

# SCAPE news

No 1 January  
2018

Shaping  
Climate  
Change  
Adaptive  
PlacEs



*Flooding caused by July 2014 storm in [Warmdene Road, Patcham](#) (left) and [Norton Road, Hove](#) (right)*

Welcome to **SCAPE News** - the first in an occasional series. If you haven't already heard about **SCAPE**, this newsletter has been produced by **Brighton & Hove City Council** to explain the project and what it hopes to achieve.

**SCAPE** will be exploring and testing innovative ideas aimed at helping to reduce the risk of flooding to vulnerable properties in two neighbourhoods in the city (parts of **Patcham** and **Hove**).

You may be surprised to know that Brighton & Hove is ranked 8th in the top 10 Flood Risk Areas in England. Despite its coastal location, the principal flood risk in our city is not from the sea, but from surface water 'run-off' resulting from very heavy rainfall. With extreme weather incidents becoming more frequent, this type of flooding is becoming an increasing problem.

Our project in **Patcham** will be focussed on a section of **Carden Avenue** and aims to test ideas that could help reduce water build-up on **Warmdene Road**, a known problem area for flooding. Our project in **Hove** will be focussed on **Norton Road**, with the aim of reducing the risk to local basement properties and nearby properties on the seafront where flooding has also been a problem.

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# Surface water flooding

Surface water flooding arises when local drainage systems become unable to cope with the volume of surface water caused by an intense burst of rainfall. This can result in a rapid build-up of surface water which cascades down roads, gardens and open spaces, gathering in volume and momentum at an alarming rate. Properties can - and do - get flooded as a result, creating misery and hardship to those that are affected.

It has been estimated that over 30,000 properties in our city are at some risk of flooding. This high figure partly results from the large proportion of properties with basements (many of them basement flats) which are located below street level.

The **SCAPE** project will examine ways of introducing small scale and relatively low cost measures aimed at helping to divert surface water run-off away from vulnerable properties. **SCAPE** is also looking at how such changes can provide additional environmental and community benefits, so that they serve a wider function than their occasional flood-prevention role. This approach has been described as 'landscape-led design' and requires a detailed examination of the local topography, landscape, roads, pavements, open spaces, vegetation, etc. It considers how these factors can affect surface water flows during periods of intense rainfall and how physical changes can be introduced to help guide water away from vulnerable properties that may be prone to flooding.

## Examples of landscape-led design

There are many ways in which the local landscape can be modified in a way that helps protect properties from flooding, while providing for a range of other needs and uses. Here are some examples:



*Roadside rain garden/bio-retention area (Enfield, North London).*



*Reversed road camber to channel surface water flows into middle of street and away from properties (Tholen, Netherlands).*



*Watertight barrier on edge of car park to retain surface water and prevent run-off into adjacent residential properties (Tholen, Netherlands).*



*Permeable paving on parking area, allowing water to soak away into ground.*

## What changes will be introduced in Carden Avenue and Norton Road?

We don't currently know what changes we will be testing in our two pilot areas. We will be inviting suitably-experienced companies to submit proposals in January 2018. Proposals will need to take on board the detailed information on each of the areas that we have collected from a wide range of sources, such as Southern Water, council officers, other water and drainage experts, and will include information provided by local people who live in our pilot areas and have detailed knowledge of their neighbourhoods.

We will be using computer modelling provided by Southern Water to help assess the degree to which proposals may divert and store surface water and help reduce flooding. We will also be assessing the wider community and environmental benefits of the submissions. The best proposals will form a public exhibition in early 2018. Feedback received from the public will help in selecting the winning proposals.

## Why focus on Carden Avenue and Norton Road?

We are limited to two pilot areas for the **SCAPE** project. We have chosen **Carden Avenue** in **Patcham** and **Norton Road** in **Hove** as our test areas. This is because both have been prone to surface water flooding and we have a wide range of useful information on these two areas that will help inform the design process.

**Carden Avenue** in **Patcham** sits at a midpoint of a 'flow path' where surface water runs from the hilltops, down inlets and roads and collects in the valley bottoms, where drainage systems have been unable to cope at various times of intense downpours. [\(continued on next page\)](#)

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If appropriate measures can be introduced in the landscape to reduce surface water runoff (by diverting and containing some of it along its path of flow) there is potential to reduce the volume of water that gathers at the valley bottom where some properties in **Warmdene Road** and beyond have suffered the consequences of flooding.

**Norton Road** in **Hove** has a very different character to Patcham. It is part of a dense inner city area where some basement properties have suffered from surface water flooding in recent years. If water flows can be partly contained and diverted in and around **Norton Road**, there may be potential to prevent or reduce flooding of its vulnerable basement properties, as well as properties further down the flow path on the seafront.

## More on the SCAPE project

**SCAPE** stands for 'Shaping Climate change Adaptive PlacEs'. It is funded under the European Union's 'Interreg 2 Seas' programme. The project will run until 2020.

**Brighton & Hove City Council** is one of a number of partner authorities involved on SCAPE. The lead partner is the City of Ostend. Other partners from Belgium are the Province of West Flanders, FARYS (the regional water board) and the Flemish Environment Agency. Partners from the Netherlands are the Municipality of Middelburg and their Waterboard Scheldestromen. Partners from the United Kingdom are **Brighton & Hove City Council** and Kent County Council.

All **SCAPE** partners are running pilot projects in their areas and are sharing and benefitting from each other's experience and expertise.

## How will local people be involved?

We have already held 'stakeholder' meetings earlier in the year – two in **Patcham** and two in **Norton Road** – where local residents have had the opportunity to hear about **SCAPE**, ask questions and share their views. We have also benefitted from local people sharing their detailed knowledge of their neighbourhoods. This localised knowledge has been very helpful in determining the problems that need to be addressed.

We will be holding further stakeholder events and keeping local people updated via further meetings, newsletters and other actions. If you would like to be included on our mailing list please:

- send an **email** to [scape.carden@brighton-hove.gov.uk](mailto:scape.carden@brighton-hove.gov.uk) for the **Carden Avenue** pilot or [scape.norton@brighton-hove.gov.uk](mailto:scape.norton@brighton-hove.gov.uk) for the **Norton Road** pilot; or
- **write** to SCAPE Project, Brighton & Hove City Council, Planning Policy, Projects and Heritage team, Hove Town Hall, Norton Road, Hove BN3 3BQ

**Further information:** [www.brighton-hove.gov.uk/scape](http://www.brighton-hove.gov.uk/scape)

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