

**London  
Environment  
Strategy:  
One year on report**

December 2019

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# 1. Introduction

The [London Environment Strategy](#) was published in May 2018. It sets out the Mayor's overall vision to protect and improve London's environment. It also sets a direction of travel for the Mayor and his partners who need to collaborate to achieve these ambitions.

The Mayor also published an [Implementation Plan](#), which focuses on those actions that the Mayor has prioritised to take forward directly between 2018 and 2023 to help implement the policies and proposals in the strategy. The plan included a commitment to report on progress each year.

This document is the first of these annual progress reports. It summarises the actions taken by the Mayor against the policies and proposals in the strategy over the last year, covering the period from the beginning of the Mayor's term (May 2016) to October 2019.

## **London Environment Strategy background**

For the first time, the strategy brought together approaches to all aspects of London's environment, taking action that will improve the city's environment right away, and setting London on the path to creating a better future. Key areas of focus include:

### **Climate Change**

To help tackle the climate emergency, London will be a zero carbon city, with energy efficient buildings, clean transport and clean buildings.

### **Air Quality**

The Mayor aims for the capital to have the best air quality of any major world city by 2050, going beyond the legal requirements to protect human health and minimise inequalities.

### **Green Infrastructure**

To ensure that London's green spaces meet their full potential for improving people's lives, the Mayor aims for London to be greener in the future than it is today and to increase tree canopy cover by ten per cent by 2050.

### **Waste**

The Mayor aims to make London a zero waste city, helping conserve resources and reducing the city's impact on the local and global environment. By 2026 no biodegradable or recyclable waste will be sent to landfill and by 2030 65 per cent of London's municipal waste will be recycled.

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## **Public Consultation**

The draft strategy was published for a 14-week public consultation between August and November 2017 and received the widest reach of any of London's eight previous separate environmental strategies. Responses were received from:

- the public, via online discussion threads, surveys, email, focus groups, interviews, representative polling, and events (2,900 Talk London members completed 5,400 surveys)
- 370 technical stakeholders via an online submissions, email, letter, and events

There was strong support for the Mayor's vision and ambitions, and there were no major areas of policy opposition. However, several consultees suggested amendments or additions to the draft strategy's policies and proposals. These are explained in greater detail in the [Report to the Mayor](#) and many were incorporated into the final strategy. Summary reports of the Talk London responses and representative polling results can be found on the London Datastore.

## **About this report**

This first one-year report contains a chapter on each of the key London Environment Strategy areas:

- climate change mitigation and energy
- air quality
- green infrastructure
- waste
- adapting to climate change
- ambient noise
- GLA Group - leading by example

Actions for each of these areas are grouped as **Programmes, Policies and Lobbying and Partnerships**.

As the Mayor has limited direct powers over most environmental policy areas, to be effective, the actions in this report must be complemented by work from partners and stakeholders.

The GLA has also published a set of high-level environment measures to track how London's biggest environmental issues are changing over time.

Find out more on the London Datastore: <https://data.london.gov.uk/>

## 2. Climate Change Mitigation and Energy

We are in a climate emergency. The Mayor wants London to be a zero-carbon city with energy efficient buildings, clean transport and clean energy. He is also working to enable the move to a low carbon circular economy.

In 2016, emissions were 32 per cent<sup>1</sup> lower than 1990 levels. However, to meet long-term targets requires major changes. These include more energy efficient buildings, a shift towards decarbonised heat and more uptake and availability of sustainable transport options and electric vehicles. Analysis shows that the Mayor currently only has the powers and resources to deliver less than half the carbon emissions required to reach zero-carbon by 2050. To reach net zero, the Mayor will need more powers and funding from national government to retrofit buildings and move away from gas heating.

The Mayor is taking bold action to reduce London's carbon emissions and address the climate emergency. Specific actions in the London Environment Strategy implementation plan have been successfully completed or are well underway. These include:

### *Programmes*

- The [Energy for Londoners programme](#) has reduced carbon emissions by over 167,000 annual tonnes since Sadiq Khan came into office. This is the equivalent to the emissions from around 130,000 new cars a year.
- Since 2016, this programme has supported over 35,200 London homes across all tenures:
  - Warmer Homes has installed energy efficiency measures in over 1,150 owner-occupied and privately rented fuel poor homes
  - RE:NEW has helped 26,800 London homes to be either retrofitted or in contract to be retrofitted with energy efficiency and renewable measures
  - London Boiler Cashback Scheme and Better Boilers replaced and repaired over 4,170 inefficient and broken boilers in owner occupied and fuel poor homes

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<sup>1</sup> Latest available estimates are for 2016 - <https://data.london.gov.uk/dataset/leggi>

