

# Islington Air Quality Annual Status Report 2020

This report provides a detailed overview of air quality in Islington during 2020. It has been produced to meet the requirements of the London Local Air Quality Management (LLAQM) statutory process<sup>1</sup>.

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<sup>1</sup> LLAQM Policy and Technical Guidance 2019 (LLAQM.TG(19))

# Executive Summary

## Background of Report

Islington Council is working hard to improve air quality and reduce the impact of air pollution on everyone in the borough.

Air quality refers to the condition of the air around us and how many pollutants (chemicals or substances) it contains. The more pollutants the air contains the more air pollution there is and the worse the air quality is.

Poor air quality is a concern as air pollution can impact health. In periods of high pollution some people with existing heart and respiratory conditions, such as asthma, may find their condition gets worse. Over the long term air pollution can increase the risk of respiratory and cardiovascular conditions, reduce lung development in children and is also increasingly being linked to a range of other health conditions.

Local authorities are required by the Government and the Mayor of London to monitor air pollution in the borough, and take action to reduce it, as well as report on this every year in the form of this Annual Status Report (ASR).

This report provides details of the air quality in Islington in 2020 and a brief summary of the actions taken by the London Borough of Islington to improve air quality in this period.

## Air Quality in Islington

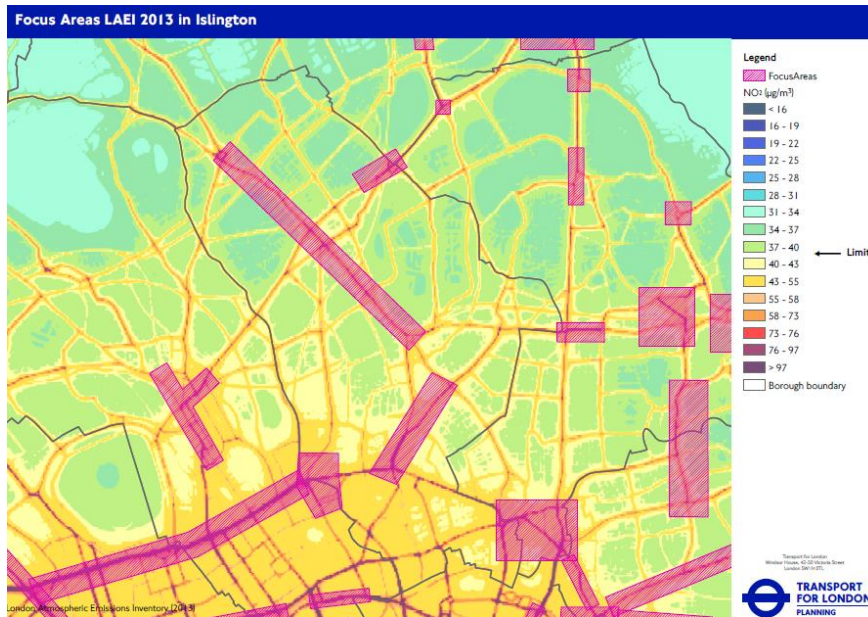
There are set objectives for a number of known air pollutants. Where it is unlikely that one or more of the objectives will be met in their borough, a local authority must declare an Air Quality Management Area (AQMA) and produce an action plan to describe the steps to be taken to meet the air quality objectives.

In August 2000, we completed a review showing that despite a steady improvement of air quality in Islington, the objectives for two pollutants - nitrogen dioxide (NO<sub>2</sub>) and particulate matter of 10 microns diameter (PM<sub>10</sub>) - were not likely to be achieved. As a consequence we declared an AQMA across a large part of the borough in 2001, which was expanded to the whole of the borough in 2003. This AQMA is still in place.

We have been exceeding EU limits for NO<sub>2</sub> in parts of the borough and meeting the limits that are set by the EU for all other air pollutants, although we remain focused on particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) because these pollutants have detrimental impacts on health at any level.

Air quality is not the same throughout the borough, there are areas of better and poorer air quality, often related to proximity to busy roads. The main areas of concern (or Focus Areas) are the A1 Holloway Road from Highbury to Archway, Angel Town Centre, Seven Sisters Road at Finsbury Park, Old Street and the Kings Cross/Caledonian Road area.

The map below shows the annual modelled mean NO<sub>2</sub> concentrations in Islington and its surrounding boroughs for 2013 as well as highlighting the focus areas of higher pollution levels mentioned above. This map is created by GLA and TfL using LAEI data.



We have been monitoring air quality since 2000 and have ten long term roadside sites (with an additional three for a triplicate study) and eleven long term urban background sites across the borough. These are the sites that are reported on in the main part of this document. We also have additional monitoring sites for specific projects and we have added the results for these monitoring sites in the appendix of this document.

In 2020 NO<sub>2</sub> levels measured below the annual objective of 40µg/m<sup>3</sup> for all of sites in Islington for the first time, including background and roadside sites at both our automatic and non-automatic sites. Our background sites have been below this objective level for a long time (with the exception of one site in 2015 and 2016), however 2018 and 2019 were the first times the objective was met at some of our roadside sites. The much improved 2020 results could therefore reflect this trend in improving results, but also the impacts of Covid-19.

Two of these monitoring sites, one roadside and one urban background, also provide data on other pollutants and over shorter timescales. These showed:

- no exceedances of the NO<sub>2</sub> hourly objective of 200µg/m<sup>3</sup>
- PM<sub>10</sub> below the annual objective of 40µg/m<sup>3</sup>, at 18µg/m<sup>3</sup> on the roadside site on Holloway Road and 17µg/m<sup>3</sup> at the background Arsenal site

- both sites meet the 24 hour objectives for PM<sub>10</sub> of 50µg/m<sup>3</sup> 35 times a year a site, with four exceedances between them
- all of these results reflect long term trends

More detailed results can be found in the report.

## Impacts of Covid-19

As detailed above monitoring shows reduced levels of one of the main pollutants NO<sub>2</sub> across the borough in 2020. While this pollutant has been showing improvements in recent years, the changes are also likely to reflect the impacts of Covid-19.

Studies across London and the UK show reductions in NO<sub>2</sub> attributed to the impacts of Covid-19.

Covid-19 has also impacted actions taken to improve air quality in the borough in 2020. Many schemes or standard practices have been delayed due to staffing, funding and restrictions with Covid-19 rules. However, it has also lead to new schemes such as People Friendly Streets. Changes are reported in more detail in this report.

## Actions to Improve Air Quality

Our [Air Quality Strategy 2019-23](#) outlines the actions we plan to take to improve air quality in Islington. There are many actions but these are grouped into the following categories:

- Protecting the vulnerable
  - Improving health and inequality
  - Partnership working with schools
  - Monitoring local air quality
- Keeping Islington moving
  - Improving our fleet and reducing overall fuel usage
  - Encouraging a shift to active travel and cleaner vehicles
  - Working with partners to tackle air quality on a wider scale
- Better air- better health- better environment
  - Minimise emissions from construction
  - Lead by example
  - Concentrate on air quality focus areas
  - Work with partners to introduce new policies

This report details our progress in 2020 against the actions outlined in our strategy, however some key highlights can be found below.

## New Policies

Several policies were progressed in 2020 which will be essential in helping to improve air quality.

These include:

- Adoption of the Islington Transport Strategy 2020-2041 which includes a policy to improve air quality by reducing transport related pollutants that are harmful to health.
- Continued progress on the Draft Islington Local Plan with the plan submitted to the Secretary of State in February 2020, and modifications submitted early 2021. This includes policies to reduce pollution in construction and development.
- Release of the Biodiversity Action Plan 2020-2025 which references the importance of greening in the capture and storage of CO<sub>2</sub> and improvement in air quality.
- Publishing of Vision 2030: Creating a Net Zero Carbon Islington by 2030 outlining how this goal can be achieved, including a range of measures that can also improve air quality.



Further information on how these policies link to our Air Quality Strategy and progress against our action plan can be found in this report.

## People Friendly Streets

We have long been working to improve Islington's Streets and address the rise in traffic on residential roads, but the Covid-19 health crisis has had a big impact on the way we use our streets. So we've taken this opportunity to look at how we can make our neighbourhoods better and safer, for living, working and playing, encouraging walking, wheeling and cycling and enabling social distancing. People Friendly Streets are continuing efforts to make the borough safer, greener and healthier.

We have therefore introduced low traffic neighbourhoods on 18 month trials, using measures such as bollards and cameras, allowing access for residents and visitors but making it harder for traffic to cut through local streets from one main road to the next. We have also accelerated our School Streets programme and improved our cycle ways.

As part of the People Friendly Streets Scheme in 2020 we have implemented:

- 22 additional School Streets, making a total of 35 School Streets across the borough, covering 36 schools.
- Seven Low Traffic Neighbourhoods (LTNs) including; St Peters, Canonbury East, Clerkenwell Green, Canonbury West, Amwell Phase 1, Highbury West and Highbury Fields.
- Pop up segregated cycle ways on Liverpool Road, York Way and Green Lanes and construction finished on the north section of cycleway 38 (which will run from Pentonville Road to Holloway Road), protected cycle lanes on Balls Pond Road and cycle access improvements on Baldwin Terrace.

Extensive monitoring and reporting of PFS took place throughout 2020:

- A commonplace website was set up to capture resident's views about how to make the borough more people friendly. From May 2020-2021 over 12,000 engaged and 6,000 comments were received.
- Extensive monitoring has taken place, including information on traffic counts, anti-social behaviour, emergency vehicles and air quality. Air quality has been measured using existing networks of diffusion tubes, sensors and automatic monitors as well as an additional 39 monitors in 2020. We have also partnered with Imperial College London and the Active Travel Academy of Westminster.
- The interim six monthly reports for the first LTNs were prepared in 2020, for release early 2021. The first report for St Peter's indicated reduced traffic and speeding for most roads, with improved air quality (in line with wider borough changes) and no changes in anti-social behaviour or emergency vehicle response times.



**Tell us how we can create people-friendly streets for a safer, greener, healthier Islington**

Have your say at [www.islingtonpeoplefriendlystreets.commonplace.is](http://www.islingtonpeoplefriendlystreets.commonplace.is)  ISLINGTON



## Leading by example

We have made a number of fleet and facility improvements in 2020, including:

- Replacement of diesel vehicles with 18 electric, 5 hybrid, 30 Euro VI petrol and 11 Euro VI diesel vehicles. With orders for further electric vehicles to be delivered in 2021.
- Two London first fully electric 26 tonne refuse collection vehicles, with plans for further vehicles.
- A fleet of six e-bikes for use by the Street Environmental Services, reducing use of diesel vehicles previously used as well as the launch of a pool bike scheme for staff, with 18 bookable cycles at five council locations.
- Installation of 19 electric vehicle chargers at council buildings, with work underway or soon to start on a further 26 chargers.
- Award of £1.5 million Good Growth Fund (with £1.5 million council match) for the installation of a new substation at the Waste and Recycling Centre, to increase electricity capacity and allow fully electric vehicles on site by 2030.
- Sign up to the EnginesOff campaign encouraging businesses to tackle air pollution caused by idling engines. Drivers across the council completed the EnginesOff anti-idling training and all new drivers are made aware of ways to reduce emission.



## Work with businesses

Businesses were supported to use cycles as part of Covid-19 efforts. For example; the Try Before You Buy scheme for cycles was extended to businesses and cargo bikes were used to deliver food and medicine, making 700 drops.

The Cleaner Deliveries Smarter Business scheme was extended in 2020, offering hundreds of businesses cleaner delivery options. 121 businesses engaged and ten signed up to cargo bike trials from January to March 2020. Five businesses actively used the Archway micro consolidation centre throughout 2020, reducing deliveries by allowing bulk purchases and storage in this centre.

Work continued on the City Fringe Zero Emission Network (ZEN) scheme, with 27 new businesses and six new residents joining in Islington in 2020, taking up fifteen emission reducing measures (such as trials of cargo bikes).

As part of the multi borough Clean Air Villages scheme we engaged with 43 businesses in the Nag's Head area on air quality and active travel, with the help of the Nag's Head Town Centre Group.

## School Work

Children are one of the groups more vulnerable to air pollution and as such we have worked hard to improve air quality at the borough's schools and engaged with pupils, parents, guardians and teachers.

Some projects such as audits were delayed with Covid-19, however we still completed a number of actions in 2020:

- An additional 22 School Streets were implemented, making a total of 35 School Streets across the borough, covering 36 schools.
- Creation of anti-idling posters and an [Islington Clean Air Toolkit for Schools](#) in conjunction with Islington Clean Air Parents.
- Five anti-idling events at schools early 2020.
- An air quality poster competition for primary school students, judged by the Mayor and Deputy Mayor of Islington and displayed across the borough.

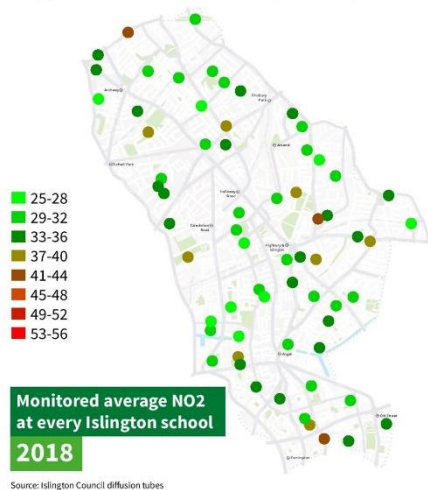


We continued to monitor pollution outside every school in the borough in 2020, publishing the results for both years in 2020, as well as starting monitoring outside every nursery. These results can be found in the appendix of this report and show:

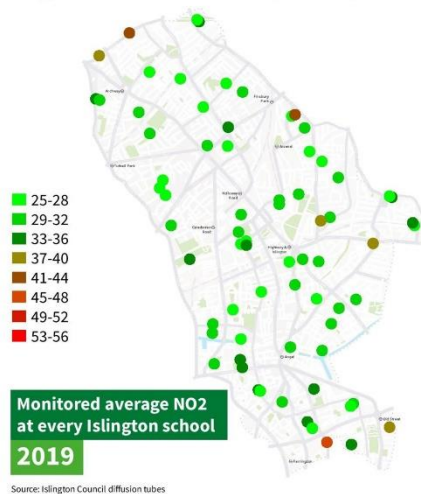
- zero schools measured over the legal limit of 40  $\mu\text{g}/\text{m}^3$
- of the monitoring sites with data in 2019 and 2020, all schools had lower levels in 2020 compared to 2019
- on average values for schools in 2020 were 8 $\mu\text{g}/\text{m}^3$  lower than 2019
- all of the 54 nursery sites measured values below the legal limit of 40  $\mu\text{g}/\text{m}^3$



## Islington schools air quality data



## Islington schools air quality data



## How to Get Involved

You can get more information on air quality on our [website](#).

You can do your bit to improve air quality. Think about how you travel, decrease your car use especially for short trips and think about whether you could walk, cycle or use public transport instead. If you need to drive think about car sharing, car clubs or low emission vehicles and try not to idle your engine. You can also impact air pollution by improving the energy efficiency of your home or business and avoid using open fires or un-seasoned wood. Come along to one of our air quality events, such as Car Free Day, or volunteer for idling events in the borough which include training through [Idling Action London](#).

You can contact the council's Pollution Team on [pollution@islington.gov.uk](mailto:pollution@islington.gov.uk) for further air quality information and guidance.

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## Abbreviations

| <b>Abbreviation</b> | <b>Description</b>                                  |
|---------------------|---|
| AQAP                | Air Quality Action Plan                             |
| AQMA                | Air Quality Management Area                         |
| AQO                 | Air Quality Objective                               |
| BEB                 | Buildings Emission Benchmark                        |
| CAB                 | Cleaner Air Borough                                 |
| EV                  | Electric Vehicle                                    |
| GLA                 | Greater London Authority                            |
| LAEI                | London Atmospheric Emissions Inventory              |
| LAQM                | Local Air Quality Management                        |
| LLAQM               | London Local Air Quality Management                 |
| NRMM                | Non-Road Mobile Machinery                           |
| PM <sub>10</sub>    | Particulate matter less than 10 micron in diameter  |
| PM <sub>2.5</sub>   | Particulate matter less than 2.5 micron in diameter |
| TEB                 | Transport Emissions Benchmark                       |
| TfL                 | Transport for London                                |

**Table A. Summary of National Air Quality Standards and Objectives**

| <b>Pollutant</b>                    | <b>Standard / Objective (UK)</b>                                       | <b>Averaging Period</b> | <b>Date<sup>(1)</sup></b> |
|-------------------------------------|--|-------------------------|---------------------------|
| Nitrogen dioxide (NO <sub>2</sub> ) | 200 µg m <sup>-3</sup> not to be exceeded more than 18 times a year    | 1-hour mean             | 31 Dec 2005               |
| Nitrogen dioxide (NO <sub>2</sub> ) | 40 µg m <sup>-3</sup>  | Annual mean             | 31 Dec 2005               |
| Particles (PM <sub>10</sub> )       | 50 µg m <sup>-3</sup> not to be exceeded more than 35 times a year     | 24-hour mean            | 31 Dec 2004               |
| Particles (PM <sub>10</sub> )       | 40 µg m <sup>-3</sup>  | Annual mean             | 31 Dec 2004               |
| Particles (PM <sub>2.5</sub> )      | 25 µg m <sup>-3</sup>  | Annual mean             | 2020                      |
| Particles (PM <sub>2.5</sub> )      | Target of 15% reduction in concentration at urban background locations | 3-year mean             | Between 2010 and 2020     |
| Sulphur dioxide (SO <sub>2</sub> )  | 266 µg m <sup>-3</sup> not to be exceeded more than 35 times a year    | 15-minute mean          | 31 Dec 2005               |
| Sulphur dioxide (SO <sub>2</sub> )  | 350 µg m <sup>-3</sup> not to be exceeded more than 24 times a year    | 1-hour mean             | 31 Dec 2004               |
| Sulphur dioxide (SO <sub>2</sub> )  | 125 µg m <sup>-3</sup> not to be exceeded more than 3 times a year     | 24-hour mean            | 31 Dec 2004               |

**Notes:**

(1) Date by which to be achieved by and maintained thereafter



# 1. Air Quality Monitoring

## 1.1 Locations

**Table B. Details of Automatic Monitoring Sites for 2020**

| Site ID | Site Name     | X (m)  | Y (m)  | Site Type        | In AQM A? | Distance to Relevant Exposure (m) | Distance to Kerb of Nearest Road (N/A if not applicable) (m) | Inlet height (m) | Pollutants monitored                   | Monitoring technique |
|---------|---------------|--------|--------|------------------|-----------|-----------------------------------|--|------------------|--|----------------------|
| IS2     | Holloway Road | 530650 | 185750 | Roadside         | Y         | 1                                 | 3  | 3                | CO, NO <sub>2</sub> , PM <sub>10</sub> | TEOM                 |
| IS6     | Arsenal       | 531328 | 186067 | Urban Background | Y         | 1                                 | N/A  | 2.5              | NO <sub>2</sub> , PM <sub>10</sub>     | TEOM                 |

