## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>3</td>
</tr>
<tr>
<td>Quick reference to air quality actions</td>
<td>4</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>6</td>
</tr>
<tr>
<td>2. Air quality in Hackney</td>
<td>7</td>
</tr>
<tr>
<td>3. Air quality and development management</td>
<td>10</td>
</tr>
<tr>
<td>4. Actions to improve air quality</td>
<td>12</td>
</tr>
<tr>
<td>5. Actions to reduce the health impacts of air quality</td>
<td>20</td>
</tr>
<tr>
<td>6. Actions to reduce the Council’s own impacts on air quality</td>
<td>22</td>
</tr>
<tr>
<td>7. Policies, objectives and targets</td>
<td>25</td>
</tr>
<tr>
<td>8. Review of the strategy</td>
<td>31</td>
</tr>
<tr>
<td>9. Contact details and further information</td>
<td>32</td>
</tr>
<tr>
<td><strong>Glossary</strong></td>
<td>33</td>
</tr>
<tr>
<td><strong>Annex 1: Useful information</strong></td>
<td>35</td>
</tr>
</tbody>
</table>

- **Figure 1:** Predicted annual nitrogen dioxide levels in Hackney for 2011
- **Figure 2:** Modelled annual mean nitrogen dioxide levels in Hackney for 2015
- **Figure 3:** Expected modelled sources of oxides of nitrogen for Hackney and at three typical locations in 2015
- **Figure 4:** Greater London Authority and Hackney Green Zones areas
- **Table 1:** Cost effective actions to reduce air pollution
- **Table 2:** Greater London Authority nitrogen dioxide areas
- **Table 3:** Current and proposed air quality monitoring
- **Table 4:** Fleet make up

**Glossary**
- **Annex 1:** Useful information
- **Annex 2:** Consultation
Foreword

I am very pleased to introduce Hackney’s 2014-2018 Air Quality Action Plan. It sets out how the Council will contribute towards improving air quality in Hackney and London. This action plan replaces the Council’s first plan published in 2006.

While air quality has improved significantly since the smogs of the 1950s and 1960s, a growing body of research suggests that poor air quality continues to significantly affect people’s health at significant public cost. With the introduction of the Council’s new responsibilities under the Health and Social Care Act 2012 there are real opportunities for us to proactively address the health impacts of air quality.

Over the past decade the borough has been transformed through investment in schools, the refurbishment of social housing, private investment and redevelopment and the development of high tech commerce and creative industries. In 2012 we part hosted the Olympics and continue to be actively involved in the legacy transformation of the Olympic site and surrounding areas. We must continue to harness this momentum to transform the way we live and work, be more sustainable and reduce our contribution to poor air quality.

This action plan sets out how we will work towards meeting national air quality objectives for nitrogen dioxide. We can’t achieve this alone. Air Quality sees no boundaries and so we need to work with residents and businesses, other boroughs, the Greater London Authority, Transport for London and various partnerships and charities to name but a few. Working together we will continue to change the way we all live, travel and do business to make Hackney one of the cleanest Central London boroughs and most attractive places to live, work and visit in London and London the best place to be in the world.

Councillor Demirci
# Quick reference to air quality actions

## Policy 1: Air Quality and development management – ensuring that air quality is appropriately dealt with during the development control process.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
<th>Page in text</th>
<th>Page for policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Coordinate pre-application requirements and conditioning of air quality across the Council and ensuring that air quality issues are being appropriately dealt with through the planning system.</td>
<td>10 – 11</td>
<td>26</td>
</tr>
<tr>
<td>1.2</td>
<td>Develop appropriate development management policies, supplementary planning guidance (SPG) and technical planning guidance for air quality issues.</td>
<td>11 – 11</td>
<td>26</td>
</tr>
<tr>
<td>1.3</td>
<td>Ensure that Section 106 and Community infrastructure levy (CIL) money is being sort and made available for air quality related work.</td>
<td>11 – 11</td>
<td>26</td>
</tr>
</tbody>
</table>

## Policy 2: Actions to improve air quality – actions with the sole aim of reducing nitrogen dioxide levels and/or particulate matter levels within the borough.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
<th>Page in text</th>
<th>Page for policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Develop and start to deliver the Green Action Zone initiative in Zone 1</td>
<td>14 – 15</td>
<td>26</td>
</tr>
<tr>
<td>2.2</td>
<td>Develop and start to deliver the Green Action Zone initiative in Zones 2 and 3</td>
<td>14 – 15</td>
<td>26</td>
</tr>
<tr>
<td>2.3</td>
<td>Set up and deliver a Zero Emissions Network – Shoreditch project</td>
<td>15</td>
<td>26</td>
</tr>
<tr>
<td>2.4</td>
<td>Enhance the borough’s air quality monitoring network.</td>
<td>16</td>
<td>27</td>
</tr>
<tr>
<td>2.5</td>
<td>Undertake a detailed review and produce a plan to further develop cycling and walking in the borough</td>
<td>16 – 17</td>
<td>27</td>
</tr>
<tr>
<td>2.6</td>
<td>Review of zero emission vehicle last mile deliveries in the borough</td>
<td>17 – 18</td>
<td>27</td>
</tr>
<tr>
<td>2.7</td>
<td>Consideration of CMA dust suppressants and other dust reduction techniques to ensure EU air quality objectives are met</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td>2.8</td>
<td>Deliver an education programme to the main private hire operators in the borough to improve driving practices and reduce idling</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td>2.9</td>
<td>To deliver a taxi anti-idling initiative targeting idling hotspots</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td>2.10</td>
<td>To reduce air pollution levels at key junctions in the borough by exploring options and working with TfL to trial options/technologies</td>
<td>18 – 20</td>
<td>27</td>
</tr>
<tr>
<td>2.11</td>
<td>To further incorporate air quality considerations in to parking charges.</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>2.12</td>
<td>Lobby the Mayor of London, Transport for London and Central Government to reduce pollution over which the Council has little or no control</td>
<td>19</td>
<td>28</td>
</tr>
</tbody>
</table>
### Policy 3: Actions to reduce the health impacts of air quality

Actions that aim to either reduce, or better inform people about, the health impacts of poor air quality in the borough.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
<th>Page in text</th>
<th>Page for policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Incorporating air quality in to the Health &amp; Wellbeing Strategy</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>3.2</td>
<td>Promotion of airTEXT and campaign days to the most vulnerable, residents, businesses and visitors in the borough</td>
<td>20–21</td>
<td>28</td>
</tr>
<tr>
<td>3.3</td>
<td>Trial of a schools project to promote the improvement and an understanding of air quality</td>
<td>21</td>
<td>28</td>
</tr>
<tr>
<td>3.4</td>
<td>Undertake air quality impact assessments of schools in areas of poor air quality and start to implement recommendations to reduce child exposure to air pollution</td>
<td>21</td>
<td>29</td>
</tr>
<tr>
<td>3.5</td>
<td>Delivery of a cycling and walking campaign to businesses and residents in the borough</td>
<td>21</td>
<td>29</td>
</tr>
</tbody>
</table>

### Policy 4: Actions to reduce the Council’s own impacts on air quality

Action that aim to reduce the Council’s own impacts on air quality.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
<th>Page in text</th>
<th>Page for policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Development and introduction of a staff travel options hierarchy providing clear guidelines on how staff should travel during work</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>4.2</td>
<td>Setting up a staff pool bike scheme from the Service Centre and other offices</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>4.3</td>
<td>Recruit staff cycling champions to promote the benefits of cycling to staff</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>4.4</td>
<td>Survey of the Council fleet with the aim of making Hackney’s fleets one of the greenest in London</td>
<td>22–23</td>
<td>29</td>
</tr>
<tr>
<td>4.5</td>
<td>Assessment of whether introducing telematics systems has reduced air pollution in the borough</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>4.6</td>
<td>Introduction of minimum standards for nitrogen dioxide emissions from Council and Hackney Homes boilers, CHP plants, gas engines, etc.</td>
<td>24</td>
<td>30</td>
</tr>
<tr>
<td>4.7</td>
<td>Feasibility study to insulate and install alternative technologies on Council and Hackney Homes buildings in areas of worst air quality</td>
<td>24</td>
<td>30</td>
</tr>
<tr>
<td>4.8</td>
<td>Development of Council’s green procurement strategy to include air quality and review of key Council contracts</td>
<td>24</td>
<td>30</td>
</tr>
</tbody>
</table>
1. Introduction

In 2006 the Council designated the entire borough as an air quality management area (AQMA) for nitrogen dioxide and particulate matter (i.e. PM10), in line with Part IV of the Environment Act 1995. During the same year we also published the Council’s first Air Quality Action Plan, identifying actions to reduce air pollution to meet national air quality standards and objectives.

Nine years on levels of nitrogen dioxide continue to significantly exceed National air quality objectives in parts of the borough. The time limit for the UK government to meet EU air quality objectives for nitrogen dioxide across the country has been exceeded, and so like other European countries the UK potentially faces a heavy fine. Current national plans suggest that London may not meet air quality objectives until at least 2030. This air quality action plan replaces the 2006 plan and sets out the Council’s new vision of how air quality in the borough will be improved while protecting the most vulnerable members of the public.

The aims of this strategy are to:

- Facilitate the achievement of air quality objectives for nitrogen dioxide and particulate matter in the borough
- Protect public health in parts of the borough where air quality objectives are not being met
- Continue to reduce the Council’s own impact on air quality
- Improve the Council’s efficiency at addressing air quality issues

Air quality ‘sees no boundaries’ and needs to be improved across London, in other predominantly urban areas of the United Kingdom and other parts of the European Union. A large proportion of air pollution in Hackney is either generated outside of the borough or we have limited control over its production. For example we have limited control over Transport for London controlled main roads, existing residential boilers or pollution arising from outside of the borough. As a result it is not possible for the Council to meet the air quality objective for nitrogen dioxide solely through its own efforts. To achieve improvements in air quality we must work closely with the government, other local authorities and organisations such as the Greater London Authority, Transport for London and other sub-regional transport partnerships.

While boroughs have an essential role to play in reducing air pollution, ultimately EU air quality objectives in London are only achievable through National and London wide actions, coordinated and/or implemented by the Mayor of London and central government.

There are a number of other strategies that contribute to the improvement of air quality within Hackney. These include the Council’s own core, transport and sustainability strategies and the Mayor of London’s and National air quality, transport and sustainability strategies. Within this action plan we have avoided unnecessarily duplicating the aims and objectives of these other strategies. We have also tried to avoid the use of technical language and reproducing text from legislation and other documents. A glossary has been provided and links to other information sources and strategies are included within Annex 1.
2. Air quality in Hackney

London’s air quality monitoring network enables air pollution maps to be created for the capital showing areas of better and poorer air quality. Links to details of air quality monitoring undertaken within Hackney and the results of air quality monitoring for sites across London are included within Annex 1.

