# What is Save the Rain?

Save the Rain is Onondaga County's new program to improve the environment and help Onondaga Lake by reducing the amount of stormwater runoff that flows directly into our sanitary sewer system.

During rain and snow events, stormwater runoff flows directly into sanitary sewer systems, resulting in overflow that can send polluted stormwater and sewage into Onondaga Lake.

The County's Department of Water Environment Protection will lead efforts to save the rain by developing green infrastructure and environmentallyfriendly solutions to capture stormwater where it lands.



#### **Learn more**

More detailed information and instructions on these, and other ideas to Save the Rain can be found at www.ongov.net/savetherain



For more information, please call or write to:

Onondaga County Department of Water Environment Protection

650 Hiawatha Boulevard West Syracuse, New York 13204

Telephone: (315) 435-2260

Joanne M. Mahoney, County Executive Ongov.net



a community to Save the Rain



#### What is green infrastructure?

Green infrastructure is a sustainable and environmentally friendly solution for capturing stormwater runoff. The use of these natural or engineered systems, enhance overall environmental quality.

## Why is green infrastructure so important?

Stormwater runoff can have a dramatic impact on the environment. During times of heavy rain or melting snow, an increased amount of water flows into the sewer system and can overload the capacity of the sewers. At these times,

the sewers overflow and can discharge a combination of runoff and sanitary sewage called a Combined Sewer Overflow (CSO) into Onondaga Creek and Harbor Brook. This overflow eventually flows into Onondaga Lake. A combined sewer overflow system is designed to overflow in this way to prevent sewage from backing up into streets and basements.

Onondaga County has already taken many steps to address the problem of CSO discharges into Onondaga Lake and its tributaries. Over the past 10 years, the County has spent in excess of \$300 million dollars on projects to address CSO discharge to Onandaga Lake. In 2008, County Executive Joanne Mahoney initiated efforts to incorporate a more environmentally friendly approach for the County's program to improve Onondaga Lake. This new program includes both traditional "gray" and new "green" technologies to reduce or eliminate CSO's.

Green infrastructure strategies provide environmentally friendly sustainable solutions for capturing rainwater where it lands. Green systems can reduce the amount of stormwater that flows to storm drains which will prevent overloading the sewer system and reduce CSO's. Reducing the volume of stormwater entering the sewer system will lead to improved water quality of Onondaga Lake and its tributaries.

### Benefits of Green Infrastructure

- Reduces stormwater runoff volumes
- Reduces potential water pollution and erosion
- Saves cost on construction when compared to traditional "gray" infrastructure
- Reduces energy demands and costs
- · Improves air quality and human health
- · Benefits communities and increases land value



#### **Green Solutions**

There are several examples of green infrastructure solutions. Below are the most common and effective green infrastructure applications:



Rain garden is a sunken garden designed to absorb rainwater from impervious areas such as roofs, driveways, walkways, and compacted lawn areas. Rain gardens reduce runoff by allowing stormwater to soak into the ground, as opposed to flowing into

storm drains and surface waters, which can cause erosion, water pollution, flooding, and diminished groundwater.

Green roof is a roof of a building that is partially or completely covered with vegetation and soil, or a growing medium, planted over a waterproofing membrane. Green roofs are used for stormwater management and energy savings, as well as for aesthetic benefits. Green roofs absorb stormwater and release it back into the atmosphere through evaporation and plant transpiration, while reducing urban temperatures.



**Green wall** is a wall, either free-standing or part of a building, that is partially or completely covered with vegetation and, in some cases, soil or an inorganic growing medium. They are also referred to as living walls, biowalls, or

vertical gardens.

Bioswale (or vegetated swale) is a wide, shallow channel with a dense stand of vegetation covering the side slopes and bottom. Swales can be natural or constructed and are designed to promote infiltration, reduce the flow velocity of stormwater runoff and maximize time water spends in the swale, which aids in trapping particulate pollutants and silt. Swales are commonly used around parking lots.

**Permeable paving** (also known as pervious paving or porous pavement), is a term used to describe paving

methods for roads, parking lots and walkways.

Porous asphalt, concrete, paving stones or bricks allow precipitation to infiltrate through to the soil below.



Rain barrel is a water tank which is used to collect and store rain water, typically from rooftops via rain gutters. Rainwater tanks collect and store harvested rain for home use, watering gardens, washing cars, agriculture, and for retention of

stormwater for release at later time.

**Cistern** is a receptacle for holding liquids, usually water. Often cisterns are built to catch and store rainwater. They range in capacity from a few liters to thousands of cubic meters.

