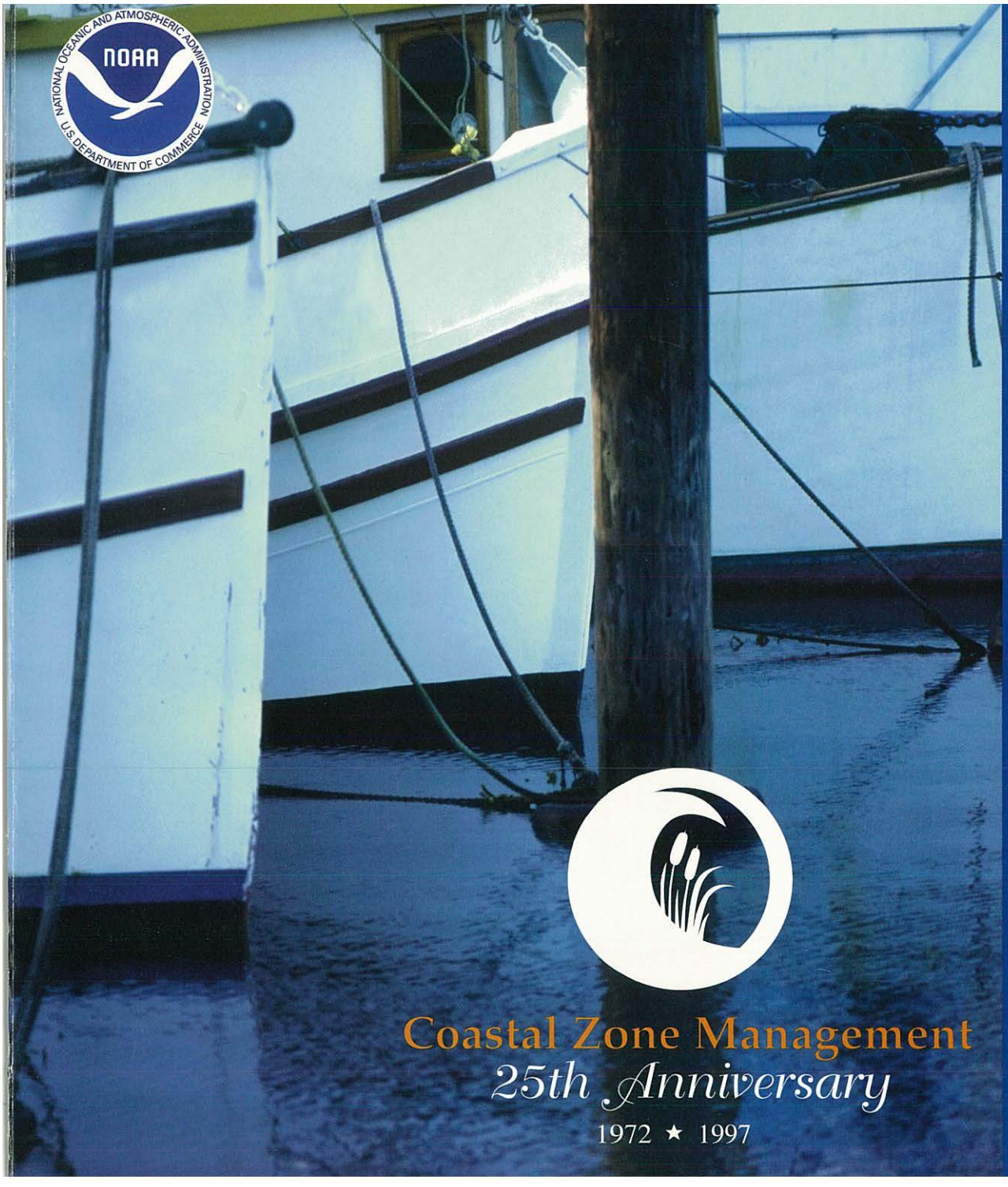

Coastal Zone Management
25th Anniversary
1972 ★ 1997

Accomplishments Report

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"As one of the states that voluntarily participates in the CZMA program, North Carolina has enjoyed the benefits of this effective state/federal partnership. CZMA has enabled us to pool state and federal resources for protecting natural resources, for providing the public with ways to reach our waters, and for helping local governments plan for growth."

James B. Hunt, Jr.
Governor of
North Carolina

Saltmarsh at Ninigret, R.I.
Photo Courtesy of Coastal America

Executive Summary

The coast is the place:

where more than 50% of the U.S. population lives, on only about 10% of the Nation's land area;

where the average American spends about 10 vacation days per year;

where over one-third of the U.S. Gross Domestic Product is generated — that's over $1.3 trillion and over 28 million jobs!

However, America's coasts are under tremendous pressure — from population growth; from overuse of limited coastal resources; from erosion, storms and other natural hazards; from lost habitat; and from runoff pollution.

Over the past 25 years, a unique partnership between federal and state government has sought to balance development needs with sound resource conservation principles to ensure a healthy coast for all Americans. Created by the Coastal Zone Management Act (CZMA) of 1972, this partnership uses tools at the state and local government levels to achieve benefits not only for individual communities and states, but also for the nation.

The results of this partnership have been remarkable. As a nation, we have seen that the partnership results in better planned projects, which are good for the economy and good for the environment. The benefits are wide-ranging:

- *Good coastal management enhances public recreational access to the coasts.*
- *Good coastal management saves lives and property from coastal natural hazards.*
- *Good coastal management conserves valuable natural resources.*
- *Good coastal management improves coastal water quality.*
- *Good coastal management cuts red tape, saving businesses time and money.*
- *And, good coastal management stimulates economic development and private investment in coastal areas by revitalizing urban waterfronts, enhancing the nation's seaports and promoting marinas and other industries dependent on a waterfront location.*

The bottom line is that the CZMA is making a difference. As a whole, the partnership works well. Coastal states have made tremendous achievements and progress in managing their coasts. But the nation cannot rest on its achievements. Burgeoning population creates growing demands for commercial, residential and recreational development, placing tremendous pressure on the nation's coasts and coastal resources. The Nation must conserve and enhance the coastal environment to assure that these resources are healthy and in good condition for future generations.

The Coastal Challenge

The U.S. coastal zone is a region of transition between the land and the sea. Extending over 95,000 miles and bordering three oceans, the Gulf of Mexico and the Great Lakes, this narrow strip of continent takes on different forms — from the rocky headlands of Maine, to the coral reefs off Florida, the broad wetlands of Louisiana, and the tranquil beaches of the Pacific Islands.

The coastal zone means many things to many people. Some people think of it as sandy beaches and dunes or rocky shores. But, the coastal zone is also the mixing zone between fresh water from rivers and saltwater from the sea — creating estuarine areas such as bays, inlets, lagoons, wetlands, marshes and mangroves. This land and water connection is an integrated system whereby an activity that takes place on one can impact the other.

It is at this juncture of the land and sea that the greater part of U.S. trade and industry take place. For centuries, people have relied on the coasts and its resources for their livelihood. Fishing, boating, recreation and tourism, ports and harbors, and energy production industries are particularly important uses of the coastal zone. And more and more people want to live on the coast.

This broad range of uses affects the coasts in many ways:

- Rapid development and competing uses of the coasts have reduced the amount of shoreline that is accessible to the public. This jeopardizes the multi-billion dollar coastal tourism industry.

- *Life and property are continually placed in jeopardy from coastal natural hazards. The devastation of Hurricane Andrew and chronic erosion of up to 70 percent of the nation's beaches show the need to steer development to safer areas.*

- *The U.S. continues to lose about 40,000 acres of coastal wetlands annually. These extremely valuable natural areas provide habitat and spawning grounds for most commercial fish and shellfish species, as well as shelter and food for many forms of wildlife. In addition, coastal wetlands help reduce flood damage and abate water pollution, and support many valued recreational opportunities.*

- *Runoff pollution (also known as nonpoint source pollution) and marine debris threaten the productivity of coastal waters, forcing the closure of valuable shellfish beds and restricting use of recreational beaches. In 1990, for example, harvesting in 37 percent of the nation's shellfish beds was restricted because of pollution. This compares to just 13 percent in 1966. Over half of all water pollution is caused by runoff from such diffused sources as eroded croplands, storm sewers, roads and highways, dam projects, boats and marinas, and faulty septic systems.*

- *And industries that depend on access to the water are competing with non-water dependent industries for limited space. In some urban areas, the waterfront has become such a desirable place to develop that adequate space is no longer available for those land uses which must be located at the water, such as ports, marinas, commercial fish landings and boat repair yards. In many cases, these land uses are not able to pay as much for waterfront land as condominiums and restaurants, but have no inland alternative.*

About Coastal Zone Management

In 1972, Congress enacted the Coastal Zone Management Act to deal with the increasing stresses on the nation's coastal areas. Administered by NOAA, the statute created a unique, voluntary partnership of federal and state government to reduce conflicts between land and water uses in the coastal zone and conserve coastal resources. The crux of the CZMA is that responsible development and conservation of coastal resources can and must go hand-in-hand to keep our economy strong, our waters clean, and our resources healthy and productive.

