

# GLOSSARY

## **Accretion**

May be either a natural or an artificial process. Natural accretion is the buildup of the land surface, solely by the energetics associated with natural forces such as sediment deposition on a beach as transported by water. Artificial accretion is a similar buildup of land surfaces by an act of man, such as the accretion formed by a groin, breakwater, or beach fill deposited by mechanical means (see Beach Nourishment).

## **Adapted Plants**

Plants that may not be native to the Lake Tahoe Region but are able to withstand the unique conditions such as drought, winter, and nutrient poor soils.

## **Aeration**

The extent which air may pass through voids in this soil.

## **Annuals**

Plants that live for one year or less and perpetuate themselves by seed.

## **Armor Layer**

Protective layer on a breakwater or lake wall or Shorezone protective structure composed of armor units.

## **Armor Unit or Stone**

A relatively large quarystone or concrete shape that is selected to fit specified geometric characteristics and density. It is usually of nearly uniform size and usually large enough to require individual placement. In normal cases, it is used as primary wave protection and is placed in thicknesses of at least two units.

## **Artificial Beach Nourishment**

The process of replenishing a beach with material (usually sand) obtained from another location.

## **Assessor Parcel Number (APN, Parcel Number)**

A number assigned to parcels of real property by the tax assessor of a particular jurisdiction for purposes of identification and record-keeping.

## **Backshore**

That part of the shorezone beginning at the legal Lake Tahoe high water elevation and extending landward to a point determined by using TRPA approved methods. This area is typically acted upon by waves only during severe storms, especially when combined with exceptionally high water.

## **Bailey Land Capability System (Land Capability)**

A land classification system developed for planning purposes by Robert G. Bailey which classifies soils based on their resilience to disturbance and development.

## **Barrier Beach**

A bar or strand of deposited sand essentially parallel to the shore, the crest of which is above high water and maximum wave run-up elevations.

**Bathymetry**

The topographic survey and measurement of water depths in a lake; also information derived from such measurements.

**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). The lakeward limit of a beach - unless otherwise specified - is the mean low water line. A beach includes foreshore and backshore.

**Beach 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.

**Beach Erosion**

The carrying away of beach materials by wave action, swash currents, littoral currents, or wind.

**Beach Fill**

Material placed on a beach to re-nourish eroding shores, usually pumped by dredge but sometimes delivered by trucks.

**Beach Nourishment**

(See both Beach Fill and Artificial Beach Nourishment.)

**Bedrock**

The solid rock that underlies gravel, soil, and other superficial material. Bedrock may be exposed at the surface (an outcrop) or it may be buried under a few centimeters to thousands of meters of unconsolidated material.

**Benthic**

Pertaining to the sub-aquatic bottom dwelling fauna.

**Berm**

On a beach: a nearly horizontal plateau on the beach face or backshore, formed by the deposition of beach material by wave action or by means of a mechanical plant as part of a beach renourishment scheme. Some natural beaches have no berm, others have several. On a structure, it is a nearly horizontal area; often built to support or key-in an armor layer.

**Best Management Practices (BMPs)**

Alternative structural and non-structural practices proven effective in erosion control and management of surface runoff.

**Bluff**

A high, steep bank, or cliff bordering or adjacent to the backshore.

**BMP Certificate of Completion (BMP Certificate)**

Certificate issued by TRPA which acknowledges that a subject property is in compliance with BMP Retrofit Requirements.

**BMP Maintenance Rapid Assessment Methodology (BMP RAM)**

A tool to track the condition of a particular Treatment BMP, relative to its observed condition at time of installation or immediately following complete maintenance.

**BMP Real Estate Disclosure**

Disclosure by the seller of a property to the purchaser of a property regarding the property's BMP compliance status.

**Boulder**

A rounded rock more than 256 mm (10 inch) in diameter; larger than a cobblestone.

**Breakwater**

A man-made structure protecting a back and foreshore area, harbor, marina, or property front from waves.

**Buffer**

A parcel or strip of land that is designed and designated to permanently remain vegetated in an undisturbed and natural condition to protect an adjacent aquatic or wetland site from upland impacts, to provide habitat for wildlife and to afford limited public access.

