Air Quality and Climate Change Action Plan 2016–2021

THE ROYAL BOROUGH OF
KENSINGTON
AND CHELSEA

The artwork on the front cover is by Ruping from Holy Trinity School.

FOREWORDS

Poor air quality and climate change have a significant impact on both our health and our environment, and immediate action is needed to halt their effects. The main sources of air pollution and the greenhouse gases which cause climate change are emissions from transport and buildings. The impacts of both sets of emissions need to be considered together, as a decrease in one set could lead to an increase in the other. Although regional, national and even international action is needed to make a real difference, the Council does play a role in controlling these emission sources. I believe that an integrated Air Quality and Climate Change Policy and Action Plan (AQCCAP) is the logical way forward to strengthen our efforts to address these critical issues.

My ambition, shared with the Council's administration, is to give the highest priority to these issues. We've achieved great things since our last Air Quality Action Plan (2009–2014) and our first Climate Change Strategy (2008–2015), but more is needed. This Plan is a commitment from the Council to do what we can to tackle these issues. We intend to make our plan live to ensure that what we are doing is relevant. This means that our list of actions will be regularly updated and new actions will be added.

Cllr Timothy Ahern
Cabinet Member for Environment, Environmental Health and Leisure

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A wonderful synergy exists between efforts to improve our public's health and efforts to improve our environment. London's poor air quality affects us all. For the majority of the population the effects are not immediately obvious. Others are more vulnerable and this can lead to exacerbation of existing health conditions including cardiovascular and respiratory disease, potentially leading to hospital admissions and even premature death. In the long term, lifetime exposure to current levels of air pollution in the Royal Borough will reduce the lifespan of all residents by an average of nearly 16 months. In contrast, the average reduction in life caused by pollution in rural Cumbria is four months.

Statistics like this underscore the importance of using all the levers at the Council's disposal to improve air quality, our environment and therefore public health. This is precisely what the actions in this plan do. Improving air quality and our environment will directly contribute to public health in a number of ways. By insulating homes, creating better green spaces and reducing congestion on our roads, we not only improve air quality but also reduce cardiovascular and respiratory problems, reduce mental health inequalities and increase physical activity through active travel.

Cllr Mary Weale
Cabinet Member for Adult Social Care and Public Health

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1. Air Quality and Climate Change Policy

There is an increasing recognition that the problems caused by air pollution and climate change need to be treated together, not least because the emissions that pollute our air and warm our planet originate from common sources such as vehicles, buildings, power generation and industry. The Council intends to give a high priority to the twin issues of climate change and poor air quality and will:

1. use every effective means to raise awareness of the issues;

2. take decisive action to reduce emissions of greenhouse gases and air pollutants from its own activities, buildings and road vehicles;

3. engage with businesses, schools and the wider community to promote less polluting technology and modes of transport, and more energy-efficient buildings in the Royal Borough;

4. collaborate with other London boroughs, the Mayor of London and central government departments to achieve substantial reductions of harmful emissions across the city;

5. take actions to increase the resilience of the borough and its residents, visitors and workers by anticipating and addressing the main risks related to climate change and decreasing exposure to pollutants;

6. lead by example and actively encourage responsible environmental practice amongst staff, contractors, suppliers and residents, and raise awareness and empower local communities to start taking action to implement local air quality and carbon dioxide (CO_2) reduction projects.

2. Introduction

Over the past seven years, since the Council developed its first Climate Change Strategy and its last Air Quality Action Plan, the impact on public health from air pollution, and in the longer term on climate change, has become much clearer fine particles (PM10) very fine particles (PM 2.5)and nitrogen dioxide (NO_2) levels are aggravating lung conditions, with fine particles now known to pass into the bloodstream, contributing to thrombosis. Research suggests that people who have been exposed to polluted urban air can have their lives cut short by up to ten years. Not only do the elderly suffer, but increasingly children are suffering from asthma attacks. For children living and going to school near busy roads, lung development is being impaired, in some cases by as much as 10 per cent. Levels of NO_2 in some busy areas are at least twice the national objective level which is based on health criteria.

Continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe and irreversible impacts for people and ecosystems. Locally, there is already an increasing risk of flooding from intense rainstorms, and during heatwaves the elderly may be exposed to life-threatening heat stress. As conditions become warmer and wetter, pest populations will increase, with a greater likelihood of diseases. Both climate change and air quality are very likely to increase inequalities and disproportionately affect disadvantaged communities.

Limiting climate change risks will require substantial and sustained reductions in greenhouse gas emissions. However, since 2010 the UK has been in breach of the EU objective for NO_2, particularly across central London, and the Government is now likely to be fined until the levels are reduced. Under the Localism Act, the Government has suggested that some of the fines may be passed on to regional and local authorities. Addressing the environmental and public health impacts of excessive NO_2 levels is critically important, but the Council also has a responsibility to minimise any financial risk that could occur if the Royal Borough is seen as failing to implement measures to address excessive pollution levels. The Council is also determined to contribute to the achievement of international, European, national and regional CO_2 reduction targets. In the Royal Borough, since 2005 CO_2 emissions have fallen at a lower rate than in other local authorities in London. This is disappointing, but there is a lot that the Council, residents and those who work here can do together to reduce their carbon footprint more quickly and in a sustainable way.

