

Leicester's Sustainability Action Report

April 2016 – March 2017



Contents



Foreword	3
Achievements	4
Introduction	5
Our Performance and Progress	7
Climate Change	7
Air Quality and Health	11
Environmental Awareness	14
Open Space and Wildlife	15
Waste and Use of Natural Resources	17
Further Information	19

“ Leicester is leading the way on the fight for clean air for all of its residents. And even more, the leadership shown in Leicester has an impact across the country: as part of UK100 the city connects with others tackling similar issues, shares the best insights and works collectively for national action. Polly Billington, Director, UK100 ”



Cover photo: Leicester Environmental Volunteers making bee posts for a new area of wildlife habitat at Ellis Meadows. The posts are made from wood harvested on site, with holes drilled in them for solitary bees and other insects.

Foreword

Welcome to Leicester City Council's Sustainability Action Report for April 2016 to March 2017. The publication of this document in 2018 follows analysis and assessment of data within that time period. The report looks at our environmental performance over the year and describes some of our practical actions and achievements. If you're short on time, you can see the headlines on the next page.

2016-17 saw the launch of **Leicester's Sustainability Action Plan**. The plan sets out six bold ambitions for the progress we want to make in the coming years, focusing on critical issues facing the city: climate change, air quality, health, green space and environmental awareness. It sets out a programme of actions towards meeting these ambitions.

I am pleased to say that we've achieved some notable successes during the first year of the plan: installing 1,460 energy efficient boilers in council houses, increasing city cycling levels by another 1,107 daily journeys, designating 42 more mature trees under our care as Local Wildlife Sites and reducing the council's carbon footprint by a further 7.5% to name a few.

Looking to the future, our newly launched **Green BELLE** project will help 750 small



and medium businesses cut their energy costs and carbon emissions. I am also excited about the prospect of seeing a flagship low carbon housing scheme take shape at the site of Leicester's former Eco House – demonstrating how the principles pioneered by the Eco House can be taken up by commercial housing developers. We will continue to look for other, similar opportunities.

Thank you for taking an interest in our sustainability work at this exciting time. If you want to find out more about any of the areas covered, there are links to further information at the end of the report.

Councillor Adam Clarke
Deputy City Mayor with responsibility
for Environment, Public Health and
Health Integration

Achievements

April 2016 – March 2017



7.5%
reduction in the council's carbon footprint – on track to meet our target for halving emissions by 2025



1,460
new, more efficient boilers installed in council houses



£150,000
invested in energy efficient LED way-lighting



13 council vehicles replaced with electric vehicles



50
small and medium companies advised on energy-saving

42 
more mature trees given Local Wildlife Site status

16 
more schools joined the Eco-Schools programme

1,107 
increase in daily cycling journeys recorded



614
new flats agreed to be added to low-carbon district heating network

6 more streets improved through Connecting Leicester 



Nearly **215,000**
bulbs planted

5
more wildlife meadows created or enhanced 



58,290
hours of volunteer time given to enhancing Leicester's parks



1,437
new members joined our Choose How You Move car share scheme



2,200
school pupils completed Bikeability cycle training

Introduction

Leicester City Council is one of the largest organisations in the city, employing the equivalent of nearly 10,500 full time staff. We operate from approximately 200 offices, community facilities and depots, and run a fleet of around 770 vehicles and plant items. The council provides a wide range of public services, with opportunities to make a positive environmental impact through, for example: regeneration and transport schemes, parks and council housing improvements, recycling and street cleaning services, and our enforcement of environmental laws and regulations for land use, building and pollution control. Our services inevitably create an 'environmental footprint' of their own too though. This includes the impacts of our travel, our use of energy, water and raw materials, and our generation of waste.

The council is committed to addressing the environmental challenges facing Leicester, and to responsibly managing our own impact, based on our [Environmental Policy](#). We have a rolling programme of projects and actions to work towards a more sustainable council and city, and these are set out in [Leicester's Sustainability Action Plan](#). Highlights of progress with many of the actions from the plan are included in this report.

We run a council-wide system to build environmental safeguards and good working practices into our day-to-day activities, and to ensure that any impacts are carefully managed. We have based our approach on the internationally recognised environmental management standard for organisations: [ISO14001: 2015](#). We receive a yearly independent audit against the requirements of this standard and the most recent, in November 2017, confirmed that we continue to meet them. Our certificate is illustrated on the following page.

“ It is really positive to see the city's innovative carbon management work showing reductions in greenhouse gas emissions and these successes being shared with other cities throughout the world. The partnership between De Montfort University and the City Council is helping improve the energy efficiency of Leicester's public buildings by making better use of data, and increasing resilience to climate change by sharing examples of best practice on flood prevention via our unique digital social platform.

Professor Paul Fleming

Head of the Institute for Energy and Sustainable Development, De Montfort University.

”



DNV·GL

MANAGEMENT SYSTEM CERTIFICATE

Certificate No:
200499-2016-AE-GBR-UKAS

Initial certification date:
11 May 2016

Valid:
22 December 2016 - 11 May 2019

This is to certify that the management system of

Leicester City Council

City Hall, 115 Charles Street, Leicester, LE1 1FZ, United Kingdom

has been found to conform to the Environmental Management System standard:
ISO 14001:2015

This certificate is valid for the following scope:

All City Council services associated with a unitary local authority, in accordance with the publicly available environment policy

Place and date:
London, 23 December 2016



For the issuing office:
DNV GL Business Assurance UK Limited,
Palace House, 3 Cathedral Street, London
SE1 9DE, United Kingdom

A handwritten signature in black ink, appearing to read 'R. Redmond'.