The CZMA represents a comprehensive approach to managing the impacts that an activity has on other coastal uses and on a variety of coastal resources. It helps coastal states and U.S. island territories individually balance their coastal resource development and conservation needs, while safeguarding the nation's long-term economic health.

States and island territories are on the front line, developing and implementing coastal zone management (CZM) programs. These programs are tailored to the unique resources, conditions and needs of each state or territory, but incorporate the nationwide goals of the CZMA.

Local governments are also involved in the implementation of state CZM programs, either formally or informally. In some states, local governments play a central role by developing local coastal programs, and in all states, local governments work with the state CZM program to implement public access improvements, habitat restoration projects, urban waterfront revitalization plans and other CZM activities.

At the national level, NOAA promotes the joint federal-state interest in coastal management by assisting states with development and implementation of CZM programs; allocating federal funds on a 50/50 matching basis to implement the program; and ensuring that state CZM interests are represented at the national level and that the national interest is adequately represented in these state programs. NOAA also encourages states to improve their CZM programs by recommending improvements through periodic evaluation of state programs.

The CZM program is very cost effective. For example, last year, about $45 million in federal dollars was channeled to the 32 coastal states and territories to help them implement their coastal programs and deal with critical coastal issues. Some of these funds filter down for local planning, which prompts investment in local economies from private and public sources. In other words, the CZMA's small investment leverages a substantial return. In Maine, for example, the CZM program's analysis of cargo needs — a $150,000 project — led to a $27 million bond issue for port improvements, which included a new $45 million port facility by Bath Iron Works and thousands of new jobs in the region.

Since 1976, with the approval of the first state CZM program in the State of Washington, a network of 32 state and territory programs covering 99 percent of the U.S. shoreline has evolved to balance development and conservation needs in coastal areas. Of the remaining three eligible coastal states, two (Minnesota, and Indiana), are working with NOAA to develop CZM programs for federal approval. In 1997, Texas and Ohio joined the National Coastal Program, becoming the 30th and 31st states to receive federal approval of their CZM programs. Georgia received federal approval in early 1998.

Public Access

"Public access is an important,
if not the most important aspect
of the coastal program in Michigan.
Public access stairways and bridges
provide physical access to appropriate
areas while protecting critical
habitat from human disturbances.
We are developing barrier free accessways,
that will truly enable every person
to visit the coast and personally
experience the beauty of this
great natural resource."

— Jim Ribbens
Manager
Michigan Coastal Program

Houghton, MI
Photo by Patmarie Nedelka

Michigan Coastal
Management
Program

Enhancing Public Access to the Coast

Old Woman Creek, OH
Photo by Cheryl Graham

Tourism is the leading industry in the U.S., generating upwards of $3 trillion in sales and approximately $85 billion in tax revenues annually. Coastal states earn about 85 percent of U.S. tourist revenues. This is largely due to the attraction of beaches. Miami Beach, for example, reports 21 million tourist visits annually. These beach visits far surpass tourist visits at any national park, including Yellowstone, the Grand Canyon and Yosemite.

Each year, some 180 million Americans visit the shore for enjoyment. Americans spend, on average, 10 days a year at the beach. They like to sunbathe, wind surf, boat, scuba dive, hike and study nature. Another popular form of recreation, sport fishing, attracts over 17 million salt water anglers annually. This amounts to a $7.2 billion business.

But, the alarming fact is that while the demand for public recreation has been increasing, the opportunities have been declining. Only a small percentage of the coastline is now available for public recreation, and many of the finest and most accessible areas are rapidly being lost to private development and erosion.

Improvement of public access to the shoreline is an important goal of state CZM programs. In California, for example, concern about decreased public accessways led to the creation of the state's CZM program. Today, thanks to the achievements of the program, over 2,300

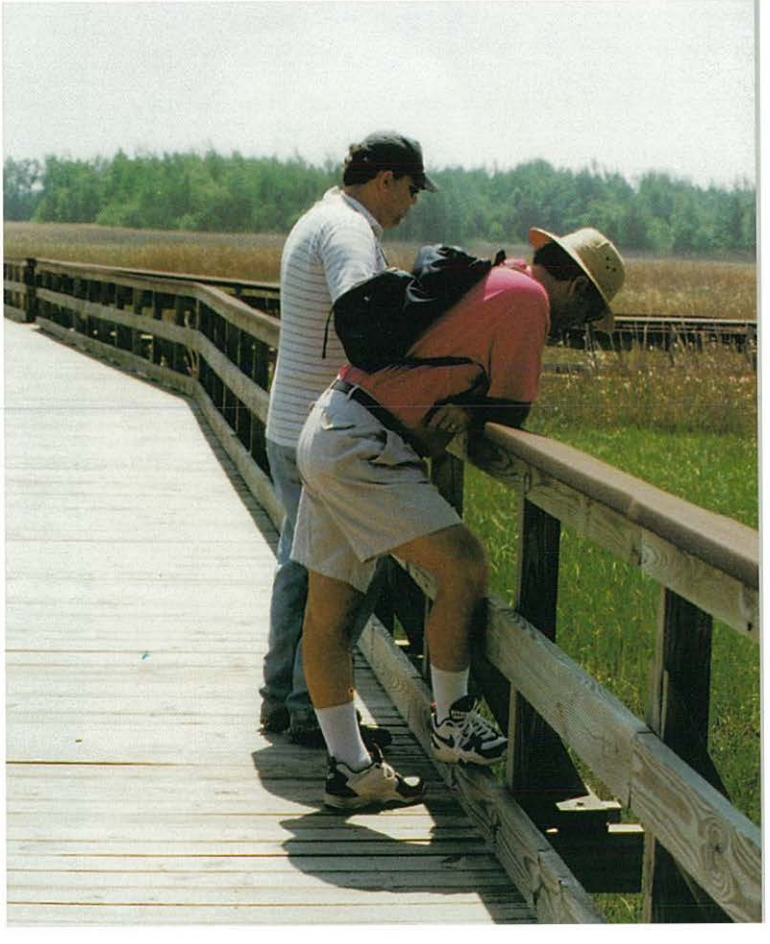
Ocean City, NJ - Photo by Coastal Programs Staff

new public accessways have been created along California's 3,400 mile shoreline. Other states have also fostered significant increases in public access to the nation's shores.

State CZM programs also improve existing facilities or provide new or additional equipment to enhance public use, increase public awareness of access sites, and accept conservation easements. For example, several states have used CZM funds for low cost construction projects, including dune walkovers along the North Carolina coast, and over 100 wetland walks, boat launches and accessways in Michigan.

States also develop coastal recreation management plans to solve public use conflicts, among other things. In Alaska, the plan for the Nushagak and Mulchatna Rivers resolves conflicts among the sport salmon fishing industry and subsistence users. The Guam plan for Agana and Piti Bays seeks to resolve conflicts among mechanized water craft and fishermen, snorkelers, and windsurfers.

Delaware National Estuarine Research Reserve Photo by Vickie Allin



Some examples of public access activities are provided below.

- Since 1980, the **California** CZM Program has created over 2,300 public accessways along the coast, and opened up over 96 miles of San Francisco Bay shoreline for public access.

- On average, 25 million visitor days are spent each year at recreation sites obtained through the CZM programs in **California**, **Pennsylvania** and **Guam** alone.

- In **Massachusetts,** some $250,000 in CZM funds generated $2.9 million in private investments for public access facilities along the coast, ranging from public piers and docks, to sailing schools, and parking facilities. Using less than $50,000, the commonwealth has also been instrumental in acquiring over 1,636 acres of coastal lands for public access — representing a public investment of $33.4 million. These activities bolster Massachusetts' $1.5 billion coastal tourism industry.

