

History and Evolution of Laws Relating to Beach Nourishment

Introduction / Background

The objectives of this paper are to provide an historical accounting of which beach nourishment actions have been successful, and to provide an indication of how to proceed in the future . Where appropriate, cross references to other papers in this series and terms in the glossary are provided with hyperlinked text.

The first shore protection measures to reduce erosion were hard structures (bulkheads, seawalls, jetties, groins) that were intended to be long lasting when appropriately maintained. Today, beach nourishment with periodic renourishment is the primary method employed. Beach nourishment, or beach replenishment, is the process of placing sand on an eroding beach to provide a protective buffer against storm and wave damage or to enhance the recreational value of the beach. [Figure 1](#) is an example of sand placement on an eroding beach as part of a beach nourishment project.

Discussion

Beach nourishment projects must comply with a wide range of federal, state, and local laws and regulations, along with any associated funding constraints. Interest in shore protection began in New Jersey in the latter part of the 19th century and in the early decades of the 20th century due to significant beach erosion resulting from both intense coastal development and storm and hurricane activity. The State of New Jersey spent millions of dollars on uncoordinated and often inappropriate erosion control structures that often produced results that were ineffective or even counterproductive (USACE 1996).

In 1922, in response to the increasing problems of coastal erosion, the New Jersey legislature appropriated money to form an engineering advisory board to study changes taking place on their Atlantic Ocean coastline. During this time, a Committee on Shoreline Studies was formed under the Division of Geology and Geography of the National Research Council. An outcome of the groups' activities resulted in the formation of the American Shore and Beach Preservation Association (ASBPA) (USACE 1996). An early objective of this association was to persuade states to take initiative concerning beach erosion within their jurisdiction. By 1926, however, ASBPA was lobbying for the federal government to unify and coordinate the efforts of states concerning shoreline erosion (USACE 1996).

As a result of more severe hurricane activity and the lobbying efforts of ASBPA, [Congress enacted P.L. 71-520](#) in 1930. This law authorized the US Army Corps of Engineers (USACE, the Corps) to conduct shoreline erosion control studies, but not construction, in cooperation with state governments. Cost sharing at this point was established at the discretion of the Corps, not legislated. The Beach Erosion Board (BEB) was also established to act as a central agency to assemble data and provide technical expertise regarding coastal protection. This was the first federal government involvement in shoreline protection activities (USACE 1996).

The period of 1940 to 1945 experienced five more major hurricanes. In response to these disasters, [Congress enacted P.L. 79-727](#) in 1946, expanding the use of federal funds to now include 33% of construction costs in addition to the studies for projects along publicly owned shores. After more hurricanes in 1954 and 1955, [Congress enacted P.L. 84-826](#) in 1956, expanding the authority for shore protection to include privately owned shores where substantial public benefits would result. This law also defined periodic renourishment as construction for the protection of shores for a period of usually ten years (USACE 1996).

Following four more major hurricanes along the Atlantic and Gulf Coasts from 1956 to 1961, major legislation affecting the beach erosion control program was enacted. [The River and Harbor Act of 1962](#) increased federal aid from 33% to 100% for shore protection study costs leading to authorization. It also increased federal participation in the cost of beach erosion and shore protection to 50% of the construction cost when the beaches were publicly owned or used, and 70% for seashore parks and conservation areas when certain conditions of ownership and use of the beaches were met (USACE 1996).

A large number of studies and subsequent authorizations occurred during the 1950s and 1960s. Recognizing the increased need for additional engineering and study in the area of beach erosion, along with increased beach development and more demand for erosion relief from the federal government, Congress established the Coastal Engineering Research Board (CERB) and the Coastal Engineering Research Center (CERC) in 1963 ([P.L. 88-172](#)), replacing the Beach Erosion Board (BEB) (USACE 1996). Both the CERB and CERC continue today, with CERB research initiatives carried out by the CERC (NRC 1995).

[NOAA Coastal Services Center](#) <http://www.csc.noaa.gov/beachnourishment/html/human/law/history.htm>