

# Newport's urban trees

Newport's urban forest

contains an estimated  
**259,900**  
trees



**80%**

are in good or excellent condition!



**36%** are found in Newport's residential areas



**16%** are found in Newport's parklands



**13%** are found in Newport's vacant areas

Top pest and disease threats



**Chalara Dieback of Ash**  
(present)

**Asian Longhorn Beetle**  
(not present)

Most Common Species:

**Leyland Cypress**  
**Birch (Hybrid)**  
**Hawthorn**

Provide important habitat and food for wildlife



**Cherry trees** provide the most pollen and nectar across Newport



**Holly trees** provide the most fruit and seed across Newport



Provide  
**12%**  
canopy cover

**72%**

are deciduous

**28%**

are evergreen

Provide ecosystem services such as...

removing **76 tonnes** of pollution each year



That's equivalent to the annual CO<sub>2</sub> emissions of **43,435 cars!**

storing **75,700 tonnes** of carbon...

Worth **£17.2 million!**

intercepting **87,900m<sup>3</sup>** of rainfall each year

which equates to **£143,000** every year!

Worth **£481,000** annually!

...and sequestering **2,114 tonnes** of carbon a year

have a total amenity value of  
**£2.1 billion**



Have a 100yr present value of **£89.4 million**



Provide an estimated total annual benefit of **£2.2 million**



Forest Research



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# Valuing Newport's Urban Trees

## What is i-Tree Eco?

i-Tree Eco is part of the state of the art, peer-reviewed software suite from the USDA forest service, that provides urban and community forestry analysis and benefits assessments tools. **i-Tree Eco has been used to understand the composition and structure of Newport's urban forest and the benefits it provides.** This analysis can be used as a baseline to make informed decisions to better manage and maintain the urban forest, both for the present, and for future climates. The urban forest is defined as all the trees in an urban area, both public and private.

## How was the information collected?

i-Tree Eco uses a **plot-based method of sampling**. In this case, 201 plots of 0.04 ha were surveyed, resulting in a sample every 24 ha across Newport. The field data (including information about land use, land cover, tree cover, plantable space, and information on all trees present) was combined with local climate, phenology, and air pollution data to produce **estimates of ecosystem service provision**.

In addition to i-Tree Eco, this study calculated the amenity value of Newport's trees, using an amended version of the CAVAT Quick method. A risk matrix was also used to determine the potential impact of priority pests and diseases, and a short presence/absence pollinator survey and review of habitat provision was undertaken.

## What does this mean for Newport?

The information obtained from this survey and report has helped to gain a better understanding of the structure and composition of Newport's urban forest. **This can help to inform future decision making and strategy**, whilst increasing the awareness of the importance of the wider environment. The sustainability of Newport's Urban Forest has been assessed to be 'Good' in four of five indicators, only falling down in taxonomic diversity. This suggests that **the urban forest would benefit from higher species diversity**.

The use of the i-Tree Eco report can underpin planning for the future of Newport's urban forest, including the continued delivery of ecosystem services. To ensure the continued delivery of ecosystem services, recommendations for further analysis include: **an analysis of where to focus tree planting efforts, developing a tree planting strategy, and creating an Urban Forest Masterplan**. By planning where to focus tree planting it can ensure that the ecosystem services are delivered to those who need it most, and a tree planting strategy would ensure that new or redevelopment would encourage planting of appropriate species. An Urban Forest Masterplan would likely incorporate objectives such as setting specific canopy cover targets for different land uses or areas, identifying and prioritising action through planting and management, including management of pests and diseases, to ensure that tree cover is maintained. The city of Newport may also begin to manage the Urban Forest as an asset, with an appreciable return.

