

Glossary of Stormwater Terms

X-year storm Rainfall is generally characterized by its size, intensity, and frequency of occurrence. The

size of a rain storm is the total precipitation that occurs over a particular duration. (See depth, duration, frequency table excerpt from NOAA for rainfall depth estimates.) Because storm events are random and characterizing associated rainfall amounts is based on statistics, there is no guarantee that storms will occur on those fixed intervals.

For example, a 10-year storm can happen in consecutive years, etc.

1-year storm A rainfall of certain duration that occurs, on average, once every year is called a 1-year

storm and has a 100% probability of occurring in a given year.

2-year storm A rainfall of certain duration that occurs, on average, once every two years is called a 2-

year storm and has a 50% probability of occurring in a given year.

10-year storm A rainfall of certain duration that occurs, on average, once every ten years is called a 10-

year storm and has a 10% probability of occurring in a given year.

25-year storm A rainfall of certain duration that occurs, on average, once every 25 years is called a 25-

year storm and has a 4% probability of occurring in a given year.

100-year storm A rainfall of certain duration that occurs, on average, once every 100 years is called a

100-year storm and has a 1% probability of occurring in a given year.

100-year floodplain The flood water elevation resulting from a flood event that has a 1% probability of

occurring in a given year. Any lands within the reach of a 100-year flood is said to be

the 100-year floodplain.

Berm A barrier constructed of compacted soil that is generally intended to restrict or direct

the flow of water.

Bioretention area A mulched or grassed area designed to remove pollutants from stormwater runoff

through infiltration. There is typically no maintained permanent pool of water in a

bioretention area.

BMP Best Management Practice; See also SCM. The term "BMP" has been globally replaced

with "SCM" (Stormwater Control Measure) in accordance with new State terminology.

Buffer A vegetated area between a water body and adjacent land uses. Buffers are designed

to provide soil stability, slow the flow of runoff, and improve water quality by filtering

out pollutants.

Catch basin Curbside opening that collects stormwater from streets and serves as an entry point to

the storm drain system.

CFS Cubic feet per second; a measure of flow rate.

Channel A feature that conveys surface water and is open to the air.

Conveyance The process of moving water from one place to another.

Culvert Pipe or concrete box structure which drains open channels, swales, or ditches under a

roadway.

Detention Temporarily collecting and holding stormwater runoff while slowly draining to another

location.

Diffuse flow Water flow over a surface at a uniform depth; sheet flow. Usually depth is low and

spread out which generally reduces erosive forces.

Dry pond A BMP that is dry until a rain event when it temporarily stores incoming stormwater,

traps suspended pollutants, and reduces the peak discharge.

Easement A right to cross or otherwise use the real property of another owner for a specific

purpose.

FES Flared end section; the outlet section or discharge point of a pipe. An FES is found where

a flow transitions from piped flow to overland flow.

First flush The initial surface runoff of a storm event, usually containing more pollutants compared

to runoff later in the storm.

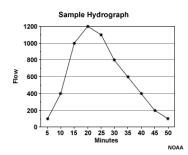
Grading The cutting and/or filling of the land surface to a desired slope or elevation.

Groundwater Water held underground in the soil or in pores and rock crevices. Stormwater runoff

can infiltrate in pervious surfaces and recharge groundwater.

Hydrograph A graphical representation of water flow rate as a

function of time.



Impervious Any surface or groundcover that has limited or no capacity to absorb or infiltrate water.

Infiltration The process of water moving down through the soil from the soil surface.

Invert The lowest point in a pipe where water is designed to flow out.

Level spreader A concrete level lip designed to provide diffuse flow from a roadway or a BMP outlet.

LID Low Impact Development; an innovative stormwater management approach with a

basic principle that tries to mimic nature by encouraging infiltration.

NOAA National Oceanic and Atmospheric Administration; federal agency focused on the

conditions of the oceans and the atmosphere. They maintain records and produce daily

weather forecasts, issue severe storm warnings, and monitor climate.

Nuisance flooding Flooding which causes public inconvenience, but little or no property damage.

Outfall The point where stormwater runoff exits a drainage system and discharges into a

receiving water body.

Peak flow rate The maximum flow of water during a storm event, usually expressed in CFS (cubic feet

per second).

Pervious Any surface or groundcover that allows water to pass through or infiltrate.

Receiving water Any water body that receives stormwater outflow.

Retention Collecting and holding stormwater runoff indefinitely (e.g. wet pond).

Retrofit The modification of stormwater management systems through the construction and/or

enhancement of BMPs designed to improve water quality.

Riparian Relating to or adjacent to the banks of a river.

Runoff Excess rainfall that does not infiltrate and instead flows over the surface of the land.

SCM Stormwater Control Measure; Physical structures requiring engineering design and

engineered construction to remove pollutants from stormwater runoff. They also provide flood control, reduce downstream erosion, and promote groundwater recharge. The most common examples include bioretention cells, wet ponds, and

stormwater wetlands.

Sheet flow Water flow over a surface at a uniform depth; diffuse flow. Usually depth is low and

spread out which generally reduces erosive forces.

Stream restoration The process of repairing creeks damaged by erosion. The primary goals are improved

water quality, stable banks, and enhanced habitat for aquatic life and wildlife.

Stormwater Water that originates during precipitation events and during snow/ice melts.

Stormwater can infiltrate into the soil, evaporate into the air, or runoff into nearby

surface waters.

Stormwater wetlands Constructed systems that mimic the functions of natural wetlands and use physical,

chemical, and biological processes to treat stormwater pollution.

Surface water Water found on the surface of the earth such as a river, stream, lake, wetland, or ocean.

Swale A broad, shallow, gently sloped channel that conveys stormwater runoff.

Tributary A river, stream, or creek flowing into a larger river or lake.

USGS United States Geological Survey; a science organization that provides impartial

information on the health of ecosystems and the environment. They collect, monitor, analyze, and provide scientific understanding about natural conditions and issues.

Wet pond A BMP that maintains (retains) a permanent pool of water for removing pollutants and

has additional capacity above the permanent pool for reducing the peak discharge.