City for All

Greener City Action Plan

2015-2025

City of Westminster

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Introduction
by Cllr Heather Acton

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Cabinet Member for Sustainability and Parking

June 2015

Foreword by Cllr Heather Acton – Cabinet Member for Sustainability and Parking

One of my primary motivations to stand as a Westminster City Councillor was to strive for a healthy, safe and sustainable environment for my own family, for future generations and for the local neighbourhood. Now as the Cabinet Member for Sustainability and Parking I want to put steps in place to improve the city's environmental performance, ensuring our limited resources are used in an optimal way to sustain and improve the quality of life in our city.

Air and noise pollution must be addressed in the city if it is to support a healthy population. Our green, open spaces must be protected and managed for the same reasons and also to encourage residents and businesses to invest in the city. Westminster's energy provision must be secure, efficient and low carbon to support sustainable economic growth. Efficient, non-polluting transport systems are needed to provide connections across communities and businesses. We cannot afford to waste resources and Westminster's residents and businesses are the key participants to help ensure the strategy outlined here can be implemented.

Westminster City Council, in drawing up the objectives described, will try to lead by example. This strategy is presented as a living document which will change, as new ideas are incorporated from our partners.

We all need to take responsibility for minimising our environmental impact, maximising new opportunities and sharing best practice. I hope that this document provides a starting point for us to work towards improving our own living environment and protecting it for the future.

The strategy has been produced with significant help from colleagues across the Council and from a range of individuals and organisations who will partner with us in its implementation. Particular thanks are due to the Sustainability Task Force, chaired by Cllr Ian Adams, and thanks to everyone who has contributed so far.

Greener City Action Plan

Westminster's environment is a vital ingredient in the ambitions for the city and for the quality of life expected by residents, workers and visitors. Better air quality improves health; low carbon, locally produced energy enables businesses to grow; and sustainable transport systems connect people and jobs.

Through this action plan we will deliver sustainable and improved economic growth by ensuring that we have high environmental standards.

We will create an environment in Westminster that befits our world class city status.

THE STRUCTURE OF THIS ACTION PLAN

This ambitious Greener City Action Plan for Westminster builds on what has already been achieved, reviews the City Council's existing environmental policy, and plans further steps needed to protect the future.

The Action Plan is set around nine priorities and our success will be judged on delivery and how we adapt to the challenges of a changing climate and increased population.

For each priority we highlight the importance of the issues, current performance, future targets, and what must be done to achieve the vision. The City Council will focus on these nine key areas and will measure success against the targets set. Each priority has cross cutting issues and we will need partnership and community support to succeed.

We acknowledge there are other environmental sustainability issues, but our eleven policy priorities for our ten year strategy are:

1 Addressing noise pollution across the city
2 Making better use of the city's waste resources
3 Delivering affordable, secure and low-carbon energy supplies
4 Improving our local air quality
5 Supporting a sustainable transport system for Westminster
6 Making the best use of our open and green spaces
7 Ensuring that sustainability is delivered through economic development
8 Supporting sustainable growth
9 Managing water use
10 Addressing flood risk
11 Communicating and encouraging people into environmental action

Delivery of our vision

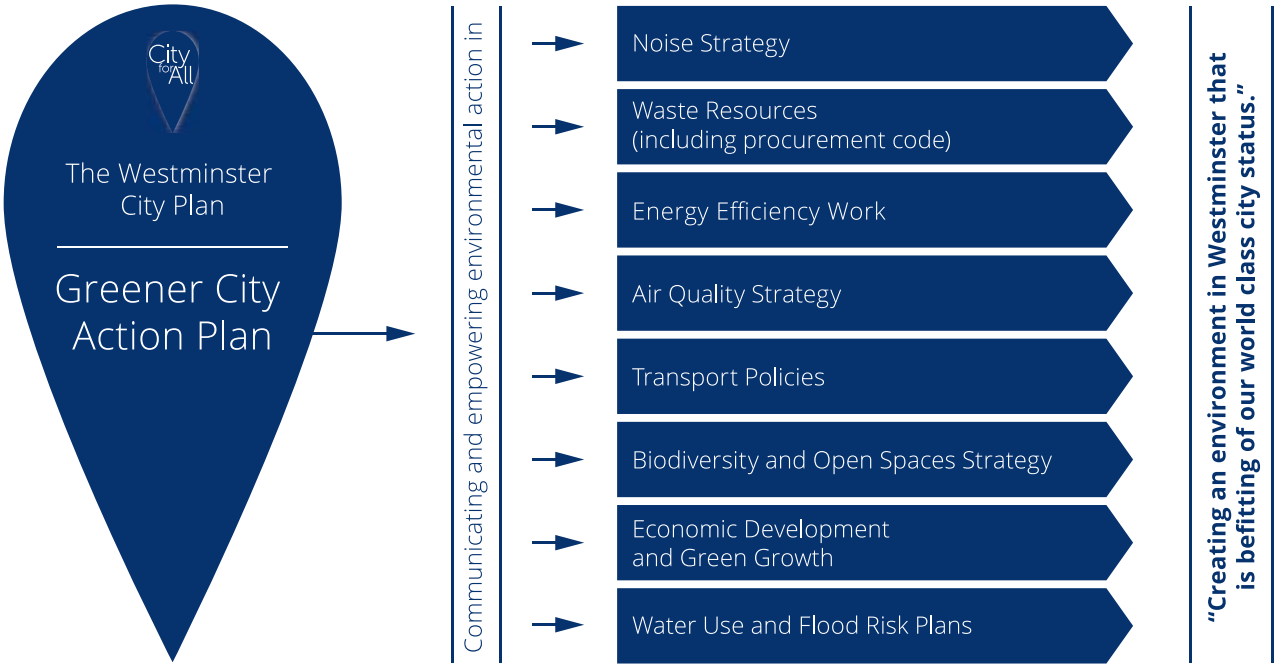


Figure 1 Relationship between Greener City Action Plan and other environmental policies.

The Greener City Action Plan (2015 – 2025) and the key policy areas listed, all support the delivery of the objectives and aspirations of City for All and the Westminster City Plan.

MONITORING AND PERFORMANCE

The City Council will use its Authority's Monitoring Report (AMR) to report progress on our environmental performance from a range of indicators. Results will be published on the Westminster web site.

We will continue to monitor the views of residents through the city survey, which will help steer and inform our decisions and monitor our performance. The city survey continues to highlight that services and issues such as open spaces, air quality and noise are areas that residents have strong views on, and expect a high level of performance.

Successful delivery of the projects and programmes will be delivered in partnership and will be cost neutral to the City Council. We will secure external funding to deliver schemes and review working practices to deliver improvements to our environment and demonstrate that benefits are environmental and financial.

1. Addressing noise pollution across the city

Westminster's sound environment is complex, and noise pollution is a serious environmental issue. Every year Westminster receives the highest number of noise complaints in London and our population highlights noise as one of the biggest causes for concern. Road traffic is the main source closely followed by plant and machinery, construction work, neighbourhood noise, commercial premises and aircraft. In our 2014 resident's survey, 17% of our residents feel that noise from bars, street entertainers and construction sites impacted on their life in a negative way.

Noise affects health, productivity and the natural environment. Health impacts of noise pollution include sleep disturbance, stress, anxiety, high blood pressure, poor mental health, poor school performance, and cognitive impairment in children. Noise can have an impact on the natural environment, affecting the ability of animals to find habitats, locate food and breed.

Under the Environmental Protection Act 1990 and the Control of Pollution Act 1974 local authorities are required to protect communities from noise nuisance. Westminster's 24-hour Noise Team deals with a whole range of noise complaints related to, for example, alarms, air conditioning, parties and construction outside permitted hours. The City Council has also seen an increasing number of noise complaints made regarding Pedi-cabs, and will take appropriate measures to ensure that Pedi-cabs do not increase noise pollution. The City Council will issue noise abatement notices and will take persistent noise offenders to Court.

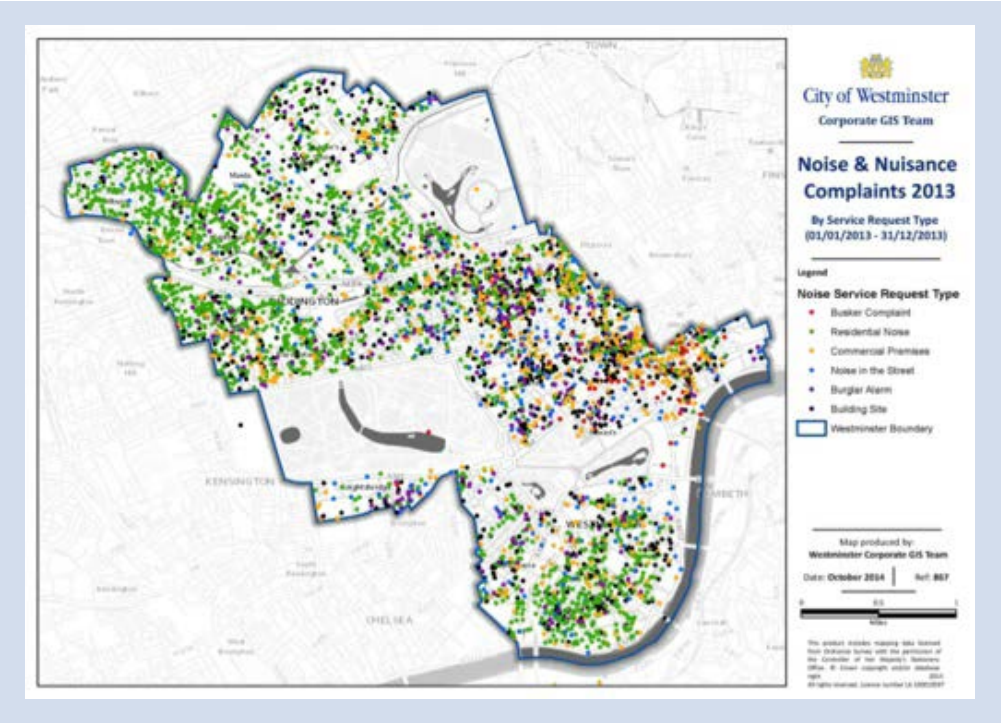


Figure 2 Numbers and sources of noise complaints during 2013 in Westminster

OUR PERFORMANCE

Several City Council departments have responsibility for noise-related enforcement issues. Noise can be addressed through City Council Planning, Licensing, Environmental Health and Housing functions.

To deliver noise improvements, the City Council published a Noise Strategy in 2009, the first of its kind in the UK. It has four objectives:

- reducing average noise levels in the city;
- reducing noise incidents;
- minimising the impact of noise; and,
- protecting and enhancing tranquil areas.

The City Council also adopted planning policies to reduce noise pollution.

Until 2006/7 the City Council received up to 21,000 noise complaints a year, the equivalent of 58 a day. Following the publication of the City Council's Noise Strategy, noise service requests decreased by around 21% due to greater education and awareness. The number of complaints remains a higher percentage per head of population compared with other inner London boroughs, and Westminster City Council deals with more noise complaints than the Royal Borough of Kensington and Chelsea, and Hammersmith and Fulham Council combined.

Did you know?

