

BIRMINGHAM

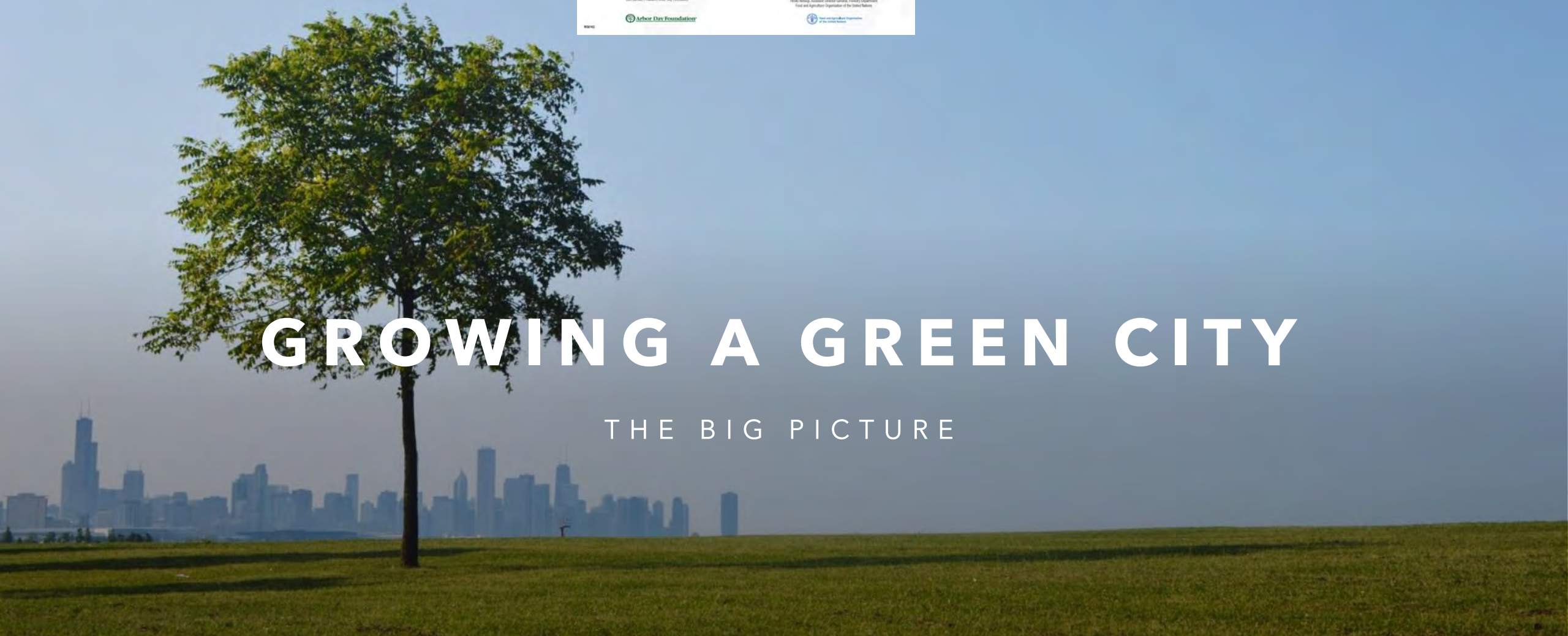


TREE PEOPLE



# GROWING A GREEN CITY

THE BIG PICTURE



# WHAT IS THE UFMP?



## An Urban Forest Master Plan for Birmingham 2021-2051

*Executive Report*



## What is an Urban Forest Master Plan?

An Urban Forest Master Plan is a future destination that provides detailed information, recommendations and resources that would inform the community and its tree managers on how to plan a route to achieving "full stocking"\*.