Richard Redmond
Management Representative

Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV GL Business Assurance UK Limited, Palace House, 3 Cathedral Street, London SE19DE, United Kingdom.
TEL: +44(0) 207 357 6080. assurance.dnvgl.com

Our Performance and Progress

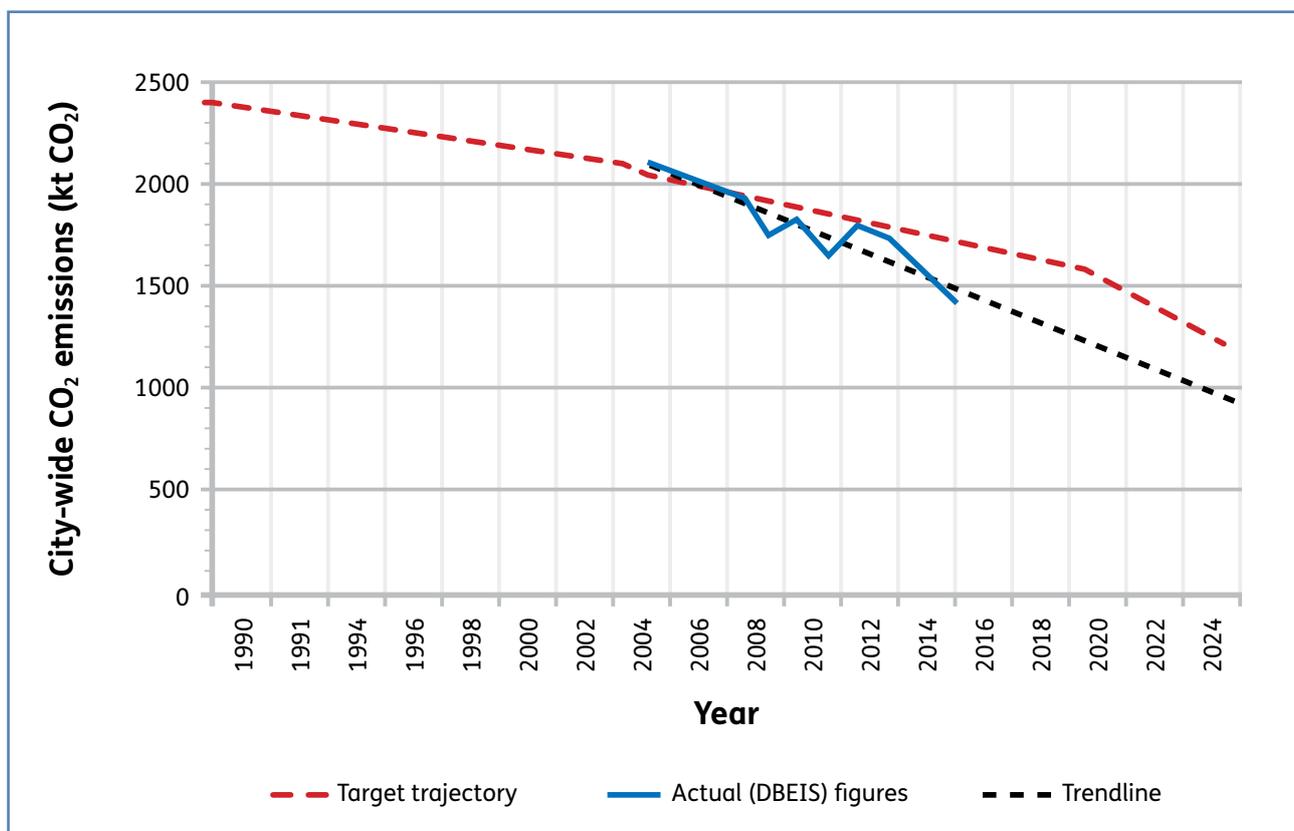
The following sections give a summary of progress towards our six sustainability ambitions, along with highlights of projects, and our performance on other key environmental issues. Except where stated otherwise, facts and figures refer to the period April 2016 to March 2017.

Climate Change

Ambition 1: Halve city wide carbon dioxide emissions by 2025

The council's first sustainability ambition is to see Leicester's emissions of carbon dioxide (CO₂), the main 'greenhouse gas', halved from their 1990 levels by 2025. Government figures published by the Department for Business, Energy and Industrial Strategy (BEIS) show that in 2015, the most recent year available, city-wide emissions stood at 1.42 million tonnes. This is 41% below estimated 1990 levels and puts Leicester on course to meet the 2025 target of 1.19 million tonnes if the rate of progress is maintained. This is shown in Figure 1.

Figure 1: Leicester's estimated carbon dioxide emissions by calendar year



¹ Leicester's carbon dioxide emissions figures are available at gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2015. The figures are from the subset dataset of Local Authority CO₂ emissions estimates within the scope of influence of Local Authorities.

Amongst the reasons for the reduction were national trends, including more use of renewable energy to generate electricity used by homes and businesses, and less use of coal as a fuel source in power generation and industry.

Action at a local level also has an important influence, and the council can have an impact through its roles in planning, transport, housing, economic development and regeneration. Areas of recent work by the council are summarised below.