Better insulation of buildings, more efficient boilers and new technology such as LED lighting save energy and therefore money. The Council saved £1.1 million in 2013–14 by reducing overall energy use from its own operations, with some of these savings achieved through renewable and green energy. If it achieves its target of reducing CO_2 emissions by 40 per cent by 2020, the Council will have saved more than £8 million since 2008. At the moment the damage being done to Londoners' health by air pollution is costing the NHS an estimated £2 billion every year.[1] This alone makes it financially worthwhile to improve air quality.

[1] Mayor of London's Air Quality Strategy, 2010.

The Council is committed to taking action and is convinced that an integrated Air Quality and Climate Change Policy and Action Plan, with public health at the core, will help it and the community address the issues more effectively.

3. The document's structure: how to use it

This document is essentially an action plan. Following an outline of the policy (section 1) and a brief introduction (section 2), its aims (section 4), objectives (section 5) and schedule of actions (section 6) appear in the main document. Supporting information is collected together as a separate series of appendices, which are listed at the end of this document (section 7).

Aims and objectives

The Aims (section 4) and the Objectives (section 5) outlined in the next two sections have been agreed by the Cabinet and will remain the same for the five years that the plan is to be in place.

Action Plan

The action list (section 6) which follows will be live. As actions are completed, they will be moved to a list of 'Completed Actions', to be reported annually. In the meantime, as new actions are identified and agreed, they will be added to the list. In supporting the aims of the plan, the objectives are grouped into six focus areas:

- public health
- building usage and development
- transport: cycling, car and goods vehicle usage
- business and community
- green measures and local improvements
- lobbying and partnership.

Under the heading of each focus area there is a contextual statement, presented either as statistical data or the influence that the actions are intented to have. All of the actions are keyed to show what type of action they are and what they are intended to achieve. The three columns immediately to the right of the 'description' column indicate the likely impact of each action on either NO_2, PM or CO_2 emissions. A number of the actions extend beyond the borough's boundaries and involve partnerships with other organisations – for example, with Transport for London (TfL).

Supporting information

In addition to this document, there are eight Technical Appendices available on the Council's website which provide background and supporting information (listed in section 7). These include further information on the benefits of aligning the Council's Climate Change and Air Quality Action Plans and their associated legislative drivers and commitments (Appendices I and II); local emission and pollution targets, local monitoring results and achievements from the previous Air Quality Action Plan and Climate Change Strategy (Appendices III, IV and VII); further information on the health impacts of poor air quality and climate change (Appendix V); the common sources of emissions in the borough (Appendix VI); and finally, a glossary of common terms used (Appendix VIII).

4. Aims

This plan implements the Air Quality and Climate Change Policy and concentrates on both mitigation and adaptation, through either direct actions or awareness-raising actions. These actions are guided by the following three main aims:

1. Reduce emissions

- **Reduce pollution:** physical measures and requirements to lower Nitrogen Dioxide (NO2) and Particulate Matter (PM) emissions.
- **Reduce greenhouse gases:** physical measures to reduce greenhouse gases – mainly carbon dioxide (CO2)– which contribute to climate change.

2. Reduce exposure and increase resilience

- **Provide information** on or otherwise make residents, visitors and workers in the borough aware of ways in which they can avoid exposing themselves to poor air quality and extreme weather events.
- **Manage climate change risks** from extreme weather events through sustainable adaptation measures, in particular for more vulnerable people.
- **Mitigate public exposure to poor air quality** by installing green infrastructure and other physical measures.

3. Influence change

- **Raise public awareness** of the sources and effects of poor air quality and climate change in order to empower individuals and businesses to take their own action to reduce emissions.
- **Urge** the Mayor of London, central government and external bodies to introduce radical measures to reinforce local authority actions on emissions.
- **Act as a champion and lead by example** in tackling poor air quality and climate change.