**Table C. Details of Non-Automatic Monitoring Sites for 2020**

| Site ID   | Site Name        | X (m)  | Y (m)  | Site Type | In AQMA? If so, which AQMA? | Distance to Relevant Exposure (m) | Distance to Kerb of Nearest Road (N/A if not applicable) (m) | Inlet height (m) | Pollutants monitored | Tube co-located with an automatic monitor. (Y/N) |
|-----------|------------------|--------|--------|-----------|-----------------------------|-----------------------------------|--|------------------|----------------------|--|
| BIS005/03 | Caledonian Road  | 530708 | 183510 | Roadside  | Y                           | 0                                 | 1  | 2.5              | NO <sub>2</sub>      | N  |
| BIS005/02 | Rosebery Avenue  | 531327 | 182592 | Roadside  | Y                           | 0                                 | 1  | 2.5              | NO <sub>2</sub>      | N  |
| BIS005/06 | City Road        | 532556 | 182739 | Roadside  | Y                           | 1                                 | 3  | 2.5              | NO <sub>2</sub>      | N  |
| BIS005/07 | Old Street       | 532632 | 182449 | Kerbside  | Y                           | 0                                 | <0.5   | 2.5              | NO <sub>2</sub>      | N  |
| BIS005/08 | Highbury Corner  | 531672 | 184739 | Roadside  | Y                           | 2                                 | 2  | 2.5              | NO <sub>2</sub>      | N  |
| BIS005/09 | Balls Pond Road  | 532883 | 184816 | Kerbside  | Y                           | 0                                 | <0.5   | 2.5              | NO <sub>2</sub>      | N  |
| BIS005/11 | Holloway Road    | 531024 | 185367 | Roadside  | Y                           | 0                                 | 1.5  | 2.5              | NO <sub>2</sub>      | N  |
| BIS005/13 | Junction Road    | 529202 | 186090 | Roadside  | Y                           | 0                                 | 1  | 2.5              | NO <sub>2</sub>      | N  |
| IS005/01  | Navigator Square | 529401 | 186855 | Roadside  | Y                           | 0                                 | 12   | 2.5              | NO <sub>2</sub>      | N  |
| Hol 1     | Holloway Road    | 530650 | 185750 | Roadside  | Y                           | 1                                 | 3  | 3                | NO <sub>2</sub>      | Y  |

| Site ID   | Site Name        | X (m)  | Y (m)  | Site Type        | In AQMA? If so, which AQMA? | Distance to Relevant Exposure (m) | Distance to Kerb of Nearest Road (N/A if not applicable) (m) | Inlet height (m) | Pollutants monitored | Tube co-located with an automatic monitor. (Y/N) |
|-----------|------------------|--------|--------|------------------|-----------------------------|-----------------------------------|--|------------------|----------------------|--|
| Hol 2     | Holloway Road    | 530650 | 185750 | Roadside         | Y                           | 1                                 | 3  | 3                | NO <sub>2</sub>      | Y  |
| Hol 3     | Holloway Road    | 530650 | 185750 | Roadside         | Y                           | 1                                 | 3  | 3                | NO <sub>2</sub>      | Y  |
| BIS005/04 | Percy Circus     | 530921 | 182861 | Urban Background | Y                           | 0                                 | N/A  | 2.5              | NO <sub>2</sub>      | N  |
| BIS005/05 | Myddelton Square | 531315 | 182991 | Urban Background | Y                           | 0                                 | N/A  | 2.5              | NO <sub>2</sub>      | N  |
| BIS005/01 | Arran Walk       | 532317 | 184472 | Urban Background | Y                           | 1                                 | N/A  | 2.5              | NO <sub>2</sub>      | N  |
| IS005/03  | Sotheby Road     | 532256 | 185983 | Urban Background | Y                           | 0                                 | N/A  | 2.5              | NO <sub>2</sub>      | N  |
| BIS005/10 | Highbury Fields  | 531748 | 185442 | Urban Background | Y                           | 0                                 | N/A  | 2.5              | NO <sub>2</sub>      | N  |
| BIS005/12 | Lady Margaret Rd | 529320 | 185795 | Urban Background | Y                           | 0                                 | N/A  | 2.5              | NO <sub>2</sub>      | N  |
| IS005/02  | Zoffany Park     | 529883 | 187015 | Urban Background | Y                           | 0                                 | N/A  | 2.5              | NO <sub>2</sub>      | N  |
| BIS005/14 | Elthorne Park    | 530000 | 187402 | Urban Background | Y                           | 0                                 | N/A  | 2.5              | NO <sub>2</sub>      | N  |

| Site ID   | Site Name                       | X (m)  | Y (m)  | Site Type        | In AQMA? If so, which AQMA? | Distance to Relevant Exposure (m) | Distance to Kerb of Nearest Road (N/A if not applicable) (m) | Inlet height (m) | Pollutants monitored | Tube co-located with an automatic monitor. (Y/N) |
|-----------|---------------------------------|--------|--------|------------------|-----------------------------|-----------------------------------|--|------------------|----------------------|--|
| BIS005/15 | Turle Road/Wray Crescent        | 530477 | 186942 | Urban Background | Y                           | 0                                 | N/A  | 2.5              | NO <sub>2</sub>      | N  |
| IS005/04  | Upper Street (Waterloo Terrace) | 531625 | 184100 | Urban Background | Y                           | 0                                 | N/A  | 2.5              | NO <sub>2</sub>      | N  |

**Notes:**

The location of Navigator Square has been moved around over the last few years with changes in road layout therefore the last few years of data are not necessarily comparable to the longer term data. The Navigator Square monitor IS005/01 was formerly called Archway Close, but the name changed with change in road layout. Hol 1-3 are used for the collocation study.

## 1.2 Comparison of Monitoring Results with AQOs

The results presented are after adjustments for “annualisation” and for distance to a location of relevant public exposure (if required), the details of which are described in Appendix A.

**Table D. Annual Mean NO<sub>2</sub> Ratified and Bias-adjusted Monitoring Results**

| Site ID   | Site name        | Site type | Valid data capture for monitoring period % <sup>(a)</sup> | Valid data capture 2020 % <sup>(b)</sup> | 2014             | 2015             | 2016             | 2017      | 2018      | 2019           | 2020 |
|-----------|------------------|-----------|---|--|------------------|------------------|------------------|-----------|-----------|----------------|------|
| BIS005/03 | Caledonian Road  | Roadside  | 100   | 100                                      | <b>51</b>        | <b>58</b>        | <b>53</b>        | <b>43</b> | 36        | 39             | 29   |
| BIS005/02 | Roseberry Avenue | Roadside  | 100   | 100                                      | <b>58</b>        | <u><b>62</b></u> | <u><b>62</b></u> | <b>54</b> | <b>51</b> | <b>44</b>      | 31   |
| BIS005/06 | City Road        | Roadside  | 100   | 100                                      | <b>49</b>        | <b>53</b>        | <b>53</b>        | <b>48</b> | <b>45</b> | <b>45 (43)</b> | 33   |
| BIS005/07 | Old Street       | Roadside  | 100   | 100                                      | <b>56</b>        | <u><b>65</b></u> | <b>55</b>        | <b>58</b> | <b>45</b> | <b>41</b>      | 29   |
| BIS005/08 | Highbury Corner  | Roadside  | 100   | 100                                      | <u><b>61</b></u> | <u><b>67</b></u> | <u><b>64</b></u> | <b>55</b> | <b>48</b> | <b>44 (47)</b> | 31   |
| BIS005/09 | Balls Pond Road  | Roadside  | 92  | 92                                       | <b>59</b>        | <u><b>64</b></u> | <b>58</b>        | <b>50</b> | <b>43</b> | <b>44</b>      | 32   |
| BIS005/11 | Holloway Road    | Roadside  | 92  | 92                                       | <u><b>61</b></u> | <u><b>65</b></u> | <b>57</b>        | <b>50</b> | <b>44</b> | <b>41</b>      | 27   |
| BIS005/13 | Junction Road    | Roadside  | 92  | 92                                       | <b>46</b>        | <b>53</b>        | <b>46</b>        | <b>42</b> | 36        | 34             | 27   |
| IS005/01  | Navigator Square | Roadside  | 75  | 75                                       | <b>58</b>        | <b>55</b>        | <b>55</b>        | <b>41</b> | 40        | <b>42</b>      | 26   |



| Site ID   | Site name        | Site type        | Valid data capture for monitoring period % <sup>(a)</sup> | Valid data capture 2020 % <sup>(b)</sup> | 2014 | 2015      | 2016      | 2017 | 2018 | 2019 | 2020 |
|-----------|------------------|------------------|---|--|------|-----------|-----------|------|------|------|------|
| BIS005/04 | Percy Circus     | Urban Background | 100   | 100                                      | 40   | <b>45</b> | <b>46</b> | 40   | 35   | 32   | 23   |
| BIS005/05 | Myddelton Square | Urban Background | 100   | 100                                      | 39   | 39        | 38        | 39   | 35   | 28   | 21   |
| BIS005/01 | Arran Walk       | Urban background | 100   | 100                                      | 32   | 39        | 35        | 32   | 30   | 26   | 17   |
| IS005/03  | Sotheby Road     | Urban background | 100   | 100                                      | 32   | 31        | 37        | 31   | 30   | 25   | 18   |
| BIS005/10 | Highbury Fields  | Urban Background | 100   | 100                                      | 32   | 33        | 34        | 28   | 28   | 26   | 19   |
| BIS005/12 | Lady Margaret Rd | Urban background | 92  | 92                                       | 33   | 35        | 36        | 34   | 31   | 28   | 24   |
| IS005/02  | Zoffany Park     | Urban Background | 100   | 100                                      | 28   | 33        | 33        | 29   | 29   | 27   | 18   |
| BIS005/14 | Elthorne Park    | Urban Background | 100   | 100                                      | 30   | 33        | 35        | 31   | 29   | 26   | 18   |
| BIS005/15 | Turle Road       | Urban Background | 92  | 92                                       | 32   | 33        | 37        | 31   | 32   | 26   | 19   |

| Site ID  | Site name                       | Site type            | Valid data capture for monitoring period % <sup>(a)</sup> | Valid data capture 2020 % <sup>(b)</sup> | 2014      | 2015             | 2016             | 2017      | 2018      | 2019 | 2020 |
|----------|---------------------------------|----------------------|---|--|-----------|------------------|------------------|-----------|-----------|------|------|
| IS005/04 | Upper Street (Waterloo Terrace) | Urban Background     | 92  | 92                                       | 37        | 40               | 39               | 39        | 30        | 27   | 21   |
| IS2      | Holloway Road                   | Automatic Roadside   | 98  | 98                                       | <b>55</b> | <b><u>61</u></b> | <b><u>60</u></b> | <b>49</b> | <b>47</b> | 40   | 31   |
| IS6      | Arsenal                         | Automatic Background | 98  | 98                                       |           | 29               | 33               | 31        | 27        | 25   | 20   |

**Notes:**

The location of monitor IS005/01 at Navigator Square varied with road layout changes over several years (2016-18), the new location has remained the same for 2019 and 2020, however results might not be directly comparable to longer term data.

The annual mean concentrations are presented as  $\mu\text{g m}^{-3}$ .

Exceedances of the NO<sub>2</sub> annual mean AQO of  $40 \mu\text{g m}^{-3}$  are shown in **bold**.

NO<sub>2</sub> annual means in excess of  $60 \mu\text{g m}^{-3}$ , indicating a potential exceedance of the NO<sub>2</sub> hourly mean AQS objective are shown in **bold and underlined**.

Means for diffusion tubes have been corrected for bias.

All means have been "annualised" in accordance with LLAQM Technical Guidance if valid data capture for the calendar year is less than 75% and greater than 33%.

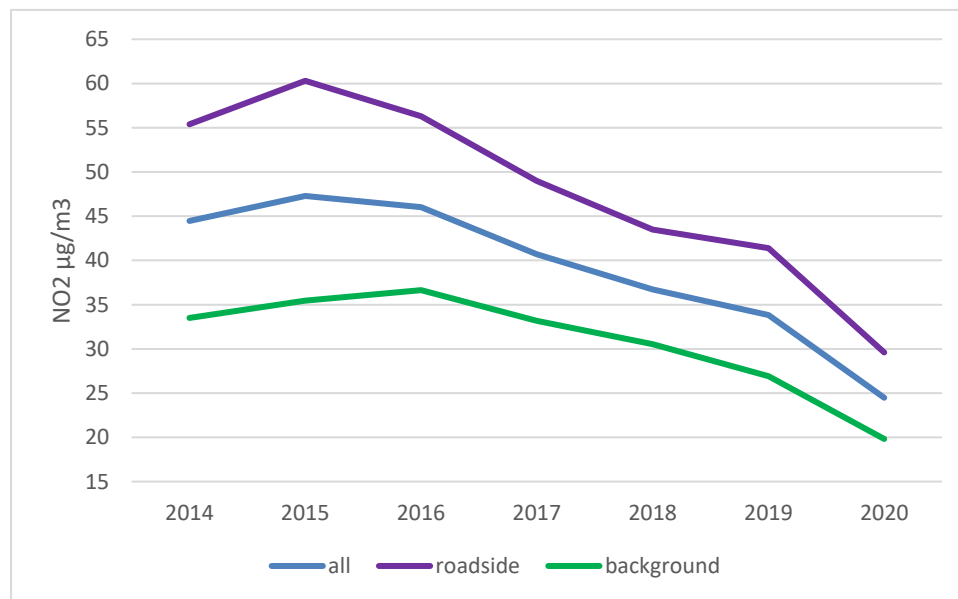
Results have been distance corrected where applicable- this was not required at any sites for 2020, in accordance with guidance of TG.16, as values were below  $36 \mu\text{g m}^{-3}$ .

(a) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(b) Data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

In 2020 all sites recorded values below the annual objective level of  $40\mu\text{g}/\text{m}^3$ , including both roadside and urban background sites, for the first time. All sites recorded lower nitrogen dioxide levels than 2019, ranging from 4-16  $\mu\text{g}/\text{m}^3$  less. Values on average remained higher at roadside sites than background sites, but reductions from 2019 to 2020 were larger at roadside sites. Looking at longer trends, values increased from 2014 to 2015 but have been decreasing since, however the decrease from 2019 to 2020 is larger than previous year and potentially points to the impact of Covid-19 on  $\text{NO}_2$  levels in the borough.

**Figure 1. Average annual nitrogen dioxide levels over last seven years diffusion tubes and automatic sites**



**Table E. NO<sub>2</sub> Automatic Monitoring Results: Comparison with 1-hour Mean Objective, Number of 1-Hour Means > 200 µg m<sup>-3</sup>**

| Site ID      | Valid data capture for monitoring period % <sup>(a)</sup> | Valid data capture 2020 % <sup>(b)</sup> | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------|---|--|------|------|------|------|------|------|------|
| IS2-Holloway | 98  | 98                                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| IS6-Arsenal  | 98  | 98                                       | 0    | 0    | 0    | 1    | 0    | 0    | 0    |

**Notes**

Results are presented as the number of 1-hour periods where concentrations greater than 200 µg m<sup>-3</sup> have been recorded.

Exceedance of the NO<sub>2</sub> short term AQO of 200 µg m<sup>-3</sup> over the permitted 18 hours per year are shown in **bold**.

If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

(a) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

(b) Data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

The results of the one-hour mean remain well below the objective of less than 18 times over 200µg m<sup>3</sup>, with no exceedances in 2020. This continues the trend of the last seven years.

**Table F. Annual Mean PM<sub>10</sub> Automatic Monitoring Results (µg m<sup>-3</sup>)**

| Site ID      | Valid data capture for monitoring period % <sup>(a)</sup> | Valid data capture 2020 % <sup>(b)</sup> | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------|---|--|------|------|------|------|------|------|------|
| IS2-Holloway | 94  | 94                                       | 21   | 22   | 21   | 21   | 20   | 20   | 18   |
| IS6-Arsenal  | 99  | 99                                       | 20   | 19   | 18   | 18   | 20   | 19   | 17   |

**Notes**

The annual mean concentrations are presented as µg m<sup>-3</sup>.

Exceedances of the PM<sub>10</sub> annual mean AQO of 40 µg m<sup>-3</sup> are shown in **bold**.

All means have been “annualised” in accordance with LLAQM Technical Guidance, if valid data capture is less than 75% and more than 33%.

(a) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(b) Data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

PM<sub>10</sub> continues to remain below the annual objective of 40 µg m<sup>3</sup> in 2020, continuing longer term trends.



**Table G. PM<sub>10</sub> Automatic Monitoring Results: Comparison with 24-Hour Mean Objective, Number of PM<sub>10</sub> 24-Hour Means > 50 µg m<sup>-3</sup>**

| Site ID      | Valid data capture for monitoring period % <sup>(a)</sup> | Valid data capture 2020 % <sup>(b)</sup> | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------|---|--|------|------|------|------|------|------|------|
| IS2-Holloway | 94  | 94                                       | 6    | 3    | 7    | 6    | 2    | 7    | 2    |
| IS6-Arsenal  | 99  | 99                                       | 5    | 1    | 3    | 3    | 1    | 9    | 2    |

**Notes**

Exceedances of the PM<sub>10</sub> 24-hour mean objective (50 µg m<sup>-3</sup> over the permitted 35 days per year) are shown in **bold**.

Where the period of valid data is less than 85% of a full year, the 90.4th percentile is provided in brackets.

(a) data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

(b) data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

Exceedances of the 24 hour mean remain well below the objective level of less than 35 times over 50µg m-3 in the year, with only two exceedances for the two locations in 2020.

## **2. Impact of COVID-19 upon LAQM**

As detailed above monitoring shows reduced levels of one of the main pollutants NO<sub>2</sub> across the borough in 2020. While this pollutant has been showing improvements in recent years, the changes are also likely to reflect the impacts of Covid-19.

Studies across London and the UK show reductions in NO<sub>2</sub> attributed to the impacts of Covid-19.

Covid-19 has also impacted actions taken to improve air quality in the borough in 2020. Many schemes or standard practices have been delayed or reduced due to staffing, funding and restrictions with Covid-19 rules. However, it has also lead to new or accelerated schemes with aims to improve air pollution, such as People Friendly Streets. Changes are reported in more detail in the report section Action to Improve Air Quality.

### 3. Action to Improve Air Quality

#### 3.1 Air Quality Action Plan Progress

Table H provides a brief summary of Islington’s progress against the Air Quality Action Plan in our Air Quality Strategy for 2019-23.

