodplain and coastal resource policies.

Recommendation:

Congress should eliminate the current exemption of the State Community Development Block Grant (CDBG) program and the State administered portion of the Rental Rehabilitation program from the Flood Disaster Protection Act of 1973.

5. Evacuation Planning

In spite of improvements in severe storm forecasting, the potential for catastrophic loss of life in a major disaster is greater now than at any time in the past. This is because the rapid growth of many population centers has outstripped their evacuation infrastructure. Bridges, ferries, and exposed coastal highways that allow adequate transportation in normal times can become clogged during an attempted emergency evacuation. Rising tides and rainfall can disrupt transportation routes many hours before a storm strikes, trapping people to become potential victims of high winds and storm surge. In addition, because of unusually low severe storm activity along the Atlantic and Gulf Coasts during the last 20 years, most visitors and residents have never experienced a major disaster. As a result, they have not been sensitized to the need to plan ahead for evacuation routes and to react quickly when warnings are issued.

Although FEMA's regulations require communities to prepare evacuation plans that include alternate access and escape routes for mobile home parks and subdivisions, the regulations do not require a link between such plans and decisions on the pattern of community development, nor do they require preparation of evacuation plans for other areas of flood-prone communities such as commercial or office areas. Unfortunately, many high risk communities have not made adequate provisions for public awareness and emergency evacuation in response to natural disasters.

Recommendation:

FEMA should continue to work with local governments and other Federal and state agencies to adopt storm warning and evacuation plans for the entire population at risk and to encourage reporting annually to FEMA on the adequacy of their evacuation plans and measures taken to overcome identified deficiencies.

6. Technical Assistance

State and local planning processes ultimately determine the amount and nature of development in coastal hazard areas. Technical and financial assistance has been made available to communities for developing emergency preparedness plans under Section 201 of the Disaster Relief Act. However, funding for and the availability of technical assistance for pre- and post-disaster planning efforts have been limited, intermittent, and not comprehensive.

If prepared correctly, a single plan could satisfy the requirements of Sections 201 and 406 of the Disaster Relief Act, satisfy the floodplain management requirements for flood insurance eligibility, and meet the requirements of the 1980 amendments to the CZMA. (In fact, some states, such as South Carolina, have chosen to address these issues through their CZM program in coordination with State and Federal emergency preparedness agencies.) Preparing such a coordinated plan, however, requires coordinated technical assistance and funding. Agencies involved in providing flood disaster assistance should develop procedures to coordinate technical assistance to encourage preparation of pre-disaster hazard mitigation plans. In addition, stronger incentives are needed for pre-disaster planning.

Recommendation:

Existing funding under Section 201 of the Disaster Relief Act should be provided to state and local governments specifically for preparation of pre-disaster flood hazard mitigation plans that will satisfy the detailed criteria of Section 406.

II. INCREASING THE CONTRIBUTION OF AMERICA'S PORTS AND COASTAL AREAS TO ECONOMIC RECOVERY

A. Introduction

Among the most important economic activities affected by coastal management decisions are the Nation's seaports. In 1980, U.S. ports generated \$66 billion in gross revenues; provided over one million jobs; contributed personal and business income of \$23 billion; and paid \$12 billion in Federal taxes and \$5 billion in state and local taxes. Maritime Administration (MARAD) studies show that in 1980 deepwater ports and terminal facilities handled nearly two billion short tons of cargo. Total waterborne commerce by U.S. ports is expected to increase 32 percent between 1980 and 1990.^{1/}

America's ports could further increase their contribution to local, state, regional, and national economic growth through improved coastal management mechanisms and intergovernmental cooperation. Many issues surrounding port development and expansion also affect general economic growth in coastal areas. For example, governmental decisionmaking can be improved through CZMA mechanisms to provide appropriate planning and management for marine transportation facilities.

B. Current Marine Transportation Issues

Current marine transportation issues and recommended roles for CZM agencies to play in resolving these issues are elaborated upon below.