Current air quality monitoring and modelling for Hackney identifies that nitrogen dioxide is elevated above the National:

- Annual mean air quality objective across the borough (40µg/m³)
- One hourly mean air quality objective in parts of the south and east of the borough (not to exceed 200µg/m³ on more than 18 occasions during each year)

In localised areas nitrogen dioxide is found at levels almost twice those of the annual mean air quality objective of 40µg/m³. As can be seen from Figure 1 pollution levels are highest in the most densely built-up areas, in the south of the borough, and along the borough’s busiest main roads. Away from busy main roads, air quality objectives tend to be met.

Air quality monitoring and modelling results for particulate matter indicate that National air quality objectives are currently being met. However, particulate matter may exceed the National air quality objective during years with high background levels. High background levels of particulate matter may result from unusually long periods of hot dry weather.

In 2013 we undertook air quality modelling to predict levels of nitrogen dioxide and particulate matter across the borough in the year 2015. The modelling aimed to:

- Predict air quality conditions if air pollution reduction measures set out within the Mayor of London’s air quality strategy are implemented
- Identify the future levels and sources of air pollution at 21 locations across the borough
- Calculate any further reductions in nitrogen dioxide emissions needed to meet National air quality objectives

Nitrogen dioxide modelling

For 2015 Figure 2 shows modelled mean annual nitrogen dioxide levels and Figure 3 identifies the predicted sources of nitrogen dioxide pollution for the whole borough, at two representative locations that are predicted to fail National air quality objectives and at one background location where National Air Quality Objectives will be met.

In most parts of the borough, where air quality is predicted to exceed National air quality objectives, a relatively small further reduction of nitrogen oxides, of between 6% and 19%, should result in National Objectives for nitrogen dioxide being met. At these locations we predict that reducing nitrogen oxides from major roads by between 10% and 29%, or non-road source by between 22% and 99%, will result in the National Air Quality Objectives for nitrogen dioxide being met. In the southern and eastern parts of the borough, along some main roads and at key junctions more significant reductions in nitrogen oxides, of between 22% and 55%, will be required to meet the National Air Quality Objectives. This equates to between 34% and 71% of emissions from major roads or between 105% and 411% of non-road sources.
The modelling work suggests that while certain sources of air pollution, such as residential and commercial boilers, contribute significantly to overall nitrogen dioxide emissions in the borough, typically pollution arising from roads is the predominant source of nitrogen dioxide where National Air Quality Objectives are exceeded. In the most polluted parts of the borough it will be near impossible to meet National Air Quality Objectives for nitrogen dioxide by 2015 and very challenging to meet National Objectives in the medium to longer term without significant intervention or action.

Despite this, over large parts of the borough, addressing non-road sources, such as boiler emissions, will significantly contribute to meeting Air Quality Objectives for nitrogen dioxide. Other sources of air pollution such as development sites and larger gas engines, which have not been accounted for in modelling, will also be far more significant locally and potentially result in local failures of National Air Quality Objectives.

A broadly similar picture is found across the rest of London.

**Particulate matter**

Modelling of particulate matter pollution indicates that National Air Quality Objectives should be met across Hackney and that a significant portion of pollution is generated outside of the borough. This amounts to between 71% and 97% of PM10 and PM2.5. As a result the Council is typically unable to significantly reduce particulate matter pollution further through its own actions.

A greater proportion of particulate matter pollution is produced locally on the busiest and most congested roads and particularly at key junctions. At these locations between about 18% and 33% of particulate matter pollution is expected to be produced by local traffic with between about 9% and 22% coming from non-exhaust sources such as break ware and the re-suspension of dust. At these location it should be possible to reduce particulate matter pollution through targeted local actions.

Reducing levels of particulate matter pollution at key road junctions could reduce the likelihood of National Air Quality Objectives failing during adverse weather conditions and also help to minimise health impacts associated with particulate matter pollution.
Hackney NOx emissions by source type

- Major Roads: 42%
- Minor Roads: 6%
- Domestic gas: 35%
- Commercial gas: 3%
- Other: 2%

Worst case – Old Street monitoring station

- Major Roads: 84%
- Minor Roads: 2%
- Domestic gas: 7%
- Commercial gas: 4%
- Other: 3%

Typical case – Hackney Town Hall

- Major Roads: 68%
- Minor Roads: 10%
- Domestic gas: 17%
- Commercial gas: 4%
- Other: 2%

Background position – Marnin Close

- Major Roads: 46%
- Minor Roads: 12%
- Domestic gas: 32%
- Commercial gas: 8%
- Other: 3%
3. Air quality and development management

The Council must address air quality in the borough through the planning process and, to a lesser degree, building control. The National Planning Policy Framework sets out the government’s planning policies for England. For air quality it requires that planning authorities:

“…prevent unacceptable risks from pollution…[and]…ensure that new development is appropriate for use…[and that the]…effects…of pollution on health, the natural environment or general amenity, and the potential sensitivity of the area or proposed development to adverse effects from pollution, should be taken in to account.” (Section 120)

“… sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas.” (Section 124)

“Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.” (Section 124)

Through planning policies the Council is able to control and strongly influence the potential impacts of development on air quality, both during the development phase and life-time of a development. In particular, through the pre-application and formal application process, planning conditions and levies:

- Emissions from demolition, building work, on-site machinery and transport activities may be minimised.
- An air quality assessment may be requested to identify how a development will impact upon, or be impacted by, air quality and to identify how emissions from development will be controlled and reduced.
- Transport routes taken by freight and delivery times may be specified.
- The layout and features of a development may be influenced to encourage walking and cycling, control emissions from new development and minimise health impacts on new occupants.
- Low emissions technologies, alternative technologies and higher standards of energy efficiency may be specified.

Through building control, by ensuring that development complies with Approved Documents, the Council and private building control contractors are able to influence ventilation, energy efficiency and emission associated with new buildings.

The Council has positively influenced development in the borough to improve air quality. In particular, this includes:

- Occasionally requiring alternative and pollution reducing technologies, such as photovoltaic cells and green walls
- For some larger developments requiring an air quality assessment
- Reducing the allocation of parking spaces for new development, installing bike parking and requesting electric charging points in selected developments
- Requiring additional measures for developments incorporating combined heat and power and biomass boilers
- Making use of Section 106 and Community Infrastructure Levy monies to promote and pay for transport and public realm related improvements such as tree planting and walking and cycling facilities
- Ensuring that larger impact developments have fully implemented travel plans

To enhance the Council’s approach to management control this action plan will develop the following areas.

- Increasing coordination between different parts of the Council
- Conditioning of planning applications, enforcement and planning guidance
- Compiling information on whether conditions are being complied with
- Sharing of information between Planning and Building Control
- Making Section 106 and Community Infrastructure Levy monies available across the Council
To maximise the Council’s effectiveness at dealing with air quality issues through the planning system it is essential these areas are developed. In particular, different parts of the Council, that advise the planning authority on aspects of air quality, must work together to create a better coordinated consultation system for air quality which ensures that key air quality planning issues are fully dealt with through the development management process. Development management needs to ensure that:

- All developments meet, or exceed, Air Quality Neutral standards
- Air quality assessments are produced for developments that are likely to adversely affect or be affected by local Air Quality.
- Particularly for larger developments, that air quality monitoring is undertaken to ensure breaches of national air quality objectives aren’t occurring
- Infrastructure for low or zero polluting modes of transport are installed and traditional diesel and petrol fuelled vehicles are discouraged
- Developments are energy efficient and, wherever possible, incorporate alternative energy sources
- That all new gas fired boilers are low NOx and combined heat and power schemes (and other similar schemes) are designed and installed to minimise their impact on local Air Quality
- That expedient enforcement action is taken where developers don’t comply with requirements
- Section 106 monies and Community Infrastructure Levies are fairly distributed fairly across the Council in order to influence the urban environment
- All receptors are considered when assessing Air Quality; including designated areas such as Walthamstow Marshes Site of Special Scientific Interest (SSSI) and Walthamstow Reservoirs SSSI and non-designated open spaces such as Hackney Marsh
- The cumulative impact of developments is minimised through conditioning of appropriate measures, such as low NOx boilers

The Land Water Air team needs to ensure that:

- A coordinated approach is taken towards air quality and planning across the Council
- Timely advice is provided to development management during the planning application stage and in relation to conditions attached to decision notices of planning applications
- Guidance for developers is produced, kept up to date and made available from the Councils website

Section 7 of this action plan sets out policies, objectives and targets to consolidate and build upon the Council’s current position.
4. Actions to improve air quality

The Greater London Authority and Transport for London are currently rolling out an extensive programme of measures to cut air pollution and are working hard to coordinate the actions of individual local authorities to ensure greater levels of success and wider benefits. The measures are mainly concentrated in Central London, where the greatest improvement in air quality is needed, but also cover large parts of Greater London. Examples include:

- Creating Europe’s largest fleet of hybrid busses and retiring older polluting busses
- Development and expansion of the Barclays Bike Hire Scheme
- Idling publicity, no idling taxi rank campaigns and the taxi replacement programme
- Trials of new technologies such as green walls and dust suppressants
- Proposed introduction of an ultra low emissions zone in Central London
- Making homes, public buildings and schools more energy efficient
- Setting up a network of cleaner air champions within the community
- Introducing a £20 million Mayor’s Air Quality Fund to support London boroughs

Initiatives currently being implemented by Hackney, other local authorities and organisations across London include:

- Business liaison initiatives
- Idling vehicle and schools projects
- Cycling pilot schemes and campaigns
- Car sharing and other traffic reduction initiatives
- Trials of alternative technologies
- Installing electric vehicle charging points
- Development of last mile deliveries
- New tree planting and green infrastructure

As an authority we must do what we can to support joint approaches to improving air quality. We must also ensure value for money by pursuing cost effective measures that do not replicate actions that are already being delivered by other organisations or parts of the Council. Where a large proportion of air pollution is derived from outside the borough or we are unable to control sources within the borough we must also work with, and where necessary lobby, other local authorities, organisations and government to achieve improvements.

In the past it has been a challenge for Councils to identify the most cost effective measures to reduce air pollution. To fill this knowledge gap the Central London Air Quality Cluster Group commissioned an independent study to identify the most cost effective options to improve air quality in Central London. The ‘14 Cost Effective Actions to Cut Central London Air Pollution’ report (Release 2 dated 31 July 2012) provides a cost benefit analysis of 94 possible actions to cut air pollution. Fourteen measures, twelve of which are set out within Table 1, were identified as most cost effective and have been used to inform actions set out within Sections 4-7.

