

# Valuing the West Midlands's Urban Forest



West Midlands  
Combined Authority



Barton Hyett Associates  
Arboricultural Consultants



Forest Research



WOODLAND  
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# Headline Figures Report

Over 2022 the Black Country Consortium undertook studies in the 4 constituent Local authorities which make up the Black Country - Dudley, Sandwell, Walsall and Wolverhampton. In 2023 the WMCA continued this work by replicating this process in the remaining 3 Local Authorities of Birmingham, Coventry and Solihull. These studies are a huge step towards understanding the urban forest of the West Midlands which is fundamental to future management strategies. These studies are a snapshot in time for 2022 and 2023 respectively, therefore the structure of the trees and the ecosystem services they provide, has not been altered as time has passed since the field work was undertaken. However, the economic benefit relating to those ecosystem services in the Black Country has been updated to match the 2023 figures of Birmingham Coventry and Solihull. This is important as the way that government values these services can change on an annual basis.

## WMCA's Structure and Composition Headline Figures

Number of Trees (estimate)	4,918,000
Tree Density (trees/ha)	55
Tree Canopy Cover	14.4% (1,2996 ha)
Shrub Cover	9.5% (8542 ha)
Most Common Tree Species	English Oak (8.36%), Silver Birch (7.76%), Ash (7.19%)
Replacement Cost (CTLA)	£3.58 billion
Amenity Valuation (CAVAT)	£69.3 billion
Proportion of Trees in Good or Excellent Condition	81.2%

## WMCA's Ecosystem Services Headline Figures

Total Carbon Storage	1,912,000 tonnes	£1.86 billion
Annual Carbon Sequestration	57,620 tonnes	£55,980,000
Annual Pollution Removal	206 tonnes	£14,965,000
Annual Avoided Runoff	1,551,000 m <sup>3</sup>	£2,501,000
Total Annual Benefits	£73,446,000	

Table 1: Headline Figures

	Birmingham	Coventry	Dudley	Sandwell	Solihull	Walsall	Wolverhampton
Number of Trees (estimate)	1,129,000	574,000	590,000	265,000	1,263,000	624,000	473,000
Tree Density (trees/ha)	42	58	60	31	70	60	69
Tree Canopy Cover	15% (4,017 ha)	11.6% (1,144 ha)	17% (1,670 ha)	18.1% (1,540 ha)	13.1% (2,335 ha)	10.9% (1,140 ha)	16.5% (1,150 ha)
Shrub cover	11.8% (3,160 ha)	7.8% (769 ha)	9.8% (960 ha)	17.2% (1,472 ha)	4.7% (838 ha)	7.7% (801 ha)	7.8% (542 ha)
Most Common Tree Species	Silver Birch (11.1%)	Holly (16.6%)	Hawthorn (6.3%)	Field Maple (6.7%)	Ash (11.2%)	English Oak (13.8%)	Hawthorn (8.5%)
Replacement Cost (CTLA)	£858 million	£472 million	£334 million	£684 million	£524 million	£333 million	£379 million
Amenity Valuation (CAVAT)	£25.3 billion	£11.5 billion	£6.5 billion	11.4 billion	£9.6 billion	£4.9 billion	£6.1 billion
Proportion of Trees in Good or Excellent Condition	72.9%	92.2%	72.5%	81%	86.6%	83.1%	82%
Total Carbon Storage	419,000 tonnes	284,000 tonnes	174,000 tonnes	361,000 tonnes	365,000 tonnes	141,000 tonnes	168,000 tonnes
Total Carbon Storage Value	£407 million	£276 million	£169 million	£351 million	£354 million	£137 million	£163 million
Annual Carbon Sequestration	12,800 tonnes	7,950 tonnes	5,870 tonnes	5,550 tonnes	12,400 tonnes	6,900 tonnes	6,150 tonnes
Annual Carbon Sequestration Value	£12.5 million	£7.72 million	£5.7 million	£5.39 million	£12 million	£6.7 million	£5.97 million
Annual Pollution Removal	80.4 tonnes	16.4 tonnes	17.7 tonnes	15.3 tonnes	47.2 tonnes	14.5 tonnes	14.5 tonnes
Annual Pollution Removal Value	£6.42 million	£2.21 million	£1.02 million	£845,000	£2.38 million	£940,000	£1.15 million
Annual Avoided Runoff	481,000 m <sup>3</sup>	161,000 m <sup>3</sup>	162,000 m <sup>3</sup>	130,000 m <sup>3</sup>	294,000 m <sup>3</sup>	172,000 m <sup>3</sup>	151,000 m <sup>3</sup>
Annual Avoided Runoff Value	£776,000	£260,000	£261,000	£209,000	£474,000	£277,000	£244,000

**Table 2: Headline figures for Birmingham, Coventry and Solihull and a comparison of outputs from the component i-Tree Eco studies.**

