

# QUICK GUIDE: CYCLIC & REACTIVE DRAINAGE

Drainage cleansing activities are undertaken to keep highway drainage assets free flowing so surface water can drain away from roads and pavements.



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July 2022

## Who is responsible for dealing with surface water?

Ownership and responsibilities relating to surface water on the highway can be complicated. For example, just because surface water floods a road, which does not necessarily mean that Suffolk Highways alone is responsible for dealing with or resolving the problem. Often, there is a range of contributory factors and responsibilities that need to be considered, managed and collectively resolved to deliver a positive solution.

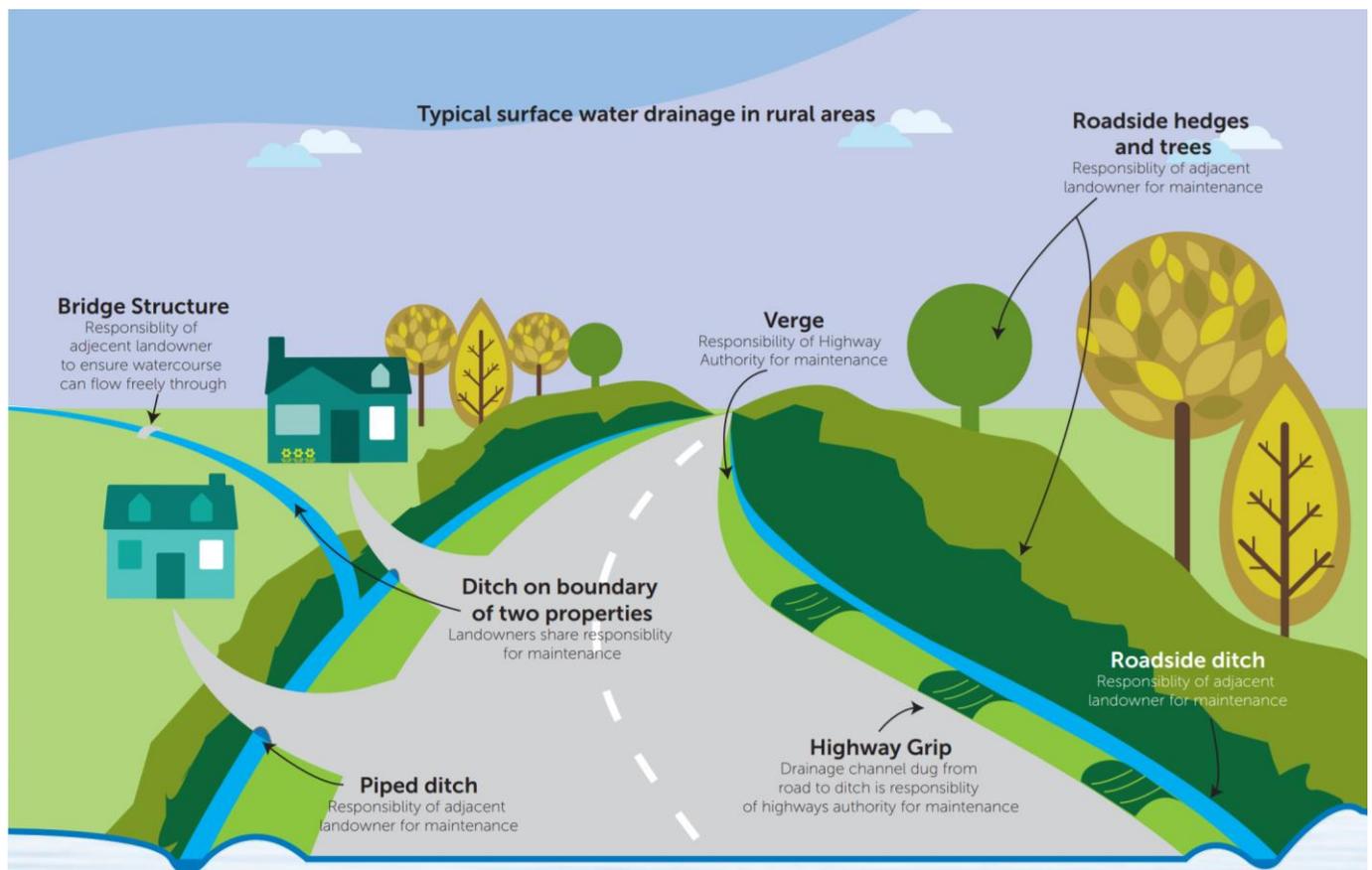
Road drains are only designed to deal with water falling onto roads and pavements. It is the responsibility of landowners to ensure that measures are put in place to prevent flooding from their fields or water running into the road from gardens and roofs.