5. Objectives

Focus area	Objectives
Public health	• Increase community awareness of the potential local impacts of air quality and climate change and support vulnerable groups through appropriate adaptation measures. • Address fuel poverty by improving heating and energy efficiency in residents' homes. • Keep residents with heart and lung conditions (and so vulnerable to heat stress) in their homes and not in hospitals.
Building usage and development	• Lead by example by reducing pollution and improving energy efficiency within the Council's estate and operations to achieve a 30% reduction in CO_2 emissions by 2017 and 40% by 2020, compared with 2008. This includes by 2017 a: o 36% CO_2 reduction from council buildings; o 22% CO_2 reduction from schools; o 30% CO_2 reduction from street lighting; o 25% CO_2 reduction from the Council's main contractors; o 53% CO_2 reduction from the Council's office waste. • In the Royal Borough's social housing stock: o Improve energy efficiency and reduce emissions, with a particular focus on better insulation and individually controlled heating systems where buildings can support this. o Reduce the number of social housing tenants living in fuel poverty. • Strive for energy efficiency measures, renewable energy and water efficiency to developers for new builds and retrofit in residential and commercial properties. Encouraging them to set higher environmental standards from the beginning. • Use the planning system to minimise local emissions and exposure to poor air quality.
Transport: cycling, car and goods vehicle usage	• Reduce levels of motor traffic in the Borough by increasing sustainable transport levels, in particular cycling and walking. • Use the Council's policies to reduce local emissions. • Increase take-up of less polluting vehicles. • Lead by example by reducing the Council's fleet of vehicles and procuring a greener fleet.

Focus area	Objectives
Business and community	• Reduce greenhouse gas emissions from the borough (homes, buildings and transport). • Form partnerships to engage with and empower communities and businesses to take an active role in reducing CO_2 emissions and pollution. • Enable the community to improve energy efficiency in their homes and reduce energy bills. • Reduce general waste and increase recycling rates.
Greening measures and local improvements	• Ensure that the Council's operations are resilient to climate change impacts. • Develop local measures that reduce the impacts of poor air quality, heatwaves and flooding. • Use the Council's policies to increase the installation of greening measures and local improvements. • Create healthy outdoor spaces and green infrastructure to improve health and well-being.
Lobbying and partnership	• Ensure that funding is available to implement this local action plan. • Ensure that policies and legislation holistically tackle poor air quality and climate change. • Share expertise and knowledge on climate change and air quality within the Council and with external and local partners. • Work in partnership and lobby external bodies to advance solutions that target the causes and effects of climate change and poor air quality.

6. Action Plan

Keys to reading the Action Plan

Key 1 below categorises the actions listed in the following plan by type. In the live version, the reader will be able to create bespoke lists of actions based on these types.

Key 1: Action type											
Directly Improve Health	H	Change Behaviour	B	Directly Reduce Air Pollution	P	Directly Reduce CO_2	C	Increase Resilience	R	Lead by Example	L

Key 2: A **'+'** sign illustrates that the action has an impact, either direct or indirect, on reducing emissions of NO_2, PM or CO_2. In the example below, the action has an impact on all three types of emission.

Action	**NO_2**	**PM**	**CO_2**
Encourage cycling as a non-polluting mode of transport and combat obesity	+	+	+

Key 3 provides a definition of the abbreviations used in the 'Body responsible' field in the action list.They are all functions within the Council.

Key 3: Body responsible			
CC	Climate Change	PH	Public Health
CpS	Corporate Services	PL	Parks and Leisure
Ec	Ecology	Pl	Planning
EcD	Economic Development	Tr	Transportation
Ed	Education	TMO	Kensington and Chelsea Tenant Management Organisation
EH	Environmental Health	W	Waste and Street Enforcement
Hi	Highways		
HS	Health and Safety Team in Environmental Health		

PUBLIC HEALTH

- **7.6% of all deaths in the Royal Borough are attributed to particulate air pollution.**
- **NO_2 leads to respiratory disease, increased symptoms, A&E visits and hospital admissions.**
- **The odds of dying from cardiovascular or respiratory causes increase by over 10% for every 1ºC rise in temperature.**

Nº	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
1	H B	**Support vulnerable patients discharged from hospital with heart and lung conditions**	Provide air quality advice and home modifications for discharged hospital patients, particularly the most vulnerable (i.e. children/elderly) with heart and lung diseases.	+		+	EH/PH	Joint project implemented	Mar-16
2	H B	**Support and promote air quality awareness programmes**	Support and promote Breathe London, Airtext and Walkit schemes to include CityAir/LondonAir and Breathe Better Together principles to provide more information to a wider audience of subscribers.	+	+	+	EH/PH	Promotion increased. Increase Airtext subscriptions to 300	Dec-20
3	H B	**Support school and community campaigns to reduce smoking at home**	Carry out air quality campaigns through Healthy School Partnership at primary schools and through Thrive Tribe in the community to reduce domestic smoking at home.		+		EH/PH	All primary and secondary schools engaged	Dec-20

