



Cyclic and Reactive Drainage Quick Guide

Our commitment to keeping highway drainage assets free flowing, so surface water can drain away from roads and pavements

Who is responsible for dealing with surface water?

Ownership and responsibilities relating to surface water on the highway are complicated. No single organisation or landowner can manage rainwater the whole way to its ultimate destination, the sea. Storm water management relies on many people and organisations. Just because surface water floods a road, it does not necessarily mean that Suffolk Highways alone is responsible for dealing with or resolving the problem. Often, there are multiple contributory factors and responsibilities that need to be considered, managed and collectively resolved to reduce risk of flooding on or from the roads.

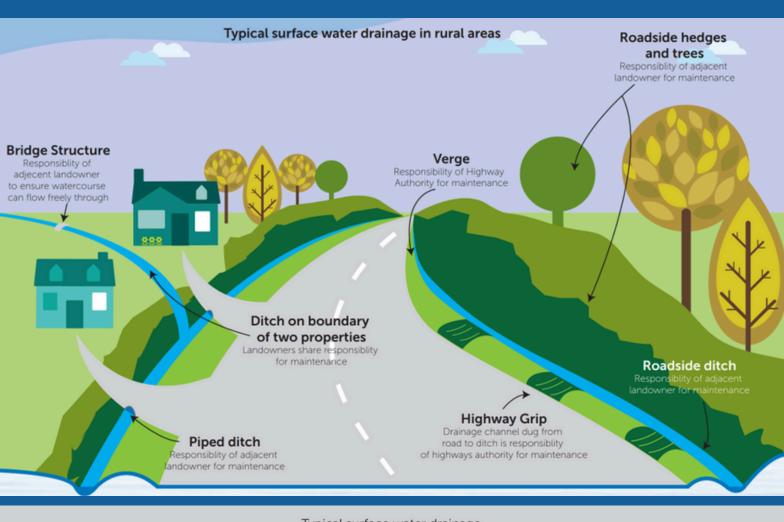
Road drains are only designed to deal with water falling onto roads and pavements. It is the responsibility of landowners to ensure that measures are put in place to prevent flooding from fields or water running into the road from gardens and roofs.

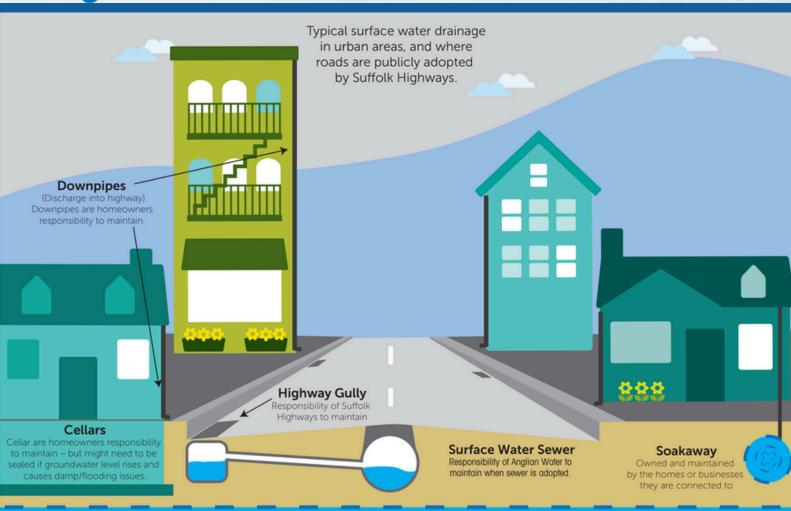
It is unlawful to allow water to run from private property onto the road. Where we are aware of persistent serious problems, we may act against the landowner.

If you own land or property next to, or crossed by a river, stream, ditch, or any other kind of watercourse you are a "riparian landowner". Unfortunately where watercourses have been piped this may not be obvious from the surface, and the responsibility may not show up in property deeds.

Riparian ownership principles apply whether you live in the heart of Suffolk's beautiful countryside or in one of our vibrant market towns.

The diagrams below outline the basic principles of rural and urban drainage systems:





Highway Drainage

Highway drainage systems are designed to remove water from the road surface. The constant presence of water on road surfaces can present a safety issue or nuisance for road users and can also cause damage to the road surface and increase the likelihood of potholes forming.

The two most common ways to drain roads are gullies (drains) and grips (narrow channels cut through grass verges).

Road drains collect surface water from the road which then goes into a piped drainage system and then taken to a watercourse, storm drain or soakaway.



A drain grating and frame



A drain pot

Road gullies are made up of an iron grate set in the road with a pot underneath. Each has an outlet pipe attached to take water into the watercourse or main drainage system. The pot collects any debris, leaves, litter, soil and rubbish that is washed off the road ensuring that the collecting pipe doesn't become blocked.