$$N = \frac{R + V/G}{S}$$



S

The magic number

# Tree Strategy vs. Master Plan

Metrics	Tree Strategy	Master Plan	Birmingham UFMP
Tree Population (Data)	Public (Streets, Parks, Housing etc.)	Public & Private	Public and Private
People	City Staff	All Stakeholders	All stakeholders in the City plus regional input and international expert input.
Goals	Wish List	Shared Vision	Accepted wisdom plus the shared vision from stakeholders
Creation Timeframe	4 – 6 weeks	9 – 12 months	12 months
Implementation Timeframe	5 – 10 years	10 – 30+ years	30 years
Costs	£3,000 - £10,000+	£50,000 - £150,000*+	£19,200.00 + VAT

# The Principle Differences

Metrics	Tree Strategy	Birmingham UFMP
"How to" manual	Often a technical guide to arboriculture	No technical guidance, that would follow in the strategies.
Policies	Usually full of policy recommendations	Reference to current policy and suggestions for filling gaps
Responsibility	Not usually attributed as document is inward looking	All KPI's allocated to a responsible body
Time frames	Not usually attributed on any meaningful level	All KPI's set time frames for improvement
Outcome measurements	Usually none. After the life of the strategy (usually 10 years) a new strategy is produced with no reviews.	All outcomes are performance rated
Overview	None.	Independent Tree Board Responsible for UFMP performance.

“A goal without a plan is just a wish”

A DREAM  
WRITTEN  
DOWN WITH A  
DATE BECOMES  
**A GOAL.**

A GOAL BROKEN  
DOWN INTO  
STEPS BECOMES  
**A PLAN.**

A PLAN BACKED  
BY **ACTION**  
MAKES YOUR  
DREAMS  
COME TRUE.

# Birmingham's stated vision

“Having more trees for Birmingham, that deliver benefits for health, nature, and climate change, for all the communities within the city, now and in the future, as part of an inclusive and sustainable urban forest.”

“Having more trees for Birmingham”



# The Players

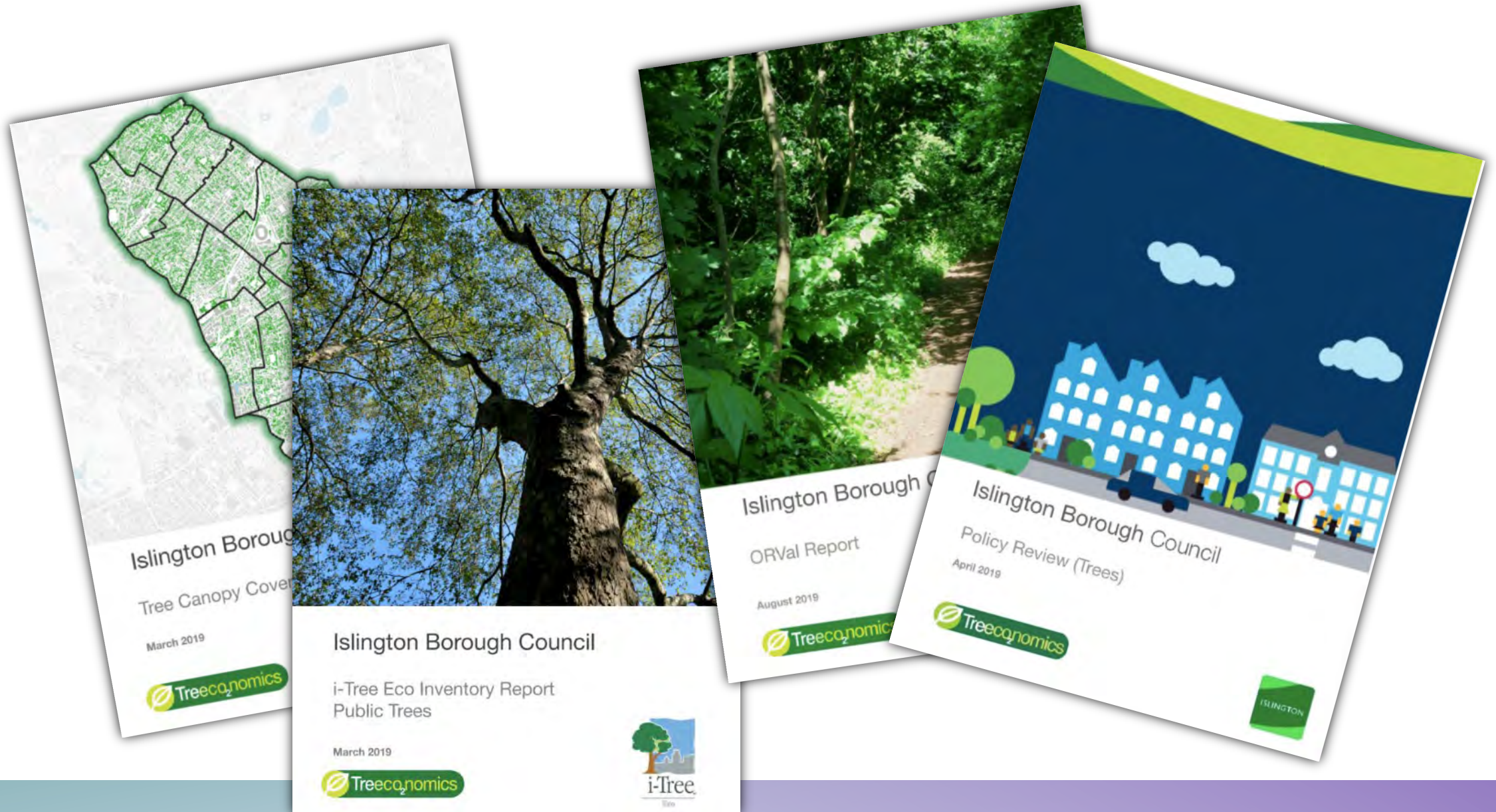
- Birmingham TreePeople (the contractor)
- Birmingham City Council (the client)
- Treeconomics (the sub contractor)
- The community (the customer)