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
4	H B	**Support initiatives to improve outdoor air quality**	Identify local needs, including smoke-free areas and air pollution abatement through Healthy Parks/Playgrounds initiative.	+	+		PH	All parks and playgrounds assessed	Dec-20
5	H B	**Produce policy guidance on the use of e-cigarettes in the workplace**	Develop policy guidance for commercial premises on the use of e-cigarettes in the workplace to improve indoor air quality.		+		PH/HS	Policy guidance produced	Dec-16
6	H B	**Promote initiatives to reduce smoking at home**	Ensure Smoke Free Homes initiative is promoted through the NHS Stop Smoking Service.		+		PH	Promotion part of service targeting vulnerable residents	Dec-20
7	H B	**Encourage cycling as a non-polluting mode of transport and to combat obesity**	Promote cycling through GPs and GP Navigator, Health Trainer and Cycle Coordinator schemes to improve heart/respiratory health, combat obesity and promote non-polluting transport modes.	+	+	+	EH/PH	Promotion targeting vulnerable residents part of normal business	Dec-16
8	H B	**Support financial saving schemes that aid residents living in fuel poverty**	Support the delivery of the Big Energy Switch 2015, a collective energy switching scheme to help residents negotiate tariffs on gas and electricity to aid those living in fuel poverty in line with the Healthier Homes scheme.	+		+	EH/CC	100 residents subscribing	Mar-16

BUILDINGS AND NEW DEVELOPMENTS

- **NO_2 emission contribution: 8% from construction; 27% from gas boilers**
- **PM10 emission contribution: 10% from non-road mobile machinery (NRMM); 6% from gas boilers**
- **CO_2 contribution: 60% from commercial buildings; 29% from residents' homes**

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
9	HBPC	**Discourage burning of logs and house coal**	Launch an initial publicity drive backed up by yearly campaigns in the autumn to highlight pollution caused by burning non-smokeless fuels in household fireplaces, backed up with enforcement for persistent offenders.		+	+	EH	Campaign completed	Annual
10	HBPC	**Support vulnerable residents to reduce energy consumption and bills**	Support residents by providing energy efficiency advice and by installing small and low-cost energy efficiency measures to combat climate change. Reduce their energy bills and carbon footprint through the Healthy Homes project and through home energy visits by trained green experts.	+		+	CC/TMO	Number of home energy visits	Winter 16/17

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
11	B R	**Promote case studies of higher-standard insulation and heating systems for existing buildings in the borough**	Promote exemplar case studies about sustainable retrofit and regeneration schemes within the borough that have improved insulation and heating systems, and which have exceeded the minimum standards set out in building regulations.	+		+	CC	At least one example a year	Ongoing
12	P C L	**Improve the energy efficiency of the six main Council buildings**	Deliver energy efficiency projects in six of the Council's main facilities (Town Hall, Chelsea Old Town Hall, Pembroke Road, Carlyle building, Violet Melchett and Pembroke Road car park).	+		+	CpS	Reductions of 974 tonnes of CO_2 and 721.5kg of NO_2	Mar-17
13	P C L	**Improve the use of space in Council buildings to increase occupancy and reduce overall energy demand**	Improve the use of Council buildings, making them more sustainable, flexible and cost- and space-efficient, so that the remaining sites are more energy-efficient. This includes the closure of unsuitable and energy-inefficient Council sites (e.g. Pembroke Road).	+		+	CpS	Reductions of 845 tonnes of CO_2 and 626kg of NO_2	Mar-17

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
14	P C L	**New Marlborough Primary school to be performing at a high standard of energy efficiency**	Reduce energy consumption in the redeveloped Marlborough school complex.	+		+	CpS/Ed	X tonnes CO_2 reduction (tbc). Achieve BREEAM 'Very Good' standard, which includes effective energy reduction measures	Dec-17
15	P C L	**Continue to insulate the heating systems in schools**	Deliver and support flange and valve insulation projects to a large number of schools.	+		+	Ed/CC	Reductions of 75 tonnes of CO_2 and 55.6kg of NO_2	Mar-17
16	P C L	**Make sure that boilers in schools are set up and controlled to better adapt heating to each school's needs**	Deliver heating health check projects to a large number of schools.	+		+	Ed/CC	Reductions of 185 tonnes of CO_2 and 137kg of NO_2	Mar-17
17	C L	**Continue to install energy-efficient LED lighting in schools**	Deliver lighting projects within selected schools to increase the use of LEDs and energy-saving fittings.			+	Ed/CC	Reductions of 40 tonnes of CO_2 and 29.6kg of NO_2	Mar-17
18	C L	**Introduce more energy-efficient street lighting**	Introduce more efficient lighting technology for street lighting.			+	Hi	Reductions of 129 tonnes of CO_2 and 95.6kg of NO_2	Mar-17

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
19	HBPCRL	**Produce an energy strategy for council housing**	Complete the council housing energy strategy to guarantee energy efficiency and more resilient buildings in the Council's housing stock and reduce fuel poverty.	+		+	Housing/ TMO	Strategy agreed and published	March 2016
20	BPCL	**Develop planned programme of communal boiler upgrades and renewals within council housing**	Complete the review of communal boilers from council housing and develop a planned programme of replacements and upgrade works. When possible, install individual controlled heating within flats.	+		+	TMO	Review of completed and replacement programme planned	Dec-20
21	P C L	**Install ultra-low-nitrogen oxide (NOx) boilers in council housing**	Install ultra-low-pollution boilers in the next phase of boiler replacement in social and council housing (further phase planned for 2019–20).	+		+	TMO/CPr	b% gas/NO_2 saved (tbc). Ultra-low-NOx boilers emit on average 60% less NOx than existing plant (	Apr-20
22	P C L	**Incorporate energy efficiency improvements into the Council's planned social housing renewal programme**	Incorporate energy efficiency improvements into the planned renewal programme: for example, upgrade windows from single-glazed to double-glazed and improve the insulation standard for TMO properties when renewing roofs.	+		+	TMO	X energy efficiency measures implemented (tbc)	2020

