

GLOSSARY OF TERMS AND SYMBOLS

GLOSSARY OF TERMS

Backshore. The zone of the shore or beach lying between the upper limit of ordinary wave wash at high tide and the coastline.

Beach nourishment. The placement of sand fill to create a new beach or to widen an existing beach for recreation or shore protection purpose.

Berm. A nearly horizontal part of the beach or backshore formed by the deposit of sediment by wave action.

Breaker line. The line marking the area where large waves break.

Closure depth. The depth beyond which no significant net sediment transport occurs over a long time span.

Construction profile. The cross-shore profile of placed fill during beach nourishment.

Cross-shore transport. The onshore-offshore movement of sediment in the direction perpendicular to the shoreline due to wave breaking.

Detached breakwater. Breakwater constructed parallel to the shoreline but not connected to the shoreline.

Equilibrium beach profile. The cross-shore profile of the beach averaged over a long period.

Equilibrium shoreline orientation. The shoreline orientation with zero net longshore transport.

Foreshore. The beach face between the mean low water level and the upper limit of ordinary wave wash at high tide.

Groin. Long, narrow structure normally constructed perpendicular from the shoreline.

Littoral zone. The area where sediment transport takes place due to wave breaking and shear stress induced by wave motions at seabed.

Longshore transport. The movement of sediment in the direction parallel to the shoreline due to wave breaking.

Nearshore zone. A zone extending seaward from the shoreline well beyond the breaker zone.

Offshore zone. The zone beyond the nearshore zone.

Sand retaining structures. Beach protection structures constructed to physically prevent the sand from being lost from a beach.

Shoreline. The line of demarcation between a specified plane of water and the exposed beach face.

Sill. Underwater structure to support the toe of a beach.

Surf zone. The zone that extends seawards from the shoreline and the outmost breaker.

Swash zone. The beach face between the mean low water level and the upper limit of wave uprush.

GLOSSARY OF SYMBOLS

A	Dimensional factor (unit : $m^{1/3}$) of Brunn's equilibrium beach profile
B	A constant in the CERC longshore transport formula
c_b	Wave velocity or phase velocity at the breaker line
c_o	Deepwater wave velocity or phase velocity
D	Grain size
D_{10}	Grain size such that 10% of the particles are smaller than that size
D_{50}	Median grain size
D_{90}	Grain size such that 90% of the particles are smaller than that size
d	Water depth
d_{oc}	Depth of closure
g	Acceleration due to gravity
H_b	Significant wave height at breaker line
H_s	Significant wave height
K_{rb}	Refraction coefficient at breaker line
L_B	Length of detached breakwater
p_i	Duration of occurrence of a wave condition in a year
S_l	Net longshore transport
s_l	Longshore transport due to a breaking wave
s_{li}	Longshore transport of wave condition i
T_s	Significant wave period
y	Distance from shoreline
y_B	Distance of detached breakwater from shoreline
y_s	Amplitude of salient within a detached breakwater
ϕ_b	Wave angle relative to shore normal at breaker line

