London's sewer network was built in 1865 as a combined sewer network, taking both wastewater and rainwater to cater for 2.5 million people at the time. The sewer network has been extended over the years but parts of the historic network are still in use today.

Today London's sewer network has to cater for 9.5 million people to safely remove wastewater (water originating from toilets, showers and sinks) as well as surface water run-off from roads, roofs and other impermeable surfaces.

Where water was previously able to infiltrate into the ground the effects of urbanisation, construction of new houses, roads and footpaths creates more and more impermeable surfaces where water can no longer infiltrate into the ground but is being directed to the sewer network.

Once in the network the water in the combined sewer is directed towards wastewater treatment plants where the water is cleaned in several stages and at the end is fed back into the nearest river.

During significant rainfall events only 10% of water in the sewer is actual wastewater with the remainder of 90% being just surface water runoff which puts extra pressure on the network.

Once the sewer network runs out of capacity it either backs up and causes surface water flooding in streets and neighbourhoods or is released untreated in our water courses polluting the environment and our rivers which are an important source of our drinking water.

Peckham Rye Common is already acting as a natural buffer during the flood event. However, through the analyses undertaken, two low lying and wet areas were identified that can be enhanced to protect more properties (Area A) and to improve the common at the same time (Area B).

The aim of the Lost Peck Scheme is to alleviate flood risk north of the Common by collecting surface water flowing north along the course of the “lost” River Peck, and discharging the collected flow into the sewer network. It also uses this opportunity to approach the issue in a sustainable way by improving local amenities of the park and enhancing the biodiversity.

The term resilience refers to a broad variety of elements that can slow down the amount of water entering the combined sewer.

These elements, such as rain gardens provide a means of temporary storage of water during heavy rain events. This can create capacity in the network allowing it to deal with a manageable amount of water without allowing the system to back up. Once the system has regained capacity after the rainfall the water that was temporarily stored can be discharged in a controlled manner without overwhelming the system until all the water is gone.

These elements can create natural and green spaces, providing amenity value and recreational uses as well as biodiversity enhancements, create livable environments in our dense cities whilst protecting the residents and infrastructure.
Lost River Peck Flood Alleviation Scheme
Proposals

**Legend**
1. Mound against E. Dulwich Road
2. Mound against Peckham Park
3. New permeable surfacing for footpath along E. Dulwich road and width provided for cycling
4. Biodiversity improvements
5. Bulb planting
6. Extension of green space

**Figures**
- Fig. no 8: Mastermap of Peckham Common and Park with proposals
- Fig. no 9: Proposed Concept Masterplan

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Lost River Peck Flood Alleviation Scheme

Proposals

Fig. no 17: Concept sections through mound

- Section AA through mound
  - Mound against E. Dulwich Road
  - +0.2m Common

- Section BB through mound
  - New permeable surfacing for footpath along E. Dulwich road and width provided for cycling
  - +1.0m Common

- Section CC through mound
  - Seasonal flower planting (bluebells)
  - +0.3m Common

Fig. no 10: Concept sections through mound

Fig. no 11: Artist Impression of proposed mound and improved spaces for cyclists

Fig. no 12: Location of proposed mound near East Dulwich Road; the 'donkey rail'

Fig. no 13: Northern triangle, proposed location for bulb planting and natural play

Fig. no 14: Natural play area example in Hackney council

Fig. no 15: Seasonal Interest planting example in Muscari Road

Fig. no 16: Northern Triangle Plan
Expected benefits

PREVIOUSLY, THE PARK SUPPORTS A RICH NATURAL HABITAT WITH A WIDE RANGE OF TREE SPECIES. THE COMMON ALSO PROVIDES MULTIPLE ENVIRONMENTAL BENEFITS TO THE LOCAL COMMUNITY.

The proposed scheme with the temporary water storage during significant rain events will reduce the flood risk to 120 properties by making careful modification of the existing common and park without adverse impact to the public. The scheme will also include the resurfacing improvement to the southern footpath along East Dulwich Road and make it more accessible. Excess space along this footpath against the road will be used to create a partially segregated space for cyclists along East Dulwich Road to enhance the safety of cyclists.

Additionally, the proposed scheme incorporates new natural play opportunities, specifically around the northern triangle without interference to the existing play area around the site. Furthermore, it aims to protect mature trees around the site and densify them where possible, especially at the buffer area of the site. This helps to create a noise barrier and improve the air quality around the area. All existing ecological areas within the park are preserved as they are valuable to biodiversity and some of them are improved and made more attractive and accessible.

The scheme will aim to reconnect the split neglected green parcels of the Common and encourage active travel, creating informal gathering while retaining the open character of Peckham. All activities and amenities are maintained and used as an asset to make the Common a more attractive destination for the local community.

In order to ensure that the landscape proposal meets the aspirations and needs of the local community and the public, there were continuous public consultations and community engagement. The results and information gathered from these sessions are reflected in the outline design sketches and will constitute a base evidence to support the application for funding and the implementation of the scheme.

Some of the activities undertaken as part of the consultation process includes:

<table>
<thead>
<tr>
<th>Activity Outcome</th>
<th>Date</th>
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<tbody>
<tr>
<td>Identify Opportunities and Constraints</td>
<td>25/10/2017</td>
</tr>
<tr>
<td>Engage with consultees to develop design proposals</td>
<td>01/12/2017</td>
</tr>
<tr>
<td>Understand and appreciate the issues and local aspirations</td>
<td>17/11/2017</td>
</tr>
<tr>
<td>Engage with consultees to develop design proposals</td>
<td>01/12/2017</td>
</tr>
<tr>
<td>Address any issues raised in the comments section of the online consultation</td>
<td>08/09/2018</td>
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</table>

Table 01: Outline of the key activities in the scheme consultation process