

GLOSSARY

TERMS

Accretion: May be either natural or artificial. Natural accretion is the buildup of land, solely by the action of the forces of nature, on a beach by deposition of water or airborne material. Artificial accretion is a similar buildup of land by reason of an act of man, such as the accretion formed by a groin, breakwater, or beach fill deposited by mechanical means.

Algae: Any of a group of nonvascular plants with chlorophyll, lacking true stems, leaves, and roots.

Anadromous: A life cycle in which maturity is attained in the ocean and adults ascend rivers and streams to spawn in fresh water (e.g., salmon, shad, etc.).

Anaerobic: An oxygen-independent type of respiration.

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

Baseline data: Data used as a temporal control, collected prior to the environmental disturbance of interest.

Basin: A naturally or artificially enclosed or nearly enclosed harbor area for small craft.

Bathymetry: The measurement of depths of water in oceans, seas, and lakes; also information derived from such measurements.

Bay: A recess in the shore or an inlet of a sea between two capes or headlands, not so large as a gulf but larger than a cove.

Beach: The zone of unconsolidated material that extends landward from the low-water line to the place where there is marked change in material or physiographic form, or to the line of permanent vegetation (usually the effective limit of storm waves).

Benthic: Pertaining to the subaquatic bottom or organisms that live on the bottom of water bodies.

Benthos: A collective term describing (1) bottom organisms attached or resting on or in the bottom sediments, and (2) community of animals living in or on the bottom.

Berm: A nearly horizontal part of the beach or backshore formed by the deposit of material by wave action. Some beaches have no berms; others have one or several.

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Biomass: The amount of living material in a unit area for a unit time.

Biota: The living part of a system (flora and fauna).

Breaker: A wave breaking on a shore, over a reef, etc.

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.

Carrying capacity: The maximum number of individuals or biomass that any particular area can support over an extended period of time.

Channel: (1) A natural or artificial waterway of perceptible extent which either periodically or continuously contains moving water, or which forms a connecting link between two bodies of water. (2) The part of a body of water deep enough to be used for navigation through a body of water otherwise too shallow for navigation.

Coast: A strip of land of indefinite width (may be several kilometers) that extends from the shoreline inland to the first major change in terrain features.

Continental shelf: The zone bordering a continent and extending from the low-water line to the depth (usually about 180 meters) where there is a marked or rather steep descent toward a greater depth.

Coral: (Biology) Marine coelentrates (Madreporaria), solitary or colonial, which form a hard external covering of calcium compounds or other materials. The corals which form large reefs are limited to warm, shallow waters, while those forming solitary, minute growths may be found in colder waters to great depths. (Geology) The concretion of coral polyps, composed almost wholly of calcium carbonate, forming reefs and tree-like and globular masses. May also include calcareous algae and other organisms producing calcareous secretions, such as bryozoans and hydrozoans.

Current: A flow of water.

Delta: An alluvial deposit, roughly triangular or digitate in shape, formed at a river mouth.

Demersal: Organisms (usually fish) that live on or slightly above the bottom.

Dissolved oxygen (DO): The amount of oxygen dissolved in water.

Dredge: An apparatus used in the removal of substrate usually to deepen water passages.

Dunes: Ridges or mounds of loose, wind-blown material, usually sand.

Ebb current: The tidal current away from shore or down a tidal stream; usually associated with the decrease in height of the tide.

Ebb tide: The period of tide between high water and the succeeding low water; a falling tide.

Eddy: A circular movement of water formed on the side of a main current. Eddies may be created at points where the main stream passes projecting obstructions or where two adjacent currents flow counter to each other.

Epibenthic: Organisms that attach themselves to structures (e.g. rocks) which lie on the aquatic bottom.

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 by deflation.

Escarpment: A more or less continuous line of cliffs or steep slopes facing in one general direction which are caused by erosion or faulting (also scarp).

Estuary: (1) The part of a river that is affected by tides. (2) The region near a river mouth in which the fresh water of the river mixes with the salt water of the sea.

Fauna: The entire group of animals in an area.

Flora: The entire group of plants found in an area.

Forage: Food for animals especially when taken by browsing or grazing.

Foreshore: The part of the shore, lying between the crest of the seaward berm (or upper limit of wave wash at high tide) and the ordinary low-water mark, that is ordinarily traversed by the uprush and backrush of the waves as the tides rise and fall.

Geomorphology: That branch of both physiography and geology which deals with the form of the earth, the general configuration of its surface, and the changes that take place in the evolution of landform.

Groin: A shore protection structure built (usually perpendicular to the shoreline) to trap littoral drift or retard erosion of the shore.

Harbor: Any protected water area affording a place of safety for vessels.

Hydrolysis: A chemical process of decomposition involving splitting of a bond and addition of the elements of water.

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Hypothesis: A tentative conclusion made in order to draw out and test its logical or empirical consequences.

Inlet: (1) A short, narrow waterway connecting a bay, lagoon, or similar body of water with a large parent body of water. (2) An arm of the sea (or other body of water) that is long compared to its width and may extend a considerable distance inland.

Inshore: The zone of variable width extending from the low-water line through the breaker zone.

Intertidal zone: See littoral zone.

Jetty: On open seacoasts, a structure extending into a body of water, which is designed to prevent shoaling of a channel by littoral materials and to direct and confine the stream or tidal flow. Jetties are built at the mouths of rivers or tidal inlets to help deepen and stabilize a channel.

