

# Could Parks Services be facing a new future?



Nick Grayson  
Climate Change &  
Sustainability Manager  
Birmingham City  
Council

November 2013

“Metanoia”

# Natural Capital City Model - Birmingham



## MEA & NATURAL CAPITAL

# Natural Capital City Model - Birmingham



## 2006 Stern Report:-

- The cost of reducing emissions could be limited to around **1% of global GDP**;

- It requires a **partnership** between the **public and private sector**, working with civil society and with individuals.

- Land-use planning** and **Adaptation** action should be integrated into development policy and planning at every level; **accurate evidence required for every location.**

## 2013 – update:-

- Sir Nicholas Stern: 'I got it wrong on climate change – it's far, far worse'



# Natural Capital City Model - Birmingham

**"We the mayors and governors of the world's leading cities. ask you to recognise that the future of our globe will be won or lost in the cities of the world."**

Copenhagen Climate Change communiqué,  
December 2009



- Masdar
- Biomimicry 3.8
- CH2MHill



## UK Statistics 2012

% UK classified as urban?

% of UK population living as urban ?

% urban areas not built form?

% total of England built on?

% GHG & natural resources – global cities?

# Natural Capital City Model - Birmingham



National Planning  
Policy Framework



Healthy Lives,  
Healthy People:

Our strategy for public health in England

The Natural Choice:  
securing the value  
of nature



UK Climate Change Risk  
Assessment

Project Overview

by Claire Barnett

UK  
2012  
Climate  
Change  
Risk  
Assessment



*“We will put natural capital at the centre of economic thinking;  
and at the heart of the way we measure economic progress.”*

NATURAL CAPITAL COMMITTEE

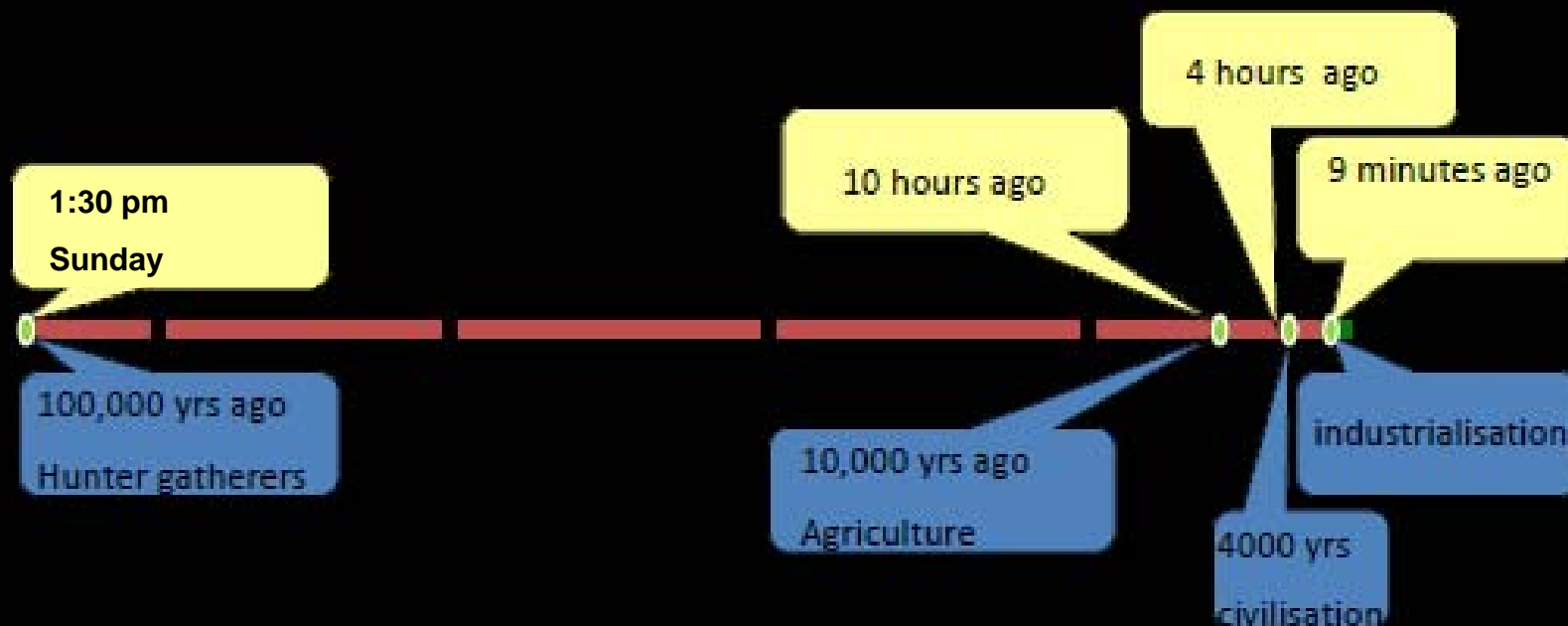




NASA

# Natural Capital City Model - Birmingham

If we take an hour to equal 1000 years then from **Sunday** to now is 100,000 years; the time from the origin of mankind to today.