Broadly there are three groups of actions that will be pursued with the sole aim of improving air quality across the borough. These include:

- Local actions
- Continuing to monitor pollution levels
- Transport related actions

Cluster Group commissioned an independent study to identify the most cost effective options to improve air quality in Central London. The ‘14 Cost Effective Actions to Cut Central London Air Pollution’ report (Release 2 dated 31 July 2012) provides a cost benefit analysis of 94 possible actions to cut air pollution. Fourteen measures, twelve of which are set out within Table 1, were identified as most cost effective and have been used to inform actions set out within Sections 4-7.
<table>
<thead>
<tr>
<th>Measure</th>
<th>Impact timescale from policy decision</th>
<th>Ratio of total benefits / total costs</th>
<th>Benefits (NPV in 2012)</th>
<th>NOx reduction tpa</th>
<th>PM 10 reduction tpa</th>
<th>CO2 reduction tpa</th>
<th>Noise improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement of old boilers with Ultra-low NOx devices</td>
<td>Years-Decades Infinite (as zero cost)</td>
<td>Not calculated</td>
<td>566.00</td>
<td>8.00</td>
<td>Not estimated</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Business engagement (ongoing for 6 years)</td>
<td>Months 22.11</td>
<td>£4,630,096</td>
<td>0.07</td>
<td>0.01</td>
<td>34.92</td>
<td>+1</td>
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<tr>
<td>Car Clubs Expansion Programme</td>
<td>Months 13.58</td>
<td>£7,558,993</td>
<td>28.53</td>
<td>1.40</td>
<td>26,915.65</td>
<td>+1</td>
<td></td>
</tr>
<tr>
<td>Cycle to Work Schemes Expansion</td>
<td>Months 6.22</td>
<td>£4,567,538</td>
<td>3.54</td>
<td>0.33</td>
<td>2,171.49</td>
<td>+1</td>
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<td>Ecodriving Training for Taxi Drivers</td>
<td>Months 5.75</td>
<td>£7,683,700</td>
<td>4.14</td>
<td>0.36</td>
<td>2,023.22</td>
<td>+1</td>
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<tr>
<td>ZEV Last Mile Deliveries</td>
<td>Weeks-Months 5.05</td>
<td>£4,046</td>
<td>0.02</td>
<td>0.00</td>
<td>20.46</td>
<td>+3</td>
<td></td>
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<tr>
<td>Taxi Rank Idling Wardens</td>
<td>Months-Years 4.12</td>
<td>£546,572</td>
<td>0.96</td>
<td>0.35</td>
<td>1,490.54</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Cycle Infrastructure &amp; Promotion using low cost cycle tracks</td>
<td>Years 2.49</td>
<td>£209,912,924</td>
<td>249.48</td>
<td>18.59</td>
<td>150,685.92</td>
<td>+3</td>
<td></td>
</tr>
<tr>
<td>Vertical Exhaust at roof level on buses</td>
<td>Months 2.46</td>
<td>£24,015,078</td>
<td>2,667.15</td>
<td>21.15</td>
<td>-</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Euro V requirements for Central London buses &amp; Euro IV engine reprogramming</td>
<td>Months 2.41</td>
<td>£2,123,339</td>
<td>204.71</td>
<td>1.34</td>
<td>-</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Fitting DPFs on Taxis</td>
<td>Month-Years 2.01</td>
<td>£27,916,732</td>
<td>0.00</td>
<td>15.28</td>
<td>-</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Campaign days</td>
<td>Days 2</td>
<td>£2,500,000</td>
<td>15.00</td>
<td>2.40</td>
<td>20,000.00</td>
<td>+1</td>
<td></td>
</tr>
<tr>
<td>Totals (Average for BCR)</td>
<td>6.2 Average BCR</td>
<td>£291,459,018</td>
<td>3,740 tpa NOx</td>
<td>69 tpa PM</td>
<td>203,342 tpa CO2</td>
<td>+1 = some, +2 = significant, +3 = substantial</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Cost effective actions to reduce air pollution

This table is taken directly from the ‘14 Cost Effective Actions to Cut Central London Air Pollution’ report (Release 2 dated 31 July 2012) by I. Kilbane-Dawes of Par Hill Research Ltd
Local actions

The Greater London Authority has identified strategic nitrogen dioxide focus areas across London where further action is needed to reduce air pollution levels. Eight areas identified in Hackney are set out within Table 2 and shown in Figure 3.

Table 2: Greater London Authority nitrogen dioxide action areas

<table>
<thead>
<tr>
<th>Focus area</th>
<th>Name</th>
<th>Description of location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>South</td>
<td>Old Street, City Road, Greater Eastern Street and Shoreditch High Street</td>
</tr>
<tr>
<td>2</td>
<td>Clapton</td>
<td>Junction between Clapton Road and Lea Bridge Road</td>
</tr>
<tr>
<td>3</td>
<td>Hackney Centre</td>
<td>Area including Amhurst Road, Dalston Lane and Mare Street</td>
</tr>
<tr>
<td>4</td>
<td>Dalston</td>
<td>Junction between Balls Pond Road and Kingsland Road</td>
</tr>
<tr>
<td>5</td>
<td>Stoke Newington</td>
<td>Area including Stoke Newington High Street, Stamford Hill and Rectory Road</td>
</tr>
<tr>
<td>6</td>
<td>Stamford Hill</td>
<td>Area including Amhurst Park Road and Stamford Hill Road</td>
</tr>
<tr>
<td>7</td>
<td>Manor House</td>
<td>Junction between Green Lane and Seven Sisters Road</td>
</tr>
<tr>
<td>8</td>
<td>Hackney Wick</td>
<td>Area including Hommerton High Street, Wick Road, Cassland Road and Victoria Park Road</td>
</tr>
</tbody>
</table>

We will target nitrogen dioxide levels within these, and other, areas through Green Action Zones and business engagement initiatives.

Green Action Zones

We believe that there is a better chance of improving air quality, in the worst affected areas of the borough, if we identify all that may be done to reduce air pollution locally and then take concerted joined up actions to deliver the agreed improvements. We will achieve this by identifying three local ‘Green Action Zones’ (see Figure 4).

Each zone will be developed as a locally targeted air quality action plan for the borough and will:

- Consider all available measures to further reduce air quality ranging from the strategic to street level and including innovative schemes.
- Promote and seek to fund grass roots actions by residents and the public.
- Ensure that the Council’s own efforts are appropriately targeted to ensure value for money.

While a whole range of measures will be considered for each area, examples of the types of questions we will need to tackle include whether:

- The use of healthy travel options, such as cycling and walking, and public transport may be promoted and coordinated better?
- Any parts of the road network could be developed, changed or controlled better to reduce emissions or promote cycling or walking?
- Local Low Emissions Neighbourhoods should be introduced to control the types of vehicles that may enter certain areas?
- Further Development Control requirements need to be introduced?
- Parking controls could be changed to influence choices and behaviour?
- No idling and residents only zones need to be created?
- The times that freight is delivered need to be reconsidered?
- Any innovative technologies or approaches could be trialled?
Key to the success of this zoned approach will be coordinating efforts across the Council and strong partnership working with Transport for London, other organisations, business and the public.

For each of the Green Action Zones, we will:

Step 1: Identify the key areas for action in each zone

Step 2: Undertake a detailed assessment to identify barriers to improving local air pollution

Step 3: Produce a ‘Green Action Zone List’ as part of a local air quality action plan for each zone identifying what needs to be done to improve air quality

Step 4: Obtain approval for local air quality action plans for each zone

Step 5: Deliver local improvements within agreed timescales

Step 6: Collate monitoring data and modelling to assess levels of success

**Zero Emissions Network – Shoreditch**

The Zero Emissions Network – Shoreditch is a DEFRA funded business liaison initiative with the aim of raising awareness, transferring knowledge, pooling resources and supporting the implementation of initiatives to improve air quality and encourage the shift to zero emission vehicles and sustainable transport modes in the Shoreditch area.

The key features of the network include:

- Promoting the scheme to businesses
- Working with businesses to reduce their impacts on air quality
- Use of trials to promote low emissions vehicles

Through the project we are aiming to contribute towards a 3%-10% reduction in nitrogen dioxide levels in the Shoreditch area by 2015 through a 10%-20% modal shift by local businesses. If successful the scheme will be rolled out to other parts of the borough.
Continuing to monitor pollution levels

The air quality monitoring network within Hackney and across London provides strategic monitoring data to support the borough and London wide air pollution modelling. The existing monitoring network needs to be expanded to provide wider coverage across the borough and to target local air quality hotspots. Table 3 provides details of the current monitoring network and the proposed expansion.

Table 3: Current and proposed air quality monitoring

<table>
<thead>
<tr>
<th>Monitoring</th>
<th>Description</th>
<th>Current</th>
<th>Proposed</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous monitoring stations</td>
<td>Dedicated fixed or mobile monitoring stations providing high quality accurate monitoring data</td>
<td>1 monitoring station on Old Street - NO2, O3, PM10, PM2.5</td>
<td>2 additional monitoring stations – NO2</td>
<td>To provide more rigorous monitoring data for nitrogen dioxide in different parts of the borough i.e. areas of high, medium and low pollution. In particular this will result in more refined and accurate air quality modelling maps.</td>
</tr>
</tbody>
</table>
| Low cost continuous monitoring network | Smaller portable low cost monitors providing a good level of accuracy | None                                         | Initially 10-15 – NO2, PM, etc.       | To provide higher quality local monitoring data for:  
  • localised areas with high air pollution  
  • monitor the success of improvement schemes  
  • regulate air quality around large development sites |
| Nitrogen dioxide tubes          | Very low cost monitoring providing low levels of accuracy                    | 15                                           | 10-15 additional monitoring sites     | While not very accurate, nitrogen dioxide tubes provide an inexpensive means of achieving greater coverage across the borough. |

Having good air quality monitoring data is essential to:
- Make local health based decisions
- Judge the success of local measures
- Inform planning decisions
- Contribute to the London wide monitoring network
- Make more information available to the public and businesses

Transport related actions

Road based transport is responsible for a large proportion of nitrogen dioxide and particulate matter emissions in the borough and is the largest single contributor in areas where National air quality objectives are failed. It is therefore essential to implement actions that will result in reductions in air pollution on the borough’s roads. Cost effective transport related actions that need to be developed within Hackney and across London include:

- Cycling and walking related actions including cycle to work schemes and the development of cycle and walking infrastructure
- Measures for taxis such as eco driving and idling controls
- Zero emissions vehicle last mile deliveries

We have also included actions for:
- Traffic management systems at key junctions
- The application of CMA dust suppressants
- Air pollution emissions based parking charges
- Lobbying Government and Transport for London

A range of other traffic related, walking, cycling and other public realm measures are also being progressed through other Council strategies and particularly the Local Implementation Plan (i.e. transport strategy).

Cycling and walking related actions:

Increasing the number of journeys made by bicycle and on foot, instead of by car, are amongst the most cost effective means of improving air quality. The significant health benefits of cycling and walking are well reported along with the associated personal and public cost savings.