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- Warmer Homes Advice Service (formerly Fuel Poverty Support Fund) has assisted over 2,500 households with small energy measures and energy bill saving advice
  - Solar Together London has installed solar photovoltaic (PV) panels in over 620 homes
- The Mayor is supporting up to ten near net-zero energy home retrofits through his Energy Leap project. It will show how homes can be refurbished quickly to be made comfortable and produce enough energy for heating, hot water and appliances. Money that would be spent on energy bills and maintenance pays for the work.
- The Mayor has also supported the retrofit of around 200 public sector buildings. For example, RE:FIT has facilitated the retrofit of the Enfield Civic Centre as part of a wider project with the London Borough of Enfield looking to retrofit up to 39 of their buildings. The Civic Centre is undergoing a range of improvements, including LED lighting and solar panels, saving 100 tonnes of carbon and over £20,000 per year from this one building alone.
- He's also backing 28 renewable power and heat network projects helping London boroughs and TfL to increase clean power by 3MW and save 17,400 tonnes of carbon through his Decentralised Energy Enabling Project. In addition, the Mayor has worked with boroughs and developers to plan for London's local and clean energy in priority areas. [The London Heat Map](#) now has more data to aid decentralised energy development, including secondary heat sources to supply heat networks.
- The Mayor is supporting clean, smart and integrated energy systems to decarbonise London sooner, at lower cost with less disruption through his FlexLondon initiative. The Mayor's energy systems and flexibility programme has supported 192 homes and over 25 organisations to start being more flexible in using, generating and storing energy to cut their energy bills, use more clean renewable energy and reduce carbon emissions.
- The Mayor launched the £500m [Mayor's Energy Efficiency Fund](#) (MEEF) providing long-term, low cost finance to SMEs and the public sector. This will enable them to invest in new low carbon projects and infrastructure in London. To date, two investments have been made for £10.15m from the European Regional Development Fund (ERDF), with a further £12.2m raised to support the investment. The current pipeline of potential investments, including investments from both the ERDF and private investors is worth £193m.
- The [Mayor's Entrepreneur programme](#) continues to support young Londoners to develop new businesses within the low carbon and environmental goods and services

sector. In 2019, the scheme received over 500 applications involving over 1,000 students. Nano Shift<sup>2</sup> was the 2019 winner of the Low Carbon category.

### *Policies*

- In December 2018, the Mayor was one of the first political leaders to declare a climate emergency. He's also released one of the [world's first detailed climate action plans](#) that is compatible with a 1.5C degree pathway. It uses detailed analysis of the policies and measures required to improve London's buildings, decarbonise transport and move to available low carbon energy sources.
- London is the only major city in the UK to have a zero carbon homes standard to ensure new buildings are as low carbon as possible. Despite government scrapping this nationally, the Mayor has been rolling it out in London since October 2016. From next year, the zero-carbon standard will extend to non-domestic buildings too.
- The draft new London Plan will introduce minimum energy efficiency standards and a shift towards renewable heat technologies, heat networks, and integrated energy systems. For the first time, it will also require new referable developments to measure and reduce whole life-cycle carbon emissions, including the embodied carbon from construction. A new in-use energy monitoring platform is being developed to ensure new buildings are performing as intended as new buildings will start to disclose how much energy they are using. New guidance is being developed to support the implementation of these new policies. The draft new London Plan also directs refusal for proposals for exploration, appraisal or production of shale gas via hydraulic fracturing (fracking).
- The Mayor announced in September 2019 that London Power, a new energy company for London, would be open for business in January 2020. It will offer all Londoners fairer electricity and gas prices, and help tackle fuel poverty.

### *Lobbying and partnerships*

- The Mayor is supporting London's businesses to reduce their emissions and contribute to climate action. In September 2018, the Mayor launched a new [London Business Climate Leaders](#) group. It includes 11 international companies with a major presence in London and a strong track record in reducing their carbon emissions. The group is working with City Hall to go further than their current plans and roll out electric vehicle charging, improve their buildings and invest in renewable projects across London.

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<sup>2</sup> NanoShift has a patented technology which enables the production of Nanocellulose from waste sources. This can be used to significantly expand the proportion of waste that can be recycled, as well as to functionalise and enhance a range of products' performances including packaging, insulation and energy storage.



- The Mayor has several programmes to help London businesses contribute to a low carbon circular economy. The Better Futures cleantech incubator project supports cleantech SMEs to develop and bring to market low-carbon and cleantech products. These will help address climate change, air quality and other environmental issues. The project has supported 72 SMEs so far to develop their business.
- Since 2016, the Mayor is divesting GLA cash assets from fossil fuels and put in place a policy across the GLA group covering £4.5bn of assets. He's worked with the London Pensions Fund Authority (LPFA) to advance this agenda, by for example, developing a climate change policy for the fund that includes divestment. Thirteen London boroughs are now committed to divestment, as well as London's universities, and private sector pensions. At the start of this administration the LPFA held direct investments in extractive fossil fuels of £43.6m or one per cent of its total assets under management (AUM). As at 31 March 2019 LPFA's equivalent holdings have reduced to £22.8m or 0.4 per cent of AUM. Green investments have grown from £93m to around £135m – with green investments now accounting for eight per cent of the funds' assets.
- The Mayor is also supporting other cities internationally to act on divestment. Together with Mayor de Blasio of New York, in September 2018, the Mayor announced a new global initiative; the C40 Cities Divest/Invest forum. This currently involves 13 global cities working together to advance divestment at city level and advocate jointly for global action. In May and June 2019, Montreal and Pittsburgh announced plans to divest, citing London and the forum's work in this area.
- The Mayor has continually called for greater national policy to drive decarbonisation and better support decentralised energy. He has written to and met with UK Ministers and officials. He's also responded to government consultations using evidence from the 1.5C climate action plan and experiences of delivering renewable and decentralised energy projects in London.

### **Solar Action Plan**

The Mayor has rolled out key recommendations of the [Solar Action Plan](#).