# Natural Capital City Model - Birmingham

## THE LANCET

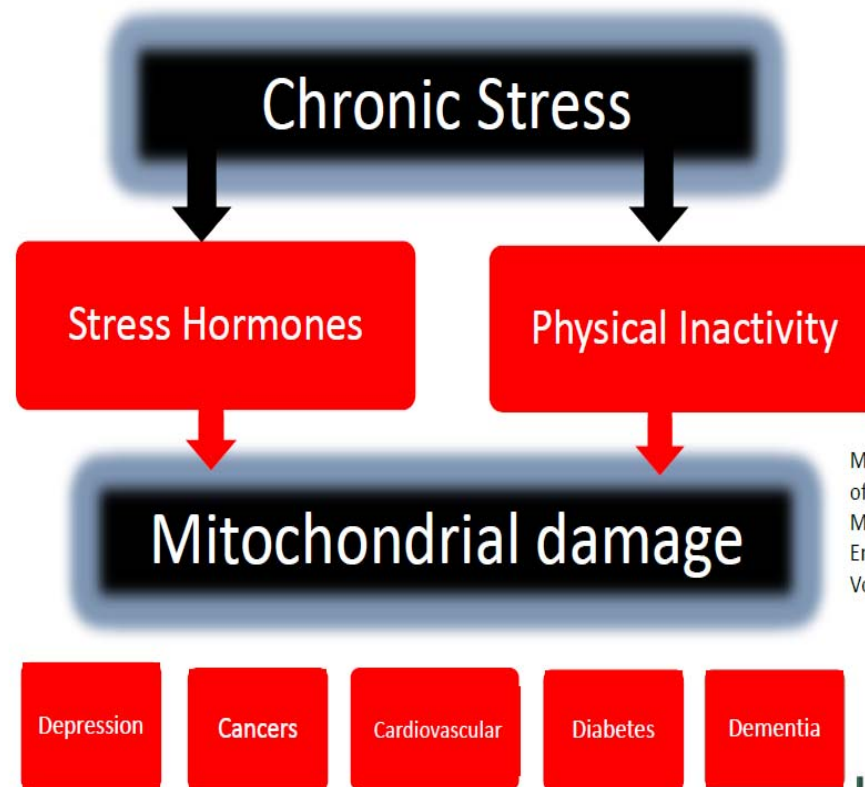
Physical Activity - July, 2012

www.thelancet.com



"In view of the prevalence, global reach, and health effect of physical inactivity, the issue should be appropriately described as pandemic, with far-reaching health, economic, environmental, and social consequences."

July 2012 – Physical Activity



Mitochondria as a key component of the stress response.  
Manoli et al. Trends in Endocrinology and Metabolism  
Vol 18 No 5 2007

Intelligent Health

PEOPLE PURPOSE PLACE



# BUCCANEER – Birmingham Urban Climate Change Adaptation Neighborhood Estimates of Environmental Risk

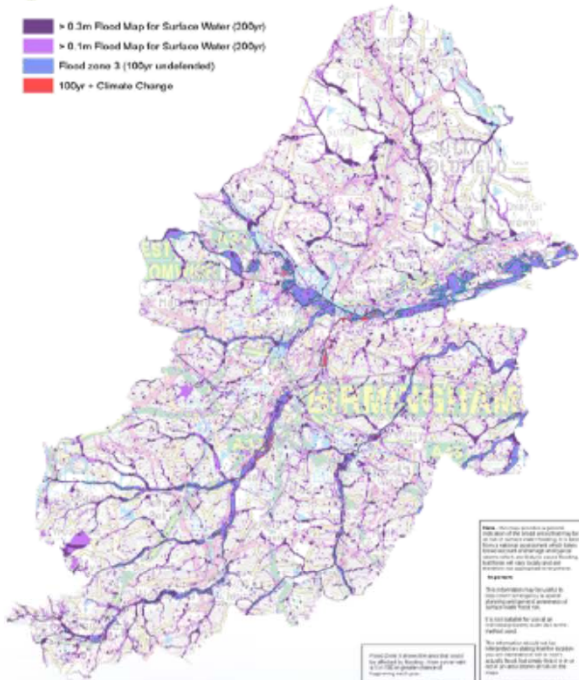
## Assessing the risks to Birmingham

Modelled Annual Mean Nitrogen Dioxide Concentrations 2008



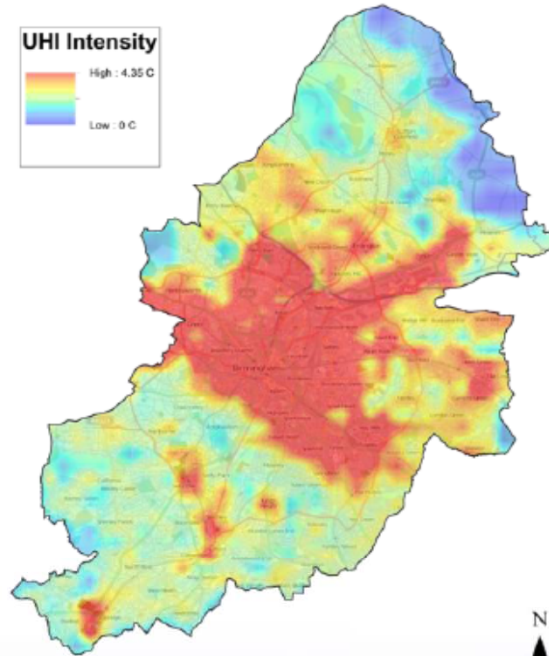
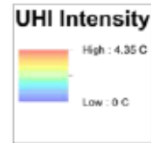
Pluvial and Fluvial Flood Risk (March 2011)

- > 0.3m Flood Map for Surface Water (200yr)
- > 0.1m Flood Map for Surface Water (200yr)
- Flood zone 3 (100yr undefended)
- 100yr - Climate Change



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**Birmingham's Estimated Heatwave Urban Heat Island (18th July 2006, 01:00)**