The Council is at the forefront of developing cycling in London, with a number of ambitious targets to facilitate and promote cycling in the borough. The 2011 Census identified Hackney as having the highest number of resident trips by cycle in inner London (i.e. 5%) and employed residents using a bike as their main mode to travel to work (15.4%). There has been a dramatic reduction in car ownership since the last census with the proportion of households in the borough that are now car-free at 64.6% in 2011 up from 56% in 2001.

In contrast to national trends, but in common with London trends, walking levels in Hackney have generally been increasing in recent years, although they remain below the levels in most surrounding boroughs.
Currently work is focussed on:

- Improving the permeability and accessibility of the road network for cyclists, encouraging all users to share the road and improving safety by reducing traffic speed
- A comprehensive programme of cycle training to support a general acceptance for people’s right to cycle on the highway
- Development of cycle infrastructure across the borough including cycle parking, secure bike lockers and hangers on estates/residential roads and road side bicycle pumps.

Over the past five years the Greater London Authority has expanded the Mayor of London’s Barclays Bike Scheme in to the southern portion of the Borough. This has introduced over 600 bikes at 23 hire sites (full details of the scheme are available from – http://www.tfl.gov.uk/roadusers/cycling/14808.aspx). They have also provided information points for pedestrians outside underground and overground stations, at bike hire sites and on key routes.

Despite these efforts barriers to the uptake of cycling and walking remain and include:

- Increasing traffic congestion in the borough
- Safety concerns with busy roads and secluded bike routes
- Disparity of cycling and walking rates between ethnic groups and by sex and age
- Poor linkages between the existing cycling and walking networks
- Lack of secure cycle parking around high density housing
- High levels of cycle theft

The Council is working hard to minimise car ownership in the Borough, through the planning system and car club schemes, and cycle training will encourage confidence amongst some new riders on the borough’s roads. However, more needs to be done to allay the safety concerns of less confident cyclists and to encourage hard to reach groups who don’t have a culture of cycling and walking. The Council must:

- Develop a safe network of cycle lanes to serve both local and commuter cyclists
- Address poor signage on and disparities between the existing cycling and walking networks
- Work with harder to reach groups who don’t have a cycling and walking culture

If cycling and walking in Hackney are to be promoted to a level that will positively influence air quality it is essential that these actions are fully considered, coordinated and implemented. A detailed review of cycling and walking will be completed to produce a plan that sets out detailed recommendations for the future development of cycling and walking in the borough. The Plan will either be adopted as an air quality action plan for cycling or incorporated in to borough transport policy.

**Zero emissions vehicle last mile deliveries:**

Vehicles involved in freight are typically some of the most polluting vehicles on our roads. Modelling work summarised within Section 2 suggests that by 2015 light goods vehicles and HGV’s could contribute up to about 35% of emissions of oxides of nitrogen in the southern part of the borough. As a result, achieving last mile deliveries using zero emissions vehicles could significantly reduce local air pollution levels.

Last mile deliveries are being developed from distribution centres situated on the outskirts of London and using major train stations and so tend not to be located within the borough. Organisations such as the Cross River Partnership and Transport for London are working with the private sector to develop last mile deliveries and to promote the use of cleaner low emission vehicles.

The Council already works with businesses through the development control process and has a number of small scale initiatives to promote zero emissions deliveries. However, more needs to be done to link up with London wide initiatives to ensure that we make the most of developing opportunities.

The Council will work with Transport for London, the Cross River Partnership, other organisations and business to ensure that last minute deliveries are fully developed in Hackney. In the first instance a review of zero emission last mile deliveries will be completed for the borough identifying the:

- Current situation in London and Hackney
- Potential for last mile deliveries in the borough
- Actions to ensure implementation and uptake

We will also promote trials of green freight within the borough through the Zero Emissions Network and other schemes.
CMA (Calcium Magnesium Acetate) dust suppressants:

CMA is a biodegradable saline solution which, when applied to the highway, causes particulate matter to bond to the carriageway removing them from the air.

Transport for London recently trialled the use of CMA dust suppressants on selected roads and industrial sites in London and demonstrated that they are effective at reducing particulate matter air pollution by around 10% over a 24 hour period. As a result dust suppressants will continue to be applied to Victoria Embankment and Marylebone Road and will also be rolled out to other polluted roads across London.

While CMA dust suppressants are currently not needed in Hackney it is possible that, during very dry and hot summers, the National air quality objective for particular matter (PM10) may be exceeded. We will investigate whether CMA dust suppressants are an option for the borough’s roads. If they are we will investigate options for applying dust suppressants to ensure we continue to meet the National air quality objective for particulate matter during very hot dry weather episodes. We will also investigate whether alternative methods such as improved street sweeping techniques or low dust road surfaces could be used to reduce PM10 and PM2.5 emissions from roads.

We will introduce CMA dust suppressants as a planning requirement for development sites in parts of the borough where developments may result in failures in local air quality.

Working with private hire taxi operators

There are over 80 private hire taxi operators (mini-cabs) registered within the London Borough of Hackney. Emissions from taxis contribute to poor local air quality in several ways, including:

- Idling around depots/headquarters or at busy pick up points
- Poor driving practices resulting in higher fuel consumption and emissions
- Drivers taking long or congested routes

The Council hasn’t made a concerted effort to engage with private hire taxi firms in the borough to reduce idling and to improve driving standards and reduce vehicle emissions. Further work is also needed to reduce idling at busy pick-up points and particularly those associated with high levels of congestion and the night time economy.

We will:

- Work with Transport for London to deliver an education programme to the main private hire taxi operators in the borough
- Deliver an anti-idling initiative targeting idling hotspots such as taxi ranks
- Review the experience of neighbouring authorities in enforcing existing anti-idling legislation and consider adopting a similar approach if it has been successful.

Traffic management systems Pilot Study and other measures at junctions

We need to explore different options for improving traffic flows and reducing air pollution at a number of key junctions in the borough.

Traffic management systems are becoming increasingly sophisticated, operating with fuzzy logic over the world wide web. It is now relatively inexpensive to operate live models of road junction operations and to gather detailed analytical data on how effectively junctions are working. Using traffic management systems, junctions may be automated to optimise the flows of traffic to reduce air pollution and congestion. We also need to explore other options for reducing vehicle emissions at key junctions.

Working with Transport for London we will seek to:

- Identify options to reduce pollution at key junctions in the borough
- Install traffic monitoring systems at selected junctions
- Undertake selected trials

If the trials are successful, following a cost-benefit analysis, we will push for the introduction of measures at key junctions.

Air pollution emissions based parking charges

The Council may influence residents’ and visitors choice of vehicle by promoting more efficient and less polluting vehicles through parking charges. Currently the Council rewards those who choose to drive non polluting vehicles, such as electric vehicles. Parking charges will be developed further to reward:

- Smaller more efficient vehicles
- Less polluting vehicles i.e. based on Euro standard
- Fuel type i.e. petrol rather than diesel
- Non petroleum based and hybrid technologies
Lobbying Government and Transport for London

The Council works closely with Transport for London on various schemes that have the potential to significantly influence air quality. For example through this action plan we will be working with Transport for London to develop focus areas within Green Action Zones to take more concerted and targeted actions locally.

However, there are situations where the Council would like to see greater action to address air pollution. In particular we would like to see greater action to reduce pollution on roads in the borough that we do not control and to reduce significant ‘out of borough’ sources of pollution that are contributing to poor air quality in Hackney. The Council will therefore lobby:

- Transport for London to take action to reduce air pollution on the routes they control within Hackney and identify more clearly what they want local authorities to do to assist them
- The Mayor of London to do more to coordinate local actions by local authorities across London and to speed up the implementation of measures that will result in improvements in air quality
- Central Government to do more to address cross boundary pollution issues (i.e. both National and International) that are effecting Hackney
5. Actions to reduce the health impacts of air quality

Through the Health and Social Care Act 2012 the Council is now directly responsible for protecting and improving public health and delivering many local health needs. Our success will be measured against the following two overarching outcomes through our achievement of a broad range of public health indicators including one for air quality.

- Increased healthy life expectancy
- Reduced differences in life expectancy and health life expectancy between communities

Air quality has significant implications for public health. Key information includes:

- Hackney is ranked 7th out of 33 London authorities within the Department of Health Public Health Outcomes Framework Tool for the fraction of all cause adult mortality attributable to the long term exposure to current levels of anthropogenic particulate air pollution.
- The Mayor of London’s 2010 Air Quality Strategy identified that around 4,300 deaths per year in London are partly caused by long-term exposure to PM2.5 and suggested that the economic cost of poor air quality could be as high as £2 billion. The Mayor also highlighted the need for research to fully understand the health impacts of nitrogen dioxide.
- World Health Organisation research has now confirmed that diesel fumes have carcinogenic properties.
- Amongst the conclusions of research carried out by the Aphekom group of scientists is that living close to roads travelled by 10,000 or more vehicles per day could be responsible for some 15%-30% of all new cases of asthma in children as well as reductions in lung function.

Actions to improve the health of those living and working in Hackney will include the:

- Building air quality in to the Health & Wellbeing Strategy
- Delivery of information on air pollution directly to the public and the most vulnerable
- Working with schools to reduce children’s exposure to air pollution
- Joined up campaigns to promote walking and cycling

**Incorporating air quality in to the Health & Wellbeing Strategy**

Many of the key measures that need to be taken to reduce air pollution have the potential to improve health. For example increasing cycling and walking should help combat obesity and increased public awareness of days with higher pollution levels will reduce air quality related admissions to hospital. It is therefore important that the significance of air quality is fully recognised within the Councils Health & Wellbeing Strategy and that links with the key priorities are fully acknowledged.

We will work to incorporate air quality issues in to the Health & Wellbeing Strategy by:

- Commissioning a survey of the health impacts of air quality in Hackney
- Working with the Health & Wellbeing team to build air quality in to the Health & Wellbeing Strategy

**airTEXT, Pollution Bulletin and campaign days**

**airTEXT** and the Pollution Bulletin are free air pollution forecasting services that provide air quality alerts and health based advice to the public for moderate, high and very high air pollution days. The Pollution Bulletin and airTEXT phone applications also provide health advice for UV radiation, pollen and temperature. Information is provided via mobile phone, a website or through social media for the airTEXT service and via a website and email for the Pollution Bulletin.

The services are particularly aimed at those most affected by poor air quality and temperature including those suffering from ill health, the young and the elderly. However, the scheme is also useful for healthy individuals who may start to suffer the effects of air pollution at high and very high levels. For further information see the airTEXT website – [http://www.airtext.info/](http://www.airtext.info/)

Using DEFRA funding the Council ran an Olympic bus advertising campaign for airTEXT and also funded the development of an airTEXT smart phone application, which is now freely available for download for iphone and android phone users.

