

# SUPPLEMENTARY GUIDANCE NOTES RELATING TO DISPOSAL OF SURFACE WATER



## Introduction

The purpose of this guidance note is to provide advice to applicants when completing the surface water drainage design for a new development, both for Greenfield and Brownfield sites. This does not affect foul drainage disposal which should be discussed with Severn Trent as early as possible to ensure additional flows can be accommodated without undue delay to the development.

## Lead Local Flood Authority (LLFA) Consultation

Since April 2015, the LLFA have assumed the role of being a statutory consultee in the planning process for developments of 10 dwellings or more; or equivalent non-residential and/or mixed development. The LLFAs role is vital to ensure that surface water disposal on new development is adequately assessed so that the local planning authority can satisfy themselves that drainage proposals are satisfactory and to make sure, through the use of planning conditions or planning obligations, that there are clear arrangements in place for future maintenance of sustainable drainage systems (SuDS) over the lifetime of the development. This will also ensure surface water disposal aligns with local planning policies, flood risk strategies and national policies, such as the National Planning Policy Framework (NPPF).

It is strongly recommend that the LLFA are involved in early pre-application discussions when the development of a site is initially being considered. Pre-application discussions will help to ensure that SuDS are appropriately considered ahead of or as part of preliminary development layouts, and that they are fully integrated into the final development layout. Whilst Severn Trent are willing to advise on sewerage availability this does not negate the planning requirement relating to adequacy of SuDS on new development.

## SuDS Hierarchy

Severn Trent is fully supportive of the fundamental SuDS principle that priority should be given to managing surface water as close to source as possible. In accordance with national standards and guidance a sequential series of checks should be undertaken to ensure the relevant SuDS features are being proposed whereby (in order of priority) rainwater re-use, infiltration to ground and controlled discharge to a water body are properly considered ahead of any controlled connection to a culverted watercourse/other drainage system or public surface water sewer.

A controlled connection to a public combined/foul sewer would only be considered under rare exceptional circumstances where all other options have been completely exhausted. Acceptance of surface water into a combined sewer is not only unsustainable because of the need to convey/treat rainwater but it also takes away existing capacity which could constraint the connection of foul flows on future development. It is also possible that connection of additional surface water flows will require capacity upgrades to the existing sewerage system which may delay development.

## Connection to a Public Sewer

Whilst Severn Trent will be able to provide advice on potential public surface water sewer connection options, it is essential that a developer contacts the LLFA as early as possible to discuss surface water disposal as they will be able to provide guidance on surface water flood risk policy which may influence SuDS requirements. It is strongly recommended that LLFA discussions take place before contacting Severn Trent. Where the outcome of LLFA discussions concludes that a controlled discharge to the public sewerage system is the only viable option then Severn Trent would be pleased to discuss sewer connection options, satisfied that the LLFA have been consulted in line with their surface water management role and in their capacity as statutory consultee.

Evidence must be provided to demonstrate why the sequential SuDS checks have concluded that a connection to the public sewer is required. This must include a Site Investigation Report including percolation test data/graphs/calculations/results together with relevant correspondence with the LLFA.

## Design Standards

Surface water disposal design should consider the interactions between the adoptable sewer design criteria based on a 30 year design storm (outlined in 'Sewers For Adoption') and the "Non-statutory technical standards for SuDS" requirement to restrict discharge from a site up to and including the 1 in 100 year critical storm event plus an allowance for climate change as required by the LLFA.

For Greenfield development, the peak runoff rate should never exceed the peak pre-development run-off rates/volumes for the same rainfall event irrespective of the design storm duration consistent with the national non-statutory technical standards. For developments which were previously developed (Brownfield), the peak runoff rate must be as close as reasonably practicable to the greenfield runoff rate from the development for the same rainfall event, but should never exceed the rate of discharge from the development prior to redevelopment again for the same rainfall event. This requirement to remove pre-development surface water discharges to the sewerage system will help remove capacity constraints and aid future development.

To establish the pre-development run-off rates a detailed existing drainage survey will be required indicating pipe locations including sizes and levels, impermeable area connectivity to each pipe and topographical information to support existing drainage assumptions. Photographs of the existing buildings and surface features should be provided and where necessary a CCTV sewer survey should be provided to support the drainage survey to demonstrate connectivity.

In line with 'Sewers for Adoption', the drainage system must be designed so that, unless an area is designated to hold and/or convey water as part of the design, flooding does not occur on any part of the site for a 1 in 30 year rainfall event. For higher storm return periods the drainage system must be designed so that, unless an area is designated to hold and/or convey water as part of the design, flooding does not occur during a 1 in 100 year rainfall event in any part of: a building (including a basement); or in any utility plant susceptible to water (e.g. pumping station, electricity substation, water booster station) within the development.

## Small Developments

Whilst developments of fewer than 10 dwellings (or their equivalent) are excluded from the post April 2015 planning requirements the underlying principles regarding sustainable surface water management are still valid. The collective impacts of surface water discharges from smaller developments can have an adverse impact on flood risk, especially in smaller rural catchments where smaller sewerage systems are more susceptible to increases in surface water inflow. On small developments infiltration to ground and peak flow attenuation must be considered to mitigate flood risk in the community but where a sewer connection is envisaged then the developer is recommended to discuss surface water disposal options with Severn Trent as early as possible.

## Contact

For further assistance please contact our Asset Protection teams via:

