

Road Gullies and Drains

Caerphilly County Borough Council is the Highway Authority and as such, under the Highways Act 1980, has a statutory duty to maintain all public roads and pavements forming the highway in the Borough. A vital part of this maintenance is drainage.

New roads include designed drainage systems intended to remove water efficiently from the surface of the highway to provide a safe passage for all vehicles and pedestrians. Older roads may have less sophisticated drainage, but all have features designed to take the water away from the road surface. In some rural areas or on very minor roads, this may simply be a ditch leading to a watercourse. However, the law recognises that it is impossible to completely drain the highway in all circumstances so for example during torrential rainfall a driver must exercise reasonable care based on the conditions at the time.

It is necessary to clean and maintain these drainage provisions so that they can work properly. Most gullies in CCBC connect through a drain pipe typically 100mm or 150mm in diameter to the main combined public sewer, usually in the road. This can be either a surface water sewer which eventually will discharge into a stream / river / sea or the “combined” sewers where it ends up at the treatment works mixed with all the other sewage for treatment. Occasionally they will drain to a soakaway in the verge.

Typical Gullies



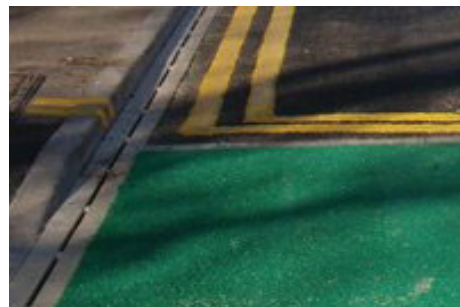
Typical Side Entry Gullies



Typical Kerb Drains &



Slot Drains



Pedestrian Channels &



Drainage Gratings



Cleaning Gullies

Gullies are normally cleaned by lifting the metal grating or cover, washing the frame removing any vegetation prior to drawing all the detritus out using a gully sucker machine. When the gully sucker is full the material has to be taken to a special licensed tip to comply with the requirements of The Waste Management Regulations.

Most gullies are designed to trap smells coming back up from the pipes but in very dry weather they can dry out and allow smells to escape. This can usually be easily solved by refilling the gully pot with water up to the trap level.

Problems can occur even when drainage installations are clean and well maintained. When the volume of water arriving on the highway is greater than the capacity of the drainage facilities designed to take it away, roads can become flooded or waterlogged. This can be caused by exceptional rainfall, a road being located in a low-lying area, change in "run-off" from adjacent areas, or rivers overflowing etc. Material carried into the drains by floods can also lead to them becoming blocked. Drainage grills and gratings (e.g. on gullies) can become blocked very quickly when materials like mud is deposited on the road or when there is a heavy leaf-fall especially in the Autumn.

Many gullies have old brickwork chambers underneath or old pipes which have settled or are cracked and these can leak. There is no general requirement for the Highway Authority to prevent this or standard to be achieved.

Water is directed to drains by the road profile. Puddles (ponding) tend to occur if there is a depression in the road. Where feasible/prioritised or deemed appropriate, this can be rectified by localised patching of the road surface or reprofiling of the road.

Gully crew cleaning a gully & Jetting a Manhole



Flooding on or from the Public Highway



The Well Maintained Highways - Code of Practice for Highway Maintenance Management, July 2005, recommends that all highway gullies should be routinely cleaned once a year. In Caerphilly the county is divided into 3 areas, each area covered by a gully machine and a 2-man crew. The crews are issued with a schedule to ensure that each gully is cleansed at a minimum one a year but in areas prone to flooding or increased amounts of debris, they are cleaned twice, three and even four times a year. In times of inclement weather priority will always be instances of flooding or other urgent tasks (like gritting in winter) in order to minimise inconvenience to road users.

The position of all the CCBC's gullies have been logged on a computerised mapping information system and total over 34,000 at the last inventory. The gully sucker lorries are fitted

with GPS tracking which will shortly be able to provide a link to allow residents to see when a particular gully was last cleaned.

Reports of a Blocked Gully

The Gully Crew, a Drainage Engineer or Highway Inspector will investigate any report of blocked gullies and will decide on the required action.

Actions include any or all of the following:- jetting of the pipeline, camera surveys, excavation and/or pipe-line and if necessary, replacement of gully covers, gully pots and pipework.

Some of the problems experienced during the gully cleansing operation are:

- Gullies that have been used for fly tipping, even containing car batteries, sump oil, garden refuse or hardened concrete. This is illegal and the authority can prosecute any body found fly tipping
- Unable to open a gully cover
- Solidified contents which need excavation.
- Damaged Cover
- Vehicles/skips etc. parked over gullies which are programmed to be cleaned.
- Gully covers stolen.
- Gully covers dropped into the gully, which may then requires excavation and replacement of the pot.
- Collapsed or blocked outlet or pipe

Any problems should be reported to the Customer Relations Management Team on 01443 866511 giving the road name, gully position and as much detail as possible such as an adjacent house or lamp column number, the name of the customer and a contact telephone number or email address is normally requested to allow officers to advise the customer of the actions that have been taken as a result of the service request.