JETTIES AND GROINS

INTRODUCTION

Jetties and groins are structures designed to modify or control sand movement. A jetty is generally employed at inlets for the purpose of navigation improvements. When sand being transported along the shoreline by waves and currents arrives at an inlet, it flows inward on the flood tide to form an inner bar, and outward on ebb tide to form an outer bar. Both formations are harmful to navigation through the inlet.

A jetty is usually constructed of steel, concrete or rock. The type depends on foundation conditions and wave, climate and economic considerations. To be of maximum aid in maintaining the navigation channel, the jetty must be high enough to completely obstruct the sand stream. The adverse effect of a jetty is that sand is impounded at the updrift jetty and the supply of sand to the shore downdrift from the inlet is reduced, thus causing erosion.

Groins are barrier-type structures extending from the backshore seaward across the beach. The basic purpose of a groin is to interrupt the sand movement along a shore.

Groins can be constructed in many ways using timber, steel, concrete or rock, but can be classified into basic physical categories as high or low, long or short, and permeable or impermeable.

Trapping of sand by a groin is done at the expense of the adjacent downdrift shore, unless the groin system is filled with sand to its entrapment capacity.

POLICIES

1. Give careful consideration to the effect of proposed jetties or groins on sand movement; locate and design them to minimize the adverse impact on that sand movement.

2. Give special attention to the effect jetties and groins will have on fish and wildlife propagation and movement.

3. Encourage the multiple use of jetties and groins to increase public access to and enjoyment of the shoreline.

4. Design jetties and groins so they will not detract from the aesthetic quality of the shoreline.

REGULATIONS

General

1. Jetties and groins shall be prohibited which result in a net adverse effect on all adjacent beaches UNLESS enforceable provision are made to artificially feed such beaches.

2. Jetties and groins shall be permitted only for improvement to commercial navigation or to artificially create a beach where none exists.

3. Applications for jetties shall include the following (at a minimum):

    a. Reason for project;

    b. Type of construction;

c. Method of construction;

d. Direction of net longshore drift;

e. Beach feeding procedures (where appropriate).

4. Applications for groins shall include the following (at a minimum):

a. Reason for project;

b. Type of construction;

c. Method of construction;

d. Source and destination of material proposed to be trapped by the groin(s);

e. Beach feeding procedures (where appropriate).

5. Jetties and groins shall be designed to be visually compatible with their surroundings.

6. Wherever factors of safety would not prevent such, provision shall be made for pedestrian access on the top of jetties and groins.

Natural Environment

1. Jetties and groins are not allowed in the Natural Environment.

Conservancy Environment

1. Jetties are not allowed in the Conservancy Environment.

2. Groins are allowed in the Conservancy Environment only for the purpose of creating a beach where none presently exists and only when such groin placement will not interrupt natural sand movement.

Rural Environment

1. Jetties and groins are allowed in the Rural Environment subject to the General Regulations.

Suburban Environment

1. Jetties and groins are allowed in the suburban Environment subject to the General Regulations.

Urban Environment

1. Jetties and groins are allowed in the Urban Environment subject to the General Regulations.