- District heating can provide low carbon heating to homes and businesses via a network of pipes supplying hot water from large, efficient boilers and combined heat and power (CHP) units. Leicester already has a scheme serving parts of the city centre and some of the housing estates. It is estimated that this is saving 8,574 tonnes of carbon emissions each year. The council secured Government funding in 2016 for a feasibility study into further schemes, and this found potential in two of the three regeneration areas examined. Meanwhile, developers of two new housing schemes in the city centre, totalling 614 flats, agreed to connect their schemes to the existing district heating network.
- Improvements to energy efficiency in council housing continued, with 1,460 new, efficient boilers fitted in 2016-17.
- Landlords of private rented housing were encouraged to make energy-saving improvements through the offer of grants. 32 new, more efficient boilers were installed during the year through the scheme.
- Small businesses don't always have the time, resources or expertise to benefit from advances in energy-saving technologies and practices to keep their energy costs down. So the council's Leicester Energy Agency secures outside funding to offer advice visits and grants. 50 small and medium enterprises (SMEs) were helped during 2016-17 and a new scheme called Green BELLE, launched in March 2017, will support 750 firms over 3 years.



- The council sometimes has the opportunity to promote low carbon, sustainable approaches to development in the city through its land and property transactions. Our release of land on the north-west edge of the city for new housing at Ashton Green, taking place over a number of years, will secure housing equivalent to level 4 of the former national Code for Sustainable Homes² - leading to a 19% carbon emissions saving. Similarly, the sale of land at Western Park in 2017-18 will secure 15 houses at level 5 of the Code, as well as 5 which meet the Passivhaus³ standard.

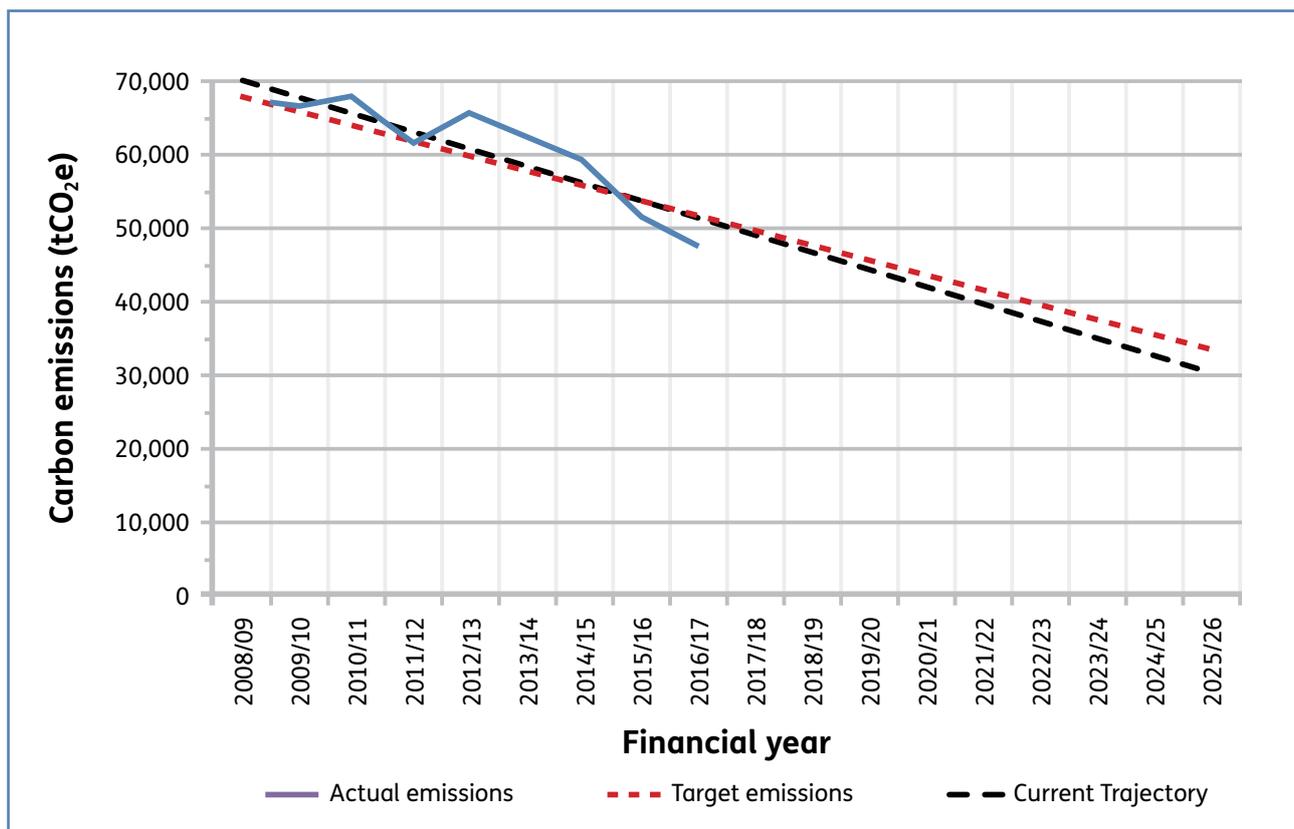
² The Code was introduced by the last Labour Government, but was subsequently withdrawn by the Coalition. It set design standards for 9 aspects of sustainability including energy and CO₂ emissions.

