Newham London

People at the Heart of Everything We Do

Air Quality Action Plan 2019 – 2024

18th November 2019

NEWHAM CLIMATE NOW

In April, Newham Council declared a climate emergency and committed to becoming carbon neutral by 2030 and carbon net zero by 2050.

Foreword | The Mayor of Newham

**Rokhsana Fiaz OBE,
Mayor of Newham**

Under my administration, the council has put in place a raft of measures to tackle the negative impact of toxic air pollution in the borough, in keeping with a series of manifesto commitments I made when elected last May. This includes fully embracing the shift towards sustainable transport and improved air quality in the borough for the health and well-being of our residents.

In April, we also declared a climate emergency because we're committed to playing our part in addressing the greatest threat to humanity and the future of our planet. Becoming carbon neutral by 2030 and carbon zero by 2050 is crucial, because as the United Nation's says:

'Climate Change is the defining issue of our time and we are at a defining moment. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale. Without drastic action today, adapting to these impacts in the future will be more difficult and costly'.

So drastic action on improving air quality, enhancing our local environment and addressing the climate emergency is central to the council's approach across a raft of transport, planning and development strategies covering: liveable neighbourhoods, regeneration, planning, urban design, housing delivery and our local economic growth plans. Embracing the principals of sustainable development and the green economy are also the key features of our Community Wealth Building agenda as we pursue local economic growth strategies to address poverty and inequality in the borough; and promote inclusion, social development and environmental sustainability.

This Air Quality Action Plan underwent a consultation process between September 2nd to 14th October 2019, where we received 308 responses from residents, businesses and interest groups. A summary of the consolation responses can be viewed in the document '*Summary of consultation responses to the Draft Air Quality Action Plan 2019-2024*'. The Council last published its Air Quality Action Plan in 2002; and despite the growing body of evidence about the impact of climate change, minimal improvements on air quality in the borough have been achieved in the intervening 18-year period.

Right now, Newham residents are exposed to more high levels of toxic pollution caused by vehicles; causing the highest rate of deaths in England - that's 96 people dying prematurely each year. We also have the highest number of our children admitted to hospital due to asthma-related conditions. Part of the reason is because some of our more established neighbourhoods are by busy main roads, but we also have high rates of 'through-traffic' vehicles from out of the borough using our residential roads as rat-runs.

While air pollution doesn't respect borough boundaries and there are many factors contributing to poor air quality which can be beyond the control of the Council, we must do everything we can to address this crisis situation.

That's why I welcome the Mayor of London's Ultra Low Emission Zone for the capital, which will expand up to the North Circular Road in October 2021. This will help reduce 'through-traffic' in Newham, and gradually encourage people to modernise towards greener, cleaner electric vehicles with less harmful emissions. It's also why we must take action to reduce car use and encourage our

residents to walk more, take up cycling and use public transport frequently as part of our contribution to the Mayor of London's transport strategy for the capital that will see 80 percent of journey's in London done through these ways by 2042.

Alongside declaring a climate emergency, we are also undertaking a review of the borough's parking policy and the outcome of that will be published later this year. I've also established an Air Quality and Climate Change Task Force to develop an action plan for the whole Council because it's important that we demonstrate our leadership to encourage other stakeholders to do the same.

This new Air Quality Action Plan has been produced as part of our legal duty to London's Local Air Quality Management strategy. It outlines the actions we will take to improve air quality in Newham between 2019 and 2024. These are more detailed and ambitious than ever before, reflecting the need to be active on all fronts now because doing nothing or little is not an option and will save lives.

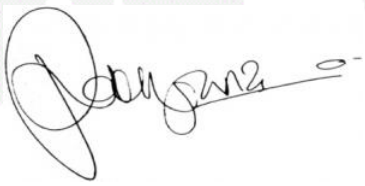
It's been developed in close consultation with residents and reflects a clearer set of priorities to manage the impact of future growth in the borough; support healthier lifestyles for residents; reduce the impact of traffic on air quality and congestion; and reduce our own impact on air quality.

We've already started by:

- Investing in the latest air quality monitoring equipment and installing these outside all of the borough's 96 schools as part of our air quality audit to ensure the effective impact of our 'healthy school streets' clean air initiative. This is a first for any council in the country;
- A "green audit" of all Council services and fleet management to give prominence to environmental and sustainability impacts alongside cost and value for money;
- Installing 40 double electric car chargers on nominated residential roads by the end of October 2019, as part of the Mayor of London's Go Ultra Low City Scheme;
- Developing a detailed Sustainable Transport Strategy for Newham to ensure that on-going improvements to sustainable transport are well targeted and co-ordinated.

We recognise however, that we cannot solve the problem of air pollution and emissions on our own. That's why the Council under my administration, will work across Council services to involve local residents, community groups and campaigners as well. We'll also work with the Mayor of London, Transport for London, neighbouring boroughs and partner bodies to specifically address poor air quality.

I'm encouraging all our local partners and residents to tell us what they can and will contribute; because we want to mobilise a growing network of people and organisations across Newham to work with us to tackle the scourge of air pollution in the borough, and improve the quality of the air we breathe.



Rokhsana Fiaz OBE I Mayor of Newham

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@rokhsanafiaz

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Abbreviations

AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
AQS	Air Quality Strategy
AQO	Air Quality Objective
AQ	Air Quality
ASR	Annual Status Report
CAZ	Central Activity Zone
CHP	Combined Heat and Power (Energy System)
DEFRA	Department for Environment and Rural Affairs
EV	Electric Vehicle
GLA	Greater London Authority
GTL	Gas to Liquid Fuel
LAEI	London Atmospheric Emissions Inventory
LAQM	Local Air Quality Management
LBN	London Borough of Newham
LIP	Local Implementation Plan
LLAQM	London Local Air Quality Management
NRMM	Non-Road Mobile Machinery
ODA	Olympic Development Authority
PM_{10}	Particulate matter less than 10 micron in diameter
$PM_{2.5}$	Particulate matter less than 2.5 micron in diameter
PAR	Planning Application Requirement
TfL	Transport for London
ULEV	Ultra-Low Emission Vehicle
WHO	World Health Organsation

Walking Bus, Selwyn Primary School

Clean Air Day, Salisbury School

Anti-idling campaign, North Beckton School

Summary | Highlights and Priorities

This *Air Quality Action Plan (AQAP)* has been produced as part of our duty to London Local Air Quality Management. The Plan has regard to *Greater London Authority (GLA)* guidance on air quality. We outline the action we will take as a Council to improve air quality between 2019 - 2024.

This action plan replaces the previous action plan which was published in 2002. Recent air quality initiatives that have been implemented since the previous plan include:

- Investment in a network of air quality monitors for NOx and Particulate Matter (PM_{10}) and third party monitoring i.e. at *London City Airport*;
- Re-prioritisation of road space at junctions, transport hubs and on main roads to favour more sustainable transport modes with urban greening, wider footpaths and dedicated cycle ways, i.e. Stratford town centre improvements;
- The introduction of resident parking zones throughout the Borough to reduce the number of vehicles on our roads and a recent Parking Policy review (outcome to be published this autumn);
- The Council has been promoting 'play streets' throughout the borough, for example during last year's 'World Car-Free Day', Councillors worked with local residents to reclaim a number of streets to allow children to play in a safe, emission free environment;
- Since May 2018 the council has initiated a number of awareness-raising events about 'Clean Air Day', targeting parents who idle their engines outside schools with poor air quality, i.e. School children helped display hard hitting visual messages on the roadside (see photos above);
- The introduction of the *'TfL STARS'* active school travel plan scheme;
- The installation of Low energy LED street lights to reduce carbon emissions (plans are currently being developed to extend the scheme).

Air pollution is associated with a number of adverse health impacts; it is recognised as a contributing factor in the onset of heart disease and cancer.

Additionally, air pollution particularly affects the most vulnerable in society: children, older people, pregnancy, and those with existing heart and lung conditions. There is often a strong correlation

with equalities issues, because areas with poor air quality are also often the less affluent areas[1, 2].

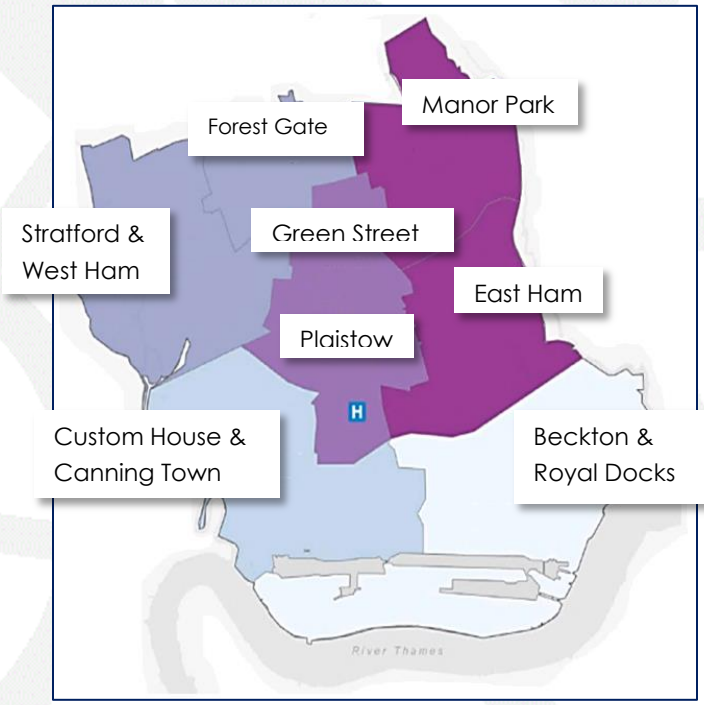
The most recent *Newham Joint Strategic Needs Assessment (JSNA)* for Public Health identified a number of disorders and conditions as priorities.

These include:

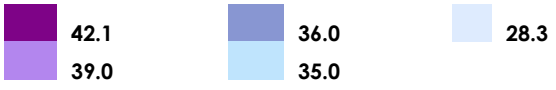
- Cardiovascular disease (heart disease, stroke);
- Cancers (especially lung, breast and bowel);
- Respiratory disorders (bronchitis, asthma and emphysema).

All these conditions can be exacerbated by poor air quality. The assessment attributes a direct link with mortality and particulate air pollution [3].

Figure 1 | Children aged 18 or under on an asthma prescription during 2017/18 across each Community Neighbourhood area



Legend: Rate per 1,000 GP registered population



Newham residents are exposed to higher particulate pollution than in any other London Borough (*Public Health England*) causing the highest rate of deaths attributable to air pollution and the highest number of child asthma hospital admissions.

The annual health costs to society of the impacts of air pollution in the UK are estimated to be roughly £15 billion[4].

Newham Council is committed to reducing the exposure of its residents to poor air quality in order to protect and improve health.

We have developed actions to improve air quality having regard to general guidance and the *GLA's 'Air Quality Action Matrix'* requirements. Actions are aligned with the Council's wider policies in supporting Newham's future visions.

The actions are considered within 7 broad topics:

- **Monitoring and other core statutory duties:** Maintaining monitoring networks is absolutely critical for understanding where pollution is most acute, and what measures are effective to reduce pollution. There are also a number of other very important statutory duties undertaken by boroughs, which form the basis of action to improve pollution;
- **Emissions from developments and buildings:** Emissions from buildings account for about 15% of the NOx emissions across London so are important in affecting NO_2 concentrations;
- **Public health and awareness raising**: Increasing awareness can drive behavioural change to lower emissions as well as to reduce exposure to air pollution;
- **Delivery servicing and freight:** Vehicles delivering goods and services are usually light and heavy duty diesel-fuelled vehicles with high primary NO_2 emissions;

[1] Environmental equity, air quality, socioeconomic status and respiratory health, 2010.
[2] Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006.
[3] Newham Joint Strategic Needs Assessment, 2017-19 [4] Defra. Air Pollution: Action in a Changing Climate, March 2010

- **Borough fleet actions**: Our fleet includes light and heavy duty diesel-fuelled vehicles such as mini buses and refuse collection vehicles with high primary NO_2 emissions. Tackling our own fleet means we will be leading by example;
- **Localised solutions**: These seek to improve the environment of neighbourhoods through a combination of measures, and;
- **Cleaner transport**: Road transport is the main source of air pollution in London. We need to work towards a change to walking, cycling and Ultra-Low emission vehicles (such as electric).

