Glossary of Terms used in the Stormwater Industry

Term	Code	Definition
Table drain	Sto	The side drain of a road adjacent to the shoulders, and comprising part of the road formation. The invert of the drain is commonly below the subgrade level and being part of the formation.
Tailwater	Hyd	Relating to the hydraulic conditions immediately downstream of a given hydraulic structure, flow path, or a given reach of a flow path.
Tailwater depth	Hyd	The flow depth, whether actual or assumed, at the downstream limit of a given flow path within a hydraulic model.
Tailwater level	Hyd	The free-surface water elevation, whether actual or assumed, at the downstream limit of a given flow path within a hydraulic model.
TCM	Sto	The abbreviation for Total Catchment Management, a system for managing natural resources within a 'whole of system' approach. In a stormwater context, this requires a whole of catchment approach incorporating the total water cycle. Consideration is given to all associated land and water processes and values. Also known as INTEGRATED CATCHMENT MANAGEMENT.
Tenth percentile flow rate	Hyd	The flow rate obtained from a time weighted annual flow duration curve (with a time step of 1 day) that is greater than or equal to 10 per cent of all flows during that period.
Teratogen	Eco	An agent that increases the incidence of congenital malformations.
Terrace	Lfm	A former floodplain on which alluvial deposition and erosion are barely active or inactive.
Terracing	Lfm	A land management technique that reduces slope length through the creation of benches.
Terrestrial fauna	Eco	Animals that inhabit or frequent land environments. Depending on its usage, terrestrial fauna may or may not be further distinguished from two subgroups, arboreal (living in trees) and aerial (pertaining to the air space).
Tertiary treatment	Res	An additional or advanced stage of the water treatment process beyond the secondary biological stage. Tertiary treatment can include processes such as coagulation, flocculation and filtration through various media, or reverse osmosis, or the use of constructed wetlands.
	Sto	Stormwater treatment based on aeration, biological decomposition, biological uptake, disinfection, fixation, enhanced filtration and solar treatment (volatilisation and disinfection). Typical retained contaminants include pathogens, nutrients and metals.
Texture roughness	Hyd	Surface roughness associated with the texture of the surface rather than the shape of the surface or the irregularity of the channel cross section. Also known as GRAIN ROUGHNESS and SURFACE ROUGHNESS.
Thalweg	Wwy	A notional line joining the deepest points of a stream channel.
Thalweg distance	Wwy	The channel length measured along the thalweg.

Thalweg profile	Wwy	A long-section of a channel surveyed along the path of the deepest water depth.
Thermocline	Coa	The spatial plane representing the locations of maximum rate of temperature change within a volume. An ocean, lake or reservoir thermocline can be near horizontal representing the intersection between two water layers of significantly different temperature and density. An ocean thermocline can also be near vertical representing the intersection between two poorly mixed ocean currents of significantly different temperature.
Thermotolerant coliforms	Eco	A type of coliform bacteria found in the intestinal tract of humans and other warm-blooded animals, e.g. E. coli. The presence of thermotolerant coliforms can by used as an indicator of faecal contamination.
Thiessen polygon	Hyd	A polygon whose boundaries are formed by the perpendicular bisectors of the lines joining adjacent rainfall gauges.
Third order stream	Wwy	A branch of a watercourse immediately downstream of the junction of two second-order streams.
Threshold concentration	Eco	The concentration of a given substance above which some effect or response will be produced, and below which it will not.
Through-flow	Hyd	The water that flows down to the watertable and enters the groundwater.
Thunderstorm	Met	A combination of thunder and lightning, with or without precipitation. Thunderstorms are categorised according the occurrence of thunder: Slight – occasional thunder Moderate – frequent thunder Heavy – almost continuous thunder
Time of concentration	Hyd	A variable used in the Rational Method to determine the critical, average rainfall intensity for a given catchment area based on the assessed critical storm duration for the catchment. It is represented by the shortest time necessary for all points on a catchment area to contribute simultaneously to flow past a specified point. It is equivalent to the time required for runoff to flow from the most hydraulically remote part of the catchment to the point of interest, usually the catchment outlet.
Time of redistribution	Hyd	The time shift between the centroid of the inflow hydrograph and the centroid of the outflow hydrograph resulting from flood routing through a large reservoir such as a dam.
Time of translation	Hyd	The time shift between the centroid of the inflow hydrograph and the centroid of the outflow hydrograph resulting from flood routing along a channel.
Time series analysis	Hyd	A method used to assess long-term performance of a system when subjected to a long-term flow sequence.