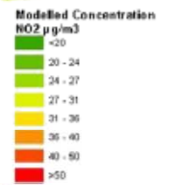
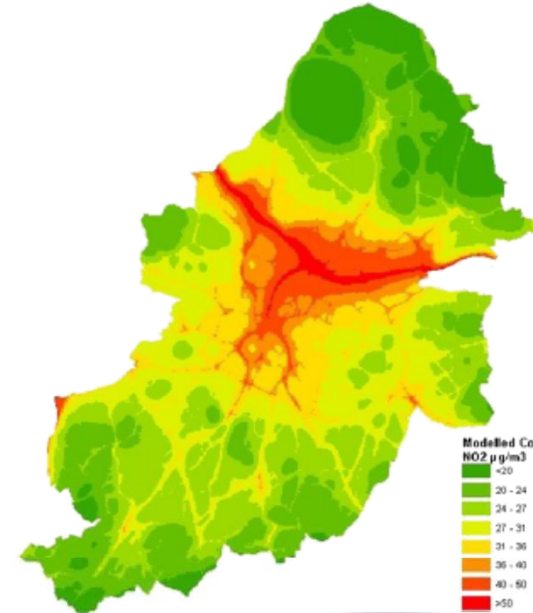


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0 0.5 1 2 3 4 Miles



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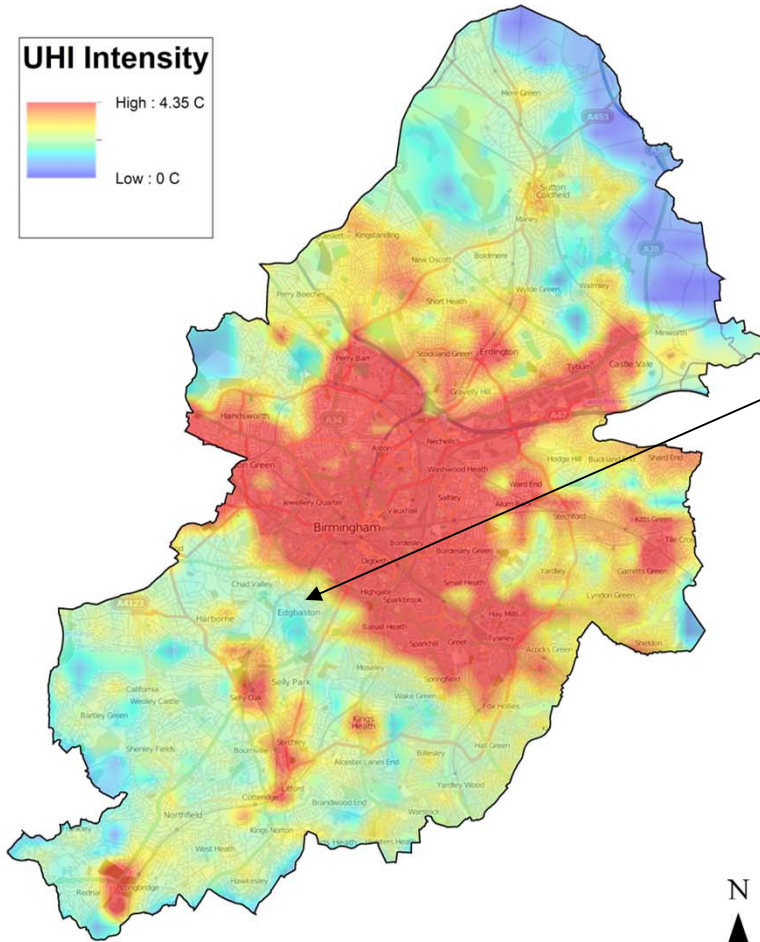
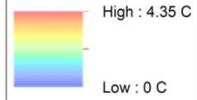
0 3 6 Miles



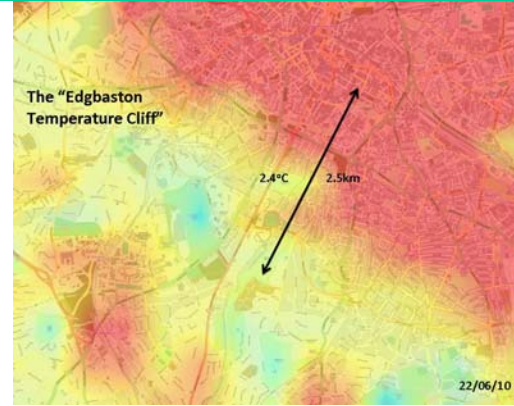
# Natural Capital City Model - Birmingham

## Birmingham's Estimated Heatwave Urban Heat Island (18th July 2006, 01:00)

### UHI Intensity

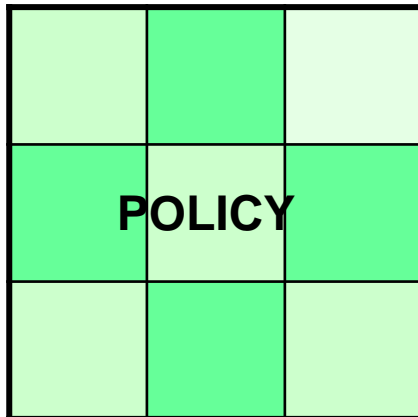


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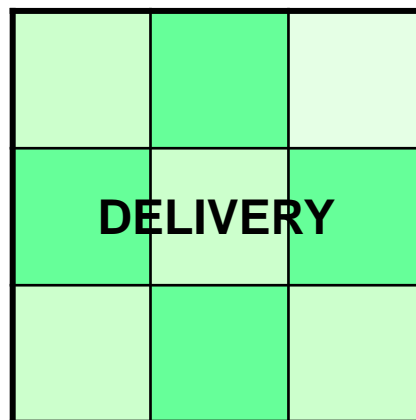
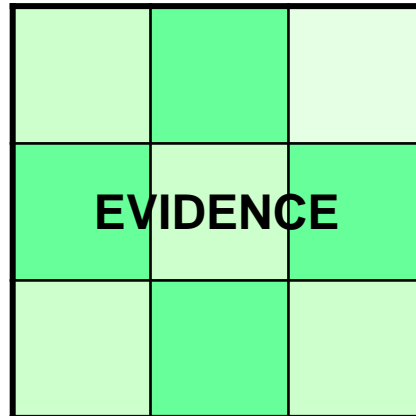