- Solar Together London, the Mayor's successful group-purchasing scheme launched in March 2018. The scheme has delivered high quality solar photovoltaic (PV) panels in 624 homes, with costs reduced by 35 per cent on average. Fifteen boroughs have taken part to date, with a third phase of the scheme launched in September 2019.
- In 2017, the Mayor launched his £400,000 London Community Energy Fund (LCEF) to support community groups in London develop more community energy projects. LCEF is already supporting 31 community energy projects expected to generate an additional 1.4MW of solar power in London.
- In addition, the Mayor has used the planning process, and draft new London Plan to encourage the development of solar installations on new developments. In 2018,

some 77 per cent of referable new developments included solar PV. There was also a big increase in capacity compared to 2017- from 3.5MW to 5.5MW. In addition, the Mayor is taking steps to ensure better data is available to support the uptake and delivery of solar technologies in London, with a new Solar Mapping tool being developed.

### **Fuel Poverty Action Plan**

The Mayor has rolled out key recommendations of the [Fuel Poverty Action Plan](#).

- In January 2018 he launched the Warmer Homes scheme to fund energy efficiency improvements and other support for fuel poor households. So far 1,100 homes have been supported through the scheme.
- The Mayor's Warmer Homes Advice Service (formerly Fuel Poverty Support Fund) has helped boroughs deliver a London-wide fuel poverty advice and referral network. It has already helped 2,557 households. The Fuel Poverty Partnership has also brought together experts across the health, social and environment sectors to guide London's work on fuel poverty.

### **London Climate Action Week**

The first ever [London Climate Action Week](#) ran from 1-8 July 2019. It highlighted what's already being done here to help tackle our climate crisis, and London's role as a global hub for climate action. Around 170 events took place across London from art exhibitions to student and youth events, international green finance conferences and seminars.

Several new commitments were made during the week including:

- A group of key hospitality sector organisations committed to move to zero carbon by 2050. They also promised to achieve a 75 per cent recycling rate by 2025 and reduce food waste by 20 per cent by 2025.
- Royal College of Emergency Medicine (RCEM) and Royal Society of Arts announced that they have sold all remaining shares in fossil fuel companies.
- Climate Group announced 50 companies have made commitments to convert their fleet to EVs.
- A group of ten London landlords and big business tenants committed to work together to achieve a cleaner, healthier London. They also called upon all of London's big businesses to join key Climate Group initiatives.

## 3. Air quality

The Mayor has set ambitious targets to cut harmful air pollution emissions. He wants London to have the best air quality of any major world city by 2050. This includes meeting legal pollution limits by 2025 and tighter World Health Organization (WHO) recommended guidelines for particulate matter (PM<sub>2.5</sub>) by 2030.

Improving air quality is crucial for both environmental reasons and public health reasons. Over two million Londoners live in areas that exceed legal limits for nitrogen dioxide (NO<sub>2</sub>). This includes more than 400,000 children under the age of 18. In excess of 450 state schools are also in areas with illegally polluted air. Improving air quality is also a matter of social justice. On average, the poorest Londoners are exposed to the worst pollution. However, they are also least likely to own a car - one of the biggest contributors to the problem.

Several actions in the London Environment Strategy implementation plan have been successfully completed or are well underway. These include:

### Programmes

- On 8 April 2019, the Mayor introduced the [central London Ultra Low Emission Zone \(ULEZ\)](#). It means that vehicles that don't meet tough emissions standards are charged to enter the zone, 24 hours a day, seven days a week. The Mayor has committed to extend it up to the North and South Circular roads in 2021. He will also apply the ULEZ standards for heavy vehicles in the London-wide Low Emission Zone in October 2020. The ULEZ is already having a big impact. Data from September 2019 highlight that 77 per cent of vehicles in the zone now meet the ULEZ emissions standards. This is much higher than the 39 per cent seen in February 2017. Roadside nitrogen dioxide (NO<sub>2</sub>) pollution has reduced by 36 per cent in the zone from February 2017 to September 2019. None of the air quality monitoring sites located on ULEZ boundary roads have measured an increase in NO<sub>2</sub> pollution levels since the scheme was introduced in April 2019.
  - The Mayor has made [£48 million of scrappage support](#) available to help those who may find it more difficult upgrading to greener options, including sole traders, microbusinesses, charities and low income residents.
  - The Mayor is concerned about poor air quality around London's schools. That is why he launched two programmes to audit 50 primary schools and 20 nurseries in high pollution areas. The Mayor also provided grants to help rollout audit recommendations at these schools and nurseries. These include installing green screens, helping to introduce school streets to reduce traffic outside schools at peak time, and encouraging students
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to walk/cycle to school along less polluted routes. Following delivery of the schools programme, several boroughs have now committed to running further air quality audits.