## How this all worked.

- TreePeople petitioned BCC (2017)
- BCC Tasking Committee (2018)
- BTP sought funding (2020)
- "Contract" awarded in lockdown (2020)
- Contract delivered (2021)

# GATHERING THE INFORMATION.





# More from trees

The Mersey Forest Plan



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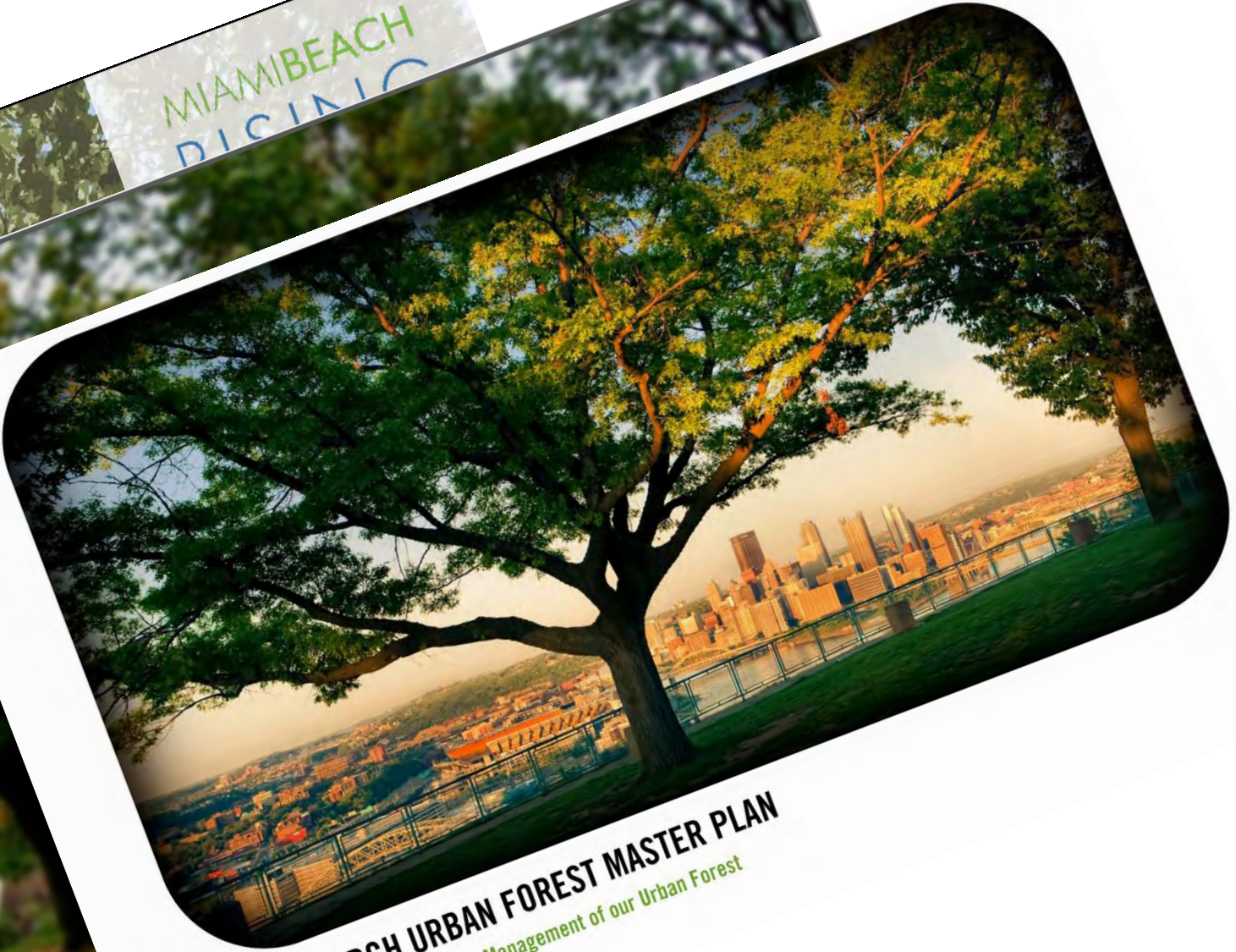
We believe  
Merseyside and  
North Cheshire can  
become one of the  
best places in the  
country to live.

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MIAMI BEACH  
DISEASE

MAS  
2016  
State College  
AN U



**PITTSBURGH URBAN FOREST MASTER PLAN**  
A Road Map for the Effective Management of our Urban Forest

# BUT WE ALREADY HAVE A TREE STRATEGY.

## UK Planting targets by (in hectares)

- Committee on Climate Change (CCC) High Biomass scenario 50,000
- WWF 40,000
- CCC independent advice to government 27,000
- Natural Capital Commission (England) 11,300
- 25 Year Environment Plan (England) 6,200