# Natural Capital City Model - Birmingham

**The 9 piece  
jigsaw**



Green  
Infrastructure &  
Adaptation  
Delivery Group



## Key Partners

Climate Risk

Water

Green Infrastructure

Health & Well Being

Biodiversity

The LEP & Business

Community + Resilience

Planning

Transport & Infrastructure

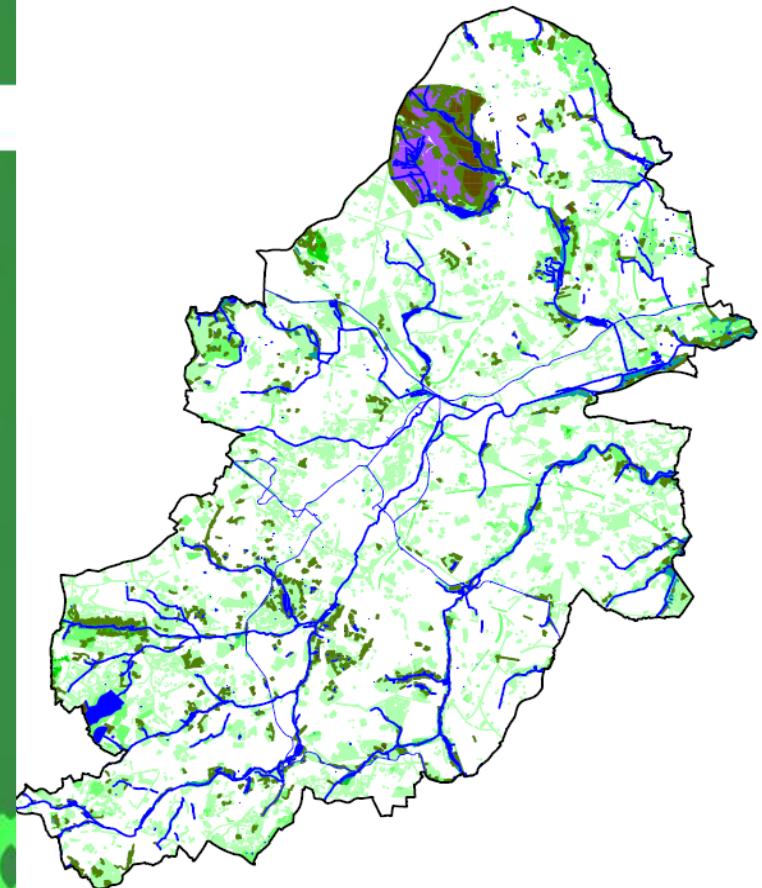
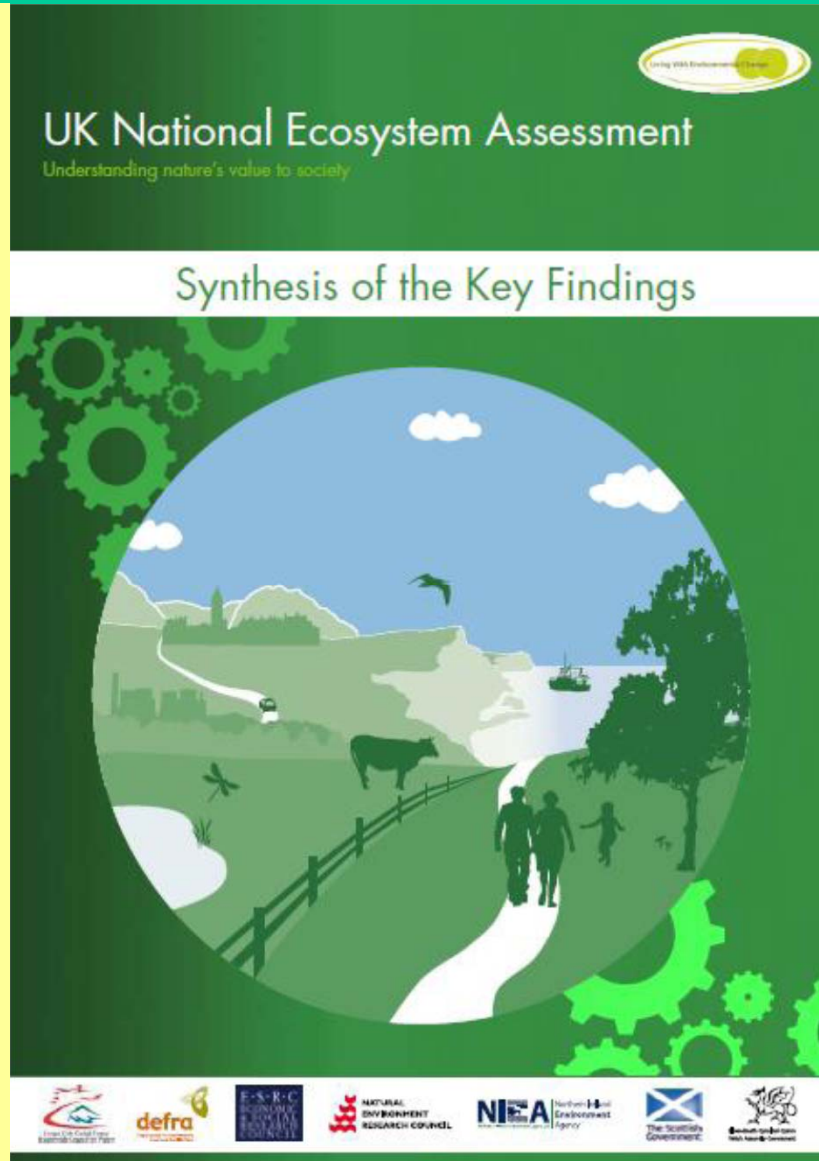
Principle	Output & Policy
An Adapted City	<b>Plan for effects of the Urban Heat Island</b>
	<ul style="list-style-type: none"> <li>•Green roofs &amp; walls</li> <li>•Street Canyons Research</li> <li>•Trees for cooling &amp; thermal insulation</li> </ul>
The City's Blue Network	<b>Develop a Blue Corridor &amp; 'Green Streets' Policy</b>
	<ul style="list-style-type: none"> <li>•Enhance and the wider Blue network.</li> <li>•SuDS &amp; flood &amp; water management</li> <li>•Enhance water quality &amp; riparian habitat</li> </ul>
A Healthy City	<b>Adopt Natural Health Improvement Zones (NHIZ)</b>
	<ul style="list-style-type: none"> <li>•Introduce sustainable land management principles.</li> <li>•'Be Active' neighbourhoods</li> <li>•Childhood development</li> </ul>
The City's Productive Landscapes	<b>Endorse the Birmingham Forest &amp; Tree Bond</b>
	<ul style="list-style-type: none"> <li>•Promote allotments</li> <li>•Facilitate community food growing, orchards, and woodlands</li> <li>•Embed biomass production</li> </ul>
The City's Greenways	<b>Adopt A Walkable City</b>
	<ul style="list-style-type: none"> <li>•Greenway networks</li> <li>•"Quiet Roads"</li> <li>•Permissive access rights</li> </ul>
The City's Ecosystem	<b>Develop an Ecosystem City Model</b>
	<ul style="list-style-type: none"> <li>•<b>Ecosystem Evaluation</b> of Birmingham's GI and Trees</li> <li>•Explore new funding mechanisms &amp; joint partnerships</li> <li>•Biodiversity mapping</li> </ul>
The City's Green Living Spaces	<b>Adopt Integrated Area Plans</b>
	<ul style="list-style-type: none"> <li>•Protection of natural &amp; built heritage</li> <li>•Integrate public health concerns</li> <li>•Sustainable tree planting policy</li> </ul>