Lee: Shelter, or the part or side sheltered or turned away from the wind or waves.

Levee: A dike or embankment to protect land from inundation.

Littoral transport: The movement of littoral drift in the littoral zone by waves and currents.

Littoral zone: The zone from high-tide level to edge of continental shelf.

Longshore: Parallel to and near the shoreline.

Macrofauna: Those animals equal to or larger than 0.5 millimeter in size.

Marsh: An area of soft, wet, or periodically inundated land, generally treeless and usually characterized by grasses and other low growth.

Mean high water (MHW). The average height of the high waters over a 19-year period. For shorter periods of observation, corrections are applied to eliminate known variations and reduce the results to the equivalent of a mean 19-year value. All high-water heights are included in the average where the type of tide is either semidiurnal or mixed. Only the higher high-water heights are included in the average where the type of tide is diurnal. So determined, mean high water in the latter case is the same as mean higher high water.

Mean low water (MLW): The average height of the low waters over a 19-year period. For shorter periods of observation, corrections are applied to eliminate known variations and reduce the results to the equivalent of a mean 19-year value. All low-water heights are included in the average where the type of tide is either semidiurnal or mixed. Only lower low-water heights are

included in the average where the type of tide is diurnal. So determined, mean low water in the latter case is the same as mean lower low water.

Meiofauna: Generally those interstitial animals below 0.5 millimeter.

Mitigation: Avoiding the impact of a certain action or part of an action; minimizing impacts by limiting the degree of magnitude of an action; rectifying an impact by repairing, rehabilitating, or restoring the affected environment; reducing an impact over time by preserving and maintaining operations during the life of the action; compensating the impact by replacing or providing substitute resources or environments.

Nearshore: An indefinite zone extending seaward from the shoreline well beyond the breaker zone.

Nekton: Those aquatic animals able to swim efficiently, and not mainly at the mercy of currents.

Onshore: A direction landward from the sea.

Osmoregulatory: The maintenance of constant osmotic pressure in the body of a living organism.

Overwash: That portion of the uprush that carries over the crest of a berm or of a structure.

Pelagic: All ocean waters covering the benthic region.

Periphyton: Any organism attached or clinging to stems, leaves, or other surfaces of plants under the water.

Plankton: Those organisms passively drifting or weakly swimming in marine or fresh water.

Primary production: The rate at which energy is stored by photosynthesizing organism (chiefly green plants) in the form of organic substances.

"Red Tide" organism: Planktonic organism that produces toxic substances that can contribute to killing of great numbers of marine animals.

Revetment: A facing of stone, concrete, etc., built to protect a scrap, embankment, or shore structure against erosion by wave action or currents.

Riprap: A protective layer or facing of quarystone, usually well-graded within wide size limit, randomly placed to prevent erosion, scour, or sloughing of an embankment or bluff; also the stone so used. The quarystone is placed in a layer at least twice the thickness of the 50 percent size, or 1.25 times the thickness of the largest size stone in the gradation.

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Rubble: (1) Loose angular waterworn stones along a beach. (2) Rough, irregular fragments of broken rock.

Rubble-mound structure: A mound of random-shaped and random-placed stones protected with a cover layer of selected stones or specially shaped concrete armor units. (Armor units in a primary cover layer may be placed in an orderly manner or dumped at random).

Salt marsh: A marsh periodically flooded by salt water.

Scour: Removal of underwater material by waves and currents, especially at the base or tow of a shore structure.

Seagrass: Members of marine seed plants that grow chiefly on sand or sand-mud bottom. They are most abundant in water less than 9 meters deep.

Seawall: A structure separating land and water areas, primarily designed to prevent erosion and other damage due to wave action.

Sessile: Any organism which usually is fixed but may move infrequently or may be permanently attached.

Sheet pile: A pile with a generally slender flat cross section to be driven into the ground or seabed and meshed or interlocked with like members to form a diaphragm, wall, or bulkhead.

Shellfish: Any aquatic invertebrate with a hard external covering; more commonly mollusks and crustaceans.

Shoreline: The intersection of a specified plane of water with the shore or beach (e.g., the high-water shoreline would be the intersection of the plane of mean high water with the shore or beach). The line delineating the shoreline on National Ocean Survey nautical charts and surveys approximates the mean high-water line.

Sorption: The process of being taken up and held by either adsorption or absorption.

Sound: A relatively long arm of the sea or ocean forming a channel between an island and a mainland or connecting two larger bodies, as a sea and the ocean, or two parts of the same body; usually wider and more extensive than a strait.

Subtidal: The region extending below the intertidal to the edge of the continental shelf.

Supratidal: The zone immediately adjacent to the mean high-water level; commonly called the splash zone.

Surf zone: The area between the outermost breaker and the limit of wave uprush.

Tide: The periodic rising and falling of the water that results from gravitational attraction of the moon and sun and other astronomical bodies acting upon the rotating earth.

Tombolo: A bar or spit that connects or "ties" an island to the mainland or to another island.

Topography: The configuration of a surface, including its relief and the positions of its streams, roads, buildings, etc.

Toxicant: A poisonous agent.

Turbidity: A condition where transparency of water is reduced. It is an optical phenomenon and does not necessarily have a direct linear relationship to particulate concentration.

Volatile: The tendency of a substance to erupt violently or evaporate rapidly.

Wave: A ridge, deformation, or undulation of the surface of a liquid.

Weir: A low section in an updrift jetty over which littoral drift moves into a predredged deposition basin which is dredged periodically.