@ConforWales

## Solihull Urban Forest

# The Definition of Madness

## GLOUCESTERSHIRE TREE STRATEGY

Gloucestershire Local Nature Partnership



SEPTEMBER 2020

# Accepted Wisdom

## Adaptive Management



## Criteria & Indicators

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# Accepted Wisdom

## 12 Principles for Urban Trees



**Trees in the Townscape**  
**A Guide for Decision Makers**

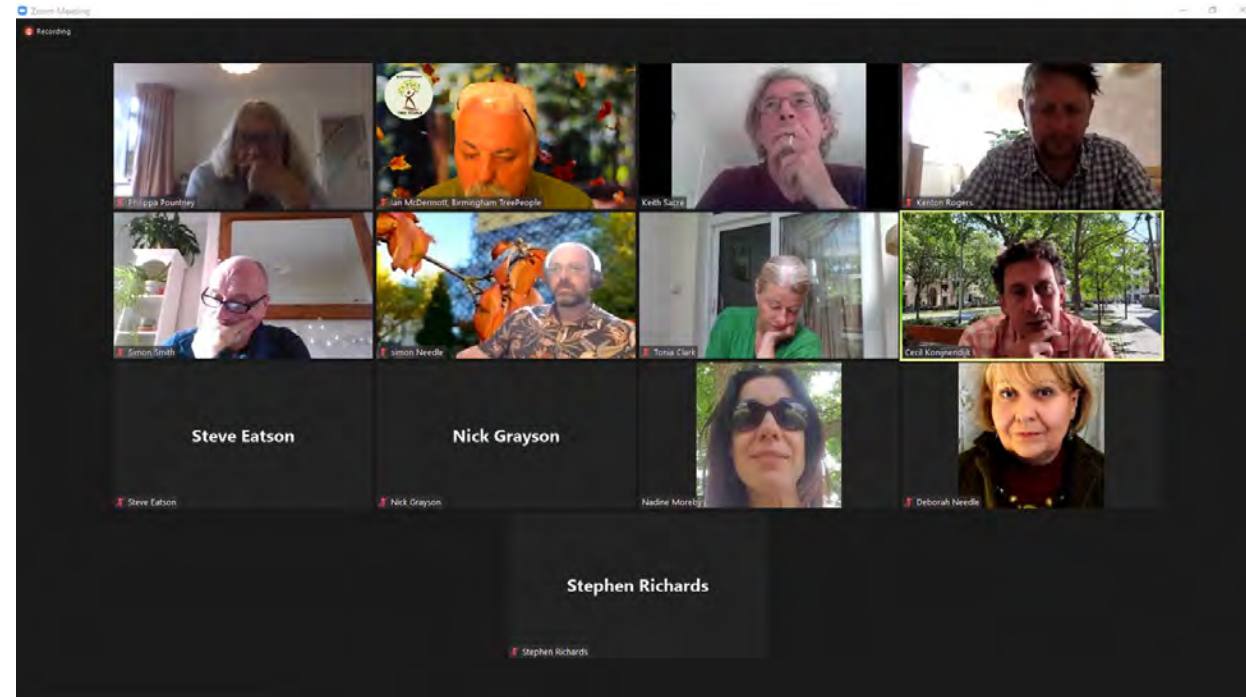


**PUBLIC  
MEETING  
NOTIFICATION**

# WHAT DO WE WANT?

## Public Outreach Campaign

- ◆ **Steering Committee**
- ◆ **City Goals**
- ◆ **Public Meetings**
- ◆ **Surveys**
- ◆ **Review/Comment**





Key Performance Indicator	Performance Level				Priority
	Low	Moderate	Good	Optimal	
R1 – Tree and woodlands inventory	Moderate			Good	High
R2 – Tree valuation and asset management approach	Good			Optimal	Medium
R3 – Canopy cover assessment and goals	Low	Moderate			High
R4 – Environmental justice	Low	Moderate			High
R5 – Reviewing and improving the urban forest Master Plan	Moderate			Good	Medium
R6a- Urban forestry funding	Moderate			Good	High
R6b- Arboricultural funding	Moderate			Good	High
R7 – Urban forestry program capacity and staffing	Moderate			Good	High
R8 – Tree establishment planning and implementation	Moderate			Good	High
R9- Growing site suitability	Moderate			Good	High
R10 – Tree protection policy development and enforcement	Moderate			Good	High
R11 – Maintenance of publicly owned, “intensively” managed trees	Moderate			Good	Medium
R12 – Management of publicly owned natural “extensively” managed areas	Good			Optimal	Low
R13 – Tree risk management	Moderate			Good	Medium
R14 – Biosecurity	Low	Moderate			High
R15 – Urban wood and green waste utilisation	Good			Optimal	Low
R16 – Native vegetation	Good			Optimal	Low
R17 – Research and Development	Low	Moderate			Medium
R18 – Open Urban Forest data and Web-map	Moderate			Good	High

## R3 Canopy Cover Assessment and Goals

Assessing canopy cover is vital, as this metric is used frequently as a figure which is clear and easy to compare with other areas. Whilst canopy cover is not a thorough study of the health and diversity and therefore overall benefit of the urban forest, it is an important aspect which should not be overlooked simply for its simplicity.