Our 10 key priorities are:

1| Enforcing the Non-Road Mobile Machinery (NRMM) Low Emission Zone;

2| Promoting and enforcing smoke control zones;

3| Promoting and delivering energy efficiency retrofitting projects in workplaces and homes;

4| Supporting alerts services such as *airTEXT*, and promoting the Mayor's air pollution forecasts;

5| Reducing pollution in and around schools, and extending school audits;

6| Installing '*Ultra Low Emission Vehicle' (ULEV*) infrastructure;

7| Improving walking and cycling infrastructure;

8| Regular Car Free days/temporary road closures in high footfall areas;

9| Reducing emissions from Council fleets;

10| Ensuring Master planning and redevelopment areas are aligned with '*Air Quality Positive'* and '*Healthy Streets'* approaches.

Newham Council will work hard to engage with stakeholders and communities which can make a difference to air quality in the Borough.

We would like to thank all those who have worked with us in the past and we look forward to working with you again and welcome new partners to contribute as we deliver this new action plan.

This AQAP outlines how we plan to effectively use local levers to tackle air quality issues within our control.

However, there are a large number of air quality policy areas that are outside of the Council's influence (such as Euro standards, national vehicle taxation policy, taxis, roads controlled by *Transport for London (TfL)* and buses), and so we will continue to work with and lobby *The Greater London Authority (GLA)*, TfL and central government on policies and issues beyond the Borough's influence.

| Responsibilities & Commitment

This AQAP was prepared by the Environmental Control Department of *Newham Council* with the support of the directorates listed in Appendix A.

This AQAP has been approved as the consultation draft by the *Mayor of Newham* as the portfolio lead for Regeneration, Planning and Housing Delivery under which the Council's Environmental Control Department sits.

AQAP will be subject to an annual review, appraisal of progress and reporting to the Mayor of Newham who chairs the Air Quality and Climate Change Taskforce and the Air Quality and Climate Change Commissioner she appointed to support her in this area of work.

Progress each year will be reported in the *Annual Status Report (ASR)* produced by the Council, as part of our statutory LLAQM duties.

| Helen Masterson
| Noise and Pollution Manager

Introduction | The Action Plan

This report outlines the actions that *The London Borough of Newham* will deliver between 2019 - 2024 in order to reduce concentrations of pollution, and exposure to pollution; thereby positively impacting on the health and quality of life of residents and visitors to the Borough. It has been developed in recognition of the legal requirement on the local authority to work towards air quality objectives under Part IV of the *Environment Act 1995* and relevant regulations made under that part and to meet the requirements of the *London Local Air Quality Management* statutory process[5].

1 | Summary of current air quality in the London Borough of Newham

The *UK Air Quality Strategy* (AQS), released in July 2007, provides the overarching strategic framework for air quality management in the UK and contains national air quality standards and air *quality objective's (AQO's)* established by the Government to protect human health. The AQO's take into account EU Directives that set limit values which member states are legally required to achieve by their target dates.

The London Borough of Newham has been meeting all of the AQO's at our monitoring stations other than for the pollutant Nitrogen Dioxide (NO_2) which is exceeding on a number of roads (as reported in the ASR).

Mobile particulate monitoring, Salisbury School

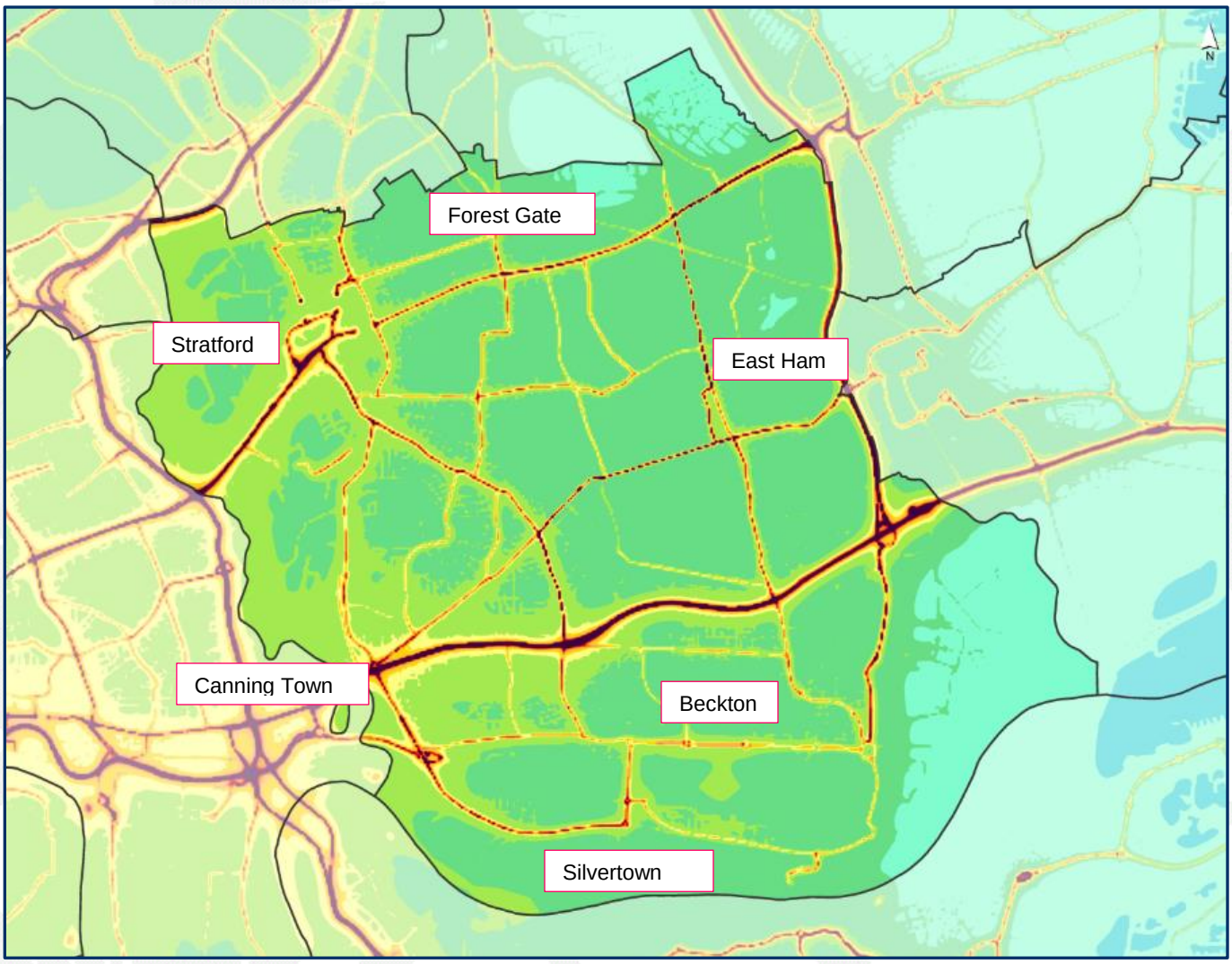
Lamp column particulate monitor, Stratford High Street

The London Borough of Newham is meeting the current objectives at monitoring stations for Particulate Matter (PM_{10}). However, modelling indicates exceedances of the AQO on a number of roads without air quality monitors and so this remains a pollutant of concern. The measured concentrations of PM_{10} and $PM_{2.5}$ exceed the *World Health Organisation (WHO)* objective of 20µg/m^3 and 10µg/m^3 respectively.

London City Airport maintains its own AQAP and a network of 17 passive and 2 automatic monitoring stations. The *2018 Annual Performance Report* specifies no exceedances of the annual mean objective for PM_{10} or NO_2 at the airport in 2018.

[5] LLAQM Policy and Technical Guidance. https://www.london.gov.uk/sites/default/files/llaqm_policy_guidance_llaqm.pg_16.pdf

Figure 2 | Modelled map of annual mean NO_2 concentrations in LB Newham from the LAEI 2016



Legend | NO_2 (μ g/m^3)

16-19	22-25	31-34	37-**40 (AQO)**	43-46	49-52	55-58
19-22	25-28	34-37	40-43	46-49	52-55	>58

The modelled map predicts that NO_2 concentrations are exceeding the national air quality objective (AQO) for the protection of human health (40 μg/m^3) in the locality of all major roads in the Borough. Roads dominated by through traffic such as the A13, A12 and A406 expose a wider area of the population to poor air quality. The town centres of Stratford, East Ham, Forest Gate and Canning Town are also subject to concentrations of NO_2 above the AQO.

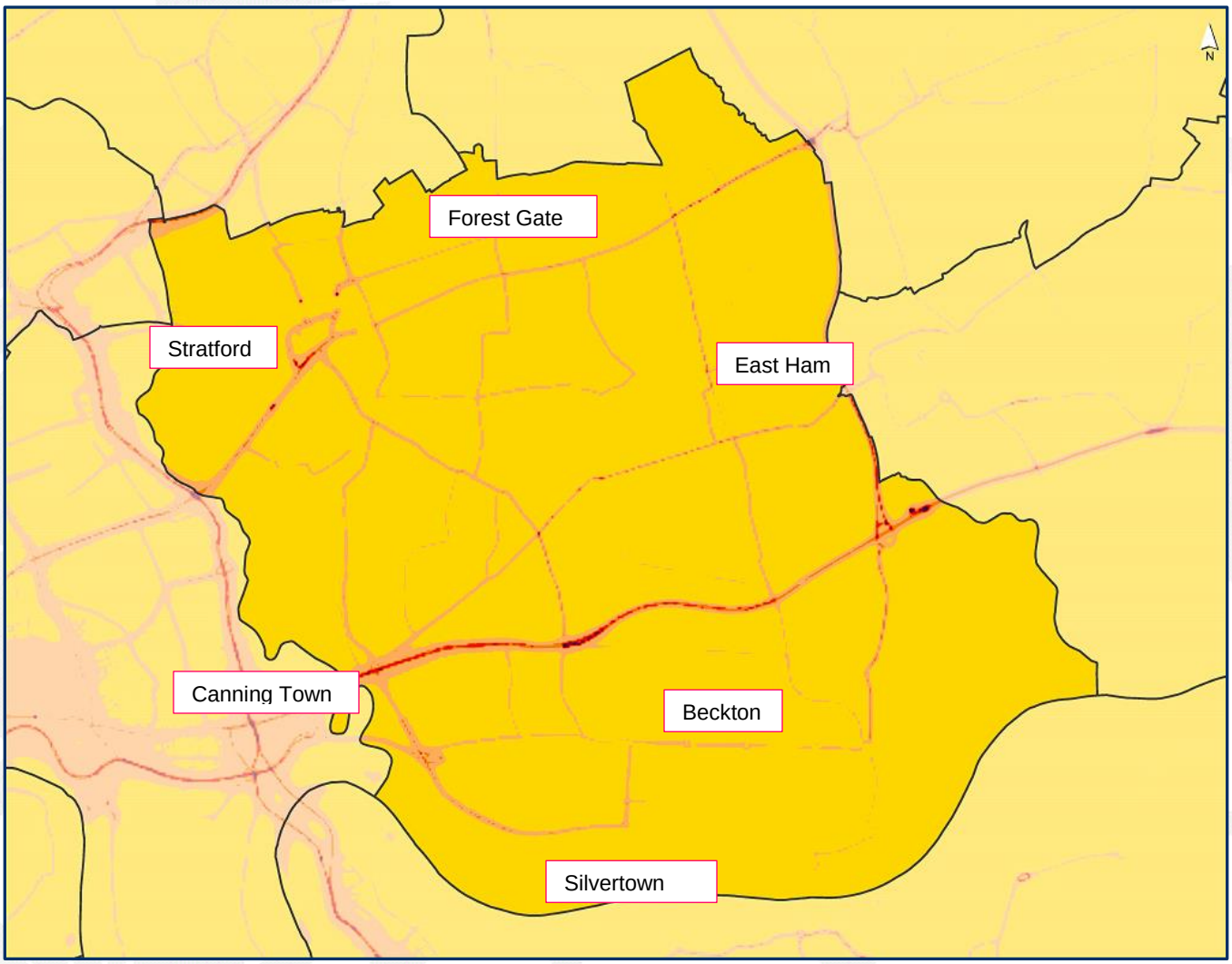
Figure 3 | Modelled map of annual mean PM_{10} concentrations in LB Newham from the LAEI 2016

Legend | PM_{10} (µ g/m³)

16-19	22-25	31-34	37-**40 (AQO)**	43-46	49-52	55-58
19-22	25-28	34-37	40-43	46-49	52-55	>58

The modelled map predicts that PM_{10} levels are above the AQO around some major roads. The west of the Borough on average is more elevated than to the east. This suggests that the most significant source of PM_{10} in the Borough is road transport and other sources associated with central London.

