



# BLUE-GREEN CITIES IN THE SPOTLIGHT: ENFIELD

An introduction to Blue-Green Infrastructure projects in the London Borough of Enfield.

**Co-authored and designed by:** Graham Campbell & Sarah Dillon (Enfield Council), and Amy McCready (Bax & Company)

#### Becoming the greenest area in London

The London Borough of Enfield is proud to be the home of some of London's most cherished environments. The Borough's parks, open spaces and over 100 kilometres of watercourses provide a host of unique opportunities for blue-green infrastructure. The Council's strategy is to help establish Enfield as the core of blue green spaces in London to help mitigate the effects of climate change such as flooding, improve the health and wellbeing of residents, mobilise and engage communities, reduce inequality





#### and to provide a healthy habitat for our native wildlife.

Enfield Council has recently put together its <u>Blue and Green Strategy (2021-2031)</u>. The purpose of this strategy is to set out aims and goals to protect, maintain and enhance the borough's network of blue and green infrastructure in relation to various challenges ahead. These challenges involve providing more affordable housing alongside more open green spaces, accessible routes and sports facilities which will meet the needs of Enfield's growing population, and to mitigate and adapt to the impacts of climate change.

Between now and 2031, Enfield Council is aiming to create more publicly accessible green spaces and woodlands than anywhere else in London, as well as new blue features such as accessible waterways and wetlands. This will help in increasing the health and wellbeing of residents, reduce flooding from rivers and surface water run-off, remediate degraded environments, increase biodiversity and food production, promote green tourism and celebrate the rich landscape heritage.

## **Macro-Scale Woodland Creation Project**

Enfield Council's Watercourse team is in the process of **planting 100,000 trees** in a major woodland creation project in the northwest of the borough. The Enfield Chase Restoration will create a publicly accessible, sustainable woodland with plans to extend the planting strategy even further across Enfield in the future. **The woodland will consist of around 60 hectares of native species of trees on council-owned farmland, an area which was historically wooded.** A series of wetlands will also be created throughout the woodland providing a range of environmental and ecological benefits.

The woodland will have the following effects:

Mitigate the effects of climate change through the absorption of carbon dioxide. The 100,000 trees planted will capture around 234 tonnes of carbon emission per year which will help in offsetting the councils carbon emissions to zero.

Reduce the risk of flooding in Enfield as the woodland will act as Natural Flood Management. The woodland and wetlands will not only reduce the risk of flooding to the surrounding area but also to the homes downstream of Salmons Brook. Improve the air quality in Enfield through the trees absorbing pollutants.

## Medium Scale - Pymmes Park Wetlands / Firs Farm Wetlands

At Pymmes Park and Firs Farm, schemes have been designed to divert flow from a brook which had been buried underground in the early 20th century into areas of open space where new constructed wetlands have been formed. The Moore Brook is one of London's many 'lost' rivers in Enfield which flows underground in a concrete channel. Moore Brook flows from Firs Farm to Pymmes Park where it joins into Pymmes Brook. The flow from Moore Brook is diverted through various wetlands cells where pollutants, oils and sediments are filtered out, thereby improving water quality. These wetlands have provided flood storage, water quality improvements, a diverse habitat for wildlife including toads, newts, fish, birds, dragonflies and many more. They also provide spaces for people and communities to take part in recreation, leisure and learning.



These wetlands have provided flood storage, water quality improvements and have created a diverse habitat for wildlife including toads, newts, fish, birds, dragonflies and many more.





## Micro Scale - Highway SuDS

The Watercourses team at Enfield Council are consistently delivering highway SuDS across the borough mainly in the form of rain gardens. Rain gardens are a type of **sustainable drainage system (also known as "SuDS")** which mimic natural drainage. They store water and release it slowly into the drainage system and surrounding soil, helping to reduce flood risk and pollution. The rain garden plants also increase biodiversity and help to improve air quality.

Enfield Council was also involved in the London Strategic SuDS Pilot which aimed to use hydraulic modelling to illustrate the flood risk management benefits of a number of SuDS solutions across an area. This would allow for the identification and evaluation of the wider benefits of SuDS across London. One of the main findings was that **investing £35 million in delivering 5% of the most optimal SuDS would generate £190 million in flood damage reduction and £40 million in natural capital value. This shows the important impact that small scale blue-green infrastructure can have in urban areas.** 



All of this work has been conducted in the framework of the **BEGIN project.** 

To learn more about Enfield's sustainable urban drainage projects and flood risk management initiatives, follow Enfield Council's Watercourses team on Twitter (@EnfieldSuDS) and Instagram (@bluegreenenfield).

#### For more information, contact:

Graham Campbell (Enfield Council): bluegreen@enfield.gov.uk Ellen Kelder (BEGIN Project Coordinator): ETG.Kelder@dordrecht.nl

Enfield's story supports BEGIN's 4 recommendations for successful BGI implementation. For further information read the **BEGIN Policy Brief** at: <u>baxcompany.com/begin-policy-brief/</u>