This target involves assessing the existing canopy cover in detail, and setting goals based on reasonable potential canopy cover and achievable steps to maximising cover. This leads into T1- 'Relative Tree Canopy Cover'- and would provide the necessary baseline for achieving that target. It is important that any tree canopy target is achievable within a reasonable time frame, and considered within the wider context of the Master Plan.

Birmingham has set a target of Carbon net neutrality by 2030, and this increase in canopy cover would contribute immensely. It should also be noted that tree planting does not necessarily provide an instant increase to canopy cover; in an urban setting trees are constantly being felled for any number of reasons, so insufficient planting can contribute to making up the deficit without actually increasing canopy cover.

City	London	Bristol	Plymouth	Cambridge	Torbay
<b>Existing Canopy Cover</b>	21% (2015)	18% (2018)	18.5% (2017)	17% (2008)	12% (2011)
<b>2050 Target</b>	30%	30%	20%	19%	20%

Table 2: Comparable Cities' Canopy Cover Estimates and Goals



Figure 15: Tree Canopy Cover across Birmingham from National Tree Map (NTM) Satellite Data

### Actions

- Once a basic assessment has been done, then T1 canopy targets can be established and further analysis undertaken.

Priority	Responsibility for Action	For Review:
High	1. BCC	April 2022 - Medium to Long term project

Performance level	Performance Indicators			
	Low	Moderate	Good	Optimal
Low	No assessment or goals.	Low-resolution and/or point-based sampling of canopy cover using aerial photographs or satellite imagery – and limited or no goal-setting.	Complete, detailed, and spatially explicit, high-resolution Urban Tree Canopy (UTC) assessment based on enhanced data (such as LiDAR) – accompanied by comprehensive set of goals by land use and other parameters.	As described for "Good" rating – and all utilised effectively to drive urban forest policy and practice municipality-wide and at neighbourhood or smaller management level.

## R4 Environmental Justice, Cultural Values and Equity

Birmingham is the UK's most diverse city, with around 50% of the population being of ethnic minority backgrounds. The urban forest should reflect the diversity of people and cultures at a neighbourhood level, and planting and management should respect the views and values of the many different communities it serves. Birmingham's Community Cohesion Strategy aims to progress equality in all spheres of social and economic life and empower and engage neighbourhoods.

Urban forests are connected to a range of socio-economic factors, with studies linking canopy cover to health, wealth, education, and crime. Typically, lower income areas have fewer trees, and this inequality should be addressed across Birmingham. Lack of tree canopy cover can also be linked to the level of urban intensification and lack of physical space to plant trees (low cost housing with small gardens are not always suitable for trees). Therefore utilising other aspects of the urban forest such as green walls/roofs may be a part of the solution. The benefits of trees should be made available to all people in all areas of the city. Tree planting should not always go hand in hand with new development and land repurposing, as this can lead to those with lower income becoming priced out of areas as they develop. The city must recognise that trees and green space should be a right for all people, and environmental exclusion must be avoided.

This target aims to ensure that the planting and management of the urban forest can be focussed in the areas where it will most benefit the local people, by increasing planting in the areas with the lowest canopy cover. Tree management plans in these areas should include community engagement and neighbourhood outreach to maximise the benefits of trees in the area. The multi-faceted meanings of trees to different people should be recognised.

- Actions**
1. Develop and monitor specific tools for assessing fair access to all;
  2. Produce a 'Tree Equity map';
  3. Ensure that new tree planting is linked to local need and involves local communities.

