

The supply, planting, and aftercare of woody plants

Unit Code: A/602/3936

UNIT GUIDE 2023-24

LO 1. Understand the values of woody plants in the environment

The Department for Environment Food & Rural Affairs also known as Defra defines woody plants below:

The term "woody plants" encompasses a diverse array of plant varieties, including:

- Trees: Tall plants with a single, sturdy stem made of wood.
- Shrubs: Compact woody plants, smaller than trees, with multiple stems.
- Palms: Plants with a single, unbranched stem and large, fan-shaped leaves.
- Vines: Flexible-stemmed plants that climb or trail on other structures.
- Perennial herbs: Non-woody plants that persist for more than two years.

This comprehensive definition is widely utilised in forestry and horticulture to classify different plant species.

<https://planthealthportal.defra.gov.uk/latest-news/new-news-page-8/#>

Introduction

Urban forests are integral to complete street initiatives. Street trees can significantly contribute to urban planning goals, especially regarding transportation and public spaces. Pocket parks with trees and seating can enhance green infrastructure and encourage social interaction. Complete Streets aim to create safe and accessible streets for all individuals. Urban forests can contribute to complete streets by reducing air temperatures, providing shade, calming traffic, and shielding commuters from environmental hazards.

Strategies for Integrating Trees into Complete Streets:

Adequate sidewalk space: Ensure sufficient space for tree root growth and canopy expansion.

Strategic tree placement: Position trees to serve as traffic-calming elements.

Considerations for Tree Placement:

Avoid obstruction: Trees should not hinder pedestrian movement, create barriers for individuals with disabilities, or interfere with utilities.

Visibility: Improperly positioned or sized trees can obstruct drivers' visibility.

Additional Considerations:

Tree species selection: Choose tree species that are well-suited to urban environments and can tolerate various conditions, such as pollution, drought, and compacted soil.

Maintenance: Regular maintenance is essential to ensure the health and longevity of urban trees. This includes pruning, fertilization, and pest control.

Community involvement: Engage the community in the planning and implementation of urban forest projects to foster a sense of ownership and stewardship.

Overall, urban forests play a vital role in creating complete streets that are safe, accessible, and sustainable. By carefully considering the factors outlined above, cities can effectively integrate trees into their transportation and urban planning strategies.

1.1. List a minimum of ten values of woody plants in the environment

Woody plants play crucial roles in the environment, providing numerous benefits. Here are some of their key values:

Ecological Benefits:

- **Biodiversity:** They support a wide range of biodiversity, providing habitats for countless species of plants, animals, and microorganisms.
- **Climate Regulation:** They absorb carbon dioxide from the atmosphere, helping to mitigate climate change.
- **Soil Erosion Control:** Their roots help to anchor the soil, preventing erosion and preserving fertile topsoil.
- **Water Cycle Regulation:** They play a role in the water cycle by intercepting rainfall, regulating water flow, and reducing soil moisture loss.
- **Air Quality Improvement:** They help to filter air pollutants, improving air quality.

Economic Benefits:

- **Timber:** Woody plants provide timber for construction, furniture, and other products.
- **Fuelwood:** They are a source of fuel for heating and cooking.
- **Food:** Many woody plants produce edible fruits, nuts, and seeds.
- **Medicinal Plants:** Many medicinal plants are woody species.
- **Recreation and Tourism:** Forests and woodlands provide opportunities for recreation and tourism.

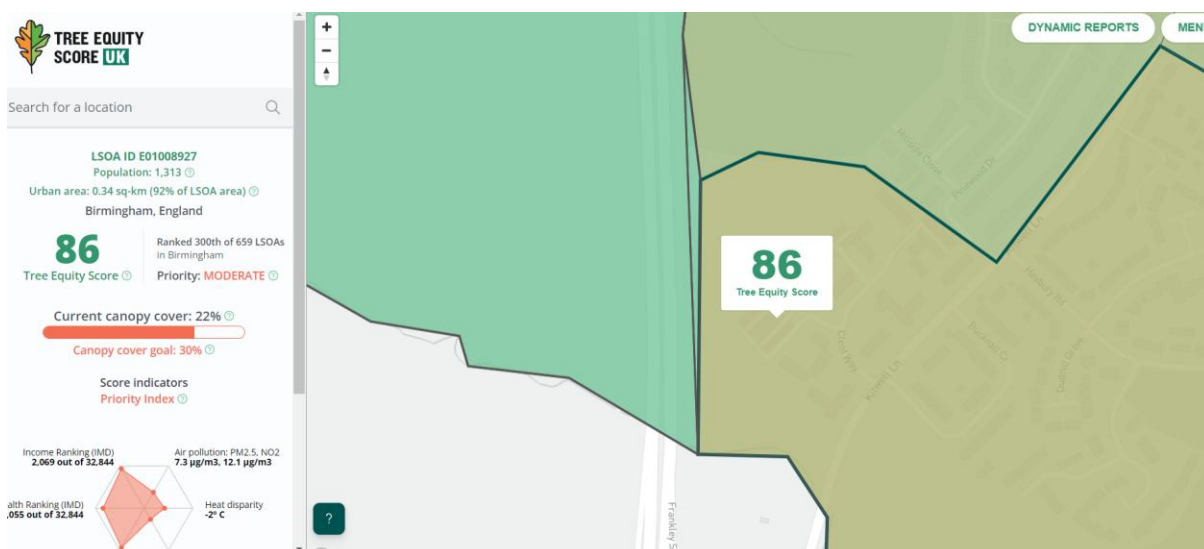
Cultural Benefits:

- **Aesthetic Value:** Woody plants enhance the beauty of landscapes and provide inspiration for art and literature.
- **Spiritual Significance:** They have cultural and spiritual significance in many societies.
- **Community Building:** They can foster a sense of community and connection to nature.

In summary, woody plants are essential components of our ecosystems, providing a wide range of ecological, economic, and cultural benefits.

Our Tree Equity score in Bartley Green, B32 4NW

<https://uk.treeequityscore.org/map#16/52.434022/-2.015991>



Here we have an example of a thermal imaging concerning tree canopy covering and reducing temperature from the Woodland Trust.



1.2. Identify five drawbacks of trees in the urban environment

Despite the many benefits that trees offer urban settings, they can also present certain difficulties. The subsequent list comprises five potential drawbacks:

Tree roots: Tree roots can cause damage to underground utilities such as pipes, sewage systems and building foundations due to their rapid development.

Shade and Sunlight: Trees can cast long shadows that block out sunlight that would otherwise reach buildings, walkways, and gardens. This impediment can reduce plant development and affect energy efficiency.

Allergens: Some tree species emit pollen or other allergens, which can cause allergic reactions and respiratory problems in certain people.

The cost of maintenance: Trees require routine care, which includes pruning, fertilisation, and pest control. Particularly for larger trees or well-populated urban forests, these upkeep duties can be very expensive.

Safety Hazards: During storms or strong winds, trees can present safety risks, as falling branches may result in damage or injuries.