The top five "noisiest" wards in Westminster show an increase of 30% for complaints in the last 4 years. The main source is from construction sites. *Westminster Noise Team*

FUTURE CHALLENGES

Westminster's actions have helped reduce noise levels and complaints, but predicted increases in population will prove a challenge in managing a healthy living environment. Increased numbers using open spaces will reduce options for tranquillity. Pressures on accommodation will mean that people will be closer to noise. The challenge of 24 hour transportation services will also increase the impact of noise in Westminster.

In 2010, the government published a noise policy statement for England which sets a framework to assess and manage environmental noise, in particular road and rail vehicles. Local authorities must work with the Department for Environment, Food and Rural Affairs (DEFRA) to implement the Government's Noise Actions Plan and carry out 'Noise Mapping'. The noise mapping has shown exposure to environmental noise including transport sources. The City Council will work to target noise in problematic areas to improve the quality of life.

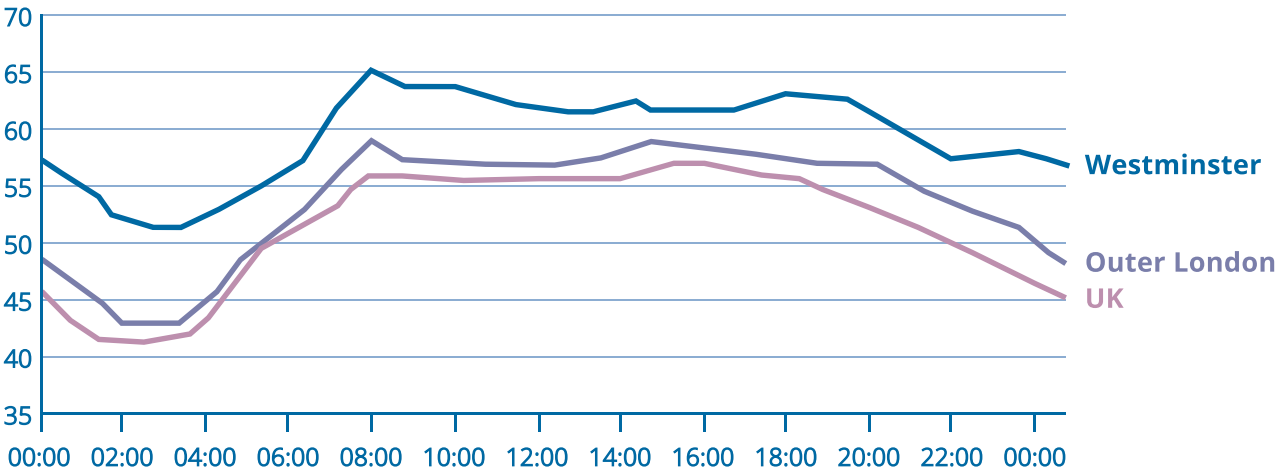


Figure 3 Average noise levels (dB). 2008 data from Westminster City Council.

THE FUTURE PLAN

Next 3 years	Continue to manage the delivery of actions adopted in the 2009 Noise Strategy; Work with the business community to help deliver noise improvements through their operational practices; Work with the Council's contractors to identify noise reduction measures including noise from waste vehicles and operations; Work with TfL and Defra to help deliver noise improvements in problematic areas; Revise and adopt a Noise Strategy and adopt detailed noise policies in the City Plan.
3-6 years	Continue to lobby Government to update legislation and powers to deal with noise pollution issues; Investigate new road surfaces to reduce the impact of Noise from road traffic; Deliver new noise policy in planning documents, and ensure new homes are constructed to higher noise insulation standards.
Beyond next 6 years	Continue action to monitor noise across the City and seek to reduce problematic noise.
What you can do	Businesses need to be aware of the impacts that vehicles have on their neighbours; Ensure that all machinery is kept in good working condition and does not add noise to the local environment; If there is a noise problem, record it and report it.

Case Study: Noise Team

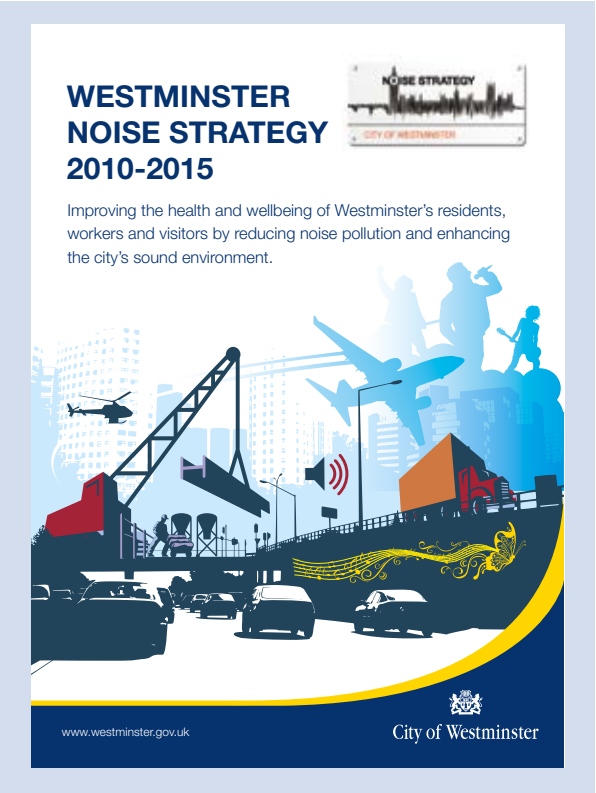
Westminster is home to a large residential population and a concentration of commercial activities, entertainment and leisure activities and political, cultural and educational institutions. This combines to create an intense urban environment; with an accompanying complex sound environment.

The Council's 24 Hour Noise Team is important for the investigation and abatement of noise nuisance. The Noise Team provides a rapid response service on issues where it has effective enforcement powers, such as: loud noise from parties, construction sites, broken alarms, and licensed premises.

Westminster is the only council in the UK to have a team specifically dealing with complaints 24 hours a day, 365 days a year. The service responds to 99% of complaints within 45 minutes.

A resident was experiencing continuous banging, drilling and knocking from building work next to her flat. "It was a living nightmare. I work as a pub manager and my husband has to be up at 3am for work. The noise would continue day and night, it just never stopped."

"I called the Council Noise Team when the noise was happening and they were fantastic, each time coming out within an hour to get the builders to stop. With help and guidance from the Council, the matter went to court and the company pleaded guilty of working outside permitted working hours. The day I got the call from the Council with the good news was one of the happiest days of my life – It was like a massive weight had been lifted."



2. Making better use of the City's waste resources

Around 177 million tonnes of waste is generated every year in England. It costs businesses and households significant amounts of money to deal with its transport and disposal, and causes long term environmental damage, especially when put into landfill. Reducing the amount of waste produced and reusing waste delivers economic and environmental benefits for Westminster and the UK. Efficient waste management is important for quality of life, the environment and for economic growth.

Westminster produces 180,000 tonnes of municipal waste per year. The City Council manages this volume of waste with over 1 million collections per week, including over 23,000 households having access to daily waste collection services.

The City Council prioritises reducing the amount of waste produced, before looking to reuse, recycle and recover energy from waste.

Along with reducing waste volumes, all businesses can make better use of resources and use their procurement powers to create a market place for recycled goods. Buying recycled products helps ensure valuable materials don't go to waste. From paper used for information to residents, through to the resurfacing of highways, the City Council aims to increase recycled goods in the supply chain. Research shows that UK businesses can save up to £23bn through efficient use of resources [1] with organisations underestimating how much waste costs them. [2]

Figure 4 The Waste Hierarchy

OUR PERFORMANCE

14% of our municipal waste is recycled, with the rest going to energy from waste recovery centres, where 83% of our waste is burnt generating electricity for local use, and 3% is landfilled.

As well as domestic waste streams, 10% of our municipal waste comes from street litter through our 1,500 litter bins. Many of Westminster's streets are swept 24 hours a day, requiring 250 street sweepers.

Over the last 14 years, the amount of waste collected by the City Council has reduced from over 250,000 tonnes to over 180,000 tonnes. This is primarily the result of commercial skip services, the economy, packaging reduction, and loss of commercial waste market share.

[1] Resource Efficient Europe (DEFRA, 2011)
[2] Finding Cost Savings: Resource Efficiency (WRAP, 2013)

The City Council uses its influence to increase the use of reused and recycled goods within the supply chain and to develop a "circular economy". One example is the donation to the charity BBF of 270 chairs which were refurbished for re-use. This reduced the environmental resources needed for new chairs and the carbon emissions associated with manufacture. The City Council works closely with charities such as Scope with recycling clothes banks, and with commercial organisations such as Marks and Spencer to support their national campaigns on clothes reuse.

To increase recycling the City Council manages 160 recycling bring bank sites across the City plus two mobile recycling centres to collect waste goods. It also promotes recycling and good waste management to residents and businesses.

The City Council developed "Duo-bins" designed to separate waste into recyclable and non-recyclable waste. This has helped recycle 30% of street litter to date, with a target of 70% by 2020.

Our Parks Service currently recycles approximately 500 tonnes of green waste per year. This is turned into high quality mulch that is then reused on landscaping schemes. Transportation costs are saved and the environmental impact of waste is reduced.

The Council's schools food contract, which is managed by Chartwells, includes the requirement for collection and responsible disposal of food waste. The schools food waste is increasingly sent for anaerobic digestion or composted. Together the City Council and Chartwells are also working towards a reduction in food waste and packaging waste by 5% by the end of 2015.

Did you know?

The cost of disposing a tonne of waste is:
£102 if sent to landfill,
£92 if used in energy from waste
£32 if recycled.
(WRAP, 2014)

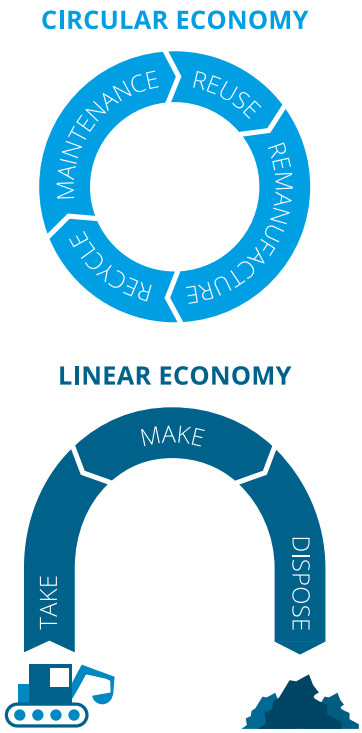


Figure 5 The Waste "circular economy" vs "linear economy".

FUTURE CHALLENGES

The City cannot increase recycling without help from residents, visitors and businesses. To achieve this and reduce costs we need improved use of litter bins, less dropped waste, and increased recycling. To support the circular economy, more people need to consider purchasing recycled goods. The City Council will seek ways to encourage positive behaviours to achieve a better environmental outcome.

Many waste materials collected have a value if collected separately from other waste. A tonne of aluminium cans is worth £800 and a tonne of textiles worth £400. The City Council needs to communicate that separating recyclables will reduce disposal costs and can help achieve higher recycling rates.

The City Council is in the process of reviewing its Code of Construction Practice which, together with Westminster's planning policy, will require responsible construction waste management and encourage reuse of materials.

Building design can also help deliver a higher rate of recycling. Westminster insists that there is space in new developments for waste separation and recycling.

