

**Testimony of
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and
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**Before the
Subcommittee on Fisheries, Wildlife and Oceans
House Natural Resources Committee
U.S. House of Representatives**

**Hearing on Vanishing Beaches: Coastal Erosion and its
Impact on Coastal Communities**

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Chairwoman Bordallo, Representative Ortiz, and distinguished members of the subcommittee, my name is Tony Pratt and I am here today on behalf of the Coastal States Organization (CSO). I also serve as the Administrator of the Shoreline and Waterway Management Section of Delaware's Division of Soil and Water. Since 1970, CSO has represented the interests of the Governors on legislative and policy issues related to the sound management of our oceans and coasts. CSO's membership is comprised of the 35 coastal states and territories and includes the states bordering the Gulf of Mexico, Great Lakes, and the five island territories. I want to thank you for the opportunity to testify today on coastal erosion and its impact on coastal communities, and ask that my written testimony be included in the record.

Coastal Erosion and State Coastal Programs

The complexity of coastal systems combined with the significant economic interests along our coasts creates an important yet challenging issue for the nation's coastal managers. Erosion impacts, oil and gas production, transportation, navigation, commercial fishing, recreational activities, and land development all contribute to the challenge. According to a 2000 study by the Heinz Center, approximately 25 percent of homes and other structures within 500 feet of the U.S. coastline and the shorelines of the Great Lakes will fall victim to the effects of erosion within the next 60 years. Along just the U.S. Atlantic and Gulf coasts more than \$3 trillion is invested in housing, businesses, and infrastructure. Here in Texas, erosion has the potential to impact Texas' coastal tourism industry which generates over \$10 billion annually as well as its commercial and recreational fishing (\$2.2 billion annually) and other coastal-dependent recreation (\$3 billion per year).

Due to the ecological and economic impacts of erosion, the states have a considerable stake in shoreline management, erosion, and hazards planning and management. Specifically, the states have an interest in:

- Protecting public safety

- Protecting public infrastructure along the shoreline
- Preserving and restoring natural shoreline features
- Protecting the recreational and economic benefits of beaches
- Minimizing private damages from coastal storms and erosion.

To carry out their responsibilities, the states utilize authority under the Coastal Zone Management Act, partners with the Corps of Engineers in shore protection projects, works with FEMA in determining flood and wave hazards, utilizes geologic research conducted by the USGS, and depend upon other directives to undertake numerous activities related to coastal erosion. In Texas, for example, the Coastal Resources Division of the General Land Office administers the state's Coastal Erosion Planning and Response Program. In Guam, the coastal program works on Talofofo Bay shoreline erosion problems by conducting shoreline change detection projects using GPS and GIS, using funds to create a graded sandy shore, and planting trees and grass to reduce the rate of erosion along the shoreline.

Other examples of activities the states are pursuing include:

- Beach and dune restoration;
- Beach nourishment;
- Projects that beneficially use materials dredged from shipping channels;
- Shoreline stabilization;
- Wetlands restoration projects;
- Hazard mitigation pre- and post-storm planning and projects;
- Removal of structures and debris in some areas of severe erosion;
- Sand resource investigations;
- Managing sediment on a regional basis;
- Critical erosion area monitoring and measurements; and
- Coastal aerial photography, GIS and LIDAR surveys and other mapping and research.

How states individually classify and treat their eroding shores varies. There is not a coastal state or territory that does not have a problem with erosion of its valuable shore lands. Most, if not all, coastal states have programs and personnel dedicated to assessing coastal erosion and developing erosion mitigation strategies. States are certainly cognizant of their problems, where they are the greatest and where they have to act most quickly. That said there is no national standard by which we can assess and rank the degree of severity of erosion within a state. Developing a standard by which erosion can be inventoried and ranked as to the degree of severity is a necessary step.

States are collaborating with federal agencies to achieve improved management of sand resources. For example, the California Coastal Sediment Management Workgroup is an effort between many California coastal management agencies, the U.S. Corps of Engineers, and a handful of federal agencies to provide better management and use of dredged and other opportunistic sediment for beach and dune renourishment and other environmental restorations.

