

Appendix 2 – Urban Green Factor (Extract from Our Rivers, Our City)

Setting the Scene

Indicator 5

Climate Resilience

The Urban Greening Factor

Greener, bluer and “spongier” neighbourhoods are more resilient to the damaging effects of climate change.

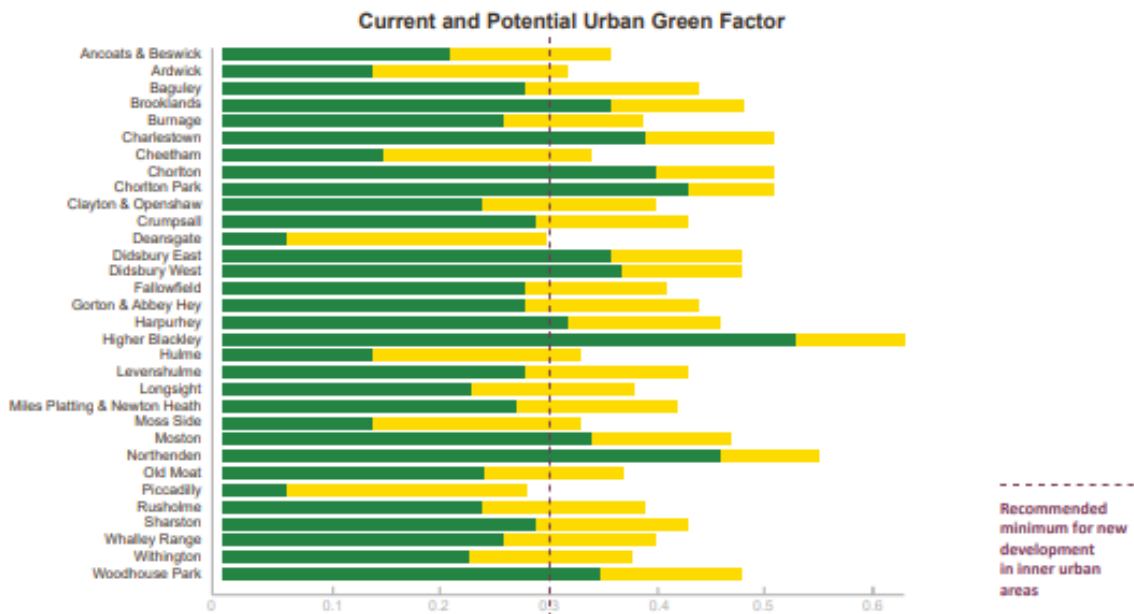
Green-blue neighbourhoods with trees, open waterbodies and natural vegetation stay cooler and better ventilated than “urban heat islands” where there is little or no green-blue infrastructure and buildings and roads bounce solar heat into the street-scene.

“Spongy” neighbourhoods with deep natural soils, good tree canopy cover, and plenty of grasslands can absorb rainwater into vegetation and soils. By contrast, highly urbanised areas have sealed surfaces, meaning rainwater rapidly flows into drains. When they run out of capacity, water backs up into the city, causing surface water (pluvial) flooding.

One measure of climate resilience is the “Urban Greening Factor”, shown per ward.

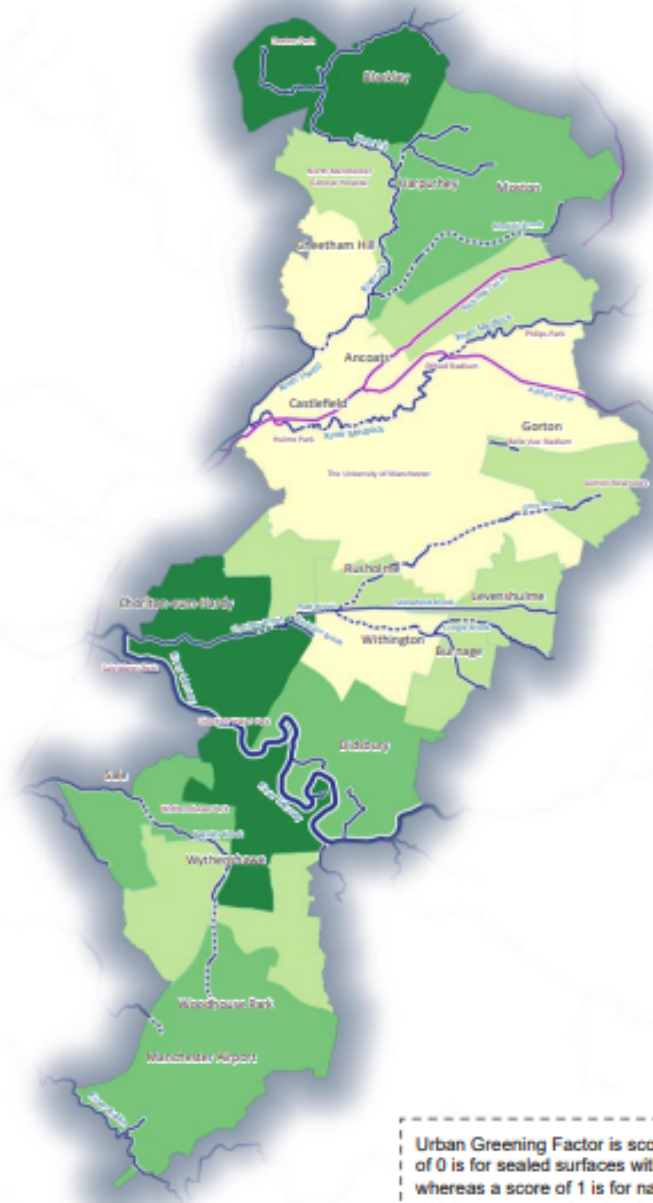
Urban planners can use the UGF to set minimum scores that new development should attain; this triggers architects and developers to integrate nature-based and water-focussed designs into their proposals.

Urban blue-green infrastructure measures such as tree planting, rain-gardens, letting grass grow long, blue-green roofs and living walls can all help existing neighbourhoods become greener, bluer and spongier. The bar chart shows the current Urban Greening Factor score for each ward, and also the potential score if all suitable opportunities are taken to make the city “spongier”.



Key

- < 0.26 (below city average)
- 0.26 - 0.3
- 0.3 - 0.4
- > 0.4



Urban Greening Factor is scored on a scale of 0 to 1. A score of 0 is for sealed surfaces with no natural climate resilience, whereas a score of 1 is for natural woodlands and waterbodies which are very cool and water-absorbing.

Neighbourhoods scoring less than 0.2 have little natural climate resilience, whereas neighbourhoods scoring over 0.4 are amongst the best in an urban context.