Highway Drainage & Flooding A short guide for Parish Councils



Following a request from Parish Councils at the 2014 Parish Seminars, this short guide explains the highway drainage services that we provide and how they are delivered. It explains our legal obligations and also the roles and responsibilities of others.

The Highway Drainage System

1. Which drainage assets is the KCC Highway Drainage & Flooding Team responsible for maintaining?

The Highway Drainage & Flooding Team maintains the following drainage assets:

Asset	The amount we look after
Roadside drains	250,000
Ponds and Lagoons	250
Pumping Stations	15
Soakaways	8,500

2. What is the purpose of the highway drainage system?

Highway drainage systems are designed to:

- Remove surface water from the road to maintain road safety and minimise nuisance,
- Provide effective sub-surface drainage to prevent damage to the structural integrity of the highway and maximise its lifespan, and,
- Minimise the impact of highway surface water on the adjacent environment including properties

Highway drainage systems are not designed to:

- Remove surface water from adjacent land or properties
- Provide an overflow system for land drains, water course, rivers or sewers

3. Who else is responsible for drainage assets in the Parish?

The Environment Agency is responsible for managing the risk of flooding from main rivers, reservoirs, estuaries and the sea. They deal with emergency repairs and blockages; carry out routine maintenance and issue flood warnings when necessary.

The Sewerage Authority (Southern Water or Thames Water) is responsible for public sewers. These include foul sewers, surface water sewers that serve two or more properties and combined sewers which drain both foul and surface water.

The Water Authority (South East Water, Southern Water or Affinity Water) is responsible for the mains that supply fresh water. If a water leak occurs or if there is a problem with the supply, it is the Water Company that will usually respond.

Landowners are responsible for maintaining most of the drains located within the boundary of their property including down pipes, ditches and any other drains that take water through or away from their property. They must undertake the necessary maintenance of any watercourse within or adjacent to their property or land to maintain the proper flow of water. The Landowner is responsible for the cost of the maintenance including any culverted sections, pipes or other structures that allows water to flow underground or beneath another structure. If they wish to propose a structure within a watercourse or any other activity that could affect the flow of water, consent must first be given by the Land Drainage Authority.

Internal Drainage Boards and Kent County Council Food Risk Management Team are both Land Drainage Authorities and have powers with regard to the general enforcement of landowner duties. These powers are permissive, meaning that we may choose to intervene in the public interest where we believe works would be beneficial and/or economically viable, but we are under no legal obligation to do so.

More detailed information about who does what during a flood can be found in Appendix 3 of the Environment Agency's guide "Practical advice to help you create a flood plan":

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/292939/LIT_528 6 b9ff43.pdf

4. Where can Parish Council's go if they are unsure who is responsible for a specific drainage asset?

You can call the County Council on 03000 41 81 81 and talk to the agents in our Contact Point. If they are unable to assist you they will pass you through to the Drainage & Flooding Team. We have two Technical Support Officers who will be able to assist you.

Maintenance of roadside drains

5. How is maintenance of the highway drainage system delivered?

There are two types of maintenance: planned maintenance and targeted maintenance.

We carry out planned maintenance on main roads – these are mostly A roads and the key routes that connect County's towns and villages. Roadside drains are cleaned once every 12 months as part of a cyclic programme of work. This is the most cost effective way to work on these roads and enables us to minimise the disruption caused to local residents.

We also carry out planned maintenance at around 250 locations which we know are particularly vulnerable to serious flooding when the drains become blocked. The drains at these locations are cleaned once every 6 months.

From April 2015, the Highway Drainage & Flooding Team will be contacting Council Clerks when we are due to carry out planned maintenance in your Parish.

All other drainage assets, including soakaways, highway ditches, highway ponds, culverts and grips, are maintained on a targeted basis. This means that maintenance work is arranged in response to enquiries and reports of flooding.

6. How is targeted maintenance prioritised?

When we receive a report of flooding or an enquiry from a customer the first thing that we do is check our records to see if we already know about it and have works planned.