The states are also participating in the development of The National Shoreline Management Study, which is hoped to be concluded in the next year. In 2004, the U.S. Army Corps of Engineers and the states held a small working conference in Washington D.C. and several work groups were established to address certain issues. As the National Shoreline Management Study continues, it is the intent of the writing team to roll out draft products to the states for their review and comments. Soliciting state input will be conducted by posting all draft products on the Corps website, hosting several national workshops at locations around the country, and working via associations such as CSO, the American Shore and Beach Preservation Association, and the Association of State Floodplain Managers.

In addition to the National Shoreline Management Study, I will also note that the U.S. Geological Survey completed a study in 2004 of the historical shoreline changes and associated coastal land loss along the Gulf of Mexico. The 44-page report contains a wealth of information and also provides access to data such as vector shorelines and transects, associated short- and long-term rates of change, statistical uncertainties, and areas of beach nourishment. If you are interested in this report, I am happy to provide the Subcommittee a copy.

State Recommendations for Federal Programs and Policies Changes

As states implement these activities several observations and “lessons learned” have become clear. The first is that federal programs and policies have been developed independently and without a view towards a coherent and consistent framework for managing the shore or a full understanding of the range of economic and environmental cost and benefits. As a result, shoreline and hazard management policies and practices often address single issues as opposed to considering the multifunctional role of the system.

Decades ago, wildlife and fisheries managers learned that in order to protect or enhance a particular species population one had to fully understand the niche within an ecosystem that the species of concern occupied. Population decline can be the result of natural predation, decline in available food, loss of breeding habitat, hunting or fishing pressure, or a combination of two or more of these factors.

Similarly, coastal landforms are created and sustained by a variety of physical processes working on available sediment. If sediment supplies are restricted or if forces overwhelm the available sediment, the landform can become depleted. It is imperative that we begin to analyze the complete physical system of beaches and wetlands to allow us to manage these valuable resources more comprehensively. Our path to better stewardship is dependent upon integrating physical system dynamics with an analysis of current land use practices and what could be lost if the sand system breaks down. The current way of doing business results in inefficiencies and incompatibilities among federal programs and sometimes even intergovernmental conflict among federal-state-local governments. The absence of a national shoreline and hazard management policy creates a void that is currently filled by political directives and budgetary expediency.

An example of inefficiency is seen in how the Corps deals with sand from dredging projects and its beneficial uses. As is common in many places, a natural inlet is stabilized which has the effect of interrupting sand movement along the beach front, resulting in deposition first along the stabilizing jetty and eventually within the inlet channel when the jetty backs up sand to its capacity. As a result, the beach down-drift of the inlet is sand deprived and the waterway becomes clogged with sand affecting the boat traffic attempting to use the inlet. It is determined to dredge the inlet and funding is secured via navigation budget lines within the Corps. This is where the missing link occurs. Monies to renourish the nearby beach are funded through a separate mechanism than shore protection. The navigation maintenance funding dictates disposing of the sediment from the inlet as cheaply as possible which usually means pumping out onto the sea floor. Placing the material on the adjacent beach could cost more therefore it is not the desirable option. The coastal system knows no such budgetary division, and the logical connection between erosion at one place and surplus sediment at another is obvious. Yet within the government structure, these are often treated as separate issues. The loss of efficiency is evident, the damage to both the channel and the beach is evident, but accountants are happy. This needs to change.

Conflicts are exacerbated by the inadequacy of information for sound, long-term decisions regarding coastal hazards and shoreline protection. Federal, state and local decision-makers often do not have sufficient information to assess the appropriateness of particular management options. In the absence of such information, politically driven options often prevail. Where the information has been developed, it is often not accessible or in a useful format.

To aid in managing the shoreline and erosion, the states have the following policy changes and recommendations for the Subcommittee's consideration:

- Congress and the Administration, working with the states and local governments, should develop a National Shoreline and Hazards Management Policy which provides overarching objectives and guidance for federal programs and policies. The Policy should include clear goals, take a systems approach, and limit financial incentives for development in high hazard areas.
- Congress should require the Corps to finish the National Shoreline Management Study (NSMS) and increase funding support to the level needed to complete the study as soon as possible. The NSMS should be treated as a living document, with the Corps responsible for providing an annual update to the Administration and Congress.
- The Administration and Congress should amend the rules imposed upon the Corps in determining the benefit and cost analysis for shore protection projects. Full costs are tallied but only limited (storm protection) benefits are counted. State beach managers know that more benefits than solely storm damage abatement for the urbanized coast accrue from the addition of sand into the littoral stream. Also, the

Corps should work with the appropriate federal partners to amend the cost/benefit analysis federal budgetary policies such as the “federal standard” so that beneficial use of dredged material, including use for beach replenishment and habitat restoration, is a “preferred option” and dredged sediment is managed within the system in the most beneficial way.