Fish Pier in Michigan
Photo by Vickie Allin

- In Michigan, California, Connecticut, Rhode Island and New York, some $700,000 in Federal CZM funds resulted in the creation of 238 new access ways and over 180 miles of public waterfront access.

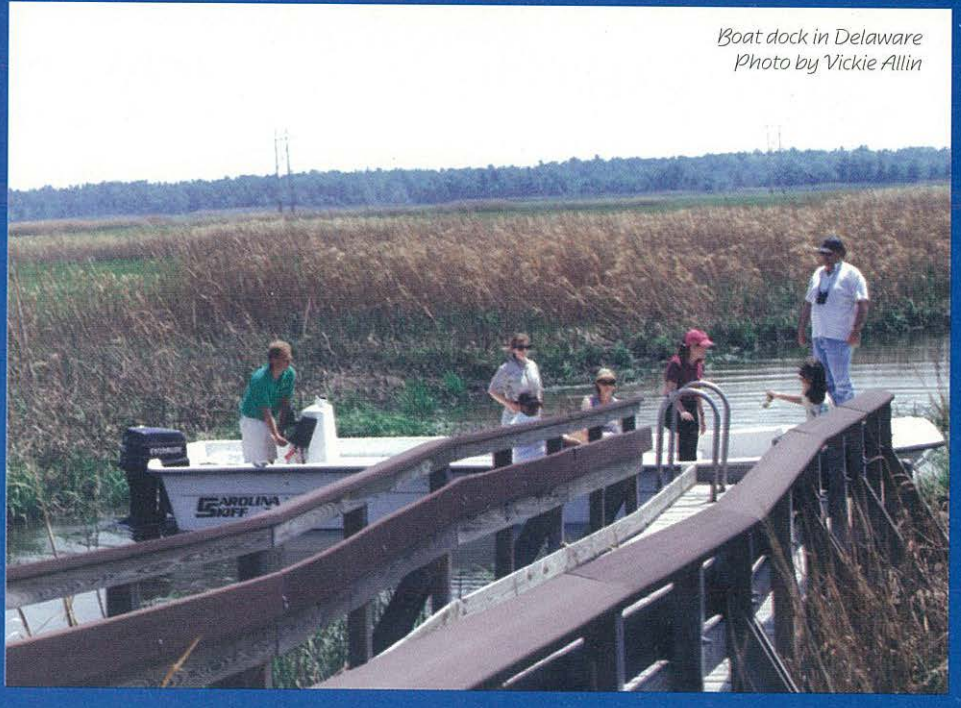
- In Connecticut, CZM program review of over 100 major waterfront permits provided nearly seven miles of new public access through constructed walkways, waterfront parks, easements or other agreements. These accessways, which are valued at almost $25 million, were made possible by $500,000 in CZM funds.

- Pennsylvania reinvigorated the City of Chester's economically depressed waterfront area along the Delaware River with a $217,000 grant to construct a public fishing/boating facility. The facility supports 30,000 boaters and shore fishermen in Pennsylvania, Delaware and New Jersey annually, thereby boosting the area economy.

- The **San Francisco Bay Conservation and Development Commission,** one of California's three CZM agencies, was instrumental in transforming former military lands along the bay into the Golden Gate National Recreation Area, a 70,000-acre park which features a civil war-era fort, World War II coastal gun emplacements and a hiking trail. The national park serves 25 million visitors annually.

- Public recreational use of remote Cocos Island, **Guam** was made possible with the territory's purchase of a 22-acre parcel and $125,000 in CZM funds for a public dock and park facilities, which are visited by 47,000 people annually.

- **North Carolina's** beach access program acquires unbuildable oceanfront lots for public access points. With $600,000 in CZM funds and $1.4 million in state funds, the state provides 138 access sites along its 4,000 miles of shoreline.



Boat dock in Delaware
Photo by Vickie Allin

Protecting Lives and Property

"We recommend that people think
about where they build
their homes and businesses
before they build.

The farther inland you build,
the less impact coastal storms have.
We use the old 'an ounce of prevention
is worth a pound of cure' adage."

–Jeff Benoit, Director
Office of Ocean and Coastal
Resource Management,
NOAA's National Ocean Service

Poipu, Kauai

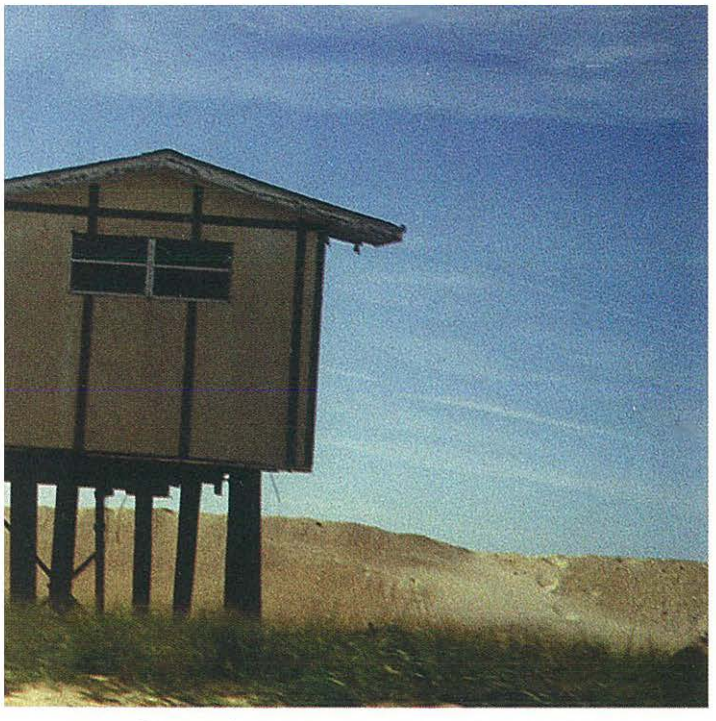
Protecting Lives and Property Along the Coast

Pennsylvania
Photo by Vickie Allin

Natural hazards —ranging from hurricanes and severe storms, to floods and landslides, shoreline erosion and land subsidence — pose a large and growing threat to lives and property along much of the nation's shoreline. Over the years, intense development pressure has resulted in rapid growth and accelerated economic development in coastal areas. Over 50 percent of Americans live near the coast, and many of these people build their homes and businesses within floodplains, in low-lying areas and on barrier islands. This land is particularly vulnerable to natural phenomena, such as flooding, erosion and subsidence.

Americans also continue to demand more opportunities for coastal recreation. This demand leads to intense pressures to develop coastal resorts and single family vacation houses along the beach, with little regard for the force of big storms. The consequences of this development are increased exposure to storms and the potential for loss of life and property.

It's no surprise that the greatest risk to lives and property comes from hurricanes, severe storms and flooding. Certainly, the 1995 hurricane season, with its record breaking 11 hurricanes and eight tropical storms, provided dramatic confirmation of the perils of living too close to the water's edge. The storms resulted in 120



Damage from Hurricane Fran, NC - Photo by Cheryl Graham

deaths and an estimated $5.2 billion worth of damage to property and businesses.

The less dramatic phenomena of erosion and drowning coastal land, called subsidence, are no less important in economic terms. Erosion is estimated to cause billions of dollars worth of damage annually along U.S. coasts. Subsidence is also costly. Diking and drainage of land in the New Orleans area results in subsidence which in turn necessitates large expenditures for pumping and dike maintenance. Subsidence due to ground water removal is being experienced in Texas and Florida, with the resulting inundation and flooding threatening high value land uses. In California, subsidence due to oil and gas removal has cost millions in damages and remedial costs.

Much of the damage caused by natural phenomena can be ameliorated through better management of the nation's coastal resources. NOAA's philosophy, as embodied in the Coastal Zone Management Act (CZMA), is that it's more appropriate, and less costly, to prevent problems than to remedy them. Under the CZMA, coastal states are encouraged to manage the nation's coastal resources better so that fewer people are placed at risk from hurricanes and other natural hazards.

Erosion damage in Sandbridge VA. Photo by Vickie Allin

Cape Hatteras, NC
Photo by Patmarie Nedelka

State CZM programs, in coordination with state emergency preparedness agencies, help to minimize the results of coastal hazards by mapping and monitoring erosion, providing public education, acquiring buffer areas, and in some cases, creating setback and permitting systems to limit development in the most dangerous areas. The State of North Carolina, through its CZM program, has developed a four-stage approach which augments and extends National Flood Insurance Program standards to protect coastal development. Among other things, hazard setbacks keep people and property out of harm's way during storms, and a policy not to build erosion structures protects beaches, which are vital for tourism.