Figure 4 | Modelled map of annual mean $PM_{2.5}$ concentrations in LB Newham from the LAEI 2016



Legend | $PM_{2.5}$ (µ g/m³)

2 | 2-4 | 4-6 | 6-8 | 8-10 | **10** – 12 **(WHO Guideline)** | 12-14 | 14-16 | 16-18 | 18-20 | 20-22 | >22

There is currently no AQO for the protection of human health assigned to $PM_{2.5}$. The *World Health Organisation* recognises the long term health impact of high concentrations of fine particulates, due to their ability to penetrate deep into the lungs. *WHO* recommend an annual mean objective of 10 µg/m³ for $PM_{2.5}$ This modelled map predicts that all of the Borough exceeds this guideline with a base level of at least 12-14 µg/m³. The main through roads such as the A13, A12 and A406 exacerbate this pollutant with levels particularly elevated on roads in Stratford, Canning Town and Prince Regent Lane (A13 junction).

1.1 | Air Quality Management Area and GLA Focus Areas

An *Air Quality Management Area* (AQMA) will be declared for the whole of the Borough in 2019 for the following pollutants:

Nitrogen dioxide (NO_2): *The national Air Quality Strategy* (AQS) annual average objective for this pollutant has been exceeded at some of our monitoring sites and modelling indicates it is being breached at a number of other locations.

Particulate Matter (PM_{10} & $PM_{2.5}$): In areas of exposure modelling shows that good progress has been made towards meeting the AQO for PM_{10}. However, further reductions in some areas are required and the whole of Newham is significantly exceeding the *WHO* air quality guideline objective for $PM_{2.5}$. This pollutant has significantly adverse health impacts, particularly for the most vulnerable in our society. We have a duty to ensure concentrations of PM_{10} and $PM_{2.5}$ remain as low as possible.

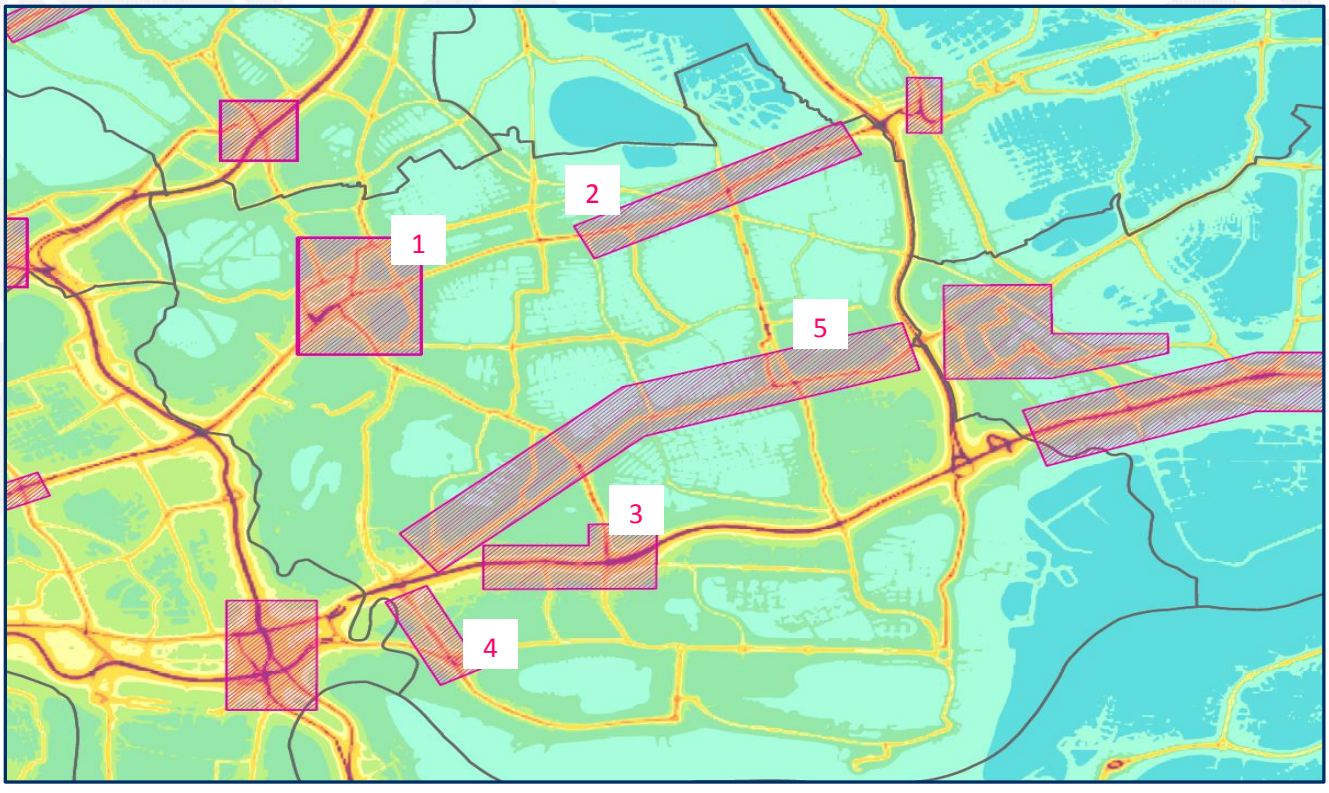
The Council have not historically undertaken long-term monitoring for concentrations of $PM_{2.5}$ (a fraction of PM_{10}) but we have committed to installing twin BAM $PM_{2.5}$ monitors by 2020 at both of our automatic monitoring sites to reference against the modelled predictions.

An '*Air Quality Focus Area'* is a location that has been identified by the *GLA* as having both high levels of NO_2 and significant human exposure with the aim of addressing concerns raised by boroughs within the LAQM review process.

There are five GLA focus areas in Newham. These are;

1 | Stratford Town Centre;
2 | A118 East (Romford Rd);
3 | A13 West (Newham Way);
4 | A1011 South (Canning Town);
5 | A134 (Barking Road).

Figure 5 | Location GLA NO_2 focus areas in Newham (LEAI 2013)

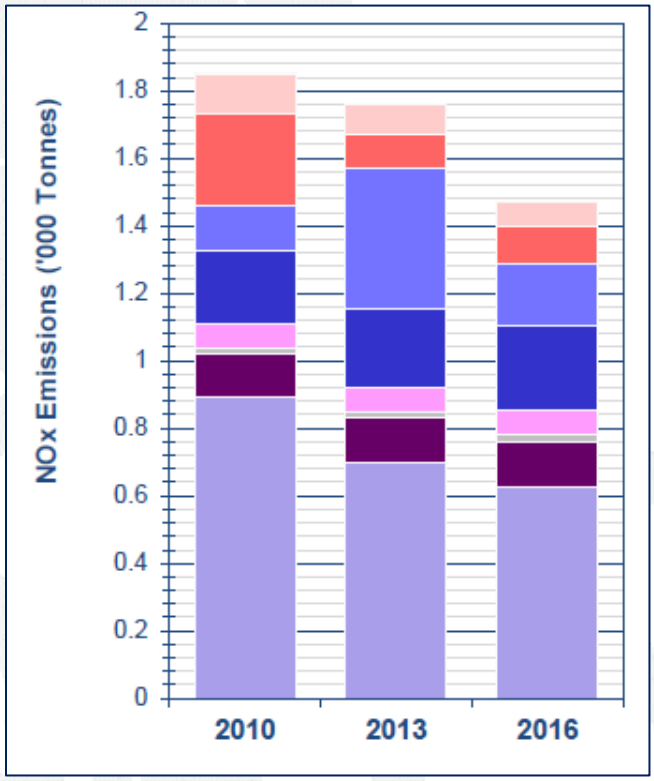


1.2 | Sources of Pollution in the London Borough of Newham

Pollution in the *London Borough of Newham* originates from a variety of sources. This includes pollution from outside of the Borough, and in the case of particulate matter, a significant proportion of this comes from outside of London and even the UK.

Of the pollution that originates in the Borough the main sources of nitrogen dioxide (NO_2) and particulates (PM_{10} & $PM_{2.5}$) are detailed below.

Fig. 6 | NOx Emission by Source Type (LAEI 2016)



Legend | Source Type in Newham

- Road Transport
- Aviation
- Rail
- River
- Indust./Commercial.Heat/Power
- Industrial Processes
- Construction
- Commercial Cooking
- Domestic/Heat Power
- Domestic Biomass
- Resuspension
- Other

Fig. 7 | PM_{10} Emissions by Source Type (LAEI 2016)

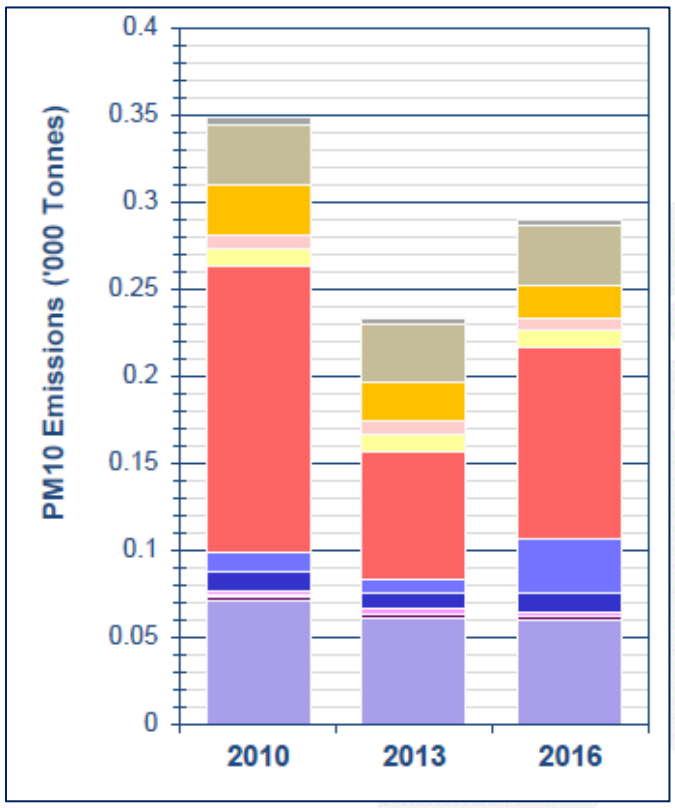
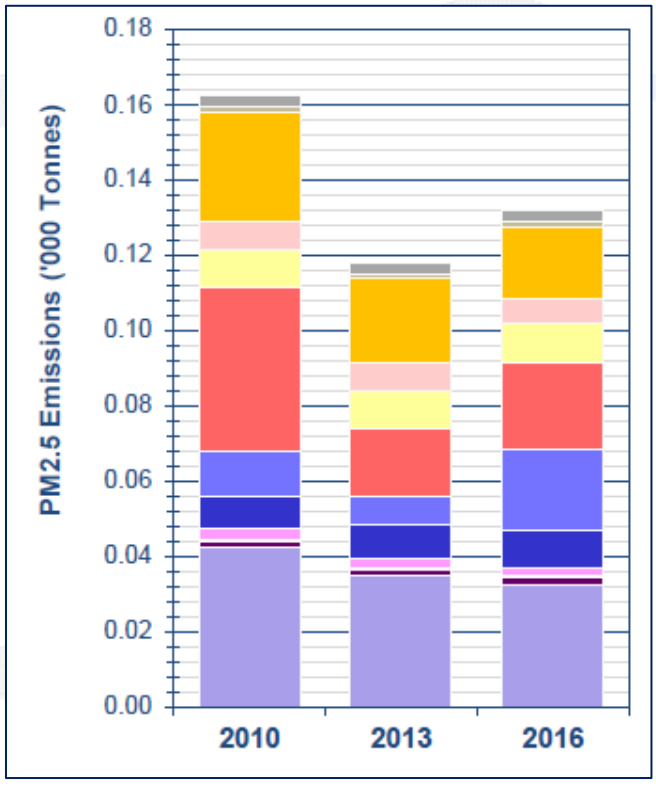


Fig. 8 | $PM_{2.5}$ Emissions by Source Type (LAEI 2016)



| Road Transport

With a population of over 354,000 Newham is one of the most densely populated Boroughs in London and the country. The Borough is positioned adjacent to the North Circular A406 to the east and the River Thames to the south with no bridge crossing of its own. This geography has contributed to busy through road arteries such as the A13 into Central London and towards the Blackwell Tunnel.

With space at a premium, populated neighbourhoods are commonly adjacent to these main roads, despite the fact that Newham has the fourth lowest car ownership rate in the UK; fifty two percent of households do not own a car.

Fourteen percent of the Boroughs population is exposed to NO_2 levels above the air quality objective (AQO) for human health and on average all Newham residents are exposed to levels of $PM_{2.5}$ that is thirty five percent greater than the WHO guideline value of 10µg/m^3 *(LAEI 2016)*.

The proposed new Silvertown Tunnel is a concern for the Council on both air quality and congestion grounds. Emissions from traffic concentrated around the tunnel portals and from the tunnel ventilation system could impact localised air quality in residential neighbourhoods such as on Tidal Basin Road.

| London City Airport

Operations at *London City Airport* are a significant source of atmospheric pollution. The *London Atmospheric Emissions Inventory* (LAEI) reports that NOx emissions in Newham produced from aviation is at the third highest level of the London Boroughs.