In a new development, the airTEXT group of London Authorities is looking to develop campaign days for high and very high pollution episodes to:

- Warn the public and provide health advice using the media
- Encourage people to avoid driving in to London on these days
We will continue to support and develop airTEXT and campaign days within the borough and across London. In particular we will promote airTEXT and campaign days to residents, businesses and visitors. We will also work directly with health practices, hospitals, schools and other public bodies to promote airTEXT as a means of protecting the health of the most vulnerable.

**Work with schools**

Children in schools that are situated on or near too busy roads may be exposed to higher levels of air pollution and congestion and idling around schools, during drop-off and pick-up periods, will contribute to poorer local air quality.

The Council has worked closely with schools across the borough to develop green travel plans, to promote children and teachers travelling to and from school more sustainably and to deliver bicycle awareness training. We will implement two projects to tackle air pollution issues associated with schools including:

- Air quality promotion and anti-idling campaign
- Air quality impact assessments

**Air quality promotion and anti-idling campaign**

The Council has been awarded a DEFRA grant to deliver a pilot study to promote air quality in 5-10 schools. The pilot study includes:

- Teaching children about air quality
- Promoting greener travel and anti-idling
- Getting children to monitor air quality at their school
- A competition to design an anti-idling sign
- Monitoring and enforcement of idling vehicles

If successful the scheme will be rolled out to other schools across the borough.

**Air quality impact assessments**

Schools on main roads in the borough are exposed to higher levels of air pollution. The Council will deliver a programme of assessment at selected schools to assess the exposure of children to air pollution and to identify ways of reducing significant exposure. This will include:

- Selection of schools with most potential to be impacted by air pollution
- Exposure assessments and air quality monitoring at each school
- Recommendations to reduce exposure

We will also seek funding to deliver any recommendations that will result in significant improvements in air quality at the participating schools.

**Cycling and walking campaigns**

The Council currently promotes cycling and walking as an alternative to driving or public transport. Given that walking and cycling are two of the best ways to reduce air pollution, and at the same time improve health, more needs to be done.

A campaign strategy will be developed to promote cycling and walking in the borough. This will pull together work being undertaken across the Council and repackaging it under a single environment and health banner.
6. Actions to reduce the Council’s own impacts on air quality

As the largest single employer and landowner in the borough, operations of the Council and Hackney Homes contribute to poor air quality. Over the past decade we have made a number of significant changes to the way we operate to make the Council more sustainable and reduce our contribution to poor air quality. For example we have:

- Developed a new energy efficient service centre consolidating activities to fewer larger service centres and upgraded older buildings such as the Town Hall
- Successfully promoted greener travel to and at work using public transport and cycling through bike purchase schemes, bike training and by reducing staff access to parking permits
- Installed telematics across 80% of the fleet to improve driving performance

Through this action plan we want to reduce the impacts of our operations on air quality further by:

- Developing a travel options hierarchy and cycling champions
- Reviewing fleet options
- Reviewing available telematics data
- Identifying minimum standards for gas fired boilers, gas engines and CHP schemes
- Promoting energy efficiency and alternative technologies in buildings
- Making green procurement greener

**Travel options hierarchy, pool bike scheme and cycling champions**

Promoting and developing walking and cycling to and at work are a key part of the Council’s strategy to improve air quality in the borough. Every journey made by bike, on foot or using public transport is one less journey made by car. Apart from reducing air pollution, journeys made by bike or on foot are cheaper and also better for the health of staff.

The Council already offers cycling lessons for staff and tax breaks to purchase bicycles. We now want to develop walking and cycling further by:

- Introducing a travel options hierarchy which identifies how staff should travel during work
- Setting up a coordinated staff pool bike scheme from the main service centre and other offices
- Displaying a map in every building showing walking distances from that building

As part of the promotion of cycling by staff we will identify cycling champions. The cycle champions will be provided with bikes for the purpose of commuting to work and for carrying out work related business. As well as completing a blog and becoming the ‘faces of cycling’ in the Council, their health will be monitored to try and demonstrate the full range of benefits from cycling.

**Full review of fleet options**

When the Council replaces vehicles it aims to hire or purchase the most cost effective least polluting vehicle for each vehicle type. The 2012 fleet make up is set out within Table 4.
<table>
<thead>
<tr>
<th>Total</th>
<th>By fuel type</th>
<th>By EURO Standard rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Electric</td>
<td>Petrol hybrid</td>
</tr>
<tr>
<td>Cars and car derived vans</td>
<td>16</td>
<td>2 (12.5%)</td>
</tr>
<tr>
<td>pedestrian controlled sweepers</td>
<td>7</td>
<td>7 (100%)</td>
</tr>
<tr>
<td>Commercial vehicles (&lt;3500KG)</td>
<td>283</td>
<td>1 (0.4%)</td>
</tr>
<tr>
<td>Commercial vehicles (&gt;3500KG)</td>
<td>67</td>
<td>67 (100%)</td>
</tr>
<tr>
<td>HGV</td>
<td>43</td>
<td>43 (18.1%)</td>
</tr>
<tr>
<td>Total</td>
<td>416</td>
<td>3</td>
</tr>
<tr>
<td>% of fleet:</td>
<td>100</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Note: this table is based on information provided by Fleet Management. Information on grass cutters and other similar non road based plant have been excluded.

The fleet also includes private vehicles where officers are issued with all zone parking permits and essential car user ship.

Moving forwards we need to do more to introduce low emission vehicles in to the fleet and, where possible, to replace car/commercial vehicle journeys with bike trips, motorcycle trips or walking. Increasingly low emission vehicles are becoming competitive and discounts/grants are often available to public authorities to trial or take up low emissions technologies. We also need to reduce the number of staff using their own vehicles for their work.

EURO standard diesel vehicles have been shown to fall short of emissions performance criteria, during day-to-day use and so are far more polluting than indicated. This is significant for the Council as currently 95% of Council vehicles are diesel powered. As over 50% of the fleet is scheduled to be renewed during the years 2013, 2014 and 2015 it is essential that the Council fully considers air quality when selecting new vehicles to reduce impact on local air quality as much as possible.

The Council will:

- Undertake a survey of the potential and cost effectiveness of making Hackney one of the greenest Council fleets in London
- Identify realistic targets to reduce the size of the Council’s fleet and increase the proportion of cycle freight, electric vehicles and dual-fuel vehicles for the most used vehicles
- Review the use of parking permits for private vehicles and essential car user ship across the Council
- Ensure there is sufficient provision to charge electric vehicles at all Council buildings and key destinations
- Explore opportunities to pilot and introduce hydrogen powered vehicles in to the fleet

Telematics vehicle tracking

Telematics systems enable the location and use of fleet vehicles to be monitored. The appropriate use of telematics systems have been demonstrated to:

- Reduce fuel consumption and associated air pollutants
- Reduce vehicle maintenance and service costs
- Reduce accidents and speeding
- Increase staff security

The Council operates telematics in 80% of its fleet and has seen improvements in the quality of driving since it was introduced. A full review of the degree to which telematics systems have successfully contributed to reductions in air pollution levels from the Council’s fleet will be undertaken.
Minimum standards for nitrogen dioxide emissions from boilers, gas engines and CHP

Residential and commercial boiler emissions make up about 39% of emissions of oxides of nitrogen in the borough. Hackney Council and Hackney Homes operate over 18,000 domestic and commercial boilers and CHP plants in the borough, replacing about 700 individual boilers every year. Standard boilers and CHP plants emit significantly more nitrogen dioxide than low nitrogen dioxide burning models. The Council and Hackney Homes will therefore ensure that, for all new buildings and during replacement works:

- Standard gas fired boilers meet a 40mg/KWh NOx emissions standard
- New and replacement CHP plants, gas engines, etc. will not result in a worsening of local air quality or lead to the failure of EU air quality objectives
- CHP, gas engines, etc. plant have a minimal effect on local air quality

Energy efficiency and use of alternative technologies in buildings

Making buildings more energy efficient and installing ‘alternative technologies’ reduces emissions of carbon dioxide and nitrogen dioxide and potentially saves money.

The Council and Hackney Homes have ambitious programmes of redevelopment that will improve the energy efficiency of many buildings in the borough. The ‘Better Homes’ initiative has also seen many older properties refitted and made more energy efficient. Despite these ongoing developments, much of the Council’s and Hackney Homes’s building stock is older than 30 years and so less energy efficient.

For buildings that are:

- Heated by gas boilers, CHP or by oil fired boilers,
- poorly insulated, and
- have no/limited alternative technologies installed,

Reductions in nitrogen dioxide and carbon dioxide may be achieved by installing energy efficiency measures and through the use of alternative technologies such as photovoltaic cells and solar heating. Apart from improving air quality, these measures may also result in cost savings over the medium term and so should pay for themselves.

A feasibility survey of Council and Hackney Homes owned buildings that meet the above criteria will be undertaken in order to identify the:

- Potential to improve building insulation levels
- Potential to incorporate alternative technologies
- Estimate reductions in nitrogen dioxide that may be achieved
- Cost of carrying out works
- Time it will take to recoup costs through energy savings

Measures that are considered to be feasible and cost effective will be implemented in line with a programme and scheme to be approved by the Council. This initiative will be focussed on the areas of the borough with the poorest air quality.

Making green procurement greener

Green procurement helps the Council ensure that the environment is considered every time money is spent. Currently the Council aims to procure “goods and services which have the least environmental impact in terms of their production, delivery, use and disposal”.

In order to develop green procurement in the borough we will:

- Identify criteria that need to be included within the Council’s green procurement strategy
- Review key Council contracts to identify additional air quality related contract requirements that need to be introduced
- Review the potential to use freight consolidation systems to reduce the number of vehicles used to deliver to council and Hackney Homes offices.
The following air quality action plan policies, objectives and targets have been developed to reduce nitrogen dioxide levels and prevent exceedances of particulate matter within the borough. While alone these objectives and targets are not sufficient to meet National air quality objectives, combined with the efforts of the Greater London Authority, Transport for London and other local authorities across London, they should significantly contribute to reductions in nitrogen dioxide and particulate matter in the borough. Through the implementation of these measures, and our renewed commitment to tackling air pollution in Hackney, it is our aim to be awarded Cleaner Air Borough status by the Greater London Authority.

For each policy objective an indication of cost and the potential to reduce nitrogen dioxide levels is provided as follows. The indications of the potential to reduce nitrogen dioxide levels have not been modelled and are therefore only indicative. Cost indications assume that an air quality officer and project officer are maintained.

Each policy objective will be implemented by the indicated timescale.