**Table H. Delivery of Air Quality Action Plan Measures**

| Measure   | LLAQM Action Matrix Theme                                | Action  | Progress in 2020   |
|---|--|---|--|
| Minimise traffic at sensitive locations during busy times | Public health and awareness raising<br>Cleaner Transport | Pilot scheme to restrict the use of motor vehicles during drop off/pick up times near school entrances to minimise emissions and increase the number of pupils and their carers walking/cycling/scooting to school. Expand to further schools / nurseries etc. Support Play Streets. Monitor air quality outside schools and nurseries, assess the ways of publishing the details when data ratified. | In 2020 22 additional School Streets were implemented, making a total of 35 School Streets across the borough, covering 36 schools. Currently 10 of these School Streets are permanent.<br><br>Play Streets were severely limited in 2020 due to Covid-19.<br><br>We continued to monitor air quality at all schools in the borough in 2020. Data from our first year of monitoring in 2018 was prepared for publications in 2019 and was released in February 2020, with 2019 data published October 2020. In December 2019 we also started monitoring at all nurseries in the borough and this continued throughout 2020. The 2020 data for schools and nurseries can be found in Appendix C in this report. |
| Schools air quality audits                                | Public health and awareness raising                      | Approach Islington schools that have been selected by The Mayor to conduct air quality audits and support them to install the recommended measures when the auditing is finalised. Audit all schools in the borough.  | In 2020 we completed our work with Prior Weston School to implement the recommendations of the Mayor’s air quality audit by adding additional planting. Previous work included green screens around the school playground, interactive planting events, air quality workshops and mapping events, a school assembly, playground information event and production of low pollution walking maps.  |

| Measure  | LLAQM Action Matrix Theme           | Action   | Progress in 2020   |
|--|-------------------------------------|--|--|
|  |                                     |  | <p>At the beginning of 2020 a further two school audit reports were completed. Due to the impacts of Covid 19 we were unable to conduct any further audits in 2020.</p> <p>In 2020 we created a Clean Air For Schools Toolkit with Islington Clean Air Parents, to help schools and the wider school community to assess measures they can take to improve air quality and reduce exposure, as well as providing case studies, resources and Islington contacts.</p>   |
| Improve knowledge about local air pollution near the schools | Public health and awareness raising | Following funding from DEFRA for ten local schools offering air quality monitoring continue working with schools to advise pupils, carers, staff and visitors on current pollution levels near the schools, forecast pollution levels using <i>air</i> TEXT, information on air pollution including causes, impacts, ways to lower exposure and low pollution walking maps to get to school.   | <p>In 2020 we worked with Islington Clean Air Parents to create a new anti-idling poster which has been located at schools around the borough.</p> <p>Monitoring outside every school in the borough continued in 2020, with additional monitoring placed outside every nursery. Results of this monitoring can be found in this report in Appendix C and results for 2018 and 2019 were published in 2020.</p> <p>In 2020 we continued to work on a Defra funded scheme at Elizabeth Garrett Anderson School assessing the impacts of filter systems on indoor air pollution and the ability of sensors to monitor this. Analysis and publishing of results has been delayed due to Covid 19 and is now planned for 2021.</p> |
| Schools active travel campaign                               | Public health and awareness raising | Work with schools on joint engagement programme to encourage active travel and raise awareness of poor air quality. Use the Theatre in Education programme to offer schools advice on sustainable travel, active travel and air quality for all pupils from KS1 to KS3. Use DEFRA funded school screen air pollution awareness project to promote active travel as a way to reduce pollution and exposure. Other activities can include promotion of Walk to | <p>For Car Free Day 2020 we ran a cleaner air poster competition with primary school students in the borough. The competition was judged by the Mayor and Deputy Mayor of Islington and the winning poster was designed up for Clean Air Day and displayed around the borough on park fences and schools. We also encouraged schools to run lessons around air quality as part of the poster activities.</p> <p>Five anti-idling events were held at schools early 2020, with further schools included in two further events, providing advice on anti-idling and air quality more generally. Due to Covid-19 no further events were held,</p>   |

| Measure   | LLAQM Action Matrix Theme           | Action  | Progress in 2020   |
|---|-------------------------------------|---|--|
|   |                                     | School Week, Bikeability training for pupils and anti-idling action events.   | <p>however three online anti-idling sessions were held with schools as part of the Idling Action scheme. Anti-idling posters were also created and put up at schools around the borough in partnership with Islington Clean Air Parents.</p> <p>NO<sub>2</sub> air quality monitoring was conducted outside every school and nursery in the borough throughout 2020 and this data was released and sent to each school in 2020.</p> <p>In 2019 we started a scheme to audit all schools in the borough, two audit reports were completed in 2020 before the scheme was put on hold due to Covid-19.</p> <p>Bikeability courses were severely limited in 2020 due to Covid-19, we trained 165 children and 238 adults in the courses that were able to go ahead in 2020/21.</p> |
| Work closely with Islington's Health and Wellbeing Board (HWB). | Public health and awareness raising | Islington's HWB published Islington's Joint Health and Wellbeing Strategy in 2016 and one of the priorities include prevention and management of long term conditions. We will support promoting healthier and more active families through various initiatives including developing healthy environment and access to physical activity and active travel. | <p>We have worked on a number of initiatives to promote a healthier and more active community in 2020, as evidenced by the range of measures described throughout this action plan. For example, people friendly streets, work with schools, Whittington Hospital, businesses and changes to road layouts.</p> <p>Islington is committed to the Healthy Streets approach and in 2020 we continued work as part of the MAQF Healthy Streets Everyday scheme, with Islington as the lead borough. This includes 16 boroughs working to make London's streets healthier. In Islington this supported work on our Car Free Day and Clean Air Day events in 2020.</p>   |
| Schools travel plans  | Public health and awareness raising | Work with schools to offer school travel plans including AQ information and actions to reduce emissions and exposure to encourage a change in travel patterns.  | School travel plans and STARS work was suspended in 2020 due to Covid-19. However, newsletters were sent out for schools to use, including information on how to keep active while out of school.  |



| Measure  | LLAQM Action Matrix Theme           | Action  | Progress in 2020   |
|--|-------------------------------------|---|--|
|  |                                     | Encourage schools to review, update and engage with the STARS programme and work towards accreditation. Support all schools to achieve the highest accreditation.   |  |
| Provide public AQ information displays   | Public health and awareness raising | Assess the best use for the screens and air quality monitors to inform local residents on current air quality information and raise awareness of significant effects pollution can present if exposed for prolonged periods. Trial various locations for the screens and look for extra funding to get permanent displays. Demonstrate that we all can make a difference through our own choices and behaviour. | In 2020 monitoring (including sensors) continued to be used to assist projects across the borough, enabling us to better demonstrate local air quality. Plans to publish results were delayed in several cases due to Covid-19 e.g. of the air quality filter scheme at Elizabeth Garrett Anderson.<br><br>Extensive air quality monitoring has taken place as part of the People Friendly Streets schemes introduced in 2020. This includes 39 additional diffusion tube monitors added from July-September 2020 with air quality changes communicated through the interim reports (first reports were published early 2021). |
| National lead on <i>air</i> TEXT service and promote the service to residents. | Public health and awareness raising | Continue leading on and working with other local authorities and GLA to ensure that our residents can get free alerts when high air pollution levels are predicted. Promote the scheme through SHINE, school awareness programmes and other media. Work with Whittington Health professionals on promoting the service to asthma sufferers.   | Islington continues to lead on and take part in the <i>air</i> TEXT scheme. At the end of 2020 there were 730 active <i>air</i> TEXT subscribers in Islington, an increase of 31 since the end of 2019.<br><br><i>Air</i> TEXT and other alert and route checking services are promoted on our website and leaflets, as well as through schemes such as our Clean Air for Schools Toolkit and in school audit reports. In 2020 <i>air</i> TEXT was promoted through the SHINE service, leading to 29 sign ups in Islington and 34 sign ups in other London boroughs.   |
| Reduction in idling vehicles   | Public health and awareness raising | Work with other boroughs on London wide campaign to target idling vehicles and  | In 2020 we conducted seven anti-idling events at idling hotspots or schools. Due to Covid-19 anti-idling events were then restricted, however  |

| Measure   | LLAQM Action Matrix Theme           | Action   | Progress in 2020  |
|---|-------------------------------------|--|---|
|   | Cleaner Transport                   | increase awareness of air pollution from idling vehicles. Produce promotional materials including anti idling signage, website, leaflets and work with schools, hospitals, businesses on wider engagement of their staff.  | <p>three online anti-idling workshops were conducted with 238 pupils as part of the Idling Action London scheme.</p> <p>Drivers across the council completed the Engines Off, anti-idling training in 2020. All new council drivers continue to complete a driving assessment and vehicle familiarisation which includes information and techniques relating to idling and emissions. All drivers have also been handed a paper or digital copy of the revised driver handbook which details information on idling and driving techniques.</p> <p>We also contacted companies running buses in the borough (Arrvia, Metroline and HCT Group) about idling in 2020, who conducted awareness raising with their drivers as a result.</p>  |
| AQ awareness events                                       | Public health and awareness raising | Islington regularly participates in national awareness initiatives including Clean Air Day, Car Free Day, Walk to Work scheme and others to increase the understanding of air quality problems. We'll work in partnership with other local authorities and organisations to continue raising awareness about air pollution effects and how to minimise them. | <p>For Car Free Day 2020 we ran a cleaner air poster competition with primary school students in the borough. We received over 100 entrants from 12 schools and the competition was judged by the Mayor and Deputy Mayor of Islington and the winning poster designed up for Clean Air Day. The winning poster was designed up and printed on 50 vinyl banners that were displayed across the borough on school gates, park railings and town centres. Paper versions were sent to all primary schools, nurseries, community centres, libraries and medical centres.</p> <p>In 2020 we conducted seven anti-idling events at idling hotspots or schools. Due to Covid-19 anti-idling events were then restricted, however three online anti-idling workshops were conducted with 238 pupils as part of the Idling Action London scheme.</p> |
| Encourage active participation of residents in AQ actions | Public health and awareness raising | Recruit volunteers for various campaigns and projects including anti idling initiative and keep them informed about any upcoming events. Invite volunteers for   | <p>In 2020 three volunteers came to an anti-idling event, before Covid-19 impacted the running of these events.</p> <p>We worked with Islington Clean Air Parents (ICAP) in 2020 on the creation of anti-idling posters and a Clean Air Toolkit for schools. ICAP then placed</p>   |

| Measure   | LLAQM Action Matrix Theme      | Action  | Progress in 2020  |
|---|--------------------------------|---|---|
|   |                                | <p>various public information events, including AQ conference etc. Aim to train staff at various organisations within the borough about AQ messages and support them to spread the message to colleagues, friends and families.</p> | <p>the idling posters around schools in the borough and organised an event to launch the School Toolkit early 2021, as well as promoting these resources among their network of contacts.</p> <p>As part of the People Friendly Streets schemes a commonplace website was set up to capture resident's views about how to make the borough more people friendly. This website ran from May 2020 to May 2021, with over 12,000 residents engaged and over 6,000 comments received.</p> <p>In 2020 we were part of the multi borough Defra funded Clean Air Villages 3 scheme. As part of this scheme 43 businesses were engaged in the Nag's Head area and this work was supported by the Nag's Head Town Centre Group. Further businesses were also engaged in the Angel area as part of the angel.london's participation in the Clean Air Villages scheme.</p> <p>From January-March 2020 we extended the Cleaner Deliveries, Smarter Businesses project, engaging with 121 businesses in the three months, increasing awareness of air quality and promoting a switch towards cargo bikes, with 10 businesses signing up to a cargo bike trial. This scheme was supported by both the Archway Town Centre Group and Nag's Head Town Centre Group.</p> |
| <p>Look for funding and work with world class academic institutions</p> | <p>All dependent on scheme</p> | <p>Islington is amongst the leading boroughs tackling air pollution through various initiatives and will aim to work with various universities on further research on air quality.</p>  | <p>In 2020 we worked on two Defra funded schemes with the Environmental Research Group at Imperial College London (formerly King's); one assessing the impacts of filter systems on indoor air pollution in a school and the ability of sensors to monitor this, and another monitoring and mapping solid fuel burning from domestic properties and one</p> <p>We continued to work with the Environmental Research Group (now Imperial) throughout 2020 on monitoring pollution inside canal boats as part of the Canal Eco Zone scheme. This scheme was delayed due to Covid-19.</p>  |

| Measure  | LLAQM Action Matrix Theme                 | Action   | Progress in 2020   |
|--|---|--|--|
|  |   |  | We have been working in conjunction with Imperial and the Active Travel Academy of Westminster on our People Friendly Streets schemes.   |
| Improvements to heating systems                            | Emissions from developments and buildings | Improve heating systems through replacement of inefficient boilers as part cyclical improvement work. Carry out the improvement works on domestic properties as well as school and business premises. Offer the grant support scheme to vulnerable private sector residents. Apply the most effective measures whenever possible, including through external schemes such as RE:NEW, RE:FIT, ECO Flex, Mayor of London Warmer Homes and Section 106 Carbon Offset Funding when improving insulation and replacing boilers. | <p>Through our SHINE service for vulnerable residents we referred 19 Islington households to the ECO/Warmer Homes scheme for improvements to heating and/or insulation from April 2020 to March 2021 and declared 12 households in the ECO-flex group for vulnerable residents that do not receive qualifying benefits.</p> <p>Unfortunately due to the impacts of Covid 19 and funding cuts we were unable to assist residents with any Safe and Warm grants in 2020.</p> <p>From April 2020 to March 2021 around 900 new high efficiency boilers were renewed or installed in domestic council managed/tenanted properties (this figure includes boiler upgrades and replacement of faulty boilers).</p> |
| Promotion of energy efficiency                             | Emissions from developments and buildings | Provide energy saving advice to residents within the borough. Refer vulnerable residents to SHINE services including <i>air</i> TEXT. Work with businesses in ZEN areas on energy efficiency audits to minimise the emission and cost.   | <p>Islington residents continued to receive energy saving advice in 2020, including referrals to additional services through SHINE (which makes sure you get all the help you need to stay warm, increase income and stay healthy in your home), including 29 signups for <i>air</i>TEXT.</p> <p>Two Islington businesses had energy efficiency audits carried out in 2020 as part of the City Fringe ZEN scheme.</p>  |
| Apply tiered parking charges for short term parking spaces | Cleaner Transport                         | Applied surcharge on parking diesel vehicles in short term parking spaces from January 2018. Continue tiered parking permits based on fuel emissions. Review   | From March 2019 the surcharge for diesel vehicles in short stay parking increased from £2 per hour to £3 per hour. From April 2019 the surcharge for diesel vehicles on the resident parking permit increased from £99.65 per year to £120 per year. This continued in 2020.   |

| Measure  | LLAQM Action Matrix Theme          | Action  | Progress in 2020  |
|--|------------------------------------|---|---|
|  |                                    | parking policies to take into consideration impacts on air quality and health.  |   |
| Renew our fleet and replace vehicles with the cleanest possible technology | Borough Fleet<br>Cleaner Transport | Conduct the review of the fleet to identify which vehicles may be operated as electric, biomethane, hydrogen, compressed natural gas (CNG), euro VI and ultra-low emission and consider the changes during next procurements. Procure first CNG powered welfare bus and assess the possibility of replacing wider fleet including heavy goods vehicles. Investigate possibilities of retrofitting the most polluting vehicles where no other option is viable. Review council's vehicles usage. Analyse the possibility of car park spaces to be converted into bike storages where feasible. | <p>In 2020, the council fleet continued to be replaced with cleaner vehicles. 11 Euro V diesel vehicles were replaced by Euro VI diesel vehicles, 30 diesel vehicles were replaced with Euro VI petrol vehicles, 5 diesel vehicles were replaced with hybrid vehicles and 18 diesel vehicles were replaced with full electric vehicles. Of the full electric vehicles procured, this included two 26T RCV's (Refuse collection vehicles) which were the first to be operated in London and some of the first within the country. The council also awarded a tender for two existing fleet 26T diesel RCV's to be converted to full electric, with a further 8 existing fleet diesel RCV's planned to be converted in the future. We do not plan to procure any more diesel vehicles.</p> <p>Street Environment Services procured 6 x E-Bikes in 2020 for their supervisors who monitor and address waste and cleaning issues throughout the borough. This reduced the use of diesel vans that had been used previously.</p> <p>The Council currently has on order 15 full electric vehicles, due for delivery in 2021, which includes 7.5T and 4.25T cage tippers, 2.2T vans and 17 and 23 seat buses. These will all replace diesel vehicles.</p> <p>Upgrades to charging infrastructure across the council has been in progress through 2020 with work continuing in to 2021:</p> <ul style="list-style-type: none"> <li>• 2 x 90kw rapid chargers, 3 x dual 22kw chargers, 3 x 3.6kw chargers, 4 x 13amp chargers and 1 x 45kw mobile rapid charger have been installed at the Waste and Recycling Centre (WRC)</li> <li>• 5 x 7kw chargers have been installed at Laycock Street premises</li> <li>• 1 x 7kw charger has been installed at Randells Road depot</li> </ul> |

| Measure   | LLAQM Action Matrix Theme       | Action   | Progress in 2020  |
|---|---------------------------------|--|---|
|   |                                 |  | <ul style="list-style-type: none"> <li>• Work is due to start shortly to install 8 x 7kw chargers at 222 Upper Street</li> <li>• Work is underway to install 18 x dual 7kw chargers at Pritchard Court underground car park.</li> </ul> <p>Following the March 2020 £1.5 million funding award from the Good Growth Fund and the £1.5 million match funding from the Council, in May 2021, companies will be invited to tender for the installation of a new substation and associated electrical works within the WRC. This will allow for an increase in electrical capacity at the WRC, in order that all vehicles currently parked at the WRC can be replaced by fully electric vehicles by 2030.</p> |
| Adopt transport reduction strategy                                      | Cleaner Transport               | Explore reduction of traffic and co-ordinate the work with TfL so that both strategies work together. Propose re-designing of key streets where reducing traffic is essential to protect vulnerable road users. Investigate options of road user charging including workplace parking levies and work with the Mayor to strengthen these developments. | <p>The Islington Transport Strategy 2020-2041, was adopted in 2020, and committed to working with the Mayor and TfL to investigate road user charging.</p> <p>In 2020 22 additional School Streets were implemented, making a total of 35 School Streets across the borough, covering 36 schools.</p> <p>Seven Low Traffic Neighbourhoods (LTNs) were designed and delivered in 2020 including; St Peters, Canonbury East, Clerkenwell Green, Canonbury West, Amwell Phase 1, Highbury West and Highbury Fields.</p>  |
| Retain Bronze Fleet Operator recognition Scheme (FORS) and aim for gold | Cleaner Transport Borough Fleet | Include FORS into council's procurement policies including all aspects of safety, efficiency, and environmental protection. Measure, monitor and improve performance to obtain and retain gold accreditation. Ensure our fleet and drivers are adhering to FORS standards.   | The Council is now looking at the benefits of joining the Earned Recognition scheme managed by the Driver and Vehicle Standards Agency.   |