Local businesses need to adapt to minimise wastage. The City Council is already working in partnership with the Business Improvement Districts to increase recycling rates.

THE FUTURE PLAN

Next 3 years	Adopt a new responsible buying policy when procuring goods and services; Adopt a new Municipal Waste Strategy; With partners, continue to support recycling in its main offices and engage with staff on the benefits; Through the planning policies the City Council will work with the development industry to increase recycling and responsible waste management.
3-6 years	Roll out its Waste Action Plan to reduce waste collected; Achieve the amount of waste used to create energy to 67%; Have integrated waste management to deal with parks waste when contracting with a maintenance company; Further investigate waste management capacity both within the city and through our duty to cooperate with other authorities.
Beyond next 6 years	Achieve zero growth in household waste (against a 2014 baseline); Recycle 35% of waste by 2020; Continue to reuse and recycle equipment; Continue to work with the business community on waste management.
What you can do	Waste reduction is the first step – do you really need plastic shopping bags? Businesses can work with suppliers to address excess packaging; If you have the opportunity: buy recycled goods; Always use bins and recycle waste as much as possible.

Case Study: Baker Street Quarter Partnership – Consolidation Study

In November 2013 the Baker Street Quarter Partnership (BSQP) launched its area wide waste and recycling programme. From a survey of members the partnership found that for 45 businesses, there were 19 different waste companies collecting waste, with many using different waste companies for individual waste streams. With waste vehicles generally being large HGVs this was a great concern to local businesses with regard to air quality, noise, pedestrian and cyclist safety.

The partnership agreed that a service collecting a range of waste streams including dry mixed recycling, general waste, food, furniture, and hazardous waste should be set up. This would deliver environmental improvement and financial savings through efficiency. To date, 40 businesses are using the service, with a further 20 in the process of signing up. The combined annual savings for those using the service is over £20,000. Recycling rates have been increasing since the start of the service, resulting in carbon savings.

SMARTER DELIVERIES

Office buildings have been shown to generate more delivery movements than retail. This, alongside the move towards multi-tenanted buildings is interesting as there tends to be a lack of any consolidation of suppliers. This leads to an increase in vehicles in the local area and increased work for reception staff.

BSQP is working with the University of Westminster and recently completed a study of multi-tenanted offices and hotels. The offices studied generate between 100-900 vehicle deliveries and collections per week, while the hotels generate between 80-120 trips per week. A pilot project for offices and hotels will include:

- Off-site storage and co-ordination facility and a last mile delivery operated by a logistics provider.
- Joint procurement by tenants to reduce costs and vehicle trips.
- Use environmentally-friendly vehicles such as electric vans and cycles to make deliveries.
- Further use of the existing BSQP waste collection scheme
- Review on-street loading and unloading facilities.

3. Delivering affordable, secure and sustainable energy

Action is needed to address rising energy costs and manage supply and security against the threat of climate change. The Government and the Mayor of London are seeking to change the UK's ageing energy infrastructure and improve energy efficiency. Westminster must lead by example in supporting these ambitions.
Improved energy efficiency standards will reduce carbon emissionsand heating costs from heating and lighting and also reduce running costs. It is also essential for growth to address high energy costs in poor quality housing. The City Council can take some action such as improving the energy efficiency of its properties. It can also play an influential role, such as lobbying to secure a fair deal for energy efficiency funding.
A Department of Energy and Climate Change public poll showed that 73% of people felt that leaders must tackle climate change and emissions from energy generation. An equal number agreed that there is benefit to taking action now whilst only 20% felt that things could be delayed a few years.[3]

Did you know?

Westminster's Business Community spent £244,293,000 during 2012 on their electricity consumption.

Westminster City Council spent £4,287,029 in 2012 on its gas and electricity bills.

Energy is a major factor in the production of goods and the delivery of services. Efficient use of energy contributes positively to economic growth, through reducing production costs; helping to create new economic opportunities; the generation of energy and the development of the smart grid and networks; and the growth of the retrofitting sector offers job creation opportunities. Efficient non-polluting energy is needed to meet government expectations and for the growth of the City as new housing, commercial opportunities, and high tech industries increase electrical needs.

Did you know?

The Energy Savings Trust calculate that a typical household could save up to £90 per year just by turning off appliances left on standby. And the UK could save £1.7billion if we all did this.

Westminster City Council is committed to work with partners to identify opportunities to improve energy efficiency and deliver sustainable energy generation. Our local situation is set in a global context of a changing climate and resource reduction, but increasing demand for heat and power, with increasing global energy costs. Our electricity infrastructure must become more efficient. Local energy and heat networks can contribute to electricity capacity, alongside emerging technologies such as energy storage and the development of the 'smart grid' to manage the peak demands for power.

OUR PERFORMANCE

Westminster has amongst the highest energy consumption of all local authorities in the UK with nearly 9,000GWh of energy used annually. The City of Westminster uses more energy (GWh) per year than any of the cities of Newcastle or Liverpool or Cardiff. [4] This is due in part to our heritage, high density living, 675,000 jobs, and 24 hour transport.

The nature of our City's power demands mainly come from the built environment, with approximately 75% from commercial buildings. The majority of this power demand and associated carbon emissions comes from offices, hotels and shops. Through strong planning policy

3 DECC – Populus Survey 2014
4 DECC - Energy statistics for local authorities (2013)
5 DECC - Local authority carbon dioxide emissions (2014)

and ambitious retrofitting projects we can significantly reduce our power needs, carbon emissions, and mitigate against future energy price increases.

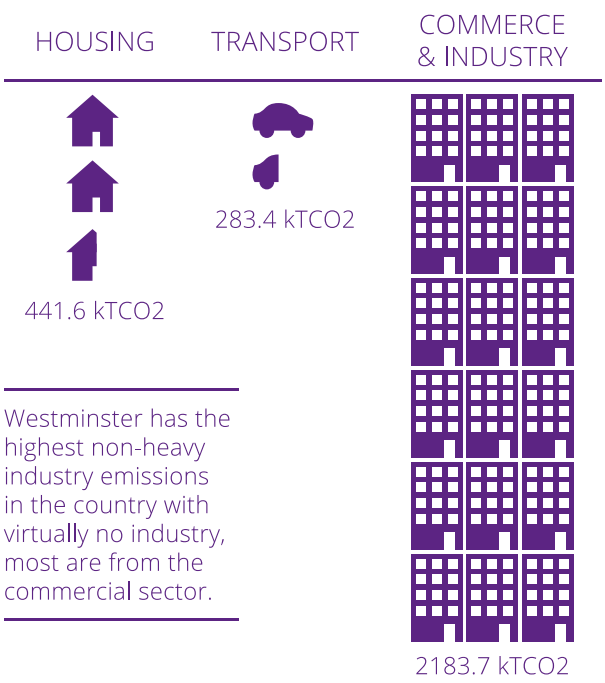
National carbon emissions have fallen by approximately 20% since 1990, partly as a result of changing electricity generation and moving away from coal-based power. In Westminster, carbon emissions have been virtually static, standing at 3220kt for 2010 [5] compared to 3199kt in 1990. So Westminster has made no progress over this 20 year period towards meeting the Mayor of London's target of reducing emissions by 60% by 2025 (relative to 1990 levels) or supporting national targets set out in the Climate Change Act 2008.

Of the households in Westminster an estimated 8.4% of households are fuel poor, [6] lower than the London average of 12.1%. [7] Improving the warmth of people's homes reduces health inequalities and as such this work is supported by the public health and NHS as a local priority.

Set up in 1950's, Pimlico District Heating Undertaking (PDHU) was the UK's first combined heat and power network and provides services to 3,256 homes, 50 commercial premises and three schools in the area. In Westminster the number of developments delivering onsite combined heat and power is increasing. Our long term aspiration is to link these developments together via a larger heat network to create a city-wide scheme to increase self-sufficiency.

Artificial light is a requirement in modern society and has many important and positive uses, including the illumination of areas for security, increasing the hours of usage for outdoor facilities and enhancing the appearance of buildings. Increased use of lighting can, however, cause problems. Light pollution is defined as any form of artificial light which shines outside the area it needs to illuminate, including light that creates a "sky glow" (which impedes our views of the stars). Light pollution can cause health effects such as frequent headaches, fatigue, stress, decrease of libido and anxiety.[8] The Campaign for Dark Skies estimate that wasted lighting costs the UK economy over £1billion per year.

CARBON EMISSIONS IN WESTMINSTER



Westminster has the highest non-heavy industry emissions in the country with virtually no industry, most are from the commercial sector.

Did you know?

PDHU's local generation of electricity reduces transmission losses as its electricity is produced close to the user. It saves up to 11,000 tonnes of carbon emissions per year by displacing coal fired electricity generation. This incredible saving is the equivalent of taking just under 4,000 cars off the road per year.

FUTURE CHALLENGES

Uptake of renewables and low carbon technologies needs to increase significantly if Westminster is to ensure a secure energy supply over the long-term.

[6] DECC – Sub-regional Fuel Poverty England 2012LIHC definition (2014)
[7] DECC - Annual Fuel Poverty Statistics Report, (2014)
[8] Light Pollution and Impact of Light Pollution, International Journal of Science and Research Oct 2014

Demand for growth, particularly in the West End, is close to outstripping current supply infrastructure. Energy resilience is a growing concern for businesses. In December 2011 a 10 hour power cut forced theatres across Soho to cancel shows and businesses to close, with some restaurants estimating losses of more than £10,000. [9] The City Council is working with the electricity distribution companies to minimise the risk of outages, and working on the delivery of local power generation. Projects offering innovative means of delivering locally generated power will be supported where possible.

The demand for a more resilient energy supply requires the City Council to identify and implement local, low carbon energy and smart grid networks. Demand will intensify as the City operates more at night, including the opening of the 24 hour tube.

Approximately 7% of our domestic and 28% of non-domestic energy bills are collected for social schemes and environmental taxes. These levies and taxes fund programmes which provide in excess of £2bn in subsidies to energy efficiency and renewable energy schemes across the UK. Westminster City Council estimates that less than 10% comes back to the City. This is because the national energy schemes have not been designed to support the types of projects needed in the heart of London. For example, Westminster is 378th out of 379 local authorities in terms of the percentage of homes improved by the Carbon Emissions Reduction Target scheme and 380th out of 380 authorities in terms of the number of solar panels installed per dwelling funded by Feed-In-Tariffs. This is predominantly due to the hard-to-treat nature of our building stock, much of which consists of traditional heritage buildings. This can increase costs. The City Council will work with Government to overcome barriers to delivery to ensure we receive a fair share of energy funding.

Westminster will work to deliver Government regulations on the energy efficiency standards aiming to improve conditions in the private rented sector, the City's worst performing tenure. This challenge offers an opportunity for retrofitting companies to develop, potentially represents a new potential market, providing jobs.

Westminster is particularly rich in historic buildings. It has over 11,000 listed buildings and 56 Conservation Areas, which together cover 76% of the City. These older properties are often sought after for their exceptional aesthetic, cultural and economic value. With rising fuel prices, increasing occupier expectations, and new obligations on landlords, there is a drive to ensure that historic properties are refurbished to a higher energy standard, without losing their special features and this will be a key area for retrofitting companies.

