Individual trees and woodlands in towns, including street and garden trees, trees in open spaces, woodlands and hedgerows make up the urban forest. Urban forests provide a wide variety of benefits to communities and the local economy, such as cleaner air, resilience to climate change, enhanced biodiversity and a more attractive place to live.

This study aimed to investigate the benefits delivered by the urban forest in a Staffordshire town. It is hoped that this study – a first for Staffordshire – will inspire other communities to explore their urban forests.

The study area was Burton upon Trent in East Staffordshire, which lies within The National Forest. The study used a methodology called i-Tree Eco, which has been used both in the UK and internationally to evaluate the benefits of urban forests, assigning financial values where appropriate. The study was based on a survey of 250 randomised plots, stratified against deprivation data. Plots of 0.04 hectares (400m2) were surveyed by trained volunteers in August -September 2016.

Survey data was entered into i-Tree Eco software to establish a quantitative baseline of the structure and value of Burton's urban forest for setting objectives and monitoring progress.

KEY FINDINGS FROM THE STUDY:

- The replacement cost of Burton's urban forest is **£54.2 million** – i.e. what it would cost to replace the trees with others that are structurally identical in the same locations.
- The amenity value of Burton's urban forest has an estimated value of **£1,126 million** – i.e what is considered to be the asset value of the whole stock to the community.
- Carbon storage has an estimated value of **£1.23 million** with the urban forest storing 19,800 tonnes of carbon
- The estimated value of carbon sequestration is **£44,800** per year or 722 tonnes, through the long term storage of atmospheric carbon dioxide.
- The estimated value of avoided runoff is **£21,700** per year or 23,700 m^3.
- Pollution removal has an estimated value of **£48,800** per year or 23 tonnes of pollutants per year.

The study found that tree cover in Burton is relatively low at 9.4%, compared to other towns and cities that have completed i-Tree surveys (ranging from 11.4% - 17% for other UK locations). The town is also dominated by younger trees with relatively few large mature trees. The number of species is considered to be low, with 50 species recorded. The three most common species were Beech, Hawthorn and Sycamore.

The results of the survey suggest there is considerable scope to develop and enhance Burton's urban forest and increase the benefits it provides to the town's communities, economy and environment. The report outlines eight aims to achieve this and offers recommendations on how they could be achieved.

KEY MANAGEMENT AIMS:

1. Increase overall tree cover
2. Develop a more diverse age structure to address the dominance of younger trees
3. Improve species diversity of the urban forest to increase resilience
4. Enhance biodiversity
5. Enhance the sense of place and amenity value
6. Increase the contribution of the urban forest to public health outcomes
7. Increase the contribution of the urban forest to the local economy and maximise opportunities from new developments
8. Increase the contribution of the urban forest to climate change resilience and mitigation

To conserve and enhance Burton's urban forest the implementation plan identifies the key next steps to achieve these aims. Four priority zones are outlined where planting will provide particular benefit to communities together with a range of actions for new planting and measures to protect the existing tree stock both within the priority zones and the wider area.

Due to the predominantly urban nature the study area it is likely to be challenging to establish tree cover. A modest target of 1% increase in tree cover has therefore been set for the whole project area for this initial period to reflect the challenges. However it is important that this is reviewed and that a long term strategy is maintained to increase tree cover across the town. Burton may then rightly achieve the aspiration to be recognised as the capital of The National Forest.