<table>
<thead>
<tr>
<th>Focus area</th>
<th>Name</th>
<th>Description of location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential to reduce nitrogen dioxide emissions</td>
<td>😄</td>
<td>Insignificant at borough level (no noticeable effect on NO2 levels) and local level but of value for other reasons such as health benefits</td>
</tr>
<tr>
<td></td>
<td>😄😄</td>
<td>Minor benefits (between &gt;0ug/m3 to 1ug/m3 improvement in NO2 levels) borough wide but potentially of greater benefit at local level (1ug/m3 to 5ug/m3 improvement)</td>
</tr>
<tr>
<td></td>
<td>😄😄😄</td>
<td>Significant benefits (&gt;5ug/m3 improvement) borough wide with potentially significant local benefits (&gt;5ug/m3 improvement)</td>
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<table>
<thead>
<tr>
<th>Indication of cost</th>
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<tbody>
<tr>
<td>£</td>
<td>No additional cost – may be undertaken with existing staff/financial resources</td>
<td></td>
</tr>
<tr>
<td>££</td>
<td>Low cost – less than £10,000 to deliver</td>
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<tr>
<td>£££</td>
<td>Medium cost – between £10,000 and £50,000 to deliver</td>
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<tr>
<td>££££</td>
<td>High cost – above £50,000</td>
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<tr>
<td>*</td>
<td>Will be partly or entirely dependant on grant funding or other funding sources</td>
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<table>
<thead>
<tr>
<th>Responsibility (Resp.)</th>
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<tbody>
<tr>
<td>First Team listed</td>
<td>Section that is responsible for managing and progressing an objective. Sections listed together will be jointly responsible for managing and progressing objectives.</td>
<td></td>
</tr>
<tr>
<td>Subsequent Teams listed</td>
<td>Sections that will be involved in the delivery of an objective and have an important part to play</td>
<td></td>
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</tbody>
</table>
Policy 1: Air Quality and development management

Ensuring that air quality is appropriately dealt with during the development control process.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
<th>Target</th>
<th>Timescale</th>
<th>Resp.</th>
<th>Cost</th>
<th>NO$_2$ reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Coordinate pre-application requirements and conditioning of air quality across the Council and ensuring that air quality issues are being appropriately dealt with through the planning system.</td>
<td>1.1.1 Identify how and by whom air quality is being addressed through development control 1.1.2 Highlight gaps in the Council’s approach and recommend actions to plug gaps/ improve services 1.1.3 Implement changes and review</td>
<td>End March 2015</td>
<td>Pollution Control</td>
<td>£</td>
<td>😊😊</td>
</tr>
<tr>
<td>1.2</td>
<td>Develop appropriate development management policies, supplementary planning guidance (SPG) and technical planning guidance for air quality issues.</td>
<td>1.2.1 Identify existing planning policies, SPG and technical guidance being used and any gaps 1.2.2 Develop guidance to fill any gaps</td>
<td>End March 2016</td>
<td>Pollution Control/ Spatial planning Other involved Sections</td>
<td>£</td>
<td>😊</td>
</tr>
<tr>
<td>1.3</td>
<td>Ensure that Section 106 and Community infrastructure levy (CIL) money is being sort and made available for air quality related work.</td>
<td>1.2.1 Identify existing planning policies, SPG and technical guidance being used and any gaps 1.2.2 Develop guidance to fill any gaps</td>
<td>End March 2016</td>
<td>Pollution Control/ Planning Authority/ Street Scene, etc</td>
<td>£</td>
<td>😊😊</td>
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</tbody>
</table>

Policy 2: Actions to improve air quality

Actions with the sole aim of reducing nitrogen dioxide levels and/or particulate matter levels within the borough.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
<th>Target</th>
<th>Timescale</th>
<th>Resp.</th>
<th>Cost</th>
<th>NO$_2$ reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Develop and start to deliver the Green Action Zone initiative  in Zone 1</td>
<td>2.1.1 Obtain funding for the Green Action Zone initiative 2.1.2 Progress scheme in the first zones 2.1.3 Develop and produce a local air quality action plan</td>
<td>End December 2015</td>
<td>Pollution Control</td>
<td>£££*</td>
<td>😊😊😊</td>
</tr>
<tr>
<td>2.2</td>
<td>Develop and start to deliver the Green Action Zone initiative in Zones 2 and 3</td>
<td>2.2.1 Obtain funding for the Green Action Zone initiative 2.2.2 Progress scheme in two areas 2.2.3 Develop and publish local air quality action plans</td>
<td>End March 2018</td>
<td>Pollution Control</td>
<td>££*</td>
<td>😊😊😊</td>
</tr>
<tr>
<td>2.3</td>
<td>Set up and deliver a Zero Emissions Network – Shoreditch project</td>
<td>2.3.1 Create website and develop materials 2.3.2 Contact as many businesses as possible by letter/email and then phone at least 500 businesses in Shoreditch area 2.3.3 Undertake as many business liaison meetings as possible 2.3.4 Assess impact of scheme through modal shift and reduction in NO$_2$ emissions</td>
<td>End December 2015</td>
<td>Pollution Control/ Street Scene</td>
<td>£££*</td>
<td>😊😊😊</td>
</tr>
<tr>
<td>Objective</td>
<td>Description</td>
<td>Target</td>
<td>Timescale</td>
<td>Resp.</td>
<td>Cost</td>
<td>NO2 reduction</td>
</tr>
<tr>
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</tr>
<tr>
<td>2.4</td>
<td>Enhance the borough’s air quality monitoring network.</td>
<td>2.4.1 Install 2 new continuous monitoring stations 2.4.2 Purchase and install at least 10 low cost continuous monitors 2.4.3 Increase number of NO2 tube sites by at least 10</td>
<td>March 2017</td>
<td>Pollution Control</td>
<td>£££</td>
<td>😊</td>
</tr>
<tr>
<td>2.5</td>
<td>Undertake a detailed review and produce a plan to further develop cycling and walking in the borough</td>
<td>2.5.1 Undertake a high level review of cycling, walking and air quality in the borough 2.5.2 Produce detailed recommendations of how the current network should be improved to impact air quality 2.5.3 Formally adopt plan</td>
<td>December 2017</td>
<td>Pollution Control Street Scene</td>
<td>£ or ££</td>
<td>😊😊😊</td>
</tr>
<tr>
<td>2.6</td>
<td>Review of zero emission vehicle last mile deliveries in the borough</td>
<td>2.6.1 Complete high level review of last mile zero emission deliveries in the borough 2.6.2 Identify actions to ensure implementation and uptake 2.6.3 Formally adopt plan</td>
<td>March 2017</td>
<td>Pollution Control Street Scene</td>
<td>£ or ££</td>
<td>😊😊</td>
</tr>
<tr>
<td>2.7</td>
<td>Consideration of CMA dust suppressants and other dust reduction techniques to ensure EU air quality objectives are met</td>
<td>2.7.1 Carry out an options appraisal for potential use of CMA dust suppressants and other dust reduction techniques 2.7.2 Implement recommendations</td>
<td>December 2015</td>
<td>Pollution Control</td>
<td>£</td>
<td>😊😊</td>
</tr>
<tr>
<td>2.8</td>
<td>Deliver an education programme to the main private hire operators in the borough to improve driving practices and reduce idling</td>
<td>2.8.1 Identify the private hire operators in the borough and select the main ones 2.8.2 Deliver training through a series of training events 2.8.3 Carry out pre and post campaign monitoring to assess success</td>
<td>March 2019</td>
<td>Pollution Control TFL</td>
<td>£ and ££*</td>
<td>😊</td>
</tr>
<tr>
<td>2.9</td>
<td>To deliver a taxi anti-idling initiative targeting idling hotspots</td>
<td>2.9.1 Review the success of approaches taken by other authorities. 2.9.2 Identify idling hotspots to be targeted 2.9.3 Put up anti idling warning signs 2.9.4 Carry out routine enforcement 2.9.5 Carry out pre and post campaign monitoring to assess success</td>
<td>March 2019</td>
<td>Pollution Control potentially wardens</td>
<td>£ possibly ££</td>
<td>😊</td>
</tr>
<tr>
<td>2.10</td>
<td>To reduce air pollution levels at key junctions in the borough by exploring options and working with TFL to trial options/technologies</td>
<td>2.10.1 Research and brainstorm event to address key junctions in the borough 2.10.2 Identify findings and recommendations for trials 2.10.3 Deliver trials at selected locations</td>
<td>March 2018</td>
<td>Pollution Control Street Scene TFL</td>
<td>£ or ££*</td>
<td>😊😊</td>
</tr>
</tbody>
</table>

*Hackney Air Quality Action Plan 2015-19*
<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
<th>Target</th>
<th>Timescale</th>
<th>Resp.</th>
<th>Cost</th>
<th>NO$^2$ reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.11</td>
<td>To further incorporate air quality considerations in to parking charges.</td>
<td>2.10.1 Research and brain storming event to address key junctions in the borough 2.10.2 Identify findings and recommendations for trials 2.10.3 Deliver trials at selected locations</td>
<td>December 2015</td>
<td>Street Scene Pollution Control</td>
<td>£ or ££</td>
<td>😊</td>
</tr>
<tr>
<td>2.12</td>
<td>Lobby the Mayor of London, Transport for London and Central Government to reduce pollution over which the Council has little or no control</td>
<td>2.12.1 Lobby the Mayor of London, Transport for London and Central Government regarding air pollution which we are unable to directly address 2.12.2 Take opportunities to join the debates that tackle issue of cross boundary pollution</td>
<td>Ongoing</td>
<td>Lead Councillor with responsibility for Air Quality Pollution Control and Street Scene</td>
<td>£ or ££</td>
<td>😊 or 😊😊</td>
</tr>
</tbody>
</table>

**Policy 3:** Actions to reduce the health impacts of air quality

Actions that aim to either reduce, or better inform people about, the health impacts of poor air quality in the borough.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
<th>Target</th>
<th>Timescale</th>
<th>Resp.</th>
<th>Cost</th>
<th>NO$^2$ reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Incorporating air quality in to the Health &amp; Wellbeing Strategy</td>
<td>3.1.1 Commission a survey of the health impacts of air quality in Hackney 3.1.2 Incorporate air quality in to the health and wellbeing strategy</td>
<td>December 2015 and ongoing</td>
<td>Pollution Control Public Health</td>
<td>£</td>
<td>😊</td>
</tr>
<tr>
<td>3.2</td>
<td>Promotion of air campaign days to the most vulnerable, residents, businesses and visitors in the borough</td>
<td>3.2.1 Liaise with local respiratory disease clinics to publicise services 3.2.2 Carry out a targeted campaign of Council staff with respiratory diseases 3.2.3 Contact doctors surgeries to publicise service 3.2.4 Continue to promote services in schools Survey success of campaigns including any evidence of reduced hospital admissions</td>
<td>Ongoing</td>
<td>Pollution Control</td>
<td>£ and ideally ££</td>
<td>😊</td>
</tr>
<tr>
<td>3.3</td>
<td>Trial of a schools project to promote the improvement and an understanding of air quality</td>
<td>3.3.1 Complete green travel and idling training 3.3.2 Complete a school banner competition amongst participating schools 3.3.3 Set up nitrogen dioxide tubes for schools to monitor nitrogen dioxide levels 3.3.4 Deliver enforcement of idling vehicles Monitor success of scheme by identifying idling</td>
<td>December 2015</td>
<td>Pollution Control Street Scene</td>
<td>££*</td>
<td>😊</td>
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</tbody>
</table>
## Hackney Air Quality Action Plan 2015-19

