

# Portsea front beach – Options Analysis

## Option 3

### Headland groyne

#### Description

A structure extending seaward from the shore that would capture sand drift to the east, thereby building the beach and providing a sand buffer to erosion.

#### Scenario

Two groyne configurations to be examined, along with and without sand nourishment.

A groyne headland is designed to change the shoreline orientation, thereby reducing the alongshore transport rate of littoral drift, reducing the rate of shoreline erosion up-drift of the groyne location. The groyne is designed to be bypassing littoral drift, thereby obviating erosion of down-drift beaches. For the Point Franklin groyne option shown below, the volume of beach fill required to obviate down-drift erosion is some 100,000 m<sup>3</sup>.



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For the Portsea Front Beach headland groyne shown below, the volume of beach fill required to obviate down-drift erosion is some 50,000 m<sup>3</sup>.