# Natural Capital City Model - Birmingham

“The UK NEA provides a comprehensive overview of the state of the natural environment in the UK and a new way of estimating our national wealth”

Foreword

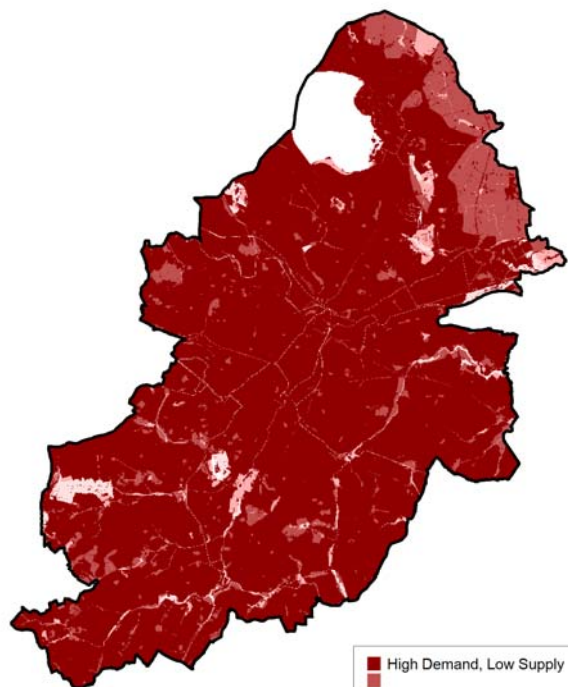
Lord Selbourne, 2011



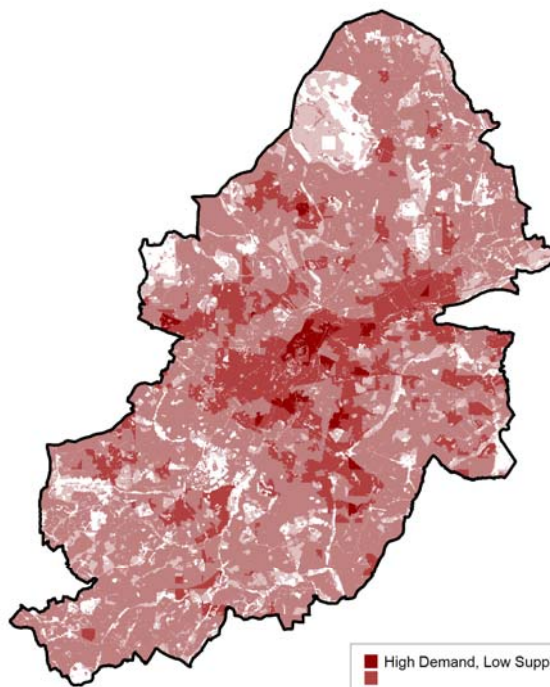
Birmingham – a UK first

# Natural Capital City Model - Birmingham

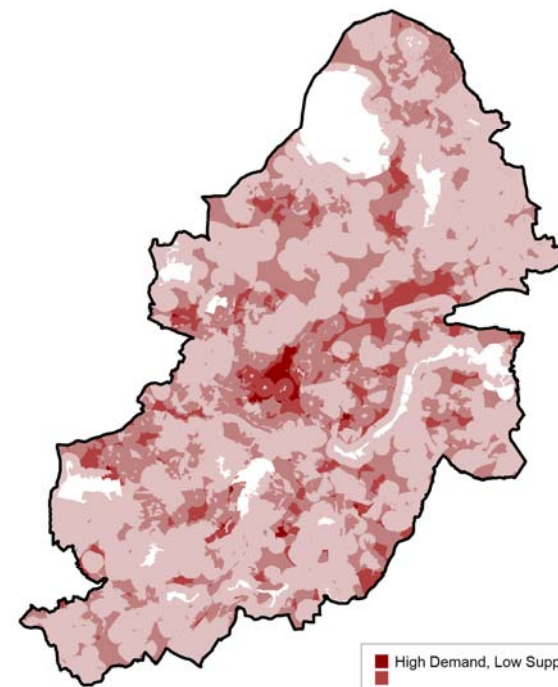
Biodiversity Services Supply and Demand map



