

# Surface Water Policy

This standard advice note is intended to provide clear guidance for all developers, and planning authorities regarding surface water design and management. It should also be used to inform development management consultations, and to assist with completion of our pre-development enquiry and sewer connection application forms.

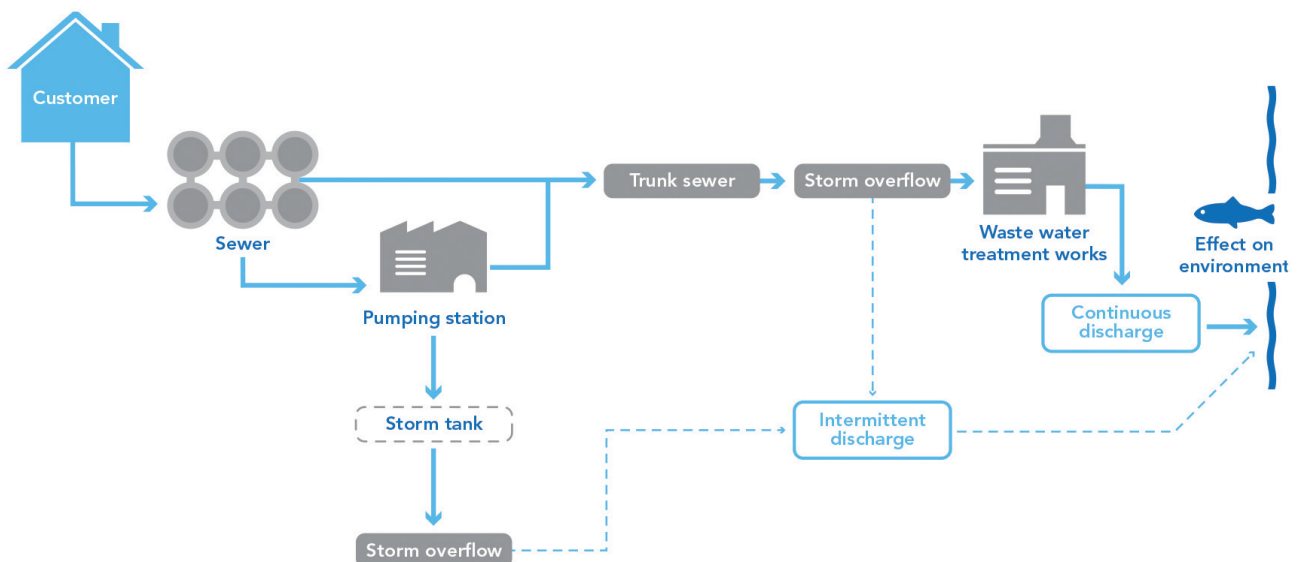
## What is surface water?

Surface water is the rainwater that runs off roofs, roads and paved areas into the public sewerage system.

## What is a combined sewer?

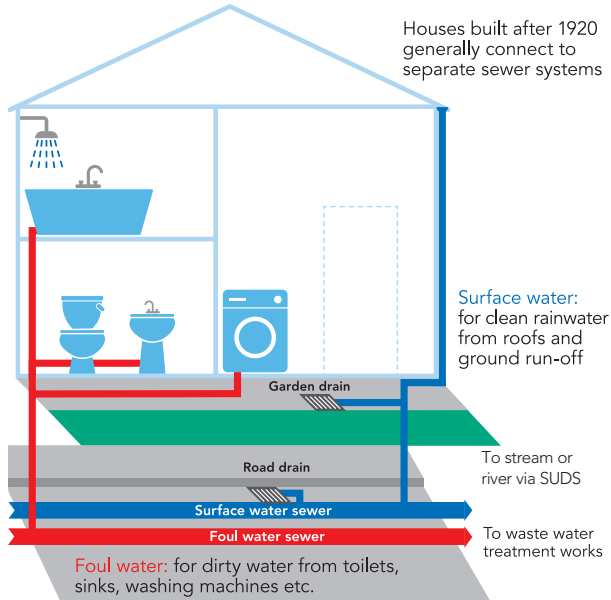
Historically up to the 1980's foul sewage generated from within properties (ie toilets, baths, sinks, etc) has been mixed with surface water into a single pipe (combined sewer). Due to environmental and flood risk management considerations, it is recognised best practice to separate out foul sewage from surface water. A typical schematic of a combined sewer system and how it interacts with the water environment is shown below.

