

What is a filter drain?

A filter drain (also known as a French drain) is a gravel-filled trench which collects and conveys surface water as well as allowing water to drain into the surrounding ground. They also reduce pollution by slowing down flows and filtering the rainwater run-off prior to entering watercourses, increasing biodiversity whilst having a low-maintenance garden

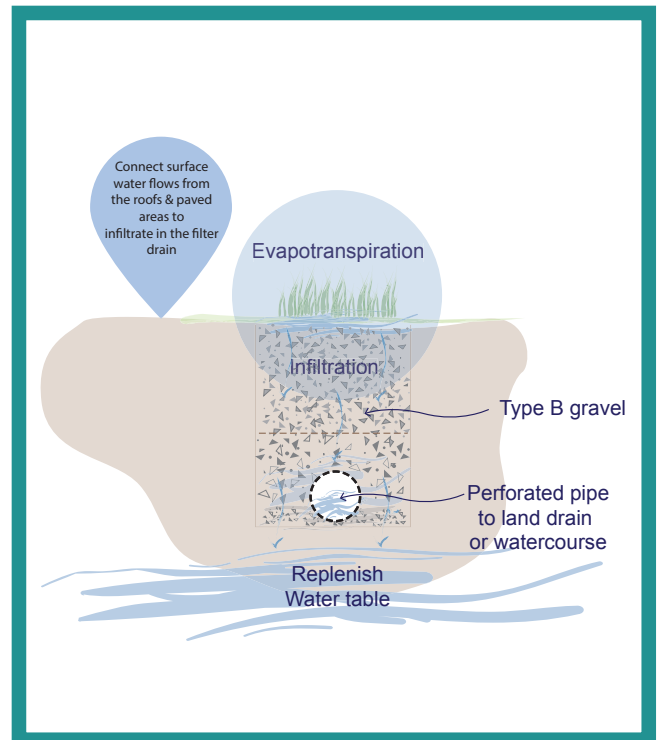
When might I use a filter drain?

Filter drains are ideal for collecting run-off from drives and roads as well as point sources such as roof downpipes.

As they are typically shallow they can be relatively cheap and straightforward to install. The filter drain can be installed to convey surface water as well as provide infiltration by being connected to a separate feature such as a rain garden.

What do I need to consider when laying my filter drain?

- ✔ Filter drains should be laid 3m away from your property foundations; you should consider a short length of conventional pipework or a channel such as a rill to collect and convey the water from the downpipe
- ✔ A geotextile (a material which allows water through) should be used to line the trench just below the surface to prevent sediment in the gravel fill. This can block the drain, so slowing infiltration into the ground below.
- ✔ A perforated pipe of at least 75mm diameter should be incorporated into the base of the drain to act as an overflow. If this discharges to a stream or sewer a headwall must be incorporated into the design.
- ✔ Make sure you seek permission from the watercourse / riparian owner to discharge to the drain, stream or watercourse.
- ✔ The slope of the drain should not be less than 1m vertical for every 400m horizontal and ideally to maximise the slowing effect, no greater than 1m every 50m (2%)



- ✔ The drain shouldn't be laid close to or underneath trees or shrubs.
- ✔ Care should be taken to ensure that run-off, overflows and excess flows to the drain are not contaminated and only convey surface water. You must not connect to any drains discharging foul water or grey water (including sinks, washing machines etc.)

What will I need to do to maintain my filter drain?

Maintenance of a filter drain will typically involve making sure the drain is not blocked by roots or silt. Depending on the amount of silt entering the drain the geotextile and gravel fill may require renewing or cleaning.

Sources of further information

Information on designing, constructing and maintaining filter drains can be found at:

- planningportal.gov.uk – Building Regulations Part H
- sudswales.com – Filter drains