1. Financing Deep Draft Vessels and Ocean Incineration Ships - There has been no national policy on deep draft (i.e. over 45-foot) ports, although resolution of cost-sharing and financing issues is expected in the 99th Congress based on recent agreements between the Administration and Senate. The past lack of agreement has contributed to: (1) the conflict

between competing ports, and (2) potentially unwise Federal investment. For example, criticism has been levied upon the Maritime Administration (MARAD) for providing financing of deep-draft vessels. Critics claim that MARAD has financed ships with over a 45-foot draft without consulting the Corps to determine associated Federal costs and benefits of dredging to accommodate these ships. MARAD indicates that where the Maritime Administration has provided assistance in the construction of vessels with drafts in excess of 45 feet, the intended operation of the vessel was between deep-draft ports such as the Alaska oil trade or voyages in international trade. MARAD indicates that the agency does not provide such assistance if dredging is required to accommodate the proposed vessel at ports on its intended trade route. Also MARAD indicates that the agency coordinates on a continuing basis with other Federal agencies interested in port matters, such as the Corps.

While MARAD is financing deep-draft vessels for existing deep-draft ports, other ports want to be expanded to accommodate deep-draft vessels. The issue of where those deep-draft ports should be and who should pay for them is currently a matter of national debate. Senate bill No. S.366 (99th Congress 1st Session) would authorize two deep-draft channels. These are the Mississippi River-Gulf to Baton Rouge, and Hampton Roads, Virginia. Baltimore Harbor currently is authorized to 50-feet but appropriations are awaiting resolution of the cost sharing issue.

In addition to deep draft vessels, MARAD is involved in financing ocean incineration ships. (MARAD-financed ships are not the only ocean incineration vessels. According to EPA, as of August 1985, two other vessels are eligible for EPA ocean incineration permits.) The Maritime Administration granted Title XI loan guarantees for two incinerator ships in April 1982, after an examination of the liquid hazardous waste problem in the United States.

There has been cooperation between the Maritime Administration and EPA. On February 28, 1985, EPA issued proposed ocean incineration regulations for public comment. The proposed regulations contain several major provisions, including: permit categories; permit processing procedures; incinerator and environmental performance standards; prohibited and restricted wastes; required waste analyses; emissions and environmental monitoring; contingency plans; financial responsibility requirements; permit reporting requirements; and designation and management of ocean incineration sites.

Recommendation:

In evaluating the effects of their policies, Federal agencies should consult affected state coastal zone management agencies in order to ensure consistency in planning activities and to avoid unnecessary or duplicative activity. Coordination between Federal agencies should be continued.

2. Costs of Port and Harbor Expansion and Maintenance - The Corps historically has been responsible for dredging U.S. harbors for the purpose of navigation. Natural forces of runoff and erosion cause waterways to silt up over time. Currently, the Federal Government bears almost all of the cost of such harbor maintenance activities. Economic competition among ports for the larger vessels with greater cargo value has put political pressure on the Corps and the Congress to expand this number although current trade patterns, such as the slower expansion of oil imports, do not indicate the economic feasibility of many deepwater ports. In fact, the only current operational U.S. offshore deepwater port, the Louisiana Offshore Oil Port, has experienced financial difficulties because decreased oil consumption has lessened demand for oil.

Congress recently has moved forward in negotiations with the Administration on legislation that comprehensively addresses issues related to port and

harbor development and operations and maintenance. A negotiated agreement was reached between the Senate and the Administration (Congressional Record S8631-33, June 21, 1985), and amendments in S.1567 incorporate this agreement. The bill provides for nonfederal interests to share the costs of developing, operating, and maintaining ports and harbors, including the costs of dredging. This policy may discourage projects where they are not economically feasible.

The act of dredging produces both contaminated and uncontaminated dredged material which then requires disposal. In many port areas, appropriate coastal spoil disposal sites are at a premium if they exist at all. Suitable disposal sites, while also scarce in many urban areas, create controversy because oftentimes the residents of the disposal site area do not directly benefit from the activity of the port. Often the alternative to restricting port commerce is ocean dumping of dredged material, which also can be controversial. Also, dredging itself must be conducted in an environmentally sound way so as not to destroy or alter substantially the habitat of living marine resources or upset the ecological balance.

Recommendations:

a. State CZM programs can assist Federal agencies such as the Corps in addressing port and harbor expansion and maintenance issues. State policies developed through CZM program activities should continue to guide the Corps in making decisions on appropriate port/harbor development in the coastal zone.

b. The Congress should expeditiously enact a water resources development authorization bill, including user fees, which is consistent with the negotiated agreement between the Senate and the Administration.