³ Passivhaus is a widely recognised design standard, developed in Germany, and based on achieving energy efficiency through a very airtight building. passivhaus.org.uk/standard.jsp?id=122

Ambition 2: Halve the city council's carbon footprint by 2025

As a large employer, service provider and community leader in the city, the council needs to lead by example in reducing carbon emissions from its own day-to-day operations. For this reason, we have a target to halve our own carbon footprint from its 2008/09 level by 2025. As Figure 2 shows, our greenhouse gas emissions have shown an overall reduction of 30% since 2008/09 which puts us on track to meet the 2025 target. Our carbon footprint stood at 47,676 tonnes of carbon dioxide equivalent (CO_{2e})⁴ in 2016/17.

Figure 2: Leicester City Council's greenhouse gas emissions by financial year



The factors behind the progress so far include:

- The introduction of energy-saving LED street lighting across the city through the White Lights Project, reducing its electricity demand by 54%.
- Relocating city centre based staff into more efficient, refurbished offices with lower energy demand - including City Hall.
- Consolidating community facilities including libraries and community centres into fewer, better-used buildings, through the Transforming Neighbourhood Services project – saving energy by reducing the floorspace of buildings needing to be heated and lit.

⁴ The council reports on its emissions of the 7 main 'greenhouse gases'. Figures for those other than carbon dioxide (CO₂) are converted into the equivalent quantity of CO₂ which would have the same impact on climate change i.e. their carbon dioxide equivalent (CO_{2e}). This is so that a single figure can be reported.

- consolidating our vehicle fleet by reducing our travel and making better use of the remaining vehicles.
- electricity is becoming 'greener' as the UK relies less on coal fired power stations and more on renewables such as wind and solar power.

Amongst the highlights of our recent work to reduce our carbon emissions:

- We invested £150,000 in energy-saving LED way-lighting in housing estates during 2016-17.
- We reduced our fleet by 28 vehicles in 2016-17, as well as replacing diesels with electric vehicles (refer to Air quality and health section). We enabled this by reducing our travel by nearly 7% and making better use of the remaining vehicles.
- Solar PV panels we installed on Braunstone Leisure Centre and Leicester Business Centre in 2016 are expected to generate about 154,000 kilowatt-hours of electricity per year, saving nearly 70 tonnes of carbon emissions.



Air quality and Health

Ambition 3: Meet EU target levels for air quality to create a healthier environment for city residents

UK air quality has been in the headlines regularly in recent years and there is public concern about the health effects of exposure to air pollution.

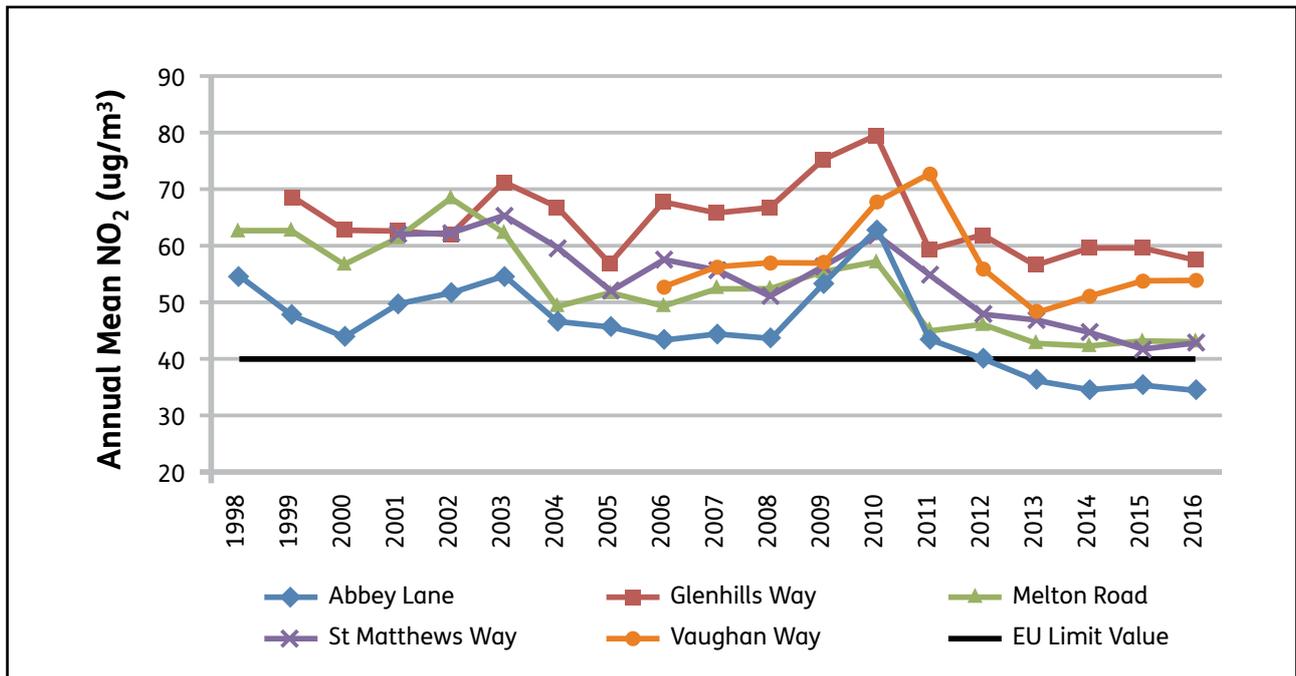
In terms of the risk of short-term exposure to peaks of pollution, Leicester remained well within the national and EU targets for exceedances of maximum hourly/daily average levels of nitrogen dioxide (NO₂) and particles (PM₁₀) at its five roadside monitoring stations in 2016. As Table 1 shows, the limits were exceeded only six times during the year – well within the maximum allowed at all locations.