The LAEI (2013), forecasts that NOx and PM_{10} emissions from aviation will increase up to 2025. It is worth noting that these forecasts do not take into account proposals for an increased number of flights as included in its draft master plan. The Council has raised serious concerns with the airport regarding this and other issues.

Under the current planning permission *London City Airport* is required to comply with various controls covering air quality, including an approved *Air Quality Monitoring Strategy* and an approved *Air Quality Management Strategy*, monitored and enforced, if necessary, by the Council.

Ground monitored air quality is within the AQO for human health. Emissions from aeroplanes once airborne are not required to be monitored under the CADP planning permission. This source of air pollution remains a concern to the council. Other issues concerning air quality at the airport include fumes and associated odours drifting from the runway and aprons.

NOx Monitor, London City Airport

| Industry

Newham's industrial heritage was forged from Stratford to Silvertown with a mix of ship building, 'the sugar mile', flour mills, rubber and creosote works. At its peak Newham was a booming industrial centre serving the Royal Victoria Docks and onward to international waters. Today, a new era of masterplan redevelopment is

underway, delivering a healthy street approach of waterside neighbourhoods and parkland squares.

For the remaining industry, the LAEI reports that some will contribute to the highest quantities of NOx emissions compared with other Boroughs.

The *Environmental Control Team* and *Environment Agency* ensures that the remaining industry which is largely based around the construction, manufacturing and waste sectors are regulated and inspected regularly under the Environmental Permitting Regulations.

Redevelopment from an industrial paint and varnish works to an award winning park. Queen Elizabeth Olympic Park

| Waterways

Historically the flat dockland wards of Newham are built upon reclaimed marshland along the river *Thames* and it eastern most tributary, the *Rive Lea*.

The Royal Docks are no longer a source of significant pollution now that most of the shipping industry has moved eastwards.

The TfL operated *Woolwich Ferry* is the only vehicle river crossing in the Borough and this bottle neck can be a significant source of pollution both from waiting idling vehicles and from the ferry fleet.

The exclusion of the A406 and *Woolwich Ferry* from the ULEZ expansion (due in 2021), will result in the ferry being the last free river crossing within Inner London. This could increase pollution further in the locality unless proper mitigation is put in place.

The old vessels were replaced in 2019 with a hybrid' engine fleet and to state-of-the-art systems to treat their exhausts, thereby cutting harmful nitrogen oxide and particulate emissions.

| Construction & NRMM

Newham's masterplan redevelopment area stretches 6km from the *Queen Elizabeth Olympic Park* to the *Royal Docks* and is helping to redefine East London. Apart from the obvious future benefits, large redevelopment can bring short term environmental impacts.

Particulate and nitrogen dioxide emissions orientating from NRMM and demolition and construction activities in Newham are higher than the London average and therefore a source of concern for Newham residents and a key priority within this action plan.

| Building Emissions

With a dwelling stock of over 114,000, Newham currently has the thirteenth highest number of homes in all of London's Boroughs, supporting the third highest population.

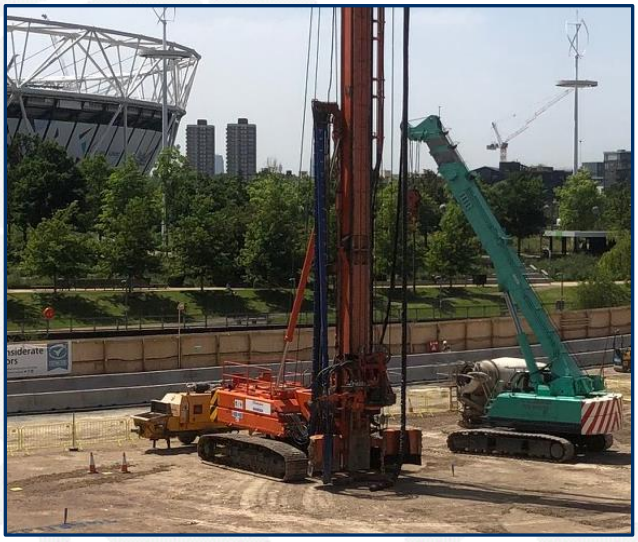
The highest proportion of energy emissions for this housing stock is powered by the gas supply and Newham's overall contribution to NOx compares to the London average.

With the significant level of masterplan re-development, carbon powered combined heat and power (CHP) units are contributing more to energy demand and NOx emissions over recent years.

2 | The London Borough of Newham's Air Quality Priorities

Air pollution is a complex problem with links and dependencies to other Council priorities. The paragraphs below set out the key Council strategies that link with air quality.

2.1 | Enforcing the Non-Road Mobile Machinery (NRMM) Low Emission Zone



NRMM, Queen Elizabeth Olympic Park

NRMM used in construction currently accounts for approximately seven percent of NOx and eight percent of PM_{10} emissions in London. Newham's masterplan redevelopment areas are redefining East London. Apart from the obvious future benefits, large redevelopment can bring short term environmental impacts.

Newham's Planning Application Requirements (PAR) specifies that developers must commit to meeting the NRMM standard on all major development sites in the Borough. From 2020 all minor planning applications with construction and demolition activities must also demonstrate how developers and sub-contractors intend to comply.

The Council has signed up to the Pan-London MAQF 'Non-*Road Mobile Machinery Zone enforcement*' project which will audit construction sites to ensure operators are meeting the requirement.

'The *Control of Dust During Construction and Demolition*' SPG specifies that '*medium*' and '*high*' risk construction sites should install at least two automatic particulate monitors to assess the effectiveness of emission controls. The Council will ensure that this requirement is delivered.

2.2 | Promoting & enforcing smoke control zones

King's College estimate that up to thirty one percent of the $PM_{2.5}$ originating in London comes from wood burning. Reducing the number of bonfires and appliances burning unauthorised fuels would clearly have a huge impact on $PM_{2.5}$ emissions.

Newham Council commits to increasing the awareness of smoke control zone legislation, the health impacts of $PM_{2.5}$ and our garden waste collection service via new media, street engagement, public events such as the *Newham Show* and the *Newham Mag* which is distributed monthly to every resident.

Smoke Control Promotion, Stratford City

We also educate stove suppliers and restaurants using charcoal grills by awareness campaigns such as the distribution of smoke control leaflets.

Currently, Borough powers are limited and the *Mayor of London* is lobbying the national Government for more powers to control emission sources. However, the Council is obliged to investigate smoke nuisances and take enforcement action where in the public interest.

2.3 | Promoting and delivering energy efficiency retrofitting projects in workplaces and homes

Newham Council manages a large Council housing stock of 16,000 homes and a number of office buildings. By improving both direct emissions and energy efficiency for these buildings the impact on local air quality can be minimised.

The Borough has successfully bid for GLA (*RE:NEW Phases 1 and 2*) and *Olympic Delivery Authority* (ODA) funding to identify and in many cases fund works, especially for vulnerable private sector residents *Domestic Energy Efficiency in Newham Annual Report.* Since it was created in 2009, the *RE:NEW* programme has saved over 47,000 tonnes of CO_2 each year.

The Council have committed to a 'green audit' of all Council services to give weight to environmental and sustainability impacts alongside cost and value for money. Full council has backed a motion for the Borough to become carbon neutral by 2030 and carbon zero by 2050. This is detailed in our 'Climate Emergency Declaration'.

As part of this green audit the Council will review:

- Energy efficiency in the Borough's housing stock and corporate buildings through a Carbon Management Plan and the GLA's RE:FIT programme;
- The introduction of 100% green electricity to all operational buildings including schools in our next framework (2020-2024) through *The London Energy Project* (LEP);
- The incorporation of *Ultra-Low NOx* & zero carbon energy systems for all major improvement programmes and new build Council properties;
- The introduction of further energy efficiency improvements to Council owned housing stock, including insulation and window and roof replacement programmes and the use of 'Passive Principles' in new builds;
- The promotion of energy efficiency in Newham's schools;
- The installation of renewable energy sources in our Council housing stock and community centres i.e. photovoltaic panels and heat pumps.

Clean Air Day, Salisbury Primary School

2.4 | Supporting alerts services such as airTEXT, and promoting the Mayor's air pollution forecasts

airTEXT is a service supported by *Newham Council* and a group of London Boroughs, including the *Environment Agency*, *Greater London Authority* and *Public Health England*. It is an early warning service, which alerts people to high levels of pollution.

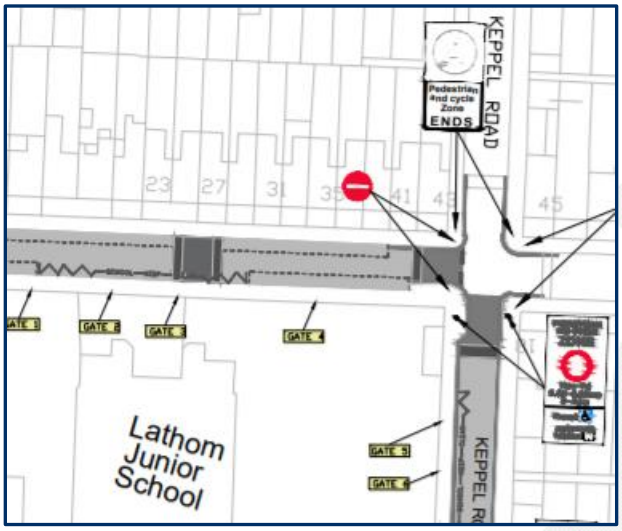
Newham residents can sign-up for the free service by texting '*airTEXT Newham'* to 78070.

airTEXT is particularly useful for users with a cardiovascular condition such as heart disease or a breathing condition such as asthma.

We will continue to support *airTEXT* and promote the service by signing up more residents during clean air initiatives such as car free days and *the Newham Show. We will* work closely with schools, hospitals, doctor's surgeries and distribute biodegradable shopping bags with a printed *air TEXT* promotion.

airTEXT promotional shopping bag, Newham Show

2.5 | Reducing pollution in and around schools, and extending school audits



Timed Road Closure, Lathom Junior School

Poor air quality can affect a child's lifelong health and cognitive impacts. Any improvement focused around this demographic is significant.

In partnership with the *Mayor of London* we will do more to protect Newham's school children by reducing their exposure to poor air quality.

We are implementing the recommendations in the Mayor of London's schools and nurseries air quality audits for *Keir Hardie* and *Salisbury* School, i.e. '*green screening'* playgrounds and relocating a nursery play area, away from the main road to reduce exposure from traffic emissions

Newham Council is the first in London to expand the audits to all of its ninety six schools and we are leading the country by installing an air quality monitor at each school to inform targeted clean air initiatives.

Our '*Healthy School Streets'* programme aims to improve the street environment outside our selected schools by:

- Introducing timed road closures near school entrances at pick-up and drop-off times.

- Improving footways and pedestrian crossings, and placing drop kerbs at desirable locations;
- Improving cycle routes and cycle facilities;
- Providing more planted areas around schools;
- Installing green planted screens to shield school entrances or playgrounds from emissions;
- Helping to set-up a '*walking bus*' programme where local children walk together to school, accompanied by a responsible adult.

Air Quality sensors are to be installed to monitor the impact of the road closures.

Taking cleaner routes to school can dramatically reduce exposure, several recent exposure studies suggest that switching from main roads to quiet back streets can reduce peoples exposure by up to fifty percent.

We will work with our partners to deliver school travel plans including free cycle training, bicycle support schemes, clean air walking/cycle maps and air quality assemblies for schools. This will encourage schools to achieve Transport for London's *STARS Accreditation*.

Kings College London has demonstrated that concerted vehicle idling action campaigns could reduce local concentrations very close to the source of idling vehicles by up to thirty percent.

We will target engine idling outside schools by adopting and enforcing the vehicle anti-idling regulations by participating in the pan-London ant-idling campaign with support from the MQAF.

2.6 | Installing Ultra Low Emission Vehicle (ULEV) infrastructure

The *GLA* report that a five percent shift to electric vehicles from both Diesel cars and Diesel LGVs would result in ten percent reduction in NOx emissions and four percent for PM_{10}.

As part of the *Go Ultra Low City Scheme* (GULCS) we are installing forty double electric car chargers on residential nominated roads. We will bid for further funding through *GULCS Phase 2* to expand the network of electric chargers.

This includes the provision of road space & pavement space to support the charging infrastructure. Further information on the scheme is detailed in our *Local Implementation Plan* (LIP).

We will support London wide and national schemes to encourage the uptake of cleaner vehicles, such as improved electric charging networks and vehicle scrappage schemes which can play an important role in improving vehicle stock on the roads.