3. Winter and Polar Navigation - The extent of ice cover and forecasting of the movement of ice are extremely important to the marine transportation industry in Alaska, and during the winter in the Great Lakes and the North Atlantic. Better forecasting of ice and research on the effects of ice on oil and gas structures is more important now due to increased oil exploration in the Arctic.

North Atlantic marine transportation ice issues primarily concern the effective forecasting of icebergs and ice islands. Great Lakes issues are more complex and reflect the need to forecast both the freezing and thawing of lake waters, as well as the desire expressed by some lake interests to conduct year round navigation through the use of icebreakers. The freeze-thaw concern was most recently apparent in the Spring of 1985 when more than 25 ships were trapped in the St. Clair River. Most Great Lakes states oppose ice-breaking because of effects on shoreline erosion and other natural resources. Domestic ice-breaking on request and provisions of more comprehensive ice data have been proposed as candidates for user fees.

Recommendation:

Affected state CZM agencies should be consulted by Federal agencies involved in ice breaking activities in balancing economic development concerns with appropriate resource management needs.

4. Port Facility Siting - Economic competition among ports is fierce. Every major port wants to have the most up-to-date technology and facilities, regardless of the region's ability to support duplication of such facilities and regardless of the area's ability to economically accommodate the infrastructure required by the facilities. Recently, such facilities include expanded coal export facilities and container handling facilities and those for intermodal containers (ship-rail, ship-truck).

New technological and economic developments have created or will create the need to site deep seabed mining processing facilities and liquefied natural gas (LNG) facilities in or near port areas. The demand for marine shipping, particularly in the Great Lakes area, is often dependent on competitive rates for rail or truck transportation to the same location. This factor affects the need for port facilities and shoreside space and raises the issue of excess capacity when the rates shift either way. Use conflicts for available shoreside land occur among port facilities, energy facilities, docking space for commercial fishing and recreational boating, and other coastal recreational, commercial and residential activities. The scarcity of available coastal land suggests the need for advance planning and regional economic evaluation of Federal financing of port facilities.

Recommendation:

The CZMA declares that siting of water-dependent facilities is a national objective of the CZM program as is providing for public access to the coast. As the goal of the CZMA is providing balanced coastal activity, state CZM programs can provide information to Federal agencies which will assist them in the accommodation of coastal interests and the wise use of limited coastal resources and Federal funds.

III. REDUCING REGULATORY DELAY FOR COASTAL DEVELOPMENT DECISIONS

A. Introduction

Coastal wetlands are critical natural areas that provide habitat and spawning grounds for most commercial fish and shellfish species, shelter and food for many forms of wildlife, and nesting places for migratory birds. Coastal wetlands also serve as natural barriers against wave action, absorbing energy that could otherwise damage adjacent property by erosion or flooding; are natural pollution control devices; and provide recreational opportunities for naturalists, hikers, and hunters.

On the other hand, wetlands often are located in key areas of economic expansion. Balancing of interests is needed to ensure the continuance of both wetland productivity and economic growth.

To balance the use of wetlands, the Federal and state governments have adopted policies and procedures for their management. Section 404 of the Clean Water Act provides the major avenue of Federal involvement in controlling the use of wetlands by regulating discharges of dredged or fill material into wetlands.

The Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA) co-administer Section 404 of the Clean Water Act, which regulates the discharge of dredged and fill material into the waters of the United States, including coastal waters and adjacent wetlands. The Corps is the permitting authority under the Section 404 program; without a permit from the Corps such discharges are prohibited. The Corps' 404 permit program is administered in concert with its permitting program under Section 10 of the River and Harbor Act of 1899.

In December 1980, EPA, as required by Section 404(b)(1) issued environmental guidelines for use by the Corps in reviewing permit requests. (40 CFR 230, December 24, 1980). Under Section 404(b)(2) of the Clean Water Act, the Corps may issue permits "...in any case where [404(b)(1)] Guidelines alone would prohibit the specification of the site, through the application additionally of the economic impact of the site on navigation and anchorage." (See also EPA regulations at 45 FR 85336 and Corps regulations at 33 CFR 323.6(a), October 5, 1984 and 49 FR 39478.) The Corps' authority under Section 404(b) is subject to EPA's authority under 404(c). Under Section 404(c) EPA has the authority to deny or restrict discharges of dredged or fill material at a specific site after notice and opportunity for public hearings if the activity "will have an adverse environmental effect on municipal water supplies, shellfish beds, and fishery areas (including spawning and breeding areas), wildlife, or recreational areas." Final rules regarding Section 404(c) procedures were issued in October 1979. EPA also has the authority to define the geographic extent of waters of the United States, including wetlands, under the Clean Water Act and is responsible for defining those activities exempt from regulation under Section 404(f) of the Act. Additionally, EPA is responsible for approval and oversight of state assumption of the 404 program in certain waters.