Table 1: Exceedances of limits for hourly or daily average levels of nitrogen dioxide and particles at Leicester's roadside monitoring stations in 2016

Location	NO ₂ hourly mean level (200µg/m ³ limit)		PM ₁₀ 24-hourly mean level (50µg/m ³ limit)	
	No. of times limit exceeded (18 allowed per year)	Max. hourly mean level reached	No. of times limit exceeded (35 allowed per year)	Max. 24-hourly mean level reached
Abbey Lane	0	162	0	39
Glenhills Way	0	189	4	66
Melton Road	0	146	0	48
St Matthews Way	0	143	Not monitored at this station	
Vaughan Way	1	206	1	56

For longer-term pollution levels, yearly averages are measured and Leicester has, like many other UK and mainland European cities, areas where nitrogen dioxide exceeds the target of 40 microgrammes per cubic metre of air (µg/m³). Levels of traffic – and particularly diesel vehicles – are the main source of the problem. Figure 3 shows how annual average levels of NO₂ have changed at the monitoring stations, in comparison with the EU target level. PM₁₀ annual levels over the same period have only exceeded the EU target of 40µg/m³ once (in 1999).

Figure 3: Annual mean nitrogen dioxide (NO₂) concentrations at Leicester's roadside monitoring stations



While NO₂ levels have reduced at all the monitoring stations since their peak in around 2010, and modelling carried out for the Government predicts that all stations will meet the annual target by 2020, the council nonetheless is proactively working to tackle the problem through its Air Quality Action Plan. Measures in the plan include the introduction of a Low Emission Zone, reducing emissions from the council's vehicle fleet, encouraging walking and cycling through a second phase of the City Mayor's Connecting Leicester project and working with the bus, freight, rail and taxi sectors to reduce their impact.

Recent progress in implementing the Air Quality Action Plan includes:

- Project Breathe has secured government funding over 3 phases to retrofit older buses with pollution abatement equipment. The project targets routes where modelling showed that bus improvements would make most difference to air quality. By the end of 2017, 41 of the planned 43 buses had been upgraded. Emissions levels from a sample of buses are being monitored.
- By the end of 2016/17, 75% of the city bus fleet met Euro IV⁵ or better emissions standards, towards a target of 100% by the end of Leicester's current Sustainability Action Plan in March 2019.



⁵ Euro standards limiting air pollution emissions from new vehicles are set at a European level, with progressively tighter standards being introduced.

- 13 vehicles in the council fleet have been replaced with electric vehicles (EVs) since 2016 and, through our partner Go Travel Solutions, we talked to 70 businesses about taking up EVs themselves. Electric vehicles don't generate any air pollution or greenhouse gas emissions from the tailpipe.
- The council has installed 28 electric vehicle charging points, with 104 provided by partner organisations.



Ambition 4: Encourage healthier lifestyle choices and double everyday cycling numbers by 2018, and then again by 2024

Cycling and walking journeys offer the dual health benefits of an active lifestyle for individual cyclists and pedestrians, as well as fewer pollution-generating car trips in the city. For this and other reasons, the council's Cycle City Action Plan sets the bold target in ambition 4 above.

Progress towards the target is measured using automatic counters next to key off-road cycle routes, as well as figures from a yearly traffic survey. Between 2016 and 2017, everyday cycling numbers went up from 19,678 to 20,785, contributing to a total increase of more than 60% since 2014. While there remains a tough challenge to reach 100% by 2018, we're determined to do our utmost to meet this first milestone.



Amongst the steps we've taken during 2016-17 to promote cycling and walking:

- Pedestrian and cycling improvements were completed on 6 more streets through phase 2 of the City Mayor's Connecting Leicester project. These included new stretches of segregated cycleway and shared pedestrian/cycle space.
- 240 people took part in the Leicester Walking Programme, and others were involved through the Walking for Health and Ageing Together Programmes supported by the council.
- 17,000 people took part in the 2016 Ride Leicester Festival, and partnership arrangements with British Cycling were confirmed up to 2024 - securing the future of the festival over that period.

Our environmental work with schools, described in the next section, also contributed to developing a walking and cycling culture amongst children, young people and their families.

Environmental awareness

Ambition 5: Engage with more individuals, households, schools and employers each year in order to improve environmental awareness

Despite reductions in the powers and resources of local councils over recent years, there remain opportunities to encourage positive environmental action by the public – raising awareness and providing environmental services such as recycling. We believe that this is an important role for us to maintain.

Areas of work and achievements during 2016/17 included:

- Led by our parks and open spaces service, and also involving our conservation staff, we provided a comprehensive programme of volunteering opportunities in Leicester's parks, open spaces and wildlife areas. In terms of nature conservation specifically, we worked with 172 volunteers through the Wild About Leicester project during the year, up from 70 the previous year. Collectively, they gave 719 hours of their time.
- Following door-to-door promotion of recycling services in parts of the city including Hamilton in 2015-16, we carried out customer satisfaction surveys for our Household Waste Recycling Centres, Garden Waste Collection Service and the LOROS Reuse Shop in 2016-17, to help us plan for future service provision.
- Our Environmental Education Co-ordinator supported another 16 schools to register with the national Eco Schools scheme, which provides a framework for building environmental issues into teaching and for schools to green up their own operation – involving pupils, staff, parents and governors. By the start of the 2017 autumn term, 96 city schools were registered, with 29 having reached the bronze level, 24 going beyond bronze to silver and 10 having also achieved the top green flag award.
- We also provided environmental support for local businesses to help them cut their energy bills, and to benefit from taking up new, 'sustainable' travel and transport opportunities. Details are provided in the climate change section of this report.