Westminster has large land and estate owners who deliver energy efficiency schemes as part of their longer-standing strategies for stewardship of their holdings. One of the key challenges facing owners, as with the City Council, is delivering energy improvement measures in buildings under different ownership structures. Building in mixed ownership and mixed tenure present a particular challenge Mixed uses, common in Westminster also adds to the complexity of approvals and consents needed prior to commencing on site.

The City Council will work to improve climate change resilience. Steps will be taken to improve the quality and management of the public realm, including planting schemes, improved gully cleaning schedules and sustainable urban drainage measures to combat heat stress and overheating during periods of warm weather and to reduce instances of surface water pooling and flooding. Planning policies will encourage natural ventilation rather than the use of air conditioning which is noisy and puts further demand on the electricity network. Such measures are essential to ensure the long-term sustainability of commercial activities and resident well-being in the city.

[9] BBC News - Soho power cut: Shops, bars and restaurants closed

THE FUTURE PLAN

Next 3 years	Deliver a local offset fund of £1m to enable carbon reductial projects developments; Engage with all staff to become more aware of environmental impact; Adopt a city-wide District Energy Masterplan and work with developers on its delivery; Work with the Westminster Property Association to deliver a campaign addressing light pollution; Deliver measures to cool the city and reduce reliance on air conditioning; Deliver a business case that will start the delivery of a community heating network as part of the Church Street regeneration programme; Work with the NHS to assess the links between health needs and fuel poverty.
3-6 years	Ensure that by 2019, there will be no City Council investment or operational properties that fall below an Energy performance Certificate of "E" rating; Introduce green leases for all new lettings in the City Council's investment properties to promote responsible occupancy; Work with the private sector to ensure that private rented homes and commercial units achieve the energy standards required by law; Subject to the business case, start on the construction of a Church Street District Heating network; Work with our long term leaseholders to improve building energy performance, and reward positive action with benefits.
Beyond next 6 years	Work with the development industry in Westminster to ensure that more developments meet strict carbon targets; Ensure that CityWest Homes have delivered a Zero Energy House on one of its properties as a case study.
What you can do	Minimise energy use at home and at work through switching off lights, computer and stand-by devices when not in use; Lower thermostat settings, layer up and reduce heating bills; Make sure vulnerable neighbours are winter-ready and keep an eye out for them during periods of extreme heat or cold; Buy the most energy efficient appliances you can; Businesses – encourage employees to be more energy efficient and, therefore, more competitive.

Case Study: Energy Efficient Street Lights

SMART Lights is a City Council led project whose aim was:

- to reduce the energy demand in the City's public and street lighting;
- lower the City Councils associated carbon footprint; and
- improve the service level for our users.

To deliver this the City Council invested in equipment to achieve maintenance efficiencies, service improvements, and energy and carbon savings combining to achieve annual budget savings. A £3.2 million investment over a four year period is now delivering revenue savings each year and will return on its investment within eight years.

SMART Lights enabled a dynamic lighting solution to meet the requirements of Westminster's environment at any given time. The lighting upgrade and new technologies now illuminate the streets to the required level. SMART Lights has the ability to dim lights when not needed, and continuously monitor energy consumption. As a result, the City Council has delivered an average energy saving of 20%

Outputs from the project have included:

- Improved environmental performance: this range of technology is saving the City Council £420,000 per year and reduces the associated carbon emissions by more than 1.5million kg or 20%.
- Workforce Health and Safety: The new units require far less maintenance as there is no electrical testing or lamp change requirement and cleaning is significantly quicker therefore saving maintenance costs.
- Creation of new technology: the Westminster Street bollards employ a LED lighting system powered by a battery unit on continuous charge from a solar panel mounted on the top of each unit.
- Improvements in new street lights:
  The installations of around 15,000 street lights that can dim. Small computer systems inside the street lights provide a daily maintenance report, and identify lights which are about to fail.
- Reactive Street lighting: Directly linked to CCTV control centre which enables all lights to be turned on at once to help support individual incidents.

4. Improving our local air quality

Did you know?

The National Air Quality Strategy estimated that the health impact of particulate pollution cost the UK between £8.5 billion and £20.2 billion a year in 2005. This is almost twice that of physical inactivity, and is comparable to the cost of alcohol misuse.

Air pollution in Westminster is a result of chemicals and dust pollution generated from boilers and other plant, and from the millions of vehicles that travel through the City. The highest levels of pollution are along the busiest roads and at major junctions. The 2014 residents' survey shows that air quality is perceived as an increaseing problem by a quarter of residents.

Poor air quality increases the demand on health and care services as it affects lung development in young people and increases risk of early death, lung cancer, strokes, and respiratory conditions; especially in older people. The London Air Quality Strategy suggest that the number of premature deaths due to air pollution in London was estimated to be 4,267 in 2008.

Under the Environment Act 1995, local authorities are required to assess air quality and take action to reduce pollution where it is in excess of EU standards. Westminster's most recent Air Quality Action Plan was adopted in 2013 and is designed to protect health, ecosystems and buildings; reduce pollution to below national air quality objectives; and comply with air quality legislation.

To deliver air quality improvements the City Council works with partners including the Cross River Partnership, Transport for London, the Mayor of London and Business Improvement Districts. Together we focus action on tackling emissions from transport; tackling emissions from buildings and development and increasing awareness of air pollution.

OUR PERFORMANCE

The City Council has led the way on addressing air quality, we were the first local authority to develop and adopt an Air Quality Action Plan in 2001; installed the first public electric vehicle recharging points; and lobbied for an emission zone for London.

Air quality data from the last decade shows a decrease in particulate matter (PM_{10}) levels, and Westminster now achieves the EU standard for this pollutant. For nitrogen dioxide (NO_2), EU standards are exceeded in Westminster. In Oxford Street levels are three times the annual target and 80 times the hourly target - the worst pollution levels measured in London in 2013.

The City Council continues to develop transportation and planning policies and deliver projects that will help improve local air quality, including actions such as enforcing against unnecessary vehicle idling, installing electric vehicle infrastructure and cycling routes. Also, the City Council planted living walls in school playgrounds to help reduce pollution. We continue to push for better legislation to address air quality issues.

FUTURE CHALLENGES

Our actions to improve air quality have helped reduce pollution levels, but given projected increases in population, and associated urban densification, including pressure on the transport network, more needs to be done to meet the EU air quality objectives for nitrogen dioxide.

The EU has started legal proceedings against the UK government, which could lead to annual fines of £300m for its failure to cut levels of nitrogen dioxide (NO_2). A recent ruling from the Supreme Court has ordered the Government to draw up a plan to meet the EU rules by the end of 2015. Emissions standards for buildings are set nationally through Building Regulations, and transport issues such as buses, taxis, and management of strategic roads are led by the Major and Transport for London. Westminster needs to work with these parties, to reduce the high levels of emissions in the City.

The Government has promoted the use of diesel vehicles in the UK to deliver the carbon reduction, but these vehicles have negative impacts on air pollution. Considering air quality issues alongside the carbon agenda is vital and the City Council will promote this.

The London wide Ultra Low Emission Zone (ULEZ) is aimed at reducing pollution from vehicles in central London and will have considerable economic and social impact. We will work with the Mayor and TfL to see that the ULEZ achieves the EU air quality standards and would like to see it come into operation as soon as possible.

Buses and taxis make up a significant percentage of Westminster's traffic with over 157 bus routes passing through the borough every day and over 22,000 taxis.[10] The Mayor of London has taken action to reduce emissions from buses and taxis but more needs to be done. We want to see the proposed diesel measures to be implemented earlier than planned, and will look at steps within our control to increase electric and reduce diesel vehicles.

The Clean Air Act, enacted in 1956 to manage smoke emissions, is not appropriate for today's pollution. Local authorities need up-to-date legislation and powers to deal with air pollution. The City Council will continue to lobby for a more effective statutory framework.

Inappropriately located wood-burning stoves have implications for local air quality. The installation of these is unlikely to require planning permission and the City Council has limited control over installation. We have powers under the Clean Air Act to enforce against smoke and odour from wood burning stoves, and will do so if required. In 2013 we received 3 complaints relating to wood-burning.

[10] Taxi and private hire vehicle statistics: England and Wales 2013, DfT

THE FUTURE PLAN

Next 3 years	Continue to manage the delivery of the actions adopted in the 2013 AQAP; Raise awareness among more vulnerable groups about poor air quality; Work with the local NHS to embed measures to reduce the risk of air pollution for at-risk patients; Where appropriate, strengthen links between interventions to improve air quality to improve health and well-being; Work with the business community to help deliver air quality improvements through their operational practices; Work with TfL and property owners in Oxford Street to reduce vehicle numbers and emissions from vehicles which service the area, benefiting the health of the 220 million pedestrians that visit Oxford Street per year; Review our parking policies to encourage the adoption of less polluting vehicles.
3-6 years	Complete the delivery of our 2013 AQAP and revise and adopt a new AQAP; Work with Transport for London to deliver an Ultra Low Emission Zone; Lobby government to up-date legislation to deal with pollution issues; Ensure that that the issue of air quality is addressed through actions within the Westminster Health and Wellbeing strategy; Lobby the government to manage the impacts of wood burning stoves.
Beyond next 6 years	Continue to monitor air quality across the City through our monitoring stations; Ensure that we work to address emissions from diesel engines.
What you can do	When walking take less busy roads; Walk and cycle around Westminster; Protect existing gardens and when possible plant living walls or roofs.

Case Study: Air Quality Business Engagement in Victoria

A significant amount of land use within Westminster is devoted to the commercial, retail and hospitality sector. There are measures in place to deal with emissions from new commercial developments, but, to date, only limited opportunities for helping existing activities to reduce emissions. The City Council wanted to reach out to the business community to raise the profile of air quality and seek help in meeting air quality objectives.

The City Council worked in partnership with Victoria Business Improvement District and representatives from businesses to find solutions to improve local air quality.

Four organisations in Victoria have developed best practice case studies. 14 organisations have signed pledge documents and committed to on-going measurement for review of performance. Examples of measures undertaken by businesses include:

- Briefing staff on the impact of air quality and air quality concerns factored into decision making.
- Use and promotion of Legible London mapping, to encourage low emission journeys.
- Installation of air quality monitoring equipment.
- Installation of green 'living walls'.
- Supply chain consolidation.
- Installation of building control measures to maximise efficiency of low polluting boilers.

All organisations were positive about the approach being taken by Westminster and a well-attended lunchtime event was held to celebrate success, share best practice and generate new ideas.

The most rewarding element of the process was that so many companies wanted to be engaged and once the issue was explained, all wanted to support the objective of improving air quality.

42.3%

A simple question was asked of all that took part in the project, to ascertain the initial 'business' perception of the problem of poor air quality. 42.3% initially had no perception of the impact of poor air quality.

5. Providing a sustainable transport system for Westminster

Westminster is one of the best served locations by public transport in the world. There are four main rail stations, two with direct connections to London's principal airports; and new Crossrail stations are due to open in 2018. We have 32 underground stations with 10 of the 12 tube lines running through the city; 4 river bus piers; 157 daytime bus routes and several 24 hour bus routes; national, international and airport destination coach services.

Given the numbers of people in Westminster (residents, visitors and workers) the transport network and public realm can struggle to cope with the demands. With this intensity of use, there are issues such as overcrowding, poor air quality, social isolation, noise and road safety.