**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.

**Buoy**

A float; especially a floating object moored to the bottom, to mark a channel, anchor, shoal rock, etc. Some common types include: a nun or nut buoy is conical in shape; a can buoy is squat and cylindrical above water and conical below water; a spar buoy is a vertical, slender spar anchored at one end; a bell buoy, bearing a bell, runs mechanically or by the action of waves, usually marks shoals or rocks; a whistling buoy, similarly operated, marks shoals or channel entrances; a dan buoy carries a pole with a flag or light on it.

**Catchment**

An area which drains naturally to a particular point on a surface water body, thus contributing to its natural discharge.

**Clastic Rocks (singular: Clast)**

Rocks built up of fragments, which have been produced by weathering and erosion of pre-existing rocks and minerals and, typically, transported mechanically to their point of deposition.

**Clay**

Fine-grained, plastic, sediment with a typical grain size less than 0.004 mm. Possesses electromagnetic properties that bind the grains together to give a bulk strength or cohesion.

**Cobble (Cobblestone)**

A rock fragment between 64 and 256 mm in diameter usually rounded.

**Cofferdam**

A temporary watertight structure enclosing all or part of the construction area so that construction can proceed in the dry.

**Common Area**

Generally refers to a parcel owned by members of a multi-family housing complex or association of property or homeowners that is available for use by all members or residents.

**Community Plan**

A plan developed in consultation with local governments and community which supersedes the plan area statement.

**Constant Head Permeameter (CHP)**

A tool designed to determine the coefficient of permeability by the constant or falling head method for the laminar flow of water through granular soils.

**Creep**

Very slow, continuous downslope movement of soil or debris.

**Crest**

Highest point on a beach face, breakwater, or lake wall.

**Deep Water**

Water so deep that surface waves are little affected by the lake bottom. Generally, water deeper than one-half the surface wavelength is considered deep water.

**Density**

Mass (in kg) per unit of volume of a substance; kg/m<sup>3</sup>. For pure water, the density is 1000 kg/m<sup>3</sup>. Density increases with increasing salinity, and decreases with increasing temperature. For stone and sand, usually a density of 2600 kg/m<sup>3</sup> is assumed. Concrete is less dense, in the order of 2400 kg/m<sup>3</sup>. Some types of basalt may reach 2800 kg/m<sup>3</sup>. For sand, including the voids, one may use 1600 kg/m<sup>3</sup>, while mud often has a density of 1100 - 1200 kg/m<sup>3</sup>.

**Diameter Breast Height (DBH)**

A standard method of expressing the diameter of the trunk of a standing tree. This measure is taken at 1.4 meters from the highest point on the ground.

**Discharge**

The volume of water per unit of time flowing along a pipe or channel.

**Downdrift**

The direction of predominant movement of littoral materials.

**Drainage Basin**

Total area drained by a stream and its tributaries.

**Drain Inlet**

A physical structure that collects water from roads and parking lots and conveys it to an underground storm drain system.

**Dredged Material Placement Site**

Designated area for temporary placement of dredged material for eventual transport and final disposal outside the Lake Tahoe Region. In the Lake Tahoe Region, designated areas must be coordinated with the Tahoe Regional Planning Agency, the Environmental Protection Agency and the U.S. Army Corps of Engineers and state agencies such as the Lahontan Water Quality Control Board and the Nevada Department of Environmental Protection for regulatory compliance.

**Dredging**

The practice of excavating or displacing the bottom of a water body. Dredging can be accomplished with mechanical or hydraulic machines. Most dredging is done to

maintain channel depths or berths for navigational purposes; other dredging is for cleanup of polluted sediments and/or placement of dredged sand on beaches for re-nourishment.

**Drift**

The speed at which a lake cell current hydraulically moves, transports, and deposits sediments and material.

**Dripline**

The ground below the outermost edge of a tree, roof, or structure.

**Duff**

The decomposed mulch layer of pine needles found on top of soil but below newly fallen needles. Duff is darker in color than freshly fallen needles.

**Dunes**

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

**Duration**

In wave forecasting, the length of time the wind blows in nearly the same direction over the fetch (generating area).

**Duration, Minimum**

The time necessary for steady-state wave conditions to develop for a given wind velocity over a given fetch length.

**Elevation**

The vertical distance from the legal high water line or mean lake level or some other established datum plane to a point on the earth's surface; and expressed as a height above that designated level.

