

The best time to inspect your gulleys is during or immediately after heavy rain, as this will let you identify any problem areas easily. Faulty gulleys and drains will result in water seeping into the foundations of your building.

## Gulleys



There are a number of different arrangements for making the connection between downpipes and drains so it is important to find out what type of system your building is equipped with.

Talk to your architect or surveyor to establish where the water goes when it leaves the building. Does it discharge into a soakaway, a surface water drain or a combined system? In many cases, there will be a *gully* underneath the bottom of the downpipe. If the rainwater discharges into a combined system, it will be a 'trapped' *gully* to prevent smells rising up from the sewers. This type of *gully* is also recommended where the rainwater discharges into a surface water system.

Trapped gulleys should have water in the bottom of them in the same way that there is water in the bottom of a toilet bowl. If there is no water this might indicate that there is a crack at the base of the *gully*, allowing water to drain into the ground near to the foundations where it can cause damage. Dry gulleys should therefore be investigated and replaced if found to be broken. You should also check that the water from the downpipe is discharging into the *gully* and does not spill over the ground. If the water is not caught by the *gully* it may be necessary to alter the system to ensure that water is carried away as quickly as possible. Remember to inspect the grating or grille and check that it is in good condition and able to stop debris falling into the *gully*.

**Action point** Gulleys should be cleaned out regularly and any silt and debris removed to ensure that water drains away freely. As with gutters, inspecting gulleys during or immediately after heavy rainfall can help to highlight problems.

If a drain is blocked, a backlog of water may appear at the gully or the gully may clear very slowly. If a blockage is suspected the drains should be rodded to ensure that they are working properly.

A simple set of drainage rods can be obtained inexpensively from a good hardware or DIY store.

When cleaning gulleys, be sure to wear heavy rubber gloves and take care, as it is not unusual to find hypodermic needles in such places. Needles are a hazard as they may carry infection and should be treated with extreme caution. Many local authorities operate specialist services with a member of staff to deal with needle finds. Specialist waste companies will collect and dispose of needles and other hazardous objects routinely or by appointment.

**Action point** Some newer types of gully incorporate silt traps, which collect loose gravel, silt, leaves and debris. These should be checked and emptied at least quarterly and also after heavy leaf fall. This will substantially reduce the risk of the gully blocking and also the need for rodding.

## Ground gutters



Some buildings will have a perimeter drainage channel or ground gutter running around the building. It is not ideal to have hard surfaces such as brick, stone flags, tarmac or concrete laid against the edge of the building as water tends to splash back onto the wall surface keeping it permanently saturated and encouraging the growth of algae and moss.

However, it may not be possible to alter the existing arrangements in the short term. In this case, it is important to check that the *pointing* between the bricks or flags is in good condition so that water does not seep down into the foundations through cracks and open joints. Remember that the goal is to get water away from the building as quickly and efficiently as possible. Inspecting the ground gutter on a rainy day will help you to identify problem areas.

## Surface water drains



Surface water (storm) drains need to be checked to ensure that water is satisfactorily carried away from the structure as they carry large quantities of water discharged from roofs and rainwater goods. If the water is not properly discharged, it will seep into the fabric of the walls and promote decay at low level.

This may affect finishes such as plaster and paint and can affect the stability of foundations. Particular attention should be paid to the disposal of surface water where discharge positions are close to the building.

**Action point** Water butts are a good way of saving water to use in the garden but make sure that there is a method of dealing with any overflow. Excess water should drain into the surface water system and not be allowed to dissipate into the ground where it can cause damage to foundations.

## Foul and combined drains

Foul drains carry the waste (grey) water from sinks and toilets to the public sewer. If this waste water or effluent is mixed in with the surface water, it is called a combined system. A yearly inspection of all accessible drains, manholes, inspection chambers and outlets is advisable. If you suspect a blockage you may be able to clear it using drain rods, otherwise seek professional advice.

It is now possible to use CCTV technology to inspect drains and some repairs can be carried out without disturbing the ground above. Inspection chambers and manholes should be cleaned and repaired as necessary.

## Soakaways



Soakaways are a type of 'infiltration device' - a way of dispersing surface water in situations where it is impractical or impossible to make a connection to the public sewer system.

Many older soakaways are little more than a hole in the ground filled with old bricks, clinker or gravel, whilst modern soakaways are usually empty chambers constructed from prefabricated units. Although soakaways should not require much maintenance, their effectiveness can decrease if there is a build up of silt.

**Action point** It is a good idea to lift the cover and check for silting or contamination every few months or so. Any build-up of silt at the base of the soakaway chamber can be removed manually during dry conditions when the soakaway is empty.

Occasionally, older soakaways will cease to function because they have become entirely blocked with silt and mud. In this case, the only remedy is to excavate and rebuild the soakaway.