Freestanding electric charging point, Stratford High Street

2.7 | Improving walking and cycling infrastructure

Measures to encourage active travel such as walking and cycling can support residents to maintain an active lifestyle, which has additional health benefits beyond those achieved through improving air quality.

Separated cycle lane, Stratford Town Centre

The Council's *Local Implementation (Transport) Plan* (LIP) sets out our transport priorities in detail, including commitments to reduce transport's contribution to climate change by promoting walking and cycling via highway improvements and improving transport opportunities by increasing the number of bus stops and pedestrian crossing points.

A detailed *Newham Cycling Strategy 2018-2025* has been adopted to ensure that on-going improvements to the cycling infrastructure are well targeted and co-ordinated.

To complement the cycle strategy, the Council is about to commence the development of a '*Walking Strategy*', followed by a consolidation into a '*Sustainable Transport Strategy*' for Newham, by 2021. This will ensure air quality initiatives are at the core of our new *Transport Strategy* for Newham which is to be developed by 2022.

The AQAP can contribute to meeting all of these priorities by promoting the uptake of healthier, active travel options and ensuring that our public realm is protected from air pollution, making green spaces easier and more pleasant to use.

2.8 | Regular Car Free days/temporary road closures in high footfall areas

Where road traffic sources make up the main source of pollutant concentrations, temporary road closures will provide a big temporary improvement to air quality. For example, the road closures for the London Marathon in 2018, resulted in a reduced NO_2 concentration on Upper Thames Street of approximately eighty nine percent.

Our community lead Councillors work with volunteers and residents to run street activities and events as part of the Council's emerging '*Our Streets and Places*' programme.

Air quality monitoring, Salisbury Primary School

During '*World Car Free Day*' every community neighbourhood has a planned road closure themed around the environment. Our delivery partners plan to present greening and planting activities, stalls with activities highlighting alternate transport, distribution of air quality monitor kits and clean air walking maps.

Our trial road closure scheme '*Healthy School Streets*' aims to restrict traffic outside selected schools (see 2.5 'Reducing pollution in and around schools').

2.9 | Reducing emissions from Council fleets

Newham Council is a large fleet operator. Using the cleanest possible vehicles for public, private and freight transport and adopting an efficient driving strategy has a significantly positive impact on pollution concentrations.

Fleet services have just been accredited *Clean Van commitment status*. We will continue to invest in improving the environmental & air quality impact of the refuse collection fleet, including rolling review each time a vehicle is replaced to seek Ultra-Low emission vehicle replacement, where available.

As an interim measure, progress is being made with trialling the use of bio fuel/gas to liquid (GTL) as an alternative to diesel for large fleet vehicles in partnership with *The London Borough of Havering*.

GTL vehicle, Folkestone Road Depot

We recognise the need to change longer term to electric and we are undertaking a demo trial of three electric vehicles over summer 2019, with the aim thereafter to install a full electric van fleet by 2028 alongside the installation of electric charging points at our depot.

The Council will conduct a 'green audit' of all our Council services and fleet to give weight to environmental and sustainability impacts alongside cost and value for money.

We will retain our membership of the *FTA Truck & Van Excellence Recognition scheme*. Improving our own emissions puts us in a stronger position when we seek higher environmental standards from Council suppliers and contractors. Experience of implementing our own measures can also help in framing any guidance for fleet operators and building designers in the Borough.

We will review our procurement policies to ensure sustainable logistical measures are implemented (including requirements for preferentially scoring bidders based on their sustainability criteria, i.e. driving efficiency and road awareness between construction vehicles & cyclists).

We will incorporate FTA Truck & Van Excellence, *FORS/ECO stars*, *CLoCS* or equivalent accreditation into all future contracts. *FORS* estimate an eleven percent saving in fuel and emissions for scheme members.

We will progress a Council Travel Plan to increase a wider awareness amongst staff; and secure a modal shift in travel by staff to steadily increase walking, cycling, public transport and car clubs and car sharing while reducing drive alone car usage.

2.10 | Ensuring Master planning and redevelopment areas are aligned with Air Quality Positive and Healthy Streets approaches

Investment in the *Olympic legacy* has helped Newham's population grow at one of the fastest rates in the country since 2014. The current population stands at over 354,000 and this is estimated to increase to 388,000 by 2026 making Newham the third most populated Borough in London.

The *Newham Local Plan* is a core strategic document to support this growth, while protecting and enhancing the surrounding environment. It brings together regeneration, planning, property, tourism and transport. It includes a commitment to sustainable development, including encouraging the design of buildings and environments that minimise energy usage; developing clean energy sources and improving the health of the population through healthy urban planning.

All new developments should aim to be at least '*air quality neutral*' and major developments should demonstrate this by submission documents that follow *The London Plan*. Once appropriate guidance is made available, *The New London Plan* requires masterplan developments to demonstrate an 'air *quality positive*' approach.

A number of strategic priorities are laid out in the document including; improving accessibility, capacity and quality of the public transport network, and promoting sustainable travel in the Borough, ensuring that the necessary physical, social and green infrastructure is provided or existing infrastructure is enhanced to support the planned growth and development and encouraging major sustainable regeneration projects.

New developments in the most accessible parts of Newham that lie within Controlled Parking Zones are to be car free, and developments in areas of high on-street parking stress are to be *car-capped*.

The plan supports good quality outdoor spaces which encourages residents to be more active and can have benefits for mental health and wellbeing. Ensuring that these outdoor spaces are protected from pollution sources makes them more pleasant to use and reduces resident's exposure.

Car free neighbourhood, East Village E20

3 | Development and Implementation of the London Borough of Newham AQAP

3.1 | Consultation and Stakeholder Engagement

In developing and updating the action plan we have worked with other local authorities, agencies, businesses and the local community and will continue to do so in the interests of improving local air quality. Schedule 11 of the *Environment Act 1995* requires local authorities to consult the bodies listed in Table 3.1. Additionally, we engaged with a range of partners and stakeholders, including residents, businesses and local community groups on:

- The draft air quality action plan, which was available on the Council's web site for 6 weeks from September 2019;
- Their views at public consultation sessions including 'Youth Citizen Assembly' and the first 'Climate Now' open Forum which included a diverse selection of ethnic resident groups;
- Specific formal consultation requirements which was undertaken with all statutory consultees.

The consulted stakeholders are listed in *Appendix A*. The responses are presented and addressed by the Council in the document '*Summary of consultation responses to the Draft Air Quality Action Plan 2019-2024*'.

Table 3.1 | Bodies that Newham Council consulted with under Sched. 11 of the Environment Act 1995

the Secretary of State
the Environment Agency
Transport for London & the Mayor of London
all neighbouring local authorities
Port of London Authority
other public authorities as appropriate

3.2 | Air Quality and Climate Change Taskforce

The Mayor of Newham has established an *Air Quality and Climate Change Task Force* and a Commissioner has been appointed by the Mayor to support her in the delivery of the *Air Quality Action Plan* across all Council Services. The Taskforce meets regularly and will review progress on the Action Plan annually.

Name of Executive Lead:

Mayor Rokhsana Fiaz: Mayor and Cabinet Member for Regeneration, Planning and Housing Delivery.

Scrutiny Lead: Cllr John Whitworth.

In consultation with:

Cllr Zulfiqar Ali: Cabinet Member for Highways and Sustainable Transport;

Cllr James Asser: Cabinet Member for Environment;

Cllr Susan Masters: Cabinet Member for Health and Adult Social Care;

Cllr Firoza Nekiwala: Deputy Cabinet Member for Health and Adult Social Care;

Cllr John Gray: Cabinet Member for Housing Services;

Cllr Shaban Mohammed: Deputy cabinet member for Housing;

Cllr Julianne Marriott: Cabinet Member for Education;

Cllr Jane Lofthouse: Deputy Cabinet Member – Education;

Cllr Terence Paul: Cabinet Member for Finance and Corporate Services;

Cllr Mas Patel: Commissioner for Air Quality & Climate Change.

4 | Action Plan Table

Table 4.1 shows the *London Borough of Newham* AQAP. It contains:

- a list of the actions that form part of the plan (AP1 = Action Plan 1, AP2 = Action Plan 2, etc.)
- the responsible individual and departments/organisations who will deliver this action;
- estimated cost to the Council (**Low:** up to £4,000; **Moderate**: £4,000 - £10,000; **Medium** £10,000k - £50,000k; **High** £50,000k plus)
- expected benefit in terms of emissions and concentration reduction;
- the timescale for implementation;
- the outputs, targets and Key Performance Indicators;
- how progress will be monitored;
- further information relating to specific actions is available via the web links provided.

Table 4.1 | Air Quality Action Plan

Action Category: Monitoring and other core statutory duties							
AP	**Action name and description**	**Responsibility**	**Cost**	**Expected emissions/ concentrations benefit**	**Timescale**	**Outputs, Targets and KPIs**	**Further information**
1	**Maintain & expand an appropriate AQ monitoring network (currently 16 diffusion tube sites (NO_2), 2 automatic monitoring sites (& NOx) & 1 NO_2 diffusion tube co-location study)) so that AQ impacts within the Borough can be properly understood.**	Environmental Control Team Highways	Medium	No emissions/ concentrations benefits but critical in terms of understanding emissions & concentrations & the impact of action taken	Ongoing for maintenance of monitors, & target to install $PM_{2.5}$ monitors by 2024 School monitoring commitment for 1 year to begin in 2019.	a| KPI: All monitors calibrated, maintained & have at least 90% data capture; b| We will seek funding & install a twin beta attenuation monitoring (BAM) $PM_{2.5}$ unit at the 2 AQ monitoring stations; c| We will invest in 25 low cost AQ sensors and portable monitors to monitor project work covered in the AQAP such as our 'Heathy School Streets' programme; d| We will install AQ monitoring diffusion tubes at all 96 Newnham schools as part of the extended AQ audits to facilitate targeted AQ initiatives as detailed in the 'Healthy School Streets' programme; e| We will seek funding to expand the diffusion tube AQ monitoring network. KPI: No. of additional sites; f| We will maintain a dedicated Airport Monitoring Officer to ensure that London City Airport's approved Air Quality Monitoring Strategy is functioning as agreed. This will be facilitated by regular meetings & an annual monitoring report.	Details of our monitoring can be found here: www.newham.gov.uk/Pages/ServiceChild/Data-on-local-air-quality.aspx Details of monitoring in & around London City Airport can be found here: www.londoncityairport.com/corporate/Environment/Air-Quality Full Council commitment to conduct AQ monitoring in every school: www.newham.gov.uk/Pages/News/Newham-declares-climate-emergency.aspx

Action Category: Emissions from developments & buildings

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
2	**Ensuring emissions from construction are minimised.**	Regeneration & Planning Environmental Control	Low	A reduction will be achieved compared with the situation without the policy. The amount of pollutant emissions that can be reduced will depend on the type & size of the development & how much of a focus is given to emissions reduction beyond present policy.	Years 1-5	a | Overarching output: We will apply AQ conditions to 100% of relevant applications & monitor / enforce effectively; b | KPI: Number of officers trained by Summer 2020 (then ongoing as required) to ensure that latest AQ standards / requirements are applied; c | We will develop a process to ensure that Environmental Health Officers are equipped to check planning applications against latest AQ standards / requirements. To be in place by Summer 2020; d | We will ensure that Construction & Demolition Method Statements are referred by Planning to Environmental Control at consent & discharge of condition stage; e | We will ensure the requirement for real-time particulate monitoring at all medium & high risk construction & demolition sites is delivered.	Newham Local Plan (2018) policy SC5 sets out requirements in addition to London Plan. Note that the policy makes the implementation of this AQAP a material consideration in planning decisions. Planning applications must demonstrate how developers intend to comply with the controls specified in the Sustainable Design & Construction SPG; Control of Dust & Emissions SPG. The requirement includes a monitoring strategy to be submitted & agreed for all medium/high AQ dust risk assessments. Note: Croydon have developed a tool to assess emissions called Croydon Development Emissions Tool (CDET) to enable developers to assess if development plans will meet emissions reduction targets set by the Council.

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
3	**Ensuring enforcement of non-road mobile machinery (NRMM) AQ policies.**	Regeneration & Planning Environmental Control	Low	NRMM used in construction currently accounts for approximately 7% of NOx & 8% of PM_{10} emissions in London. Current applicable standards are stage IIIB on construction in central London, & stage IIIA in the rest of London. These will progress to stage IV & IIIB respectively in 2020, with further tightening of the standards in 2025 & 2030.	Years 1-5	a | As per action 2, we will ensure that the NRMM condition is applied & enforced on 100% of all relevant applications. Maintain participation in pan-London Merton-led enforcement scheme & assist implementation as required; b | KPI: Number of consents (i.e. issued permissions) where NRMM conditions are being applied; c | We will ensure that NRMM used by Boroughs for activities such as road maintenance meets NRMM emission requirements; d | Consider if licensing or contract conditions can be used to extend the NRMM LEZ to other sectors such as roadworks & events.	Newham Council is partnering with Merton Councils NRMM regulatory services partnership with a commitment to audit development sites in Newnham to ensure compliance.