**Environmental Improvement Program (EIP)**

The EIP program defines restoration needs for attaining environmental goals or Threshold Standards and, through a substantial investment of resources, increases the pace at which the Threshold Standards will be attained. The EIP has several components, which make up a comprehensive strategy for restoration and improvements. The components include capital projects, research/science, program support and technical assistance, and operations and maintenance.

**Fetch**

The area along the longest axis across a waterbody in which waves and surface oscillations are generated by a wind having a fairly constant direction and speed. Sometimes used synonymously with fetch length.

**Fetch Length**

The horizontal distance (in the direction of the wind) over which a wind generates seas or creates a wind setup.

**Fetch-Limited**

Situation in which wave energy (or wave height) is limited by the size of the wave generation area (fetch).

**Fine Sediment Particles (FSP)**

Particles 16 microns or less that remain suspended in the water column and are the primary pollutant of concern for Lake Tahoe.

**Fire Defensible Space**

Refers to the area between a structure and oncoming wildfire where the vegetation has been managed to reduce the wildfire threat and, when possible, allows fire fighters to safely defend the structure.

**Flanking**

Erosion behind or around the land-based end of a groin, jetty, or breakwater or the terminus of a bulkhead, revetment, or lake wall, usually causing failure of the structure or its function.

**Foredune**

The front dune immediately behind the backshore.

**Foreshore**

The zone of a lake level fluctuation which is the area between the high and low water level. For Lake Tahoe, the elevations are 6229.1 feet Lake Tahoe Datum and 6223.0 feet Lake Tahoe Datum, respectively.

**Geotextile**

A synthetic fabric which may be woven or non-woven used as a filter.

**Grading**

Cutting through or otherwise disturbing the layers of the soil mantle so as to change the existing landform, including, but not limited to, disturbing the soil mantle for construction of a driveway, parking area, utility line, building, or other structure. Also includes filling, excavation, and clearing.

**Grading Season**

The period each year during which grading is permitted commencing May 1 and ending October 15.

**Gravel Armor**

A three-inch thick layer of angular washed rock placed below decks and driplines to protect soil from splash erosion.

**Herbaceous Plants**

A plant that has leaves and stems that die down at the end of the growing season to the soil level. They contain no persistent woody material above ground.

**Hose Test**

Field test which utilizes running water to verify the effectiveness of a conveyance device or other BMP.

**Individual Parcel Evaluation System (IPES)**

A system for the evaluation and ranking of residential parcels within each jurisdiction, vacant as of December 31, 1988, from most suitable to least suitable for development.

**Infiltration Facility**

A device used to percolate runoff into the soil, including without limitation, a rock filled trench or basin.

**Inorganic Mulch**

Soil protection materials that are noncombustible such as gravel or rock.

**Invasive Plant**

A plant has the ability to thrive and spread aggressively outside its natural range.

**Jetty**

On open Shorezones, a structure extending into a body of water, which is designed to prevent shoaling or sedimentation of a channel by littoral materials and to direct and confine the stream or current flow. Jetties are built at the mouths of rivers or tidal inlets to help deepen and stabilize the depth of the channel for navigational purposes.

**Lahontan Regional Water Quality Control Board**

California regulatory agency responsible for the protection of water quality on the California side of the Lake Tahoe Region.

**Lake Tahoe Interagency Monitoring Program (LTIMP)**

A centralized forum for the Lake Tahoe Region monitoring, research, and design communities to present results, share innovative ideas, and discuss issues relevant to water quality with the goal of informing regulatory, management, and planning activities.

**Land Capability**

(See Bailey Land Capability System.)

**Land Coverage**

- 1) A man-made structure, improvement or covering, either created before February 10, 1972 or created after February 10, 1972 pursuant to either TRPA Ordinance No. 4, as amended, or other TRPA approval, that prevents normal precipitation from directly reaching the surface of the land underlying the structure, improvement or covering. Such structures, improvements and coverings include but are not limited to roofs, decks, surfaces that are paved with asphalt, concrete or stone, roads, streets, sidewalks, driveways, parking lots, tennis courts, patios; and
- 2) Lands so used before February 10, 1972, for such uses as for the parking of cars and heavy and repeated pedestrian traffic that the soil is compacted to as to prevent substantial infiltration. A structure, improvement, or covering shall not be considered as land coverage if it permits as least 75 percent of normal precipitation directly to reach the ground and permits growth of vegetation on the approved species list.