Under the Clean Water Act and other statutes, a number of Federal and state agencies, including EPA, the Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) are authorized to review and comment on permit applications. EPA is the only Federal agency having veto power over a proposed Corps permit. EPA has exercised its veto authority three times to date. FWS and NMFS as well as EPA may object to a Corps decision and request that the decision be elevated to higher levels within the Corps,

although Corps' statistics indicate that less than one percent of the 18,000 applications processed annually by the Corps are controversial enough to require elevation.^{1/}

There are two principal considerations in Corps permit decisions. A discharge must comply with the Section 404(b)(1) Guidelines issued by EPA. Also, the Corps considers whether issuance of the proposed permit is in the public interest. In determining the public interest, the Corps considers benefits and detriments to the human environment such as property ownership, energy conservation and development, job creation, housing, and economic growth, as well as its reasonably foreseeable beneficial and detrimental effects to the natural environment such as impacts on fish and wildlife values, flood damage, water supply, water quality, navigation, and food production.

State coastal management programs, both those federally approved pursuant to the CZMA, and some without Federal approval, have systems to regulate coastal wetlands. For example, Delaware requires a permit for any dredging, draining, filling, bulkheading, construction of any kind, mining, or excavation in tidal wetlands. North Carolina prohibits dredging or filling in marshlands, estuarine waters, or tidelands which result in a significant adverse effect on (among others) wildlife or freshwater, estuarine, or marine fisheries unless an overriding public benefit will result. Both Georgia and Minnesota, states without Federally approved coastal zone management programs, exercise regulatory authority over wetlands.

B. Mechanisms to Reduce Regulatory Delay for Coastal Development Decisions

A frequent complaint about parallel Federal and state regulatory systems is that they result in duplication of effort and therefore needlessly delay economic development projects and add nonproductive costs to state and Federal

programs and the private sector. This complaint has resulted in Federal and state activity aimed at reducing permitting costs and processing times by streamlining the permitting process to eliminate redundancy. Responsible resource management means that these goals should be attained in ways that are not detrimental to the underlying national interest in wetlands protection.

The following is a description of mechanisms that are being used to reduce regulatory delay for coastal development decisions. Some of these have been adopted by revisions to Corps regulations; others are being pursued informally by state and Federal agencies. In any event, appropriate use of these mechanisms will expedite governmental decisionmaking and reduce nonproductive costs of development. These mechanisms include:

1. Corps General Permits - Blanket authorization for specific types of activities in certain geographic areas are issued by the Corps for "categories of activities when (1) the activities are substantially similar in nature and cause only minimal individual and cumulative environmental impacts; or (2) the general permit would result in avoiding unnecessary duplication of regulatory control exercised by another Federal, state or local agency provided it has been determined that the environmental consequences of the action are individually and cumulatively minimal." (33 CFR 323.2(n).)

Either category of permits can be developed at the Chiefs Office, division office or district level of the Corps and may be applicable on a nationwide, regional or state-local basis respectively. Both categories of general permits can serve as a means of reducing the regulatory burden on the public while protecting the public interest. Each general permit establishes criteria that must be met for work authorized by the permit. If the proposed work meets these criteria, usually an individual permit need not be obtained.

"The expanded use of general permits has reduced the number of permit

applications by an estimated 90,000 cases annually." ^{2/} For comparison, note that the Corps processes an average of 18,000 permit applications per year under the current program. ^{3/} (Note that these numbers include the entire U.S. and are not limited to coastal areas.)

Corps general permits in the first category discussed above are issued on a nationwide ("nationwide permit" or "NWP") or regional ("regional permit") basis. (33 CFR 325.5(c), July 22, 1982). Nationwide permits may apply throughout the country. Regional permits apply to a smaller geographic area, generally along Corps district or division boundaries or state boundaries. As authorized by interim final regulations published July 22, 1982, and modified by the October 5, 1984, final regulations, there are currently 26 NWPs in effect.* Each NWP expires after five years, unless it is modified or reissued upon review.