Local Climate Services Supply and Demand map



Recreation Services Supply and Demand map



• Biodiversity

• Education

\* Local Climate

\* Aesthetics & mobility

\* Recreation

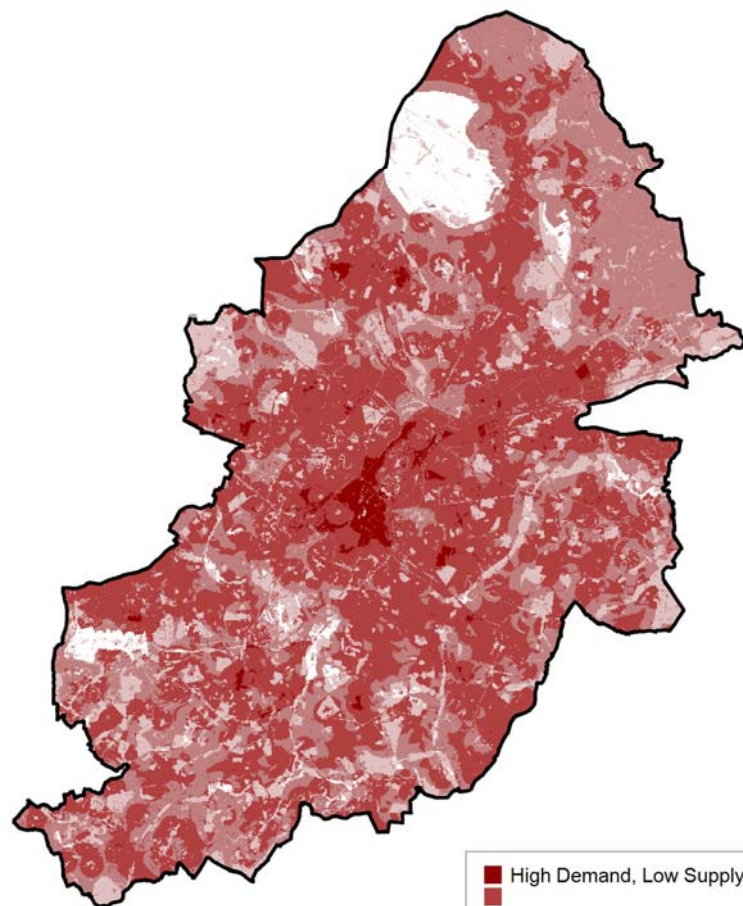
\* Flood risk

Birmingham – a global first



# Natural Capital City Model - Birmingham

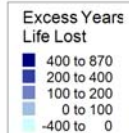
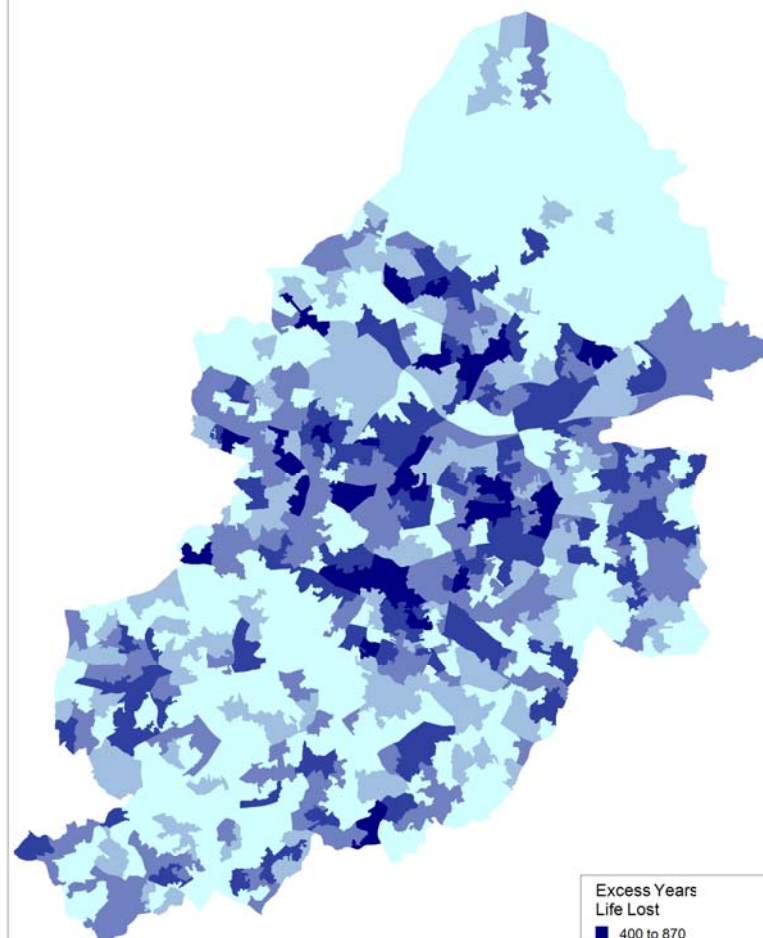
The Multi-layered Challenge map for Birmingham



