

Green Infrastructure Glossary

Have you ever been curious about the benefits of green infrastructure and how these practices help our environment? As green roofs, rain barrels, bioswales, and other techniques become more numerous, our city is becoming increasingly more sustainable. The following are some important terms used to describe green infrastructure and its significant connection to stormwater and the environment.

***Students:** This list of water words is to help define unfamiliar terms that you may encounter in class, readings, or on trips related to your water study. Quiz your friends with these words, and remember to research online other water words that do not appear here.*

***Teachers:** You can use this glossary as a guide to familiarize yourself with some common terminology used by the New York City Department of Environmental Protection. You and your students will encounter many of these words during classroom lessons and in readings as well as on trips of the wastewater treatment and water supply systems. A great way to introduce these words to your students is by having a vocabulary bee and making a crossword puzzle or matching game. Have fun!*

Absorption – The act or process in which one thing gradually takes in or soaks up a liquid or another substance.

Bedrock – The bottom layer of earth consisting of unbroken solid rock.

Biodiversity – The variation of life in the world or in a specific habitat or ecosystem.

Blue Roof – Rooftops designed without vegetation for the primary purpose of detaining stormwater by creating temporary ponding and gradual release of the stormwater.

Catch Basin – Type of drain structure located next to the curb that collects stormwater runoff; designed to alleviate street flooding and efficiently capture stormwater that falls on streets and discharge it into the sewer system. There are more than 144,000 catch basins in New York City.

Catskill Mountains – A mountainous region in New York State occupying almost 6,000 square miles. It is the location of New York City's Catskill Water Supply System.

Cistern – A tank used for storing rainwater. It can be placed above or below ground.

Combined Sewer Outfall – Pipes that divert combined sewer flow into surrounding waterways when wastewater treatment plants and retention tanks reach capacity.

Combined Sewer Overflow (CSO) – A mix of excess stormwater and untreated sanitary flow that discharges directly into public waterways at combined sewer outfalls.

Combined Sewer System – A sewer system that collects both sanitary flow and stormwater runoff from properties and streets.

Compact Soil – Dense soil; usually caused by pressure that displaces air and liquids from the pores between soil grains.

Condensation – Water that collects as droplets on a cold surface when humid air is in contact with it. It is the conversion of a vapor or gas to a liquid.

Engineered Soil – Specifically designed sandy soil that promotes the infiltration of stormwater.

Evaporation – Vaporization; the process of becoming a vapor.

Evapotranspiration – Loss of water from the soil both by evaporation from the soil surface and by transpiration from the leaves of the plants growing on it.

Extensive Green Roof – Green roofs that have less than six inches of soil depth and are covered in only a thin layer of vegetation.

Green Infrastructure – Practices designed and constructed to manage stormwater runoff; controls stormwater by absorbing stormwater runoff before it enters sewer systems or local water bodies.

Green Roof – A vegetative layer on a roof that grows in specially designed soil to capture stormwater that falls on the roof.

Greenstreet – Planted areas in the public that collect and manage stormwater that runs off streets and sidewalks; typically constructed in the roadway and larger than ROW bioswales.

Groundwater – Water located underground in pore spaces in soil and openings in rock.

Impermeable Surface – A surface, or an area, which stormwater cannot penetrate through.

Impervious – Not capable of being penetrated by stormwater.

Infiltration – The process by which stormwater gradually passes into soil or other porous media.

Inlet – A part of a bioswale that directs stormwater runoff into the vegetated area.

Intensive Green Roof – Green roofs that have six inches or more of soil depth and can support a wide variety of plants.

Municipal Separate Storm Sewer System (MS4)

– A sewer system that collects stormwater runoff from properties and streets.

Outreach – The activity of providing service or information to people who might otherwise not receive or have access to the service or information.

Permeable Pavement – Paving materials and techniques that allow stormwater to seep into spaces in or between the paving materials and be absorbed into the ground. They allow the movement of water and air around the paving material.

Pollutants – Harmful substances such as oils, chemicals, sediments, and trash that can contaminate or dirty water, air, and land.

Precipitation – Water that is released from the atmosphere, such as rain, sleet, or snow.

Public Health – The methods and sciences of preventing disease, prolonging life, and promoting health and well-being in society.

Rain Barrel – A rainwater harvesting tool that catches stormwater and connects to the existing downspout of a roof.

Rain Garden – Vegetated or landscaped depressions designed with an engineered soil layer that promotes infiltration of stormwater runoff into the underlying soil.

Rainwater Harvesting – Method of stormwater management that uses waterproof receptacles to catch and store stormwater from roofs and other impervious surfaces. Examples include cisterns and rain barrels.

Right-of-way – The public area between the two property lines along the street that includes the sidewalks and paved roadway.

Right-of-way (ROW) Bioswale – A planted area in the sidewalk that is designed to collect and manage stormwater that runs off streets and sidewalks when it rains; designed to draw stormwater from the street and force it to pass through vegetation.

Sanitary Flow – Wastewater that comes from our buildings and is carried by the sewer system to wastewater treatment plants.

Saturated Soil—Moist soil; soil with high water content.

Slope – A surface of which one end is at a higher level than another; to slant up or down.

Stormwater – Any water that originates from a precipitation event.

Stormwater Detention – The act of holding back stormwater for a period of time before it is released into the sewer system.

Stormwater Management – Techniques aimed to mitigate the negative consequences caused by stormwater.

Stormwater Retention – Continued holding of stormwater without releasing it into the sewer system.

Stormwater Runoff – Water from precipitation that lands on rooftops, parking lots, streets, sidewalks, and other impervious surfaces, and runs into sewer systems or local water bodies.

Subsurface Detention System – A system that provides temporary storage of stormwater runoff underground. They can have either an open bottom that allows water to infiltrate into the ground or a closed bottom that detains water and then releases it slowly.

Tributary – Smaller waterway, such as a stream or canal, that feeds into a larger body of water.

Uncompacted Soil – Loose, porous soil.

Unsaturated Soil – Dry soil; soil with low water content.

Urban Heat Island Effect – The phenomenon in which urban areas are warmer than other areas due to the presence of dark surfaces and asphalt pavement in cities that absorb light and radiation.

Vegetation – Plant life or total plant cover of an area or specific green infrastructure practice.

Wastewater – The used water and solids from a community that flow to a treatment plant.

Water Cycle – The stages of water as it travels from the ocean to the atmosphere to the land and back again through processes such as precipitation, evaporation, and condensation.

Water Quality – The biological, chemical, and physical conditions of a body of water; a measure of a waterway's ability to support beneficial uses.

Watershed – The land that drains, or sheds, water to a particular stream, river, lake, or reservoir. It is a land feature that can be identified by tracing a line along the highest elevations between two areas, often a ridge.

Weir – A dam or barrier that slows down the flow of stormwater; for example, on a blue roof.

For more information contact:

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Also visit DEP's website at: www.nyc.gov/dep