

CECW-EH-D

Manual  
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**Engineering and Design**  
**DESIGN OF COASTAL REVETMENTS, SEAWALLS, AND BULKHEADS**

**1. Purpose.** This manual provides guidance for the design of coastal revetment, seawalls, and bulkheads.

**2. Applicability.** This manual applies to HQUSACE elements, major subordinate commands (MSC), districts, laboratories, and field operating activities (FOA) having civil works responsibilities.

**3. Discussion.** In areas subject to wind-driven waves and surge, structures such as revetments, seawalls, and bulkheads are commonly employed either to combat erosion or to maintain development at an advanced position from the natural shoreline. Proper performance of such structures is predicated on close adherence to established design guidance. This manual presents important design considerations and describes commonly available materials and structural components. All applicable design guidance must be applied to avoid poor performance or failure. Study of all available structural materials can lead, under some conditions, to innovative designs at significant cost savings for civil works projects.

FOR THE COMMANDER:

  
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