Common terms related to land coverage are: 1) Hard Coverage—man-made structures as defined above; 2) Soft Coverage—compacted areas without structures as defined above.

**Littoral**

Of or pertaining to a shore, especially of the sea or lake. Often used as a general term for the coastal or lakeshore zone influenced by wave action, or, more specifically, the shore zone between the high and low water marks.

**Littoral Cell**

A reach of shoreline that is sedimentologically isolated from an adjacent Shorezone or coastal reaches because it features its own sources and sinks. Relative geomorphic and hydraulic isolation is usually caused by protruding headlands, subsurface canyons, inlets, and some river mouths that prevent littoral sediment from one cell to pass into the next.

**Littoral Drift, Littoral Transport**

The movement of beach material or sediment in the littoral zone by waves and Lake Cell currents. Includes movement parallel (long-shore drift) and sometimes also perpendicular to the shoreline (cross-shore or nearshore - foreshore transport).

**Littoral Zone**

In beach terminology, an indefinite zone extending lakeward from the shoreline to just beyond the breaker zone.

**Load**

The quantity of sediment transported by a water or air. It includes the suspended load of small particles (saltation) and the bed load (traction) of large particles that move along the bottom.

**Load Reduction Planning Tool (LRPT)**

A methodology for estimating water quality benefits of parcel scale BMP retrofits in the Lake Tahoe Region.

**Low Impact Development (LID)**

Comprehensive land planning and engineering design approach with a goal of maintaining and enhancing the pre-development hydrologic regime of urban and developing watersheds.

**Morphology**

Lake bed form and its change over time.

**Mycorrhizal**

A symbiotic association between a fungus and the roots of a vascular plant that provides the fungus with carbohydrates from the plant and in return provides a higher absorptive capacity for water and mineral nutrients to the plant from the large surface area of the fungus.

**Native Plant**

A plant that is endemic (indigenous) or naturalized over geologic time to a specific area or region.

**Nearshore**

The zone extending from the low water elevation of Lake Tahoe (6223.0 feet Lake Tahoe Datum) to a lake bottom elevation of 6193.0 Feet Lake Tahoe Datum, but in any case, a minimum lateral distance of 350 feet measured from the shoreline. In other lakes the nearshore extends to a depth of 25 feet below the low water elevation.

**Nevada Division of Environmental Protection (NDEP)**

Nevada regulatory agency responsible for the protection of water quality on the Nevada side of the Lake Tahoe Region.

**Noncombustible Perimeter**

For fire defensible space purposes, no combustible materials, including woody vegetation or wooden borders for infiltration systems, are permitted within 5 feet of any structure.

**Noxious Weeds**

A plant that has been designated injurious to natural habitats and ecosystems.



**Organic Matter**

Matter that has come from a once-living organism and is capable of decay, the product of decay, or is composed of organic compounds.

**Organic Mulch**

Bare soil protection materials that are combustible such as wood chips, pine needles and bark.

**Ornamentals**

Plants that are grown for decorative purposes. In the Lake Tahoe Region, these plants often require large quantities of water and fertilizer.

**Outcrop**

A surface exposure of bare bedrock, not covered by soil or vegetation.

**Overtopping**

Passing of water over the top of a structure as a result of wave run-up or surge action.

**Piezometer**

A borehole designed to measure groundwater conditions at a single point.

**Perennials**

Plants that live for more than two years.

**Permeability**

The property of a bulk material (sand, crushed rock, soft rock in situ, unconsolidated material) which permits movement of water through its pores or interstitial spaces. The property of being permeable; the rate of flow of a fluid through a porous material; a measure of the ability of a rock or body of soil to transmit water.

**Pier**

A structure, usually of open construction, extending out into the water from the shore, to serve as a landing place, recreational facility, etc., rather than to afford coastal protection or affect the movement of water.

**Plan Area Statement**

A written text and applicable plan area map which provides specific land use policies for a plan area.

**Pollutant Load Reduction Model (PLRM)**

A methodology for evaluating and comparing pollutant load reduction alternatives for stormwater quality improvement projects in the Lake Tahoe Region.

**Preferred Design Approach (PDA)**

A standard approach for the planning and selection of BMPs developed by the California Tahoe Conservancy which emphasizes BMP design that prevents the mobilization of fine sediments and nutrients and reduces the volume of runoff reaching surface waters primarily through infiltration.