- The Mayor has delivered all [12 Low Emission Bus Zone](#) routes ahead of schedule. This has reduced bus-related NOx emissions by an average of 90 per cent along some of the capital's most polluted routes. Around 85 per cent of all Transport for London (TfL) buses – including all buses operating in the ULEZ – now meet or exceed ULEZ emission standards. By October 2020, the whole TfL bus fleet (c. 9,000 buses) will meet or exceed ULEZ standards. TfL now has the largest zero emission bus fleet in Europe (and the world's largest outside China).
- The [Mayor's Air Quality Fund \(MAQF\)](#) is helping boroughs clean up some of our most polluted streets. Round three of this £22 million, ten-year fund, was announced in June this year. In it, the Mayor committed to funding 15 innovative air quality projects, including four new [Low Emission Neighbourhoods \(LENs\)](#). A LEN is a comprehensive package of measures in an area of high pollution and exposure. It can include infrastructure to support walking and cycling, greening, ultra low emission vehicles, and measures to reduce emissions from freight. Nine borough-led and six business-led LENs have been funded through the MAQF to date, spanning 12 boroughs.
- Rule changes mean that new diesel taxis are no longer being licensed. Since January 2018, more than 2,500 Zero Emission Capable taxis have been licensed. In 2019, TfL consulted on changing the age limit of black cabs to reduce emissions from taxis. This is part of the Mayor's proposals to cut taxi-based NOx emissions by 65 per cent by 2025.

### *Policies*

- The Mayor's draft new London Plan has embedded an air quality neutral approach for all developments in London. This complements the successful non-road mobile machinery Low Emission Zone, which was introduced previously to continue to reduce emissions from the construction sector. For the largest developments, the draft plan has introduced an innovative air quality positive approach. This will ensure they contribute actively to a progressive reduction in the total amount of London's emissions and associated exposure. Developers will also be expected to treat the WHO targets for PM<sub>2.5</sub> in the same way as legal limits for other air pollutants; a move that will help address the Mayor's long-term goal to meet WHO targets by 2030.
- In May 2018, the Mayor launched the Electric Vehicle Infrastructure Taskforce to help assess London's likely future EV infrastructure needs. In June 2019, the Mayor published a new [London EV Infrastructure Delivery Plan](#). It sets out how the city will expand public charging points to increase the uptake of electric vehicles to 2025. The work on this area is already having major impacts. The Mayor has helped install over 200 new rapid charge points so far, and 72 of these are dedicated to the taxi trade. The "[Go Ultra Low City](#)" partnership between the GLA, TfL and London Councils has helped

boroughs install a further 1,200 points. These are sited in lamp columns to help drivers to charge overnight in residential areas and more are on the way.

- The Mayor, through TfL, has also supported local town centre zero emission zones (ZEZs) including funding the first zone in Hackney.

#### *Lobbying and partnerships*

- The Mayor wants government to support his ambition to meet WHO guideline limits by 2030 by adopting it as a legally binding limit. He's also called on them to end the sale of fossil fuel vehicles by 2030, rather than 2040. The Mayor has continued lobbying for more powers to control emissions from other sources such as non-road mobile machinery. He has also called for powers to control other sources of pollution including from woodburning and the river.
- The General Election has slowed progress on new legislation. However, many of the Mayor's priorities have been adopted into the Government's Clean Air Strategy, such as commitments to introduce new rules for sources of pollution such as solid fuel burning and non-road mobile machinery and limits for PM<sub>2.5</sub> (although these currently fall short of the Mayor's ambitions). This was an early sign of success for his lobbying efforts.
- The Mayor strongly opposes the expansion of Heathrow Airport. Although the first Judicial Review, which we were part of, was unsuccessful, in response to the case put forward by the Mayor, the judge made clear that air quality considerations should be the 'reddest of red lines' when deciding on the application for a third runway at Heathrow. The Mayor is continuing to challenge the government's support for the third runway through both the Appeals Court and planning process.

#### **Improving measurement and local management of London's air quality**

The Mayor has launched the world's most comprehensive air quality monitoring network, 'Breathe London'. It helps build up a real-time, hyperlocal image of our air quality. Breathe London has a network of sensors and uses monitors installed on Google Street View cars to measure air quality in thousands of locations around the city. It also includes a trial of air quality monitoring backpacks worn by 250 school children, and air quality pollution monitors at ten London hospitals. In July 2019, after eight months of operation, results show that high pollution levels were detected by 40 per cent of the sensors. The findings also show that poor air quality is a problem across London and not just for those living and working in central London.

The Mayor's London Local Air Quality Management (LLAQM) framework is the statutory process used by local authorities to review and improve local air quality. The Mayor has developed and published a revised LLAQM framework and local action matrix to ensure boroughs are delivering the most effective measures to improve air quality.

### **Giving Londoners better air quality information**

The Mayor has teamed up with King's College London to give the public better air quality information. Air quality advice and alerts are now being displayed at many public locations across London such as 2,500 bus stops and all Tube stations. Alerts and guidance are also available via social media, an app and a text alert service. The Mayor has issued eight high alerts since the new alert system has been in place. Schools, boroughs, care homes, GP surgeries and key NHS stakeholders now get the high and very high alerts directly.

In January 2018 the Mayor published [guidance on citizen-led AQ monitoring](#) for anyone wanting to monitor air quality using diffusion tubes or low-cost sensors.

Burning wood and other solid fuels can also add to air pollution problems. The Mayor has published [guidance on cleaner fuels and stove options](#).

To help Londoners make an informed choice when buying a vehicle, the Mayor created a [Cleaner Vehicle Checker \(CVC\)](#) online tool. It means Londoners can check the real-world emissions from a car or van and find out if they meet ULEZ standards. Since it was launched, the tool's been used over 100,000 times.

