

Ruskin Park – Come Rain or Shine Camberwell, Lambeth, London, England

Trees for Cities

BIG Biodiversity Challenge Award category: Medium Scale Permanent

Project overview

Trees for Cities and Lambeth Council collaborated to develop a sustainable approach to mitigate flood risk in Ruskin Park, an inner city Edwardian park in south London. With additional concerns over the park's declining tree numbers and biodiversity value, we took a holistic approach, combining tree planting and sustainable drainage systems (SuDS), such as a rain garden and specialised tree pits. This project demonstrates how green infrastructure can be used as an effective sustainable urban drainage system on a small scale appropriate for parks and road sides. An approach that helps reduce localised flooding whilst increasing the park's biodiversity and resilience and being attractive for the local community. The project cost around £28,000, including development, design, plant stock and materials, labour, community consultation and a number of community volunteer days, involving a total of 197 people.

What were the biodiversity conditions on site, prior to the enhancement?

Ruskin Park's trees are in serious decline – with the majority planted in the early 1900s, many are suffering from old age and disease, particularly the Ash and Horse Chestnut trees which need to be felled by 2020.

Were there any specific conditions that led to you carrying out this work?

The park is a high flood risk area, suffering from surface water flooding, causing hazard to many of the park's habitats as well as the local community. With a large number of trees in decline, there was also concern over maintaining the quality, biodiversity and aesthetics of the park, for the benefit of the local community, wildlife and the environment. The Ruskin Park Flood Alleviation Scheme report recommends SuDS, for a low cost and low maintenance approach that also deliver water quality and biodiversity.



Local Scouts group planting new trees in Ruskin Park

What were the biodiversity measures taken?

A total of 21 trees were planted in high flood risk areas around the park, selected to tolerate wet conditions and actively improve waterlogged sites. The beautiful mix of species will also provide excellent habitat for wildlife, improving biodiversity, and provide colour and visual interest throughout the year. The species mix will help to improve genotypic diversity within the park creating a greater resilience to pests and diseases and climate change.

We also transformed the overgrown area by the public toilet block into a beautiful rain garden. Like a riverbed, rain gardens are shallow depressions with absorbent, yet free-draining soil planted with trees, ferns, grasses and perennials that can withstand temporary flooding. Designed with the **Park's** Officer, the plants will also attract and support a variety of wildlife, including moths, pollinators and other insects, providing food, cover and habitat. The rain garden is designed to naturally channel and retain substantial downhill run off from Ferndene Road, including directing the overflow pipe through two specialised street tree pits and then into the rain garden. The rainwater will flow into the riverbed layer, be taken up by the plants and lost back to the air through evapotranspiration.

This project is a replicable demonstration of combining sustainable drainage systems and tree planting as a sustainable approach to mitigate flooding whilst improving biodiversity, offering an innovative, holistic approach to tackling multiple issues.



Part of the beautiful new Rain Garden in Ruskin Park

It supports Lambeth Biodiversity Action Plan targets through providing diverse wildlife habitat, supporting bats, planting important tree species such as Native Black Poplar (**Britain's** rarest native timber tree) and, through engaging people in consultation and planting activities, improving community awareness and involvement in their local park. Trees for Cities will maintain the trees for a three-year period before handing over to Lambeth Council who becomes responsible for tree maintenance as the landowner.

How would you best describe the project?

Mitigation

Further information

The rain garden was excavated in February and filled with a deep layer of pebbles, then sandy soil, to create an absorbent, yet free-draining surface, similar to a riverbed. It was then planted with 5 of the 21 new trees and a large mix of shrubs, grasses and perennials, all selected on their ability to support wildlife and withstand temporary flooding. It was then mulched to reduce competition with weeds and grass.

Tree species were carefully selected that were able to dry ground through transpiration, improve soil structure and aeration through vigorous root growth, and increase soil fertility through nitrogen fixation, giving them the capacity to tolerate wet conditions and actively improve waterlogged sites.

Local people were involved in the initial stages through flyer-ing around 100 homes by the park and putting up posters in the local area to inform people about the project. They were encouraged to get involved, such as volunteering during the planting phase of the project, ensuring a strong sense of ownership of their new trees. A total of 197 people were directly involved in engagement and planting activities, including 9 children from the 5th Camberwell Cub Scouts, residents and members of the Friends of Ruskin Park and Ruskin Community Gardens. As well as learning how to plant trees, the volunteers had the opportunity to learn more about the individual tree species and rain garden and their benefits to both people and the environment.



Volunteers planting a variety of new trees species in the park

What was your personal motivation for carrying out the enhancement?

Based in Ruskin Park ourselves, it was difficult to watch the quality of the park declining, challenged with flooding and pests and disease. Having delivered small scale SuDS projects before, this was a great opportunity to collaborate and share learning with Lambeth Council's Parks and Flood teams on a larger scale approach.