**Pre-Grading Inspection**

Inspection performed by a TRPA or MOU jurisdiction inspector prior to the start of construction to go over the conditions of the permit and to confirm that appropriate temporary BMPs have been installed correctly.

**Project Delivery Process (PDP)**

Methods and components developed by the Lake Tahoe Storm Water Quality Improvement Committee (SWQIC) necessary to achieve successful projects including development of goals and objectives, analysis of existing conditions, formulating and evaluating alternatives, selection of a recommended alternative and development of a preliminary design.

**Reference Plant Community**

An existing plant community used as an example to guide the success of a revegetation project.

**Revegetation**

The process of planting vegetation and rebuilding the soil of disturbed land.

**Revegetation Plan**

Preparation of revegetation specifications as part of a permitted project.

**Revetment**

- 1) A facing of stone, concrete, etc., to protect an embankment, or shore structure, against erosion by wave action or currents.
- 2) A retaining wall.
- 3) Facing of stone, concrete, etc., built to protect a scarp, embankment or shoreline structure against erosion by waves or currents.

**Rill**

A narrow and shallow incision into topsoil layers, resulting from erosion by overland flow of surface runoff.

**Riprap**

A protective layer or facing of quarystone, usually well graded within wide size limits, randomly placed to prevent erosion, scour, or sloughing of an embankment or bluff; also the stone so used.

**Road Rapid Assessment Methodology (Road RAM)**

A tool to rapidly determine and track the relative potential impact to the immediate downslope water quality from roads should a runoff event occur at the time of observation.

**Runoff**

Generally refers to surface flows generated by impervious surfaces.

**Run-on**

Generally refers to water entering a property from an off-site source.

**Runup, Rundown**

The upper and lower levels reached by a wave on a beach or lakeshore structure, relative to still-water level.

**Sand**

Sediment particles, often largely composed of quartz, with a diameter of between 0.062 mm and 2 mm, generally classified as fine, medium, coarse or very coarse. Beach sand may sometimes be composed of organic sediments such as diatom and shell remains.

**Saturated Hydraulic Conductivity (Ksat)**

A quantitative measure of a saturated soil's ability to transmit water when subjected to a hydraulic gradient.

**Scenic Highway and Corridor**

Roadway which has been determined to have outstanding scenic value. This includes all major highways in the Lake Tahoe Region and Pioneer Trail. The scenic corridor includes the roadway right-of-way and extends 100 feet perpendicularly from the edge of the right-of-way boundary. Any property visible from Lake Tahoe is also subject to scenic review.

**Scour**

Removal of underwater material by waves and currents, especially at the base or toe of a Shorezone protective structure.

**Scour Protection**

Protection against erosion of the lakebed in front of the toe.

**Seasonal High Groundwater**

The highest level of soil saturated with water during a one year period, usually but not always found in the spring months.

**Sechhi Disk**

Visibility disk (white and black, 30 cm diameter) used to measure the transparency of the water.

**Sediment**

- 1) Loose, fragments of rocks, minerals or organic material which are transported from their source for varying distances and deposited by air, wind, ice, and water. Other sediments are precipitated from the overlying water or form chemically, in place. Sediment includes all the unconsolidated materials on the lake floor.
- 2) The fine-grained material deposited by water or wind.

**Sediment Transport**

The main agencies by which sedimentary materials are moved are gravity, running water, wind, or the lake. Running water and wind are the most widespread transporting agents. In both cases, three mechanisms operate, although the particle size of the transported material involved is very different, owing to the differences in density and viscosity of air and water. The three processes are rolling or traction, in which the particle moves along the bed but is too heavy to be lifted from it; saltation; and suspension, in which particles remain permanently above the bed, sustained there by the turbulent flow of the air or water.

**Seiche**

- 1) A standing wave oscillation of an enclosed waterbody that continues, pendulum fashion, after the cessation of the originating force, which may have been either seismic or atmospheric.
- 2) An oscillation of a fluid body in response to a disturbing force having the same frequency as the natural frequency of the fluid system.

**Setback**

A required open space, specified in shoreline master programs, measured horizontally upland from a perpendicular to the ordinary high water mark or

designated legal high water line (see Buffer). Is also used in reference to Stream Environment Zones (SEZs).

