10,000 Raingardens for Scotland

Please only use this leaflet as inspiration for your raingarden project, and not as building instructions.

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Get inspired!

NEIGHBOURHOOD RAINGARDENS

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Where does the water in your neighbourhood go?

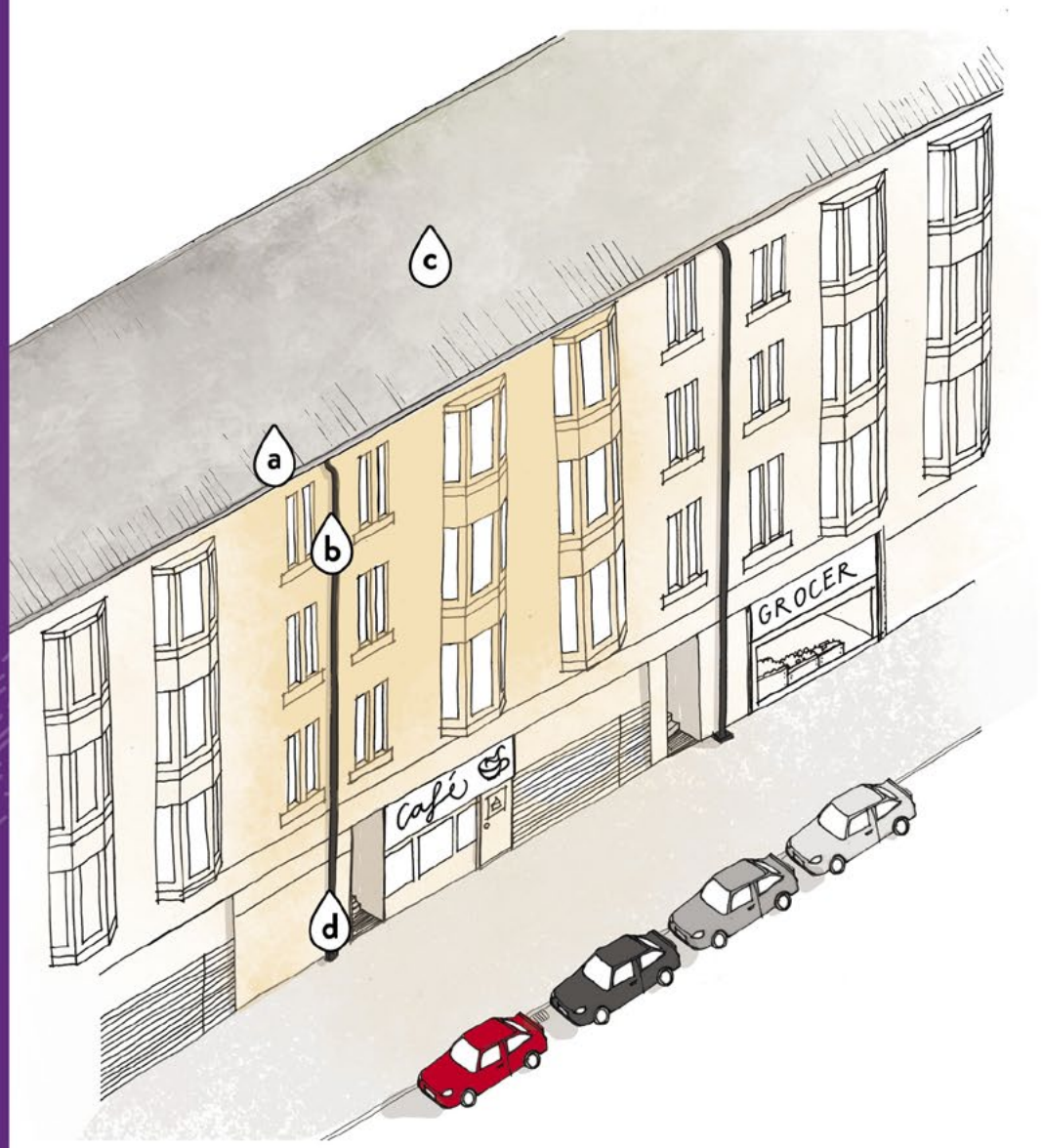
A neighbourhood like this can be seen in many towns and cities. The pavements are hard tarmac, the roads too. Rainwater washes off the pavements and roads into the street gutters and down the drain to the sewer. Downpipes also take rainwater from the roof gutters off the buildings and into the sewer.