Open space and wildlife

Ambition 6: Protect and enhance open space and improve connectivity to wildlife areas

Open space and trees are recognised as an essential ingredient of a successful city. They are capable, if managed well, of providing multiple benefits including: beautiful places for residents and visitors to relax, habitats for a surprising range of plants and animals, natural 'buffers' against the risks of flooding or heatwaves and means of absorbing and storing carbon emissions from the atmosphere in vegetation and soil – helping in the fight against climate change. Through our land use planning policies, our ecological monitoring and protection work, and our management of our own open spaces and trees, the council seeks to protect and enhance Leicester's green network.

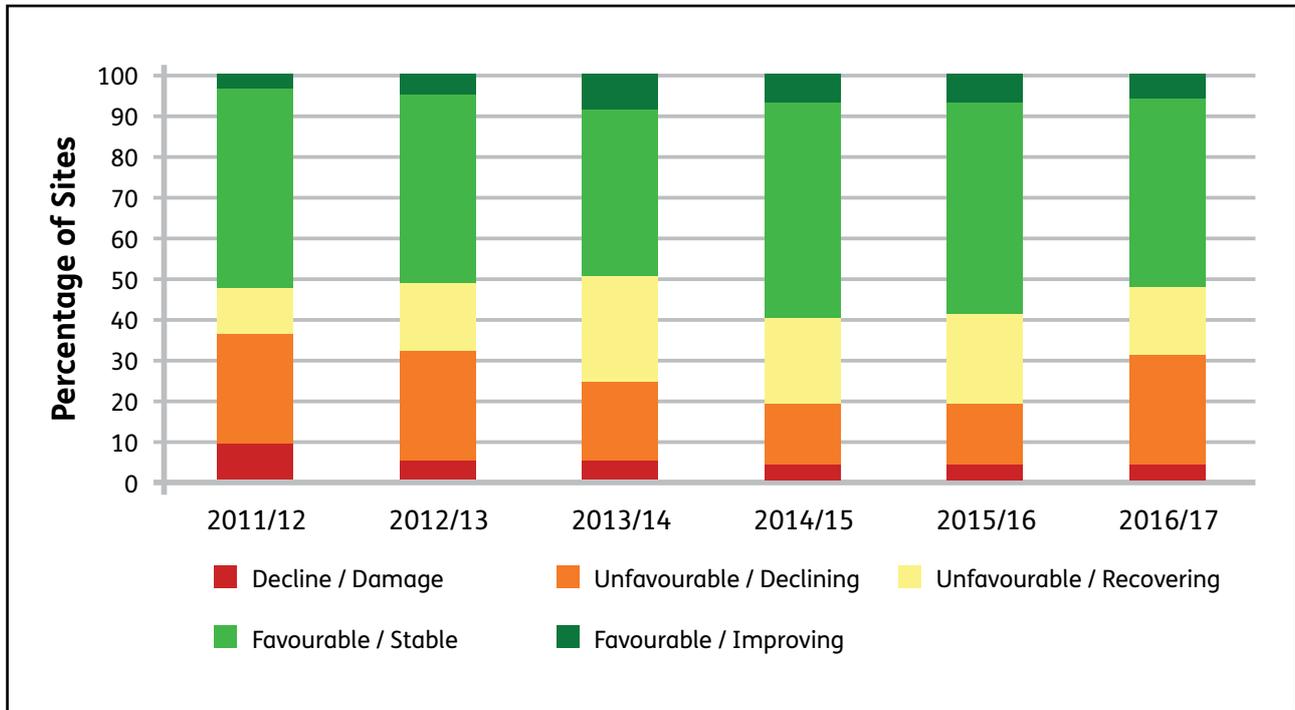
Amongst the areas of work and progress made during 2016/17 we:

- Created or improved wildflower meadows, woodland and open water/wetland areas at: Ellis Meadows, Birstall Meadows wetland, Upperton Road Open Space, the confluence of the Willow Brook and Grand Union Canal, Moira Street Pocket Park and Hamilton College.
- Designated 42 more mature trees on council owned land as Local Wildlife Sites, to aid their ongoing management as a wildlife habitat.
- Planted nearly 215,000 bulbs.
- Published a Green Infrastructure Strategy setting out the recreational, wildlife, flood prevention and other benefits already being provided by each part of Leicester's green network, and highlighting the opportunities to enhance these as the city develops.



Areas of land which meet criteria for their wildlife value are identified as Local Wildlife Sites. Their ecological condition is monitored, with sites graded into one of 5 categories. Changes in the percentage of sites in each category up to 2016/17 are shown in Figure 3 below.