As scientists learn more about the natural processes of the shoreline, the application of erosion structures to problems of flood control and beach erosion control has become a source of mounting controversy. Along much of the coastline, beaches are continually moving with the tides and currents, receiving and storing sand which will be eroded to sea during storms, thereby dissipating or dampening the force of the waves. This movement of sand forms a long-term equilibrium essential to the dissipation of wave energy. If sand is lost from this system, the sea rapidly moves inland. Erosion structures and development along the beach can disrupt this natural process.

State CZM programs also develop hurricane warning systems and evacuation plans for coastal residents; impose building codes specific to hazardous areas; design plans for rebuilding after disasters; and develop relocation policies and beach renourishment programs to help restore the natural protective functions of beaches and dunes. State coastal management projects go a long way toward reducing the loss of life and damages caused by natural hazards.

The benefits of these projects are wide ranging:

- The **Puerto Rico** CZM Program spent $454,000 on a flash flood warning system that protects over one million people — about one-third of the island's population.

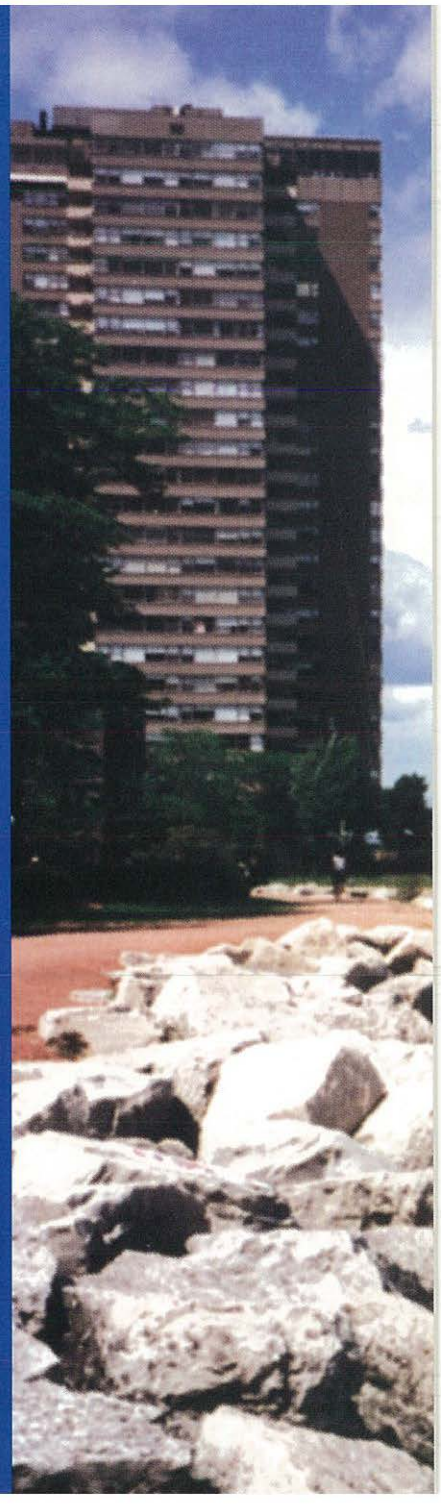
- Using $100,000 in **Florida** CZM Program funds, 10 coastal counties completed hurricane evacuation plans for Apalachicola and west Florida in 1985 that led to the largest peacetime evacuation in U.S. history. Over 1.25 million people were led to safety during hurricanes Elena and Kate.

- More than 300 property owners along Lake Erie received technical assistance from **Pennsylvania** CZM regarding shore protection and bluff stabilization that resulted in an estimated $5.25 million in property damage savings and property value enhancements. The technical assistance activity cost $56,000.

- **Maryland** CZM helped fund more than 200 vegetated buffer projects along the tidal waters of the Chesapeake Bay that resulted in the creation of 1,875,000 square feet of marsh grass and helped to protect 93,763 linear feet of shoreline. These vegetated shorelines buffer mainland areas from storm waves and storm surge and help reduce flooding.

- **South Carolina's** CZM Program spent $350,000 to assist towns in developing shorefront management plans along 65 percent of the state's developed shoreline. The plans resulted in $16 million in beach renourishment, protecting at least 1,400 structures worth nearly $15 billion.

- **Thirteen state CZM programs —** Alabama, Connecticut, Florida, Maine, Michigan, New Jersey, New York, North Carolina, Northern Mariana Islands, Pennsylvania, Rhode Island, South Carolina, and Wisconsin — have established building setback requirements and/or sand dune protection programs that protect billions of dollars worth of property and save recreational beaches.



Northern Chicago, IL Shoreline
Photo by Ben Mieremet

Conserving Valuable Resources

"The coast and its valuable resources are never saved.
Like any coveted geography, they're always ***being*** *saved.*

Coastal management is a dynamic process
working with competing forces that gather on the coast
and trying to balance them and achieve a reasonable
accommodation among them."

– Peter M. Douglas
Executive Director
California Coastal Commission

Conserving Valuable Resources

One of the most productive estuaries in the Northern Hemisphere, Apalachicola Bay, Florida, produces over 90 percent of the oyster harvest in Florida and over 10 percent of the oyster harvest in the nation. This harvest represents a fairly stable $6 million dock-side business annually. But, Apalachicola Bay is also known for its shrimp, blue crabs and finfish. Each year, the harvest of these species translates into a $70 million industry.

Apalachicola Bay is just one of hundreds of estuaries in the U.S. What many people don't realize is that estuaries — that area where freshwater meets saltwater — produce more food per acre than the best midwestern farmland. In fact, these waters produce over two-thirds of the U.S. commercial and recreational fisheries harvest — a $30 billion industry. The Gulf of Mexico alone produces 42 percent of all seafood harvested in U.S. waters.

Although impressive, this economic evaluation does not tell the whole story of the economic worth of coastal waters. Coastal wetlands, marshes, beaches and dunes — complex natural systems — perform a number of other functions that are critical to the health and productivity of the nation's coastal waters. In addition to providing nursery and spawning grounds for over 95 percent of the species harvested for human consumption, coastal wetlands and marshes serve as natural filtering

Watershed Restoration Project, CA

CZM Marsh Restoration, Long Island, CT - Photo by Vickie Allin

systems which improve water quality. These systems also soak up storm and flood water that would otherwise devastate coastal communities. And they control erosion by trapping sand and silt that would otherwise wash into the ocean.

These fragile systems — vital to the U.S. economy — can be easily destroyed by human activities. Decades of overuse and misuse have led to declining water quality, damaged ecosystems, and a loss of fish and wildlife. Oysters, salmon, Atlantic blue crab and other important fish are no longer abundant.

The need for restoring these areas is widely recognized. A major goal of the CZMA is to conserve these areas by avoiding or minimizing adverse impacts through project planning and technical assistance, and to restore previously degraded areas.

Grand Traverse Bay, MI - Photo by Vickie Allin

Some examples of successful state projects follows:

- In New Jersey, $5,000 in CZM funds leveraged a $1 million fund from a utility company to acquire the most important spring habitat for over one million birds along the Atlantic flyway.

- In Washington State, a $20,000 study of ecologically significant wetlands around Puget Sound resulted in the acquisition of over 1,000 acres of wetlands by the state and non-profit groups.

- The Connecticut CZM program restored more than 1,000 acres of tidal wetlands, which are vital to fisheries, and control of runoff pollution. Also of note, the state developed the first Wetland Restoration Unit in the country, with staff and equipment dedicated specifically to wetland restoration.

- California also combined $277,000 in CZM funds with $1.23 million in state funding to acquire the Rush Ranch in Suisun Marsh, one of the few remaining wetlands in the San Francisco Bay area. This acquisition protects 2,070 acres of open tidal marsh and associated upland which provides important habitat for waterfowl and at least 17 candidate an d endangered species.

- In an effort to restore one of the largest salmon-producing systems in Alaska, the Kenai River, the state used CZM funds to develop innovative streambank stabilization projects using natural materials and provide funding to local businesses to try them out. In 1994, these fishery habitats contributed over $80 million to the state economy from recreational and commercial fisheries.

Mangroves in Rookery Bay, Florida
Photo by Vickie Allin

Biodiversity hot spot, Traverse City, Michigan
Photo by Vickie Allin

Improvements in Water Quality

"In Maryland,
we have started tributary strategies
because we need people to understand
that the problem is simple:
it's coming from your backyard.
Every single person in Maryland
lives on the Bay
since all streams run in to it."