| Measure  | LLAQM Action Matrix Theme            | Action  | Progress in 2020   |
|--|--------------------------------------|---|--|
| Freight consolidation scheme   | Delivering servicing and freight     | Work with other London boroughs on freight consolidation and discuss with our partner Camden Council inviting local businesses to join the scheme to minimise supply deliveries reducing vehicle traffic and emissions.                                     | We continued to use the freight consolidation scheme in 2020, to deliver janitorial and office supplies, and we are reviewing the current offering to see what else the service can cover.   |
| Increase cycle parking around the borough                                      | Cleaner Transport Localised Solution | Install 400 cycle parking hangers around the borough to improve safety and modal shift to greener transport.  | <p>No new installs occurred in 2020, meaning the total numbers remained at 221. However, 203 of these hangars were retrofitted with additional security features.</p> <p>In 2020-21 80 Sheffield Cycle Stands were installed across the borough.</p> <p>45 new cycle storage facilities were installed on estates across the borough from April 2020 to March 2021, providing secure storage for 497 more cycles.</p>  |
| Improve cycle network routes and connections of quiet ways through the borough | Cleaner Transport Localised Solution | Work with cycling groups to review and connect viable low traffic exposure routes to increase cycle confidence, safety and low pollution exposure. Review all one way roads to consider giving two-way cycle advantage. Improve signage along cycle routes. | <p>In 2020 construction finished on; the north section of cycleway 38 (which will run from Pentonville Road to Holloway Road), protected cycle lanes on Balls Pond Road and cycle access improvements on Baldwin Terrace. Pop up segregated cycle ways were also delivered on Liverpool Road, York Way and Green Lanes.</p> <p>Seven Low Traffic Neighbourhoods (LTNs) were designed and delivered in 2020 including; St Peters, Canonbury East, Clerkenwell Green, Canonbury West, Amwell Phase 1, Highbury West and Highbury Fields. These LTNs have created large sections of quiet cycle routes which meet the TfLs cycling quality criteria for mixed cycling and traffic, most notably cycleway 27 is benefiting from vastly reduced traffic levels.</p> <p>The Islington Transport Strategy 2020-2041 was adopted in 2020, setting targets for active and sustainable travel – 90% of journeys by residents</p> |



| Measure  | LLAQM Action Matrix Theme | Action   | Progress in 2020   |
|--|---------------------------|--|--|
|  |                           |  | will be by walking, cycling or public transport by 2041; 93% residents will live within 400m of the strategic cycle network; and there will be a 16% reduction in vehicle kilometres.  |
| Improve public transport facilities in the borough                                 | Cleaner Transport         | Work with TfL on bus reliability programme. Improve facilities at public transport hubs, including cycle storage outside stations. Examine council's roads space and improve reallocations of road space to prioritise pedestrians/cyclist over car parking. Support the delivery of Crossrail 2 to relieve crowding on existing lines such as Victoria and Piccadilly lines. Lobby for expanding night tube services in Islington and retaining night bus services in the borough. Continue to request provision of an all zero emission fleet at the Metroline bus garage as soon as possible. | <p>2020 saw further reallocation of space from parking e.g. spaces were removed as part of Low Traffic Neighbourhood schemes and 92 parking spaces were removed as part of the Liverpool Road cycleway.</p> <p>Improvements were made at Farringdon Station in 2020 including improvements in pedestrian facilities.</p> <p>Construction of cycleway 38 north was finished in 2020, providing a safe route to the Finsbury Park interchange.</p> <p>A 24 hour bus lane operation was introduced on a trial basis in 2020 on a number of roads in the borough. These included Holloway Road, Seven Sisters Road, Isledon Road, White Lion Street, Upper Street, Tollington Road and Camden Road. This included the suspension of parking on Holloway Road. Other bus reliability improvements have been on hold during the pandemic period.</p> |
| Enhance and plan the infrastructure of electric charging points across the borough | Cleaner Transport         | Enhance the current network of electric charging points in the borough including rapid, fast and lamppost chargers and plan future expansion to prepare for increasing demand.   | <p>We have a programme to deliver 100 on-street EV charging points each year. There are currently 298 on-street EV charging points in the borough and we are on track to deliver 400 before the end of 2022. An <a href="#">electric vehicle charging point page</a> is available on the council website, showing the location of charging points in the borough.</p> <p>We are working with a number of different network operators to provide rapid, fast and lamppost charging points.</p> <p>Statistics from Department for Transport show that the number of electric vehicle registered in Islington is dramatically increasing each year.</p>   |

| Measure   | LLAQM Action Matrix Theme | Action   | Progress in 2020  |
|---|---------------------------|--|---|
| Increase car clubs availability in the borough                | Cleaner Transport         | Support car clubs to increase availability of vehicles in the borough particularly ULEV and zero exhaust emissions vehicles, including vans.   | The Islington Transport Strategy 2020-2041 was adopted in 2020 and contains proposals to support and promote electric car club schemes and carpooling initiatives, and to investigate car club provision on social housing estates.   |
| Support geographical expansion of ULEZ                        | Cleaner Transport         | Engage with TfL, GLA and other London boroughs on the expansion of ULEZ. Respond to various consultations to point out the benefits of extending ULEZ to whole of Islington as soon as possible. Lobby Mayor of London to tighten the criteria for ULEZ to reduce exclusions. To push for a strengthening of the ULEZ so that it becomes a zero emission (exhaust) zone.   | In 2020 we continued to work with TFL to coordinate communications around the ULEZ expansion to residents and businesses. We updated the council's website pages with relevant information across air quality, parking and housing pages, sent out information via parking permit renewals, informed businesses about the changes via business groups and published ULEZ information on estate and council office electronic screens.   |
| Call on Mayor to put into practice diesel free London by 2025 | Cleaner Transport         | Support Mayor of London to review all aspects and policies to implement diesel free London by 2025 to improve public health crisis caused by air pollution. Develop a diesel free strategy for Islington as part of trend in diesel free direction, including diesel and petrol vehicles sale ban in 2040. Explore the option of rejecting parking permits to diesel vehicles in Islington before 2025 to support diesel free London notion. | <p>From March 2019 the surcharge for diesel vehicles in short stay parking increased from £2 per hour to £3 per hour. From April 2019 the surcharge for diesel vehicles on the resident parking permit increased from £99.65 per year to £120 per year. This continued in 2020.</p> <p>The council continues to move its own fleet away from diesel. In 2020, the council fleet continued to be replaced with cleaner vehicles. 11 Euro V diesel vehicles were replaced by Euro VI diesel vehicles, 30 diesel vehicles were replaced with Euro VI petrol vehicles, 5 diesel vehicles were replaced with hybrid vehicles and 18 diesel vehicles were replaced with full electric vehicles. Of the full electric vehicles procured, this included two 26T RCV's (Refuse collection vehicles) which were the first to be operated in London and some of the first within the country. The council also awarded a tender for two existing fleet 26T diesel RCV's to be converted to full electric, with a further 8 existing fleet diesel RCV's planned to be</p> |

| Measure               | LLAQM Action Matrix Theme                                | Action   | Progress in 2020  |
|-----------------------|--|--|---|
|                       |  |  | <p>converted in the future. We do not plan to procure any more diesel vehicles.</p> <p>Street Environment Services procured 6 x E-Bikes in 2020 for their supervisors who monitor and address waste and cleaning issues throughout the borough. This reduced the use of diesel vans that had been used previously.</p> <p>The Council currently has on order 15 full electric vehicles, due for delivery in 2021, which includes 7.5T and 4.25T cage tippers, 2.2T vans and 17 and 23 seat buses. These will all replace diesel vehicles.</p> <p>Following the March 2020 £1.5 million funding award from the Good Growth Fund and the £1.5 million match funding from the Council, in May 2021, companies will be invited to tender for the installation of a new substation and associated electrical works within the WRC. This will allow for an increase in electrical capacity at the WRC, in order that all vehicles currently parked at the WRC can be replaced by fully electric vehicles by 2030.</p> |
| Promote active travel | Cleaner transport<br>Public health and awareness raising | Work with TfL on planned improvement works to ensure all new road improvements are considerate of walking and cycling, creating safer and cleaner spaces for active travel, including all current and future works such as Highbury Corner, Old Street and Clerkenwell Green. Look at trailing smarter travel scheme incentives. Provision of personalised travel information. Improvements to footpaths, signage and directions to encourage people to walk. Promote active travel as | <p>In 2020 22 additional School Streets schemes were implemented, closing roads to vehicles and encouraging active travel at drop off and pick up time, making a total of 35 School Streets across the borough.</p> <p>Seven Low Traffic Neighbourhoods (LTNs) were designed and delivered in 2020 including; St Peters, Canonbury East, Clerkenwell Green, Canonbury West, Amwell Phase 1, Highbury West and Highbury Fields to create spaces where people can enjoy their neighbourhood as they walk, cycle and wheel.</p> <p>Construction work at Old Street progressed in 2020, including changes to traffic flows which are now in their final form. Construction work at Highbury Corner is now complete.</p>   |

| Measure   | LLAQM Action Matrix Theme   | Action  | Progress in 2020   |
|---|---|---|--|
|   |   | part of Active 10 and other NHS initiatives. Create map of Clean Air Routes and promote within the borough.   | Several active travel schemes were running throughout 2020, including Try Before You Buy which was extended to businesses, Dr Bike and cargo bike usage. Cargo bikes were also used to deliver food and medicine as part of Covid-19 efforts, making around 700 drops.   |
| Clean air walking routes                              | Cleaner transport<br>Public health and awareness raising                    | Increase, develop and expand Clean Air Walking Routes   | In 2020 we took part in the Defra funded Clean Air Villages 3 scheme. As part of this scheme we created a clean air walking route from Holloway Road Station to the Sobell centre with an extension towards Nag's head, avoiding main roads such as Holloway Road.   |
| Healthy Streets implementation                        | Cleaner transport<br>Public health and awareness raising<br>Local Solutions | Work towards implementing the Healthy Streets Approach to encourage walking and cycling and protect children from poor air quality  | Islington is committed to the Healthy Streets approach and in 2019 the MAQF Healthy Streets Everyday scheme started, with Islington as the lead borough. This includes 16 boroughs working to make London's streets healthier. Work continued on this scheme in 2020 and supported Clean Air Day and Car Free Day work in Islington in 2020.<br><br>The Islington Transport Strategy 2020-2041, was adopted in 2020 and includes commitments to the Mayor of London's Healthy Streets principles.<br><br>A number of schemes in 2020, as highlighted throughout this report show Islington's commitment to the Healthy Streets approach. |
| Identify barriers for cycling to work and for leisure | Cleaner transport<br>Public health and awareness raising                    | Look at barriers for cycling within council own employees and local businesses. Identify need for further cycle training, confidence building, facilities and cycle provision. Investigate and negotiate staff membership for bike hire. Consider personalised travel planning for employees. | A pool bike scheme for council staff was launched in 2020 and there are now a total of 18 bookable cycles at five council office locations. Another location is due to be launched soon.   |

| Measure  | LLAQM Action Matrix Theme  | Action  | Progress in 2020   |
|--|--|---|--|
| Promote smarter driving training                 | Cleaner transport<br>Borough Fleet   | Ensure all employees driving council vehicles are familiar with eco driving techniques. Promote eco driving amongst general public to drive down pollution from brake and tyre wear etc.  | <p>Drivers across the Council have been completing the Engines Off, anti-idling training in 2020 and cab stickers were printed off to be placed in vehicles reminding drivers to switch off.</p> <p>All new Council drivers continue to complete a driving assessment and vehicle familiarisation which includes information and techniques relating to idling and emissions.</p> <p>All drivers have been handed a paper or digital copy of the revised driver handbook which details information on idling and driving techniques.</p>   |
| Angel (from Angel station to Essex Road station) | Localised Solutions<br><br>All possible themes dependent on work in focus area | Cooperation with Angel BID to involve local business in minimising air pollution, new electric charging infrastructure, improving bus fleet that use the routes in and around Angel, work with local schools on behaviour change, monitoring, auditing and implementing greening measures where feasible. | <p>There are two School Streets in place in the area, St John Evangelist and St Mary's, with St Mary's delivered in 2020.</p> <p>The St Peter's LTN introduced in 2020 borders the Angel area and the planned St Mary's LTN will also be nearby.</p> <p>A pop up segregated cycle way was also delivered on Liverpool Road in 2020, creating a safe active travel route to the Angel town centre.</p> <p>In 2020 we confirmed £1M Good Growth Fund funding to deliver the Chapel Market Inclusive Economy project. The project which will be delivered by summer 2022 will redevelop the public realm, improve services and training for traders and improve air quality e.g. by reducing traffic and supporting a shift in behaviour.</p> |
| Holloway Road (Highbury Corner to Archway)       | Localised Solutions<br><br>All possible themes dependent                       | Improvements to Highbury Corner gyratory, requirement for bus fleet to meet highest standards as soon as possible, increasing amount of pollution absorbing plants, behaviour change  | <p>The Highbury Corner gyratory removal was substantially completed in 2019. The transformation includes segregated cycle lanes, new green public space and new pedestrian crossings.</p> <p>The following School Streets are in place in the vicinity of Holloway Road, with five implemented in 2020; Hargrave Park Primary, St John's Upper</p>   |

| Measure   | LLAQM Action Matrix Theme  | Action  | Progress in 2020   |
|---|--|---|--|
|   | on work in focus area  | campaign to promote active travel as well as use of side routes when cycling and walking, continue and increase ZEN promotion in Archway through offering various opportunities for businesses to participate and decrease pollution. Install delivery lockers to minimise home deliveries. | <p>Holloway, Duncombe, St Mark;s, Yerbury, Grafton, Drayton Park, St Mary Magdalene and Laycock Primary.</p> <p>Highbury West and Highbury Fields Low Traffic Neighbourhoods were delivered in 2020, creating a safe cycle route parallel to Holloway Road.</p> <p>Cycleway 38 north was constructed in 2020, creating a safe cycle route from Highbury Fields to Finsbury Park.</p> <p>The Cleaner Deliveries, Smarter business project was extended in 2020, engaging a total of 121 businesses from January to March 2020, including businesses in Archway and along Holloway Road. Ten businesses signed up to cargo bike trials in the three months and the micro consolidation centre built though the scheme in 2019 was used actively by five businesses throughout 2020.</p> <p>In 2020 we were part of the multi borough Defra funded Clean Air Villages 3 scheme. As part of this scheme 43 businesses were engaged in air quality and active travel in the Nag’s Head area. Due to Covid this was work was mainly done online and via phone and was supported by the Nag’s Head Town Centre Group. As part of this scheme businesses also had access to 17 LiveShare online sessions on air quality, electric vehicles, charging infrastructure, consolidation, last mile deliveries and more through CRP. A clean air route was also created from Holloway Road to the Sobell Centre and Nags Head.</p> |
| Finsbury Park (including parts of Hackney and Haringey) | Localised Solutions<br>All possible themes dependent on work in focus area | Working closely with TfL and neighbouring boroughs on possible improvements to cycle routes, collaboration with Town Centre management, increasing greening, mitigation requirement for all new developments in the area to minimise  | <p>There are two School Streets, Ambler and Gillespie, in the area, with Gillespie delivered in 2020.</p> <p>Ambler Primary was also chosen for main road school street location work to be delivered in 2021.</p>   |

| Measure   | LLAQM Action Matrix Theme  | Action  | Progress in 2020  |
|---|--|---|---|
|   |  | impacts of air pollution during construction stages and modelled future impacts.  | <p>In 2020 we continued to work with TfL on the feasibility of a new pop up cycle route from Camden to Tottenham.</p> <p>The Mayton Street traffic reduction scheme was introduced in 2020, with two modal filters on Mayton Street and Roden Street.</p>   |
| King's Cross/<br>Caledonian Road<br>(including parts of Camden)             | Localised Solutions<br><br>All possible themes dependent on work in focus area | Proposed gyratory improvements of existing road network, work closely with London Borough of Camden on minimising the impacts from developments bordering with Islington, improvements to electric charging facilities in the area, increasing cycle facilities and green infrastructure.   | <p>The following School Streets are in place in the vicinity of Caledonian Road, with six implemented in 2020; Winton, Hungerford and The Bridge, The Gower, Vittoria, St Andrew's, Copenhagen and Blessed Sacrament.</p> <p>Work with TfL to provide safe cycle infrastructure and better pedestrian conditions around the King's Cross Gyratory continued in 2020. TfL has developed draft proposals to improve the King's Cross gyratory for discussion with Islington and Camden councils.</p> <p>Feasibility and planning work for a Cally People Friendly Streets area was carried out in 2020, for delivery in 2021.</p> |
| Old Street/<br>Shoreditch<br>(including parts of Hackney and Tower Hamlets) | Localised Solutions<br><br>All possible themes dependent on work in focus area | Proposed Old Street gyratory improvements, active travel promotion as part of new walking/cycling routes, ongoing City Fringe ZEN and LEN offers to businesses and residents to make various air quality positive actions, ULEV streets, green screens possibilities near sensitive locations such as schools, hospitals, school audits, close working partnership with City of London and Hackney, increase of electric charging facilities. | <p>Work continued on City Fringe ZEN scheme in 2020. 27 new businesses and 6 new residents joined in Islington, with nine emission reducing measures (such as trials of cargo bikes) taken up by businesses and six taken up by residents.</p> <p>We are working with TfL to make Old Street more pedestrian and cycle friendly. TfL are leading on this construction work which continued to progress in 2020, including changes to traffic flows which are now in their final form.</p>   |

| Measure  | LLAQM Action Matrix Theme  | Action  | Progress in 2020   |
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| Dalston Lane (Mainly Hackney)  | Localised Solutions<br><br>All possible themes dependent on work in focus area | Ongoing work with Hackney Council and supporting their actions whenever possible, monitoring construction activity in close proximity to Dalston Lane to ensure further pollution impact is avoided or mitigated through various conditions.  | These focus areas are mainly located in other boroughs and we continued working with the respective boroughs wherever possible.<br><br>In 2020 we worked with on a range of wider schemes with these boroughs e.g. Idling Action London, Clean Air Hospital Framework, and City Fringe ZEN.<br><br>In 2020 a School Streets scheme was introduced at St Jude and St Pauls, near the Dalston Lane focus area, with The Children’s House added early 2021.   |
| King’s Cross/Euston/Marylebone Road (Mainly Camden)                            | Localised Solutions<br><br>All possible themes dependent on work in focus area | Close working partnership with Camden and TfL on projects to minimise the impact from moving and stationary traffic in the area, increased construction impact monitoring and calls for reducing impacts through planning conditions, ongoing work with local communities, businesses and schools, improving charging facilities to encourage use of electric vehicles for personal and business use.   |  |
| Increase greening of the borough with pollution capturing and absorbing plants | Localised solutions  | Ensure adequate, appropriate and well located green space and infrastructure is planned for all new developments. When choosing the species and locations, consider eventual canopy size and possible local pollution hotspots e.g. junctions, busy roads. Look at options for planting greenery close to local schools, nurseries, hospitals, GP surgeries and other places near vulnerable residents. | In 2020 we completed our work with Prior Weston School to implement the recommendations of the Mayor’s air quality audit. In 2020 we added additional planting to build on the existing ivy screens planted in 2019.<br><br>Current policies require new developments to protect and enhance biodiversity and minimise impacts on trees, shrubs and other vegetation of significance. In 2020 work continued on the Draft Local Plan (which was submitted for examination in early 2020, with modifications early 2021), which includes greater requirements for greening, with five separate policies created. For example, use urban greening factor to ensure sufficient greening, protect landscape and biodiversity, and incorporate green roofs and vertical greening. At developments where a potentially |