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
23	P C L	**Complete the energy efficiency refurbishment of Grenfell Tower**	Complete the refurbishment of Grenfell Tower: install aluminium external wall cladding for insulation; upgrade windows from single-glazed to double-glazed; and install a new energy-efficient communal boiler and individual heat exchange units inside flats.	+		+	TMO	X energy efficiency measures implemented (tbc).	2016
24	B P C	**Raise awareness on air quality and climate change issues amongst council tenants**	Raise awareness of air quality and climate change issues, by advising council tenants on efficient use of heating systems using specific guidelines.	+		+	TMO	Number of campaigns undertaken accompanied by advice	Dec-17
25	P C L	**Explore the opportunity to install renewable energy technologies in the Council's social housing (e.g. solar panels)**	Through additional or external funding. Renewables will be considered and explored but insulation and energy efficiency will be a higher priority. It will be undertaken when it is a practical and affordable solution.	+		+	TMO/CC	Feasibility study done for renewables	Apr-20
26	C R	**Implement the forthcoming legislation related to CO_2 emissions for new developments and major refurbishments**	Support implementation of the government's Housing Standards Review with regard to energy standards through emerging alterations to the London Plan, revisions to the Local Plan, determination of planning applications and through building regulations.			+	PI	Approach agreed and implemented	Dec-16

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
27	H P C	**Ensure that major building sites minimise dust and emissions including those from on-site mechanical plant**	Apply the new London Plan – The Control of Dust and Emissions During Construction and Demolition Supplementary Planning Guidance and require low-emission NRMM with appropriate Euro standards on major redevelopment sites.	+	+	+	EH/Pl	100% of major planning applications	Ongoing
28	P C R	**Ensure that the planning system minimises the impact of new development during operation**	Utilise the planning application process to assess the implementation of energy strategies in major developments and make air quality and climate change recommendations.	+	+	+	EH/CC	100% of major planning applications	Ongoing
29	P C	**Use the planning system to ensure that emissions from energy and heat sources in new developments are minimised**	Make informed decisions on planning applications about Decentralised Energy (DE) networks, Combined Heating Power (CHP), biomass and biofuel, by considering the balance between air quality and CO_2 reduction benefits. Assess and make recommendations.	+	+	+	EH/Pl/CC	Approach agreed and implemented as part of planning decisions	Ongoing
30	H P C	**Improve walking and cycling access to White City**	Provide new direct pedestrian and cycle routes by means of a bridge and a subway between the White City Opportunity Area and Norland and Notting Barns wards.	+	+	+	Pl/Tr		Dec-20

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
31	B L	**Publish online real-time information about the energy used and generated by the Council's main buildings**	Publish online real-time information on CO_2 emissions from the Council's main buildings, as well as energy generated by the Council's solar panels.			+	CC	CO_2 emissions published	Ongoing

TRANSPORT: CYCLING, CAR AND GOODS VEHICLE USAGE

- **NO_2 emission contribution: 49% from road transport**
- **PM10 emission contribution: 75% from road transport**
- **CO_2 contribution: 11% from road transport**

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
32	HBPCL	**Continue to reduce the Council's vehicle emissions**	Start with a review of the engine types of all Council vehicles to find opportunities to procure the cleanest Council fleet.	+	+	+	CC	46% CO_2 reduction versus 2007–08	Mar-17
33	P L	**Continue to reduce emissions from our contractor's waste collection and street cleaning vehicles**	Work with our contractor SITA to reduce emissions from its fleet.	+	+	+	CC/W	35% CO_2 reduction versus 2007–08	Mar-17
34	HBPCL	**Maintain an up-to-date Council Travel Plan**	Undertake staff survey and site audits, and revise the travel plan.	+	+	+	Tr	An updated Travel Plan	Apr-16
35	HBPC	**Increase public awareness of vehicle emission controls**	Carry out roadside operations to test vehicle exhaust emissions.	+	+	+	EH	At least one operation per year	Ongoing