- The Administration and the Corps should review and recommend changes to the Corps’ Civil Works Program to provide greater transparency to the public, enforce requirements for mitigating the impacts of coastal projects, and coordinate such projects with broader coastal planning efforts, including state coastal zone management plans.
- The Administration, Congress and several federal agencies involved in shore research, management and hazard mitigation, including the Corps, NOAA, USGS, FEMA, EPA and DOI should develop a National Strategy for managing sediment on a regional and system basis, taking into account both economic and ecosystem needs. This National Strategy should:
 - Be coordinated and developed with the National Oceanic and Atmospheric Administration, U.S. Environmental Protection Agency (EPA), and U.S. Geological Survey and the regional ocean councils and the regional ocean information boards as they are established.
 - Consider prior and current state efforts on regional sediment management and expand upon such efforts to manage sediment within a regional context.
 - Include a strategy for improved assessment, monitoring, research, and technology development to enhance sediment management.
 - Consider opportunities for the ocean observation systems (IOOS) to support the information needs of sediment management.
 - Plan for future sea level rise, an increased rate of rise, and lake level changes in the Great Lakes.
- Congress should modify its current authorization and funding processes to encourage the Corps to monitor outcomes from past projects and study the cumulative, regional impacts of its activities within coastal watersheds and ecosystems. Where projects are identified as having an adverse impact, the Corp should develop plans and strategies to mitigate the impacts.
- The Corps should ensure that its selection of the least-cost disposal option for dredging projects reflects a more accurate accounting of the full range of environmental costs and benefits for options that reuse dredged materials, as well as for other disposal methods. The Corps should consider sustainable, non-consumptive benefits of recreation, public access, and habitat as an equal value when evaluating the least-cost disposal option.
- The National Dredging Team and regional dredging teams should begin to implement more ecosystem-based approaches and implement the recommendations of the 1994 report to the Secretary of Transportation. The Dredging Process in the

United States: An Action Plan for Improvement, with a priority of developing and implementing a streamlined permitting process. Regional dredging teams, working with regional ocean councils, should establish sediment management programs that include watersheds, coastal areas, and the nation's shoreline. Further, the streamlining process should not weaken federal consistency under the CZMA and should reinforce the role of states in the permitting process.

- The EPA and Corps working with other appropriate entities should develop a coordinated strategy for assessment, monitoring, and research to better understand how contaminated sediment is created and transported, and to develop technologies for better prevention, safer dredging of such sediment, and more effective treatment after it is recovered. Strategy development should be coordinated and developed with input the regional ocean information boards.
- The National Flood Insurance Program should be expanded to include the assessment and mapping of erosion risks along the coast. The federal flood insurance program currently covers erosion damage that occurs in connection with floods, but does not specifically take into account erosion in setting flood insurance rates in coastal areas. Nor does it cover damage caused by gradual erosion.
- The Federal Emergency Management Agency should develop comprehensive erosion maps. In developing the maps, FEMA should solicit and utilize state maps and data and ensure data gaps are filled. Once identified, FEMA should require communities in such areas to adopt appropriate mitigation and management strategies, and establish disincentives for future development.
- Congress should amend the National Flood Insurance Program to reinstate the Upton-Jones provision, which allows the flood insurance claims process to be used to relocate or demolish insured properties which are determined to be in imminent danger of collapse or destruction due to erosion. Alternately, or additionally, Congress should ensure that existing FEMA mitigation grant programs can be used to mitigate risks for structures which are in imminent danger of collapse or destruction due to erosion.

Closing

In closing, thank you for your leadership on these issues and for inviting me to testify today. The coastal states look forward to working with you and appreciate your efforts to bring attention the important issue of coastal erosion. I'd be happy to answer any questions you may have.