If no works are planned, the site is inspected. The Highway Steward or Drainage Engineer looks at how much work is required, what traffic management is needed and the risk that flooding poses to road users and residents. Some of the things that they think about include the following:

- The type of road, for example, whether it is a high speed road, a main road, an estate road or a country lane
- The amount of traffic that uses the road, for example is it a main route in and out of a town or is it a minor road only used by a handful of drivers each day
- The impact if the road is closed, for example, the road might only be used by a handful of people but it may also be the only route to get to their homes
- The impact on residential property, for example, when the drains are blocked do homes get flooded

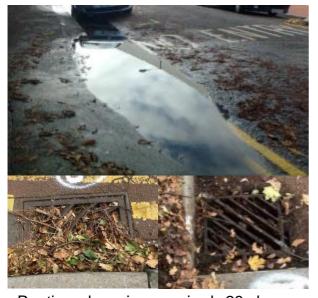
Cleansing is carried out within 2 hours, 24 hours 7 days, 28 days or 90 days of the inspection depending on the level of risk. The following photos provide a guide of the timescales for response:



Reactive response required: 2 hours



Reactive response required: 24 hours – 7 days



Routine cleansing required: 28 days – 90 days



No action required: Intervention level not met

In order to use our limited funding in the most effective way, works are delivered on the basis of the highest risk sites first.

Sometimes the weather can create an increased need for reactive maintenance and works such as flood clearance. We ensure that funding is available to respond to these situations.

7. What do the drainage operatives do when they clean the drains?



First an operative inspects the drains and notes any damaged or missing covers. If a cover is missing, it is reported to the team in the depot so that a temporary cover can be put in place to make the drain safe.

Next any silt and debris is removed from the drain with a large vacuum pump.

Finally the crew flood test the drain by filling it with water and checking that it is able to flow away.

On completion of each job, the operatives record the number of drains that they have cleaned and any defects that they have found are recorded.

We have a short film on our website explaining in more detail how we maintain our roadside drains:

http://www.kent.gov.uk/roads-and-travel/what-we-look-after/drainage-systems

8. How much does it cost to clean a standard roadside drain?

Depending on the location and number of drains to be cleaned, the cost of cleansing ranges from around £5 per drain to £190 per drain.

We plan our work carefully to try and minimise the cost per drain so that we can do as much work as possible with the available funding.

9. What can Parish Councils do to ensure that their drains are maintained effectively?

If fallen leaves are covering the gully grills and you can safely remove them then please do. These can be disposed of in your normal rubbish bin or in a compost bin. When removing leaves from drains, be careful not to step into traffic on the road and be aware of pedestrians on pavements.

Don't lift the drain covers or put your hands into the drain as there may be sharp objects you cannot see. Wearing gloves is always a good idea if you are clearing leaves by hand.

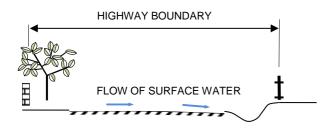
If you have blocked drains that are posing a risk to safety or affecting resident's homes and you are unable clear them, please report them. The best way to do this is with the online fault reporting tool which also allows you to track you enquiry: http://www.kent.gov.uk/roads-and-travel/report-a-problem

Please give us as much detail as you can about the location of the drains and the impact that they are having on safety, property and the local community.

Maintenance of roadside ditches

10. Who is responsible for maintaining roadside ditches?

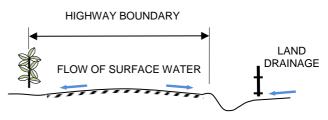
There are three categories of roadside ditch:

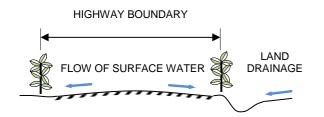


A ditch created by the Highway Authority (KCC) and owned by them solely for draining the highway is their responsibility.

Common law imposes a duty on the owner of land adjoining a highway to maintain ditches that provide natural drainage for both the land and highway.

A ditch on the road side of boundary fences and hedges taking land drainage as well as highway drainage is the responsibility of the adjacent landowner





A ditch on the field side of a boundary fence or hedge taking land drainage as well as highway drainage is the responsibility of the adjacent landowner

As the Highway Authority, we have a prescriptive right to drain the highway to any adjoining roadside ditches. We might do this by piping water from a drain into the ditch or by cutting grips between the road edge and the ditch. In these cases, the drains, pipes and grips which channel the water into the ditch remain the maintenance responsibility of the Highway Authority.

11. What can Parish Councils do to help ensure that their roadside ditches are maintained effectively?

If you are concerned about a roadside ditch in your parish the first thing to do is contact the landowner if you know who they are and feel comfortable doing so.

The local Parish Councillor could visit the landowner or you could send them a polite letter such as the following:

Dear

A polite request regarding a roadside ditch adjacent to your land

On >insert date< we noticed that a ditch adjacent to your land had become blocked and we are concerned that this may be preventing water from draining away. The location of the blockage is >insert details of the location<.

The owner of land or property adjoining the highway is responsible for maintaining roadside ditches which provide natural drainage for both the land and the highway. If the ditch is not cleared water may start to collect on the road creating a potential danger/ hazard/ nuisance (delete as appropriate) to drivers and local residents.