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
36	HBPC	**Increase public awareness to reduce engine idling**	Reduce idling of engines by raising awareness of public health and environmental benefits, in addition to using enforcement powers to issue fines to those who persist. Carry out campaigns targeted at the public, fleet managers and council drivers, e.g. including a pamphlet in permit renewal paperwork. Erect temporary signage in target areas.	+	+	+	EH/W/Tr	Campaigns undertaken and at least one ad hoc large enforcement action per year. Number of warnings and fixed penalty notices	Ongoing
37	HBPC	**Encourage residents to choose low-emission vehicles by raising diesel surcharge**	Increase the diesel surcharge to encourage less polluting vehicle choices. Cease provision of Euro 5 exemption in 2017 once Euro 6 diesels are available.	+	+	+	EH/Tr	Diesel surcharge increased and exemption removed	Dec-17
38	B	**Review of effectiveness of parking permit fee structure in encouraging the uptake of cleaner vehicles**	Review Parking Policy banding to encourage choice of lower-emission vehicles.				Tr	Parking policy reviewed	Jun-16
39	HPCL	**Increase number of on-street charging points for electric vehicles**	Expand the availability of on-street charging points for electric vehicles.	+	+	+	Tr	12 charging points	Apr-16

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
40	**HPCL**	**Encourage car clubs to go electric**	Explore with car club operators the potential for introducing or increasing the number of electric cars or hybrid electric vehicles in their fleets.	+	+	+	Tr	Car clubs and other local authorities approached	Mar-17
41	**H B**	**Encourage children to walk or cycle to school**	Double the number of schools with Silver or Gold accredited School Travel Plans and promote walking and cycling to school as part of a combined effort to tackle childhood obesity. Introduce advice on engine idling in promoting and creating travel plans.	+	+	+	Tr	Number of schools with Silver or Gold accredited Plans doubled	Dec-17
42	**H B**	**Use cycle training to promote more cycling**	Encourage greater use of cycling, by increasing the number of free cycle training sessions for residents, visitors and workers in the borough.	+	+	+	Tr	1,000 people trained	Dec-16
43	**B P C**	**Help the Mayor of London to create Cycling Grid of specially designed routes**	Work with the Mayor of London to improve cycle routes in London by introducing the Cycling Grid.	+	+	+	Tr/	Cycling grid implemented	Dec-16
44	**B P C**	**Open up more one-way streets to cyclists using both directions**	Continue to convert one-way streets to two-way operation for cycling.	+	+	+	Tr	Increase in schemes	Ongoing

N^{o}	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
45	H B	**Create safe areas for cyclists at traffic lights**	Consider opportunities for introducing Advanced Stop Lines for cyclists when reviewing traffic signals.				Tr	Traffic signal junctions reviewed	Ongoing

BUSINESS AND COMMUNITY

- **NO_2 emission contribution: 19% from gas boilers; 49% from road transport**
- **PM10 emission contribution: 75% from road transport**
- **CO_2 contribution: 60% from commercial buildings; 29% from residents' homes; 11% from road transport**
- **10.7% of residents living in fuel poverty**

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
46	B P C	**Support residents to take action in their local areas and implement community energy projects**	Encourage and empower residents to help tackle climate change and reduce energy consumption in their local areas and homes. Stimulate attitude and behaviour change through community energy projects and energy workshops/training.	+	+	+	CC	At least one community energy project supported per year	Ongoing
47	B	**Identify and train green champions in the community**	Identify and sign up green champions/leaders and residents' groups within the borough to initiate and support the delivery of energy reduction and energy generation projects or provide energy advice to their local community.	+	+	+	CC	At least five green champions engaged and trained per year	Ongoing
48	B	**Understand better the sources and quantities of greenhouse gas emissions across the borough**	Analyse the sources and quantities of greenhouse gas emissions across the borough.			+	CC	Data published and analysed versus target	Every August

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
49	B R	**Support local businesses and large organisations to reduce emissions from their operations**	Offer environmental advice and sources of technical information to local businesses and large organisations on how to reduce their CO_2 and air pollution emissions.	+	+	+	CC/EcD/EH/ PH	Information available online. Number of businesses engaged	Dec-17
50	H B	**Work actively with some large business organisations to help them reduce their emissions**	Increase the number of businesses participating in emissions reduction initiatives by concentrating on large organisations in line with the Healthy Workplace Charter, starting with those already approached but not previously ready to commit.	+	+	+	EH	Six more participating organisations committed	Dec-17
51	HBPC	**Encourage visitors to major venues to walk or cycle**	Work with major destination venues in line with the Healthy Workplace Charter to reduce trips using private and public transport by promoting active travel (walking and cycling), using customised maps and adapting existing publicity materials.	+	+	+	EH/Pl	Five major venues approached. Planning policy applied to all relevant planning applications	Dec-20
52	B P C	**Support businesses to reduce their emissions from deliveries**	Support businesses to combine and rationalise deliveries (of 100–400kg loads) using low-/zero-emissions vehicles and local distribution hubs for final-stage deliveries.	+	+	+	EH	Mileage reduction of deliveries for three businesses in different sectors	Dec-20

