

Richardson, T.W. (1976) "Beach Nourishment Techniques, Report 1: Dredging Systems For Beach Nourishment From Offshore Sources", Technical Report H-76-13, Hydraulics Laboratory, U.s. Army Waterways Experiment Station, 83 pages.

The concepts of and need for beach nourishment are presented. The various types of existing dredges and concepts in the testing/evaluation stages are discussed. Various methods of delivering sand to the nourishment areas are described including those providing direct placement on the beach and those requiring rehandling of the sand. A logical classification of dredging systems is proposed.

Richardson, T.W. (1984) "Agitation Dredging: Lessons and Guidelines from Past Projects", U.S. Army Waterways Experiment Station Technical Report HL-84-6, 141 pages.

Agitation dredging is the removal of material from an area of interest through mechanical or hydraulic destabilization of this material during periods when the currents will transport it away. There are several means of effecting agitation dredging, including: propwash, dragging of a rake or beam, and hopper dredge agitation. The primary advantages of agitation dredging include the relatively low cost. The primary disadvantage is that the material is really only redistributed and its presence in the immediate area may increase the rate of reshaling. A second disadvantage occurs if the sediment being dredged contains toxic substances. The report concludes that the technique of agitation dredging may be underutilized in the United States and that it should be considered further for some applications.

Schwartz, R.K. and F.R. Musialowski (1977) "Nearshore Disposal: Onshore Sediment Transport", ASCE Specialty Conference on Coastal Sediments '77, pp. 85-101.

A field experiment was conducted in the vicinity of New River Inlet, NC, to determine whether sand placed in relatively shallow water would move under the action of natural forces into the active beach system. A total of 26,750 cubic meters of relatively coarse sand was dredged from New River Inlet and placed along a 215 m coastal downdrift reach between the 2 m and 4 m contours. The disposal established initial shoal areas with minimum depths of 0.6 m. The sand was considerably coarser than the native sand in the area. Observations, conducted over a 12 week period, documented the shoreward and longshore movement