| Measure   | LLAQM Action Matrix Theme  | Action  | Progress in 2020  |
|---|----------------------------|---|---|
|   |                            |   | <p>significant health impact is identified detailed actions to mitigate must be submitted and Public Health will offer support and advice in this process.</p> <p>Islington's <a href="#">Biodiversity Action Plan</a> 2020 to 2025 was published in 2020. The plan highlights the importance of the contribution that urban greening and street trees make to the capture and storage of CO2 and improvement of air quality and is an internationally recognised template for protecting and restoring the natural environment. We also partnered in the new Big City Butterflies project launched by Butterfly Conservation.</p> <p>Throughout 2020/21 a number of new planting projects were conducted. Over 109,100 crocus and tulip bulbs were planted on housing estates throughout the borough. As part of 'We are Cally' a further 3000 daffodil and crocus bulbs were planted by residents and community groups in parks, community gardens and verges. A new wildlife garden was created at Hermit Street, with 650 new plants as well as log piles, bird boxes and bug hotels, replacing a previously unused paved area. Over 5300 plants were planted in St Mary's Church project. As well as these new projects existing planting was improved with an additional 6000 new plants in parks across the borough.</p> |
| <p>Increase greening of the borough with pollution capturing and absorbing plants</p> | <p>Localised solutions</p> | <p>Increase canopy cover of the borough in line with London and borough targets, using existing spaces and new developments</p> | <p>390 trees were planted on public land in the tree planting season November 2020 to March 2021.</p> <p>£500,000 funding was secured in 2020/21 for tree planting from 2021-23.</p> <p>In 2020 we launched two new plans, a new five year Biodiversity Action Plan and Vision 2030: Creating a Net Zero Carbon Islington by 2030, both of which confirmed council targets for 30% canopy cover by 2050.</p> <p>A <a href="#">website</a> providing details of trees values by ward in regards to ecosystem, runoff, tree condition, canopy cover, air pollution and amenity value remained available throughout 2020.</p>  |

| Measure                                 | LLAQM Action Matrix Theme   | Action  | Progress in 2020  |
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| Reduce pollution on Islington waterways | Localised solutions<br>Emissions from developments and buildings<br>Transport Solutions | Work with Canal and River Trust to reduce pollutants concentrations around Regent's Canal by Implementing Eco Zones in the area. Look at possibility of using the canal for freight servicing e.g. waste collection   | <p>Work continued on the Canal Eco Zone in 2020, with installation of electric charging bollards at two of the three zones completed. Due to Covid-19 the launch of these zones was pushed back until 2021, with electricity made available to moored boaters at Colebrook Row in the meantime. An Eco Mooring Ranger job was also developed in 2020 ready to launch in 2021 Covid allowing.</p> <p>Air quality monitoring along the canal continued, however the internal boat monitoring was delayed due to Covid-19 and will continue when possible. Wider communication plans about the scheme were also delayed due to Covid-19 and will be picked up again when possible.</p> <p>Work continued in 2020 with neighbouring boroughs on reducing pollution from canals and included the production of an information leaflet about pollution that can be used consistently across all boroughs.</p> |
| Power generation identification         | Emissions from developments and buildings   | Map the locations of generators (CHP, back-up generators, etc.) and review power sources in the city to remove excess pollution away from residents. Review standard planning conditions regarding power generators. Utilise the heat from London Underground network to provide cheaper and greener heat to local residents in Bunhill ward and look for further opportunities for heat networks and local secondary heat. | <p>The Bunhill 2 Heat Network scheme was launched at the beginning of 2020, using heat from underground trains to heat properties on the network, including over 1,300 properties.</p> <p>In 2020 we began work on a new heat network design scheme, GreenSCIES. This scheme will deliver a detailed design for a smart energy system that integrates new low carbon energy technologies across heat, power and mobility. The project is currently halfway through this two-year design.</p> <p>Using low carbon heat pumps, the project aims to share waste heat from buildings and other sources with other buildings in need of heat, while energy generated in one building could power another building depending on local demand.</p>   |

| Measure                                       | LLAQM Action Matrix Theme                  | Action   | Progress in 2020   |
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|   |  |  | <p>Sharing heat in this way provides an opportunity to deliver flexible, extremely efficient, ultra-low carbon heating and cooling in buildings, thereby contributing to the council's vision of a net zero carbon borough by 2030. It will not only reduce carbon emissions, it will reduce local air pollution.</p>  |
| Participate in Cleaner Air Borough initiative | Monitoring and other core statutory duties | Work towards GLA's initiative to obtain kite mark demonstrating Islington's commitment to improving air quality. | <p>We continue to work to improve air quality in the borough and were awarded this mark in the first year of the scheme. There have been no new applications since this date but we will aim to obtain this kite mark when it opens again for applications.</p>  |
| Bid for available external funding            | Monitoring and other core statutory duties | Apply for air quality funding to resource air quality improvements actions and projects in Islington.            | <p>In 2020 we successfully received funding from TfL and the Department of Transport to implement People Friendly Streets schemes. This included the delivery of School Streets, Low Traffic Neighbourhoods and cycle ways.</p> <p>The following projects were funded through the MAQF 2019-22 with work continuing in 2020:</p> <ul style="list-style-type: none"> <li>• Healthy Streets Everyday (Islington lead borough)</li> <li>• Idling Action London (City of London and Camden lead)</li> <li>• NRMM Zone enforcement (Merton lead)</li> <li>• ZEN Phase 3 (Hackney lead)</li> </ul> <p>In 2020 we continued work on four Defra schemes;</p> <ul style="list-style-type: none"> <li>• testing air quality filters in a school and the ability of sensors to monitor this (with additional contributions from Engie)</li> <li>• communication and engagement work as part of the Canal EcoZone.</li> <li>• monitoring and mapping solid fuel burning at domestic properties in the borough</li> </ul> |

| Measure | LLAQM Action Matrix Theme | Action | Progress in 2020   |
|---------|---------------------------|--------|--|
|         |                           |        | <ul style="list-style-type: none"> <li>• Clean Air Villages scheme working with businesses in the Nag's head area</li> </ul> <p>We also bid for additional Defra funding in 2020 to engage with and train GP surgeries in Islington on air quality and to be part of Clean Air Villages 4 scheme as well as a bid, funding for these schemes was awarded in 2021.</p> <p>The Canal Eco Zone using funding from Defra, Canal and River Trust and the council also continued in 2020, with two of three zones installed 2020, ready to launch in 2021.</p> <p>The TfL funded Cleaner Deliveries, Smarter business project was extended in 2020, engaging a total of 121 businesses, with ten cargo bike sign ups from January to March 2020. The micro consolidation centre built though the scheme in 2019 was used actively by five businesses throughout 2020.</p> <p>In 2020 we confirmed £1M Good Growth Fund funding to deliver the Chapel Market Inclusive Economy project. The project which will be delivered by summer 2022 will redevelop the public realm, improve services and training for traders and improve air quality e.g. by reducing traffic and supporting a shift in behaviour.</p> <p>Many of the schemes above also used internal Council funding sources including ward improvement funds or some of the Local Implementation Plan (LIP) allocated to boroughs from TfL. Covid-19 impacted funding for some schemes in 2020, such as air quality audits.</p> <p>The Public Health funded scheme with Whittington Hospital, to create a Clean Air Hospital Plan and help implement measures, continued in 2020 but was delayed due to Covid-19.</p> |

| Measure   | LLAQM Action Matrix Theme                  | Action   | Progress in 2020   |
|---|--|--|--|
| Set up internal coordination meeting                              | Monitoring and other core statutory duties | Pull together key internal stake holders to coordinate work that impacts on air quality across the borough.  | This action was put on hold in 2020 due to the impact of Covid-19 on key stakeholders. However, work with a range of internal teams continued throughout the year.   |
| Implement recommendations of the Health scrutiny into air quality | Public health and awareness raising        | Assess and implement the recommendations of the Health scrutiny into air quality.  | The last recommendations from the Health Scrutiny were made in 2018, these recommendations were included in the new Air Quality Strategy and we continue to work on implementing these in 2020. For example in 2020; diesel surcharges remain in place for resident and visitor parking, 22 School Streets were started (totalling 35), seven low traffic neighbourhoods were introduced, new idling posters were created, continued air quality monitoring outside every school and a school poster competition for Car Free/Clean Air Day. |
| Lobby central government  | Monitoring and other core statutory duties | Lobby central government to review Clean Air Act to provide legally enforceable right to clean air with new powers to regulate all emission sources (canals, solid fuels, etc.) and empower local authorities. Challenge government to ensure the current air pollution limits remain valid or even tougher after leaving European Union. Pressure government to reconsider and develop national scrappage scheme. Urge HM Treasury to end red diesel subsidies. | We have taken every opportunity to respond to relevant consultations in the past and will continue to do so when these are released. However, due to delays in various legislation in 2020 this work was put on hold in 2020.  |
| Ban of diesel vehicles  | Cleaner transport                          | Support any early intervention in the direction of banning diesel and petrol vehicles to minimise air pollution emitted to the atmosphere.   | In 2019 the diesel surcharge was increased from £2 to £3 per hour for visitor parking and from £99.65 to £120 per year for resident's permits in the borough, this remained in place for 2020.   |

| Measure                   | LLAQM Action Matrix Theme                  | Action   | Progress in 2020  |
|---------------------------|--|--|---|
|                           |  |  | <p>In 2020 measures were taken to reduce traffic. In 2020 22 additional School Streets were implemented, making a total of 35 School Streets across the borough, covering 36 schools. Seven Low Traffic Neighbourhoods (LTNs) were designed and delivered in 2020 including; St Peters, Canonbury East, Clerkenwell Green, Canonbury West, Amwell Phase 1, Highbury West and Highbury Fields.</p> <p>We also made a number of fleet and facility improvements in the council in 2020 to reduce use of diesel vehicles in the councils fleet. More details can be found in the measure 'Renew our fleet and replace vehicles with the cleanest possible technology'. However, in short this includes:</p> <ul style="list-style-type: none"> <li>• Replacement of diesel vehicles with 18 electric, 5 hybrid, 30 Euro VI petrol and 11 Euro VI diesel vehicles. With orders for further electric vehicles to be delivered in 2021.</li> <li>• Two London first fully electric 26 tonne refuse collection vehicles, with plans for further vehicles.</li> <li>• A fleet of six e-bikes for use by the Street Environmental Services, reducing use of diesel vehicles previously used as well as the launch of a pool bike scheme for staff, with 18 bookable cycles at five council locations.</li> <li>• Installation of 19 electric vehicle chargers at council buildings, with work underway or soon to start on a further 26 chargers.</li> <li>• Award of £1.5 million Good Growth Fund (with £1.5 million council match) for the installation of a new substation at the Waste and Recycling Centre, to increase electricity capacity and allow fully electric vehicles on site by 2030.</li> </ul> |
| WHO Air Quality Standards | Monitoring and other core statutory duties | Work towards adopting the WHO obligations and/or standards, including air quality limits | A range of actions throughout our Air Quality Strategy will help us to improve pollution to WHO levels, progress on these can be found throughout this report.  |

| Measure                                    | LLAQM Action Matrix Theme                  | Action   | Progress in 2020   |
|--|--|--|--|
| WHO Air Quality Standards – evidence base  | Monitoring and other core statutory duties | Work to developing an evidence based and defined targets for Particulate Matters in line with the WHO objectives   | We have several air quality sensors across the borough that can measure PM <sub>2.5</sub> and we continue to look for funding for new reference monitors that can help us monitor PM <sub>2.5</sub> .  |
| Work towards eliminating diesel generators | Cleaner transport                          | Work towards eliminating all diesel powered generators, including vehicles from parks and open spaces  | In 2019 the Parks and Open Spaces Team started moving their equipment to electric models where possible and 8% of equipment such as trimmers, blowers and lawn mowers are now electric. They are also replacing their vehicles with electric vehicles. Electric connections are being included in any park redevelopment proposals to reduce the need for generators. However due to Covid 19 this work was halted for much of 2020.   |
| Lobbying on anti-idling                    | Cleaner transport                          | Advocate for stronger anti-idling enforcement powers   | No new actions in 2020.  |
| Air quality positive standards             | Emissions from developments and buildings  | Require all major developments, minor new build developments and larger minor extensions to submit air quality assessment to meet London's air quality standards. Proposals mitigate or prevent adverse impacts on air quality and investigate and implement all reasonable opportunities to improve air quality. Developments in locations of poor air quality should be designed to mitigate the impact of poor air quality to within acceptable limits. Require developments in excess of 200 net additional residential units or 10,000sqm net additional gross external floor space to be Air Quality | Islington's Draft Local Plan continued to be developed throughout 2020 and was submitted early 2020, with modifications submitted 2021. This draft plan requires proposals to be at least air quality neutral. Major developments must submit an air quality assessment. Emerging Policy T7 aims to reduce emissions and harmful air pollution from freight; it supports the use of zero-emission last-mile solutions (such as cargo cycles) and requires provision to be made for electric vehicle charging points for freight vehicles. In addition, policy S7 requires developments in excess of 200 net additional residential units or 10,000sqm net additional gross external floor space to be Air Quality Positive. Major developments, minor new build developments, and larger minor extensions all have to submit an Air Quality Assessment.<br><br>The Draft Local Plan modifications submitted in 2021 include new requirements for businesses which generate deliveries as part of their operations (such as supermarkets or restaurants), as well as industrial |

| Measure  | LLAQM Action Matrix Theme                 | Action   | Progress in 2020   |
|--|---|--|--|
|  |   | <p>Positive and implement measures on-site to actively reduce air pollution as far as possible.</p>  | <p>businesses to prioritise non-motorised and sustainable transport modes, such as cargo cycles deliveries to improve air quality as well as ensuring that supporting businesses in Islington does not generate unmitigated air quality impacts.</p> <p>The London Plan 2021 includes a policy (SI 1) which requires masterplans and development briefs for large-scale development proposals subject to an Environmental Impact Assessment to consider how local air quality can be improved across the area of the proposal as part of an air quality positive. The London Plan was adopted March 2021, but was given weighting in 2020.</p> |
| Enforce NRMM   | Emissions from developments and buildings | <p>Promote, educate, raise awareness and enforce NRMM through work of our Construction monitoring officers. Work with other boroughs to submit the bid to the MAQF to continue raising awareness of NRMM policies after funding expires in March 2019.</p>   | <p>Our construction monitoring officers continued to assess all larger construction sites in the borough in 2020, including assessments of NRMM.</p> <p>As part of the London wide NRMM scheme, funded through the MAQF 25 sites in Islington were audited in 2020, of the 23 that were active all but two sites were compliant with NRMM legislation. Of these, one site was unregistered with the GLA though the website, but all items were compliant, and the other had one item that could not be confirmed as compliant.</p>   |
| Explore possibility for allocation funds from s106 at offsetting air quality impacts from developments | Emissions from developments and buildings | <p>Explore the options for obtaining AQ monitors at new development sites of particular size as part of requirements through planning obligation especially near local schools or other sensitive areas. Research opportunities to use the funding for air quality improvements at schools following the audits.</p> | <p>S106 continued to fund construction site monitoring in the borough in 2020.</p> <p>LIPS funding was reduced, however we were able to use it to finish three audit reports at the beginning of 2020 and run school engagement events for Clean Air Day.</p>  |



| Measure                                 | LLAQM Action Matrix Theme                 | Action  | Progress in 2020  |
|---|---|---|---|
| Improving air quality from construction | Emissions from developments and buildings | Require all developments to comply with Islington's Code of Construction Practice and guidance on reducing local air pollution. Construction Impact Monitoring Officers (CIMOs) to check compliance to improve air quality from construction sites. Ensure that contractors undertaking works to the highways use best practice to avoid adding to local air pollution. | <p>Our Code of Construction Practice was updated in 2018 and our CIMOs checked compliance with this throughout 2020.</p> <p>As part of the London wide NRMM scheme, funded through the MAQF 25 sites were audited in 2020, of the 23 that were active all but two sites were compliant with NRMM legislation. Of these, one site was unregistered with the GLA though the website, but all items were compliant, and the other had one item that could not be confirmed as compliant.</p> <p>Islington's Draft Local Plan continued to be developed throughout 2020 and was submitted early 2020, with further modifications submitted 2021. This plan includes policy S2 which requires all developments to submit a sustainable design and construction statement to show how they will meet sustainable design policies. This allows a proper assessment of schemes at application stage and securement of any benefits through obligations and/or conditions. While policy T5 requires development proposals, especially major developments or sites that may cause disruption during construction, to adhere to best practice construction techniques to limit impacts on air quality and reduce noise and vibrations from construction and the transportation of construction waste. Information must be provided on impacts and mitigation measures, including a Construction Logistics Plan. This Draft Local Plan also states that sites must comply with best practice for construction, including Islington's Code of Practice for Construction Sites.</p> |
| Research pollution mitigation measures  | Emissions from developments and buildings | Continue working with KCL and other local authorities in LLECP on researching, developing and trialling construction equipment which is less polluting and promote the scheme, its findings and recommendations among developers  | <p>No updates for 2020.</p> <p>We continued to be part of the LLECP scheme until it ended in 2019. As part of the LLECP scheme ending in 2019 a Best in Class guidance document was produced to provide guidance in the future. The non-road mobile machinery register produced as part of this scheme has now been moved to the GLA website and 25 sites were audited in Islington in 2020</p>   |

| Measure   | LLAQM Action Matrix Theme                 | Action   | Progress in 2020  |
|---|---|--|---|
|   |   | operating in the borough. Look for further funding after funding finishes in 2019 and ensure the legacy of research continues beyond 2019. Maintain air pollution consideration in EIA for procurement to ensure that improving AQ is considered by suppliers.   | as part of the London wide NRMM scheme, including registration on this website.<br><br>Air quality continues to be considered in EIA alongside climate change in an integrated manner.  |
| Continue reviewing all Part B installations in the borough  | Emissions from developments and buildings | Ensure that all Part B installations e.g. dry cleaners, service stations etc. in Islington maintain the highest standards of air pollution emissions control.  | We continued to monitor and regulate Part B installations in 2020.  |
| Provide advice on and encourage use of non-combustion renewable energy technologies to developers | Emissions from developments and buildings | Provide wide range of services including advice on renewable energy technologies, planning, energy management etc. to ensure the best available technologies are used. Require all developments, through planning policy, to maximise opportunities for on-site electricity and heat production from solar panels, and other renewable technologies where appropriate. | In accordance with the energy hierarchy, policies currently focus on fabric energy efficiency measures to reduce energy demand in the first instance, as the most effective way of reducing carbon emissions. This is followed by the use of low carbon heating systems and then renewable technologies. The new Draft Local Plan, which continued to be developed in 2020, strengthens the requirements to reduce energy demand. Development proposals are required to identify opportunities to maximise renewable energy production on-site, including through solar panels and air source heat pumps. |
| Adopt an integrated approach to energy supply which maximises both air quality                    | Emissions from developments and buildings | Ensure that the heating systems of new developments do not have significant impact on local air quality by prioritising heating systems that will result in low or zero emissions of both carbon dioxide and NOx including heat networks, secondary heat or other low or zero emission sources. Require Combined Heat and  | There were several new policies and guidelines introduced in 2019 that were integrated into requirements for developments, these included GLA guidelines on carbon factors as well as new proposed London Plan and Draft Islington Local Plan, which although not formal were being given weight in planning decisions throughout 2020. The London Plan was adopted in March 2021 and work continued on the Draft Islington Local   |