Regional permits may be issued by an individual Corps district in response to local needs. For example, the Alaska District, on October 9, 1981, issued a series of general permits authorizing the construction of facilities needed to support oil and gas development on North Slope wet tundra area. The regional permitting authority has also been used to accommodate concerns that individual states had with particular nationwide permits; thus a regional permit may replace a nationwide permit in a particular state.

General permits which build on existing regulatory programs at the state or local level when they are substantially similar to the Corps' regulatory

*Note that according to the Corps, final rule October 5, 1984 (49 FR 39481) "authorization for [NWPs which have been denied 401 certification and/or CZM consistency concurrence] is denied without prejudice in those States pursuant to 33 CFR 320.4(j)(1)". Since some states have denied certification/consistency concurrence for one or more nationwide permits, those particular nationwide permits are not available in those states.

program are referred to as "state program general permits" or "SPGPs". They are included under the second category of general permits discussed above. More specific guidance is contained in the Corps' Regulatory Guidance Letter No. 83-7. SPGPs reduce duplication of effort and make available limited resources for review of major permit cases. SPGPs may evolve from either state or Federal initiative.

As of 1982, North Carolina has had an operational state program general permit for certain activities in coastal wetlands which may result in a joint permit, the equivalent of both the state CAMA permit and the Federal Corps Section 404/10 authorization. Under this joint general permit system, applications are made only to the State, and the State forwards a copy to the Corps. The Corps in turn solicits and receives other Federal agencies comments, synthesizes comments and sends the Corps' recommendation to the State. The State meanwhile receives comments from other State agencies and consolidates a State position. If the Corps and the State are in agreement a joint general permit is issued. If the terms of the joint general permit have conditions, the applicant may either accept or reject the conditions. If the applicant rejects the conditions, no permit is issued. If the Corps and the State disagree on the decision, either may issue its own agency permit. Several other states have, or are in the process of, negotiating SPGPs with corresponding Corps districts.

2. Joint Interagency Processing - Joint processing is a mechanism whereby Federal and state officials meet regularly to discuss projects submitted for Federal and state permits. For example, the Corps' Baltimore District holds monthly meetings with representatives from the EPA, FWS, NMFS, and the State of Maryland's regulatory and advisory agencies to discuss project impacts and

alternatives. Although decisions made at these meetings are not binding, the Corps reports that these meetings have reduced processing time by 50 percent on non-controversial projects and by 20-30 percent on controversial projects. A similar process occurs in the Philadelphia area through a local/state/Federal Urban Waterfront Action Group (UWAG).

3. Permit Consolidation - A few state and local governments have consolidated various permits under one application. In 1978, the Virgin Islands consolidated four state permits into one permit, thereby substantially reducing permit processing time. In North Carolina, all individual and general state permits were consolidated into a unified review process within the state. The time required to process permits under this new system has been reduced by more than 55 days for major actions and 17 days for minor projects, compared to the time that was required under the old system.

4. Mandatory Deadlines - Mandatory time limits are established by law for permitting by states as well as by the Corps. In Mississippi, action on wetlands or state permits must be taken within 90 days or approval is presumed. In the Virgin Islands, action on coastal zone permits must be taken within 60 days on minor permits and within 90 days on major permits.

On July 22, 1982, the Corps issued interim final rules for its regulatory program. The major changes were provisions for the "reduction in time and expansion of the nationwide permit program" (47 FR 31794). The Corps interim final regulations implement a 60-day decision deadline coupled with a public notice and review deadline of 15 to 30 days, unless precluded by law or procedures required by law. (The deadline may be extended in limited circumstances.) According to the Army since the 1982 regulatory reform "average processing time for individual permits has been reduced from over 120 to about 70 days". ^{4/}

5. Pre-Application Consultation - Potential applicants for proposed projects meet with the regulatory agencies to identify and resolve likely conflicts before submission of a permit application. The activity usually shortens permit processing time. New Jersey encourages pre-application conferences with potential developers of major projects to discuss their choice of site, type of project, and project design at an early stage when plans are relatively flexible. These conferences often enable the staff to guide applicants toward changes in their proposals which increase both the likelihood of permit approval and the speed with which a decision can be made.