### Policy 4: Actions to reduce the Council’s own impacts on air quality

Action that aim to reduce the Council’s own impacts on air quality.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
<th>Target</th>
<th>Timescale</th>
<th>Resp.</th>
<th>Cost</th>
<th>NO(^2) reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Development and introduction of a staff travel options hierarchy providing clear guidelines on how staff should travel during work</td>
<td>4.1.1 Develop and agree travel options hierarchy&lt;br&gt;4.1.2 Develop materials and publicity&lt;br&gt;4.1.3 Deliver throughout Council</td>
<td>December 2015</td>
<td>Street Scene Pollution Control</td>
<td>£</td>
<td>😊😊</td>
</tr>
<tr>
<td>4.2</td>
<td>Setting up a staff pool bike scheme from the Service Centre and other offices</td>
<td>4.2.1 Survey existing situation&lt;br&gt;4.2.2 Development of infrastructure&lt;br&gt;4.2.3 Implementation</td>
<td>December 2015</td>
<td>Street Scene Pollution Control</td>
<td>£££</td>
<td>😊😊</td>
</tr>
<tr>
<td>4.3</td>
<td>Recruit staff cycling champions to promote the benefits of cycling to staff</td>
<td>4.3.1 Develop scheme and purchase bikes&lt;br&gt;4.3.2 Recruit and pre-scheme health checks&lt;br&gt;4.3.3 Run scheme and post scheme health check</td>
<td>December 2015</td>
<td>Street Scene Pollution Control</td>
<td>££</td>
<td>😊</td>
</tr>
<tr>
<td>4.4</td>
<td>Survey of the Council fleet with the aim of making Hackney’s fleets one of the greenest in London</td>
<td>4.4.1 Review of the make-up of other London Fleets and what technology is available to reduce vehicle emissions.&lt;br&gt;4.4.2 Detailed review of the Hackney fleet and consideration of technologies and approaches to reduce vehicle emissions.&lt;br&gt;4.4.3 Review of use of all zone parking permits and essential car user-ship&lt;br&gt;4.4.4 Review of Council’s usage data&lt;br&gt;4.4.5 Review of current and proposed charging infrastructure&lt;br&gt;4.4.6 Development of proposal</td>
<td>March 2017</td>
<td>Pollution Control Fleet/ Street Scene</td>
<td>£</td>
<td>😊😊</td>
</tr>
<tr>
<td>Objective</td>
<td>Description</td>
<td>Target</td>
<td>Timescale</td>
<td>Resp.</td>
<td>Cost</td>
<td>NO2 reduction</td>
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<tr>
<td>4.5</td>
<td>Assessment of whether introducing telematics systems has reduced air pollution in the borough</td>
<td>4.5.1 Obtain and review data</td>
<td>March 2016</td>
<td>Pollution Control Fleet</td>
<td>£</td>
<td>😊</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.5.2 Produce an assessment report with recommendations</td>
<td></td>
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<tr>
<td>4.6</td>
<td>Introduction of minimum standards for nitrogen dioxide emissions from Council and Hackney Homes boilers, CHP plants, gas engines, etc.</td>
<td>4.6.1 Meet with relevant parts of Council and Hackney Homes</td>
<td>December 2015</td>
<td>Pollution Control</td>
<td>£</td>
<td>😊😊</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.6.2 Adopt new low NOx standard</td>
<td></td>
<td>Energy Team and Hackney Homes</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>4.6.3 Review annually to monitor implementation and check if standards can be tightened.</td>
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<tr>
<td>4.7</td>
<td>Feasibility study to insulate and install alternative technologies on Council and Hackney Homes buildings in areas of worst air quality</td>
<td>4.7.1 Identify study area and relevant buildings</td>
<td>March 2019</td>
<td>Pollution Control Energy Unit/Property Management/ Hackney Homes</td>
<td>££ or £££*</td>
<td>😊</td>
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<tr>
<td></td>
<td></td>
<td>4.7.2 Obtain information on current status of relevant buildings</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>4.7.3 Undertake any necessary inspections</td>
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<tr>
<td></td>
<td></td>
<td>4.7.4 Produce a feasibility plan</td>
<td></td>
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</tr>
<tr>
<td>4.8</td>
<td>Development of Council’s green procurement strategy to include air quality and review of key Council contracts</td>
<td>4.8.1 Review of existing strategy and brainstorm options</td>
<td>December 2016</td>
<td>Pollution Control Procurement</td>
<td>£</td>
<td>😊</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.8.2 Research and development</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>4.8.3 Produce air quality related strategy and any further provisions for key contracts</td>
<td></td>
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</tr>
</tbody>
</table>
8. Review of the strategy

As required by Part IV of the Environment Act 1995 the Council provides yearly updates to DEFRA on progress with implementing Air Quality Action Plan Objectives. The Council’s Air Quality steering group, which brings together officers from different parts of the Council (including Land Water Air, Transportation, Planning, Energy and Fleet), also aims to meet annually to discuss progress with achieving Air Quality objectives and to discuss new and emerging trends and approaches to addressing poor air quality.

This strategy will be updated for the beginning of the 2018/2019 financial year or sooner if:

- Requested by DEFRA, the Chief Executive of the Council or the responsible lead councillor
- Significant changes occur in legislation and guidance
- Other pressing objectives are identified which must be incorporated
9. Contact details and further information

Enquiries about this strategy should be directed to the Air Quality Officer. Information relating to air quality may be viewed online over the Council website at http://www.hackney.gov.uk or by appointment at the Council offices. Annex 1 also provides links to further information on air quality.

Contact details:
Land Water Air Team
London Borough of Hackney
Hackney Town Hall
Mare Street
London E8 1EA

Telephone: 020 8356 4673
Email: info@hackney.gov.uk
### Hackney Air Quality Action Plan 2015-19

**Air Quality Management Areas**

If a local authority identifies any locations within its boundaries where the Air Quality Objectives are not likely to be achieved, it must declare the area as an Air Quality Management Area (AQMA). The area may encompass just one or two streets, or it could be much bigger. The local authority is subsequently required to put together a plan to improve air quality in that area - a local air quality action plan.

**Air Quality Neutral**

A set of emissions limits for plant and building emission benchmarks designed to ensure that new and replacement buildings do not have more impact on local Air Quality than existing building stock. The standards are set out by the Greater London Authority in supplementary planning guidance.

**Air Quality Objective**

The air quality objectives are policy targets generally expressed as a maximum ambient concentration to be achieved, either without exception or with a permitted number of exceedences, within a specified timescale. The objectives are set out in the UK Governments Air Quality Strategy for key air pollutants.

**Air Quality Standard**

Air quality standards are the concentrations of pollutants in the atmosphere which can broadly be taken to achieve a certain level of environmental quality. The standards are based on assessment of the effects of each pollutant on human health, including the effects on sensitive sub-groups.

**Alternative technologies**

Alternative technologies is a term used to refer to technologies that are more environmentally friendly than the functionally equivalent technologies dominant in current practices. In relation to air quality this would include electric or hydrogen powered transport or the generation of energy from the sun or wind.

**Barcelona Style bicycle Lanes**

Barcelona style bicycle lanes are a cheap means of introducing segregated cycle lanes to existing roads. They simply entail placing fixed bollards to separate and demarcate between a cycle way and a road.

**Carbon dioxide**

Carbon dioxide is a naturally occurring compound that is exhaled by animals and plants during respiration and is also produced by the combustion of coal and other hydrocarbons (such as petrol or diesel). Environmentally carbon dioxide is a key greenhouse gas and results in warming of the earths surface. Internationally governments have targets to reduce emissions of carbon dioxide to reduce society’s impact on global warming.

**Central London Air Quality Cluster Group**

This is a sub regional group comprised of the central London and a few other surrounding authorities, who work together to exchange information and ideas and come up with common strategies to address air pollution in London.

**CHP**

Combined heat and power. Use of a heat engine or a power station to simultaneously generate both electricity and useful heat.

**Community Infrastructure Levy**

The Community Infrastructure Levy is a new planning charge, introduced by the Planning Act 2008. It came into force on 6 April 2010 through the Community Infrastructure Levy Regulations 2010. Development may be liable for a charge under the Community Infrastructure Levy, if the local planning authority has chosen to set a charge for its area.

**DEFRA grant**

A yearly grant, run by the Department for the Environment, Farming and Rural Affairs, to which local authorities may apply for funding for projects to improve or promote local air quality or our understanding of air pollution.

**Development management**

Comprises the Planning Authority and the Building Control Section of the Council.

**EURO Standard**

European emission standards define the acceptable limits for exhaust emissions of new vehicles sold in EU member states. The emission standards are defined by a series of European Union directives staging the progressive introduction of increasingly stringent standards. Currently emissions of nitrogen oxides, total hydrocarbon, non-methane hydrocarbons, carbon monoxide and particulate matter are regulated for most vehicle types, including cars, lorries, trains, tractors and similar machinery, barges, but excluding seagoing ships and aeroplanes… None compliant vehicles cannot be sold in the EU, but new standards do not apply to vehicles already on the roads.

**Gas engines**

A gas engine is an internal combustion engine which runs on a gas duel, such as coal gas, biogas or natural gas.

Gas engines are often used to generate electricity or CHP.

