SWDP 29: Sustainable Drainage Systems

A. To minimise flood risk, improve water quality and groundwater recharge and enhance biodiversity and amenity interest, all development proposals (as appropriate to their nature and scale) will be required to:

i. Demonstrate through a Water Management Statement that site drainage and runoff will be managed in a sustainable and co-ordinated way that mimics the natural drainage network.

ii. Manage surface water through Sustainable Drainage Systems (SuDS). SuDS schemes must protect water quality and, wherever practicable, reduce the risk of diffuse pollution by means of treating at source and following the management train approach.

iii. Secure the long-term maintenance of SuDS schemes.

iv. As a minimum, demonstrate that for a Greenfield site, the post-development surface water run-off rate will not increase. Proposals on brownfield land must show a 20% reduction in surface water run-off rates compared with the pre-development situation. A greater reduction in surface water run-off rates may be sought in areas identified, e.g. in a

Worcestershire Surface Water Management Plan as having surface water flooding problems. In all cases, development proposals must not increase surface water flood risk beyond the site.

v. Prior to the submission of a planning application, consult with Severn Trent Water to ensure appropriate water infrastructure is secured (surface water sewer capacity).

vi. Avoid culverting of any watercourses and secure adequate maintenance access. Open up any culverted watercourses unless this will clearly compromise public safety.

vii. Demonstrate that the submitted landscaping scheme will preserve and wherever possible improve the ecological status of on-site watercourses and water bodies, including integration into the wider blue and green infrastructure.

viii. Demonstrate compliance with the Water Framework Directive, exploring opportunities to help meet its targets.

B. Lack of space, prohibitive costs, inadequate infiltration and land contamination will not be accepted as reasons for not including SuDS. Given the wide range of SuDS techniques (see Table 9 below) available, there is a sustainable drainage solution to suit all sites.

For Reasoned Justification, see SWDP 30

Table 9: Environment Agency – from Advice Note on the Water Framework Directive for Local Authorities across the Midlands

SuDS techniques for generating water quality, environmental and water quantity benefits								
SuDS techniques:	Water quality improvements	Environmental benefits			Water quantity benefits			
		Aesthetics	Amenity	Ecology	Conveyance	Detention	Infiltration	Water harvesting
Water butts, site layout & management	◇	◇	◇	◇	◇	◇	◆	◇
Permeable pavements	◆	◇	◇	◇		◆	◆	◇
Filter drain	◆				◆	◆		
Filter strips	◆	◇	◇	◇	◇	◇	◇	
Swales	◆	◇	◇	◇	◆	◆	◇	
Ponds	◆	◆	◆	◆		◆	◇	◆
Wetlands	◆	◆	◆	◆	◇	◆		◆
Detention basin	◆	◇	◇	◇		◆		
Soakaways	◆					◆	◆	
Infiltration trenches	◆				◇	◆	◆	
Infiltration basins	◆	◇	◇	◇		◆	◆	
Green roofs	◆	◆	◇	◆		◆		
Bio-retention areas	◆	◆	◆	◆		◆	◆	
Sand filters	◆					◆	◇	
Silt removal devices	◆							
Pipes, subsurface storage	◇				◆	◆		

Key:

◆ Significant potential benefits

◇ Some potential benefits subject to design.

(Source: adapted from the CIRIA SuDS Manual, Table 1.7 and the Peterborough City Council draft Flood and Water Management SPD).