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Time-scale	Outputs, Targets & KPIs	Further information
4	**Reducing emissions from combined heat & power (CHP).**	Regeneration & Planning Environmental Control	Low-medium	Even with abatement equipment, fitted standard combustion-based CHP heating systems can produce as much as anywhere from 5 to 170 times the NOx emissions per kilowatt-hour unit of gas/electricity heat generated. Where existing combustion-based CHP systems are replaced, emissions reductions should be simple to calculate – for example "old system annual NOx emissions" – "new system annual NOx emissions" = Annual NOx savings Where waste heat is captured & integrated into a heat network to replace an existing heat source then the NOx savings will be the total NOx emissions from the heat source being replaced on the network.	Years 1-5	a| We will review energy strategies within proposed developments to ensure policy approaches to avoid & minimise / mitigate the use of carbon based CHP; b| Where CHP forms a part of new consents, we will require submissions at build-out stage to ensure mitigation technology is used; c| KPI: Number of CHP's/Biomass applications that have been varied to carbon free alternatives; d| We will support the delivery of District Heating by: | lobbying significant landholders / developers across the Royal Docks (GLA) & Beckton (St William); | ensuring expectation is embedded in OAPF; | Investigating whether GLA DEEP funding is logical for updated studies.	Newham is in the heart of the 'Green Enterprise District' which supports the progression of a low carbon economy. The districts flagship project is The Crystal on the Royal Victoria Dock's that contains a permanent exhibition promoting sustainable development. Planning applications must commit to the zero carbon requirements. See the latest PAR Pollution Management Statement (April (2019), page 23. www.newham.gov.uk/Documents/Environment%20and%20planning/PlanningApplicationRequirementsPAR.pdf

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
5	**Air Quality Neutral development – as per London Plan & Local Plan, all new development should be at least AQ neutral (as per GLA definition).** **Additionally, seek to implement the AQ positive provisions of the new London Plan (applying to all EIA-applicable development).**	Regeneration & Planning Environmental Health	Low	The GLA report 'Air Quality Neutral Planning Support Update' has several case-studies which outline the emissions reductions that can be realised through AQ neutral development. A large mixed-use development (240,000m2) including one gas fired CHP unit & four gas fired boilers is calculated to have total building NOx emissions of 17.3 tonnes per year. The AQ neutral benchmarks for such a development will allow only for NOx emissions of 8.4 tonnes per year. Some 8.9 tonnes per year of NOx will therefore need to be saved (primarily through onsite measures or, at worst, through relevant off-setting).	Ongoing	a| Focussing on major applications initially, we will ensure all proposals granted consent have demonstrated AQ neutrality with assessments independently checked; b| We will ensure all approval of detail applications that pertain to / effect AQ outcomes are referred to Environmental Control for comment (Environmental Health to identify these at initial consent stage); c| KPI: Number of officers trained to scrutinise AQ neutral / positive development; d| We aim to employ a dedicated AQ Officer to enable this action and others in this plan. This is dependent on an MTFS growth bid process to be considered by the Council; e| We will monitor EIA-applicable consents to determine whether AQ positive development has been delivered; f| We will consider a requirement for Ultra-Low NOx boilers in all minor developments in the next Local Plan Review.	Planning applications must demonstrate how developers intend to comply. See the latest PAR Pollution Management Statement (April (2019), page 26. www.newham.gov.uk/Documents/Environment%20and%20planning/PlanningApplicationRequirementsPAR.pdf 'The LBN Environmental Control Team review AQ Assessments, on major planning applications. Conformity is achieved when discharging planning conditions)

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
6	**Maximizing the AQ benefits of Green Infrastructure (GI) in new development.**	Regeneration & Planning	Low cost to Borough	GI schemes can transform urban areas & help to provide improved public spaces with a barrier between receptors & areas of high concentrations. It can be hard to quantify AQ exposure improvements from such schemes but it is useful to consider such schemes as part of the Healthy Streets Approach or measures built into GI proposals.	Ongoing	a| KPI: At minimum, no net loss of designated green space in the borough; b| We will develop a 'GI database' by mid-2021 to understand the network & role of GI in Newham better; c| We will identify & signpost resources regarding the best planting / landscaping interventions in relation to AQ; d| We will ensure any additional GI delivered as part of new development is designated for protection in further iterations of the Local Plan; e| KPI: Delivery of Lea River Park projects (specifically new green spaces).	The Newham Local Plan (2018) requires the protection & enhancement of the Borough's green infrastructure, including designated & undesignated locations. This protection recognises the 'multiple roles & benefits' of GI & demands 'no net loss of functionality', which would include its role in AQ mitigation. https://www.newham.gov.uk/Pages/Services/Local-plan.aspx

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
7	**Declaring Smoke Control Zones & ensuring they are fully promoted & enforced.**	Environmental Control Regulatory Services	Low	King's College London estimate that between 23 & 31% of the $PM_{2.5}$ originating in London comes from wood burning. Reducing this would clearly have a huge impact on $PM_{2.5}$ emissions.	Ongoing	a| At point of sale locations & media events we will provide advice on authorised fuels & exempt appliances for carbon based stoves; b| We will seek out & provide smoke control information for carbon based fuel vendors (i.e. petrol stations/DIY stores & food premises with charcoal & wood ovens, i.e. Turkish grills & pizzerias. There are currently 20 restaurants listed. Regulatory Services Food Safety Officers to receive AQ training by Summer 2020; c| We will update our website on Smoke Control Areas by April 2020; d| We will promote the garden waste collection service in the Newham Mag & via social media feeds with a view to prevent bonfires in gardens by April 2020; e| KPI: Number of suppliers & estimated reach of awareness campaigns; f| We will increase enforcement of the zone where in the public interest.	Newham Council commits to increasing the awareness of smoke control zone legislation & the health impacts of $PM_{2.5}$ via public engagement on events such as Clean Air Day & during the Newham Show. We also commit to educating stove suppliers & restaurants using charcoal grills by handing out smoke control leaflets.

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
8	**Promoting & delivering energy efficiency & energy supply retrofit projects in workplaces & homes through EFL retrofit programmes such as RE:FIT, RE:NEW & through Borough carbon offset funds.**	Housing, Environmental Control	Low – no direct costs	The Mayor's Better Boilers scheme introduced an Ultra-Low NOx requirement for the replacement boilers. This has led to significant NOx reductions as well as saving up to 310 tonnes of CO_2 per year. Since it was created in 2009, RE:NEW has helped improve over 131,000 of London's homes, saving over 47,000 tonnes of CO_2 a year. Replacing gas boilers with a connection to a local district heating network removes the source of local heating related NOx emissions.	Years 1-5	a| We will improve energy efficiency in the Borough's housing stock & corporate buildings through a Carbon Management Plan & the GLA's RE:FIT programme; b| We will introduce 100% green electricity to all operational buildings including schools in our next framework (2020-2024) with LASER through LEP (London Energy Project); c| We will incorporate Ultra-Low NOx & zero carbon energy systems for all major improvement programmes & new build Council properties; d| We will our update Energy Performance Certificates across all Council Stock by 2023; e| We will help deliver the installation of smart meters in all void properties; f| We will continue with & carry out further energy efficiency improvements to Council owned housing stock, including insulation & window & roof replacement programmes & investigate the use of 'Passive Principles'; g| We will promote energy efficiency in both Council & private homes; h| We will promote energy efficiency in Newham's schools; i| We will investigate the installation of renewable energy sources in our Council housing stock & community centres i.e. photovoltaic panels & heat pumps.	A draft energy management plan was commenced in 2017 with a view to reduce carbon emissions from the Councils operational buildings 20% by 2022. Full Council has backed a motion for the Borough to become carbon neutral by 2030 & carbon zero by 2050. As detailed in our 'Climate Emergency Declaration'. LBN has successfully bid for GLA (RE:NEW Phases 1 & 2) & Olympic Delivery Authority (ODA) funding to identify & in many cases fund works, especially for vulnerable private sector residents Domestic Energy Efficiency in Newham Annual Report.

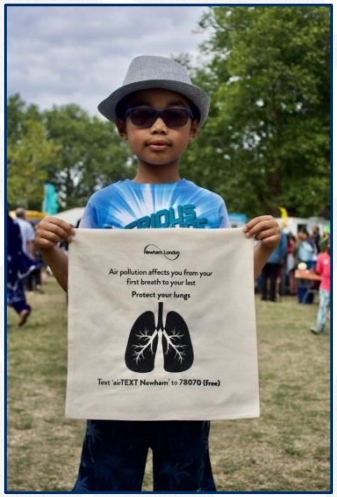
AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
9	**Healthy Streets approaches.**	Environmental Control Regeneration & Planning Highways & Traffic Management	Low to Borough	Air Quality Positive supports the creation & deployment of the infrastructure needed to support the widespread adoption of zero emission transport & zero emission buildings. Healthy Streets empowers local authorities, developers, local businesses & residents to consider how streets can be made to be nicer places to be.	Years 1-5	a| We will review all Transport Assessments to ensure Healthy Street scores are demonstrated & approaches adopted. Deliver training to officers if required (Environmental Health to conduct initial monitoring); b| We will install AQ monitors to assess the AQ impacts of the Stratford Town Centre improvement works in areas of sensitive exposure (i.e. pedestrian footways & cycle lanes); c| We will work towards developing a 'greening programme' to help protect the public from the impact of poor AQ. The programme will initially trial 'green screens' at selected schools impacted by polluting roads & where successful we aim to extend to other key locations;	The healthy streets approach is integrated into Policy SP2. The PAR makes clear the need for Transport Assessments to demonstrate a Healthy Streets approach www.newham.gov.uk/Documents/Environment%20and%20planning/NewhamLocalPlan2018.pdf

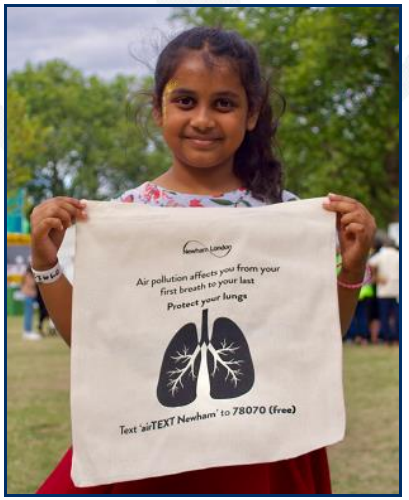
Action Category: Public Health & Awareness Raising

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
10	**Public Health department taking shared responsibility for Borough AQ issues & implementation of Air Quality Action Plans.**	Public Health Regeneration & Planning Environmental Control	Low	Following the Barts Health NHS Trust Cleaner Air Project the monitored background NO_2 concentrations at the hospital reduced from 42.6µg/m³ (2012 to 2014 average) to 37.8µg/m³ in 2015. This represents a fall in the NO_2 concentration to levels within the 40µg/m³ annual mean AQ objective. The Great Ormond Street Hospital Clean Air Zone project in Camden increased the percentage of taxis booked through the hospital that are be either low emission or zero emission from around 70 to 91 %.	Ongoing	a| We commit to a Council wide public health approach to improve local AQ through the actions of the whole Council working in collaboration with residents, businesses & partners in communities, schools, health providers & develop Air Quality Health Champions across the Borough; b| We will ensure that the Public Health, Transport & Planning will review & approve the ASR & all new AQ Action Plans prior to submission to the GLA & DEFRA; c| We will ensure that at least one public health specialist within the Borough has AQ responsibilities outlined in their job profile; d| KPI: Number of meetings held between Public Health, Highways & Environmental Control to ensure that policies are aligned to achieve AQ benefits; e| We will include AQ information in each Health & Wellbeing Strategy update. We will include a chapter in the new Joint Strategic Needs Assessment to consider AQ & respiratory health in the Borough. This document will ensure that improving respiratory health is incorporated as a key priority in wider strategies; f| We will identify linked areas in HWS/JSNA where AQAP actions might support public health goals; g| We will work with Newham University Hospital to achieve 'Clean Air Hospital Status'; h| We will work with the GLA, to reduce NO_2, PM_{10} & $PM_{2.5}$ exposure in Newham to levels below the air quality objectives for human health. We support the London Environment Strategy with a 2030 target of meeting the WHO $PM_{2.5}$ limit of 10 µg/m³.	Public Health is developing volunteer health champions in the Borough to build capacity for securing health improvement in communities. Initially the focus will be given to 'Air Quality Health Champions'. The current JSNA reports that diseases partly attributable to poor AQ (i.e. cardiovascular & respiratory) account for the main causes of deaths in Newham. www.newham.gov.uk/Pages/ServiceChild/Joint-Strategic-Needs-Assessment.aspx The draft Health & Wellbeing Strategy (public consultation in 2017) recognises the importance of supporting AQ improvements www.newham.gov.uk/Pages/ServiceChild/Health-and-wellbeing-strategy-consultation.aspx