The City Council has a key role to play in tackling these issues, and helping in the delivery of transport improvement schemes. Sustainable transport can bring local air quality improvements with benefits for health and wellbeing; efficient street management can cut congestion and support business performance. Our transport network connects communities, employment, goods, services and amenities. Walking and cycling are important modes of travel and Transport for London (TfL) see active travel as the leading option for increasing the physical activity levels across London's whole population.[11] These are needed to improve health and reduce costs of health care.

Did you know?

The Council's Parking Service is the largest in the UK, our on-street parking facilities include 33,000 residents' parking bays, 4,150 Visitor Pay by Phone bays, 2,600 other Paid visitor bays, 3,250 Shared use residents' bays, 6,150 Pay by Phone bays for motorcycles, 220 White Badge disabled bays, 480 Blue Badge bays, 185 Car Club bays, 154 taxi ranks, 55 Coach bays, over 50 Electric recharging bays and specialist bays such as Diplomatic and Doctor bays.

OUR PERFORMANCE

Since 2001 the City Council and Transport for London have recorded a shift in people's transport patterns, away from the private cars and taxis, with an increase in the use of cycling and public transport. The City Council will continue to support this modal shift to meet the needs of residents and businesses.

% change by proportion of Westminster residents' means of travel to work between 2001 and 2011 (residents in work only)

11 Improving the health of Londoners, TfL, 2014

The City Council has also delivered a safer and more pleasant public realm to encourage pedestrians to walk and enjoy the sights and the shops of Westminster, with schemes such as the Oxford Circus Crossing.

Did you know?

The shortest distance between two stations on the underground network is only 260 metres. The journey between Leicester Square and Covent Garden on the Piccadilly Line takes about 20 seconds, costs £2.30 and is the most popular journey with tourists.

We have been a strong supporter of the Mayor's London Cycle Hire, and Source London Electric Vehicle schemes. We will continue to work with businesses to deliver staff training on efficient driving, and deliver freight consolidation improvements with major landowners and BIDs in Westminster (also see the Resources case study) to reduce the amount of vehicles on the road.

Legible London is the pedestrian signage system for London, with the City of Westminster being at the forefront of its development, installing 440 Legible London signs. Transport for London research shows that use of Legible London signs is highest in central London, and the sign outside Leicester Square station averages over 300 users per hour at weekends. Across London nine out of ten respondents were keen to see more Legible London signs.

FUTURE CHALLENGES

As the population rises and economy grows in Westminster there will be increasing pressure on the safe and efficient movement of people. During the London Olympics Westminster had to deal with a major influx of visitors to the City. To keep the city functioning smoothly and users safe, businesses were encouraged to use different freight delivery regimes, pavements were temporarily widened and some streets closed.

School travel plans can deliver multiple benefits – addressing levels of childhood obesity; congestion reduction; road safety. The City Council will be working with all schools to encourage sustainable transport options for students, teachers and parents.

New technologies such as electric and hydrogen fuelled vehicles will require new infrastructure as they increase in popularity. The City Council will work with vehicle and infrastructure providers to ensure that residents and business are able to benefit from these technologies. The City must adopt appropriate technologies to maintain its competitive edge.

The Ultra Low Emissions Zone (also see Air Quality, Section 5) aims to reduce emissions from road vehicles in 2020. This defined area of the city will be similar to the Congestion Charge Zone, but with higher environmental standards. A report by Transport for London in 2004 clearly demonstrated the benefits of the Congestion Charge Zone both environmentally but also economically, with the productivity and profitability up for businesses.

THE FUTURE PLAN

Next 3 years	Review our parking policies to encourage the adoption of less polluting vehicles; Increase the number of residents and businesses using the Car Club and increase the number of hybrid vehicles in the fleet; Finalise School Travel Plans in all schools of Westminster by the end of 2016; Deliver 2 play street projects in Westminster; Deliver staff travel plans in the Council's own building refurbishments to improve its facilities and enable greater sustainable transport options; Install an extra 20 electric vehicle recharging points and implement an electric charging point scheme for residents; Continue to update the Legible London maps on street signs to improve walking; Work with TfL to deliver pedestrian countdown facilities at crossings; Deliver a network of Central London Cycle Grid routes in partnership with TfL; Host two cycling promotions events every year, and 50 smaller events to give cycling information, cycle security and basic mechanics to cyclists; Deliver actions to support the childhood obesity initiative; Develop a pedestrian strategy for the City.
3-6 years	Deliver public realm improvements and transport options at Crossrail Stations; Double the number of on-street electric vehicle recharging bays; Work with The Garden Bridge Trust; Complete the Cycle Grid network within Westminster; Work with TfL to improve safety at a number of key junctions and gyratories, particularly for pedestrians and cyclists such as Marble Arch, Great Portland Street/Marylebone Road, and Vauxhall Bridge roundabout; Work with the GLA to deliver the Ultra Low Emission Zone; Ensure that by 2020 the required infrastructure for taxi and freight electric recharging is in place.
Beyond next 6 years	Manage the transport needs for businesses, visitors and residents.
What you can do	Think about the form of transport you need to get to your destination. Can you walk there? Have you thought about joining the Westminster car club? Could you car share on journeys? Can you cycle there?

Case Study: Electric vehicles in Westminster

The electric vehicle (EV) recharging network was developed to address concerns about air quality and noise from road transport. The City Council pioneered public electric vehicle re-charging in the UK and now has the largest number of re-charging points in London. We currently have 63 re-charging points on-street and over 200 in private car parks across the City. This is the highest number by any authority in the UK.

An increasing number of people want to switch to a cheaper and less polluting form of private transport and are requesting more infrastructure. The City Council introduced the UK's first public electric vehicle recharging point in 1999 in the car park at Harley Street, and in 2006 introduced the UK's first on street recharging point on Exeter Street, Covent Garden.

Before Westminster joined Source London, there were nearly 200 members of the City Council's recharging network. All of the on-street recharging points are used daily, and several are continuously in use during the day, seven days a week. Each user is allowed a maximum of 4 hours recharging.

In 2012 Westminster joined the Source London network, a convenient and accessible way of charging an EV vehicle across London. Through an annual membership fee and card, members have access to nearly 1,400 recharging points across London within shopping centres, stations and airports.

Owners of electric vehicles (including electric motorbikes) in Westminster currently benefit from a range of incentives including:

- free parking (for solely electric powered and plug-in hybrid vehicles; in paid-for and electric vehicle recharging bays only; for the maximum prescribed period on the parking bay);
- no congestion charge;
- access to the largest on-street recharging service for electric vehicles in the UK;
- access to the largest off street recharging bay service;
- free parking permits for residents with low emission or electric vehicles.

6. Making the best use of our open and green spaces

Westminster has an impressive open space and green infrastructure network. The Royal Parks and Westminster's green spaces form the setting for world famous landmarks such as the Palace of Westminster and Buckingham Palace. Over half of the City's open spaces have a heritage designation, with 85 London Squares and 21 English Heritage listed parks and gardens, including the five Royal Parks. These unique landscapes are assets that can reinforce a sense of place and identity, improve health and well-being, boost environmental resilience and make the city a more attractive and prosperous place.

As well as being a valuable asset for residents, open space is shared with the many workers and visitors who come to the City. Many of our green spaces in Westminster represent a small piece of tranquillity and countryside in the heart of London. They offer a valuable ecological resource, helping to sustain urban wildlife; a beautiful backdrop for the heritage sights, the arts and music events; and an area of calm.

A study of London visitors in 2008 showed that 80% of overseas tourists, 74% of UK staying visitors, 70% of UK day visitors and 77% of London residents ranked "parks and gardens" as "important" or "very important" in their decision to visit or take a day trip to London. Visitors also ranked "parks and gardens" as more important than other options such as "theatre/music/ arts performances" or "shopping/markets".[12]

The size and characteristics of our parks and green spaces vary from large parks such as Hyde Park to the 'pocket parks' such as Soho Square. There are also areas of public green space that surround housing estates such as Churchill Gardens and the communal green space managed by private landowners such as Belgrave Square.

Figure 13 The Green Spaces in Westminster

Green spaces within Westminster can serve many different functions including educational roles and local food production spaces. Research shows that schools growing food achieve significant learning, skills, health and well-being outcomes for children and young people, and there is a wider positive impact on the schools, communities, and businesses involved.[13]

Beyond maintaining existing Green Spaces, Westminster City Council is a supporter of the Mayor of London's All London Green Grid.[14] It aims to increase access to open space; improve access to nature; make links to sustainable travel; encourage healthy living; promote food growing; enhance visitor destinations and visitor economy; and promotes green skills for design, management and maintenance.

Did you know?

In an assessment of London house prices by the GLA Economics in 2010, it was found that property prices were boosted by quality green spaces. The study estimated that property located less than a kilometre from quality urban park added up to 3% to the total property value.

[12] TNS Travel and Tourism (2008)
[13] Food Growing in Schools taskforce report (2012)
[14] All London Green Grid (GLA) 2012

OUR PERFORMANCE

The City of Westminster is home to 172 open spaces, 87 of which have public access. The total area of parks and green space is estimated at 527ha, equal to 24% of Westminster. Of this at least 15.5 ha surround housing estates with additional green space managed by registered social landlords.

Notting Hill Housing Group and Peabody Trust have been implementing a "Neighbourhood Greens" project which aims to improve the design and management of green spaces around social housing. These principles are supported by the national government.

Did you know?

A 2007 survey of the UK public, found that 83% of respondents believed that parks and green spaces provided a focal point for their local communities. The University of Sheffield research revealed that many of the focus group participants identified green spaces as "the hub or the spirit of their community".

The Green Flag Awards provide a national benchmark standard for the sustainable management of Council parks. Biodiversity, access and maintenance are key components of the award scheme and have become an integral part of park-management plans. Westminster manages 24 green open spaces that have been awarded the green flag standard. This makes Westminster one of the highest performing local authorities in the UK.

In 2012 the City won a Silver Award in the Royal Horticultural Society's City in Bloom category. In 2013 the City was given Gold for Borough of the Year Award and also for its management of Embankment Gardens by the London in Bloom group,[15] and in 2014 the East Finchley Cemetery, which is owned and managed by the City Council, was awarded best in class for open space management.[16]

The Royal Parks include biodiversity in their landscape maintenance contracts; this highlights its importance for all involved in land management.

Westminster City Council has also incorporated biodiversity into its grounds maintenance contract, facilitating a wildlife-friendly approach to parks management. Wildflower meadows have been created along with planting schemes that favour native species. Bird and bat boxes have been erected and standing deadwood has been retained where possible. A drive to improve people's access to nature is at the heart of development projects. For example, a new wildlife area was created in Queen's Park Gardens and many different habitats have been created in Paddington Recreation Ground. A series of ponds are fed from a borehole and a set of classrooms areas enables school groups to visit and learn about the natural environment including a woodland habitat, stag beetle loggery and one of the largest bluebell meadows in London.

To enjoy our open spaces, Westminster has over 900 benches, of which just under half are donated to the City Council by residents, visitors and local businesses. This helps reduce the City's costs, and encourages the recognition of our City's space being owned and supported by many.