| Measure                            | LLAQM Action Matrix Theme                 | Action   | Progress in 2020  |
|------------------------------------|---|--|---|
| and climate change benefits        |   | Power (CHP) and ultra-low NOx gas boiler communal or district heating systems to be designed to ensure they emit very low levels of NOx and have no significant impact on local air quality. | <p>Plan throughout 2020 (which was submitted March 2020, with modifications submitted 2021).</p> <p>In 2020 there were no new applications proposing CHP. Furthermore, there was an increase in use of heat pumps in minor and major developments and so a decrease in proposals reliant on gas combustion. The new GLA requirement for specific energy efficient targets (10% reduction in CO2 in residential developments and 15% reduction in non-residential) is driving a reduction in energy demand meaning, even when gas fired systems are being proposed, demands on the systems are reduced and so pollution levels reduced.</p> <p>In 2020 the government completed a consultation on the Future Homes Standard (government response published January 2021), which proposed to future-proof new homes with low carbon heating and high levels of energy efficiency through changes to the Building Regulations. This includes a commitment that gas boilers will not be permitted in new homes from 2025.</p> <p>Early 2021 modifications to the draft Local Plan included a change to require minor new-build developments with individual heating systems to use low carbon heating, as opposed to ultra-low NOx boilers which was the requirement before the modification. The policy now states that air source heat pumps will be the most appropriate heat source for individual heating systems. The modifications also clarify that the use of ultra-low NOx boilers and CHP will only be considered by the council in exceptional circumstances.</p> |
| Cycle storage for new developments | Emissions from developments and buildings | Work towards all new developments being required to ensure adequate cycle storage in each new home   | In 2020 and 2021 work continued on a new Draft Islington Local Plan (which was submitted in 2020, with modifications submitted in 2021) that included an update to residential cycling requirements so not only was cycle parking required in all new residential developments (as is current   |

| Measure  | LLAQM Action Matrix Theme                                  | Action   | Progress in 2020  |
|--|--|--|---|
|  | Cleaner transport  |  | policy) but also 5% of all new cycle parking had to be designed with enough space for non-standard cycles such as cargo bikes or tricycles to ensure high quality cycle parking in all new homes, to encourage active travel for all residents. The policy also includes a requirement for 15% of the new cycle parking to be designed with extra space for standard cycles. Together these requirements mean that 20% of new cycle parking needs to be accessible.   |
| Work with community business groups to develop and improve schemes | Public health and awareness raising<br>Localised solutions | Engage with local businesses in ZEN Archway and City Fringe to improve local air quality, reduce energy and transport cost, identify barriers to minimising pollution. Continue to develop the work beyond ZEN areas and expand the schemes into whole borough whenever possible. Deliver superb urban environment by working on LEN initiative together with other partners. Support Archway Town Centre Management in their bid to create LEN in Archway and look for further areas of possible improvements. Escalate promotion of TfL's Deliveries Reduction Fund and help business groups to apply for funding to increase consolidation of deliveries. | <p>The Cleaner Deliveries, Smarter business project was extended in 2020, engaging a total of 121 businesses from January to March 2020. Ten businesses signed up to cargo bike trials in the three months and the micro consolidation centre built though the scheme in 2019 was used actively by five businesses throughout 2020.</p> <p>In 2020 we were part of the multi borough Defra funded Clean Air Villages 3 scheme. As part of this scheme 43 businesses were engaged in air quality and active travel in the Nag's Head area. Due to Covid this was work was mainly done online and via phone and was supported by the Nag's Head Town Centre Group. As part of this scheme businesses also had access to 17 LiveShare online sessions on air quality, electric vehicles, charging infrastructure, consolidation, last mile deliveries and more through CRP.</p> <p>Cargo bikes were also promoted throughout town centre groups across the borough to support rollout of People Friendly Streets and Covid 19 recovery.</p> <p>Work continued on City Fringe ZEN scheme in 2020. 27 new businesses and six new residents joined in Islington, with nine emission reducing measures (such as trials of cargo bikes) taken up by businesses and six taken up by residents.</p> |

| Measure   | LLAQM Action Matrix Theme  | Action   | Progress in 2020  |
|---|--|--|---|
|   |  |  | <p>In 2020 City Fringe ZEN collaborated with the City of Oslo during the Oslo Innovation Week 2020 sharing knowledge and expertise on the importance of sustainable transport in the workplace and sustainable business models. This involved ZEN hosting an online event attended by 75 businesses from over 5 European countries.</p> <p>At the end of 2020 ZEN decided to prioritise encouraging businesses switching to cargo bikes and delivery riders switching to ebikes.</p>                    |
| Require new developments to maximise the provision of green space, as well as maximising urban greening including green walls and biodiversity-based green roofs. | Localised solutions<br>Emissions from developments and buildings | Work with developers and businesses to ensure adequate, appropriate and well located green space and infrastructure is included in new developments particularly near sensitive sites, e.g. nurseries, schools, care homes etc. Require developments to maximise provision of urban greening through planning policy requirements and planning conditions. | In 2020 work continued on a new Draft Islington Local Plan (which was submitted in 2020, with modifications submitted 2021). This increased the level of policy detail in regards to greening and includes information on; green roofs and vertical greening, biodiversity, sustainable drainage and cooling impacts as well as consideration of architectural and historic features. This reflects the importance of urban greening, including green roofs and walls in our sustainability objectives. |
| Review Smoke control zone (SCZ)   | Emissions from developments and buildings                        | New structure for Smoke control area to cover whole borough has been adopted in 2018 removing all previous exemptions. Promote and enforce new SCZ.  | <p>In 2020 we created information on reducing burning in domestic properties, to be released early 2021.</p> <p>We started a Defra funded scheme in 2020 with Imperial College, monitoring and mapping solid fuel burning in domestic properties.</p>   |
| Develop communications plan related to  | Emissions from developments and buildings                        | Increase awareness related to the use of smoke free fuels in open fires and wood-  | We continued with the development of the EcoZone along canals in the borough in 2020 and electric charging points were installed at two of the  |

| Measure  | LLAQM Action Matrix Theme           | Action  | Progress in 2020   |
|--|-------------------------------------|---|--|
| the use of smoke free fuels and appliances                             |                                     | burning stoves as recommended by central government.  | three zones. In partnership with neighbouring boroughs an information leaflet about pollution along the canal was also produced.   |
| Improve publicity of pollution data and its availability to the public | Public health and awareness raising | Develop options for real time AQ monitoring data to be included on LBI website  | <p>Real time air quality data was not made available in 2020, however monitoring and reporting continued throughout 2020.</p> <p>We continued to monitor air quality at all schools in the borough in 2020. Data from our first year of monitoring in 2018 was released in February 2020, with 2019 data published October 2020. In December 2019 we also started monitoring at all nurseries in the borough and this continued throughout 2020. The 2020 data for schools and nurseries can be found in appendix C in this report.</p> <p>Extensive air quality monitoring has taken place as part of the People Friendly Streets schemes introduced in 2020. This includes 39 additional diffusion tube monitors added from July-September 2020 with air quality changes communicated through the interim reports (first reports were published early 2021).</p> |
| Low cost sensors to measure air pollution                              | Public health and awareness raising | Introduce low cost sensors alongside existing NOx tubes to gain better understanding of local air pollution and exposure to polluted air. | <p>In 2020 we used low cost sensors to assist in monitoring the impacts of several schemes including along canals, low traffic neighbourhoods and School Streets as well as pollution from a data centre.</p> <p>We also continued a study in 2020 with Environmental Research Group, Imperial (formerly King's College London) at Elizabeth Garrett Anderson School using low cost sensors and a reference monitor to test air filtration systems.</p>  |
| Public Health (PH) to be briefed and                                   | Public health and awareness raising | Provide briefing to Public Health senior management about progress on tackling poor air quality issues and improvements.                  | In 2020 the Public Health funded an air quality scheme at Whittington Hospital to create an air quality action plan and help implement some of   |

| Measure  | LLAQM Action Matrix Theme   | Action  | Progress in 2020   |
|--|---|---|--|
| involved in air quality issues   |   | Require Director of Public Health to sign off the Annual Status Report (ASR) and Air Quality Action Plan (AQAP). Involve PH team in supporting engagement with local stakeholders.  | <p>the actions continued but was severely impacted by Covid-19, and was limited to remote work on assessing current actions.</p> <p>We worked with Public Health in 2020 on a bid for Defra funding to work with GPs in the borough on air quality training and engagement which we were successfully awarded early 2021.</p> <p>Public Health also signed off this report.</p>  |
| Working with internal teams  | Potentially all themes  | Work closely with other internal teams such as transport, energy, procurement, senior management, councillors to ensure new and existing strategies and policies are assessed for public exposure to pollution and actions taken to mitigate it where possible. | As evidenced throughout this report, teams across the council worked individually and together in 2020 on schemes that will help improve air quality. For example; transport planning, traffic and parking, planning, energy, public health and communications. This includes strategies and projects that required the support and guidance from senior management and councillors.   |
| Working with external stakeholders   | Potentially all themes  | Work with the range of external organisations, including other London boroughs, GLA, the NHS, scientists, other partners and residents to encourage actions to reduce pollution and increase awareness.   | As evidenced throughout this report, in 2020 we worked with a number of external organisations including London boroughs, GLA, NHS, Defra, community groups, charities and academics.  |
| NEW ACTION:<br>Maximising delivery and servicing by non-motorised and sustainable travel modes | Emissions from developments and buildings<br><br>Delivery servicing and freight | Work toward all new developments for employment, including industrial and retail to maximise delivery and servicing by modes that do not generate air pollutants.   | Work continued on the draft Local Plan in 2020, with modifications submitted 2021 including new requirements for businesses which generate deliveries as part of their operations (such as supermarkets or restaurants), as well as industrial businesses to prioritise non-motorised and sustainable transport modes, such as cargo cycles deliveries to improve air quality as well as ensuring that supporting businesses in Islington does not generate unmitigated air quality impacts. |

## 4. Planning Update and Other New Sources of Emissions

**Table I. Planning requirements met by planning applications in Islington in 2020**

| Condition   | Number   |
|---|--|
| Number of planning applications where an air quality impact assessment was reviewed for air quality impacts   | 20   |
| Number of planning applications required to monitor for construction dust   | 20   |
| Number of CHPs/Biomass boilers refused on air quality grounds   | 0  |
| Number of CHPs/Biomass boilers subject to GLA emissions limits and/or other restrictions to reduce emissions  | 5  |
| Number of developments required to install Ultra-Low NO <sub>x</sub> boilers  | 20   |
| Number of developments where an AQ Neutral building and/or transport assessments undertaken   | 18   |
| Number of developments where the AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation  | 0  |
| Number of planning applications with S106 agreements including other requirements to improve air quality  | 0  |
| Number of planning applications with CIL payments that include a contribution to improve air quality  | 0  |
| <p><b>NRMM: Central Activity Zone and Canary Wharf</b></p> <p>Number of conditions related to NRMM included.</p> <p>Number of developments registered and compliant.</p> <p>Please include confirmation that you have checked that the development has been registered with the GLA through the relevant <a href="#">NRMM website</a> and that all NRMM used on-site is compliant with Stage IIIB of the Directive and/or exemptions to the policy.</p>                     | <p>25 conditions included</p> <p>13 registered and compliant</p> <p>1 unregistered/uncompliant and being chased.</p> |
| <p><b>NRMM: Greater London (excluding Central Activity Zone and Canary Wharf)</b></p> <p>Number of conditions related to NRMM included.</p> <p>Number of developments registered and compliant.</p> <p>Please include confirmation that you have checked that the development has been registered at <a href="http://www.nrmm.london">www.nrmm.london</a> and that all NRMM used on-site is compliant with Stage IIIA of the Directive and/or exemptions to the policy.</p> | <p>15 conditions included</p> <p>10 registered and compliant</p> <p>1 unregistered/uncompliant and being chased.</p> |



NRMM regulations are stipulated within Construction Management Plans for redevelopments. They are inspected by London Borough Merton's team in conjunction with the Islington's Environmental Pollution, Policy and Project Team. Of the 23 sites that were active whilst auditing two were non-compliant. One site was unregistered with NRMM but all plant was compliant, the other site had one item of plant they were unable to locate the engine number or documentation to confirm compliance.

#### **4.1 New or significantly changed industrial or other sources**

No new sources but one significantly changed (Citigen) – boreholes drilled and heat pumps added to reduce carbon emissions.

## Appendix A Details of Monitoring Site Quality QA/QC

### A.1 Automatic Monitoring Sites

The authority is a member of the London Air Quality Network. Routine calibrations are carried out by King's College London once every two weeks.

QA/QC audits are carried out twice per year by Matts Monitors, who also provide emergency 48 hour call out services and supply all consumables for the sites.

The following issues were recorded by our engineers, resulting in reduced results for short periods:

- Data flat lining issues in February for PM at the Holloway Road site .
- Sampling issues in August 2020 for NO<sub>x</sub> at the Arsenal site as the sample line had become disconnected.

The Council's two automatic monitoring sites measure Particulate Matter by TEOM. The finalised TEOM data is corrected using the Volatile Correction Model, as recommended in Defra's LAQM TG16.

### A.2 Diffusion Tubes

The laboratory supplying and analysing the diffusion tubes are Lambeth Scientific Services, Inter comparison field no. NPL002 and LGC no AR0375, a UKAS accredited laboratory. They use a preparation method of 50% TEA 50% Acetone and follow Practical Guidance when preparing samples.

The results of the labs QAQC checks are as follows:

- 18 good and three poor tube precision results of the 21 diffusion tube collocation studies conducted over the past three years (2018-2020) taken from the [latest data](#) updated March 2021.
- Latest AIR-PT results taken from [AIR-PT Rounds 30 to 40](#). Two of the four rounds for 2020 were cancelled due to the pandemic, however 100% results were deemed satisfactory (based on a z-score  $\leq \pm 2$ ) for the remaining two rounds of 2020. See Figure 2 for full results over all of the rounds 30-40.

## Figure 2. AIR-PT/WASP results (Rounds 30-40)

**Table 1: Laboratory summary performance for AIR NO<sub>2</sub> PT rounds AR0030, 31, 33, 34, 36, 37, 39 and 40**

The following table lists those UK laboratories undertaking LAQM activities that have participated in recent AIR NO<sub>2</sub> PT rounds and the percentage (%) of results submitted which were subsequently determined to be **satisfactory** based upon a z-score of  $\leq \pm 2$  as defined above.

| AIR PT Round                                     | AIR PT AR030            | AIR PT AR031     | AIR PT AR033       | AIR PT AR034              | AIR PT AR036            | AIR PT AR037    | AIR PT AR039       | AIR PT AR040             |
|--|-------------------------|------------------|--------------------|---------------------------|-------------------------|-----------------|--------------------|--------------------------|
| Round conducted in the period                    | January – February 2019 | April – May 2019 | July – August 2019 | September – November 2019 | January – February 2020 | May – June 2020 | July – August 2020 | September – October 2020 |
| Aberdeen Scientific Services                     | 75 %                    | 100 %            | 100 %              | 100 %                     | 100 %                   | NR [4]          | NR [4]             | 100 %                    |
| Cardiff Scientific Services                      | NR [3]                  | NR [3]           | NR [3]             | NR [3]                    | NR [3]                  | NR [4]          | NR [4]             | NR [3]                   |
| Edinburgh Scientific Services                    | 100 %                   | NR [2]           | 100 %              | 25 %                      | 50 %                    | NR [4]          | NR [4]             | 100 %                    |
| SOCOTEC  | 87.5 % [1]              | 100 % [1]        | 100 % [1]          | 100 % [1]                 | 100 % [1]               | NR [4]          | NR [4]             | 100 % [1]                |
| Exova (formerly Clyde Analytical)                | NR [3]                  | NR [3]           | NR [3]             | NR [3]                    | NR [3]                  | NR [4]          | NR [4]             | NR [3]                   |
| Glasgow Scientific Services                      | 100 %                   | 100 %            | 100 %              | 50 %                      | 100 %                   | NR [4]          | NR [4]             | 100 %                    |
| Gradko International                             | 75 %                    | 100 %            | 100 %              | 100 %                     | 75 %                    | NR [4]          | NR [4]             | 75 %                     |
| Kent Scientific Services                         | NR [3]                  | NR [3]           | NR [3]             | NR [3]                    | NR [3]                  | NR [4]          | NR [4]             | NR [3]                   |
| Kirklees MBC                                     | NR [3]                  | NR [3]           | NR [3]             | NR [3]                    | NR [3]                  | NR [4]          | NR [4]             | NR [3]                   |
| Lambeth Scientific Services                      | 50 %                    | 100 %            | 50 %               | 100 %                     | 100 %                   | NR [4]          | NR [4]             | 100 %                    |
| Milton Keynes Council                            | 100 %                   | 100 %            | 50 %               | 100 %                     | 100 %                   | NR [4]          | NR [4]             | 25 %                     |
| Northampton Borough Council                      | NR [3]                  | NR [3]           | NR [3]             | NR [3]                    | NR [3]                  | NR [4]          | NR [4]             | NR [3]                   |
| Somerset Scientific Services                     | 100 %                   | 100 %            | 100 %              | 100 %                     | 100 %                   | NR [4]          | NR [4]             | 100 %                    |
| South Yorkshire Air Quality Samplers             | 100 %                   | 100 %            | 100 %              | 75 %                      | 100 %                   | NR [4]          | NR [4]             | 100 %                    |
| Staffordshire County Council                     | 100 %                   | 75 %             | 75 %               | 75 %                      | 100 %                   | NR [4]          | NR [4]             | 50 %                     |
| Tayside Scientific Services (formerly Dundee CC) | 100 %                   | NR [2]           | 100 %              | NR [2]                    | 100 %                   | NR [4]          | NR [4]             | 100 %                    |
| West Yorkshire Analytical Services               | 100 %                   | 100 %            | 100 %              | 50 %                      | 100 %                   | NR [4]          | NR [4]             | NR [2]                   |

[1] Participant subscribed to two sets of test results (2 x 4 test samples) in each AIR PT round.

[2] NR, No results reported.

[3] Cardiff Scientific Services, Exova (formerly Clyde Analytical), Kent Scientific Services, Kirklees MBC and Northampton Borough Council; no longer carry out NO<sub>2</sub> diffusion tube monitoring and therefore did not submit results.

[4] Round was cancelled due to pandemic.

NO<sub>2</sub> PT Summary – AIR PT Rounds AR030, 31, 33, 34, 36, 37, 38 and 40

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A bias adjustment of 0.96 for 2020 has been derived for Lambeth Scientific Services from the latest version of the [national bias adjustment calculator](#) version 03/21. See Figure 3 for full results.