Combined sewer system



Foul sewage is now drained and treated separately via foul sewers, pumping stations and waste water treatment works. Surface water is now drained and treated separately via surface water sewers and Sustainable Urban Drainage Systems (SUDS) back to the water environment. A typical layout of how a property should be connected to a separate sewer system is shown below.

**Separated sewer system**



This also gives rise to water quality problems that may be caused through sewer flooding and/or increased spills to the water environment as a consequence of more intense rainfall. It is estimated that the peak surface water flow from a single house plot is typically equivalent to the peak foul flow from 35 single house plots.

Surface water can be more sustainably treated above ground, often in conjunction with other existing surface waters, in a way that contributes to flood risk management, place making and biodiversity.

SUDS are a sequence of surface water management practices and facilities designed to naturally drain and treat surface water in a manner that will provide a more sustainable approach than what was the conventional practice of routing surface water through a pipe directly to a watercourse or a combined sewer.

**Our Surface Water Policy – purpose and scope**

Our starting position on the management of surface water through our infrastructure assets is that we will not accept any new surface water connections to our combined sewers network. Once in the combined sewer network, surface water incurs unnecessary pumping and treatment costs that do not represent value to our existing customers.



Our Surface Water Policy reflects our Surface Water Management strategy, which can be summarised as:

- no new surface water draining into our combined sewer network;
- work with developers and regulatory bodies moving forward on removing surface water from our existing combined sewer network; and
- undertake the above whilst supporting economic growth.

This approach is supported by the Flood Risk Management Act and associated guidance which places a duty on all relevant stakeholders to work together to manage surface water flooding more sustainably, by relying less on pipes and using sustainable urban drainage techniques.

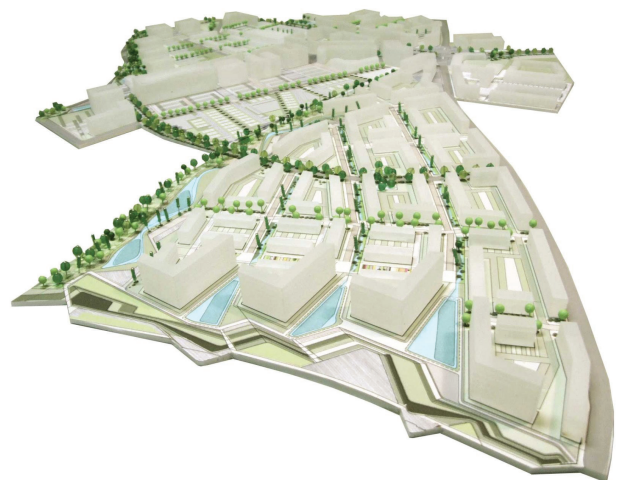
These techniques aim at keeping surface water above ground to help mitigate the impacts of urban creep, climate change and environmental constraints.

The principles of good surface water management can be summarised as follows:

- manage rainfall where it falls as close to the ground as possible;
- consider rainfall as a valuable natural resource;
- remove pollutants at the earliest

opportunity, rather than relying on end of pipe treatment;

- manage rainfall to protect against increased flood risk and environmental damage caused by the development;
- take account of likely impact from climate change (increased rainfall) and urban creep (extension/expansion of buildings and driveways);
- consider multiple SUDS in series across a site (rather than using a single “end of pipe” feature, such as a pond, to serve the whole development);
- maximise amenity and biodiversity opportunities;
- apply good placemaking principles through multifunctional use of public spaces and the public realm;



- a drainage system that is safe, reliable and effective over the design life of the development;

- avoid pumping of surface water; and
- be cost-effective, taking into account both construction and long term maintenance costs and the additional environmental and social benefits afforded by the system.

### Our responsibilities for surface water drainage

We have a duty to provide public sewers to drain surface water (e.g roof and paved surfaces within the property boundary).

We have no duty to do this where it is not practical at reasonable cost. Reasonable cost is defined via The Provision of Water and Sewerage Services (Reasonable Cost) (Scotland) Regulations. Historically we have allowed road drainage to drain into our systems without any formal agreement required.

Since the implementation of the Water Environment and Water Services (Scotland) Act (WEWS) and the Water Environment (Controlled Activities) (Scotland) Regulations (CAR), we are now enforcing statutory agreements with all Roads Authorities, regarding draining and treating roads water via our surface water sewers and/or SUDS.

All surface water drainage systems serving more than two properties, such as sewers, ponds or basins, should be designed to our standards, as outlined within the current version of Sewers for Scotland to enable us to take on future ownership.