Some of the Business Improvement Districts (BIDs) in Westminster have conducted green space audits and are now incorporating green infrastructure into their areas. The Victoria BID has produced award winning guidance on how to deliver green infrastructure, recognising its contribution to creating a positive environment for businesses with increased dwelling times for retailers and delivering wider objectives around air quality, biodiversity and wellbeing.

15 *www.londoninbloom.co.uk*

16 *www.rhs.org.uk/communities/campaigns/britain-in-bloom*

FUTURE CHALLENGES

Increasing the vegetated cover of the Central Activities Zone by 5% by 2030 is one of the Mayor of London's targets for adapting to the challenge of climate change. Westminster fully supports this and aims to deliver beyond this target. Maximising greening opportunities within new development helps to cool ambient temperature, improve air quality, reduce the risk of surface water flooding, provide habitat for a diverse range of species and improve attractiveness of the urban environment. It can assist with design objectives by increasing energy efficiency and reducing the need for artificial cooling. Green infrastructure will need to be designed into development schemes to ensure that environmental and economic objectives are achieved and new developments are attractive destinations for enjoying leisure facilities and generating economic opportunity.

The provision, protection and improvement of sport and play facilities, and use of these facilities in parks and green spaces, are central to encouraging active lifestyles. Green spaces are known to contribute to the psychological and social wellbeing of communities by reducing stress levels and improving mental health and community cohesion. There will be challenges in ensuring that our public spaces are maintained to this high standard during a time of reduced resources and with increased populations.

The trend towards warmer, wetter and stormier winters with hotter and drier summers brings increasing pressures on green spaces.

Did you know?

In the last 5 years, 58 living roofs have been granted planning permission and constructed in Westminster.

There is a requirement to make adaptations, such as harvesting rainwater and introducing planting schemes that tolerate periods of drought and provide shade for visitors, with a dual objective of enhancing the ecological value.

There is approximately 1.86 ha of publicly accessible open green space to every 1,000 residents in Westminster. The position changes dramatically with the additional demands of the daytime population of 1 million visitors and workers. The loss of green space to leisure facilities with a general increase in artificial lighting, noise and disturbance and urbanisation can have a significant, detrimental effect on wildlife and the sense of calm.

Local government faces increased funding pressures, which impacts on new projects and ongoing maintenance. Westminster must work with partners such as BIDs and private landowners to ensure the benefits of green infrastructure and open space are embedded in new schemes. One positive partnership is with Continental Landscape (maintenance contractor managing green spaces) which undertakes new and innovative projects in partnership with the City Council.

The changing climate also threatens existing plants and trees with new diseases and pests, increased water pressures, and ground subsidence affecting plants and buildings. The City Council will lobby government for research into new diseases and pests, to ensure that the tree stock of Westminster is protected. We will also continue to monitor the impacts that a changing climate has on the 15,000 trees managed by the City Council and new schemes will be designed with climate resilience in mind.

Large mature trees take a long time to reach their full potential, and require space to thrive to offer the maximum benefit to the city (such as shade, urban cooling, and biodiversity gain). New development will increase pressure on our existing tree stock, and new trees will require the right amount of space to reach their full potential. Garden space or tree pits must be incorporated in projects to reflect this need when development is being proposed.

THE FUTURE PLAN

Next 3 years	Undertake new audits of open spaces and biodiversity levels before 2016; Update and adopt our Biodiversity and Open Spaces Strategy; Complete the woodland area at Paddington Recreational Ground; Adopt policy on living roofs and green infrastructure in development; Continue to support the Business Improvement Districts and landowners to deliver Green Infrastructure; Renew our Grounds Maintenance Contract, which will include measures for biodiversity and environmental improvement; Ensure that when key services are being procured, they take on board the biodiversity impacts; Develop planning policy on basement development to protect garden space; Map all registered bee hives and signpost local groups to help support them.
3-6 years	Work with partner organisations and deliver 10 new green infrastructure projects within housing estates and private developments; Increase the rate of implementation of Green Infrastructure with schemes such as the Garden Bridge, through partnership working deliver new green infrastructure as part of the Church Street regeneration.
Beyond next 6 years	Increase the number of local bee hives on the estates, with partners such as CityWest Homes and the major landowners; Deliver a "green spine" within the regeneration of Church Street; By 2020 plant an extra 1,000 new trees.
What you can do	Support biodiversity by hanging a bird feeder and planting bee-friendly flowers; Water communal plants and street trees with your waste water during drought; Encourage your workplace or school to include a living roof, wall or vegetable growing; Buy locally produced honey; Educate yourself on Westminster's wildlife by visiting open spaces such as the parks.

Case Study: Green Infrastructure and the Victoria Business Improvement Districts

Green Infrastructure is a term to describe a network of high quality green and blue spaces. Green Infrastructure includes parks, open spaces, playing fields, woodlands, private gardens, allotments and blue spaces include wetlands, river and canal corridors.

In 2010, the Victoria Business Improvement District (BID) mapped green and grey spaces in Victoria to identify space for installing new green space and enhancing existing areas. This work was started as a result of businesses highlighting the limited opportunity to relax and enjoy working in central London. The ground-breaking document, the "Green Infrastructure Audit" was the first ever completed by a BID.

Victoria faces several environmental challenges; there is a risk of flooding during periods of heavy rain. Overheating is a problem in summer, due to the density of buildings and large areas of hard surfaces that absorb and trap heat. Green infrastructure (trees, rain gardens, green roofs, and living walls, etc.) helps ease flooding and reduces temperatures by slowing the rate at which water runs off hard surfaces into the drains and offering natural cooling. Green infrastructure also improves air quality by trapping pollutants and helps increase the health and wellbeing of local communities.

As a result of this work, one of London's largest living walls now exists at the Rubens Palace Hotel in Victoria Covering 350M^2 the wall comprises of pollinator-friendly plant species including buttercups, crocuses, strawberries, spring bulbs and winter geraniums. Rainwater harvesting tanks have been integrated into the scheme and store rainwater collected from the hotel's roof which is used to irrigate the plants, topping-up the mains water supply.

Unforeseen benefits for the living wall include:

- The wall has become a photo hotspot for visitors
- Hotel guests learn more about the scheme through an afternoon tea menu that is inspired by the wall's plants, such as wild strawberries and lavender and the hotel has been able to promote their environmental credentials which are increasingly expected by world visitors.

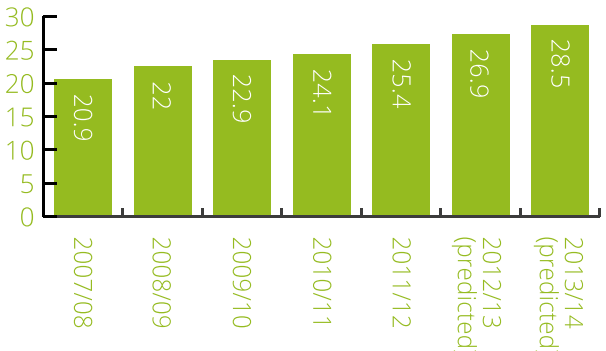
© Red Carnation Hotels

7. Ensuring that sustainability is delivered through economic development

Westminster is a powerhouse for the UK economy. We want to deliver economic growth, and we want this to deliver improvements in the City's environment. The City Council wants businesses to address wasteful use of resources and reduce pollution, as this will support sustained growth and retain Westminster as a destination of choice.

Environmental sustainability also provides an opportunity for economic growth. London's green economy continued to grow between 2008 and 2013 in contrast to national growth trends. Over 9,200 green businesses in London (18% of the national total) now employ over 163,500 people. This sector was worth approximately £25.4bn to London's economy in 2011/12, and has grown by more than 5% over each of the last two years,[17] one of the quickest growing sectors in London. The same study shows that this growth is predicted to continue to the end of the decade by approximately 6% per year. Within London this sector includes financial institutions trading on carbon, consultancies and small start-up energy efficiency companies. It is a high value sector which requires a range of skills.

Value of the Green Sector in London (Billions of £s)
Taken from London Low Carbon Snapshot (2013)



OUR PERFORMANCE

The City Council has created economic hubs which support the business community. "Hub Westminster" on Haymarket, is a locally managed working space in central London which has supported people and businesses with positive social, economic and environmental impact, including small architecture firms, health start-up companies and information technology companies. Having seen the successful development of "Tech-City" and "Medi-City" in London, the City Council is investigating the opportunity to develop the Hub Westminster model further by creating an "Enviro-Hub" cluster. This cluster of clean-tech start-ups and businesses could become a leading focus of environmental activity in Westminster and London. Delivering a location for environmental best practice could lead to Westminster to being the UK's first "Enviro-Hub".

FUTURE CHALLENGES

The growth of the environmental sector will bring opportunities and there will be competition as to where the "environmental sector" will be based. Attempts have been made to base the sector in east London, but it has tended to be industrial processes rather than the high tech end of the sector. Westminster can offer space for the City to create such a cluster. Westminster's location in the heart of London, together with world class universities and partnerships mean that Westminster is already the world leading location for an "Enviro-Hub".

17 London's Low Carbon Snapshot' Report, GLA 2013

DEVELOPING THE GREEN SECTOR - THE FUTURE PLAN

Next 3 years	Work with universities to develop research projects that can support the delivery of environmental objectives; Map the environmental sector and develop an action plan to support business; Undertake a business case to develop an "Enviro-Hub" in Westminster, to be a centre of excellence for new environmental start up companies.
3-6 years	Review the business case for an "Enviro-Hub" and if a clear positive case is made, begin delivery; Work with organisations to ensure that commercial units achieve the required energy standards; Deliver policy and work with funding opportunities to encourage the development of environment companies.
Beyond next 6 years	Support local environmental businesses; Develop innovative ideas for green businesses and promote these; Get involved with the environment sector.

8. Supporting sustainable growth

Sustainable growth means that existing businesses must improve their supply chain, become more efficient with their resources, and pollute less. Competitive, efficient business and a pleasant environment make the city a more attractive investment opportunity.

OUR PERFORMANCE

All eight Business Improvement Districts (BIDs) in Westminster include environmental objectives in their strategy, and are delivering environmental projects. Projects being delivered with the support of the City Council include business recycling, freight consolidation, green infrastructure, cycling and sustainable transport, air quality and public realm improvements. 91% of fund managers and investors believe sustainability issues are of some importance to their occupiers, compared to just two thirds in 2010. [18]

With only 13% of businesses being confident that they have the skills to compete in a sustainable economy, [19] Westminster City Council was a lead partner in the Cross River Partnership project "Smart Green Business" [20] which ran till 2014. This project supported over 200 central London SME's to improve their environmental performance, market themselves, save money and position the business for the future.

The Council uses its procurement powers to help drive business towards environmental responsibility, and to stimulate a market for environmental goods. As a responsible authority environmental sustainability is a key aspect of good quality procurement decisions. In the council's RPS it is required that companies tendering for work to deliver environmental improvement.

The City Council has planning policy which requires new development to be constructed, operated and maintained in an environmentally responsible manner. This includes careful sourcing of materials, reducing energy demand, and improving local air quality. These policies have resulted in developments including renewable energy, and green infrastructure into the development of schemes. London now has around 700 green roofs in the Central Activities Zone. [21]

62 Buckingham Gate, Victoria Street includes solar PV panels on the southern slope of the roof, and living roof on the northern slope.