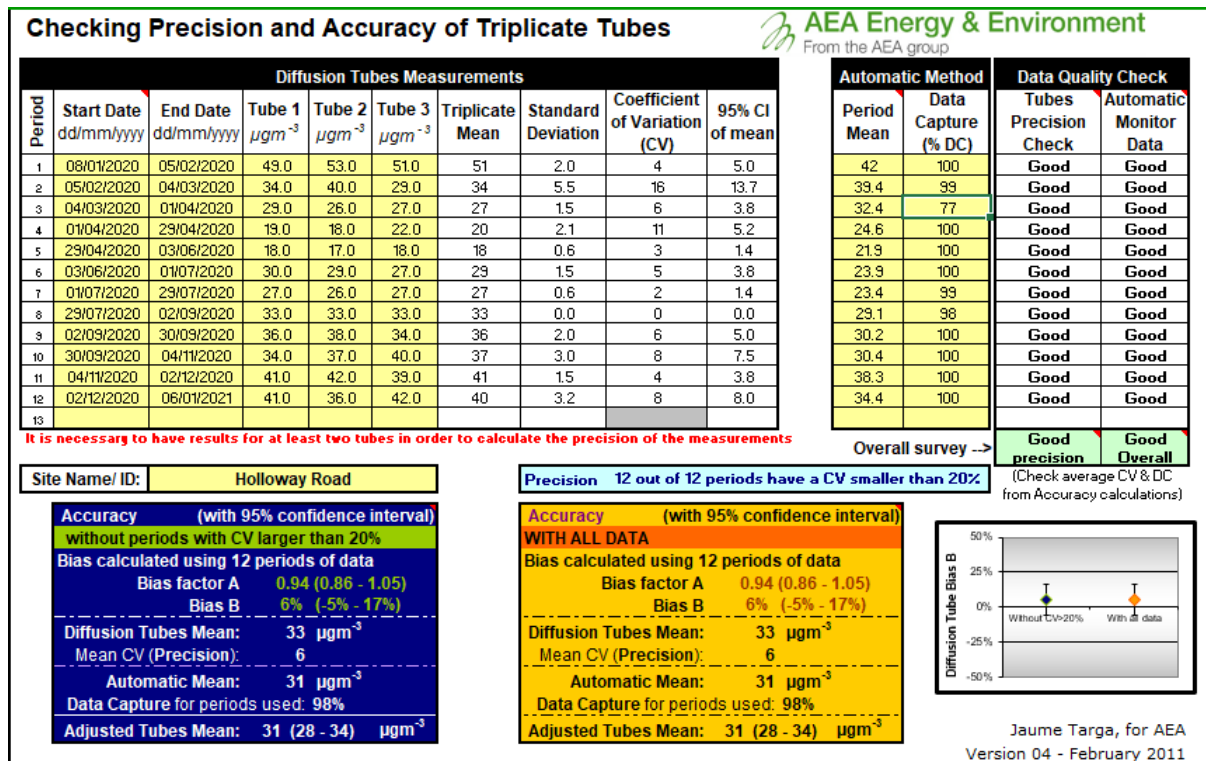
## Figure 3. National Bias Adjustment Lambeth Scientific Services 2019

| National Diffusion Tube Bias Adjustment Factor Spreadsheet   |                    |   |           |   |                          | Spreadsheet Version Number: 03/21  |  |          |                             |  |
|--|--------------------|---|-----------|---|--------------------------|--|--|----------|-----------------------------|--|
| Follow the steps below in the correct order to show the results of relevant co-location studies  |                    |   |           |   |                          | This spreadsheet will be updated at the end of June 2021   |  |          |                             |  |
| Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods  |                    |   |           |   |                          | LAQM Helpdesk Website  |  |          |                             |  |
| Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet  |                    |   |           |   |                          | This spreadsheet will be updated every few months; the factors may therefore be subject to change. This should not discourage their immediate use.   |  |          |                             |  |
| The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory. |                    |   |           |   |                          | Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.  |  |          |                             |  |
| <b>Step 1:</b><br>Select the Laboratory that Analyses Your Tubes from the Drop-Down List   |                    | <b>Step 2:</b><br>Select a Preparation Method from the Drop-Down List                     |           | <b>Step 3:</b><br>Select a Year from the Drop-Down List |                          | <b>Step 4:</b><br>Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor shown in blue at the foot of the final column. |  |          |                             |  |
| If a laboratory is not shown, we have no data for this laboratory.   |                    | If a preparation method is not shown, we have no data for this method at this laboratory. |           | If a year is not shown, we have no data.                |                          | If you have your own co-location study then see footnote 1. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953   |  |          |                             |  |
| Analysed By <sup>1</sup>   | Method             | Year  | Site Type | Local Authority   | Length of Study (months) | Diffusion Tube Mean Conc. (Dm) (µg/m <sup>3</sup> )  | Automatic Monitor Mean Conc. (Cm) (µg/m <sup>3</sup> ) | Bias (B) | Tube Precision <sup>2</sup> | Bias Adjustment Factor (A) (C <sub>TEA</sub> / C <sub>DM</sub> ) |
| Lambeth Scientific Services  | 50% TEA in acetone | 2020  | R         | Elmbridge Borough Council                               | 12                       | 24   | 24   | 1.3%     | G                           | 0.99   |
| Lambeth Scientific Services  | 50% TEA in acetone | 2020  | R         | Elmbridge Borough Council                               | 12                       | 26   | 26   | -1.8%    | G                           | 1.02   |
| Lambeth Scientific Services  | 50% TEA in acetone | 2020  | UB        | Spelthorne Borough Council                              | 12                       | 22   | 23   | -4.8%    | G                           | 1.05   |
| Lambeth Scientific Services  | 50% TEA in acetone | 2020  | UB        | Spelthorne Borough Council                              | 11                       | 17   | 17   | -3.0%    | P                           | 1.03   |
| Lambeth Scientific Services  | 50% TEA in acetone | 2020  | KS        | Marglebone Road Intercomparison                         | 12                       | 55   | 43   | 28.4%    | G                           | 0.78   |
| Lambeth Scientific Services  | 50% TEA in acetone | 2020  |           | <b>Overall Factor<sup>3</sup> (5 studies)</b>           |                          |  |  |          | <b>Use</b>                  | <b>0.96</b>  |

## Factor from Local Co-location Studies

A local collocation study was completed using data from the Holloway Road site ID IS2. The bias adjustment factor applied to the diffusion tubes from this is 0.94. See Figure 4 for full results of the collocation study.

**Figure 4. Precision and accuracy of collocation study at Holloway Road**



**Discussion of Choice of Factor to Use**

The bias adjustment factor of 0.94, gathered from the local collocation study on Holloway Road, was used for 2020. This was very similar to the value from the national bias adjustment statement for 2020 of 0.96. Therefore we chose to use the local study to maintain consistency with previous years.

Bias adjustment factors used in previous years can be found in table J.

**Table J. Bias Adjustment Factors used in previous years**

|                        | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|------------------------|------|------|------|------|------|------|------|------|
| Bias adjustment factor | 0.83 | 0.8  | 0.87 | 1.24 | 1.17 | 1.02 | 1.12 | 0.88 |

## **A.3 Adjustments to the Ratified Monitoring Data**

### Short-term to Long-term Data Adjustment

None required.

### Distance Adjustment

Following LLAQM.TG19 guidance no adjustment was required as the two sites not located at point of relevant exposure had values below  $36 \mu\text{g}/\text{m}^3$ .

## Appendix B Full Monthly Diffusion Tube Results for 2020

Table K. NO<sub>2</sub> Diffusion Tube Results

| Site ID   | Valid data capture for monitoring period % <sup>(a)</sup> | Valid data capture 2020 % <sup>(b)</sup> | Jan       | Feb       | Mar | Apr | May | June | Jul | Aug       | Sept      | Oct       | Nov       | Dec       | Annual mean – raw data | Annual mean – bias adjusted |
|-----------|---|--|-----------|-----------|-----|-----|-----|------|-----|-----------|-----------|-----------|-----------|-----------|------------------------|-----------------------------|
| BIS005/03 | 100   | 100                                      | <b>53</b> | 30        | 22  | 19  | 15  | 27   | 21  | 33        | 33        | 38        | 40        | 34        | 30.4                   | 29                          |
| BIS005/02 | 100   | 100                                      | <b>48</b> | 31        | 22  | 30  | 21  | 31   | 26  | 40        | <b>44</b> | 38        | 39        | 31        | 33.4                   | 31                          |
| BIS005/06 | 100   | 100                                      | <b>54</b> | 34        | 25  | 33  | 19  | 39   | 23  | 36        | 40        | 39        | <b>42</b> | 36        | 35.0                   | 33                          |
| BIS005/07 | 100   | 100                                      | <b>49</b> | 38        | 21  | 21  | 16  | 29   | 23  | 37        | 30        | 35        | 40        | 31        | 30.8                   | 29                          |
| BIS005/08 | 100   | 100                                      | 33        | 30        | 28  | 23  | 24  | 29   | 24  | 39        | <b>46</b> | <b>42</b> | <b>41</b> | 39        | 33.2                   | 31                          |
| BIS005/09 | 92  | 92                                       | <b>49</b> | <b>41</b> | 17  | 28  | 21  | 35   | 30  | <b>41</b> |           | 35        | <b>48</b> | 30        | 34.1                   | 32                          |
| BIS005/11 | 92  | 92                                       | <b>46</b> |           | 19  | 22  | 19  | 25   | 28  | 32        | 33        | 33        | 37        | 24        | 28.9                   | 27                          |
| BIS005/13 | 92  | 92                                       | <b>43</b> | 32        |     | 22  | 14  | 23   | 19  | 30        | 26        | 29        | 43        | 33        | 28.5                   | 27                          |
| IS005/01  | 75  | 75                                       | <b>50</b> | 26        | 17  | 27  | 17  | 14   | 22  | 36        |           |           |           | <b>42</b> | 27.9                   | 26                          |
| BIS005/04 | 100   | 100                                      | <b>43</b> | 30        | 18  | 15  | 14  | 18   | 16  | 23        | 24        | 31        | 36        | 28        | 24.7                   | 23                          |
| BIS005/05 | 100   | 100                                      | 40        | 28        | 17  | 16  | 11  | 17   | 14  | 21        | 22        | 28        | 32        | 27        | 22.8                   | 21                          |
| BIS005/01 | 100   | 100                                      | 16        | 18        | 13  | 17  | 10  | 13   | 14  | 20        | 21        | 21        | 32        | 25        | 18.3                   | 17                          |
| IS005/03  | 100   | 100                                      | 31        | 27        | 14  | 14  | 9   | 14   | 13  | 16        | 20        | 19        | 27        | 24        | 19.0                   | 18                          |
| BIS005/10 | 100   | 100                                      | 31        | 26        | 14  | 13  | 7   | 14   | 15  | 17        | 22        | 22        | 32        | 28        | 20.1                   | 19                          |
| BIS005/12 | 92  | 92                                       | 31        | 31        | 28  | 15  | 8   |      | 16  | 19        | 27        | 28        | 35        | <b>41</b> | 25.4                   | 24                          |
| IS005/02  | 100   | 100                                      | 25        | 21        | 13  | 17  | 9   | 13   | 13  | 18        | 22        | 24        | 33        | 28        | 19.7                   | 18                          |
| BIS005/14 | 100   | 100                                      | 30        | 24        | 13  | 14  | 7   | 15   | 13  | 20        | 21        | 26        | 24        | 20        | 18.9                   | 18                          |
| BIS005/15 | 92  | 92                                       | 34        | 27        | 16  | 14  | 8   | 14   | 14  | 18        | 21        | 22        | 33        |           | 20.1                   | 19                          |
| IS005/04  | 92  | 92                                       | 37        | 22        | 16  | 16  | 11  | 17   | 15  | 20        |           | 26        | 33        | 29        | 22.0                   | 21                          |

## Notes

Concentrations are presented as  $\mu\text{g m}^{-3}$ .

Exceedances of the  $\text{NO}_2$  annual mean AQO of  $40 \mu\text{g m}^{-3}$  are shown in **bold**.

$\text{NO}_2$  annual means in excess of  $60 \mu\text{g m}^{-3}$ , indicating a potential exceedance of the  $\text{NO}_2$  hourly mean AQS objective are shown in **bold and underlined**.

All means have been "annualised" in accordance with LLAQM Technical Guidance if valid data capture for the calendar year is less than 75% and greater than 33%.

(a) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(b) data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

## Appendix C Other Monitoring Results

In order to get a better idea of pollution levels outside schools we put diffusion tubes up on roads outside the entrance to every school in the borough in 2018, as well as some additional monitors in playgrounds and classrooms. These monitors provide a figure on average nitrogen dioxide levels outside the school over the year. In 2020 we also had monitors outside every nursery.

These results are useful as an indication of pollution at each school but it is worth noting that they are monitoring in most cases just one point outside a school and that pollution can vary from year to year, due to a range of outside factors, for example with changes in weather.

We also have monitoring in place across the borough for specific projects or schemes which will vary from year to year.

Data for schools, nurseries and schemes that had a whole year of data for 2020 can be found below.

**Table L. School Annual Mean NO<sub>2</sub> Ratified and Bias-adjusted Monitoring Results 2018-2020 ( $\mu\text{g m}^{-3}$ )**

| Site ID | Site name  | X      | Y      | Valid data capture 2020 | 2018 | 2019 | 2020 |
|---------|--|--------|--------|-------------------------|------|------|------|
| S1      | Duncombe Primary School – playground                                   | 530141 | 187012 | 83                      | 29   | 25   | 24   |
| S2      | Duncombe Primary School – outside school                               | 530108 | 186995 | 92                      | 29   | 26   | 18   |
| S3      | Hungerford Primary School / The Bridge Primary                         | 529992 | 185015 | 92                      | 33   | 30   | 25   |
| S4      | Tufnell Park Primary School – outside old school entrance Dalmeny Road | 529800 | 185647 | 100                     | 29   | 25   | 20   |



| Site ID | Site name   | X      | Y      | Valid data capture 2020 | 2018      | 2019      | 2020 |
|---------|---|--------|--------|-------------------------|-----------|-----------|------|
| S5      | Ambler Primary School- playground                           | 531688 | 186578 | 75                      | 30        | 28        | 22   |
| S6      | Ambler Primary School outside school<br>Blackstock Road     | 531690 | 186589 | 92                      | 33        | <b>41</b> | 28   |
| S7      | New North Academy   | 532209 | 183959 | 100                     | 30        | 28        | 21   |
| S8      | St Joseph's Primary School outside school                   | 528974 | 187139 | 100                     | 34        | 34        | 29   |
| S9      | Drayton Park Primary School- Arvon Road<br>entrance         | 531449 | 185374 | 100                     | 30        | 29        | 19   |
| S10     | Gillespie Primary School outside school                     | 531805 | 186305 | 100                     | 30        | 28        | 20   |
| S11     | Yerbury Primary School- outside school                      | 529715 | 186316 | 67                      | 40        | 28        | 20   |
| S12     | Ashmount Primary School 2- Hornsey Rise<br>Gardens          | 530030 | 187715 | 92                      | 26        | 24        | 21   |
| S13     | Prior Weston Primary School/ Richard<br>Cloudesley Primary  | 532429 | 182057 | 92                      | 35        | 31        | 22   |
| S14     | Whitehall Park School                                       | 529425 | 187621 | 100                     | <b>42</b> | <b>42</b> | 34   |
| S15     | Hargrave Park Primary School                                | 529067 | 186619 | 92                      | 27        | 28        | 19   |
| S16     | Clerkenwell Parochial CE Primary School –<br>outside school | 531193 | 182772 | 100                     | 33        | 33        | 23   |

| Site ID | Site name  | X      | Y      | Valid data capture 2020 | 2018 | 2019 | 2020 |
|---------|--|--------|--------|-------------------------|------|------|------|
| S17     | Hugh Myddelton School  | 531477 | 182640 | 100                     | 35   | 32   | 23   |
| S18     | Moreland Primary School / City of London Primary Academy                     | 531924 | 182824 | 100                     | 32   | 34   | 24   |
| S19     | St Peter & St Paul Catholic Primary School                                   | 531830 | 182395 | 100                     | 32   | 34   | 22   |
| S20     | St Luke's CE Primary School – outside school                                 | 532459 | 182593 | 100                     | 31   | 29   | 21   |
| S21     | St Luke's CE Primary School – in playground                                  | 532478 | 182550 | 33                      | 25   | 26   | 22   |
| S22     | Robert Blair Primary School  | 530315 | 184567 | 92                      | 37   | 34   | 28   |
| S23     | Sacred Heart Catholic Primary School   | 530927 | 185147 | 100                     | 32   | 30   | 20   |
| S24     | St Mary Magdalene Academy – outside school<br>Lough Road / New River College | 531037 | 184761 | 100                     | 27   | 28   | 20   |
| S25     | Laycock Primary School   | 531533 | 184564 | 100                     | 30   | 28   | 21   |
| S26     | Thornhill Primary School   | 531205 | 184130 | 100                     | 29   | 27   | 22   |
| S27     | St Andrew's (Barnsbury) C of E Primary School                                | 530817 | 183837 | 100                     | 26   | 25   | 19   |
| S28     | Vittoria Primary School  | 530965 | 183484 | 92                      | 25   | 26   | 20   |
| S29     | Blessed Sacrament Catholic School  | 530581 | 183657 | 100                     | 28   | 30   | 22   |
| S30     | Copenhagen Primary School  | 530544 | 183579 | 100                     | 30   | 29   | 24   |

| Site ID | Site name  | X      | Y      | Valid data capture 2020 | 2018 | 2019 | 2020 |
|---------|--|--------|--------|-------------------------|------|------|------|
| S31     | Winton Primary School  | 530610 | 183178 | 100                     | 32   | 30   | 23   |
| S32     | Christ the King Primary School / Arts and Media School Islington | 530731 | 186939 | 100                     | 29   | 24   | 18   |
| S33     | St Mark's CE Primary School                                      | 530414 | 186619 | 100                     | 26   | 28   | 22   |
| S34     | Pooles Park Primary School                                       | 530988 | 186813 | 100                     | 34   | 29   | 22   |
| S35     | Montem Primary School/ Samuel Rhodes Primary School              | 530731 | 186327 | 100                     | 40   | 34   | 26   |
| S36     | Grafton Primary School   | 530495 | 186164 | 100                     | 31   | 30   | 21   |
| S37     | Pakeman Primary School   | 530789 | 186100 | 92                      | 33   | 27   | 21   |
| S38     | St John's Highbury Vale C of E Primary                           | 531788 | 186057 | 100                     | 29   | 25   | 20   |
| S39     | St Joan of Arc Primary School                                    | 532040 | 185930 | 100                     | 28   | 26   | 20   |
| S40     | Highbury Quadrant Primary School                                 | 532366 | 185588 | 100                     | 30   | 29   | 20   |
| S41     | Newington Green Primary School - outside school                  | 532996 | 185431 | 92                      | 35   | 33   | 24   |
| S42     | St Jude and St Paul's C of E Primary School                      | 533309 | 185006 | 100                     | 28   | 26   | 19   |
| S43     | Canonbury Primary School   | 531757 | 184585 | 67                      | 35   | 31   | 23   |