We would very much appreciate it if you could attempt to clear the blockage from your ditch to alleviate the problem. If you are not responsible for the property please pass this letter on to the owner or Letting Agent.

Yours sincerely

If you are unable to encourage them to clear their ditch then report it to KCC. It is particularly helpful if you can provide us with information about the location of the ditch and photographs of the water flowing onto the road. This will speed up the process explained below.

12. What can KCC do if landowners do not maintain their roadside ditches?

If poorly maintained ditches are causing water to flow onto the highway and making it hazardous to highway users, we can use our powers granted under the Highways Act 1980 to take enforcement action. This process is very similar to the process we use for dealing with private vegetation affecting the highway:

First we will write to the land owner asking them to contact us to discuss the condition of their ditches. This letter is accompanied by photographs showing the flow of water onto the road.

If we do not hear from the land owner we will write to them a second time advising that if they do not respond to our first letter we may be forced to take action and will seek to claim back the costs incurred.

If we continue to receive no response, we will write to the land owner for a third time advising that if they do not contact us within the next 14 days we will take action to stop water flowing onto the road and claim back the costs incurred.

It can take up to six months to complete the enforcement process as we need to give landowners time to take action, carry out inspections and fit any works that we might do into

our routine works programme – if the works are not urgent for safety reasons, we prefer to do ditching in the drier months.

Prevention of water flowing onto the highway

13. What can Parish Councils do when water is flowing from adjacent land onto the road or footpath?

As with ditches, if you are concerned about water flowing onto the road or footpath, the first thing to do is contact the landowner if you know who they are and feel comfortable doing so.

You could send them a polite letter such as the following:

Dear

A polite request regarding water flowing from your land

On >insert date< we noticed that water is flowing off your land and onto the road/ footpath (delete as appropriate). The water appeared to be flowing from >insert details of the location<.

If the flow of water is not stopped it may start to collect on the road creating a potential danger/hazard/nuisance (delete as appropriate) to drivers and local residents.

We would very much appreciate it if you could take steps to stop the water flowing onto the road/ footpath. If you are not responsible for the property please pass this letter on to the owner or Letting Agent.

Yours sincerely

If you are unable to encourage them to take appropriate action then report it to KCC. It is particularly helpful if you can provide us with information about the location of the problem and photographs of the water flowing onto the road. This will speed up the enforcement process.

14. What can KCC do if landowners do when water is flowing from adjacent land onto the road or footpath?

If inadequate drainage is causing water to flow onto the highway and making it hazardous to highway users, we can use our powers granted under the Highways Act 1980 to take enforcement action. This process is the same as the process explained above for dealing with poorly maintained ditches.

Drainage Repairs and Improvements

15. How do KCC know when repairs and improvements are required?

When flooding occurs the first thing we do is clean the drains that are already there. If this doesn't stop the flooding then we may need to repair or improve the drainage system.

If the cleansing crew is able to find an obstruction or break when they jet the pipes, we can arrange for a crew to dig down on the blockage, investigate what is causing it and repair the pipe. If the location of the problem is unclear we can check the condition of the pipes with a CCTV camera.

Sometimes repairing the drainage system doesn't stop the flooding for example when a soakaway has failed or when the system has insufficient capacity. In these instances we need to consider improving the drainage system.

16. How are repairs and improvements prioritised?

When repairs or improvements are needed our Drainage Engineers look at how much work is required, what traffic management is needed and the risk that flooding poses to road users and residents:

- If the road floods, does it create a hazard to road users?
- If the road floods, does it cause a lot of disruption?
- If the road floods, are people's homes affected?

When we don't have enough budget to do everything, works are then prioritised and delivered on the basis of the highest risk sites first.

17. Can Parish Councils influence where we do repairs and improvements?

We need to make sure that we invest the budget that we have consistently across the county and the approach outlined above enables us to do this.

If there is a site in the Parish that is causing particular concern, report it to us and encourage the residents who are affected to do the same – we often look at the number of enquiries we have received to help us understand the level of disruption caused by the flooding. The best way to do this is with the online fault reporting tool which also allows you to track your enquiry: http://www.kent.gov.uk/roads-and-travel/report-a-problem. You will be able to see when the site has been inspected, whether or not we plan to do further work and when the works are completed.

To contact the Highway Drainage and Flooding Team for more information and advice, please call the Contact Point on **03000 41 81 81** or visit our website:

http://www.kent.gov.uk/roads-and-travel .

By logging an enquiry you, your local Highway Steward and any member of the Highway Drainage & Team can track your enquiry and provide you with the latest information and updates when you want them.