We have included SUDS which have been deemed by research to be the most efficient and effective in performing our statutory drainage function. If surface water drainage systems are designed and constructed to these standards, we will take on future ownership. Where road drainage is accepted, we shall agree a shared maintenance responsibility for the SUDS with the roads authorities.

**Note:** Scottish Water has no statutory responsibility to drain land drainage and does not accept land drainage draining into our public sewer network. Land drainage must be drained privately to an alternative suitable outlet.

### Surface water drainage design options for new developments

To provide clear guidance to developers we have outlined below the hierarchy to be used and the justification required to allow you to consider the next preferred option when assessing and designing solutions for rainwater management from an early stage (1 = most preferred, 5 = least preferred).

- **Preferred Option 1: Rainwater is stored and reused, such as rainwater harvesting and/or water butts;**

**Justification Rule to move to Option 2:**

1. There is no significant demand for non-potable water on the site throughout its design life; and
2. The re-use of rainwater is not a viable/cost-effective part of the solution for managing surface water on the site, taking account of the potential water supply benefits of such a system.

- **Preferred Option 2: Surface water is drained into the soil through the use of a soakaway;**

**Justification Rule to move to Option 3:**

1. The use of infiltration drainage is not practicable due to the lack of permeability of the soil for disposal of surface water;
2. The use of infiltration drainage would result in a risk of instability through ground movement or subsidence;
3. The use of infiltration drainage would pose an unacceptable risk of pollution of groundwater or watercourses;
4. The use of infiltration drainage would result in an unacceptable risk of flooding from groundwater to nearby properties; and

5. The use of infiltration may cause surface water to indirectly enter a combined sewer which might result in an increased risk of flooding or pollution on the site or downstream.

- **Preferred Option 3: Surface water is drained to a watercourse (open or piped), canal, loch or existing/proposed SUDS;**

**Justification Rule to move to Option 4:**

1. It is not reasonably practicable to drain surface water to a watercourse, canal, loch or SUDS (Note – additional funding may be available where the offsite sewer and/or SUDS can be designed to provide additional capacity for future development identified within the current Local Development Plan);



2. Pumping would be required to drain surface water to a watercourse, canal, loch or SUDS; and
3. The discharge would result in an unacceptable increase in the risk of flooding.

- **Preferred Option 4: Surface water is drained to a surface water sewer;**

**Justification Rule to move to Option 5:**

1. It is not reasonably practicable to drain surface water to a surface water sewer (Note – additional funding may be available where the offsite sewer and/or SUDS can be designed to provide additional capacity for future development identified within the current Local Development Plan); and
2. Pumping would be required to drain surface water to a surface water sewer.

- **Preferred Option 5: Surface water is drained to a combined sewer.**

1. Consideration must be given to removing an equivalent amount of surface water from another part of the sewer catchment area to enable a zero net detriment to the sewer catchment area with; and

2. Scottish Water will set a maximum discharge rate and minimum amount of storage required based on the specific characteristics of the receiving combined sewer and the proposed development.

When you formally apply to our business team within the drainage connection process, you may be required to submit several of the following forms:

- Pre-Development Enquiry (PDE)
- Sewer Connection application (SC1)
- Applications for new Sewers to Serve Housing Developments (SF1)

These forms also include guidance that clearly outlines the details required to support any surface water proposals or designs, assistance to complete calculations, and we will expect that consideration has been given to exploring all surface water options above, before an application is made. Failure to do so may lead to a delay in us dealing with your application.

This guidance will also be reflected in all planning approvals that you have in place through your local Planning Authority, at either outline or full planning stage.



### Property extensions

If you are undertaking an extension, which will add to the existing hard standing area within the boundary of your property, you must look to limit an increase to your existing discharge rate and volume. Where possible, we would recommend that you consider the rainwater options and hierarchy for draining rainwater above.

### Applications proposing discharge to a combined sewer only

Your applications and supporting designs will be audited by a member of our business team, and you will be expected to provide detailed evidence including all assessments and investigations that have

been undertaken to justify your chosen option to manage surface water from your site.

You may be asked to conduct further investigations if we feel that sufficient information has not been supplied which may lead to a delay in your application.

At a conclusion of this process, we may agree to an eventual design solution based on the relevant design options for the final surface water solution as outlined on page 3.

# Keeping up to date and getting in touch

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Development Operations  
Scottish Water  
The Bridge, Buchanan Gate Business Park,  
Cumbernauld Road, Stepps, G33 6FB

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If you have a disability, medical condition or other reason where you may need additional assistance from Scottish Water then please contact us and we can add your name, address and requirements to our confidential Additional Support Register.

We record all calls for quality and training purposes.