Surface Water Management Policy
DS 001

Effective date: 01/07/2024
Version 0.3
Reference number: DS 001

Policy Owner	Director of Environment and Innovation – Dr Nick Mills
Policy Author	Strategic Planning Lead – Charlotte Mayall

from Southern Water

Contents

Change Log

Version	Date	Change(s) made	Made by	Sign off
V0.1	11/04/24	Daniel Whitcher	Charlotte Mayall	
V0.2	03/05/24	Sally Drury-Smith	David Murphy	
V0.3	19/06/24	Sally Drury-Smith	Daniel Whitcher	Nick Mills

1.0 Introduction

1.1 Water is essential for life and a precious resource, but too much rainwater and groundwater can overwhelm drainage systems and cause discharges from storm overflows into rivers and the sea or flooding to homes and businesses. Our sewer system is increasingly under pressure from the effects of climate change, population growth and 'urban creep' (i.e., the paving over of permeable green spaces for extensions, patios, driveways, etc). Sewer flooding can occur when there is too much rainwater in the foul drainage system. If the capacity of a combined sewer system (which is designed to take both foul and rainwater) is exceeded during heavy rain, combined sewer overflows (CSOs) will release excess flows into rivers and seas, to prevent urban flooding.

1.2 The Government has published its plan for water, backed by the Environment Act 2021. This sets out a new direction and integrated plan for delivering clean and plentiful water. It requires standardised sustainable drainage systems in new housing developments in 2024, subject to final decisions on scope, threshold, and process following consultation in 2023. The Government has committed to consider how planning policy can promote local design decisions that reduce surface water flooding and water scarcity through, for example, dual pipe systems and water reuse options. The Plan for Water sets out how the Government will deliver the goals and targets with the Environmental Improvement Plan (EIP23).

1.3 The Environment Act 2021 also places a legally binding duty on water companies to progressively reduce the adverse impacts of discharges from storm overflows. Work is underway to reduce reliance on these systems and by 2025, water companies will have reduced storm overflow discharges from 2020 levels by around 25%. (DEFRA, Storm Overflows Discharge Reduction Plan 2023). We need to work differently to achieve these targets. Our focus is on getting rainwater and groundwater out of our sewers, so more wastewater can stay in.

1.4 This policy supports the Government's aims and objectives for more sustainable water management in communities, and our duties to separate rainwater from sewage at source to meet CSO reduction targets under DEFRA Storm Overflows Discharge Reduction Plan 2023.

1.5 New connections of surface water to the foul or combined drainage network will increase the frequency and duration of storm overflows, impede progress already made in catchments, and extend the amount of time and money needed to resolve the issue. In addition, upgrading networks and Wastewater Treatment Works (WWTWs) to pump and treat more surface water that has been added to the foul network is costly, carbon intensive and unsustainable in the long term. We have therefore produced this surface water management policy to set out our position on surface water connections for both new and re-development sites, with the overall aim of better protecting the environment, improving water quality, and reducing flood risk.

2.0 Policy Principles

2.1 We have a general duty to maintain our sewers to ensure that our area is and continues to be effectually drained. This means collecting and transporting sewage from people's homes and businesses that are connected to our network to our WWTWs for recycling before being safely returned to the environment.

2.2 The Government and our customers are concerned about the number of discharges from storm overflows into rivers and the sea. The majority of these are caused by too much rainwater and groundwater entering sewers. Defra's Storm Overflows Discharge Reduction Plan sets out the policies and principles to better manage rainwater in communities and reduce discharges from storm overflows.

2.3 There is a focus on water company actions including: "*Water companies must remove rainwater from the combined sewer system as part of effectually draining their areas. This should include limiting any new connections of surface water to the combined sewer network, and any new connections should be offset by disconnecting a greater volume of surface water elsewhere within the network*". But we cannot solve the problem of storm overflows by ourselves. We need to work with communities, local authorities, developers, highway authorities, park authorities, river basin catchment partnership and rivers trusts to take action to improve rainwater management. Defra's principles state that:

"*Rainwater should be managed following these two principles:*

- *Rainwater should be treated as a resource to be valued for the benefit of people and the environment, not mixed with sewage or other contaminants.*
- *Rainwater should be discharged back to the environment as close as possible to where it lands or channelled to a close watercourse without first mixing it with sewage*".

2.4 Defra's storm overflow reduction plan goes further than and set out the policies and principles of rainwater management. It effectively sets the target for storm overflow discharges to an average of 10 rainfall events per year by 2050. The plan also sets the environmental improvements that are expected from water companies for the use of their storm overflows as follows:

- By 2035, water companies will have: improved all storm overflows discharging near every designated bathing water; and improved 75% of storm overflows discharging into or near 'high priority sites' Rainwater should be discharged back to the environment as close as possible to where it lands or channelled to a close watercourse without first mixing it with sewage".
- By 2045, water companies will have improved all remaining storm overflows discharging into or near 'high priority sites'.
- By 2050, no storm overflows will be permitted to operate outside of unusually heavy rainfall or to cause any adverse ecological harm.