[18] GVA – Green to Gold, 2014
[19] Preparing for the Perfect Storm, IEMA 2014
[20] *http://www.smartgreenbusiness.co.uk/*
[21] GLA Green Roof Map (2014)

FUTURE CHALLENGES

Securing sustainable and resilient energy supply is a major issue for business and the environment. An affordable, low carbon and locally secure power supply is vital for Westminster's existing and future economy growth. Through the planning system the City Council already works to ensure that new buildings incorporate high environmental standards – 83% of new office buildings in central London deliver high internationally recognised environmental standards. [22] Westminster needs to deliver new energy infrastructure to maintain this and continue to reduce energy demand in existing buildings.

A report on the growth of the West End, [23] highlights that the City Council must address several environmental issues in order to realise the city's full economic potential. These issues are: the West End's poor air quality; combating and adapting to the effects of climate change; and energy security and efficiency. Growth can only be supported with the provision of sustainable resources. An increase in population, density and transport demands means higher energy and resource consumption, with increased pressures on Westminster's electrical grid and supporting infrastructure. Growth offers an opportunity to deliver environmental improvements to the City. New infrastructure such as green space improvements, new energy centres including renewable technologies and more sustainable buildings and transport infrastructure to deliver air quality improvements.

The City's heritage is an economic challenge as commercial properties cannot be rented out if they fail to deliver energy standards after 2018. This challenge provides opportunities for a local workforce to deliver retrofitting but requires legislative changes to simplify this.

Did you know?

Leading global cities recognise climate change threats to business. 76% of them report that climate change will impact on business. The sectors affected range from food services to tourism.

(Protecting our Capital, 2014).

A changing climate will bring change to the economic growth of the City. Warmer summers will increase the number of visitors to our attractions, and to on-street cafés. Risks include an urban heat island effect which will impact on health and quality of life, and increased electricity demand for air conditioning. With increases in stormy weather and surface water flooding, business may face increase insurance premiums and will have to manage these effects.

The majority of businesses in Westminster are small and medium sized enterprises (SMEs) for which environmental considerations are low priority and they have limited resources to implement change. The Council will have to engage with SMEs to enable them to improve. Engagement with SMEs can be an intensive process, but will deliver reduced costs and improve environmental performance.

Superfast broadband will deliver environmental benefits to the City and reduce the need to travel. The rolling out of the government's superfast broadband project will also deliver 24,000 jobs nationally by 2024 [24]. Alongside this, more efficient working practices delivered through superfast broadband will give an extra 10 million more hours nationally for individuals to spend on leisure activities.

22 London Office Survey 2014, Deloitte
23 West End Commission Report, 2013
24 UK Broadband Impact Study, 2013

THE FUTURE PLAN

Next 3 years	Promote and support SMEs in achieving a better environmental performance through schemes like the Smart Green Business Programme.[25] Use the Council's procurement process to encourage environmental improvements in SME performance; Work with the national grid to deliver new sites for energy generation and new sub-stations; Deliver and implement new planning policy that will require higher environmental standards in new development; Work with government and suppliers to ensure broadband capacity and speeds are delivered.
3-6 years	Work with organisations to ensure that rented commercial units achieve the minimum energy standards required by law and can deliver local employment opportunities; Work closely with the local business community to help them undertake their Corporate Social Responsibilities projects in Westminster.
Beyond next 6 years	Work with the BIDs to deliver their environmental needs set out in their business plans; Support businesses in delivering shared objectives around issues such as air quality and transportation.
What you can do	Support businesses that operate responsibly; Businesses can join BIDs to share best practice and resources; As a business, close doors to keep heat during winter and cool air in summer; Use your purchasing choices to buy responsible goods and services.

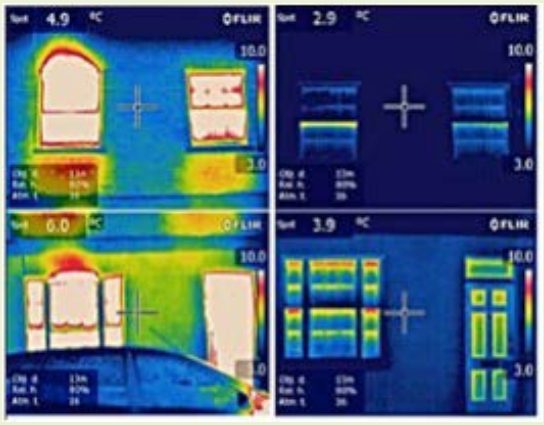
[25] Smart Green Business, was a successful programme run through Cross River Partnership for the benefit of central London businesses.

Case Study: Grosvenor Estates - "A healthy retreat in the heart of London"

In November, Grosvenor will complete their first three properties in Belgravia and Mayfair, that achieve "EnerPhit Passivhaus" standard – a first for London's private rented sector.

Grosvenor's objective is to help their customers get more from their homes – more comfort, more health benefits and a more peaceful way of living. By developing their properties through sustainably retrofitting, Grosvenor are going beyond the standard levels of energy efficiency and ensuring the long-term sustainability of their London estate. The retrofitting programme enables the Grosvenor Estate to future proof their buildings from changes to legislation and create better places for tenants to live.

The refurbishment will deliver "EnerPhit Passivhaus" standard which is the world's leading sustainability standard for refurbishment. It provides a high level of occupant comfort whilst using very little energy. This includes efficient ventilation, triple glazing, insulation and airtightness. The photos (right) shows the Passmore Street properties taken with thermal imaging on the same day. Number 9 (left building) without energy improvements, and number 21 (right) with energy efficiency improvements.



The challenge is to retain the typical feel of a London terrace and deliver environmental improvement. For that reason new technologies and materials were used including:

- ultra-slim, and super-efficient insulation boards;
- breathable and moisture-proof air tightness membrane;
- locally constructed triple-glazed mock-sash windows;
- mechanical heat recovery ventilation units; and
- discrete solar panels.

These technologies have brought energy use for these homes to almost zero for heating, lighting and cooling. This will save occupiers money, improve the local environment and create healthy homes in the heart of London.

9. Water as a resource

In Westminster water is needed for human consumption, dust damping, washing and cleansing, waste removal and watering planting. It is used in landscaping to develop areas of calm, as seen around Paddington Basin development. Water courses are a mechanism to transport goods, people, and waste. In extreme weather events excess water is a risk to property and to human health.

A larger population uses more water than ever before. Our current demand for water is unsustainable, and as the number of Londoners increases and summer rainfall decreases, there are challenges to meeting demand whilst safeguarding the environment.

Most of Westminster's water is from the water courses and groundwater across the South East of England. There need to be plans put in place to cope with a decreasing resource. Wasting less water has multiple benefits, as well as saving money on water bills and energy costs.

Under the EU Water Framework Directive all Councils have a role to play in managing water pollution that runs off hard-standing into water courses. In Westminster, this pollution can be in the form of oils, cigarette butts, and chemicals found in dust. The main water courses monitored are the River Thames and the Regent's Canal, but the city contains other water features, including 6.4 kilometres of canal frontage.
There are also five 'hidden rivers' in the city; the Westbourne, Tyburn, Tyburn Brooke, Kilbourne and Long Ditch which form part of London's Combined Sewer Network which can at times of intense rainfall discharge into the Thames. The canals and water bodies such as the Serpentine and St James's and Regent's Park lakes also provide a haven for wildlife and provide an oasis and tranquil place for residents and workers in the city.

Did you know?

By law restaurants and cafes have to be able to supply you with water, so you can ask for it rather than pay for bottled.

OUR PERFORMANCE

The Environment Agency and Thames Water recognise that London is an area where demand for water exceeds supply. They highlight the South East of England as 'seriously' water stressed, meaning that the demand for water is having a negative impact on the environment.

Londoners use more water than the national average (167 litres per person per day in 2010 compared to 146 litres per person per day nationally), largely because we live in small households, which are not water efficient. Many Londoners have little incentive to save water – only one in four homes has a water meter. [26] New products and fittings use less water in our bathrooms and kitchen appliances and the Council with Thames Water have distributed water saving devices free to households in 2014 to promote a more efficient use of water. In 2008 the City Council reduced its water consumption by £40,000 (approx 11%) through the introduction of water saving measures such as spray taps and low flush toilets in Council buildings. The City Council will also work closely with Thames Water to address leaks and associated works.

The Environment Agency reports that the ecological qualities in the water courses that they monitor in Westminster (the Regent's Canal and Thames River) are "good with potential" and "moderate with potential". This is an improvement over the last few years and shows that the work being undertaken by a range of stakeholders is having a positive outcome.

FUTURE CHALLENGES

With Westminster's population expected to rise from 228,000 in 2014 to 254,600 in 2030, so will our demand for water. [27] A changing climate will increase the need to be sensible with water usage. Westminster City Council will lobby Thames Water to ensure that water leaks are minimised and water efficiency is improved and promoted. Westminster City Council will also work with developers to increase rainwater harvesting and grey water recycling being incorporated into new development.

Water quality will also need to be assured in the future to meet the requirements of the Water Framework Directive (2000) and we will need to ensure pollution from surface water runoff is minimised. This may be achieved by incorporating 'Sustainable Urban Drainage' (SUDs) measures which help minimise water pollutants entering the drainage network in Westminster, and therefore minimise the risk of pollutants discharging into the river Thames via Combined Sewer Overflows.

With an expected increase in restaurants and food outlets in the City, there will be more pressure on these sectors to act responsibly in the disposal of fats, oils and grease and not throw them into the drainage system.
In response Thames Water have developed a FOG (Fats, Oils and Grease) campaign to inform communities not to dispose of such waste through the sewage network. These fats can form blockages within the sewage system which result in general sewage waste not being flushed away.

[26] London Water Strategy (2011)
[27] GLA figures 2014

THE FUTURE PLAN

Next 3 years	Improve water efficiency of Council buildings through retrofitting simple cost-effective measures. This will save money and conserve water; Put in place higher standards for water efficiency in new developments, recognising that Westminster is an area of water stress due to high demand; Promote water efficiency on building and construction site, through our Code of Construction Practice; Work with Thames Water to promote their campaigns to reduce water use and ensure that waste products are disposed of responsibly.
3-6 years	Deliver new public drinking fountains in the City in appropriate locations where people can access safe and free water; Adopt new policy that incorporates environmental protection measures to retain and control polluted water.
Beyond next 6 years	Continue to promote water efficiency; Work with Thames Water to roll out their water meter programme to all; Minimise the use of water for irrigation in all new landscaping projects.
What you can do	Order and install your free water saving devices from Thames Water *http://freebies.thameswater.co.uk/*; Don't buy bottled water but use re-usable containers to drink tap water; Install a water butt at home to water plants with collected water; Only fill your kettle with the water you need; Report leaks.

10. Managing Flood Risk

Westminster is most at risk from the tidal Thames and surface water flooding. Predicted increased frequency and intensity of rainfall in the future may increase the risk of flooding, which will be compounded by increased urban intensification. Westminster will need to ensure sustainable flood risk management measures are in place to improve resistance and increase resilience to flood risk.

Surface water flooding is the most likely source of flooding in Westminster. Approximately 22,100 properties are estimated to be at risk from surface water flooding during a rainfall event with a 1 in 200 annual chance of flooding occurring. This risk is increased by the dense built urban character of Westminster, with few surfaces able to absorb rainfall. Increased flood risk could increase the likelyhood of extensive damage to buildings and infrastructure, disrupt transport and businesses, effect peoples stress and cause health problems. It will also increase insurance costs.