**Green travel plans**

A travel plan is a package of actions designed by a workplace, school or other organisation to encourage safe, healthy and sustainable travel options. By reducing car travel, travel plans can improve health and wellbeing, free up car parking space, and make a positive contribution to the community and the environment. Every travel plan is different, but most successful plans have followed a structured process in their development.
<table>
<thead>
<tr>
<th>Word/phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Green walls</strong></td>
<td>A green wall is a wall, either free standing or part of a building, that is partially or completely covered with vegetation and, in some cases, soil or an inorganic growing medium. Green walls may improve local air quality, by collecting and trapping particulate matter on the plant surface, and naturalise the urban environment.</td>
</tr>
<tr>
<td><strong>Hybrid Technologies/ vehicles</strong></td>
<td>A hybrid vehicle is a vehicle that uses two or more distinct power sources to move the vehicle. The term most commonly refers to hybrid electric vehicles, which combine an internal combustion engine and one or more electric motors.</td>
</tr>
<tr>
<td><strong>Low emission vehicles</strong></td>
<td>A low emission vehicle is a motor vehicle that emits relatively low levels of motor vehicle emissions.</td>
</tr>
<tr>
<td><strong>Modelling (air quality)</strong></td>
<td>Mathematical programmes that use air quality monitoring data and available air pollution and environmental data to predict air pollution levels across a defined area. The results of modelling are usually reported as a number or as a thematic map.</td>
</tr>
<tr>
<td><strong>Monitoring network (air quality)</strong></td>
<td>An air quality monitoring network is a collection of air quality monitors within a defined area that may be used to identify and predict air quality. The data from a monitoring network may be modelled to predict air pollution levels at any point within, or across the whole of, the defined area.</td>
</tr>
<tr>
<td><strong>Nitrogen Dioxide</strong></td>
<td>See oxides of nitrogen</td>
</tr>
<tr>
<td><strong>NO2</strong></td>
<td>See oxides of nitrogen</td>
</tr>
<tr>
<td><strong>NOx</strong></td>
<td>See oxides of nitrogen</td>
</tr>
<tr>
<td><strong>Oxides of nitrogen</strong></td>
<td>Combustion processes emit a mixture of nitrogen dioxides, primary nitric oxide which is quickly oxidised in the atmosphere to nitrogen dioxide. Nitrogen dioxide has a variety of environmental and health impacts. It is a respiratory irritant which may exacerbate asthma and possibly increase susceptibility to infections. In the presence of sunlight, it reacts with hydrocarbons to produce photochemical pollutants such as ozone. Nitrogen dioxide can be further oxidised in air to acidic gasses, which contribute towards the generation of acid rain.</td>
</tr>
<tr>
<td><strong>Particulate matter (PM)</strong></td>
<td>Air borne particulate matter includes a wide range of particle sizes and different chemical constituents. It consists of both primary components, which are emitted directly into the atmosphere, and secondary components, which are formed within the atmosphere as a result of chemical reactions. Of greatest concern to public health are the particles small enough to be inhaled into the deepest parts of the lung. Air quality objectives are in place for the protection of human health for PM10 and PM2.5 – particles of less than 10 and 2.5 micrometers in diameter, respectively.</td>
</tr>
<tr>
<td><strong>Photo-voltaic cells</strong></td>
<td>Technical term for solar panels used to generate electricity from the sun light.</td>
</tr>
<tr>
<td><strong>Section 106 monies</strong></td>
<td>Monies paid by developers to Local Planning Authorities in order to offset the costs of the external effects of development. For example, if a developer were to build 100 new houses, there would be effects on local schools, roads, etc., which the local authority would have to deal with.</td>
</tr>
</tbody>
</table>
Annex 1: Useful information
A large amount of information and guidance about all aspects of air quality is available over the internet from a number of different organisations. Details of relevant contacts are set out below.

Further information about air quality in Hackney may be found at http://www.hackney.gov.uk/ee-pollution-air-413.htm

The following tables also highlight other useful links.

### Regulations and statutory guidance:

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment Act 1995</td>
<td>Part IV of this act identifies the Councils responsibilities to monitor air quality, designate Air Quality Management Areas, produce an Air quality Management Plan, etc</td>
<td><a href="http://www.legislation.gov.uk/ukpga/1995/25/contents">http://www.legislation.gov.uk/ukpga/1995/25/contents</a></td>
</tr>
<tr>
<td>Environmental Protection Act 1995</td>
<td>Legislation that sets up a regulatory framework and standards for environmental management</td>
<td><a href="http://www.legislation.gov.uk/">http://www.legislation.gov.uk/</a></td>
</tr>
<tr>
<td>Clean Air Act 1993</td>
<td>Introduced prior to the smogs of the 1950s &amp; 1960s, the Act gave local authorities power to control emissions of dark smoke, grit, dust and fumes.</td>
<td><a href="http://www.legislation.gov.uk/">http://www.legislation.gov.uk/</a></td>
</tr>
<tr>
<td>Mayor of London’s Air Quality Strategy 2010</td>
<td>Sets out the Mayor of London’s framework for improving London’s air quality and measures aimed at reducing emissions from transport, homes, offices and new developments, as well as raising awareness of air quality issues.</td>
<td><a href="http://www.london.gov.uk/priorities/environment/publications/mayors-air-quality-strategy">http://www.london.gov.uk/priorities/environment/publications/mayors-air-quality-strategy</a></td>
</tr>
<tr>
<td>Mayor of London’s supplementary planning guidance on sustainable development and construction</td>
<td>Sets out, amongst other things, the standards for Air Quality Neutral including emissions limits and building emissions benchmarks.</td>
<td><a href="https://www.london.gov.uk/priorities/planning/consultations/draft-sustainable-design-and-construction">https://www.london.gov.uk/priorities/planning/consultations/draft-sustainable-design-and-construction</a></td>
</tr>
<tr>
<td>The London Plan</td>
<td>The London Plan is the overall strategic plan for London, and it sets out a fully integrated economic, environmental, transport and social framework for the development of the capital to 2031</td>
<td><a href="http://www.london.gov.uk/priorities/planning/london-plan">http://www.london.gov.uk/priorities/planning/london-plan</a></td>
</tr>
<tr>
<td>Sustainable Community Strategy</td>
<td>Hackney’s Sustainable Community Strategy is the Council’s shared vision for the local area for the next 10 years. It sets out our vision, our priorities and a set of outcomes around which all partners will be organising their business plans in the coming years.</td>
<td><a href="http://www.hackney.gov.uk/community-strategy.htm">http://www.hackney.gov.uk/community-strategy.htm</a></td>
</tr>
</tbody>
</table>
### Monitoring data:

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFRA nitrogen dioxide tube information and other data</td>
<td>The Council uploads its ongoing nitrogen dioxide monitoring data on the DEFRA website. Other monitoring information for Hackney are also included.</td>
<td><a href="http://uk-air.defra.gov.uk/networks/">http://uk-air.defra.gov.uk/networks/</a></td>
</tr>
<tr>
<td>My AirBase</td>
<td>Portal to view data from some of the Councils health based continuous monitoring network of air quality monitors</td>
<td><a href="http://sensors.myairbase.com/">http://sensors.myairbase.com/</a></td>
</tr>
<tr>
<td>Air Quality at Hackney</td>
<td>Various air quality monitoring data for the Council and links to monitoring information available elsewhere</td>
<td><a href="http://www.hackney.gov.uk/ee-pollution-air-413.htm">http://www.hackney.gov.uk/ee-pollution-air-413.htm</a></td>
</tr>
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</table>

### Useful organisations, guidance and information:

<table>
<thead>
<tr>
<th>Document</th>
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<th>Link</th>
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</thead>
<tbody>
<tr>
<td>DEFRA</td>
<td>The Department for the Environment Food and Rural Affairs is the part of the government with overall responsibility for meeting national air quality objectives.</td>
<td><a href="http://www.defra.gov.uk/environment/quality/air/air-quality/">http://www.defra.gov.uk/environment/quality/air/air-quality/</a></td>
</tr>
<tr>
<td>Greater London Authority</td>
<td>The Greater London Authority (GLA) was established by the GLA Act 1999 and serves both the Mayor and the London Assembly.</td>
<td><a href="http://www.london.gov.uk/air-quality/pollution">http://www.london.gov.uk/air-quality/pollution</a></td>
</tr>
<tr>
<td>Transport for London</td>
<td>Transport for London (TfL) is the local government body responsible for most aspects of the transport system in Greater London.</td>
<td><a href="http://www.tfl.gov.uk/">http://www.tfl.gov.uk/</a></td>
</tr>
<tr>
<td>Health Protection Agency</td>
<td>The Health Protection Agency is the regulatory body responsible for dealing with and advising on many health related issues including the effects of air quality on health.</td>
<td><a href="http://www.hpa.org.uk/">http://www.hpa.org.uk/</a></td>
</tr>
<tr>
<td>Environment Agency</td>
<td>An Executive Non-departmental Public Body which is accountable to the Secretary of State for Environment, Food and Rural Affairs with the principal aims of protecting and improving the environment and promoting sustainable development.</td>
<td><a href="http://www.environment-agency.gov.uk/">http://www.environment-agency.gov.uk/</a></td>
</tr>
</tbody>
</table>

Note: Other organisations with an interest in air quality are set out in Annex 2.
Annex 2: Consultation
The consultation ran for 12 weeks between 28 Jul 2014 and 24 Oct 2014. Statutory consultation was undertaken in line with Schedule 11 of the Environment Act 1995. Non-statutory consultation was undertaken with the public and businesses in the borough. The following table summarises the consultation completed.

A summary of the consultation exercise, responses received and subsequent actions taken by the Council is included on the Council’s website at http://www.hackney.gov.uk/ee-pollution-air-413.htm

<table>
<thead>
<tr>
<th>Consultation type</th>
<th>Details of consultation</th>
</tr>
</thead>
</table>
| Internal consultation     | • Internal consultation meeting held on the 20th February 2013 with representatives from the Transport Section, Street Scene, Planning, Energy Team and Pollution Control Team.  
• Details of the consultation where sent to the following heads of service: Chief Executives Directorate; Legal, HR and Regulatory Services; Health and Community Services; Finance and Resources; Housing, and; Hackney Homes.  
• All staff informed through the Staff Headlines Bulletin. Councillors were informed through the Council process. |
| Statutory consultation    | A link to the draft updated Air Quality Action Plan was sent to the Greater London Authority (who act on behalf of the Secretary of State), Department for Environmental Food and Rural Affairs, Environment Agency, Highways Authority, Department of Health and Local Primary Health Care Trust, Transport for London, Central London Air Quality Cluster Group (Lambeth, Westminster, Islington and Camden), Adjoining Local Authorities (City of London, Olympic Legacy Authority and the London Boroughs of Newham, Tower Hamlets, Islington, Waltham Forest and Haringey. Local business groups were targeted as set out in the non-statutory consultation section below. |
| Non-statutory consultation| Around 1000 individuals, faith groups and community forums were contacted directly by e-mail. Organisations contacted include: Clean air in London; Sustrans; Ecoactive; Hackney Cyclists; Sustainable Hackney; London21 Sustainability; London Wildlife Trust; Women’s Environmental Network; Asthma UK; Manor House Development Trust; Chatsworth Road Traders and Residents Association; Arcola Theatre; Independent Shoreditch, and; Friends of the Earth. |
| Consultation using media  | • Poster and copy of updated Air Quality Action Plan placed in all local libraries and the Town Hall.  
• Press releases within the Hackney Gazette (weekly adult reach of 19,490) and Hackney Today (108,000 copies to every home and business in Hackney).  
• Five questions tweeted each week for the duration of the consultation (questions included below this table). |

Questions tweeted during each week of the consultation included:

- Is enough being done to tackle air pollution across Hackney? Have your say on our air quality action plan: http://bit.ly/1uAuA0P
- Did you know buildings significantly contribute to air pollution? Have your say on our air quality action plan: http://bit.ly/1uAuA0P
- Should Hackney support extending the Mayor’s ultra-low emissions zone? Have your say: http://bit.ly/1uAuA0P
- Are we doing enough to reduce public exposure to air pollution? Have your say: http://bit.ly/1uAuA0P
- How could we reduce our own impact on air quality? Have your say on our air quality action plan: http://bit.ly/1uAuA0P