EU Forces Drainage Re-Think

The EU Water Framework Directive is forcing a radical re-appraisal of new drainage design, with diffuse pollution being identified as a potential threat to the quality of our existing water resources.

Environmental Impact Assessments (EIA) are used to anticipate the effects on the environment caused by a proposed development or project at a particular site. Where effects are unacceptable, design or other measures can be taken to avoid or reduce these to acceptable levels. EIA requirements derive from EC Directive 85/337/EEC (as amended by Directive 97/11/EC) on the assessment of the effect of certain public and private projects on the environment.

Reducing Risk

Consequently, Local Authorities have stormwater management policies that apply to surface water discharges to sewers and/or water courses from new developments. This will be used to control the rate of runoff of surface water from new developments thereby reducing the risk of flooding and promoting the concept of sustainable development.

But how can engineers better manage the risk of exceedance from increased stormwater runoff as well as potentially poorer quality runoff due to diffuse pollution?

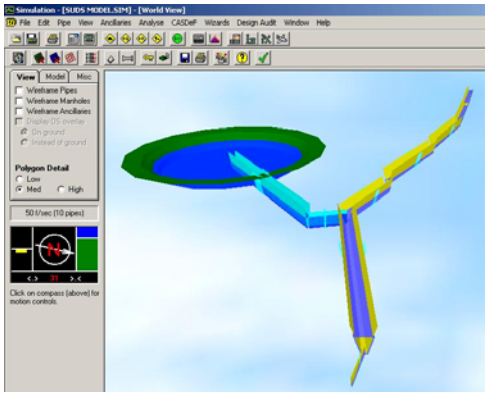
According to some of the latest research “The only effective means of ensuring protection of urban receiving waters is through SUDS” (JB Ellis, BJ Darcy, PR Chatfield).

Software Solution

Limiting stormwater discharge to the pre-development or greenfield runoff and incorporating SUDS strategies on new developments is becoming increasingly common to comply with the latest standards to avoid or reduce effects to acceptable levels.

What may initially appear to be a more complex solution can be easily designed by utilising a logical SUDS Design Process and the latest software technology.

The latest Micro Drainage software provides a complete analysis and design solution, integrating infiltration techniques seamlessly with conventional design solutions. Engineers can calculate and model the runoff from existing greenfield sites, enabling analysis of the impact of a new road scheme or development upon an existing watercourse.



Published in the February/March 2005 Project Management Magazine, Ireland.