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ILL Lecture Series, 2009

# SUSTAINABLE DRAINAGE SYSTEMS

A total solution to rainwater management design

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The Greater Dublin Strategic Drainage Study (GSDSDS) was completed in 2005 and involved the seven Local Authorities of the Greater Dublin Area. The study carried out an in depth assessment of the Dublin's drainage system. In addition to the extensive analysis of the drainage systems and the data collection that was carried out, the output also provided five policy documents. One of these was an Environmental Policy, a second dealt with drainage of New Developments and a third on Climate Change. These three documents focused on the design approach and criteria for new drainage. The objective of these three policy documents was to ensure that any future development did not continue the trend towards increasing flooding in the city and pollution of the rivers.

Drainage design in the past has been extremely simple using a rational method to size pipes to ensure that surface water is removed as quickly as possible to ensure flooding does not take place. Unfortunately this philosophy is flawed as, in transferring the surface water downstream, it provides the potential for flood-

ing of other areas subject to the capacity further down the system. In addition the pollution in the wash-off from the urban environment is conveyed into the natural environment.

SuDS can best be summarised as offering a "total" solution to rainwater management while traditional drainage can be considered as only providing a "collection and disposal" approach.

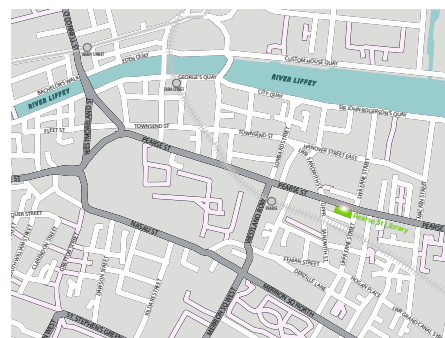
SuDS have to be incorporated into the Developments Plans of the seven Local Authorities in Greater Dublin Area. Other Local Authorities are proposing to incorporate SuDS into their Development Plans.

The presentation outlines the different SuDS techniques both urban and rural. The urban SuDS include Permeable Pavements, Green Roofs, Living Walls and Rainwater Harvesting, Swales, Infiltration Basins and Detention Basins. The rural SuDS include fencing off rivers, river restoration, Integrated Constructed Wetlands for wastewater treatment from septic tanks and small rural plants, Integrate

Constructed Wetland for farm yard runoff and treatment of slurries.

The presentation is aimed at Planners; Road, Drainage and Environmental Engineers; Architects; Landscape Architects; Housing Executives and Parks Executives. Attendance at this public lecture is free.

[www.irishlandscapeinstitute.com](http://www.irishlandscapeinstitute.com)



Venue Pearse Street Library,  
138-144 Pearse St,  
Dublin 2

Date Wednesday,  
July 8th 2009

Doors 5:30 pm

Lecture 6:15 pm sharp