## 4. Green Infrastructure

London's parks, green spaces and riversides are where Londoners can relax, exercise, play and enjoy nature. In combination with other features, such as street trees, green roofs and sustainable drainage, this green infrastructure helps to improve Londoners' health, protects the city from climate change and conserves wildlife. As London grows, it will become ever more vital in maintaining London's status as a world class city where people want to live and work, and where businesses want to invest.

The Mayor wants London to be even greener in future than it is today. The confirmation of London as the world's first National Park City in July 2019 highlights the importance of the London's green infrastructure to the city's future. The London Environment Strategy sets several ambitious targets to make this happen. This includes ensuring more than half of London is green in 2050 and increasing existing tree canopy cover by ten per cent. To achieve these, the Mayor has introduced a range of new initiatives and policies.

This urban greening is directly helping to improve Londoners' quality of life. It is also helping improve London's air quality and responds to the global climate emergency and ecological crisis. Key achievements include:

### *Programmes*

- The Mayor has created a £12m [Greener City Fund](#). It is providing funding for local communities to plant trees, improve green spaces, create wildflower meadows, and establish community orchards and food-growing areas. The programme has helped to create or improve 175 hectares of green space and so far:
  - the Mayor has funded 175,000 new trees. This includes 79,000 trees during London's biggest ever mass tree planting event in December 2018
  - the Mayor has supported over 130 community projects to improve local green spaces. This includes 49 projects that have greened school grounds, helping to improve children's access to nature and reduce exposure to air pollution
  - around 15,000 Londoners, including over 7,000 children, have been involved in community green space and tree planting projects
  - £2.1m has been awarded to [15 projects](#) across London which are supporting the improvement of larger green spaces or greening major regeneration projects. Examples include creating a swimming lake in Beckenham Place Park and a new green way walking and cycling route in Barking.

- More tree planting grants, and tree giveaways for Londoners were announced in autumn 2019. These will support the planting of 100,000 trees between November 2019 and March 2020. Further Greener City Fund grants to improvement community green spaces will also be awarded for projects to take place in 2020 and will be reported on in the next implementation report.

### *Policies*

- The Mayor's draft new London Plan has proposed increased protection of the Green Belt, Metropolitan Open Land, public open space and nature conservation sites. The London Plan also introduces a new planning tool – the [Urban Greening Factor](#) that will ensure all new major developments include urban greening such as green roofs and walls, trees and sustainable urban drainage. Preparatory work has also started on updating the All London Green Grid Supplementary Planning Guidance, the capital's green infrastructure spatial framework. This will be published following the adoption of the new London Plan in 2020.
- The Mayor has also published an updated list of [priority species](#). Priority species are a material consideration in land-use planning decisions, and land managers and landowners should take these species into account when implementing projects which could provide opportunities to support their conservation.
- The Mayor has established the [London Green Spaces Commission](#) to help boroughs in developing new models for financing their parks services. Many have been affected by the cuts to public funding. The commission is using its knowledge of the economic value of London's public green spaces to demonstrate the need for continued investment. The commission will publish its initial recommendations in early 2020. In parallel, a pilot project, funded through the [Future Parks](#) initiative, and supported by the Mayor, is underway in Camden and Islington to focus on how parks and green spaces can be designed and managed better to achieve public health outcomes.

### *Lobbying and partnerships*

- To support the Mayor's ambition to make London greener in the future than it is today:
  - the Mayor hosted a summit at City Hall in July 2019 to confirm London as the world's first [National Park City](#). This new status was given by the National Park City Foundation. It was endorsed by national and international organisations including Natural England, World Urban Parks, ICLEI – Local Governments for Sustainability, and the International Union for the Conservation of Nature
  - this was celebrated by the first [National Park City Festival](#) from 20-28 July. With over 300 events across London's green spaces, 90,000 Londoners got involved during the ten-day festival. It reached new groups, with a third visiting event spaces for the first time. Two thirds of visitors said they felt inspired to get outdoors more in the future.



- £2.6m of funding secured from the European Union Horizon 2020 programme is being invested over the next four years to support the regeneration of Thamesmead through green infrastructure co-designed by local residents. Planned improvements include greener streets, green walking routes, natural play features and courtyards incorporating sustainable drainage and community gardens as well as cleaning up and improving the ecology of Southmead lake so it becomes a valuable landscape asset for residents.

### **Giving Londoners better information on green infrastructure**

In addition to the National Park City festival held in July 2019, other key campaigns included:

- Signing up over 25,000 Londoners to help them find out how to join greening activities and events ahead of 2018 National Park City Week. This included an [online toolkit](#) highlighting simple things Londoners can do to make our city greener, healthier and wilder.
- A mass tree planting weekend in December 2018 involving 3,000 Londoners planting trees in parks and green spaces and 12,000 people planting trees in their gardens.
- The '[Give it a Grow](#)' project which gave away 10,000 planting kits in September 2019 filled with bee-friendly bulbs and seeds, to inspire Londoners to improve gardens and create green balconies and windowsills to help wildlife.

### **Improving access to green data**

The Mayor has developed new methodologies and mapping to support the greening of London. Some key achievements included:

- Publishing a [green infrastructure focus map](#) to help target future green infrastructure investment.
- New [tree canopy cover](#) and [green cover](#) assessments for London using high-resolution aerial imagery. These established that London's green cover is between 48 per cent and 51 per cent and tree cover is at 21 per cent.