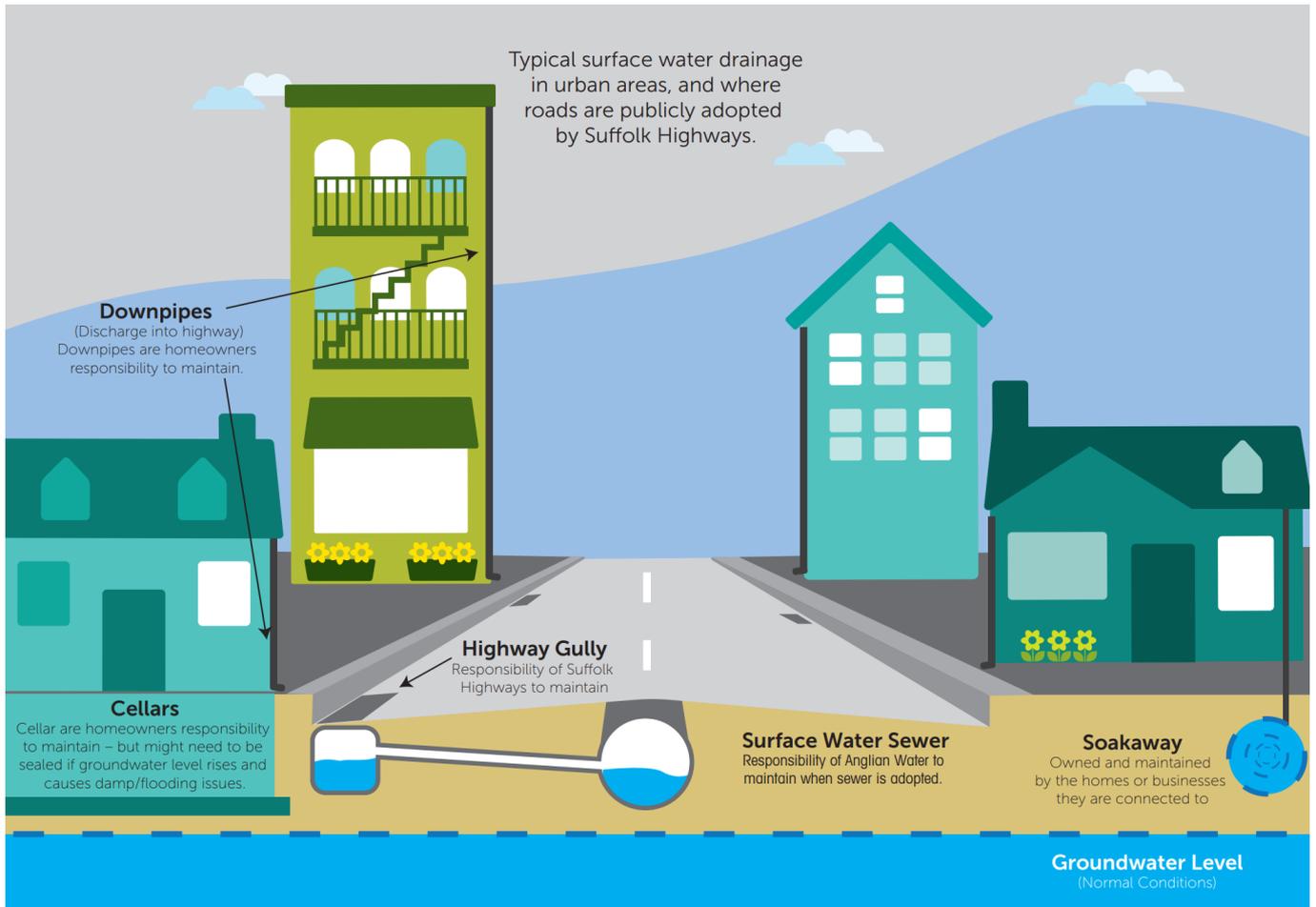
It is also an offence to allow water to run from private property on to the road and where we are aware of persistent serious problems, we may act against the landowner.