– Betsy Kulle
Maryland Department
of Natural Resources

City of Imperial Beach, CA
Photo by Coastal Programs Division

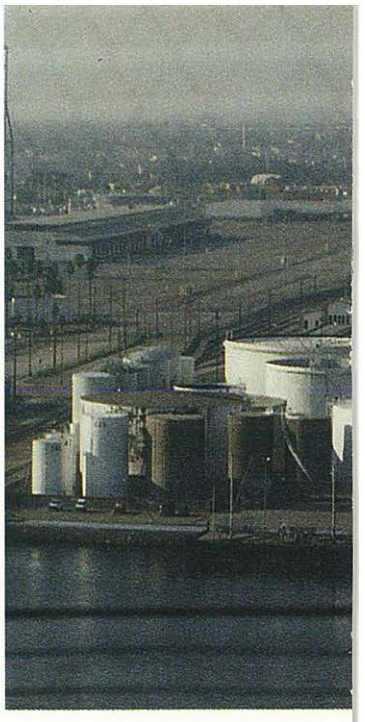
Improving Coastal Water Quality

Each year, polluted waters prevent many Americans from swimming, surfing and fishing at the beach. In 1993, for example, 23 states issued 2,438 beach advisories and closings because the water was contaminated by disease-causing bacteria. Coastal water pollution can also lead to the closing of valuable shellfish beds, most notably oyster and clam flats. In 1990, harvesting in 37 percent of the nation's shellfish beds was restricted because of pollution. This compares to just 13 percent closures in 1966.

Half of all water pollution in the U.S. comes from nonpoint sources, such as runoff from streets, farms, leaking septic systems and untreated sewage from boats. Along with contaminates, runoff pollution can carry solid waste, debris and heavy loads of oil and fertilizer into coastal waters all of which degrade water quality and limit the productive use of these waters.

Marine debris is also a problem. Ranging from plastics to medical waste, bottles, and cans, marine debris originates from vessels at sea, recreational boaters and land-based activities.
Not only does it reduce water quality and threaten shellfish and other ocean resources, but marine debris can also force the closing of public beaches and harbors and can cost communities thousands of dollars to clean up.

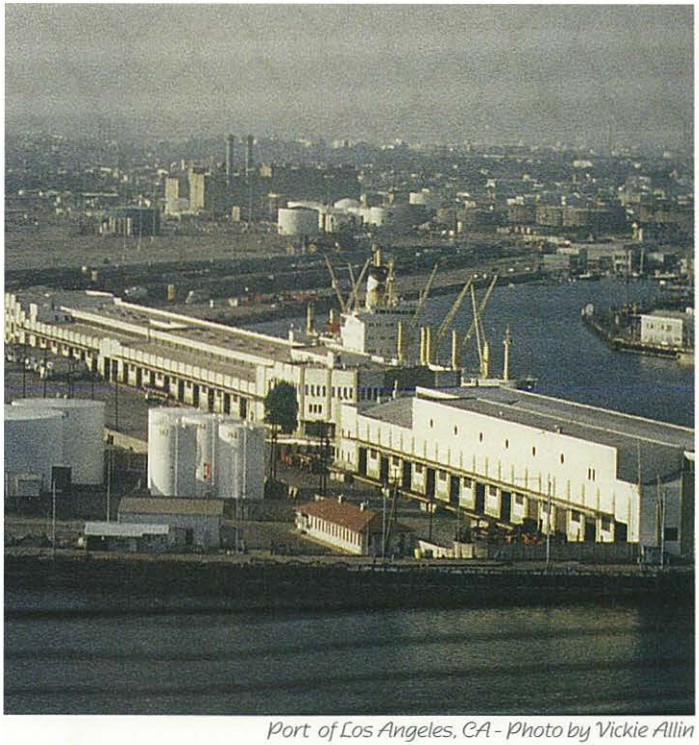
State CZM programs are in a unique position to help control nonpoint source (runoff) pollution and marine debris because they address land and water use issues within the coastal zone. CZM



programs have helped to focus attention on runoff pollution and develop techniques for reducing runoff and keeping coastal waters clean.

One of the most effective methods to protect water quality is to create vegetated buffers between developed areas and the water to absorb pollution before it gets to

Water Monitoring Project, Delaware
Photo by Vickie Allin



Port of Los Angeles, CA - Photo by Vickie Allin

the water. For example, a 100-foot buffer of native vegetation between a parking lot and a river can strain the oil and grease from cars before it reaches the water.

Another method is to control stormwater runoff, which can contain soil from eroding land and construction sites, as well as lawn chemicals, street litter, oil and grease, and sometimes raw sewage. State CZM programs often require stormwater prevention techniques for new developments to assure that stormwater is controlled. They also provide funds for research and public information on effective solutions to runoff pollution and encourage the voluntary use of runoff control techniques. These programs also play an important role in helping to reduce marine debris by educating both the general public and mariners, through management plans which stress recycling and convenient waste disposal, and through coordinated outreach programs to boaters and marinas.

Each state organizes and implements its own beach cleanup as part of the national Coastweeks celebration. In 1995, the cleanups involved 33 state and island territories and over 134,000 volunteers; more than 4 million pieces of debris were collected from over 5,800 miles of shoreline.

Since 1990, a new partnership between CZM and water quality agencies at the Federal and state level has evolved to control runoff pollution. Called the "Coastal Nonpoint Pollution Control Program," this innovative program links water quality experts with coastal management experts in coastal states to develop plans with specific control techniques for reducing runoff pollution on a watershed basis. Although appropriations for this program were not reauthorized with the CZMA in 1996, control techniques have been developed and all state plans have been submitted to NOAA and the Environmental Protection Agency (EPA), which jointly administer the program.

Some examples of how state CZM programs are improving coastal water quality and curbing marine debris follow:

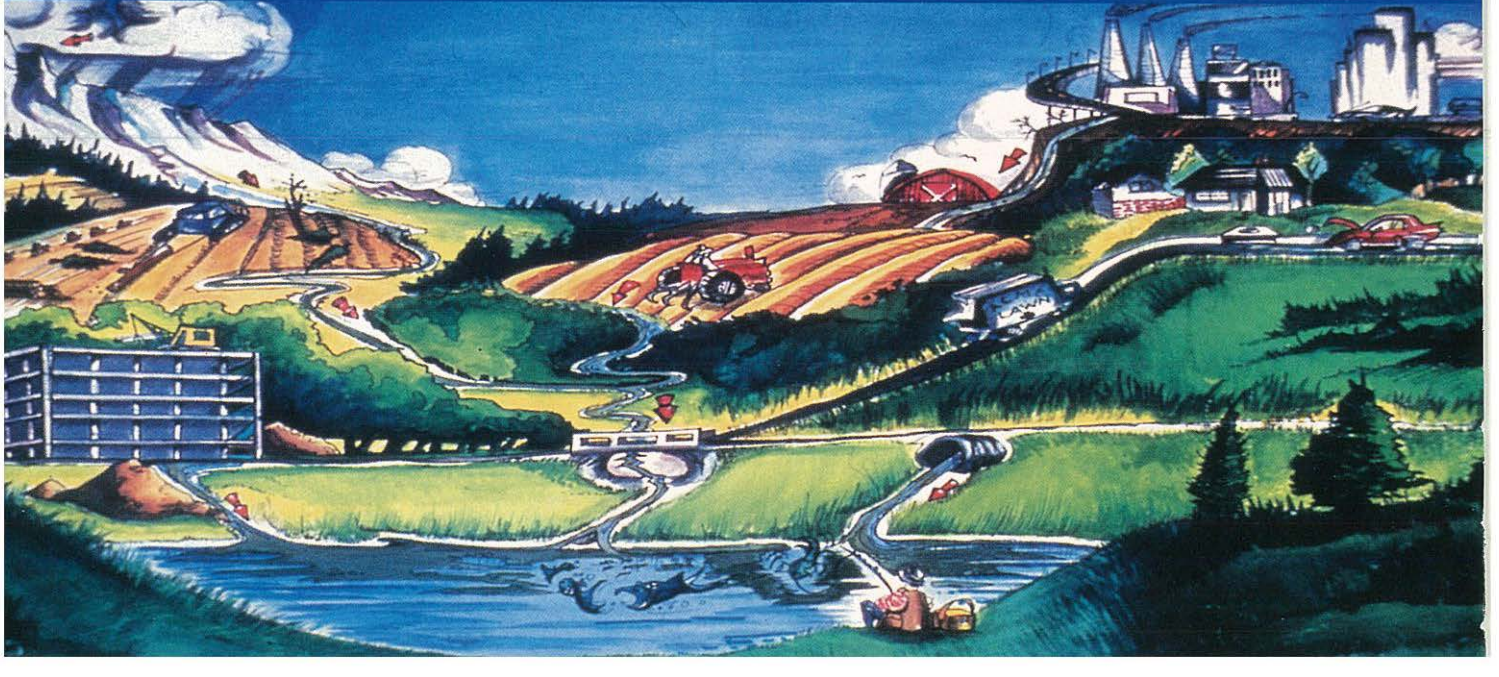
- *Massachusetts CZM, through watershed management planning, was able to open 407 acres of formerly closed shellfish beds in 1995.*