## 5. Waste and Circular Economy

The Mayor is working to create a circular economy to reduce the waste produced by London's homes, public buildings and businesses. Only 33 per cent of London's local authority-collected waste is currently recycled, the lowest of any region in the UK. Landfill and incineration are undesirable, costly and a waste of resources. Recent figures show that London's rate of recycling is increasing.

The London Environment Strategy details plans to make London become a zero-waste city, with no biodegradable or recyclable waste sent to landfill by 2026. The Mayor has set a London-wide target of recycling 65 per cent of municipal waste by 2030. Specific actions in the implementation plan have been completed or are well underway. Key achievements include:

### *Programmes*

- To cut single-use plastic waste in London the Mayor is promoting schemes that allow Londoners to refill water bottles. He supported the launch of [Refill London](#) last year. There are now over 3,000 shops, businesses and organisations that are offering free water refills to the public. This includes large chains and iconic London venues, such as Leon, Costa, National Theatre and Tate Modern. The Mayor also worked with TfL to ensure their 2019 summer communications campaigns promoted the use of reusable bottles.
- The Mayor worked with the Zoological Society of London to install 28 drinking water fountains across London as an initial pilot in 2018-19. In the first 12 months, 20 of these fountains have dispensed the equivalent of 155,000 half litre plastic water bottles. The Mayor also announced a [partnership with Thames Water](#) to install more than 100 additional drinking fountains across London over the next two years. The location of the first 50 water fountains have been announced, eight on TfL sites. Twenty of these fountains have so far been installed.

### *Policies*

- The Mayor is supporting all boroughs to produce Reduction and Recycling Plans (RRPs). These will include borough specific recycling targets that will contribute to the London-wide 65 per cent recycling target. The Mayor has provided guidance to all boroughs to rollout the minimum level of recycling service by 2020 and over 20 RRP are now being assessed.
  - The Mayor has approved 14 waste authority contracts that are in general conformity with the London Environment Strategy.
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- The draft new London Plan has embedded policies to ensure there are enough suitable waste sites to maximise London's waste management capacity. It also supports circular economy outcomes of reuse, repair and remanufacture. In addition, it includes a requirement for all referable development applications to produce a statement demonstrating how circular economy approaches will be embedded in design and construction.

#### *Lobbying and partnerships*

- The Mayor is lobbying government to enhance resource efficiency and help reduce food waste. He has responded to the consultations which followed the government's Resources and Waste Strategy and strongly stated his support for these proposals. The Mayor also continues to lobby government to provide London with its fair share of landfill tax credits to boost recycling performance.
- The Mayor has set a London-wide carbon emissions performance standard (EPS) targets for local authority waste activities. This will reduce greenhouse gas emissions from London's waste management activities. In May 2019, he published an [online calculator tool and guidance](#) to help boroughs meet targets. He also hosted two workshops in 2019 to further help boroughs determine the performance of their waste activities using the tool.

#### **Our work with the London Waste and Recycling Board (LWARB)**

LWARB is a partnership between the Mayor and London boroughs to improve waste and resource management. Some achievements to date include:

- The Advance London project aims to help SMEs in London make the most of opportunities in the circular economy. Advance London has so far supported 132 SMEs, contributed to 24 new product launches and the creation of 33 new jobs.
- A year-long flats recycling pilot study in ten estates through Resource London. The aim was to identify and put in place the best measures to boost recycling performance in flats. The first report was published in February 2019.
- The publication of the London's Circular Economy Route Map in June 2017. This identifies key opportunities that, if rolled out, could contribute £2.8bn a year to London's economy by 2036.
- The contribution, as delivery partner, to TRiFOCAL, an EU Life-funded project. It is piloting fresh ways to reduce food waste at home, promote healthy and sustainable eating, and recycling of inedible food waste.

**Improving access to waste data**

The Mayor, supported by the Environment Agency and London Waste Planning Forum, has developed [a London waste facilities map](#). This is updated yearly and available publicly to help stakeholders identify and access local waste facilities and find suitable sites for new facilities.

The Mayor, in consultation with waste authorities, published a [waste contract register](#) in February 2019. It sets out when waste authority contracts come up for renewal and support joint working and joint procurement opportunities.

## 6. Climate Change Adaptation

We are already experiencing some climate change impacts in London and the city must continue to adapt. The Mayor wants London and Londoners to be resilient to severe weather and longer-term climate change impacts, including flooding, heat risk and drought.

We know that on current global emissions trends, the impacts from climate change will only get worse. Projections show that London will experience hotter, drier summers and warmer, wetter, winters. This is already being seen with the 2018 and 2019 heatwaves, when temperatures in London hit 38 degrees Celsius. Climate change will also make flooding more frequent and severe and threaten water resources. There are already over 200,000 residential and commercial properties at risk of flooding from heavy rainfall events in London.