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
53	P C L	**Continue to work with our main contractors to reduce their energy consumption**	Work in detail with the Council's main contractors (SITA, Quadron, Amey) to reduce their overall energy consumption related to the Council's operations (building use and vehicle fleets).	+		+	CC/CpS/W	280 tonnes CO_2 reduction versus 2013-14	Mar-17
54	HBPCR	**Continue to develop the Community Kitchen Garden scheme**	Continue to develop the Community Kitchen Garden scheme, which encourages residents and community groups to grow seasonal fresh fruit and vegetables. Local production eliminates deliveries (zero food miles) and helps tackle childhood obesity.			+	W	Up to ten new kitchen gardens installed a year	Ongoing
55	BPCR	**Pilot the commercial production of fresh products from market gardens in the borough**	Set up Cultivating Kensington and Chelsea to develop market gardens, allowing the commercial production of fruit, vegetables, plant seedlings and cut flowers.			+	W	One new community-led food growing social enterprise Completed.	Dec-15
56	HBPCL	**Increase recycling by Council staff members**	Refresh the promotion of recycling to members of Council staff.			+	CpS/CC	1% annual increase in recycling rate	Ongoing
57	B P C	**Conduct an awareness-raising campaign for residents to increase waste recycling rates and decrease contamination**	Conduct awareness-raising campaign for residents on waste recycling and how to decrease contamination.			+	W	24.09% household recycling rate; 15.57% contamination rate	Mar-16

GREENING MEASURES AND LOCAL IMPROVEMENTS

- **Reduce costs to NHS.**
- **Reduce impacts of both NO2 and PM10 emissions.**
- **Reduce impacts of severe weather conditions (e.g. floods, heatwaves).**

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
58	B R	**Produce a Local Flood Risk Management Strategy**	Produce a Local Flood Risk Management Strategy (LFRMS), required by the Flood Risk Regulations 2009 and the Flood and Water Management Act 2010.				PI	LFRMS action plan Completed	Adoption of the strategy Sep-2015
59	R	**Increase the size of the existing Counters Creek Victorian sewer system**	In partnership with Thames Water, facilitate work to increase the size of the existing Counters Creek Victorian sewer system to cope with flash flooding from intense rainstorms.				PI	Sewer enlarged	2020
60	R L	**Support the delivery of Sustainable Drainage Systems (SuDs) both in new developments and through retrofitting**	Support the delivery of Sustainable Drainage Systems (SuDs) both in new developments and through retrofitting, to absorb and divert as much rainwater as possible away from the sewers during periods of heavy rainfall.				PI	Number of planning permissions with SUDs approved	Ongoing

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
61	R L	**Retrofit SuDs in existing properties**	Install SuDs such as rainwater retention features in existing properties.				PI	Arundel Gardens permeable paving scheme in place	Mar-17
62	B R	**Mitigate against increases in area of impermeable land by stopping the paving of front gardens**	Use the planning control process to reduce the loss of front gardens by resisting paving.				PI	Meet Planning Policy CE2 through number of planning applications reviewed	Ongoing
63	B R	**Promote the use of the Council's SuDs tool for small developments**	Continue to promote the use of the Council's SuDs tool for small developments.				PI	Small developers informed	Ongoing
64	HPCRL	**Install at least one green roof**	Install, as a pilot project, at least one green roof or comparable green infrastructure, in locations to be confirmed.	+	+	+	CC	One green roof installed	October 2016
65	B	**Promote green infrastructure (walls, roofs) and other eco-initiatives in schools**	Further develop school participation in green infrastructure and eco-initiatives that enhance the curriculum, involve parents and lead to reduction of car use, in collaboration with the Healthy School Partnership.	+	+	+	EH/Ec	Number of schools with green walls or eco-initiatives	Annual
66	HBR	**Support the development of food-growing gardens in schools**	Work with schools to encourage and support them in the delivery of food-growing gardens.			+		Five school food-growing gardens installed	Each year

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
67	HBR	**Support the development of community food waste composting initiatives**	Encourage and support the development of small-scale community food waste composting initiatives involving local residents.			+		Two new resident-led food waste composting initiatives	Each year
68	HBPCL	**Investigate whether targeted greening of areas can reduce exposure to poor air quality**	Assess the benefits of greening measures on school premises and other institutions close to busy roads, using the evaluation report on the green screen at St Cuthbert with St Matthias school and its capacity to reduce NO_2 and fine particle levels.	+	+	+	EH	Assessment completed. At least five target areas identified	Mar-16
69	HBPCL	**Build and publicise green screens between Westway roads and sports area**	In cooperation with the Westway Trust and TfL, install green screens adjacent to the games area and next to one of the Westway slip roads, and raise awareness of air quality in the local environment.	+	+	+	EH	Green screen installed	Jul-15
70	HBPC	**Use greening measures to reduce pedestrians' exposure to poor air quality on Cromwell Road**	Develop the air quality aspect of the Cromwell Road green corridor project. Proposal set to re-landscape part of Cromwell Road's southern sidewalk.	+	+	+	EH/W	Greening measures installed	Mar-16