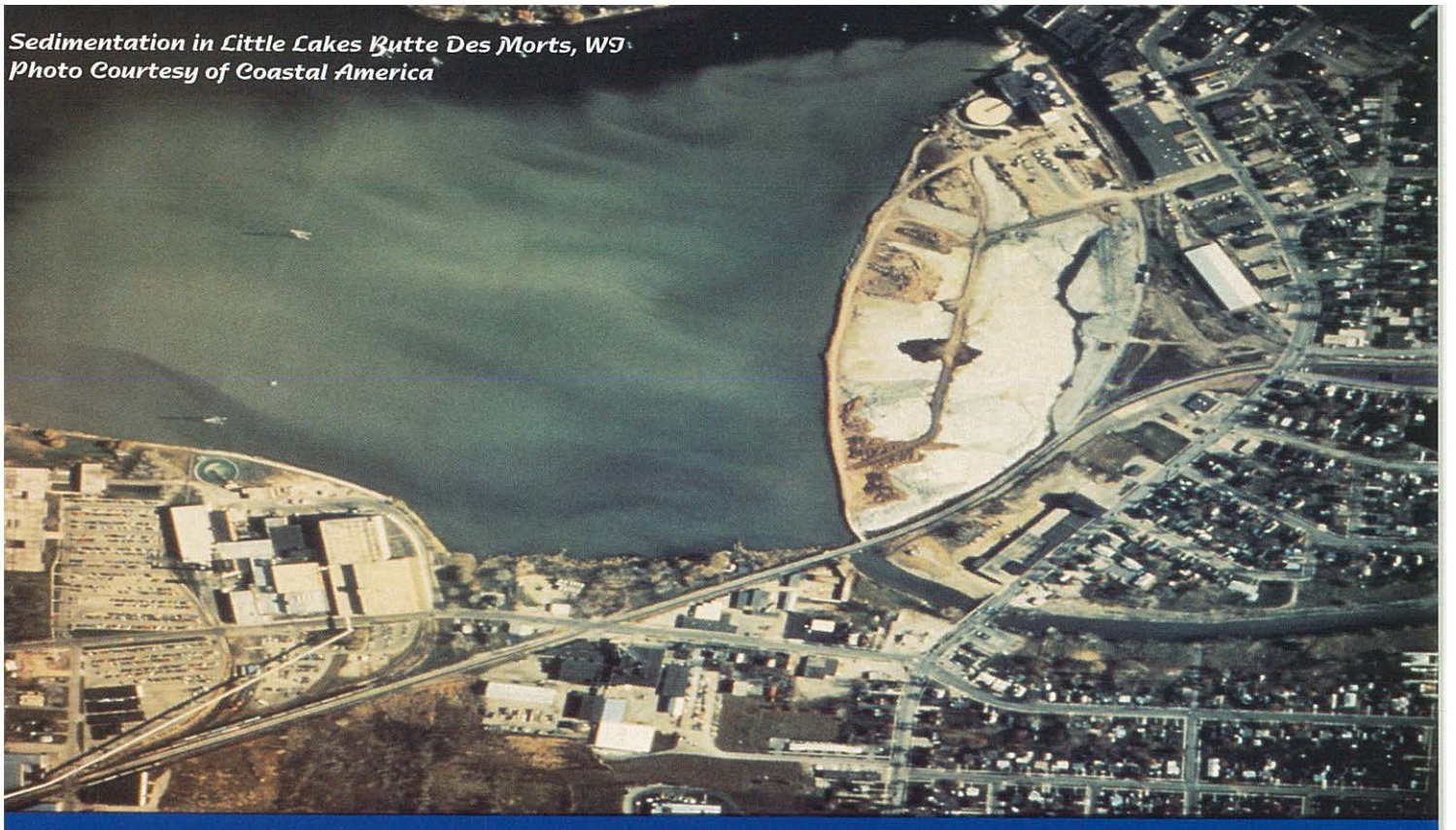
- *Along Alaska's Bristol Bay, a 100 foot natural stream buffer protects the habitat of the sockeye salmon, an important commercial and subsistence fishery.*

- *Several states, including Virginia and Washington, are developing educational, incentive-based shellfish enhancement programs to restore degraded shellfish beds.*

- *A $60,000 project facilitated by the New Hampshire CZM program to assess the impact of boat waste discharges and septic systems on clam bed waters within the Hampton-Seabrook Estuary led to the partial reopening of historic clam flats based on measured rainfall amount.*

Runoff pollution--it all adds up
Graphic Courtesy of Coastal America





Sedimentation in Little Lakes Butte Des Morts, WI
Photo Courtesy of Coastal America

- *In response to local concerns about drinking water and the health of the Exeter/Squampscott River watershed, New Hampshire CZM funded a demonstration project to engage local participation in managing the watershed. As a result, local participants are now actively involved in dealing with storm water management, erosion control and shoreline protection issues in the watershed.*

- *To address the territory's pressing marine debris problem, American Samoa CZM and EPA are working with villages to develop village-based solid waste management strategies and enforcement. Also, new solid waste collection facilities, provided with CZM funds, will provide an alternative to illegal dumping for villages in mountainous areas with narrow roads that are hard to reach by trucks.*

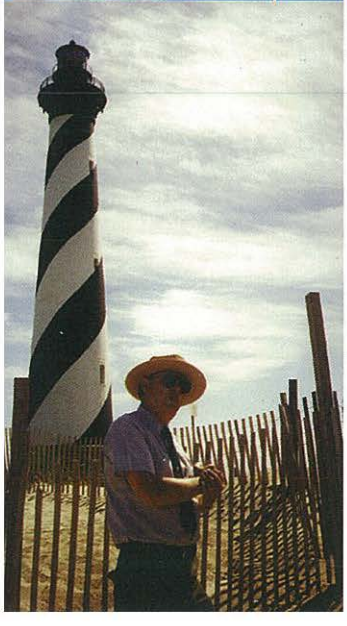
Cutting Red Tape

"In the business world,
time is money.
Bureaucratic red tape, in the form of overlapping
permits and unnecessary delays,
can significantly increase project costs.
We have worked to eliminate delays and
promote economic growth,
without sacrificing protection
of our coastal resources."

— Terry Howey, Administrator,
Louisiana Coastal
Resources Program

Ribbon cutting in Mississippi
Photo by Cheryl Graham

Cutting Red Tape



Cape Hatteras, NC National Park Service and State CZM program work together on stabilization project. Photo by Cheryl Graham

In the coastal zone, all levels of government — Federal, state and local — are involved in actions that affect coastal land and water resources. Before the CZMA, this involvement often led to fragmented decision making and a lack of clarity and uniformity in policy. It also led to increased and overlapping regulations on coastal users.

The CZMA helps cut red tape, without sacrificing resource protection. Over the years, state CZM programs have instituted a variety of techniques — such as permit consolidation, interagency processing, pre-application consultation, mandatory deadlines, and special area management planning (SAMP) — to clarify and streamline their permit programs, making them more predictable and timely.

These streamlining techniques have produced many positive returns. They have reduced processing times, which saves time and money for applicants. The techniques also provide predictability and consistency in the permitting process, which provides a better climate for private investment. And, they offer a comprehensive process for public participation and comment.

Ohio CZM Designation Ceremony, Cleveland, Ohio - Photo by Gene Wright

Some of the successful permit streamlining activities of state CZM programs are listed below.