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March 2013 


Excess Years Life Lost at LSOA



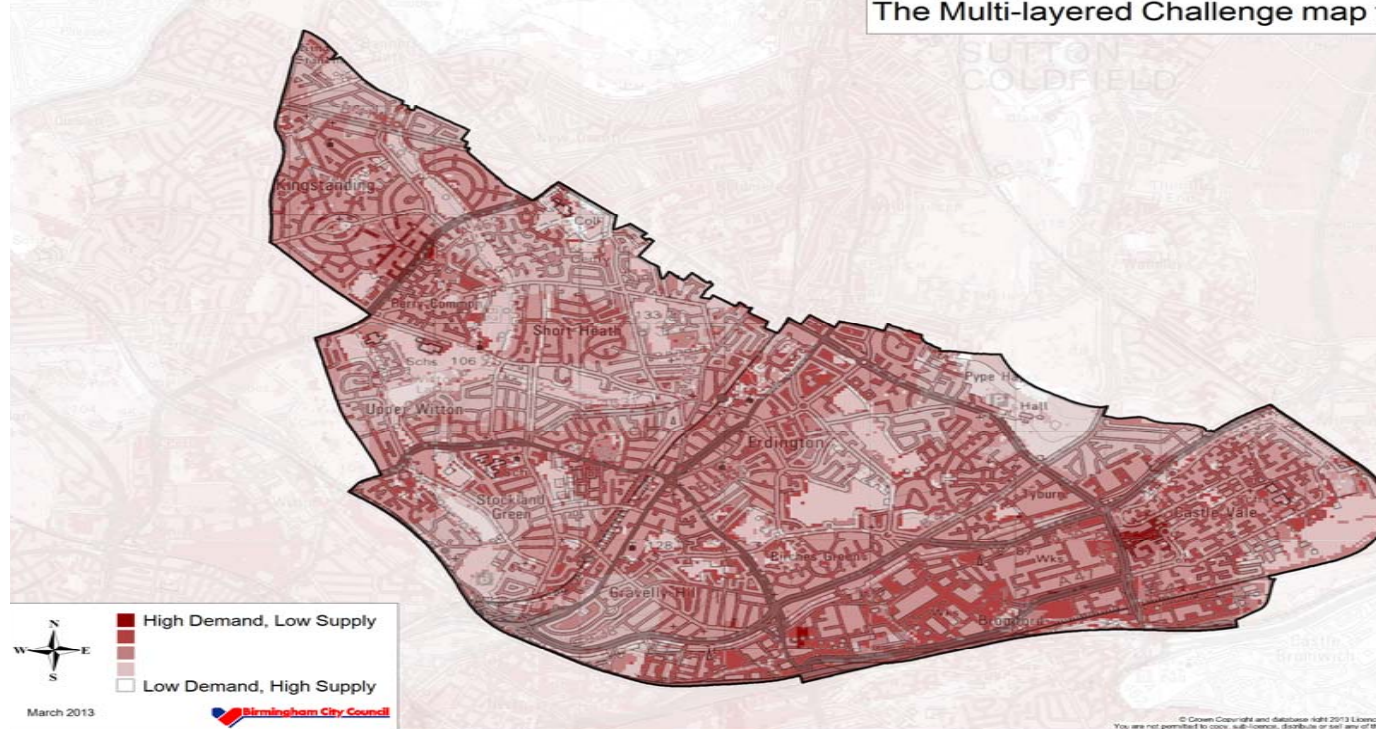
Birmingham – a global first

apse

# Natural Capital City Model - Birmingham

<p>Birmingham's Green Living Spaces Plan 2013</p>	 <p>Green Living Spaces Plan Draft December 2012</p>	<p>Birmingham's Health &amp; Well Being Strategy 2013</p>	<p>Your Green and Healthy City (SPD) 2031</p>
<p><b>Introduces 7 Key Principles</b></p>		<p>Social determinants of health &amp; climate change Health Impact Assessment</p>	<p>Sustainable Development Policy + 7 principles</p>

The Multi-layered Challenge map for Erdington



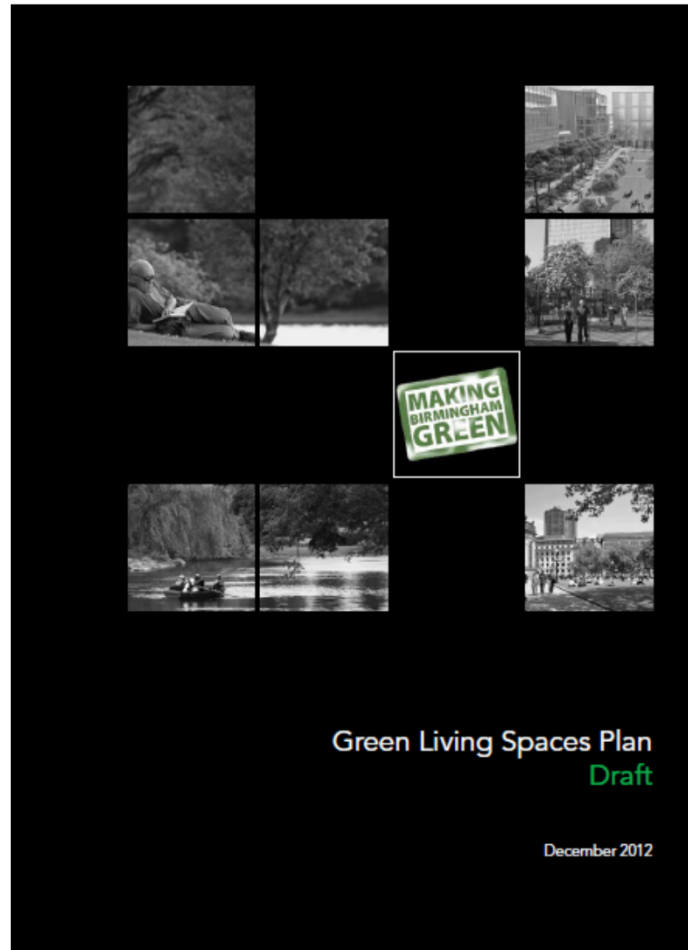
- Erdington District
- £1.5 million pounds
- Bottom up evidence
- Mainstream Nature Improvement Area schemes
- CIL- Community Infrastructure Levy – 15% neighbourhoods