TKN	Wat	The abbreviation for total Kjeldahl nitrogen, the sum of organic nitrogen and ammonia nitrogen. Total Kjeldahl nitrogen and oxidised nitrogen (nitrite plus nitrate) represent the total nitrogen in a substance.
TN	Wat	The abbreviation for total nitrogen, a measure of organic and inorganic nitrogen forms in a substance.
TOC	Wat	The abbreviation for total organic carbon, a measure of all carbon atoms covalently bonded in organic molecules.
Toe drain	Eng	A drain located along the toe of a slope or batter specifically for draining runoff discharged from the slope.
Toe of dam	Eng	The junction of the downstream (or upstream) face of dam with the ground surface (foundation). Sometimes the term 'heel' is used to define the upstream toe of a concrete gravity dam.
Tolerance	Eco	The ability of an organism to withstand adverse or other environmental conditions for an indefinitely long exposure without dying.
Top of dam	Eng	The elevation of the uppermost surface of the dam proper, not taking into account any camber allowed for settlement, kerbs, parapets, guardrails or other structures that are not a part of the main water retaining structure. This elevation may be a roadway, walkway or the non-overflow section of the dam.
Topsoil	Sol	That part of the soil profile, typically the A1 horizon, containing material that is usually more fertile and better structured than underlying layers. When the A2 horizon also meets these criteria, it can be included.
Total Catchment Management (TCM)	Sto	A system for managing natural resources within a 'whole of system' approach. In a stormwater context, this requires a whole of catchment approach incorporating the total water cycle. Consideration is given to all associated land and water processes and values. Known also as INTEGRATED CATCHMENT MANAGEMENT.
Total dissolved solids	Wat	The sum of all cations or anions, sometimes measured in parts per million as calcium carbonate. It comprises inorganic salts (principally calcium, magnesium, potassium, sodium, bicarbonates, chlorides and sulfates) and small amounts of organic matter that are dissolved in water.
Total head	Hyd	The height above a standard datum of the surface of the column of water that can be supported by the static water pressure at a given point. The SI unit for head is the metric length, metres (m). It is the numerical value of the total energy in a fluid being a combination of kinetic and potential energy.
Total Kjeldahl nitrogen	Wat	The sum of organic nitrogen and ammonia nitrogen. Total Kjeldahl nitrogen and oxidised nitrogen (nitrite plus nitrate) represent the total nitrogen.
Total metal	Wat	The concentration of a metal in an unfiltered sample that is digested in strong nitric acid.

Total nitrogen	Wat	The abbreviation for total nitrogen, a measure of organic and inorganic nitrogen forms in a substance.
Total organic carbon	Wat	A measure of all carbon atoms covalently bonded in organic molecules.
Total phosphorus	Wat	The sum of dissolved and particulate phosphorus. Can be subdivided into reactive, acid-hydrolysable and organically bound phosphorus according to its chemical availability.
Total recoverable metal	Wat	The concentration of a metal in an unfiltered sample following treatment with hot dilute mineral acid.
Total suspended solids (TSS)	Wat	A measure of the filterable matter within a water sample, usually reported in units of mg/L.
Total urban water-cycle based management	Sto	The integrated management of all components of the hydrological cycle within urban areas (surface water, soil interflow, groundwater, water supply and recycled wastewater) and the landscape to secure a range of social, economic and environmental benefits.
Toxicant	Eco	An agent or material capable of producing an adverse response (effect) in a biological system, seriously injuring structure or function or producing death.
Toxicity	Eco	The inherent potential or capacity of a material to cause adverse effects in a living organism.
	Sol	The characteristic of a soil relating to its content of elements or minerals that adversely affect plant growth. It is of particular concern in relation to acid soils. Soils with pH less than 5.0 may give rise to manganese and aluminium toxicities that reduce plant growth and hence ground cover.
Toxicity test	Wat	The means by which the toxicity of a chemical or other test material is determined. A toxicity test is used to measure the degree of response produced by exposure to a specific level of stimulus (or concentration of chemical).
Toxin	Sto	A poisonous product generated by a pathogenic micro-organism; a causative agent in disease.
TP	Wat	The abbreviation for total phosphorus, the sum of dissolved and particulate phosphorus. Can be subdivided into reactive, acid-hydrolysable and organically bound phosphorus according to its chemical availability.
Training wall	Eng	The sidewall of chute spillway.
Transient flow	Hyd	A short-term flow condition that occurs when one steady-state flow condition suddenly changes to another steady-state condition, e.g. water hammer.
Transitional flow conditions	Wwy	A state of flow between the lower regime flow and upper regime flow condition.
Transition loss coefficient	Hyd	A coefficient associated with the head loss at open channel transitions.
Transpiration	Gen	To emit or give off water vapour through the surface of leaves.

