



## PRECAST CONCRETE SUDS SOLUTIONS

# Factsheet 4: Stormwater Infiltration SuDS

A new sewers adoption code *Design & Construction Guide (DCG)* came into force in April 2020 which enables water authorities, for the first time, to adopt sustainable drainage systems (SuDS). This factsheet familiarises contractors, specifiers and asset owners with a range of precast SuDS which can be used for stormwater infiltration and discharge to conventional piped drainage or natural waterways.

Precast SuDS Infiltration systems have been in use for decades and already have a proven track record of both performance and durability. Within a SuDS scheme, such components are used within an integrated approach where a combination of natural and engineered solutions is employed to manage stormwater runoff.

## Why precast?

A successful implementation of a SuDS development is likely to depend on such an integrated approach.

Precast SuDS treatment components come with a variety of advantages that make them a preferable option from a whole life point of view:

Precast infiltration systems are significantly more durable, strong and resistant to irreparable damage compared to some other alternative options. Precast infiltration systems are also accessible, making them easier to maintain during their long service life.

These systems can also resist fires and attacks from rodents attracted to some natural features within SuDS.

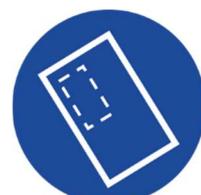
Precast Infiltration SuDS are also sustainable and can be used in light or high traffic surfaces, car parks, footpaths or lawns. Such systems do not require any significant land area within site and wouldn't pose a hazard to children and users of the development.



Durable



Resists fire



Resistant to lateral forces



Accessible



Resists Rodents' damage



Sustainable

## SuDS Infiltration components

A variety of surface water precast infiltration components are available for use in SuDS schemes:

### Soakaways

Soakaways are below-ground manhole structures designed to allow stormwater to infiltrate into the ground. Soakaway chamber rings include perforations and are surrounded with aggregate or other filler material to enable infiltration below ground.

Soakaways can be built under lawns or car parks with some distance from buildings to avoid any impact on foundations.



### Perforated precast troughs

A modular system comprising of trough, and rising, for varying heights, and lid for easy maintenance access.

This efficient trackside infiltration drainage option is used where the risk of siltation from run off is medium to high and a high hydraulic capacity is required.



### Rain garden surround/ biofiltration units

Rain garden surround and biofiltration units are cuboid underground precast concrete units designed around and under roadside rain gardens or trees to help control rainwater and intercept surface water runoff through bioretention to enable its infiltration and discharge to different waterways.



For product information, please contact BPDA members

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