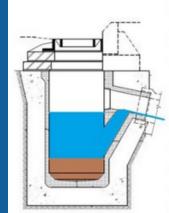
There are over 153,000 gullies across Suffolk.

Cyclic drainage programme

What we do

Road gullies are cleaned (removal of silt and debris) to ensure they remain free flowing and allow surface water to drain away.

Every time we clean road gullies, we collect data on how full they are, allowing us to monitor performance to ensure they are not full before their next scheduled clean.



Properly Functioning Gully:

Some silt at the bottom

Water sitting in the gully up to the outlet level.
During dry periods this will evaporate away but following wet weather it is normal to have an amount of water sitting in the gully pot.

Based on this data, Suffolk Highways clean around:

- 112,000 gullies on an annual basis
- 41,000 gullies each year on a two-yearly cycle

Gullies where persistent problems are identified, being blocked by silt and detritus on a regular basis, are programmed for more frequent cleaning.

Around 10,000 rural grips are renewed annually.

What we don't do

We do not clean linear drainage (such as drainage channels and slot drains) or catch pits (silt trap chambers) as part of the routine cyclic programme. These are dealt with by the reactive drainage service as issues are identified.

We do not undertake road sweeping, including the removal of fallen leaves and debris. This is a <u>district council</u> function.

Understanding Flooding Causes

Flooding can occur for a variety of reasons, including:

- Sudden storms or downpours that produce more water than roadside gullies or ditches can handle - especially when the ground is already saturated
- Cracked or broken pipes
- Runoff from fields or overflowing rivers during periods of heavy rainfall
- Blocked drains, caused by the build-up of mud, leaves, and other debris

These conditions can overwhelm drainage systems, particularly during severe weather. In many cases, water will drain away within 1 to 2 hours after the rain stops.

Our Response Times

When flooding is observed or reported, we assess its severity to prioritise our response. Potentially dangerous flooding will be attended to within the following timeframes:



- Within 2 hours on main roads (including A roads)
- Within 2 working days on less heavily trafficked roads
- Within 5 working days on minor local roads and cul-de-sacs

We aim to manage resources effectively to ensure the safety of road users and minimise disruption.

In some cases, we may install temporary flood warning signs or implement other safety measures to protect road users while flooding is present.

Where flooding is caused by a blocked highway drainage system, we will attempt to clean and unblock the affected system. Our response is based on a risk-based prioritisation approach, with the following target response times:

- Within 10 working days on main roads (including A roads)
- Within 20 working days on less heavily traffic roads

Minor local roads and cul-de-sacs are reviewed against our planned cyclic maintenance programme before any further action is considered.



Limitations of Reactive Flooding Response

Whilst every effort is made to resolve or reduce flooding during a reactive visit, there are situations where this may not be possible. These include:

- The drainage system is damaged (e.g. stuck or broken grating) or located on private land
- Standing water is too deep to safely access the drainage system
- Flooding is due to the capacity of the existing system being exceeded

If water is still not free-flowing after cleaning and unblocking, the location will require further investigation.

Please note that our reactive teams are not equipped to carry out major repairs, such as digging up the road or installing new drainage systems. These more complex issues are added to a list of locations for future planned drainage improvements.

Parking and Drainage Maintenance

Parked vehicles positioned over or too close to gullies present a significant challenge for our cyclic drainage cleansing teams. When persistent parking issues contribute to flooding, we may take additional steps such as:

- deploying 'No Parking' cones
- sending letters to residents requesting cooperation

If you see signs or receive a letter indicating that drainage cleaning is scheduled, please do not park your vehicle on or near a gully. Your cooperation helps us maintain effective drainage and reduce the risk of flooding in your area.

Helping to Keep Drains Clear

What You Can Do

If you notice fallen leaves covering a gully grid near your property, you can help reduce the risk of flooding by clearing them - but only if it is safe to do so. Please follow these safety tips:

- Use a brush or suitable tool to move the leaves (wear gloves if clearing by hand)
- Dispose of leaves in your normal rubbish bin or a compost bin
- Be cautious of traffic and pedestrians never step into the road without checking it's safe
- Do not lift drain covers or put your hands into the drain there may be sharp or hazardous objects inside
- Do not sweep debris from your property into the gutter or pour anything into the drain, especially oily or harmful substances, as this can cause blockages

Report any gullies on the public highway that appear blocked or overflowing.

All non-emergency problems, such as blocked gullies and drains, small areas of standing water or water flowing onto the highway from adjoining land, can be reported quickly and easily online using our <u>Highways Reporting Tool</u>.

To report problems where there are large areas of standing water or the road is impassable, and where it is causing a safety hazard, please telephone 0345 606 6171 (24-hour service) giving details of the location.

In extreme weather conditions, resources will be prioritised according to the location and severity.

Your help in keeping gullies clear makes a real difference in preventing localised flooding.