The Mayor is already taking some of the most radical action of any world city to adapt London to our changing climate. Key achievements within the last year include:

### *Programmes*

- In 2018, the Mayor kept Londoners informed during extreme heat and cold events by sharing messaging from Met Office and Public Health England. This included alerts at public locations across London and providing advice on coping during these periods and how to help the most vulnerable. Since launching the new approach, the Mayor has used these communications five times to protect Londoners.
  - The Mayor has joined up climate change adaptation and mitigation actions through the Energy for Londoners programme. Warmer Homes and RE:FIT now recommend water efficiency measures and provide advice and measures to mitigate overheating. Since RE:NEW phase 3 launched, social housing providers have been supported to install measures saving over 16,000m<sup>3</sup> of water from domestic households per year. This is the same as the amount of water 100,000 Londoners use in a day.
  - The Mayor has funded more green spaces across London that are better at holding and slowing down rainwater to reduce surface water flooding. In September 2019, he provided £55,000 of grants, partnering with Groundwork, to help Londoners remove paving and unused concrete and reduce the risk of surface water flooding. This included turning a bare pavement area in Waterloo into a planted area which both looks better and captures excess surface water.
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### *Policies*

- To tackle surface water flooding, the Mayor rolled out the London Sustainable Drainage Action Plan. This included developing a mapping tool in December 2018 for boroughs to identify opportunities to install sustainable drainage. He has also put in place a series of bespoke SuDS training for highways engineers, with more to follow.
- The Mayor is developing Integrated Water Management Strategies for the Isle of Dogs and Royal Docks, two of London's key growth locations. These strategies, which are due in early 2020 will recommend solutions for tackling flooding, sewer capacity and water scarcity.
- The Mayor's Water Advisory Group brings together senior representatives from the water and flood risk sectors. This enables better coordination and delivery of solutions for Londoners across sectors and organisations. It includes joining up on developing shared water resources, accelerating water efficiency across companies and preparing joined up actions for drought in London.
- The Mayor is strengthening climate adaptation policies for new developments in the draft new London Plan. This includes prioritising green sustainable drainage and water reuse, bringing additional benefits beyond flood risk. It also includes policies to reduce the impact of new development on the urban heat island.

### *Lobbying and partnerships*

- The Mayor is working closely with the Environment Agency to ensure London remains well defended against tidal flooding. This includes successfully asking neighbouring authorities to ensure there is land for a new Thames Barrier, likely to be needed in the 2070s. The Environment Agency's plan (Thames Estuary 2100) for managing tidal flood risk for London forecast that sea levels could rise up to 2.3 meters by 2100.
- The Mayor is holding water companies to account to increase their resilience and that of London's water, plan for new water resources and reduce leaks. In responding to their plans, and in letters to the Ofwat Chief Executive, the Mayor detailed his preferred approach to water resource management for London. This is where water demand is reduced alongside delivering new water infrastructure. The Mayor supports the National Infrastructure Commission's recommendation of a 50 per cent reduction in leaks by 2050. After the water outages during 2018's 'Beast from the East', the Mayor helped secure a compensation package, above the statutory minimum, for affected Londoners.

**Giving Londoners better information on Climate Adaptation and Resilience**

The Mayor ran London's first Flood Awareness Week in November 2018. The aim was to help Londoners understand more about how to prepare and what to do if their home is flooded. The event was held in collaboration with the Environment Agency, Thames Water and London Resilience. It included a targeted campaign to reach the most vulnerable Londoners.

The Mayor also ran the Week in November 2019. The event had high levels of engagement from the social media and web materials promoted, reaching to over 30,000 Londoners.

**Improving access to data**

The Mayor wants to create a centralised climate data repository. In March 2018, the [London Datastore](#) published indicators for water scarcity, heat risk and flooding risk. Additional indicators will continue to be added to provide an evidence base for how London is prepared for the impacts of climate change and to monitor progress. Data held by the relevant organisations with responsibility for actions is signposted from the London datastore to improve access.

**Our work with the London Climate Change Partnership**

The Mayor hosts the [London Climate Change Partnership](#) (LCCP), a network of experts from the public, private and community sectors in London. It is a forum for coordinating activity and knowledge sharing among those working to make London more resilient. The LCCP has established working groups for transport and health which have committed to adaptation plans and projects. A research programme on the impacts of heat on transport networks began in 2019 to identify the level of service disruption caused by high temperatures. For health, a new approach to promoting year-round resilience to overheating is being developed. Adaptation has also been embedded into the local delivery of the NHS Long-Term Plan's sustainability commitments.

## 7. Ambient noise

Noise is part of a vibrant city, but too much noise can damage people's health. Ambient noise can worsen a range of physical and mental health problems, disturb sleep and affect people's hearing, communication and learning. Many noise problems are interconnected, and together they pose a threat to the future of the city. The WHO recognises environmental noise as the second largest environmental health risk in Western Europe behind air quality.

The Mayor wants to reduce the number of Londoners adversely affected by noise. Using his powers regarding Ambient Noise, the Mayor will promote more quiet and tranquil spaces.

The Mayor's actions to reduce the adverse impacts of ambient noise are helping to improve Londoners' quality of life. They also contribute towards improving London's air quality and respond to the global climate emergency and ecological crisis. Achievements to date include:

### *Programmes*

- London's newly electric bus fleet is helping to improve London's soundscape as they emit less high and low 'nuisance' frequencies. TfL is rolling out an Acoustic Vehicle Alert System later this year ahead of it being made mandatory by Government. This will help protect vulnerable road users like pedestrians and cyclists.
  - The Mayor is supporting the switch to electric taxis and the rollout of charging infrastructure across London. This will directly support more electric vehicles on London's roads which will result in noise reductions.
  - As part of the [Vision Zero Action Plan](#), the Mayor through TfL is proposing a 20mph speed limit in central London. This will be put in place on the roads TfL owns and operate by 2020. TfL consulted on specific plans in June and July 2019. Lower speeds will result in noise reductions.
  - The Mayor, through TfL is reducing noise and vibration across London Underground and Overground networks to benefit communities living near lines, customers and staff. TfL spends £150m each year on maintaining and modernising the Tube network. It has carried out track work to help over 200 homes most affected by noise. TfL also continues to work with academics to explore and test new approaches and technologies to further reduce noise and vibration across its network.
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### *Policies*

