# Urban Drainage Glossary and Legislation

GreenBlue URBAN
Establishing the future urban landscape

**Adoption of sewers** – transferring responsibility for the upkeep and maintenance of a sewerage system(s) to a sewage undertaker.

**Aesthetic pollution** – solid, visible sewage materials that have little impact on the environment.

**Amenity** – Quality of place being pleasant and attractive, a feature that increases attractiveness and value

**ArborFlow** – GBU's SuDS tree pit solution

**Attenuation** – Reduction of peak flow and increased duration of flow event

**Balancing Pond** – A pond designed to attenuate flows by storing water run off and releasing at a controlled rate.

**Basin** – A ground recess normally dry that is designed to detail water temporarily.

**Biodiversity** – The diversity of plant or wildlife in its natural habitat.

**Bioretention area** - A landscaped area that is allowed to collect run off, percolating through the soil and into an underdrain, collecting pollutants.

**Brownfield site** – a site which is being redeveloped as a result of pollution issues.

**Catchment area** – Contributing to surface water flow to a point on a drainage or river system.

**Combined network** – a sewer network collecting foul water and rainfall from both impervious surfaces and domestic and commercial sources.

**Combined sewer overflow (CSO)** – prevents a sewer or sewage treatment works from reaching its maximum capacity by allowing excess, diluted sewage to drain into a different disposal point.

**Control structure** – used to limit the rate of flow, this is a hydraulic device.

**Depression storage** – natural depression on the ground's surface that needs rainfall in order to be filled. This ensures runoff can take place.

**Detention tanks (balancing tanks)** – constructed in a sewerage system, these tanks temporarily store water during peak flows.

**Discharge** – an indeterminate amount of liquid which flows through a section of conduit per unit of time.

**Domestic wastewater** – overflows from sinks, toilets, washing machines and other household items and services.

**Drain** – an underground pipeline specifically designed to carry surface or wastewater to a sewer.

**Drainage** – a series of channels, pipes and other engineering works designed to carry stormwater away from an environment which is built up.

**Ecosystem services** – Services provided by the natural environment that benefits people.

**Erosion** – the movement of sedimentary deposits or soil caused by the flow of water, such as within a pipe or over the ground surface, for example.

**Evaporation** – the process which dries out the ground surface.

**Event (rainfall)** – a single occurrence of rainfall both before and after a sufficient dry spell, therefore having an effect on certain sewer systems.

**Everyday Event** – Events with a return period of less than one year (100% probability) – typically cause pollution.

**Extreme event** – an event which occurs infrequently (such as large storms or long droughts).

**First Flush** – Following rain fall the run off over catchment carries the most pollutants.

**FloodPlain** – Land adjacent to a watercourse that would be subject to repeated flooding under natural conditions.

**Flow Control Device** – Used for the control of surface water from an attenuation system.

**Forebay** – Am small area of a drainage component with capacity to collect sediment. Foul sewage – waterborne waste coming from commercial or domestic sources where rain or surface water hasn't contributed.

**Foul system** – a sewerage system, drains or pipes that have been specifically designed to carry foul sewage only.

**Green Infrastructure** – Planned network of natural and man-made spaces that assist in greening our grey environment.

**GeoTextile** – A plastic fabric that is permeable.

**Greywater** – wastewater coming from domestic appliances, baths, showers and sinks.

**Groundwater** – Water that is below the surface of ground in the saturation area.

**Highway** – any road, public-footpath, track or bridleway, either in public or private ownership, which isn't associated with one single property.

**Highway drainage system** – a sewer or drain constructed in order to drain a highway of excess surface water.

**Hydraulic capacity** – the maximum that a pipe can carry based on its slope, roughness and dimension. It's also referred to as pipe-full capacity – which is less than the maximum capacity.

**Hydraulic simulation** – a computational process done by way of a computer model to analyse how the system behaves as a result of an external influence, such as rainfall.

**HydroPlanter** – GBU's Raingarden solution.

**Impermeable surface** – a surface which resists water infiltration.

Infiltration – the movement of water be it to a sewer, ground, basin/trench, storage device.

**Inlet** – a connection joining the catchment area and a drain for surface or stormwater to enter. It's also used to describe a structure which sits at the entrance of a conduit.

**Inspection chamber** – provides access to the sewer or drain in order to service it. This is done using equipment that's remotely operated – no personnel access.

**Model** – mathematical computer-generated equations that were developed and used to replicate the behaviour of a certain system.

**Percolation** – Water movement through a porous substance or small holes.

**Pervious surface** – ground surface that allows the infiltration of water to occur, although it's still subject to some surface runoff.

**Permeable surface** – Impervious to water formed with voids to allow infiltration.

**Permeable paving** – A permeable surface, run off drains through voids between solid areas to sub base.

**Private sewer** – typically, this is collectively owned and maintained by the owner(s) of the building(s) the network is connected to.

**Public sewer** – sewer where the responsibility falls to public authorities to maintain it.

**Raingarden** – a planted basin designed to collect and clean run off.

**Raingauge** – a device used to record the level of rainfall at a specific location.

**Reservoir storage** – a volume of flow will be temporarily stored in a length of pipe, surface or channel as the rate of flow and depth increases. The storage will deplete following a storm.

**Runoff** – water that flows from a surface, eventually reaching a sewer or drain.

**Scumboard** – a board or plate that sits below the water level, thus retaining a buildup of scum and other suspended or floating debris.

**Sediment transport** – the movement of solids through flowing water and other liquids.

**Self-cleansing (velocity)** – velocity needed to keep solids floating to prevent reduced capacity or blockages in the future.

**Separate system** – a system made up of two pipelines – one carrying surface water and another carrying wastewater.

**Sewage** – surface water or wastewater conveyed by a sewer or drain.

**Sewer** – a conduit or pipe that carries drainage water or wastewater which serves more than one property.

**Sewer flooding** – the unexpected escape of wastewater from a sewerage system.

**Sewerage** – also referred to as a drainage collection system.

**Sewerage system** – a network of pipelines carrying surface and/or wastewater from drains for treatment or another place of disposal.

**Silt** – fine sediment.

**Sluice gate** – a gate which slides open and closed which allows flow to take place.

**Soakaway** – a pit that surface water is drained into in order to infiltrate the ground.

**Source control** – reducing pollutants and runoff in order to prevent them from entering drainage systems.

**Storm tanks** – specifically designed to hold high volumes of stormwater in treatment works or sewers.

**Sub-catchment** – a drain at ground surface level leading directly to a gully or collection of gullies.

**Surface washoff** – rainfall runoff carries surface debris, dissolved pollutants and sediments into the sewer system or drain.

**Surface water system** – a sewer system or drain specially designed to only carry surface water.

**Suspended solids** – insoluble solids that are suspended, or floating in water or wastewater.

**Sustainable drainage** – drainage techniques that are beneficial to the environment.

**Swale** – A shallow channel, allows infiltration and removal of pollutants.

**Time of entry** – the time taken for surface runoff to enter the pipe system.

**Urban drainage** – pipe systems serving an urban setting/environment.

**Wastewater** – water used and subsequently discharged to a drain.

**Water quality** – chemical, physical and biological properties of water to determine its suitability for varying purposes.

**Watercourse** – either a natural or artificial channel allowing water to pass through.