Trapped street gully	Sto	A modified stormwater pit fitted with baffles that are specifically designed to encourage heavy sediments and floating debris to remain in the pit. Also known as a BAFFLED PIT and CATCH BASIN.
Trash rack	Hyd	A grill, grate or other barrier placed across the inlet of a hydraulic structure to prevent litter, trash and debris from entering and blocking the structure.
	Sto	A grill, grate or other barrier located across a channel or pipe to trap litter and debris. The bars may be vertical, horizontal or angled (relative to the direction of inflow) depending on hydraulic and environmental requirements, such as fish passage or exclusion requirements. Also known as a LITTER RACK.
Treatment (water quality)	Sto	The act of physically or chemically changing stormwater whereby its water quality is improved with respect to the desired water quality objectives.
Treatment train	Sto	A series of treatment processes designed to collectively meet a prescribed water quality objective in which the treatment systems vary in both the type of treatment (i.e. settlement, filtration, infiltration, adsorption) and the standard of treatment (i.e. primary, secondary and tertiary treatment standard).
Treatment volume	Sto	The maximum volume or capacity of a treatment system at a given instant.
Trellis pattern	Wwy	The description of the layout (in plan form) of the branches of a major watercourse where the branches and main channel are primarily straight and generally intersect at approximately 90-degrees, and adjacent watercourses are generally parallel to each other. The trellis pattern typically occurs where rocks being dissected are of unequal resistance so that the extension and daunting of tributaries is most rapid on least resistant areas.
Triangular weir	Hyd	A sharp-crested, V-shaped weir generally used to control and/or measure small flow rates; can also function well for reasonably large flows. Also known as a V-NOTCH WEIR.
Tributary	Wwy	A watercourse contributing flows to a larger watercourse or other water body. Constructed stormwater drains, whether piped or open channel, that enter a watercourse are generally referred to as inputs or inflows, rather than tributaries, but no formal separation of the terms is recognised.
Triple interceptor pit	Sto	A type of pollutant trap which comprising three underground retention chambers designed to remove litter, coarse sediment and oils. The first chamber is used for sedimentation and the collection of large debris. The second chamber is used for oil separation. The third chamber collects and disperses flow into the stormwater system. Also known as a OIL-GRIT SEPARATOR.

TRM	Esc	Means Turf Reinforcement Mat. A rolled erosion controlled product composed of non-degradable synthetic fibres, filaments, nets, wire mesh, and/or other elements, processed into a permanent, three-dimensional matrix with a sufficient thickness of a least 6mm and at least 80% UV stability.
True colour	Wat	The colour of water resulting from substances that are totally in solution; not to be mistaken for apparent colour resulting from colloidal or suspended matter.
TSS	Wat	The abbreviation for total suspended solids. A measure of the filterable matter within a water sample.
Tunnel erosion (tunnelling)	Sol	An erosion process involving the removal of sub-surface soil by water while the surface soil remains relatively intact. Water seeps through soil causing the dispersion and/or slaking of soil particles. The dispersed soil is then removed by seepage until the seepage path takes the form of a tunnel.
Turbidity	Wat	A measure of the opaqueness, clarity or clearness of a liquid usually measured by passing a beam of white or infra-red light through a sample and measuring the amount of light scattered or transmitted with a light sensitive cell or diode and comparing with a colorimetric scale. It indicates how much silt, algae and other material is suspended in the liquid.
Turbit	Wat	Opaque or muddy liquid containing particles of foreign suspended matter.
Turbulence	Hyd	A type of fluid motion characterised by its unpredictable behaviour, strong mixing properties and eddy formation.
Turbulent	Hyd	Relating to non-laminar flow.
Turbulent flow	Hyd	A flow condition characterised by fluid particles moving along irregular flow paths. The viscous properties of the fluid are insufficient to suppress any turbulent motion of fluid particles causing an exchange of momentum and mixing between adjacent layers. Turbulent flows have great mixing potential and involve a wide range of eddy length scales.
Turf (sod)	Gen	A piece of earth containing plants with matted roots. Frequently used for the revegetation of critical areas where a stable vegetative sward is required for erosion control. Grasses such as kikuyu and couch, which have stolons, are particularly suited to this method of revegetation.
Turnout drain	Sto	A drain that transports stormwater runoff from the shoulders of a road or table drain to a disposal area. Also known as a DIVERSION DRAIN, SPUR DRAIN, or MITRE DRAIN.