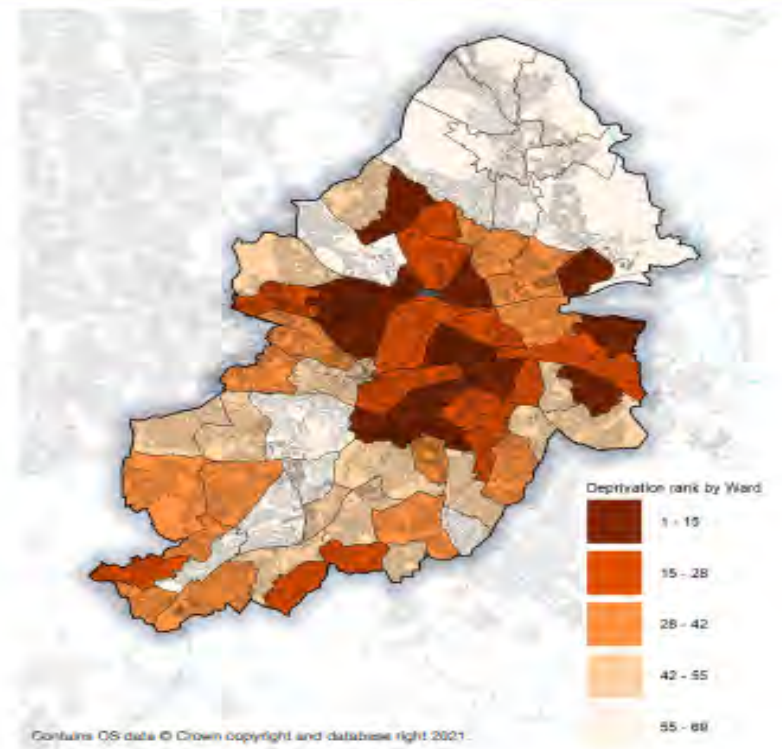


Figure 16: Indices of Multiple Deprivation Ranking by Ward (1=most deprived)

Priority	Responsibility	For Review:
High	1-3. The Tree Board	April 2022 - Medium to long term project

Sources and references:  
 BCNUEJ, 2021: Policy and Planning Tools for Urban Green Justice-Fighting displacement and gentrification and improving accessibility and inclusiveness to green amenities.  
 Nesbitt, L., Meitner, M.J., Sheppard, S.R. and Girling, C., 2018. The dimensions of urban green equity: A framework for analysis. *Urban forestry & urban greening*, 34, pp.240-248.

Performance level	Performance Indicators			
	Low	Moderate	Good	Optimal
Low	Tree planting and outreach is not determined equitably by canopy cover or need for benefits.	Planting and outreach includes attention to low canopy neighbourhoods or areas.	Planting and outreach targets neighbourhoods with low canopy and a high need for tree benefits.	Equitable planting and outreach at the neighbourhood level is guided by strong citizen engagement in those low-canopy/high-need areas.

# BENCHMARKING

## Birmingham Twin cities:

1. Lyon in France,
2. Frankfurt and Leipzig in Germany,
3. Milan in Italy.

We also have 'sister cities agreements'

