

GLOSSARY OF TERMS

ALONGSHORE — Parallel to and near the shoreline; same as LONGSHORE.

BACKSHORE — That zone of the shore or beach lying between the foreshore and the coastline and acted upon by waves only during severe storms, especially when combined with exceptionally high water.

BEACH PROFILE — A side view of the zone along the shoreline that extends landward from the water's edge to the toe of a dune or bluff.

BREAKWATER — A structure protecting a shore area, harbor, anchorage, or basin from waves.

BULKHEAD — A structure or partition to retain or prevent sliding of the land. A secondary purpose is to protect the upland against damage from wave action.

CROSS SECTION — A vertical section (profile) of the surface, the ground, and/or underlying material, which provides a side view of the structure or beach (see beach profile).

CURRENT, LITTORAL — Any current in the littoral zone caused primarily by wave action, e.g., longshore current, rip current.

CURRENT, LONGSHORE — The littoral current in the breaker zone moving essentially parallel to the shore, usually generated by waves breaking at an angle to the shoreline.

DATUM, PLANE — The horizontal plane to which soundings, ground elevations, or water surface elevations are referred. Also REFERENCE PLANE.

DEEPWATER WAVE — Waves which develop in water of sufficient depth that they are not influenced by the friction of the lake bottom.

DIFFRACTION (of water waves) — The phenomenon by which energy is transmitted laterally along a wave crest. When a part of a train of waves is interrupted by a barrier, such as a breakwater, the effect of diffraction is manifested by propagation of waves into the sheltered region within the barrier's geometric shadow.

DOWNDRIFT — The direction of predominant movement of littoral materials.

EROSION — The wearing away of land by the action of natural forces. On a beach, the carrying away of beach material by wave action, tidal currents, littoral currents, or wind.

EQUILIBRIUM — A state of balance or equality of opposing forces.

EXPEDIENT — A device used in an emergency such as a structure intended to provide shore protection during the period of high lake levels.

FORESHORE — The part of the shore lying between the crest of the seaward berm (or upper limit of wave wash) and the water's edge, that is ordinarily traversed by the uprush and backrush of the waves.

FUNCTIONAL LIFE — The period of time the structure performs as intended. Performance can be expressed in terms of benefits obtained versus the cost of maintenance.

GROIN (British, GROUYNE) — A shore protection structure built (usually perpendicular to the shoreline) to trap littoral drift or retard erosion of the shore.

HEADS OF BAYS — In the approximate center of a bay between the two points or headlands which form the bay.

IMPERMEABLE — Not permitting passage of water.

LITTORAL — Of or pertaining to a shore.

LITTORAL DRIFT — The sedimentary material moved in the littoral zone under the influence of waves and currents.

LITTORAL TRANSPORT — The movement of littoral drift in the littoral zone by waves and currents. Includes movement parallel (longshore transport) and perpendicular (on-offshore transport) to the shore.

LITTORAL ZONE — In beach terminology, an indefinite zone extending seaward from the shoreline to just beyond the breaker zone.

LONGSHORE — Parallel to and near the shoreline.

NEARSHORE (ZONE) — In beach terminology an indefinite zone extending seaward from the shoreline well beyond the breaker zone. It defines the area of NEARSHORE CURRENTS.

NEAT LINES — Lines on drawings which establish tolerances for construction.

PERMIT — A document issued by the Department of the Army expressing the assent of the Federal Government, so far as concerns the public rights of navigation and the general public interest, for the accomplishment of certain works on or adjacent to navigable waters of the United States.

PILE — A long, heavy timber or section of concrete or metal to be driven or jettied into the earth or lakebed to serve as a support or protection.

PILE, SHEET — A pile with a generally slender flat cross section to be driven into the ground or lakebed and meshed or interlocked with like members to form a diaphragm, wall, or bulkhead.

QUALITY CONTROL — A standard of comparison which assures a minimum of deviation from the standard.

REFLECTED WAVE — That part of an incident wave that is returned seaward when a wave impinges on a steep beach, barrier, or other reflecting surface.

REFRACTION (OF WATER WAVES) — The process by which the direction of a wave moving in shallow water at an angle to the contours is changed. The part of the wave advancing in shallower water moves more slowly than that part still advancing in deeper water, causing the wave crest to bend toward alignment with the underwater contours.

REVTMENT — A facing of stone, concrete, etc., built to protect a scarp, embankment, or shore structure against erosion by wave action or currents.

RIPRAP — A layer, facing, or protective mound of stones randomly placed to prevent erosion, scour, or sloughing of a structure or embankment; also the stone so used.

SEAWALL — A structure separating land and water areas, primarily designed to prevent erosion and other damage due to wave action. See also BULKHEAD.

SPECIFICATIONS — A detailed description of particulars, such as size of stone, quality of materials, contractor performance, terms, quality control, etc.

STILLWATER LEVEL — The elevation that the surface of the water would assume if all wave action were absent.

UPDRIFT — The direction opposite that of the predominant movement of littoral materials.

VOID RATIO — The volume of space or gaps to the volume of the area of the structure such as a stone revetment.

WIND SETUP — (1) The vertical rise in the stillwater level on the leeward side of a body of water caused by wind stress on the surface of the water. (2) The difference in stillwater levels on the windward and the leeward sides of a body of water caused by wind stresses on the surface of the water.