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".

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 and the ground beneath. 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**.

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.



Image 1, a drain pot.

Image 2, a drain grating and frame.

Road drains 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 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 142,000 gullies across Suffolk.

In rural areas, in the absence of a piped system, water on roads is fed into roadside ditches via channels dug in the verge. These are known as grips and there are almost 190,000 across the rural road network.

Highway drainage systems are **not** designed to:

- remove surface water from adjacent land or properties
- provide an overflow system for land drains, watercourses, rivers or sewers

## Cyclic drainage programme

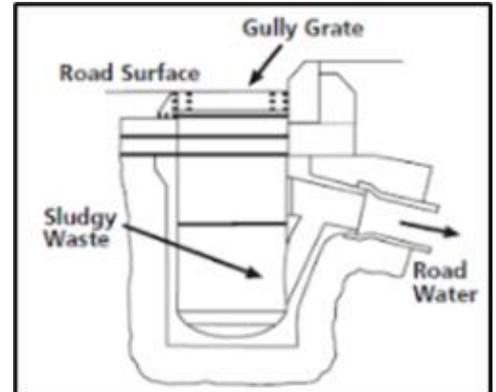
### What we do

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.

Based on this data, Suffolk Highways clean around:

- 86,000 gullies on an annual basis
- 28,000 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.

Rural grips are cut every 6 to 7 years, meaning that between 14,000 and 30,000 grips are renewed annually.

### What we don't do

We do not clean linear drainage (such as drainage channels) or catch pits (silt traps upstream of soakaways) as part of the planned 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 [district council](#) function.

## Reactive drainage service

### What we do

There will be occasions where we identify or are informed of locations where flooding occurs.

Flooding can be caused by cracks in broken pipes owned by water companies and heavier than normal rainfall that causes water to run onto roads from fields and over-full rivers. It can also be caused by the collection of mud, leaves and other debris that block drains.

A sudden storm or downpour can often result in more water on the road than our gullies or roadside ditches can cope with, especially where surrounding areas are already saturated with large quantities of water when even a small amount of additional rainfall can cause flooding.

In severe weather the capacity of drainage systems can be overwhelmed by the amount of water trying to run off from the road and flooding can sometimes occur but often drains away within 1 or 2 hours after the rain stops.

We will assess the severity of observed or reported flooding to allow us to prioritise resources. This means that potentially dangerous flooding will be attended to within:

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

In these instances, we may install temporary flood warning sign or other measures to keep road users safe.



Where flooding is caused by a blocked highway drainage system we will attempt to clean and unblock the affected system. We adopt a risk-based approach to prioritising resources, meaning that we will attend within:

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

Minor local roads and culs-de-sacs are reviewed against the planned cyclic programme before considering further action.

### What we don't do

Whilst every attempt is made to resolve or ease the issue as part of a reactive visit, there may be a number of reasons why this is not possible. These include:

- when the drainage system is damaged (including stuck lids) or located within private land;
- when standing water is too deep to safely locate the drainage system;
- flooding is due to the capacity of the existing system being exceeded

If water is not free flowing after cleaning and unblocking has been done, the location will require further investigation. Unfortunately, our reactive teams are unable to dig up the road to undertake repairs to damaged systems or install additional new drainage.

### What you can do

**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 [Highways Reporting Tool](#).

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.

**Parking considerably** - if you see signs telling you that cleaning will take place, please do not park your vehicle on or near a gully.

Remove fallen leaves covering gully grids if you can do this safely. When doing so, please ensure you:

- use a brush or tool (wear gloves if you are clearing leaves by hand);
- put leaves in your normal rubbish bin or in a compost bin;
- be careful not to step into traffic on the road and be aware of pedestrians;
- don't lift the drain covers or put your hands into the drain as there might be sharp objects you cannot see;

- don't sweep detritus from your property into the gutter – this can contribute to silt levels and will can cause blocking of the gully.