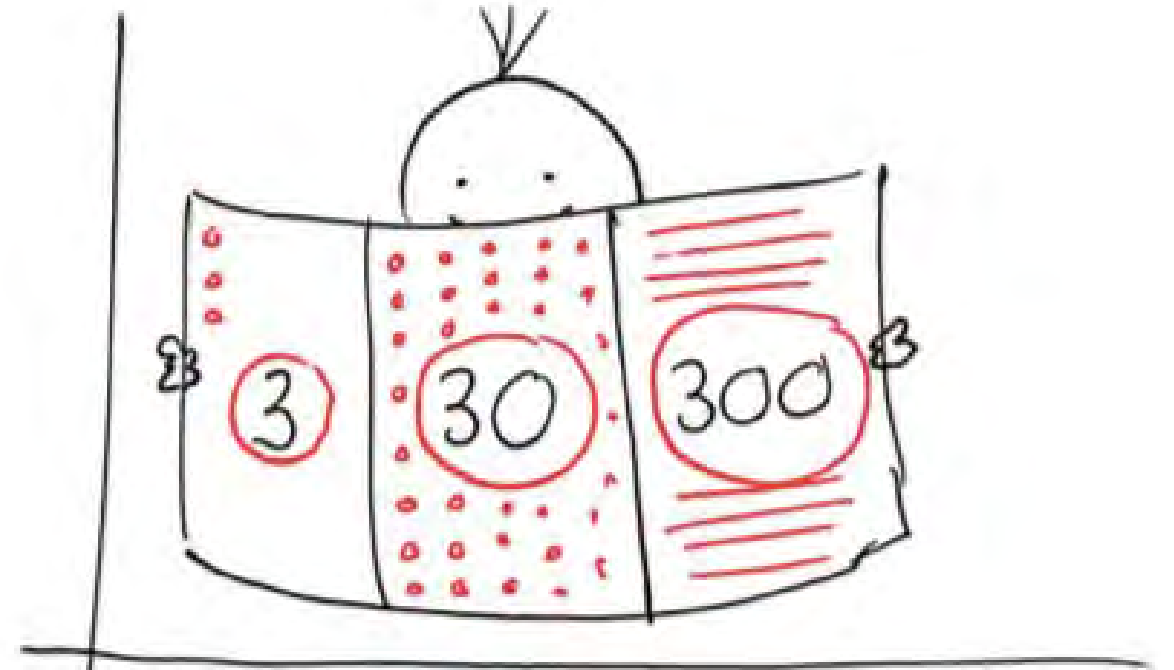
1. Chicago in the United States,
2. Guangzhou in China, and
3. Johannesburg in South Africa.

## Most recently

UNECE panel of expert's connections (Abbotsford)



# Accepted Wisdoms



"Monotypic genus"

"Underused species"

# Accepted Wisdoms

The image displays the TreePlotter Inventory web application interface. The main view is a map of Birmingham 029D showing site suitability, with a color scale from green (Low) to red (High). The interface includes several panels and controls:

- Navigation:** HUB, CANOPY, DATA tabs at the top.
- Dashboard:** SHBOARD, TABS, BY THE NUMBERS, CHARTS AND GRAPHS, 10 20 30 RULE.
- Tree List:** A list of tree species and families, including Tilia, Acer, Prunus, Sorbus, Betula, Fraxinus, Platanus, Quercus, Crataegus, Aesculus, Prunus sp., Platanus x acerifolia, Fraxinus excelsior, Aesculus hippocastanum, Quercus robur, Sorbus aria, Sorbus aucuparia, Betula pendula, Populus, Pyrus calleryana, Carpinus betulus, Tilia cordata, Liquidambar styraciflua, Acer campestre, Prunus avium, Betula sp., Corylus colurna, Tilia cordata 'Raietana', Malus sp., and Carpinus betulus.
- Configuration Panel:**
  - VIEW PLAN GROW** tabs.
  - Use the slider bars below to weight your priorities.
  - RESET PLAN, RESET ALL buttons.
  - 1. Select a Geography: LSOA.
  - 2. Set All Weight Priorities to: None, Low, Medium, High.
  - Areas With Low Existing Tree Canopy: High.
  - Impervious Surfaces: Medium.
  - Possible UTC: Medium.
  - Air Quality: High.
  - Urban Heat Island: High.
  - Stormwater Reduction: Medium.
- Map Controls:** Zoom in (+), zoom out (-), home, location, full screen, help (?).
- Site Suitability Legend:** High, Medium, Low.
- Site Information:** Birmingham 029D, Rank: 54 out of 639.
- Bar Chart:** A bar chart showing the relative importance of different factors.
- Zoom To:** A button to zoom to a specific location.
- Legend:** A legend for the map.

# URBAN FOREST REPORT CARDS





Image Courtesy: Natalia Rak

Questions?