2.5 Given combined sewer overflow (CSO) activation beyond these targets (10 per year) will be illegal/unconsented and incur penalty, we should not be allowing stormwater connections to the combined system that will increase the frequency beyond this.

2.6 Whilst combined sewers were originally conceived as a solution for managing both foul and surface water drainage, sustainable drainage systems (SuDS) for surface water have long been promoted as a better approach to managing rainwater at source. SuDS methodologies are evolving, and scope is increasing, but SuDS is not yet a legal requirement for all new development.

2.7 Schedule 3 of the Flood and Water Management Act 2010 will make SuDS mandatory for most new construction in England (expected by late 2024). Until this time SuDS continues to be delivered through

the planning system/building regulations and Southern Water inputs into planning applications with local planning authorities where appropriate.

2.8 Priority should be given to natural flood management and sustainable drainage wherever possible, helping to slow the flow at source and contribute to providing a healthier, greener environment. For developments on greenfield or brownfield sites, sufficient evidence must be provided to prove that all surface water disposal routes have been explored. The developer must demonstrate that the site does not increase flood risk both within the development and elsewhere, and that the surface water disposal hierarchy has been considered;

- Rainwater re-use (rainwater harvesting)
- Discharge by infiltration to the ground
- Discharge to a watercourse
- Discharge to a surface water sewer, a highway drain, or other purpose-built surface water drainage system.
- Discharge to a combined sewer.

2.9 Water companies should prevent additional rainwater from entering the combined sewer network and remove existing rainwater connections where it is the best value solution.

2.10 Once enacted, Schedule 3 of the Flood & Water Management Act 2010 will change the right to connect surface water to the public sewer system under section 106 of the Water Industry Act 1991 and instead replace it with the mandatory use of SuDS for surface water disposal for most new construction. The Government has clearly said that rainwater should be discharged back to the environment as close as possible to where it lands or channelled to a close watercourse without first mixing it with sewage. We support this approach.

2.11 Soil type and ground conditions can sometimes preclude the use of infiltration SuDS, but this is not the only sustainable drainage option. Source control could be a preferred, cheaper, and easier option for many developments. By dealing with runoff at source the volume of water and the potential amount of contamination is reduced. Source control components can often be included within the curtilage of properties and can include green roofs, permeable surfaces, rainwater harvesting and water butts. There are also SuDS which provide attenuation to suit the local environment.

3.0 New applications policy

3.1 Robust evidence must be provided to demonstrate that all surface water disposal routes have been explored, but if none of the individual or combined options above (within the surface water disposal hierarchy) are able to manage *all* surface water runoff generated by new development, a surface water connection to the combined sewer will only be permitted under exceptional circumstances. In such instances we encourage developers to apply for Southern Water's wastewater environmental incentive – gold and/or silver standards (new-connection-charging-arrangements-24_25-v11.pdf (southernwater.co.uk)). This incentive will provide a discount on the new infrastructure connection charge if the developer can reduce surface water inputs to at least 10% less than the 1:1 greenfield runoff rate and/or offset surface water inputs to the network by removing inputs elsewhere.

(1) We will refuse any requests for drains or sewers to connect with a **storm water overflow sewer**.

(2) Applications for **surface water** connections into a **foul only sewer** can only be permitted with our consent. We will refuse any request for a connection for surface water into our foul only sewer network on the grounds that making the connection is prejudicial to our sewerage network and detrimental to the environment due to discharges from storm overflows.

In line with the surface water drainage hierarchy, where **surface water** connection to SuDS is not available, Applicants/Developers should connect at their cost to the nearest identified existing surface water only sewer with capacity to take the new development flows in priority over connection to a combined sewer.

(3) Applications for **surface water** connections into a **combined sewer** will only be permitted if; a) there are no alternative options under the surface water disposal hierarchy, and b) there is capacity*. If none of these criteria can be met, then the Applicant/Developer at their cost will need to requisition or provide a new surface water only sewer to serve the development.

3.2 **Surface water** connecting into a separate new **surface water** only sewer should return the rainwater to the environment as close as possible to where it falls, and the total cost of the new connection or infrastructure for this is to be paid for by the Applicant/Developer.

3.3 When we respond to local planning authority planning application consultations for new and redevelopment, we will confirm our policy as regards the SuDS/surface water drainage hierarchy and that surface water sewer connections are a matter of last resort. We will encourage local planning authorities to require the provision of SuDS by way of planning condition.

*The capacity assessment will determine whether the surface water connection is likely to increase the activation frequency of any downstream CSO to beyond the targets set out in Defra's storm overflow reduction plan. If any downstream CSO is currently activating beyond this frequency, applications for surface water connections to the combined sewer will also be refused.

4.0 Surface Water Design Criteria

4.1 In assessing the impacts of surface water on the existing network, Southern Water will consider the following design criteria:

Undeveloped (Greenfield) Sites

4.2 Discharge rates and volumes to be limited to the equivalent Greenfield runoff rate (with onsite attenuation for all events up to the 1:100 rainfall event plus climate change). Any new connection to Southern Water public sewers will be limited to the equivalent 1 in 1 year Greenfield rate from the development, or an appropriate rate as agreed with Southern Water.