Given the nature of flooding and flood risk, Westminster must manage this risk strategically and work with partners to improve flood resistance and increase flood resilience to the predicted effects of climate change, population growth and new development.

OUR PERFORMANCE

The City Council is working in partnership with Drain London, Central North London Flood Risk Partnership, Thames Water, Environment Agency and other Risk Management Authorities to manage flood risk. Westminster has modelled flood risk in the City and is investigating possible options to manage that risk in the future.

The City Council supports development and infrastructure which incorporates sustainable drainage systems. It will continue, in its role as Lead Local Flood Authority, to ensure that surface water drainage flow routes and the City's gullies are managed and maintain to reduce flood risk.

While it is impossible to eliminate the possibility of flooding, we will work with partners to ensure flood preparedness measures, as outlined in the Multiagency Flood Plan, are in place to support an emergency response to flooding, enabling rapid recovery after flood incidents.

CityWest Homes have been trialling fats and oils collections at Lisson Green for residents and businesses. This helps reduce maintenance costs for removing drain blockages, which reduces flood risk, as well as helping create a fuel.

FUTURE CHALLENGES

A changing climate will increase the risk of flash flooding in London, [28] and Westminster must prepare for these events using public realm and development opportunities.

The introduction of Sustainable Drainage Systems (SUDs) will become increasingly important in the management of surface water flood risk in the future. SUDs help reduce peak water runoff from a site, which allows time for water to percolate into the ground, reducing the amount of surface water entering the drainage network, SUDs in Westminster could include: green roofs, 'rain gardens' (planted areas designed to capture water), permeable paving, and rainwater harvesting. In order to ensure surface water flood risk is managed in the long term through the introduction of SUDS, management and maintenance of SUDs must also be agreed.

Flood risk management measures will need to be considered strategically at local, regional and national levels. This will require Westminster City Council to work in partnership across boundaries to ensure that responsibilities to manage flood risk are shared and understood.

[28] Climate Risks for London, Climate UK, 2012

THE FUTURE PLAN

Next 3 years	Implement planning policy to manage flood risk; Register and publish our flood risk management assets; Continue to maintain and manage the city's drainage assets; Update Westminster's Strategic Flood Risk Assessment by 2015; Publish our Local Flood Risk Management Strategy and work in partnership to ensure flood risk management objectives are in the Environment Agency's Flood Risk Management Plan; Publish our flood risk maps; Investigate possible options for surface water flood risk management for north west, central and south Westminster through externally funded studies.
3-6 years	Implement Westminster's Local Flood Risk Management Strategy; Work with Thames Water to inform residents and businesses to collect oil and fats.
Beyond next 6 years	Support implementation of Thames Tideway Tunnel Development Consent Order, and ensured that impact on Westminster is managed and minimised; Review Westminster's Strategic Flood Risk Assessment; Review local flood risk strategy.
What you can do	Don't pour materials including waste oils and fats down drains; Report any blocked drains to the Council.

Case Study: CityWest Homes Fats Collection

Blocked drains from waste fats and oils have been identified by Thames Water and the City Council as an increasing problem. When poured down the drain, cooking fats and oils build up on pipe walls restricting the flow of water.

In 2012 CityWest Homes started an award winning project called 'Don't pour it, store it' with the objective of the campaign to combat the problems with blocked drains and educate residents about the responsible way of getting rid of cooking oil waste. Repair figures showed that in 2012 CityWest Homes were spending £20,000 per year unblocking drains on the Lisson Green estate.

CityWest Homes worked with partners Wates who supplied the oil tanks, Flow3drains, who collect the oil and convert it into biodiesel fuel, and Vital Regeneration who helped promote the scheme.

An oil collection tank was placed next to recycling facilities on the estate to make the new recycling initiative seamless. Young children were invited to create artwork which is displayed by the oil recycling facility and the website, local and quarterly newsletters and social media where used to promote oil recycling.

To ease the oil recycling process CityWest Homes distributed funnels along with leaflets explaining the new oil recycling facility to every home on the estate. CityWest also distributed a DVD of the benefits of oil recycling to the Lisson Green Residents' Association, local schools and community groups.

The oil recycling campaign has contributed to a significant reduction in the cost of fixing blocked communal drains. At the end of 2013, the annual cost for addressing blocked drains had decreased to £8,000 and the collected oil is converted into biodiesel. To date CityWest Homes have recycled 900 litres which equates to 6,000 miles worth of fuel.

11. Communicating and encouraging people into environmental action

Effective communications plays a vital role in helping to achieve the Council's vision for a sustainable Westminster.
It demonstrates the Council taking the lead, and strengthens the Council's position when lobbying central government.

Our communications encourage those in Westminster to adopt more environmentally-friendly behaviours and take steps to protect and improve their health, and everyone's environment.

OUR PERFORMANCE

In 2012 the City council ran a campaign called 'Bin, Scan, Win!' This was a communications initiative funded by DeFRA, designed to encourage the use of on-street litter and recycling bins and reduce littering in the public realm. It was a reward scheme where people could enter a prize draw by scanning QR codes on the sides of recycling bins with their phones.

Surveying the people that took part when asked about the impact of the 'Bin, Scan, Win!' scheme, 43% stated that they already recycled and the scheme has given them extra encouragement to recycle more, while 28% stated that it did not make a difference to how/how much they recycled. The scheme was a first for local authorities and demonstrates the Council's innovative approach to using communications activity to drive positive change in relation to environmental and sustainability issues.

The objectives of the Council's communications campaigns are:

- To highlight existing successes and the progress that has already been made on issues such as: improving sustainable transportation options including our low car ownership; and extensive work with local businesses through Business Improvement Districts
- To empower residents, visitors and businesses to take steps that will improve their health and be aware of their environment
- Choosing to cycle or walk instead of drive
- Notifying people when there are particularly high levels of pollution

- To access hard-to-reach groups who may be particularly vulnerable to poor air quality to provide guidance or reassurance where necessary
- To take a lead in promoting and pursuing the green agenda by demonstrating a clear commitment to sustainability in the communications issued, for example by printing all council publications on recycled paper and holding regular promotional events
- To strengthen relationships and build links with resident groups, environmental campaigning groups and other key stakeholders

Current channels for communication that the Council uses:

- Westminster Reporter – quarterly, 123,000 households, libraries etc
- Families First newsletter – monthly, 7,500 subscribers
- Edit (young people) – each half-term, 9,500 households, schools etc
- Westminster Plus (older people), 3 times a year, 19,100 households, libraries etc
- Business enewsletter, monthly, 1,600 subscribers
- Twitter, 14,300 followers
- Facebook, 1,300 followers
- Website, average 11,000 visitors daily
- Local and national press

FUTURE CHALLENGES

It is vital that the Council promotes a clear vision for City in delivering the environmental agenda. This vision will be delivered not just by the Council, but also by the wider Westminster community. We need to show leadership when required, and support the community to take ownership and deliver action when needed.

Westminster City Council must ensure that the Council's messages are reaching the right audiences and make best use of digital technology and social media in order to achieve this. Market analysis and targeted communications campaigns will save time and effort and deliver better outcomes.

THE FUTURE PLAN

Next 3 years	Review the Council's internal environmental performance and staff engagement; By the end of 2015 refresh and update the City Council's Environmental Policy; Lobby the government on a fairer local deal for Westminster to address our energy needs and address poor air quality; Include a section in the city survey so that residential opinion on how the local environment is measured and services delivered; Develop a digital engagement programme. This will include refreshing the Council web pages and improved ways in which residents can interact with the Council to share ideas; Develop an awards project to reward good environmental behaviour in the City; Include an environmental section into the ward profiles reports; Promote local environmental projects that could be delivered by ward budgets; Work with schools to deliver education packs for schools and colleges to involve young people on the environment.
3-6 years	Work with our businesses to ensure they have access and deliver their electric vehicles needs following the introduction of the ultra low emission zone; Switch the paper publications produced to 100% recycled paper content; Work with the rental market to ensure that they are aware of their responsibilities to deliver energy efficient buildings.
Beyond next 6 years	Reduce the amount of paper based communications that we produce as we move towards internet based communications; Support the longer term aims and objectives of this strategy with targeted lobbying and communications activity; We will start the review of this document and developing its replacement.
What you can do	Talk to people in your community about the local areas and its environment; Take part in environmental schemes and initiatives run by local businesses and the Council; Report issues such as fly tipping and antisocial behavior to the Council; Suggest ideas to improve your neighbourhood to your ward councillors.

Appendix

Other key documents linked to the Westminster Environmental Report and Sustainability Strategy include:

- City for All (2015)
- Better City Better Lives (2014)
- The Westminster City Plan (2013)
- The Unitary Development Plan (2007)
- The London Plan (2011)

Other key documents that are linked to Noise in Westminster include:

- The Westminster Noise Attitudes Survey (2008)
- The Westminster Noise Measurement Survey (2008)
- The Westminster Open Spaces Noise Study (2008)
- The Westminster Aircraft Noise Study (2009)
- Westminster's Noise Strategy (2009)
- Noise Policy Statement for England (2010)
- DEFRA Strategic Noise Maps (2011)
- Noise pollution economic analysis (2013)

Other key documents that are linked to Waste and Resources Management include:

- The London Waste Strategy (2011)
- The Westminster Waste Strategy (2014)
- The Westminster Responsible Procurement Strategy (2014)

Other key documents that are linked to Energy include:

- Delivering London's Energy Future: The Mayor's climate change mitigation and energy strategy (2011)
- The Health Impacts of Cold Homes and Fuel Poverty (2011)
- The 11th annual report of the Fuel Poverty Advisory Group for England (2012)
- Westminster HECA report (2013)
- Westminster Decentralised Energy Masterplan (2014)
- London Infrastructure Plan 2050 (2014)

Other key documents that are linked to Air Quality include:

- Westminster City Council Air Quality Action Plan (2013)
- London's Air Quality Strategy (2010)
- The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2011)

Other key documents that are linked to Transport include:

- The Local Implementation Plan (2013)
- The Westminster Cycling Strategy (2014)
- The Westminster Walking Strategy (2015)
- The London Transport Strategy (2010)
- The Westminster Sustainable Modes of Travel to School Strategy (2014)

Other key documents that are linked to Biodiversity and Open Spaces include:

- Green Infrastructure & Open Environments: All London Green Grid SPD (2012)
- Making Space for Nature, Department for Environment, Food and Rural Affairs (2010)
- Victoria BID – Green Audit (2010)
- Open Space Strategy, Westminster City Council (2007)
- Natural Environment and Rural Communities Act (2006)
- Biodiversity Action Plan, Westminster City Council (2006)

Other key documents that are linked to this Economic Prosperity and Sustainability include:

- London Economic Development Strategy, GLA (2010)
- Westminster Economic Development Strategy (2015)

Other key documents that are linked to Water Management include:

- Westminster's Strategic Flood Risk Assessment (2010)
- London Water Strategy (2011)
- Thames Water 5 Year Plan (2014)
- WaterWise web pages
- Enhance Surface Water Flood Risk Modelling (2013)
- Environment Agency web pages (only relevant for Tidal Flood Risk)
- London Resilience Flooding web pages

City of Westminster

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