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
11	**Engagement with businesses.**	Public Health	Medium	Engagement with business as part of the first round of the ZEN reduced NOx emissions by 114.2kg a year through several different schemes including: Trailing of zero emission cargo bikes for delivery, resulted in the purchase of 7 bikes for permanent use. NOx emissions reduced by 30.8kg a year. Free business membership to Zipcar - NOx emissions reduced by 56.8kg a year. Free cycle training & Cycle workshop for ZEN members - NOx emissions reduced by 10.6kg a year.	Ongoing	a| We commit to a Council wide public health approach to improving local AQ through the actions of the whole Council working in collaboration with local businesses & to develop volunteer 'Air Quality Health Champions'; b| KPI: Number of businesses actively engaged on AQ; c| KPI: Number of businesses acting to reduce emissions; d| We will improve local communication on subject of AQ; e| Community Neighbourhoods teams will be encouraged to disseminate information & encourage businesses to champion AQ activities & events; f| The Airport's AQ Management Strategy is approved, monitored & enforced if necessary by the Council. The strategy will be reviewed every 3 years with the next review due 2020. This is an opportunity to agree more robust actions that complement this AQAP.	This action will be built into the scope of works & plans that are currently under consideration by the Council's AQ & Climate Change Taskforce & relevant service areas, specifically Public Health in this instance, & linked to a wider programme of activities of information & awareness raising. Once costs are fully known, they will be submitted as part of the MTFS process as a growth bid (if / where required) & integrated into work plans across relevant service areas.

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
12	**Supporting a direct alert service such as airTEXT, & promotion & sharing of high pollution alert services.**	Environmental Control Public Health	Low	This is an exposure reduction initiative, as opposed to targeting emissions.	Ongoing	a| We will continue support of airTEXT or other effective alert services; b| KPI: Sign up 1000 residents to airTEXT by mobile phone at relevant events & venues; c| We will enhance the presence of daily AQ reports on the Council website & improve AQ information on webpages; d| We will investigate with Public Health if there are vulnerable user groups/specialist teams who could make more use of these resources; e| We will ensure advice on reducing exposure is readily available to the public.	Over 2000 biodegradable shopping bags with a printed *AirTEXT*' promotion are currently being distributed in events such as the Newham Show when users sign up to the service. https://www.airtext.info/





AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
13	**Encourage schools to join the TfL STARS accredited travel-planning program to reduce congestion, improve road safety & improve health & wellbeing of our schoolchildren.**	Highways & Traffic Management Environmental Control Public Health	Low	The programme saves about 22 million vehicle kilometres (VKM) annually between 8-9am. Total 44m VKM a year. This is a mean saving of roughly 8,000 tonnes of CO_2 per annum. Calculations show this can be estimated as an equivalent saving of around 96 tonnes of NOx per year. 45% of London schools are currently enrolled in the STARS scheme. If all London schools took part, savings of around 215 tonnes of NOx a year might be achieved.	Years 1-5	a| We will maintain support for the 71 schools with TfL STARS accreditation & will support improving standards. The remaining 25 schools not yet accredited will be encouraged to sign up & engage with the scheme; b| We will identify barriers for schools to participate in active travel initiatives & work towards improvement to silver & gold status by encouraging anti-idling & reducing car use; c| We will liaise with the Children & Young Persons Service on promoting cleaner air route maps & sustainable home to school transport; d| We will support the GLA actions arising from the AQ audit for schools undertaken in 2017; e| We will develop volunteer 'Air Quality Health Champions' to support schools.	This action is welcomed by the executive & it is presently being explored by the relevant service areas, including scoping the potential to work with a partner organisation such as Sustrans to provide bicycle support schemes for schools & incorporate this into a wider programme encouraging the use & maintenance of bikes by children. This could be complemented by cycle proficiency training. For the latest information on Newham's school travel plans visit the webpage: www.newham.gov.uk/Pages/Services/School-travel-plans.asp The Council is match funding the GLA schools and nursery audit programme.

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
14	**Air quality in & around schools & extend the school audits GLA framework to all polluted schools.**	Highways & Traffic Management Environmental Control Education	Medium	Taking cleaner routes to school can dramatically reduce exposure. Several recent exposure studies suggest that switching from main roads to quiet back streets can reduce exposure by up to 50%.	Years 1-5 9 month trial road closure scheme to commence in 2019-20 term year. Possibility to make permanent if successful	a| KPI: Number of schools audited for AQ. We have committed to undertake an AQ audit at each school within Newham with the potential to target improvements (dependent on the successful outcome of the 'Healthy School Streets' pilot programme); b| Our 'Healthy School Streets' programme aims to improve the street environment outside our selected schools; c| We aim to pilot timed road closures near school entrances at pick-up & drop-off times; d| We aim to improve footways & pedestrian crossings, & place drop kerbs at desirable locations; e| We aim to improve cycle routes & cycle facilities; f| We aim to provide more planted areas around schools; g| We aim to install green planted screens to shield school entrances or playgrounds from emissions; h| We will help schools set-up a 'walking bus' programme where local children walk together to school, accompanied by a responsible adult; i| KPI: Improvement to AQ after interventions i.e. road closures. AQ sensors will be installed to monitor the interventions; j| We will research the feasibility & benefits of air filtration schemes & filtered permeability schemes inside & in front of educational institutions (nurseries, schools & colleges). This will build up an evidence base before deciding upon installation.	Detailed information on the *Healthy School Streets* programme including the road closure plan for each school : www.newham.gov.uk/Pages/Services/Healthy-School-Streets.aspx?l1=100005&l2=200086 The list of proposed schools in the pilot are; Chobham Academy, Woodgrange Infants School, , Godwin Junior School, West Ham C of E Primary School, Roman Road Primary School, Salisbury Primary School, Keir Hardie Primary School, Carpenters, Lathom Junior School. Orders have been raised to implement the recommendations within the Mayor's AQ Audits. I.e. the play area at the front of Salisbury Nursery School is to be relocated to the rear of the building by removing the existing carpark. Full Council commitment to conduct AQ monitoring in every school: www.newham.gov.uk/Pages/News/Newham-declares-climate-emergency.aspx

Delivery Servicing & Freight

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
15	**Update of Procurement policies to reduce pollution from logistics & servicing.**	Highways & Traffic Management Environment & Community	Low to Borough	The Low Emissions Logistics Feasibility Study considered emissions reductions which could be achieved using the efficient deliveries hierarchy to reduce the number of deliveries required by the four local authorities. Monthly NOx emissions were predicted to reduce from around 54kg to around 7kg assuming the deliveries were made using Euro V vehicles.	Years 1-5	We will review the procurement strategy as part of our green audit by early 2020. To review: a| Sustainable logistical measures including requirements for preferentially scoring bidders based on their sustainability criteria, i.e. driving efficiency; b| KPI: Number of suppliers using sustainable transport means; c| KPI: Number of suppliers with a Fleet Operator Recognition Scheme or equivalent; d| KPI: Number of contracts with AQ requirements included; e| KPI: Number of 'last mile' deliveries to Borough premises that are Ultra-Low or zero emission; e| KPI: Number of supplies that are locally scored to reduce fuel consumption; f| KPI: Number of Non-Road Mobile Machinery procured by the local authority that are zero emission or at least compliant with the NRMM Low Emission Zone standards.	Newham Council are currently in discussions with Stratford Business Improvement District (BID) with the objective to rollout zero emissions (ZE) last mile delivery in the Stratford area. Costs are not known at present but officers are exploring the option of funding the initial start-up through the Local Implementation Plan. Additional outputs will be built into the scope of works & plans that are currently under consideration by the Council's Air Quality & Climate Change Taskforce & relevant service areas. Once costs are fully known, they will be submitted as part of the MTFS process as a growth bid (if / where required) & integrated into work plans across relevant service areas.

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
16	**Reducing emissions from deliveries to local businesses & residents.**	Highways & Traffic Management	Low-Medium	The Regent Street delivery consolidation project in London's West End highlights that reductions in vehicle movements of 85% (with commensurate emissions reductions) are possible.	Years 1-5	a| We aim to implement a trial zero emission last mile delivery project in Stratford in 2020 for local business & residents. Subject to the outcome of the trial we will work towards expanding the trial to cover the whole Borough; b| KPI: Measured reduction in freight vehicles on inner city road network; c| KPI: Number of consolidation/last mile delivery schemes in place; d| KPI: Number of schemes & interventions; e| KPI: Percentage increase in Ultra Low Emission Vehicles to undertake deliveries.	Highways & Traffic Management are currently in discussions with Stratford Business Improvement District (BID) with the objective to rollout zero emissions (ZE) last mile delivery in the Stratford area. Subject to the outcome of the Stratford pilot & committee approval we will look to expand the delivery service to the whole Borough. The Council is investigating the feasibility of a trial Local Town Centre Cargo Bike Hire & Share Scheme to encourage more sustainable shopping trips to main town centres in Newham.

Action Category: Borough Fleet Actions

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
17	**Reducing emissions from council fleets, including a switch to zero emission vehicles.**	Strategic Procurement Fleet Management, Community & Environment, Transport Planning	Medium	FORS estimate an 11% saving in fuel & emissions for scheme members. In 2015/16 Camden reported a 4% decrease in CO_2 output per mile. Overall it is likely the eco-driving will generate fuel & associated CO_2 savings between 5 & 10% (RAC Foundation 2012). Whilst CO_2 emissions should drop proportionately with fuel use, NOx emission should decline at a greater rate due to its role as by-product of hard accelerations. However, the magnitude of NOx savings will vary depending on the vehicle technology & type of behaviour change.	Years 1-5	a| We will retain membership of the FTA Truck & Van Excellence Recognition scheme & incorporate recognised HGV driver/vehicle safety schemes into all future LBN contracts. Fleet Management are currently trialling a telematics system, which if successful will provide idling time & speed data; b| We will maintain '*Clean Van Commitment*' status; c| We will continue to invest in improving the environmental & AQ impact of the refuse collection fleet, including a rolling review each time a vehicle is replaced to seek Ultra-Low emission vehicle replacement, where available; d| We commit to a full electric van fleet by 2028. KPI: Number of electric vehicles (small vans) & charging points introduced at Folkestone Road & Bridge Road depots, to be reviewed annually; e| KPI: Number of large fleet vehicles using bio fuel/gas to liquid (GTL) as an alternative to diesel; f| We will include a tender requirement for a commitment to move towards electric car club vehicles over the life of the concession, with a charging infrastructure.	Fleet services have just been accredited '*Clean Van Commitment*' status. As an interim measure, progress is being made with trialling the use of bio fuel/gas to liquid (GTL) as an alternative to diesel for large fleet lorries in partnership with The London Borough of Havering. We have undertaken trials of electric vehicles & have 3 arriving in August 2019, with the aim thereafter to procure up to 30 electric fleet vehicles for operation from January / February 2020 alongside the installation of electric charging points at Folkestone Road Depot. & at Bridge Road Depot. Once costs of the infrastructure are known they will be submitted into a MTFS process as a growth bid to be considered by the Council. Acquiring fleet accreditation will be built into the scope of works & plans that are currently under consideration by the Council's Air Quality & Climate Change Taskforce & relevant service areas.

Action Category: Localised Solution

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
18	**Green infrastructure delivery (GI).** **Beyond the promotion and protection of GI through the planning regime (identified in action 6 above), LBN can seek to deliver GI through its other responsibilities.**	Highways & Traffic Management	Medium	Green infrastructure schemes can transform urban areas & help improve public spaces. However, it can be hard to quantify their effectiveness in terms of reducing emissions.	Years 1-5	a| We will develop a strategic GI plan for Newham so that various local projects work towards a connected green infrastructure; b| We will review how & where greening can be increased in the transport infrastructure as part of our Sustainable Transport Strategy for Newham, by 2021, i.e. greening improvements such as the use of low-level planters to segregate cycle lanes & street trees.	The Councils capital programme has allocated resources to projects that improve the public realm. Newham's '*Infrastructure Delivery Plan'* gives priority to the boroughs GI which comprises the green spaces & features (i.e. street trees & living roofs) https://www.newham.gov.uk/Pages/Services/Local-plan.aspx
19	**Low-Emission Neighbourhoods (LENs) including low traffic schemes.**	Highways & Traffic Management Regeneration & Planning	Moderate/ High	In combining measures locally cumulative reductions will be achieved, which should be measurable, monitoring & assessment of current LENs will be published by the Mayor of London in 2019.	Years 1-5	a| This action will be built into the scope of works & plans that are currently under consideration by the Council's Air Quality & Climate Change Taskforce & relevant service areas; b| We commit to submitting future bids through the Mayors Air Quality Fund. Focus areas to include Green Street; c| KPI: The sucessful delivery of the Ilford Garden Junction LEN by 31st March 2020, in partnership with Redbridge.	Newham & Redbridge Councils were jointly awarded MAQF support for 'The Ilford Garden Junction' initiative that will create a green gateway for walking & cycling opportunities into both Boroughs.