6. Joint Applications and Public Notices - For some states, Federal and state permits are applied for simultaneously, and one public notification serves both permits. In this process the State often determines the completeness of the application and issues the public notice. In Michigan, the coastal management program and the Corps have implemented a joint application process to prevent duplication of paperwork and to ensure coordination of decisions made by the two agencies on each permit. As a result of the state CZM efforts, routine permit processing time has been reduced from 150 days to 20 days. Oregon also has implemented a joint application process between the state permitting agency (the Division of State Lands) and the Corps. Permit processing generally takes approximately 30-40 days. In August 1983, Louisiana established a Joint Application and Joint Public Notice System with the New Orleans District Corps of Engineers. This joint application and notification system reduces duplication of effort for the permitting agencies and the applicant and reduces permit processing time by providing a coordinated public notice.

7. Assumption of Section 404 Permitting by States - Section 404(h)

of the Clean Water Act allows EPA to transfer administration of the Section 404 program for discharges into certain waters of the United States to qualified states. Section 404(g) provides, however, that the Corps would continue to administer the permit program for discharges of dredged or fill material into navigable waters...

which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark, or mean higher high water mark on the west coast, including wetlands adjacent thereto. [i.e. waters under Corps' jurisdiction since 1899, Section 10 waters, including wetlands].

It has been estimated that those navigable waters represent approximately 60% of all waters regulated by the Section 404 program, and 85 percent of all wetlands; thus only about 40 percent of all waters and 15 percent of all wetlands regulated by the program are available for state assumption nationally. ^{5/} The percentage of waters available for state assumption is generally lower in coastal states because more of the coastal waters are "navigable". Since authorized in 1977, only one state has requested permitting authority under the state assumption program. Michigan became the first state to assume the program in August 1984.

The reluctance of States to seek responsibility for administering the Federal 404 program is based on several factors, some of which may also affect issuance of state program general permits (SPGPs). Some states are reluctant to make what may be viewed as politically controversial decisions. Also, some states may have not have sought state assumption due to the complexity of the EPA regulations; EPA is currently working to simplify these regulations and in October 1984 proposed to modify regulations governing

their review and approval of State applications for assumption of the Section 404 program. Another contributing factor to the reluctance of states to assume the 404 program is that some Federal control remains after state assumption. Since the Corps would continue to regulate Section 10 waters ("navigable in fact"), after state assumption and many major activities would continue to be regulated by the Corps, states' incentive to seek permitting authority under the state assumption program is reduced. This is particularly true of coastal states in which state jurisdiction would not include most coastal waters and wetlands. Other Federal control remains even in state assumed waters, since other Federal agencies such as EPA, the FWS and the NMFS would continue their involvement after state assumption.

8. Advance Identification of Disposal Sites - Section 404(c) of the CWA authorizes the EPA to identify sites not suitable for disposal of dredged and fill material because of "unacceptable adverse effects on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreation areas". To date, this has not been used in advance of a permit application; however, EPA's 404(b)(1) Guidelines issued in December 1980 (40 CFR 230.80) authorize the EPA to work with the Corps (or the State in state-assumed waters) to identify possible future disposal sites as well as sites not suitable for disposal. Such identification does not constitute a permit for the discharge of dredged or fill material within the identified area; it constitutes information to facilitate individual and general permit application and processing.

Predesignation of areas unsuitable or suitable for disposal when used in conjunction with special area management planning (SAMP) can be an effective mechanism for reducing permitting delays. To succeed it will require all agencies involved in the Section 404 process to participate in the identification

process. The EPA has yet to exercise this authority, although EPA indicates that it may be exercised under the Grays Harbor SAMP.

9. Mitigating Wetlands Losses - "According to the U.S. Army Corps of Engineers estimates for 1980-81, Corps districts (excluding Alaska) processed permits for projects that if completed as requested, would have resulted in direct and indirect conversion of approximately 100,000 acres of wetlands per year. The Corps authorized projects that, if completed in accordance with the conditions of the permits, would involve conversion of approximately 50,000 acres of wetland or about half the acreage applied for".^{6/} Although project modifications and mitigating measures are often controversial and costly, the Corps reports that in certain projects these measures actually reduce costs (estimated at an annual amount of \$135.5 to \$271 million^{7/}).