### **Shear Stress**

Shear stress is the restoring force per unit area when a deforming force acts tangentially to the surface of body producing change in the shape of the body without any change in volume. The shear-producing force per unit area of cross section, usually expressed in pounds per square inch. Frictional force overcome in sliding one "layer" of fluid along another, as in any fluid flow.

### **Shoal**

- 1) A detached area of any material except rock or coral. The depths over it are a danger to surface navigation. Similar continental or insular shelf features of greater depths are usually termed banks.
- 2) To become shallow gradually.
- 3) To cause to become shallow.
- 4) To proceed from a greater to a lesser depth of water.

### **Shorezone**

The area including the nearshore, foreshore, and backshore.

### **Shoreline**

The highest line normally covered by waters of a lake or body of water. For Lake Tahoe, the shoreline elevation is 6229.1 feet Lake Tahoe Datum.

### **Significant Wave**

A statistical term relating to the one-third highest waves of a given wave group and defined by the average of their heights and periods. The composition of the higher waves depends upon the extent to which the lower waves are considered. Experience indicates that a careful observer who attempts to establish the character of the higher waves will record values, which approximately fit the definition of the significant wave.

### **Significant Wave Height**

The average height of the one-third highest waves of a given wave group. Note that the composition of the highest waves depends upon the extent to which the lower waves are considered. In wave record analysis, the average height of the highest one-third of a selected number of waves, this number being determined by dividing the time of record by the significant period.

### **Significant Wave Period**

An arbitrary period generally taken as the period of the one-third highest waves within a given group. Note that the composition of the highest waves depends upon the extent to which the lower waves are considered. In wave record analysis, this is determined as the average period of the most frequently recurring of the larger well-defined waves in the record under study.

### **Silt**

Sediment particles with a grain size between 0.004 mm and 0.062 mm, i.e. coarser than clay particles but finer than sand.

### **Slope**

The degree of inclination to the horizontal. Usually expressed as a ratio, such as 25:1, indicating one unit rise in 25 units of horizontal distance; or in a decimal fraction (0.04).

**Slow Release Fertilizer**

A fertilizer that releases its nutrients gradually, over a period of time.

**Soil**

Soil is the top or surface geologic layer of weathered, unconsolidated material that rests on top of the earth's bedrock; usually defined as containing organic matter, micro fauna (insects, viruses, and bacteria) and being capable of supporting plant growth.

**Soil Amendment**

Materials added to soil in order to improve its physical, chemical or biological properties. Amendments may include compost, wood chips, fertilizer, or mycorrhizal inoculants.

**Soil Loosening**

The process of reversing soil compaction and breaking up soil structure in order to increase the supply of oxygen to the soil.

**Soil Structure**

The shape soil takes based on its physical and chemical properties.

**Soils/Hydrology Scoping Report**

Report required by TRPA to specifically investigate the location of the highest recorded groundwater level and to site all excavations above that level.

**Source Control Certificate**

Certificate by which TRPA acknowledges that the subject property is in substantial conformance with the BMP Retrofit Program. This Certificate is typically issued to properties with site constraints such as seasonal high groundwater.

**Spoil**

Overburden or other waste material removed in mining, dredging, and quarrying.

**Stormwater Quality Improvement Committee (SWQIC)**

A working group of Lake Tahoe Region agencies formed to prioritize and streamline the permitting and implementation of stormwater quality projects.

**Stream Environment Zone (SEZ)**

Generally, an area which owes its biological and physical characteristics to the presence of surface or ground water.

**Surface Roughening**

Creating and leaving a rough texture on a slope surface to enhance water retention, infiltration, and vegetation establishment on a project site.

**Suspended Load**

The material moving in suspension in a fluid, kept up by the upward components of the turbulent currents or by colloidal suspension.

**Swash**

Wave action on the beach, which moves as water levels vary, extending from the limit of run-down to the limit of run-up.

**Tackifier**

A category of adhesive substances that are mixed with organic or synthetic fibers, water, and seeds to form a slurry that is sprayed onto exposed soil surfaces to provide temporary steep slope stabilization.

**Lake Tahoe Region Design Storm (Design Storm)**

The volume of a twenty year one hour storm (20-yr/1-hr), an average intensity of one inch per hour can be used for this calculation, applying to stormwater projects. For Shorezone protective structures, the design storm is the 80 mile an hour – 1 hour duration wind event modeled at the legal high water limit of 6,229.1 feet.