Action Category: Cleaner Transport

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
20	**Ensuring that Transport & Air Quality policies & projects are integrated.**	Highways & Traffic Management Environmental Control Public Health	Low	Total traffic related annual CO_2 emissions in the Camden West End regeneration project were predicted to be 3% lower with the scheme of road improvements in place.	Years 1-5	Improving AQ is a priority in our 2019 Local Implementation Plan. a| Public Health & Highways will sign off AQAP & ASR & review them annually; b| AQ risks should be fully evaluated in all transport feasibility studies & proposals; c| KPI: Number of briefings to the Highways Team on local AQ issues & projects, & the location of hotspots/Focus Areas; d| We will ensure that an AQ official to attends transport steering groups, & vice versa; e| We will incorporate quality based targets within specific Transport job roles, ensuring accountability & delivery; f| We will hold discussions / lobby TfL on the possible introduction of electric buses on routes which serve Newham; g| We will publicise the AQ research findings on the Councils website of the projected impact of the Silvertown Tunnel as they appear.	An example joint working project is the Stratford Centre improvement works that removed the previous one-way system to make the town centre less car dominated so that it's now a place where people feel safe to walk & cycle, & somewhere people enjoy visiting. Environmental Control are working with the Highways team to monitor & report on the AQ benefits of the scheme. www.newham.gov.uk/Pages/Services/Stratford-town-centre-improvements.aspx We currently administer a LEZ (Low Emission Zone) in Stratford High St to Romford Road with Low Emission 'Euro 6' buses.

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
21	**Discouraging vehicle idling.**	Parking Operations Highways & Traffic Management Environmental Control Public Health	Low	A small-scale study by King's College suggested that concerted idling action campaigns could reduce local concentrations very close to the source of idling vehicles by 20-30%.	Years 1-5	a| We will utilise 'Air Quality Health Champions' in Communities to support the development of anti-idling in school settings; b| KPI: The Number of anti-idling campaigns held in schools & public events; c| We will adopt the Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations by end of 2019; d| We will identify problem areas in Newham i.e. transport pickup (taxi ranks, airport, stations), Woolwich Ferry terminal, schools, Newham General Hospital, business deliveries within AQMA & shopping centres such as Green Street; e| We will support an anti-idling campaign by joining the pan London project with support from the MQAF. The GLA will require annual returns on numbers of complaints, enforcement & education of drivers to track progress. There are two project officers funded by the MAQF to help promote anti idling campaigns within the pan-London local authorities.	150 black balloon campaign. Launched in Beckton School & featuring on the front page of the Newham Mag. This campaign illustrates vividly the impact that just 1 minute of idling can have on the surrounding environment . The campaign was extended along with further material at the Newham Show During 'Clean Air Day,' Salisbury Primary School children displayed handmade AQ idling banners during parent pickup time & conducted roadside AQ monitoring. Their work was featured in the Newham Mag.

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
22	**Regular temporary Car Free Days & pedestrianisation schemes.**	Parking Operations Highways & Traffic Management Environmental Control	Medium	Where road traffic sources make up the main source of pollutant concentrations, temporary road closures will provide a big temporary improvement to AQ. For example, the road closures for the London Marathon in 2018, resulted in a reduced NO_2 concentration on Upper Thames Street of approximately 89%. Research by King's College in 2013 found that the Summer Streets event in Regent Street resulted in a 75% drop in NO_2 concentrations.	Years 1-5.	a | KPI: The number of successful temporary road closures as part of community events themed around the environment; b | We will encourage schools in Newham to be involved in 'Clean Air Day' & publicise the outcome of school events; c | We will introduce a trial soft road closure scheme 'Healthy School Streets' to restrict traffic outside selected schools to pedestrian & cycling only (West Ham C of E, Goodwin Junior School, Wood grange Infant School, Chobham Academy, Roman Road Primary School); d | The closure scheme will be enforced during school drop-off & pick-up times along full length of trial road using signs & enforcement cameras.	During 'World Car Free Day 2019' every community neighbourhood has a planned road closure themed around the environment. Our delivery partners plan to present greening & planting activities, stalls with activities highlighting alternate transport, distribution of AQ monitoring kits & clean air walking maps. In preparation for the 'healthy school streets' scheme, schools have received a preliminary scheme proposal document.

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
23	**Using parking policy to reduce pollution emissions.**	Parking Operations Highways & Traffic Management Environment & Community	Low	It is hard to measure the emissions reduction from parking surcharges directly. However, it is expected that measures such as surcharges for diesel vehicles could lead to a drop in the overall number of higher polluting vehicles. Assuming 2016 Inner London Fleet levels a 5% shift from diesel cars to petrol cars would result in NOx emissions reductions from cars of 7.2% & PM_{10} emissions reductions from cars of 2.3%. If a 5% shift occurred from Diesel cars to Electric Vehicles a NOx emissions reduction from cars of 9.2% would result.	Year 1-5	a | We will maintain the Borough wide residential parking zones (BAM's) to reduce the number of vehicles on our roads; b | We will consider introducing emissions based charges for residential permits by summer 2020; c | We will explore means of incentivising Zero and Ultra Low emission vehicles by means of a preferential parking charge structure; d | We will investigate the feasibility of introducing a Workplace Parking Levy in the Borough of Newham ; e | We will work proactively with the London Councils and GLA on levers that can be used to promote the use of Electric Vehicles such the ULEZ Car and motorcycle Scrappage Scheme.	Further information on parking policy: www.newham.gov.uk/Pages/Services/Residential-parking-zones.aspx Parking policy measures will be built into the scope of works & plans that are currently under consideration by the Council's Air Quality & Climate Change Taskforce & relevant service areas.
24	**Installation of Ultra-Low Emission Vehicle (ULEV) infrastructure (electric vehicle charging points, rapid electric vehicle charging point & hydrogen refuelling stations).**	Highways & Traffic Management Parking Operations	Low (TfL/ OLEV funding)	Assuming 2016 Inner London Fleet levels, if a 5 % shift occurred from diesel cars to electric cars this would result in an emission reduction across the whole fleet of 4.2% for NOx & 1.7 % for PM_{10}. A 5 % shift to electric vehicles from both each of Diesel cars & Diesel LGVs would result in 9.9% reduction in NOx emissions & 3.7% for PM_{10}.	Year 1	a | We will install 40 double electric chargers by summer 2019 as part of the Go Ultra Low City Scheme (GULCS) with a further 40 to follow in Spring 2020 subject to a successful round 2 GULCS bid; b | We will continue the rollout of the residential charging network at a similar rate throughout the life of the LIP, supplemented by rapid chargers on main roads and in town centres; c | We will prescribe by planning condition that 1 in 5 vehicle spaces provide an electric vehicle charge point (EVCPs) for all planning applications where parking provision is agreed . Ensure all EVCPs are compliant with current standards; d | We will provide road space & pavement space to support charging infrastructure; e | We will ensure that charging infrastructure provided by development is consistent with the London wide network.	As part of the Go Ultra Low City Scheme we are installing 40 double electric car chargers by October 2019 on residential nominated roads.

AP	Action name & description	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale	Outputs, Targets & KPIs	Further information
25	**Provision of infrastructure to support walking & cycling.**	Highways & Traffic Management	High	It is difficult to quantify with certainty the reduction in emissions or concentration that can be achieved on specific projects through modal shift from car to active travel (walking or cycling) as this depends on many factors, including the expected reduction in car trips, the average car trip length, & assumptions on car engine technology (engine type & Euro standard) However, it is clear that reducing car use is one of the best ways to cut both NO_2 & PM emissions. Sustainable Travel Towns studies show that car driver distance could be reduced by five to 7%, which can provide large reductions in NOx/PM emissions.	Years 1-5	a| The Council will commence the development of a Walking Strategy, followed by a consolidation into a Sustainable Transport Strategy for Newham, by 2021. This will ensure AQ initiatives are at the core of our new Transport Strategy for Newham which is to be developed by 2022; b| With our new cycling strategy we aim to more than double the number of journeys taken by bike between now & 2025 (a target of 5% of trips across the Borough made by bike); c| The Council is in year 3 of an extensive 10-year footpath maintenance & lamp column replacement & renewal programme to encourage sustainable & active travel; d| We will implement a programme of cycling infrastructure improvements including re-allocation of road space for segregated cycling & installation of secure bike hubs at key strategic & demand-based locations; e| We will work towards reducing of through-traffic in residential neighbourhoods; f| We will explore the feasibility of reducing the speed limit in built-up residential areas to 20mph; g| We will ensure that new major developments prioritise road space for sustainable transport modes & public transport over other uses; h| We will encourage & enable modal shift from private car use to public transport, cycling & walking; i| We will promote infrastructure enhancements as they come on line; j| We will incorporate walking & cycling as priorities within the emerging Transport Strategy, which will act as an overarching vision for sustainable transportation; k| We will identify the major infrastructure projects that need to be delivered in the medium & longer term in order to help meet our sustainable transport objectives, & we will lobby TfL & other partners to help us complete those schemes; l| We will continue to provide LBN staff with pool bicycles, cycling facilities & a regular maintenance programme & pilot the use of cycles for routine Council officer activities including enforcement patrols.	The Newham 2018 - 2025 Cycling Strategy has been approved at Cabinet with AQ improvement forming part of the public health business case for the proposals included. www.newham.gov.uk/Documents/Transport%20and%20streets/CyclingStrategyNewham.pdf The Council is about to commence the development of a '*Walking Strategy*', followed by a consolidation into a '*Sustainable Transport Strategy*' for Newham, by 2021. This will ensure AQ initiatives are at the core of our new *Transport Strategy* for Newham which is to be developed by 2022

Appendix A | Stakeholder Consultation

A public consultation on this AQAP, was carried out for a six-week period from the 2nd September 2019, the consulted stakeholders are listed below. This included engagement with local residents, community and interest groups, businesses and people working in the Borough.

1. External Statutory Consultees

- GLA (including TfL);
- Environment Agency;
- LB Tower Hamlets;
- L B Barking & Dagenham;
- LB Greenwich include;
- LB Waltham Forest;
- LB Redbridge;
- LB Havering.

2. Public Engagement Activities

A series of public consultation sessions were held across the borough through a range of events including *'Car Free Day'*, 'Youth Citizen Assembly' and the first 'Climate Now' open Forum which included a diverse selection of ethnic resident groups. In addition, 298 members of the public responded to the online consultation and 10 detailed submissions were received from stakeholders/businesses and interest groups. The consultation report (*Summary of consultation responses to the Draft Air Quality Action Plan 2019-2024*) summarises the formal responses, the online survey comments, and public engagement comments followed by the council response.

3. Internal Statutory Consultees

Planning Policy (Mikyla Smith, Planning Policy Manager);

Planning and Development (Amanda Reid, Director of Planning and Development)

Public Transport/ Highways (Murray Woodburn, Principle Transport Planner);

Public Health (Jason Strelitz, Director for Public Health & Sally Burns, Public Health Consultant);

Fleet Management (Dave Adams, Transport Manager);

Parking Operations (Carl Brown, Parking Operations Manager);

Procurement of Fleet (David Humphries, Head of Public Space Delivery);

Air Quality Scrutiny (Chris Kelly, Senior Scrutiny Policy Officer);

Policy, Performance and Scrutiny (Steve Tennison, Principal Policy Officer);

Housing (Ian Mills, Housing Works Commissioner);

Parks and Open Space (Graham Cox, Head of Commissioning);

Corporate Communications (Justin Hutchinson, Marketing and Information Manager);

Enforcement and Safety (Sheila Roberts, Director of Enforcement and Safety);

Education (Peter Gibb, Education Commissioning & Mike Webb, Capital Programme Team);

Regeneration (Dan Hill, Housing and Regeneration);

Red Door Ventures LBN housing delivery vehicle (Deborah Heenan);

School Travel (Georgina Chimarrides, Highways and Sustainable Transport).