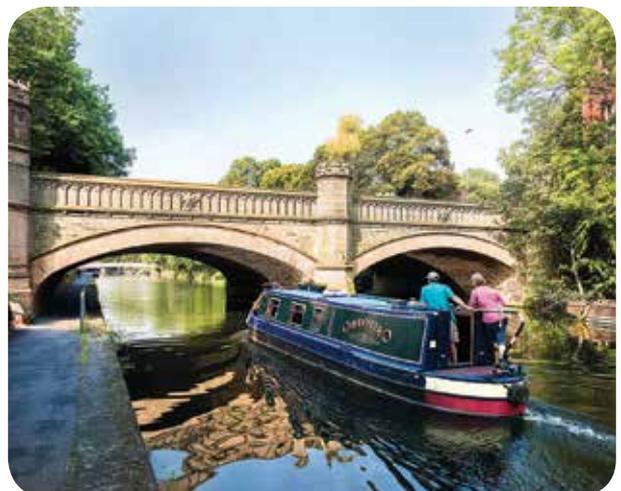
Figure 3: Trends in the Ecological Condition of Local Wildlife Sites



Overall, more than half of the sites continue to be in either ‘favourable – stable’ or ‘favourable – improving’ condition. However, there was an increase in sites assessed as being in ‘unfavourable – declining’ condition between 2015/16 and 2016/17. The reasons for this, and what can be done in response, will need to be carefully considered to work towards sites returning to or retaining favourable status and able to support more wildlife.

Looking ahead, the council launched two public consultation exercises during 2017 with important implications for the future of open space in the city. Consultation on Leicester Local Plan between July and December gave organisations and individuals the opportunity to comment on draft land use planning policies. A parallel consultation on the open space, sport and recreation report took place between August and December. The results of both consultations will be looked at in detail during 2018, to inform the council’s approach.

The council will continue to work closely with the Environment Agency and Local Enterprise Partnership in planning and implementing Leicester’s Flood Risk Management Strategy and economic regeneration. This will be focused on the River Soar in 2017/18 with several sites contributing to enhancement of the green network with additional wildflower meadows, tree planting and wetland habitats to further enhance the conservation value of the River Soar and Grand Union Canal.



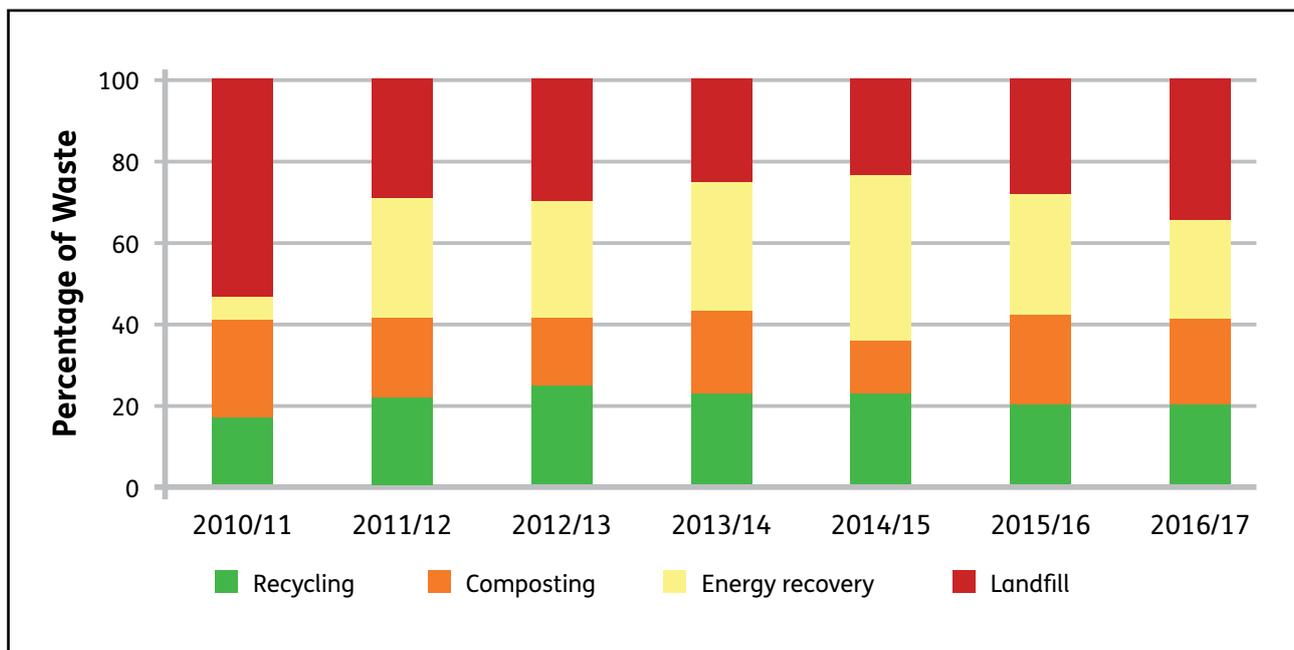
Waste and use of natural resources

Reducing and recycling waste, dealing with litter and using natural resources efficiently - sourcing them responsibly - are other important areas covered under our Environmental Policy. Progress in these areas is outlined below.

Through our contract with Biffa Leicester we provide a collection and disposal service for household waste which aims to minimise what needs to go to landfill by segregating the recyclable and compostable materials, and diverting the combustible materials from what remains to an 'energy-from-waste' plant.

As Figure 4 shows, the percentage of household waste recycled or composted remained at a similar level in 2016/17 (40% compared to 41% in 2015/16), but the percentage sent for energy-from-waste reduced. This was caused by a combination of maintenance closures to the treatment plant and the loss of an outlet for energy-from-waste for part of the segregated combustible materials.

Figure 4: Disposal of Leicester's Household Waste



A new communications campaign, to be launched in 2018/19, will aim to increase public use of the recycling services and the percentage of household waste recycled. Meanwhile, within the council, a new recycling scheme is being introduced during 2017/18 for waste generated from our offices. The new scheme collects plastic bottles and containers, cartons, glass and metal cans and foil in addition to the paper and card which was collected under the old scheme.



