

What is a downpipe planter?

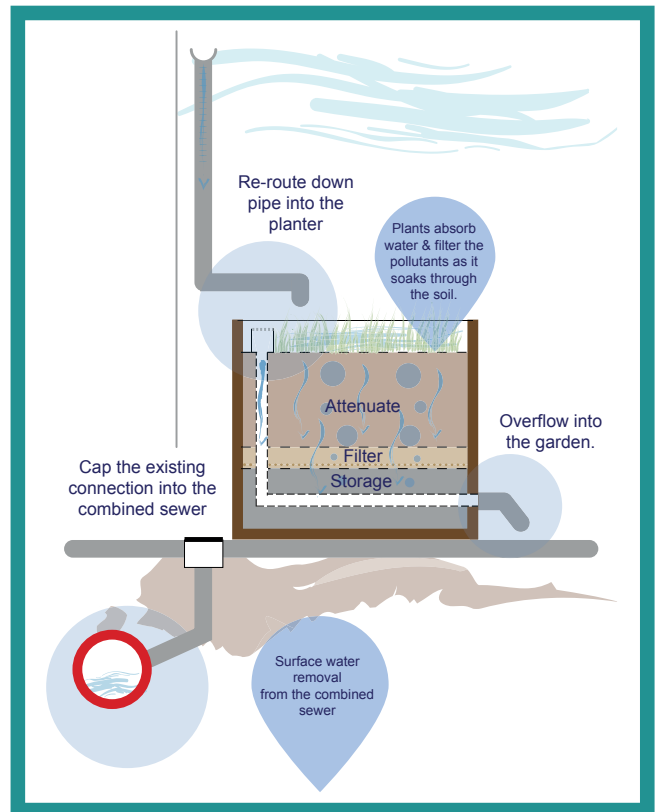
A downpipe planter is a raised flowerbed which collects roof water at the bottom of a downpipe. Typically they incorporate a layer of stone or other material in the lower portion to provide attenuation and free draining soil in the upper portion to grow plants. A high level overflow allows excess water to be drained off into other drainage systems, preferably to a rain garden or surface water sewer or stream.

When might I use a downpipe planter?

Downpipe planters are ideal for collecting run-off from roofs by disconnecting the downpipe from the existing sewer outlet and redirecting flows into the raised planter. The planter is made up of a layer of soil, gravel for drainage, and plants that can tolerate times with high rainfall and times without rain. The rain passes through the layer of soil and plant roots which filter the rainwater and trap any pollutants, allowing excess water to drain down to the base. If the soil is not suitable for infiltration, a slotted drain beneath the soil can take the filtered rain water and an overflow pipe on the surface prevents flooding.

What do I need to consider when planning my downpipe planter?

- ✔ The planter needs to be constructed to cope with the forces of soil and water pushing against the outside walls
- ✔ You will need a layer of soil for planting in with a gravel layer below. This needs a perforated pipe and outflow to stop waterlogging. It is best to separate the two layers with a hessian sheet across the top of the gravel to stop soil particles clogging up your drain below
- ✔ You will need a high and low level overflow to the ground to stop water logging in the planter. This could be a soakaway, rain garden, stream or sewer. (Discharging from the downpipe planter into a sewer may not qualify you for funding or a reduction in water bills)
- ✔ An impermeable membrane (a material which does not allow water through) should be used to line the planter if the planter itself is not watertight.



- ✔ The larger the planter the more of your roof water it will intercept. An annual summer storm in the South West will typically have 11mm of rainfall. You can multiply that by your roof area to see what proportion of the flow your planter will retain.

What will I need to do to maintain my downpipe planter?

Maintenance of a downpipe planter will typically involve making sure it doesn't become waterlogged. This may occur because of roots or silt blocking the overflows. Ensure the plants are maintained as per their individual needs.

Sources of further information

Information on designing, constructing and maintaining downpipe planters can be found at:

- riversides.org — Rain Garden Guide
- oregonstate.edu — Stormwater planters
- water.epa.gov — What is green infrastructure?
Planter boxes