Previously developed (Brownfield) Sites

4.3 Where a Brownfield site is redeveloped, no historic right of connection will exist, and any sewer connections will be treated as new. The site will be treated as if it was Greenfield and therefore discharge rate limited to the equivalent 1 in 1 year Greenfield rate. The Greenfield runoff for the site is calculated using the FEH method. A free Greenfield runoff estimation tool can be accessed on the UKSuDS website www.uksuds.com

4.4 Where the above is not practical, the Developer is asked to calculate the existing Brownfield rates based on the existing roof areas. The discharge rate from the development will be limited to the equivalent 1 in 1 year rate, or an appropriate rate as agreed by Southern Water.

4.5 In both circumstances, Southern Water will assess the capacity of the public sewers and on meeting the above policy principles, advise and make recommendations on the proposed development and or new connection.

5.0 Key Principles and Design Standards

Surface water run off includes rainwater which runs off the roofs and paved areas. It is good environmental practice is for the surface water to be reused or returned to the environment on or near your site where possible. We recommend the following options, in preferential order, for managing your surface water runoff.

- **Water reuse** – explore installing rain harvesting to reduce the demand on the water supply and the quantity of runoff discharged to the sewer.

- **Infiltration into local ground** – drain your surface water via soakaways or infiltration basins. You will need an approval from building control at your local council authority for the installation of these assets, which can be requested in your planning application.

- **Drain surface water into a watercourse** – if there is a stream of water such as river, canal, or the channel, please drain the surface water that way. You may need to obtain a consent to discharge from the Environmental Agency or local council authority/drainage board.

- **Council or privately owned drainage systems** - Discharge to a watercourse or other surface water body. These systems may be owned by your local council authority or privately and can include such drainage such as Culverted Watercourse, District Council Surface water or Private Network. You will need to obtain a separate approval from the Environment Agency or local council authority for these discharges.

- **Discharge into Southern Water surface water sewer**– Discharge to our surface water sewer. You can check whether we have a surface water sewer in the local vicinity by obtaining a map of our assets for the area.

- **Discharge into Southern Water Combined sewer** – Connect to a combined sewer which drains foul and surface water if one is in the local vicinity. This will only be permitted in accordance with the principles set out in section 3.0 above.

For any new adoptable drainage system, Developers must demonstrate that the surface water drainage scheme ensures the following:

- The drainage system is designed so that flooding does not occur on any part of the development for the 1 in 30 year rainfall event other than in those areas/systems designated to store or convey water (for both conventional/unconventional system).

- Manage run-off within the development to ensure no flooding within any building or part of a utility infrastructure in a 1:100 year plus climate change event.

- Provide adequate exceedance capability within unobstructed paths within the development.

Further performance requirements and local standards should be referred to in the DEFRA Standards and LLFA Drainage Policies. In addition, Developers are advised to refer to CIRIA SuDS Manual

For further information or clarification on our Surface Water Management policy, contact: Future Growth Team southernwaterplanning@southernwater.co.uk 0330 303 0119

6.0 Definitions

Foul sewer – All wastewater from homes or businesses includes water from sinks/ toilets/ baths/ showers/ washing machines/dishwashers/process water. The foul sewer carries used wastewater to a sewage works for treatment.

Combined sewer – A single pipe to carry both wastewater and surface water runoff water to wastewater treatment plants. During heavy rain, local sewer networks can struggle to cope with the amount of water entering pipes and storage tanks. When they fill up, we use storm overflows to stop homes, businesses, and roads from flooding. These overflows release excess water through outfalls into rivers and the sea. Storm overflows are part of the network's design and are regulated by the Environment Agency. They are used in areas where the sewers were built to carry both foul water from homes and businesses, and rainwater from roofs, driveways, and roads (These are called combined sewer overflow (CSO) events).

Surface water sewer - Rainwater runoff comes from roofs, driveways, and land appurtenant to the premises. The surface water sewer carries uncontaminated rainwater directly to a local river or stream. Only rainwater run-off from roofs or land appurtenant to a building, should be connected to a surface water sewer.

Storm Water Overflow Sewer - this is an outfall sewer, and it is not permitted to connect surface or foul flows directly to this sewer as flows will discharge to the watercourse, bypassing treatment.

Storm Overflow/CSO - A storm overflow (sometimes referred to as a 'CSO' or 'Combined Sewer Overflow') is an outlet designed to allow excess rainwater to escape if sewers become inundated during bad weather. This prevents overloaded sewers backing up into people's homes and flooding bathrooms.

7.0 References

This policy aligns with all other relevant Southern Water's Policies and is supported by Processes and Procedures.

This policy is implemented and supported through the following:

Document Type	Ref No	Document Title
Southern Water Standard	MOS 239	Standards for Adoption of SuDS document

Appendix

Water Industry Act 1991 (legislation.gov.uk)
Storm Overflows Discharge Reduction Plan (publishing.service.gov.uk)
Building Regulations Document H