

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 CO₂ emissions of
43,435 cars!

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

Worth **£17.2 million!**

intercepting
87,900m³
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**

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.