- *The Louisiana CZM Program developed a new geological review procedure and two statewide general permits that save oil companies $5.3 million annually and reduced the average wetlands alteration per permit from 5.5 acres in 1983 to 2.5 acres in 1989.*

- *The Massachusetts CZM Program developed a new Programmatic General Permit with the U. S. Army Corps of Engineers (Corps) and state agencies which has reduced the number of individual permits required for most wetlands projects from four to one and the processing time from up to one year to 51 days.*

- *North Carolina CZM entered into a general permit agreement with the Corps which saves applicants about three weeks time in obtaining a Corps dredge and fill permit. Approximately 80 percent of all projects requiring Corps permits are processed under the general permit.*

- *Business owners in Mystic are especially pleased with the Connecticut CZM Program's streamlined permitting process for dredge and fill activities because it guarantees permit decisions within 45 days and costs 43 percent less than the minimum general permit application fee.*

- *Pennsylvania CZM created the Urban Waterfront Action Group (UWAG) to provide voluntary "one-stop shopping" for information about waterfront development permits in the Delaware Estuary. This prepermit conference service has been extremely effective in solving potential permitting problems.*

Ohio CZM Approval Ceremony, Cleveland, June 5, 1997. Donald Anderson, Dr. D. James Baker, Dr. Nancy Foster, Joseph Uravitch. (left to right)

Stimulating Economic Development

" I believe a healthy coast equates to a healthy economy.
We need to overcome the inertia from the old school
that promotes the misunderstanding
that a clean environment costs money.

A clean environment makes money.
A healthy coastal zone is better for us as human beings
and better for us as money managers."

– Sarah W. Cooksey, Administrator
Delaware Coastal Management Program

California Marina, CA
Photo by Vickie Allin

Stimulating Economic Development

Pelican, AK
Photo by Patmarie Nedelka

Like many small towns, Cape Charles, Virginia, located on America's east coast, has been struggling to keep its economic head above water. Tucked between the Chesapeake Bay and the Atlantic Ocean, the historic town is located in Northampton County, a rural, economically poor area that is rich with natural resources.

Beginning in 1991, the Virginia CZM program worked with the community to develop a Special Area Management Plan for Northampton County. The plan seeks to stimulate economic growth in the county while preserving its fish and wildlife habitats and maintaining the quality of life for its citizens. As part of the effort to create new sustainable industries in the county, the Virginia CZM is working with the county, Cape Charles community leaders, and the town's citizens to develop the Port of Cape Charles Sustainable Technologies Park. The park is a zero-emissions, solar-powered industrial park that promotes resource efficiency and pollution prevention and solicits businesses with environmental and social integrity; it already has recruited its first tenant, Solar Building Systems Inc.

Boston Harbor, MA - Photo by Vickie A

Cape Charles is just one of several coastal cities and towns throughout the U.S. that recognizes the economic value of the coast and the role that the CZM process plays in promoting economic development. In Detroit, Michigan, for example, a new waterfront park generated roughly $210 million in private investment and thousands of new jobs for the area. New

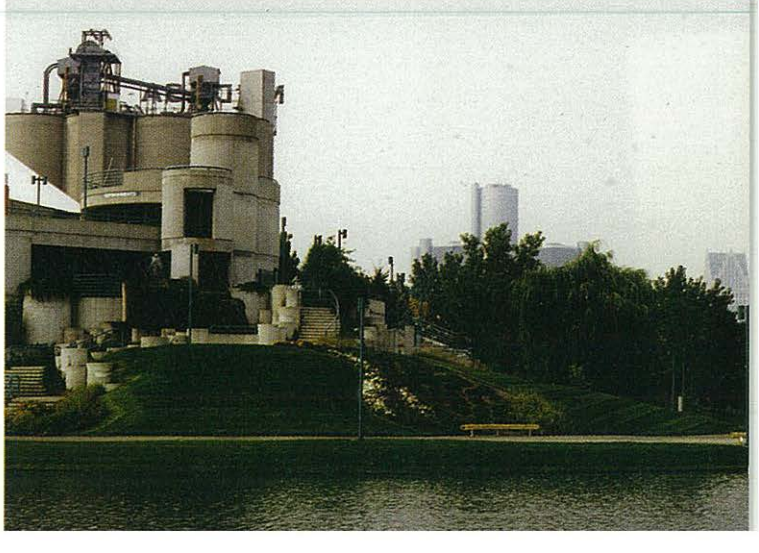
fishing piers in several Maine coastal towns generated some $9 million in private development. On Lake Michigan, a newly renovated waterfront in Wisconsin's City of Kenosha brought in 25 new businesses and $17.7 million in public and private investments.

Recognizing that active ports are vital to the health of foreign and U.S. domestic trade, state CZM programs assist port authorities in assuring that adequate land is available for port operations. A port development plan for Mississippi's Pascagoula created 2,200 new jobs and $100 million in economic growth.

CZM programs have also been leaders in stimulating clean ups of contaminated industrial waterfront sites (commonly known as "brownfields") so that they can be productively reused. For example, using $30,000 in Michigan CZM funds, the City of Wyandotte developed a plan that helped transform some 84 acres of abandoned industrial property along its waterfront into a public golf course and public park. This revitalization led to the renovation of over 500 run-down residential properties adjacent to the waterfront and remodeling of shops downtown. And the New York CZM invested $80,000 to help a port community, Glen Cove Creek, deal with the pervasive problem of cleaning up hazardous waste discharge sites. Located on the east side of New York's Hempstead Harbor, the waterfront area has experienced a wide range of heavy industrial uses over the years, which has resulted in several areas of significant contamination. The CZM effort is bringing together government agencies and private groups to develop a strategy for cleaning up the area and helping the city regain its heritage as a commercial and recreational boating center.

CZM programs also provide a unique source of seed money to stimulate reuse of urban waterfronts. Around the country, state CZM programs have provided the planning and seed money to convert dilapidated waterfront areas into commercial, recreational and residential uses. A dozen redevelopment projects along the City of Houghton's (MI) waterfront resulted in an estimated 2,500 jobs and over $54 million in investments. Other efforts have led to billions of private investment dollars for urban waterfronts in such cities as Philadelphia, Jersey City, Norwalk CT, Biloxi MS, Wilmington NC, and New York.

Waterfront Revitalization, Detroit, MI
Photo by Vickie Allin



Examples of successful coastal development projects in the coastal zone are described below:

- The Mississippi CZM Program, working with other Federal and state agencies, spent $175,000 to develop a port development plan for Pascagoula, which helped expedite approval of the Navy Home Port. This provided about 2,200 new jobs and $100 million in economic growth for the area.

- A $150,000 analysis of Maine's cargo needs by the state CZM program led to voter approval of a $27 million bond issue for cargo port improvements. As a result, Bath Iron Works built a new $45 million facility, creating 1,000 new jobs at BIW and several thousand more in t he region.

- A $9,300 grant from Wisconsin CZM Program assisted the City of Superior in successfully acquiring $1.7 million in state funds to revitalize its cargo port that now handles approximately 35,000 tons valued at $2.4 million annually.

- The Michigan CZM Program invested $82,000 to prepare a master plan for the City of Detroit's Linked Riverfront Parks, generating an additional $37 million in federal, state and local funds for park acquisition and construction. This resulted in roughly $210 million of private investment in housing, office and commercial development in this formerly derelict area and over 1,200 new jobs in downtown Detroit. In 1994, over 3.7 million people visited the parks.

- The Pennsylvania CZM Program spent $331,000 in planning studies for the Philadelphia waterfront, which led to 18 miles of revitalized waterfront with $310 million in private investment completed and $1.7 billion more planned for future investment.

- Delaware CZM prepared a waterfront revitalization plan for the City of Wilmington, resulting in four major projects and stimulating over $7.8 million in local and private investment.

- The Michigan CZM Program helped redevelop the City of Houghton waterfront for public access and recreation. A dozen small redevelopment projects resulted in over $54 million in private investment , with an estimated 2,500 jobs created.

- Using $72,000 in Wisconsin CZM funds, the City of Kenosha, which is located on Lake Michigan, transformed its deteriorated waterfront into a invigorated, bustling section of town that boasts 25 new businesses and an additional $17.7 million in public and private sector investments.

- The City of Wilmington, North Carolina used a CZM grant to develop a riverfront plan that served as a catalyst for some $4 million in public investments and $100 million in private investments along the Cape Fear River and downtown. This effort resulted in 7,150 new jobs, a $63 million increase in retail sales, and 177 new housing

Preserving traditonal fishing ports such as Apalachicola, FL.
Photo by Vickie Allin

Future Of Coastal Zone Management

While the CZMA partnership is making a difference, much more needs to be done. As coastal populations continue to increase, the demand for intensive development of the coastal zone increases. This trend will place even greater demands for housing, industrial and urban development and recreational facilities on these finite resources.

