

London 3D Tree Map Helps Assess Green Infrastructure



A digital map of trees created by aerial mapping company Bluesky is helping to support a range of environmental projects in London, UK. Using Bluesky's tree map, The Ecology Consultancy (TEC) and the Green Roof Consultancy (GRC) have undertaken a Green Infrastructure (GI) audit on behalf of Hammersmith London Business Improvement District (BID) to assess the quality and extent of existing GI resources and provide recommendations for enhancing urban greenspace.

Derived from aerial photography, the Bluesky tree map - called ProximiTREE - details the exact location of all trees and includes measurements of tree height and canopy extent.

Forming part of the City-wide 'Drain London' project, the work will consider all elements that form the network of natural and semi-natural spaces in the west London district. The long-term aim of the project is to increase the quality and quantity of green space and enable climate change adaptation. The study specifically looked at the contribution of trees to the urban landscape and their vital role in reducing the effects of storm water flooding, providing wildlife habitat and green corridors, minimising the urban heat island phenomena and improving the environment for residents, business and visitors.

The ProximiTREE map layer, created and supplied by Bluesky, complemented data already held by project partners such as Hammersmith and Fulham Council and the Greater London Authority and data collected during field surveys. Processed using ArcView GIS (Geographical Information System) the data underpinned the project deliverables which included a written report, maps of both existing and proposed features, workshops and a tour of the study area.

ProximiTREE is derived from accurate and up-to-date aerial photography. Using overlapping images, the exact location of every tree can be mapped and the height and extent of its canopy derived. ProximiTREE is suitable for use in most desktop Geographical Information Systems (GIS), web-mapping applications and Computer Aided Design (CAD) packages. Both 2D and 3D versions of the map are available and ProximiTREE works alongside existing Bluesky datasets such as 3D buildings, terrain models and aerial imagery.