# Natural Capital City Model - Birmingham

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
			Core Strategy Links	Years 1-3	Years 3-5	Years 5-10	Year 10+	1.Climate Change	2.Sustainable Transport	3.Biodiversity	4.Water & Flood management	5.Parks & Trees	6.Local Enterprise Partnership & Business	7.Planning	8.Community & Resilience	9.Public Health	Project Costs	Funding Sources	Anticipated Funding	Funding Gap (from CIL) + Bidding Priorities	Delivery Issues	Status Red Amber Green White	Working Party & lead			
3																										
4	GI PRINCIPLE 1. THE CITY'S PRODUCTIVE LAND																									
5	A. Evidence Base/ Risk	Healthy Eating & Food Strategy data	SP45, SP51	•				√		√		√	√		√	√		Public Health, H&WB Board & CIL		N/A	Wide stakeholder group & public consultation	Red	Healthy Eating & Food Strategy Gp			
6	B. Policy	Healthy Eating & Food Strategy	SP45, SP51	•				√		√		√	√		√	√						Red				
7		The Birmingham Forest Policy	SP55, SP11	•				√	√	√	√	√		√	√	√				N/A		Yellow	TDAG			
8		The Birmingham Tree Bond	SP55, SP6	•				√	√	√	√	√		√	√	√				N/A		Green	Utilities WP			
9	C. Delivery	Allotment Improvement Plan	SP45, SP51	•	•					√		√		√	√		£3.5 million over 5 yrs	BCC capital & land exchange & CIL	£2.7-3.0 million secured	£500K over 5 yrs	Planning permission on some	Green	Allotments W/P			
10		Healthy Eating & Food Strategy- Action Plan	SP45, SP51	•	•	•			√		√			√	√		circa £100 K /y	Public Health, H&WB Board & CIL	PH £50K/yr, H&WB £25K/yr	£25K/yr	Wide stakeholder group & public consultation	Red	Healthy Eating & Food Strategy Gp			
11		Birmingham Forest Delivery Plan	SP55	•	•	•		√	√	√	√	√	√	√	√		£410K/yr	Energy Contracts, FC grants & CIL	£250K/yr, energy contracts £10K/yr FC	£150K/yr	Implement the Birmingham Forest & City Fuel switch to biomass	Yellow	TDAG			
12	GI PRINCIPLE 2. THE CITY'S GREENWAYS																									
13	A. Evidence Base/ Risk	Local Centres SPD & Walkable Neighbourhoods	SP51, SP35	•					√		√			√	√		N/A					Red	Healthy Urban Development Group			
14	B. Policy	Local Centres SPD & Walkable Neighbourhoods	SP51, SP35	•					√		√			√	√		N/A					Red				
15		Low Carbon Transport Policy	SP35	•				√	√	√	√	√	√	√	√		N/A					Green	Low Carbon W/P			
16	C. Delivery	Sustainable Transport Plan - Strategic Greenways	SP11, SP45, SP35, SP51	•	•	•			√		√			√	√		circa, £400K/yr	LTP, & CIL	£350K/yr	£50K/yr	Planning permission on some	Yellow				
17		Parks Greenways		•	•	•			√		√			√	√		£10 million over 10 yrs	BCC Repairs & Maint Budget & CIL	£400K/yr	£500K/yr	Local consultation	Red	Parks Growth & Rengeneration W/P			
18		Local Centres SPD & Walkable Neighbourhoods		•	•	•			√		√			√	√		£400K/yr	JSNA, Housing, LTP, & CIL	£350K/yr	£50K/yr	Planning permission on some	Red	Healthy Urban Development Group			
19	GI PRINCIPLE 3. THE CITY'S ECOSYSTEM																									
20	A. Evidence Base/ Risk	Ecosystem Services Evaluation for Birmingham	SP45, SP49	•				√		√	√	√		√	√		£20K	BCC Parks & EA	£15K	£5K from EA		Green	Ecosystems Steering Gp			

# Natural Capital City Model - Birmingham



# Natural Capital City Model - Birmingham

A NEW Green Vision  
We have created a new Green Vision  
which pulls together our work on

carbon reduction,  
**ecosystems services**,  
adapting to climate change  
and the green economy.

Achieving integration across these areas is  
the mark of a leading green city.



BIRMINGHAM'S  
GREEN  
COMMISSION  
BUILDING A GREEN CITY

**BIRMINGHAM'S  
GREEN  
COMMISSION  
BUILDING A GREEN CITY**

IMPROVE QUALITY OF LIFE AND WELLBEING  
REDUCE OUR CO2 EMISSION LEVELS  
CREATING A LOW CARBON GREEN ECONOMY  
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# Natural Capital City Model - Birmingham

**Biophilic Cities** - Cities that achieve a deep affinity with nature