| Site ID | Site name  | X      | Y      | Valid data capture 2020 | 2018 | 2019 | 2020    |
|---------|--|--------|--------|-------------------------|------|------|---------|
| S44     | William Tyndale Primary School                           | 531652 | 184313 | 92                      | 34   | 30   | 24      |
| S45     | St Mary's C of E Primary School                          | 531906 | 183993 | 100                     | 31   | 28   | 21      |
| S46     | Rotherfield Primary School                               | 532468 | 184012 | 100                     | 29   | 30   | 23      |
| S47     | St John Evangelist RC Primary School                     | 531588 | 183335 | 92                      | 31   | 32   | 23      |
| S48     | Hanover Primary School                                   | 532017 | 183287 | 100                     | 33   | 30   | 21      |
| S49     | Ambler Primary School Nursery Entrance<br>Romily Road    | 531632 | 186489 | 92                      | 30   | 26   | 18      |
| S50     | Ashmount Primary School 1 Crouch Hill                    | 530291 | 187808 | 75                      | 32   | 33   | 24      |
| S51     | Drayton Park Primary School- Drayton Park<br>entrance    | 531406 | 185373 | 83                      | 30   | 32   | 26      |
| S52     | Tufnell Park Primary School- playground                  | 529738 | 185633 | 67                      | 24   | 24   | 18      |
| S53     | Newington Green Primary- playground                      | 532971 | 185360 | 67                      | 28   | 26   | 21      |
| S54     | St Mary Magdalene Academy - playground                   | 531014 | 184811 | 75                      | 31   | 25   | 21      |
| S55     | Clerkenwell Parochial C of E Primary School<br>classroom | 531188 | 182760 | 17                      | 24   | 17   | No data |

| Site ID | Site name  | X      | Y      | Valid data capture 2020 | 2018      | 2019      | 2020 |
|---------|--|--------|--------|-------------------------|-----------|-----------|------|
| S56     | The Bridge Secondary School / Tufnell Park Primary School new entrance | 529751 | 185551 | 75                      | 33        | 27        | 25   |
| S57     | Beacon High  | 529828 | 185428 | 100                     | 34        | 27        | 20   |
| S59     | Dania School   | 530887 | 184860 | 100                     | 32        | 29        | 22   |
| S60     | Samuel Rhodes MLD School   | 532128 | 185109 | 92                      | 36        | 31        | 22   |
| S61     | St Paul's Steiner School   | 532710 | 184815 | 100                     | 37        | 39        | 29   |
| S62     | The Children's House School  | 533251 | 185076 | 92                      | 34        | 35        | 27   |
| S63     | Highbury Fields School   | 531760 | 185499 | 100                     | 37        | 32        | 25   |
| S64     | City of London Academy Highbury Grove                                  | 531985 | 185083 | 100                     | <b>41</b> | 39        | 28   |
| S65     | North Bridge House Senior Canonbury                                    | 531985 | 184551 | 100                     | 37        | 30        | 22   |
| S66     | Dallington School  | 531877 | 182328 | 100                     | 37        | 28        | 21   |
| S67     | Italia Conti Academy   | 532089 | 182080 | 100                     | <b>41</b> | <b>45</b> | 30   |
| S68     | Yerbury Primary- classroom   | 529679 | 186360 | 75                      | No data   | No data   | 15   |
| S69     | The Gower School/ The Pears Family School                              | 530972 | 183154 | 100                     | 35        | 33        | 22   |
| S70     | Elizabeth Garrett Anderson School                                      | 530973 | 183197 | 100                     | 37        | 35        | 25   |

| Site ID | Site name  | X      | Y      | Valid data capture 2020 | 2018    | 2019    | 2020 |
|---------|--|--------|--------|-------------------------|---------|---------|------|
| S71     | City of London Academy Islington/ Richard Cloudesley Secondary | 532083 | 183594 | 92                      | 34      | 31      | 21   |
| S72     | City of London Academy Highgate Hill                           | 529745 | 187171 | 100                     | 30      | 28      | 22   |
| S73     | St Aloysius College  | 529058 | 187343 | 92                      | 34      | 37      | 29   |
| S74     | St Mary Magdalene Academy Liverpool Road                       | 531204 | 184844 | 83                      | No data | 36      | 24   |
| S75     | Newington Green Playground 2                                   | 532998 | 185423 | 58                      | No data | No data | 21   |
| S76     | Yerbury Primary- playground                                    | 529666 | 186336 | 75                      | No data | No data | 18   |
| LEN 15  | Central Foundation School                                      | 532914 | 182374 | 92                      | 34      | 38      | 22   |
| Z16     | St John's Upper Holloway C of E Primary School                 | 529546 | 186501 | 100                     | 33      | 32      | 23   |
| Y1      | Yerbury Primary- outside school 2                              | 529715 | 186336 | 58                      | No data | No data | 21   |

### Notes

Concentrations are presented as  $\mu\text{g m}^{-3}$ .

Exceedances of the NO<sub>2</sub> annual mean AQO of  $40 \mu\text{g m}^{-3}$  are shown in **bold**.

NO<sub>2</sub> annual means in excess of  $60 \mu\text{g m}^{-3}$ , indicating a potential exceedance of the NO<sub>2</sub> hourly mean AQS objective are shown in **bold and underlined**.

All means have been “annualised” in accordance with LLAQM Technical Guidance if valid data capture for the calendar year is less than 75% and greater than 33%.

**Table M. Nursery Annual Mean NO<sub>2</sub> Ratified and Bias-adjusted Monitoring Results 2018-2020 (µg m<sup>-3</sup>)**

| Site ID | Site name   | X      | Y      | Valid data capture 2020 <sup>b</sup> | 2020 <sup>c</sup> |
|---------|---|--------|--------|--------------------------------------|-------------------|
| N1      | Hornsey Lane Estate Community Nursery                   | 529550 | 187634 | 100                                  | 18                |
| N2      | Hornsey Day Nursery Toddlers and Pre-School             | 529887 | 187695 | 100                                  | 23                |
| N3      | Margaret McMillan Nursery School and Children's Centre  | 530024 | 187592 | 100                                  | 39                |
| N4      | Blythwood Community Nursery                             | 530437 | 187717 | 100                                  | 20                |
| N5      | The Maria Montessori School                             | 530213 | 187499 | 100                                  | 18                |
| N6      | Hornsey Day Nursery (for under 2s)                      | 530166 | 187198 | 100                                  | 26                |
| N7      | Little Angels Day Nursery and Pre-Prep School           | 529020 | 186706 | 100                                  | 20                |
| N8      | Bright Horizons Finsbury Park Day Nursery and Preschool | 530995 | 187093 | 100                                  | 18                |
| N9      | North Islington Nursery School and Children's Centre    | 530850 | 187003 | 100                                  | 21                |
| N10     | Andover Pre-School and Brightstart Community Nursery    | 530875 | 186624 | 83                                   | 20                |
| N11     | Manor Gardens Centre Pre-School                         | 530420 | 186375 | 92                                   | 21                |
| N12     | Bennett Court Playgroup                                 | 530554 | 186286 | 92                                   | 19                |
| N13     | Sam Morris Centre Nursery                               | 531194 | 186286 | 100                                  | 21                |

| Site ID | Site name  | X      | Y      | Valid data capture 2020 <sup>b</sup> | 2020 <sup>c</sup> |
|---------|--|--------|--------|--------------------------------------|-------------------|
| N14     | City and Islington College Camden Road Nursery           | 530566 | 185657 | 100                                  | 20                |
| N15     | Fatiha Nursery   | 530294 | 185907 | 33                                   | 17                |
| N16     | Willow Children's Centre                                 | 530290 | 185985 | 92                                   | 20                |
| N17     | Little Nemo Nursery                                      | 529986 | 185995 | 100                                  | 21                |
| N18     | Les Petites Etoiles                                      | 529933 | 185869 | 92                                   | 19                |
| N19     | Goodinge Early Years Centre                              | 530150 | 185147 | 100                                  | 21                |
| N20     | Mount Carmel Day Nursery                                 | 530962 | 185308 | 100                                  | 21                |
| N21     | Paradise Park Children's Centre                          | 531041 | 185045 | 67                                   | 18                |
| N22     | CurioCity Childcare                                      | 530685 | 184896 | 100                                  | 20                |
| N24     | City and Islington Lifelong Learning Nursery             | 531574 | 186705 | 92                                   | 34                |
| N25     | St Thomas' Playgroup                                     | 531527 | 186290 | 100                                  | 19                |
| N26     | Little Angels Day Nursery and Pre-Prep School (Highbury) | 531909 | 186197 | 100                                  | 24                |
| N27     | Highbury Day Nursery                                     | 531484 | 186116 | 100                                  | 21                |
| N28     | Conewood Street Children's Centre                        | 531848 | 186061 | 100                                  | 19                |
| N29     | Aberdeen Park Nursery                                    | 532341 | 185964 | 100                                  | 20                |
| N30     | Monkey Puzzle Day Nursery                                | 531944 | 185867 | 92                                   | 24                |



| Site ID | Site name   | X      | Y      | Valid data capture 2020 <sup>b</sup> | 2020 <sup>c</sup> |
|---------|---|--------|--------|--------------------------------------|-------------------|
| N31     | Highbury Community Nursery                          | 531790 | 185780 | 100                                  | 25                |
| N32     | Christ Church Playgroup                             | 531895 | 185457 | 100                                  | 20                |
| N33     | New Park Nursery and Montessori School              | 532383 | 185434 | 100                                  | 19                |
| N34     | Floral Place Nursery                                | 532644 | 185027 | 100                                  | 20                |
| N35     | Minik Kardes Day Nursery                            | 533347 | 184783 | 50                                   | 34                |
| N36     | Mildmay Community Nursery                           | 532917 | 184912 | 100                                  | 22                |
| N37     | New River Green Children's Centre                   | 532527 | 184657 | 100                                  | 21                |
| N38     | Essex Road Pre-school                               | 532282 | 184405 | 75                                   | 20                |
| N39     | St Andrew's Montessori                              | 530762 | 184129 | 100                                  | 19                |
| N40     | Bemerton Children's Centre                          | 530638 | 184108 | 92                                   | 21                |
| N41     | Kate Greenaway Nursery School and Children's Centre | 530458 | 183628 | 100                                  | 19                |
| N42     | Hanover Playschool at Priory Heights                | 530760 | 183312 | 100                                  | 24                |
| N43     | Tiddley Tots Nursery                                | 530827 | 183582 | 100                                  | 21                |
| N44     | Beckett House Montessori Nursery School             | 531223 | 183898 | 92                                   | 19                |
| N45     | Mary's Preschool                                    | 531740 | 183917 | 100                                  | 38                |
| N46     | Mars Montessori Bilingual Nursery                   | 531685 | 183708 | 100                                  | 25                |

| Site ID | Site name   | X      | Y      | Valid data capture 2020 <sup>b</sup> | 2020 <sup>c</sup> |
|---------|---|--------|--------|--------------------------------------|-------------------|
| N47     | The Grove Nursery                                       | 532503 | 183878 | 100                                  | 21                |
| N48     | Rosemary Gardens Playgroup                              | 532704 | 183952 | 67                                   | 21                |
| N49     | Hopes and Dreams Montessori Nursery School              | 531737 | 183065 | 92                                   | 30                |
| N50     | Kiddycare Royal Mail Childsplay Nursery                 | 531137 | 182397 | 100                                  | 29                |
| N51     | Cuckooz Nest  | 531278 | 182141 | 100                                  | 22                |
| N52     | Newpark Montessori Nursery School                       | 532070 | 182448 | 92                                   | 26                |
| N53     | Kido Nursery and Preschool Clerkenwell                  | 532103 | 182725 | 83                                   | 25                |
| N54     | King Square Community Nursery at Toffee Park Youth Club | 532326 | 182527 | 100                                  | 19                |
| N55     | The Co-operative Childcare                              | 532383 | 182609 | 83                                   | 23                |
| V3      | Archway Children's Centre Playground                    | 529275 | 186682 | 58                                   | 24                |

### Notes

Concentrations are presented as  $\mu\text{g m}^{-3}$ .

Exceedances of the NO<sub>2</sub> annual mean AQO of 40  $\mu\text{g m}^{-3}$  are shown in **bold**.

NO<sub>2</sub> annual means in excess of 60  $\mu\text{g m}^{-3}$ , indicating a potential exceedance of the NO<sub>2</sub> hourly mean AQS objective are shown in **bold and underlined**.

All means have been "annualised" in accordance with LLAQM Technical Guidance if valid data capture for the calendar year is less than 75% and greater than 33%.

**Table N. Other Schemes Annual Mean NO<sub>2</sub> Ratified and Bias-adjusted Monitoring Results 2018-2020 (µg m<sup>-3</sup>)**

| Site ID | Site name         | X      | Y      | Valid data capture 2020 <sup>b</sup> | 2020 <sup>c</sup> |
|---------|-------------------|--------|--------|--------------------------------------|-------------------|
| 222     | Upper Street      | 531611 | 184529 | 67                                   | 26                |
| Z02     | St John's Way     | 529470 | 186911 | 100                                  | <b>44</b>         |
| Z05     | Archway Road      | 529250 | 187200 | 100                                  | 33                |
| Z06     | Highgate Hill     | 529108 | 187058 | 100                                  | 27                |
| Z09     | Junction Road     | 529386 | 186807 | 92                                   | 30                |
| Z13     | Junction Road     | 529546 | 186501 | 100                                  | 31                |
| Z17     | Holloway Road     | 529640 | 186701 | 92                                   | 39                |
| Z19     | Sandridge Street  | 529460 | 186812 | 100                                  | 30                |
| Z21     | Magdala Avenue    | 529170 | 186883 | 92                                   | 22                |
| Z22     | Pauntley Street   | 529308 | 187092 | 100                                  | <b>47</b>         |
| C1      | Clerkenwell Green | 531528 | 182089 | 92                                   | 25                |
| C2      | Clerkenwell Green | 531488 | 182116 | 100                                  | 23                |
| C3      | Clerkenwell Green | 531530 | 182149 | 92                                   | 24                |
| C4      | Clerkenwell Green | 531559 | 182140 | 100                                  | 24                |

| Site ID | Site name                           | X      | Y      | Valid data capture 2020 <sup>b</sup> | 2020 <sup>c</sup> |
|---------|-------------------------------------|--------|--------|--------------------------------------|-------------------|
| C5      | Clerkenwell Green (pedestrian area) | 531562 | 182164 | 100                                  | 23                |
| LEN01   | Old Street                          | 532699 | 182462 | 100                                  | 28                |
| LEN02   | City Road                           | 532766 | 182407 | 83                                   | 31                |
| LEN03   | City Road                           | 532773 | 182408 | 100                                  | 29                |
| LEN04   | Old Street                          | 532851 | 182508 | 100                                  | 30                |
| LEN05   | Old Street                          | 532845 | 182525 | 100                                  | <b>41</b>         |
| LEN06   | City Road                           | 532744 | 182571 | 100                                  | <b>47</b>         |
| LEN07   | City Road                           | 532742 | 182561 | 100                                  | <b>52</b>         |
| LEN08   | Old Street                          | 532742 | 182561 | 100                                  | 34                |
| LEN09   | Mallow Street                       | 532698 | 182422 | 100                                  | 25                |
| LEN10   | Featherstone Street                 | 532588 | 182356 | 100                                  | 24                |
| LEN11   | Featherstone Street                 | 532682 | 182364 | 92                                   | 21                |
| LEN12   | Featherstone Street                 | 532751 | 182372 | 100                                  | 25                |
| LEN13   | Leonard Street                      | 532790 | 182362 | 100                                  | 27                |
| LEN14   | Leonard Street                      | 532824 | 182369 | 100                                  | 28                |
| LEN16   | Bath Street                         | 532480 | 182750 | 100                                  | 28                |

| Site ID | Site name                | X      | Y      | Valid data capture 2020 <sup>b</sup> | 2020 <sup>c</sup> |
|---------|--------------------------|--------|--------|--------------------------------------|-------------------|
| LEN17   | Bath Street/Lever Street | 532489 | 182707 | 100                                  | 29                |
| LEN18   | Bath Street              | 532531 | 182542 | 100                                  | 23                |
| LEN19   | Bunhill Row              | 532557 | 182422 | 100                                  | 28                |
| LEN20   | City Road                | 532681 | 182679 | 92                                   | 38                |
| V2      | Vorley Road              | 529307 | 186696 | 100                                  | 28                |
| V4      | MacDonald Road           | 529266 | 186832 | 100                                  | <b>90</b>         |
| OC1     | Wakley Street            | 531738 | 182980 | 100                                  | <b>42</b>         |
| OC2     | St John Street           | 531624 | 182481 | 100                                  | 25                |
| OC3     | St John Street           | 531771 | 182106 | 100                                  | 30                |
| OC4     | Clerkenwell Road         | 531892 | 182150 | 100                                  | 33                |
| OC5     | Percival Street          | 531890 | 182551 | 100                                  | 25                |
| OC6     | Old Street               | 532135 | 182283 | 100                                  | 32                |
| OC7     | Old Street               | 532277 | 182338 | 100                                  | 29                |
| OC8     | Old Street               | 532473 | 182408 | 100                                  | 30                |
| OC9     | City Road                | 532789 | 182250 | 100                                  | 29                |
| OC10    | City Road                | 532188 | 182884 | 100                                  | 25                |

| Site ID | Site name                                | X      | Y      | Valid data capture 2020 <sup>b</sup> | 2020 <sup>c</sup> |
|---------|--|--------|--------|--------------------------------------|-------------------|
| CHP1    | Greenhill Rents                          | 531736 | 181804 | 92                                   | 26                |
| CHP2    | Eagle Court/White Horse Alley            | 531717 | 181890 | 92                                   | 24                |
| CHP3    | Peter's Lane                             | 531768 | 181878 | 100                                  | 27                |
| B2      | Pemberton Terrace                        | 529363 | 186358 | 92                                   | 22                |
| B3      | Pemberton Terrace/Monnelly Rd            | 529357 | 186282 | 100                                  | 22                |
| IRC2    | Regent's Canal                           | 530824 | 183461 | 100                                  | 20                |
| IRC4    | Regent's Canal                           | 530704 | 183471 | 100                                  | 26                |
| IRC5    | Regent's Canal                           | 531713 | 183294 | 100                                  | 22                |
| IRC6    | Regent's Canal                           | 531762 | 183289 | 92                                   | 19                |
| IRC9    | Regent's Canal                           | 531852 | 183272 | 100                                  | 19                |
| IRC12   | Regent's Canal                           | 530413 | 183517 | 92                                   | 24                |
| IRC15   | Regent's Canal                           | 530541 | 183499 | 100                                  | 22                |
| DC1     | Highbury Corner (Dixon Clark Court side) | 531700 | 184701 | 100                                  | 25                |
| DC2     | Dixon Clark Court Building               | 531730 | 184694 | 100                                  | 21                |
| DC3     | Dixon Clark Court Building               | 531750 | 184696 | 92                                   | 21                |

| Site ID | Site name                                 | X      | Y      | Valid data capture 2020 <sup>b</sup> | 2020 <sup>c</sup> |
|---------|---|--------|--------|--------------------------------------|-------------------|
| DC4     | Dixon Clark Court Car Park                | 531746 | 184704 | 100                                  | 25                |
| DC5     | Highbury Corner/Dixon Clark Court Pathway | 531716 | 184704 | 100                                  | 23                |

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### Notes

Concentrations are presented as  $\mu\text{g m}^{-3}$ .

Exceedances of the NO<sub>2</sub> annual mean AQO of 40  $\mu\text{g m}^{-3}$  are shown in **bold**.

NO<sub>2</sub> annual means in excess of 60  $\mu\text{g m}^{-3}$ , indicating a potential exceedance of the NO<sub>2</sub> hourly mean AQS objective are shown in **bold and underlined**.

All means have been "annualised" in accordance with LLAQM Technical Guidance if valid data capture for the calendar year is less than 75% and greater than 33%.