



# PROPERTY LEVEL SuDS

Sustainable Drainage Systems, often called SuDS, are features designed to manage and store rainwater in an eco-friendly way. They work like nature does, gathering rainwater to ease the load on drains and watercourses during times of heavy rainfall, which lowers the risk of flooding.

This booklet explores different types of SuDS features you could install at your property including water storage (rainwater harvesting), 'greening' and permeable surfaces to help manage rainwater locally.



## Options and benefits of property level SuDS

Urban areas often use non-permeable materials on roads and driveways, preventing natural drainage. During heavy rainfall surface water runoff from roads and built-up areas overwhelms drainage systems resulting in flooding. SuDS help to reduce urban flooding by capturing rainwater, slowing the flow and decreasing the amount of surface water entering the sewers, they release the rainwater slowly back into the drains after storms have passed. SuDS also provide other benefits for the environment including increased biodiversity, improved water efficiency and pollution reduction.

### Raised rainwater SuDS planters - water storage



SuDS planters capture and manage roof runoff utilising rainwater to nourish plants while helping manage excess water. Rainwater is directed from the downpipe into the planter, where it is stored for plant use and released gradually through a drainage pipe. These planters have layers of drainage materials, special soil and a waterproof lining to retain water.

SuDS planters provide a habitat for a wide variety of plant species, attracting pollinators

and supporting local biodiversity. Plants like yellow iris, geraniums, ferns and flowering grasses do great in them.



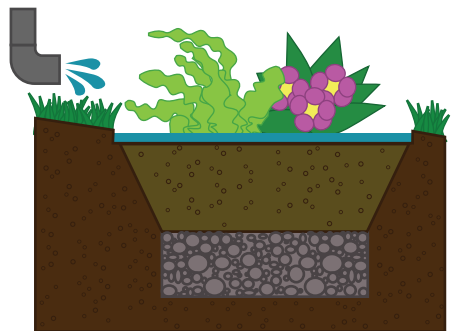
### SuDS greening



'Greening' involves adding green elements like plants, rain gardens and swales to your garden to help manage rainwater and improve the environment. These features slow the flow of water and reduce runoff as they give the rain a chance to soak in.

Rain gardens collect rainfall, allowing it to infiltrate the ground and release excess water gradually. They are

flexible in design, providing year-round colorful planting for all seasons.



## Slow-release water butts - water storage

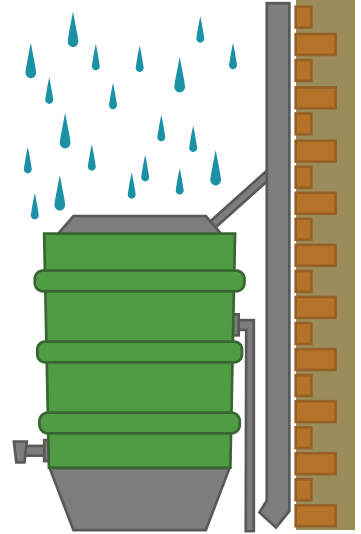


Water butts are one of the most common measures used for property level SuDS.

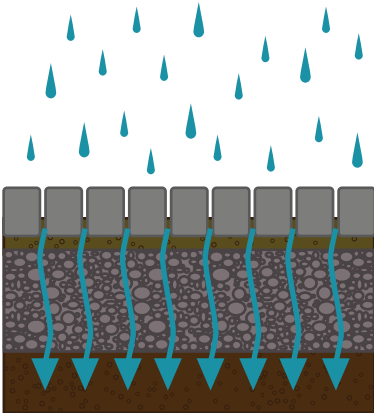
Slow-release water butts are specially designed to collect rainwater from roofs and downpipes, this is also known as rainwater harvesting. They store large amounts of water during heavy rainfall, gradually and sustainably releasing the water after storms have passed, alleviating strain on

the drainage system including surface water sewers.

The rainwater collected can also be used to water plants and lawns during times of drought helping to conserve water.



## Depaving - permeable surfaces



through and soak in, reducing runoff and helping with drainage and stormwater management. They can also help to improve water quality as the likelihood of contaminated runoff is reduced.

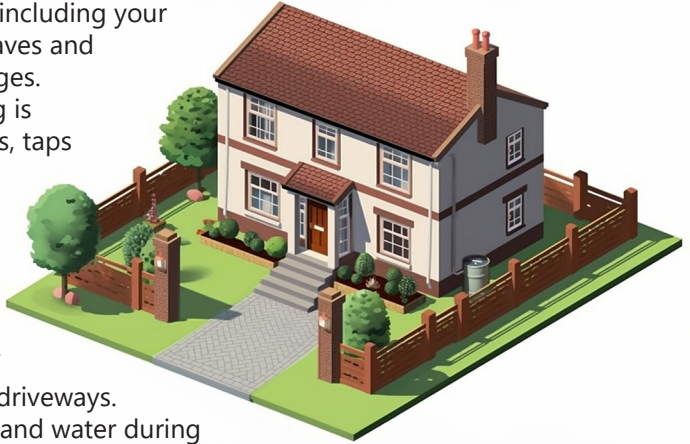
Depaving, also known as desealing, involves removing or replacing hard, paved, impermeable surfaces like asphalt and concrete to allow better water absorption. This could include making driveways, patios or paved areas in your front and back gardens permeable.

Permeable surface options could include permeable pavers, gravelled areas and reinforced grass. These materials allow the rainwater to seep



## Maintenance tips

- Keep SuDS features clean including your drains - remove debris, leaves and rubbish to prevent blockages.
- Regularly check everything is functioning – check outlets, taps and hoses for leaks, blockages and algae.
- Flush and refresh water in water butts.
- Insulate water butts and planters in winter.
- Ensure regular weeding of planters, green areas and driveways.
- Prune plants as necessary and water during dry periods.
- Check the soils are not compacted / eroded, add fresh soil as needed.
- Avoid chemicals – these can contaminate the rainwater.
- Repair potholes and depressions in driveways using permeable materials.



Following these tips, can help ensure that your SuDS features continue to effectively manage rainwater and enhance biodiversity in your local area.

## Water Neutral Garden Calculator

The Action for Silk Stream project team is working with partners CAMELLIA who have designed a 'Water Neutral Garden Calculator' web-based tool that helps demonstrate the impact that property level SuDS features could make.

Use the calculator at [mapapps.bgs.ac.uk/water-neutral-garden-calculator](http://mapapps.bgs.ac.uk/water-neutral-garden-calculator)



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