**Lake Tahoe Region**

“Region,” includes Lake Tahoe, the adjacent parts of Douglas and Washoe Counties and Carson City, which for the purposes of this compact shall be deemed a county, lying within the Tahoe Basin in the State of Nevada, and the adjacent parts of the counties of Placer and El Dorado lying within the Tahoe Basin in the State of California, and that additional and adjacent part of the county of Placer outside of the Tahoe Basin in the State of California which lies southward and eastward of a line starting at the intersection of the basin crestline and the north boundary of section 1, thence west to the northwest corner of section 3, thence south to the intersection of the basin crestline and the west boundary of section 10; all sections referring to township 15 north, range 16 east, M. D. B. & M. The region defined and described herein shall be as precisely delineated on official maps of the agency.

**Tahoe Regional Planning Agency (TRPA)**

A bi-state agency created by the states of California and Nevada and ratified by the United States Congress to oversee development at Lake Tahoe and enforce ordinances to achieve environmental quality standards called Threshold Standards.

**Technical Advisory Committee (TAC)**

Committee formed of technical experts and stakeholders to provide input on a project or program.

**Terrace**

A horizontal or nearly horizontal natural or artificial topographic feature interrupting a steeper slope, sometimes occurring in a series.

**Threshold Standards**

A regulatory term used by the TRPA to define environmental standards for air quality, water quality, soil conservation, vegetation preservation and noise that are necessary to maintain a significant scenic, recreational, education, scientific or natural value of the region or to maintain public health and safety within the region.

**Total Maximum Daily Load (TMDL)**

A calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards.

**Transpiration**

The process by which moisture is carried through plants from roots to small pores on the underside of leaves.

**TRPA-Approved Plant List**

A list of plants approved by TRPA for use in the Lake Tahoe Region. Plants are selected based on being native to the region or their ability to survive Tahoe's unique climate without being invasive.

**Turbidity**

- 1) A condition of a liquid due to fine visible material in suspension, which may not be of sufficient size to be seen as individual particles by the naked eye but which prevents the passage of light through the liquid.
- 2) A measure of fine suspended matter in liquids (not including particulate organics).

**Ultra-oligotrophic**

An extremely nutrient-poor state, usually referring to surface water bodies.

**Unconsolidated**

In referring to sediment grains, loose, separate, or unattached to one another.

**Undercutting**

Erosion of material at the foot of a cliff or bank, e.g., a bluff, or riverbank on the outside of a meander. Ultimately, the overhang collapses, and the process is repeated.

**Updrift**

The direction opposite that of the predominant movement of littoral cell currents and materials.

**Upland**

Dry land area above and landward of the legal or ordinary high water mark (OHWM). Often used as a general term to mean high land distant from the shoreline and in the interior of the terrain.

**Vactor/Vactoring**

Vacuum Excavation. Typically used for removal of debris from underground systems.

**Vector**

An organism that transmits a pathogen from reservoir to host. In the context of this this BMP Handbook it generally refers to mosquitoes and rodents.

**Water Clarity**

Water clarity is a measured by how far down light penetrates through lake water. The deeper light penetrates, the clearer the water is assessed to be. How far down light penetrates through a water column depends on how many particles are suspended in the water. Suspended particles reduce water clarity by absorbing and scattering light. Water clarity is defined by the Vertical Extinction Coefficient, which is a measure of the ability of a particular water sample to exponentially attenuate (decrease) light shining on it. It is the constant "k" in the equation  $i(z) = i(0) \cdot \exp(-k \cdot z)$  where z is any depth in meters, and "exp" refers to the base "e" for the exponential.

**Water Holding Capacity**

The ability of soil to retain water through cohesion against the force of gravity. It is determined by size and spacing of soil particles as well as the amount of organic matter contained within the soil.

**Wave**

A ridge, deformation, or undulation of the surface of a liquid (water).

**Wind Setup**

On reservoirs and smaller bodies of water (1) the vertical rise in the still-water level on the leeward side of a body of water caused by wind stresses on the surface of the water; (2) the difference in still-water levels on the windward and the leeward sides of a body of water caused by wind stresses on the surface of the water.