

BEACH EROSION CONTROL REPORT ON A COOPERATIVE  
STUDY OF VIRGINIA AND BISCAYNE KEYS, FLORIDA

SYLLABUS

The problem is one of instability and recession of the shoreline in the study area due to deficiency in supply of littoral material entering the area and to loss of material into offshore waters. There is little development on Virginia Key; Key Biscayne is highly developed. The District Engineer finds that the most practicable way of restoring the beach and protecting existing structures and upland property would be to place a sand fill by artificial means along the ocean shores of Virginia Key and Key Biscayne to form a protective and recreational beach. The improved beach would be provided by increasing the width of the existing beach by 50 feet at elevation 6 feet, mean low water, on Virginia Key, and at elevation 7 feet, mean low water, on Key Biscayne. Three groins on Virginia Key and two on Key Biscayne would be provided subject to future determination of their actual need and justification, based on experience. Stabilization of the restored beaches would be accomplished by periodic beach fills from Biscayne Bay. He finds further that the estimated annual charges for the improvements recommended are less than the estimated annual benefits, and that improvement is justified. He recommends adoption of Federal projects to provide for (1) reimbursement of local interests of an amount equal to one-third, less postauthorization costs, of the initial costs, and of future nourishment costs for a period of 10 years, of protecting the ocean shores of Virginia Key, and (2) reimbursement of local interests of an amount equal to one-third, less postauthorization costs, of the initial costs, and of future nourishment costs for a period of 10 years, of protecting the publicly owned ocean shores of Key Biscayne. The Federal projects for reimbursement would be subject to certain provisions and conditions of local cooperation.