Perhaps the most controversial aspect of mitigation is the determination of what constitutes acceptable mitigation. In some instances an applicant may be required to provide "in-kind" replacement of affected wetlands; in other cases, the applicant may be required to preserve or enhance existing wetlands. Where possible mitigation requirements result in accommodation between development and preservation interests. Wetland creation is most useful when the created wetland can perform the same biological function at the same level of that which was destroyed, and when efforts are made to ensure that the "created" wetland is preserved over time by long-term agreements regarding ownership and maintenance. Too often permit conditions require the creation of wetlands but are silent with respect to follow-up activities to ensure their survival. Wetlands exchange, although it may result in a net loss of wetlands or wetland values, if properly enforced, can assist in saving valuable wetland habitat. Whether mitigation is by creation

or exchange, permitting delays can be reduced if mitigation preceeds the permit application. This is the concept of mitigation banking (i.e. credit for environmental enhancement). Some states are experimenting with mitigation banking.

C. Recommendations

1. The States and the Corps should continue to examine the use of general permits. This includes nationwide permits, regional permits, and state program general permits. The state CZM programs should continue to review the appropriateness of such permits in managing their coastal resources.

2. The EPA should continue to encourage state assumption of the CWA 404 program.

3. The EPA should implement its advance designation of dredge spoil disposal sites policy, and state CZM programs should take an active role in using such designations through Special Area Management Plans (SAMP) and other planning mechanisms.

4. State and Federal agencies should use other permit simplification mechanisms, as appropriate. Possible mechanisms include general permits, joint processing, permit consolidation, mandatory deadlines, pre-application consultation, joint applications, joint public notices, and mitigation banking.

FOOTNOTES

Reducing Inappropriate Federal Investment

1. U.S. Department of Commerce, Bureau of the Census, "Population Deconcentration in the United States," Washington, D.C., November 1981, p. 54.
2. Sheaffer & Roland, Inc., "Barrier Island Development Near Four National Seashores," Washington, D.C., April 1981, p. 30.
3. Pilkey, Orrin H., "Geologists, Engineers, and A Rising Sea Level," *Northeastern Geology*. Vol. 3, No. 3 and 4 1984.
4. President's Private Sector Survey on Cost Control (The Grace Commission), "A Report to the President," Washington, D.C., January, 1984, Vol. 1, p. III-234.
5. President's Private Sector Survey on Cost Control (The Grace Commission), p. III-234.
6. Ibid., p. III-24.

Increasing the Contributions of America's Ports and Coastal Areas to Economic Recovery

1. Figures from this section are quoted directly or have been compiled from the following sources and refer to the statistics in order of their appearance in the text. (NOTE: Figures for foreign cargo movement do not include cargo shipped between the U.S. Virgin Islands and foreign countries nor shipments to the U.S. Armed Forces for their use, and merchandise shipped in transit through U.S. ports from one foreign country to another).

U.S. Department of Transportation, Maritime Administration (MARAD): A Report to Congress on the Status of the Public Ports of the United States for 1981, August, 1982; p.9.

MARAD, Office of Port and Intermodal Development; National Port Assessment 1980/1990 (An Analysis of U.S. Port Requirements); June 1980; p. 3.

Greene, Peter F., "A New Year - Will It Be a Happy One for Exporters?" *World Wide Shipping (World Ports)*; December/January, 1982; Vol. 44, No. 7; p. 11.

Reducing Regulatory Delay for Coastal Development Decisions

1. Congressional Research Service (CRS). Updated 4/11/85. Clean Water: Section 404 Dredge and Fill Permit Program. p. 2.

2. Pacific Legal Foundation as quoted by the Office of Technology Assessment (OTA), Congress of the United States. March 1984. Wetlands: Their Use and Regulation OTA-0-206. p. 143.
3. Corps statistics, as reported by CRS, p. 8.
4. OTA p. 16.
5. These estimates are taken from "Impact Analysis of the Corps Regulatory Program. A Report submitted to the Regulatory Functions Branch, Office of the Chief of Engineers." Prepared by the Institute for Water Resources. November 1981. Page B-10. The Corps indicates that there are a number of inaccuracies in the draft report and that they have not issued this report in final form. The Corps indicates that they do not consider these numbers to be accurate. They do not have any estimates of assumable waters and wetlands, in comparison to those governed by the program currently.
6. OTA, p. 141.
7. OTA p. 155.

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