Other pipes also take dirty water from the bathrooms, sinks and kitchens of all the shops, offices, houses and buildings into the same sewer. Dirty water from all the toilets is called foul water, the water from all the different sinks, kitchens, carwashes is called grey water – as it's not as dirty.

We often have combined sewers which mean the rainwater, grey water and foul water all go to the same sewer pipe, they mix together and all get treated at a sewage works.

Our climate is changing, and we are having more and more heavy rain showers where a lot of rain falls very quickly. Our sewers were built a long time ago and are too small. When it rains heavily the rainwater fills up the sewer, and there is nowhere for the water to go. This causes flooding as the drains are full. It can also cause overflow valves (called combined sewer overflows) to open and a mixture of foul water, greywater and rainwater to go into our rivers, causing pollution.

But what can you do about it?



a Gutter
b Downpipe
c Roof
d Drain

e Living roof
f Swale
g Permeable paving
h In-ground raingarden
i Raingarden planter

You can help reduce flooding and stop dirty water overflowing into our rivers by slowing down rainwater on its way to the sewer. You can do this using raingardens. You may also hear raingardens being called sustainable drainage or SuDS.

Raingardens use plants, soils and the landscape to hold onto rainwater and then slowly release it. They also help reduce the amount of water which gets to the sewer. Some water is taken up by the plants, some rainwater finds its way back down into the ground, and some water will evaporate. Raingardens also help clean the water, which may have picked up dirt from the roofs and roads.

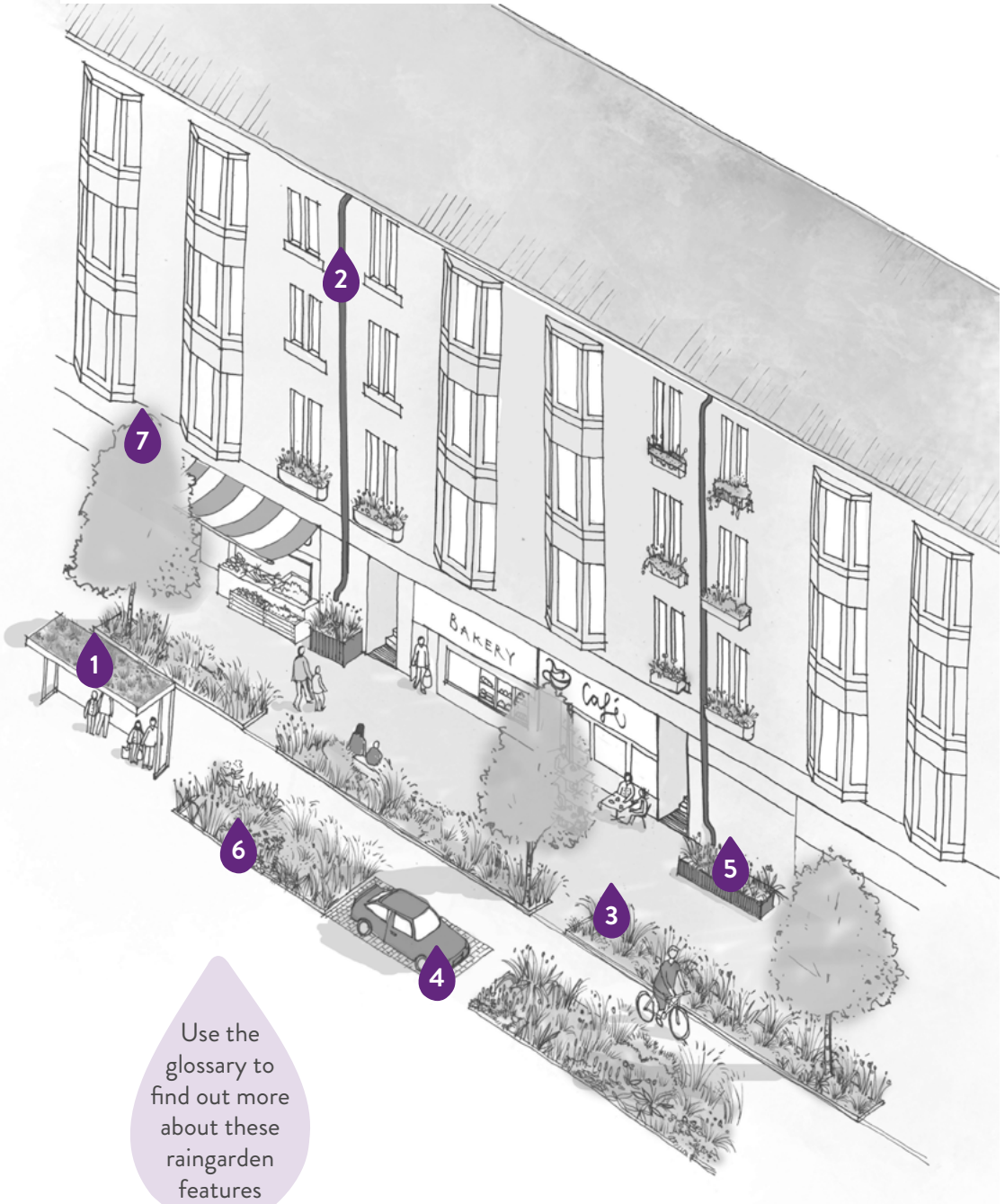
This neighbourhood has used raingardens to slow down the rainwater. You can see raingarden planters, swales, in-ground raingardens, even a living roof on the bus shelter! You could help in your neighbourhood by speaking to businesses or shops about raingardens, finding out whether they would like to build one, and by writing letters or sending drawings to your Council about changes you'd like to see.