- The Mayor has scrutinised airport expansion proposals to understand the full environmental impacts and has called for noise to be minimised. In June 2019, he responded to the Government's aviation strategy green paper. The Mayor called for a fully independent noise regulator with monitoring and enforcement powers covering general aviation including helicopters. He also flagged serious concerns with the use of concentrated flightpaths. Finally, he called for the noise reduction benefits of new technology to be shared with communities rather than banked by the industry.
- The Mayor has embedded key policies addressing noise (policies D12 and D13) within the draft new London Plan to reduce adverse noise and protect London's acoustic environment.

### *Lobbying and partnerships*

- In March 2019 the Mayor launched TfL's [Freight and Servicing Action Plan](#). It outlines how the Mayor, through TfL, will work with boroughs, businesses, and the industry to transform how deliveries are made in London. A key part of this work is reducing the noise impact of freight and servicing. Actions to do so include consolidation, retiming, fleet electrification and supporting deliveries by walking and cycling where possible. TfL has also published toolkits for freight operators to encourage quieter practices. This includes guidance on doing noise assessments and creating noise management plans.
- Defra is the Government department responsible for noise mapping and producing noise action plans under the Environmental Noise Directive. The GLA made a submission to Defra's draft noise action plans in 2018. This submission highlighted the need for the action plans to consider a broad range of places where people may be affected by noise besides just the home, for example schools, workplaces, parks and hospitals. TfL also joined Defra workshops to identify potential gaps in data with a view to producing a stronger dataset for London in future. The GLA and TfL continue to liaise closely with Defra on these issues.

## 8. Leading by example – GLA group

One of the core principles of the London Environment Strategy for the Mayor and wider GLA group organisations is to lead by example. Specific examples of actions where the GLA group is showing leadership include, but are not limited to:

### *Reducing carbon emissions*

- The GLA is working with the wider GLA group organisations to see how to use their collective energy demand to encourage more renewable energy investment. City Hall has already switched to 100 per cent green energy (renewable electricity and green gas).
- Work to maximise the use of on-site renewables continues. TfL is currently progressing 1.1MW of solar installations through the RE:FIT programme. The London Fire Brigade (LFB), with solar already installed in over 50 per cent of their buildings and a capacity of 0.82 MW, is currently reviewing the options for further installations. And the Metropolitan Police Service (MPS) has 22 Solar PV systems, having installed new systems at Kilburn and Hendon since 2016, with two further systems in progress to increase their total capacity to 0.68 MW.

### *Improving the GLA fleet*

- GLA group organisations are moving their fleet to zero emission vehicles. MPS has the largest GLA group fleet. It is phasing out fossil fuels (and transitioning to zero or Ultra-Low Emission Vehicles (ULEVs) to create a model fleet for London. So far, 549 MPS vehicles (11 per cent of its fleet) are zero or ULEVs.
- LFB is supporting the delivery of infrastructure to support charging and refuelling of electric vehicles. Since 2016, 81 sites have had electric vehicle charging points installed, covering up to 75 per cent of their sites, nine of which are accessible to the public. LFB is on track to achieve around 95 per cent coverage of their sites by 2020.

### *Procuring responsibly*

- In March 2019, the GLA group published a [Responsible Procurement Implementation Plan](#). It sets out how the group will deliver the Mayor's [Responsible Procurement Policy](#).
- MPS and LFB are working together to give priority to circular procurement options and business models. They have identified and are establishing a circular economy pilot for their uniform contract. Items like boots and de-badged trousers are now donated to charity. Materials from protective vest clothing are now being recycled and used for automotive friction products. Also, in collaboration with a local London charity, the single-use clothes provided for detainees are now being laundered and provided for reuse elsewhere. The pilot will continue to expand its scope to new clothing products.

### *Adapting to climate change*

- GLA group organisations are working with the GLA and LCCP to develop plans for addressing long-term climate risks. TfL has started a research programme to develop a baseline of how current severe weather events (flooding and heatwaves) affect their operations.

### *Reducing waste*

- The amount of waste produced in City Hall continues to fall, with total waste down by over 20 per cent in the last two years. Over 80 per cent of its total waste is recycled. In City Hall, the Mayor has phased out single-use plastic items, such as plastic bottles, cutlery, drink cups and straws. The café already offers free water refills. It has also increased the incentive to use refillable coffee cups by doubling the discount offered when used for hot drinks.
- By working with their waste contractor, LFB's recycling rate has increased to 66 per cent. LFB has also encouraged staff to use less disposables by providing staff with reusable travel mugs.

### *Biodiversity conservation and green infrastructure*

- TfL is establishing a comprehensive biodiversity baseline of their estate to enable them to monitor their commitment to delivering biodiversity net gain. For the development site at the former St Ann's Hospital, GLA Housing and Land have developed a framework for achieving biodiversity net gain and implementing the Urban Greening Factor which will be issued to development partners. This approach will be refined to ensure that green infrastructure is better integrated into future developments managed by the GLA.

## **Other formats and languages**

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