Green Roof Website

Green roofs store rainwater in the plants and growing mediums and evaporate water into the atmosphere. The amount of water that is stored on a green roof and evaporated back is dependent on the growing medium, its depth and the type of plants used. In summer green roofs can retain 70-80% of rainfall and in winter they retain between 25-40%.

In Germany, the world leader in green roofs, 25 million m^2 of green roofs were installed between 2000 and 2001. This area is primarily down to legal requirements in certain 'landers' for roofs to be installed for their benefits in alleviating storm water run off. In Portland, Oregon – one of the leading cities in USA for installing green roofs – green roof policies are being driven over concerns of storm water run off and the consequences of it on water quality in rivers, and therefore the continued health of rivers for salmon [a key cultural indicator].

Green roofs also reduce and delay run off during times of heavy and prolonged precipitation. A study in Germany has shown that during a 10mm rainstorm, 200 litres of rainwater fell on an $18m^2$ extensive green roof and only 15 litres actually passed from the roof to the ground.

Green roofs, therefore, reduce the impact of run off on the storm water drainage system, and reduce the likelihood of local flooding.

http://www.livingroofs.org/livingpages/benwaterunoff.html