In 1990, Congress presented new challenges to NOAA and the states to confront the most pressing coastal issues, such as wetlands loss, cumulative and secondary impacts of growth, increased threats to life and property from coastal hazards, dwindling opportunities for public access, and declining water quality due to nonpoint source pollution. More recently, the CZMA was renewed by Congress in 1996 to ensure that the successful partnership continues. As part of the reauthorization, Congress encouraged states to look at marine aquaculture as a way to providing economic opportunity while sustaining the resource.

The CZMA partners will continue to implement new and existing programs in an effort to achieve healthy coastal economies and environments. The future agenda is full:

Addressing Priority Coastal Issues...

States are devising new strategies to address priority coastal issues. Under the Coastal Zone Enhancements Programs, enacted in 1990, states were given the opportunity to compete for additional Federal funds for strengthening their CZM programs in any of eight national interest objectives: wetlands protection and restoration; increased opportunities for public access to coastal areas; control of cumulative and secondary impacts of development along the coast; protection from coastal hazards; special area management planning; reduction of marine debris; management of ocean resources; and siting of government and energy facilities along the coast. The voluntary enhancement program is working well with all state and territory CZM program devising new and innovative approaches to dealing with priority resources.

In the 1996 reauthorization, Congress added marine aquaculture as the ninth national interest objective. Under the provision, states can use enhancement grants to facilitate the siting and permitting of aquaculture facilities. This is a particularly important provision to New England states where marine aquaculture is seen as a way of providing new income to fishermen facing difficult financial prospects.

Expanding the CZMA Partnership...

NOAA continues to strive for 100 percent participation in the CZM program. The reinstatement of program development funds in 1990 (and renewed authorizations 1996) is helping that process along. Texas, Ohio and Georgia have just received federal approval of their CZM programs. NOAA is currently assisting the states of Indiana, and Minnesota in developing CZM programs. NOAA will continue to work with these states to bring them into the CZMA partnership.

Promoting New Economic Opportunities...

Declining fisheries stocks due to pollution and overharvesting have led to economic crisis in many coastal towns. New emphasis is being placed on marine aquaculture as a way of providing economic opportunity while sustaining the resource. In the 1996 CZMA reauthorization, Congress underscored the importance of marine aquaculture by adding two new provisions which are designed to facilitate the siting and permitting of aquaculture facilities in the coastal zone. One of the new provisions is discussed above in the "priority coastal issues" section. The second provision allows states to use resource management improvement grants to develop a coordinated permitting process for aquaculture facilities. Some states already recognize the importance of aquaculture. In Massachusetts, for example, a new, five-year Aquaculture Strategic Plan is encouraging growth of the aquaculture industry. The plan includes 68 specific recommendations for the commonwealth to implement to overcome existing regulatory constraints and take advantage of opportunities in the aquaculture industry.

Tackling Runoff Pollution...

To combat the problem of nonpoint source (runoff) pollution, NOAA and the states are working to solidify relationships between CZM and water quality agencies at both the federal and state levels. Specifically, state CZM programs are coordinating with water quality agencies to develop coastal nonpoint source programs that address land uses generally known to cause or contribute to runoff pollution. These programs reach beyond planning exercises to create tangible management practices, ranging from buffer zones along streams and coastal waters, to farming and pesticide management practices and improved construction practices. At the federal level, the program is jointly administered by NOAA and the Environmental Protection Agency, thereby coordinating the programs of the CZMA and the Clean Water Act.

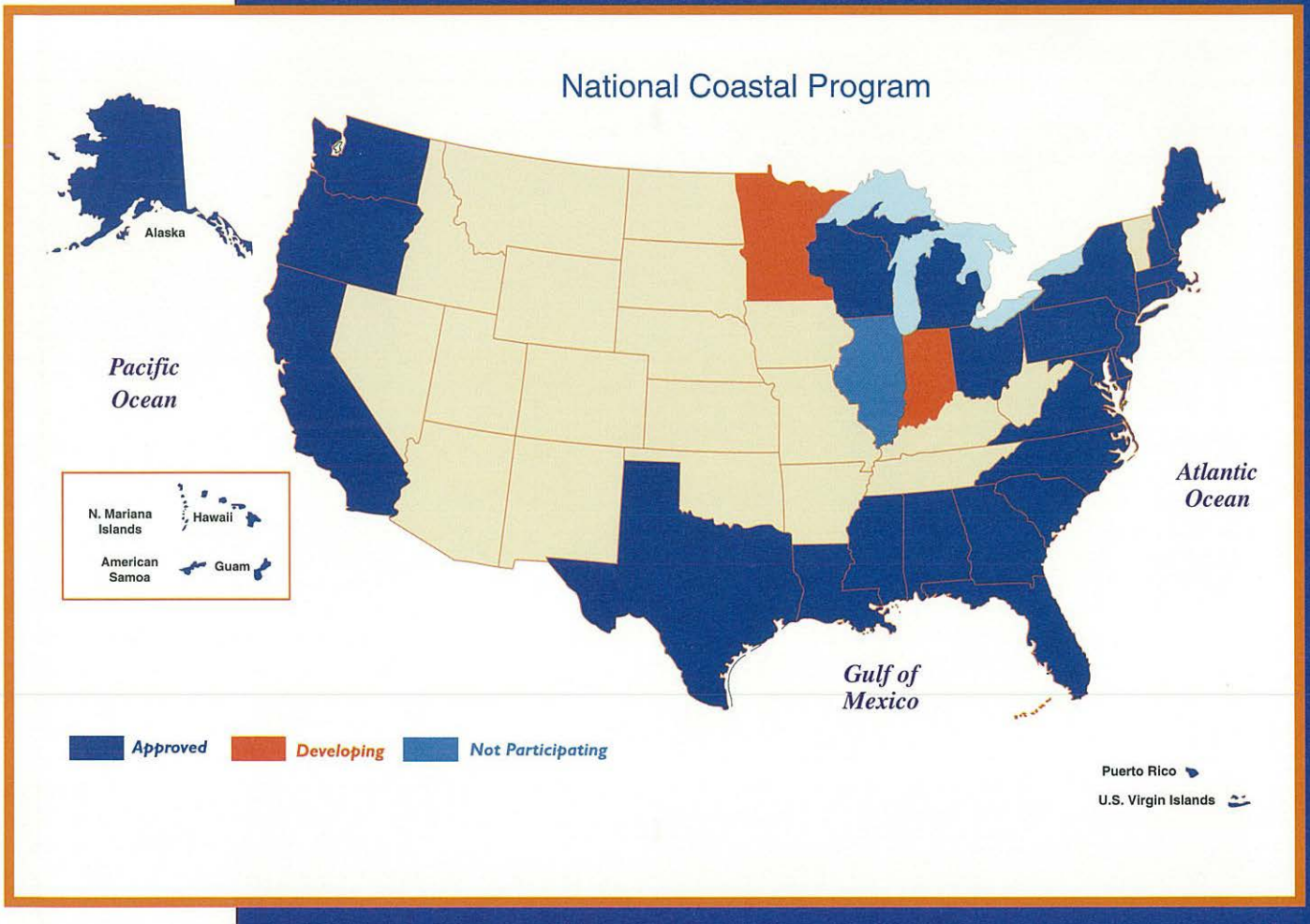
Strengthening the National Dimension....

As states continually work to improve the effectiveness of their coastal management efforts, NOAA is also working to strengthen the national component of the program. Recognizing that sound coastal management depends largely on support from federal agencies and linkages among related programs that have compatible goals, NOAA is setting a focused agenda for national policy in the coast to ensure that challenges are met and coastal economies remain strong. NOAA's efforts will be wide-ranging — from providing leadership on such issues as coastal hazards and nonpoint source pollution, to synthesizing and analyzing information on the national CZM program and increasing coastal awareness and education.

In this era of limited budgets, NOAA recognizes that it's very important to maximize the value of every dollar spent. The agency is committed to working with CZM partners at the federal, state and local level to bridge gaps and maximize solutions to the nation's coastal problems. The continued health of the nation's coastal economies and ecosystems depends on these efforts.

Sonoma Baylands, CA. saltmarsh restoration
Photo Courtesy of Coastal America

Coastal Programs



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