Why not just build bigger sewers?

We could build bigger sewers, but this is expensive and may not be the best solution. Rainwater doesn't need to be sent to a sewage works before it finds its way back to the river. Raingardens also give other benefits to us humans and to wildlife.

Raingardens can provide us with beautiful places to sit, walk through and look at. They provide a space for nature, giving insects and birds a home and food. The plants which grow in raingardens help improve air quality and water quality. By slowing down the rainwater, and stopping it getting to the sewers so quickly, raingardens help to reduce flooding and protect our rivers.

Raingarden glossary



Use the glossary to find out more about these raingarden features

1. **Living roof** – a bit like a raingarden in the sky! Similar to a green roof, living roofs may have materials such as crushed brick or poor soils spread on them. Plants that like these conditions are planted or allowed to blow in. They may have piles of stones or logs for insects to live under. The materials and plants slow the water down and provide habitat and space for nature. A **green roof** is similar but uses different soils and planting - this bus stop could have had either type.
2. **Downpipe** – the pipe which takes the rainwater off the roof from the gutters and into the drain.
3. **In-ground raingarden** – a shallow depression (a dip) which can hold rainwater, and then let it sink back into the ground, or overflow into another raingarden. These can be planted with carefully chosen plants. These are also called 'bio-retention' areas.
4. **Permeable paving** – paving which lets water through, usually through small gaps, and into a layer underneath it. Good for holding water, but this paving has fewer benefits for humans and wildlife.
5. **Raingarden planter** – a planter which catches rainwater coming from the downpipe. The water flows through the plants and soil in the planter, then down through different layers of gravel, before coming out of the planter. Free draining soil is used so the plants don't get too soggy.
6. **Swale** – a wide, shallow ditch, planted with plants, which collects rainwater runoff. The water flows down the swale and out at the lower end. Sometimes swales have small dams in them which help slow the water. Sometimes the dams are designed to be walked across, and you may also see small bridges across swales.
7. **Trees** - these are an important part of green infrastructure and also intercept rainfall.