N^{o}	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
71	**R**	**Review planning applications to ensure that biodiversity is improved, not damaged, by new build and refurbishment**	Check/review planning applications to ensure that development impacts on the borough's ecology are minimised, and to maximise biodiversity gains from development by creating new habitat through green roofs.	+	+	+	Ec	100% of major planning applications reviewed	Ongoing

LOBBYING AND PARTNERSHIP

- **National and regional policies and initiatives have significant impact at a local level.**

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
72	B L	**Join Climate Local, the commitment by local authorities to address climate change**	Join Climate Local to take advantage of the Local Government Association initiative providing additional support to reduce CO_2 emissions and improve resilience to the effects of climate change.			+	CC	Member of Climate Local	Ongoing
73	H B P	**Require developers to contribute to local air quality improvements**	Increase air quality action fund contributions to directly provide a resource for air quality specialists and to achieve actual air quality improvements.				EH/Pl	Pursued as part of S106 agreements on all major planning applications	Ongoing
74	HBPC	**Push for the borough to be included in the Ultra Low Emission Zone (ULEZ)**	As part of the TfL/GLA Engagement Group, enter discussions with the new Mayor of London on the potential to increase the air quality benefits in the borough of the ULEZ proposal, and/or tightening the LEZ.	+	+	+	EH/Tr	Information obtained and assessed	Mar-17

N°	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
75	H P C	**Support TfL in ensuring that the entire borough is part of the Cycle Hire scheme**	Support the expansion of the Cycle Hire scheme north of the Westway.	+	+	+	Tr	Whole of the borough served by the scheme	Dec-18
76	P C	**Work with TfL to reduce emissions from buses in the borough**	Lobby and work with TfL to ensure that all bus routes through the borough are ULEZ-compliant and explore options for hybrid buses to run in pure electric mode through the most polluted areas.	+	+	+	EH/Tr	Reduction of 20 tonnes of NOx	Dec-17
77	B	**Work with TfL to deliver a Crossrail station in the borough**	Work with TfL on delivery of Crossrail 2 station in the King's Road area.	+	+	+	EH/Tr/Pl	Confirmation of station location 2018	
78	B	**Lobby TfL for increased public transport links in the borough**	Continue to work with Crossrail sponsors on feasibility of a Kensal Portobello Crossrail station at Canal Way.	+	+	+	EH/Tr/Pl	Confirmation in principle of a station, or new link	Dec-18
79	B	**Lobby TfL and the Mayor of London to reduce emissions from taxis**	Lobby TfL/Mayor of London to make the decomissioning scheme for 10 year old taxis mandatory.	+	+	+	EH	100% of 10 year old taxis de-commissioned	Dec-18
80	B	**Lobby TfL and the Mayor of London to raise taxi drivers' awareness of techniques to reduce emissions**	Lobby TfL/Mayor of London to establish eco-driving training as a requirement for all taxi and private cab drivers.	+	+	+	EH/Tr	5,000 drivers trained	Dec-20

N^{o}	Action type	Action	Description	NO_2	PM	CO_2	Body responsible	Target/ measure	Deadline
81	B	**Lobby the Government for higher environmental building standards**	Continue lobbying the Government so that local authorities are allowed to set environmental standards for new buildings and major refurbishments that are higher than the current building regulations (Housing Standard Review).	+	+	+	CC/Pl	Government lobbied	Ongoing
82	B	**Ensure that responses to formal consultations focus on reducing or eliminating emissions**	Assert the Council's aspirations for improving air quality and tackling climate change in all responses to Government and regional consultations.	+	+	+	EH/CC	All consultations assert Council's position	Ongoing
83	B	**Lobby tyre, brake and clutch manufacturers to use materials which reduce small particles released through wear**	Instigate and support collaborative research and development to improve tyre, brake and clutch technology with materials that release substantially fewer particulates.	+	+	+	EH	Manufacturers lobbied	Ongoing

7. List of Technical Appendices

The technical appendices are grouped in a separate document also accessible on the Air Quality and Climate Change Action Plan web page. Below is the list of appendices:

I. Benefits of Aligning Climate Change and Air Quality Plans

II. Air Quality Legislative Background and Climate Change Commitments

III. Climate Change and Air Quality Commitments

IV. Local CO_2 Emissions and Air Quality Monitoring Results

V. Health Impacts of Air Pollution and Climate Change

VI. Emission Sources
   A. Homes and Buildings: Energy Efficiency
   B. Homes and Buildings: Clean Air Act and Smoke Control Areas
   C. Transport: Diesel Engine Cars and Their Exhaust Emissions
   D. Construction Sites: Control of Emissions and Dust Nuisance
   E. Industrial Emissions

VII. Achievements of Previous Climate Change Strategy and Air Quality Action Plans

VIII. Glossary

The artwork above is by Jessica from Holy Trinity School.

THE ROYAL BOROUGH OF
KENSINGTON
AND CHELSEA