In terms of keeping Leicester clean, our rolling programme of random checks confirmed that street cleaning services continued to keep a high percentage of streets and open spaces at a satisfactory standard.

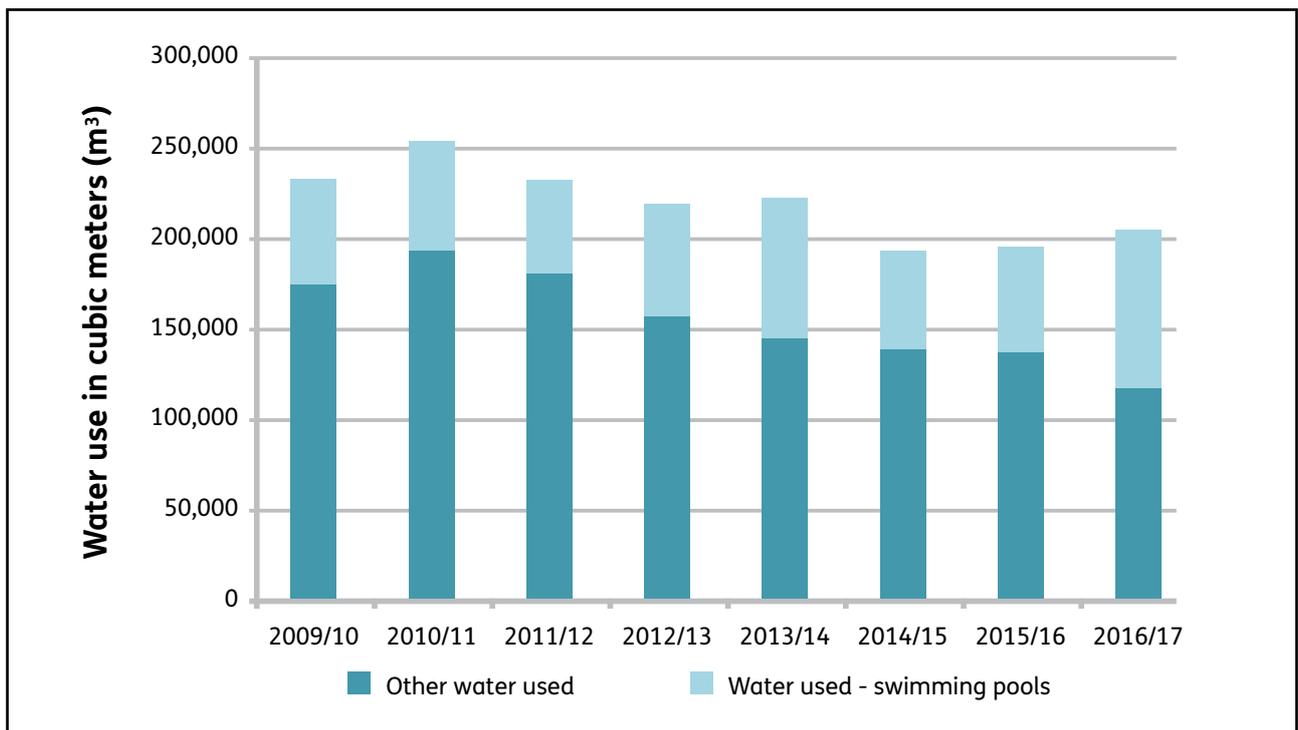
Table 1: Percentage of Streets and Open Spaces Assessed as Satisfactory						
	2011 / 12	2012 / 13	2013 / 14	2014 / 15	2015 / 16	2016 / 17
Litter (%)	87%	88%	88%	88%	90%	88%
Detritus (%)	92%	90%	93%	94%	95%	95%
Graffiti (%)	84%	85%	86%	89%	89%	90%
Flyposting (%)	98%	99%	99%	99%	98%	98%

We closely monitor the gas, electricity and water used by our facilities through automated monitoring, to alert our managers of any problems – helping keep both our bills and environmental impact down.

News on our gas and electricity use is covered under Ambition 2 in the section on climate change. In terms of mains water, as Figure 5 illustrates, the day-to-day usage by our offices reduced by 14%, but an increase in use by the leisure centres – caused largely by a leak at Cossington Street swimming pool which was complex to fix – led to a 5% increase overall. The overall trend since 2010/11 has been down.



Figure 5: Council water use



Further Information

Leicester's Sustainability Action Plan

leicester.gov.uk/your-council/policies-plans-and-strategies/environment-and-sustainability/sustainability-action-plan/

Leicester City Council's Environmental Policy

leicester.gov.uk/your-council/policies-plans-and-strategies/environment-and-sustainability/sustainability-action-plan/environmental-policy/

Energy and Environment Team

sustainability@leicester.gov.uk

 +44 (0)116 454 2110

For information about the Council's work to address climate change and to manage our environmental impacts. Also details of environmental support available for Leicester schools.

Leicester Energy Agency

energyagency.co.uk

info@energyagency.co.uk

 +44 (0)116 454 2284

Support for small and medium sized businesses to reduce their energy bills and carbon emissions.

Promoting biodiversity

leicester.gov.uk/planning-and-building/conservation/nature-and-biodiversity/promoting-biodiversity/

Links to information about volunteering in parks and nature areas, as well as biodiversity events in the city.

Air quality

leicester.gov.uk/your-council/policies-plans-and-strategies/environment-and-waste/air-quality/

Information about city air quality levels, and Leicester's air quality action plan: Healthier Air for Leicester.

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