# London Borough of Bexley Air Quality Annual Status Report for 2021

## Date of publication: August 2022

This report provides a detailed overview of air quality in the London Borough of Bexley during 2021. It has been produced to meet the requirements of the London Local Air Quality Management statutory process.

Contact details: Jon Fox - Environmental Health Manager (Environ mental Protection

Civic Offices, 2 Watling Street, Bexleyheath, Kent DA6 7AT.

Email jon.fox@bexley.gov.uk Tel 0203 045 5650

# Table of Contents

# Abbreviations

- AQAP - Air Quality Action Plan
- AQMA -Air Quality Management Area
- AQO -Air Quality Objective
- BEB - Buildings Emission Benchmark
- CAB - Cleaner Air Borough
- CAZ - Central Activity Zone
- EV - Electric Vehicle
- GLA - Greater London Authority
- LAEI - London Atmospheric Emissions Inventory
- LAQM - Local Air Quality Management
- LLAQM - London Local Air Quality Management
- NRMM - on-Road Mobile Machinery
- PM10 - Particulate matter less than 10 micron in diameter
- PM2.5 - Particulate matter less than 2.5 micron in diameterTEB - Transport Emissions Benchmark
- TfL - Transport for London

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

| Pollutant | Objective (UK) | Averaging Period | Date[1] |
|---|---|---|---|
| Nitrogen dioxide - $NO_2$ | 200 □g $m^{-3}$ not to be exceeded more than 18 times a year | 1-hour mean | 31 Dec 2005 |
| | 40 □g $m^{-3}$ | Annual mean | 31 Dec 2005 |
| Particles - $PM_{10}$ | 50 □g $m^{-3}$ not to be exceeded more than 35 times a year | 24-hour mean | 31 Dec 2004 |
| | 40 □g $m^{-3}$ | Annual mean | 31 Dec 2004 |
| Particles - $PM_{2.5}$ | 25 □g $m^{-3}$ | Annual mean | 2020 |
| | Target of 15% reduction in concentration at urban background locations | 3 year mean | Between 2010 and 2020 |
| Sulphur Dioxide ($SO_2$) | 266 µg $m^{-3}$ not to be exceeded more than 35 times a year | 15 minute mean | 31 Dec 2005 |
| | 350 µg $m^{-3}$ not to be exceeded more than 24 times a year | 1 hour mean | 31 Dec 2004 |
| | 125 µg $m^{-3}$ mot to be exceeded more than 3 times a year | 24 hour mean | 31 Dec 2004 |

Note: 1by which to be achieved by and maintained thereafter.

# Summary

This report summarises air quality monitoring undertaken by Bexley in 2020 to meet the requirements of the London Local Air Quality Management statutory process.

The data is from 2020 and has been fully ratified by Imperial College London. The data can be viewed and downloaded from https://www.londonair.org.uk/

The year has been dominated by the COVID-19 pandemic with normal working and travelling patterns being completely different. There has been a significant reduction is air pollution levels for this year, although these are expected to return to a "new normal" in time.

Working remotely for at least some of the week has become normal for many people where the job requirements permit. How long this continues into future years remains to be seen.

Particulate monitoring at the affiliated AURN site has changed method from TEOM/FDMS to Fidas on 1 October 2020.

# 1. Air Quality Monitoring

**Locations**

## Table B. Details of Automatic Monitoring Sites for 2021

| Site ID | Site Name | X (m) | Y (m) | Site Type | In AQMA? | Distance from monitoring site to relevant exposure (m) | Distance to kerb of nearest road (N/A if not applicable) (m) | Inlet height (m) | Pollutants monitored | Monitoring technique |
|---|---|---|---|---|---|---|---|---|---|---|
| BX1 | Slade Green | 551864 | 176379 | Suburban background | Yes | 0 | N/A | 4.0 | $NO_2$, O3, $PM_{10}$, $PM_{2.5}$ $SO_2$ | Chemiluminescent; $PM_{10}$ FIDAS, $PM_{2.5}$ by FIDAS |
| BX2 | Belvedere Primary School | 549999 | 179090 | Urban background | Yes | 0 | N/A | 3.0 | $NO_2$, $PM_{10}$, $PM_{2.5}$ | Chemiluminescent; $PM_{10}$ TEOM $PM_{2.5}$ by TEOM |
| BQ7 | Bexley Business Academy | 548465 | 179469 | Urban background | Yes | 0 | N/A | 3.0 | $NO_2$, $O_3$, $PM_{10}$, $PM_{2.5}$ | Chemiluminescent; $PM_{10}$ TEOM $PM_{2.5}$ by TEOM |
| GB6 | A2 at Falconwood | 544997 | 175098 | Kerbside | Yes | 10.0 | 1.0 | 3.0 | $NO_2$, $O_3$, $PM_{10}$, $PM_{2.5}$ | Chemiluminescent; $PM_{10}$ TEOM $PM_{2.5}$ by FDMS |

Note:GB6 at Falconwood is run by the Royal Borough of Greenwich

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, the details of which are described in Appendix A.

## Table C. Annual Mean NO2 Ratified and Bias-adjusted Monitoring Results (□g m-3)

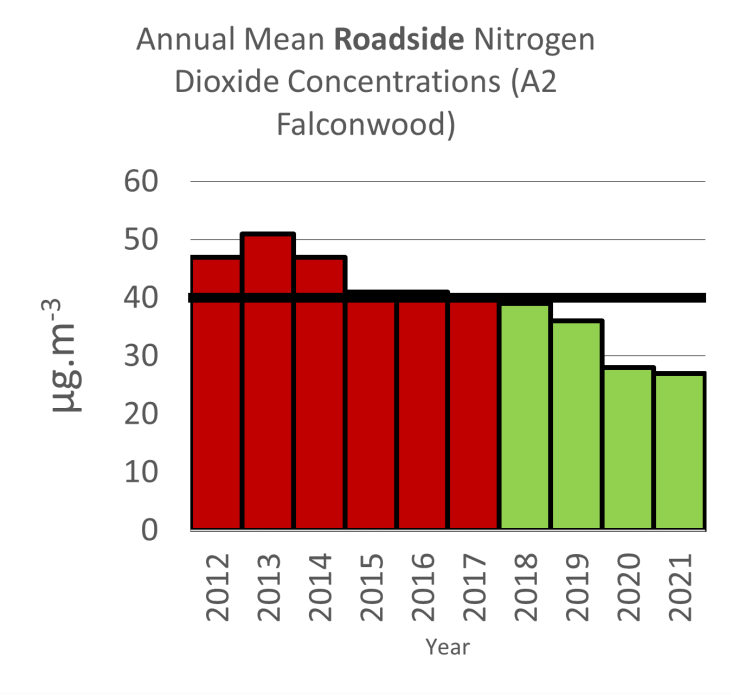
| Site ID | Site type | Valid data capture for monitoring period | Annual Mean Concentration (µgm$^{-3}$) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2013 | 2014 [c] | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| BX1 (Slade Green) | Automatic | 96% | 28 | 27 | 26 | 25 | 25 | 23 | 22 | 18 | 19 |
| BX2 (Belvedere Primary School) | Automatic | 99% | 27 | 27 | 24 | 28 | 28 | 28 | 28 | 18 | 16 |
| BQ7 (Bexley Business Academy) | Automatic | 99% | 24 | 23 | 22 | 24 | 21 | 21 | 21 | 16 | 17 |
| GB6 (A2 at Falconwood) | Automatic | 97% | **51** | **47** (88% data) | **41** | **41** | **40** | 39 | 36 | 28 | 27 |

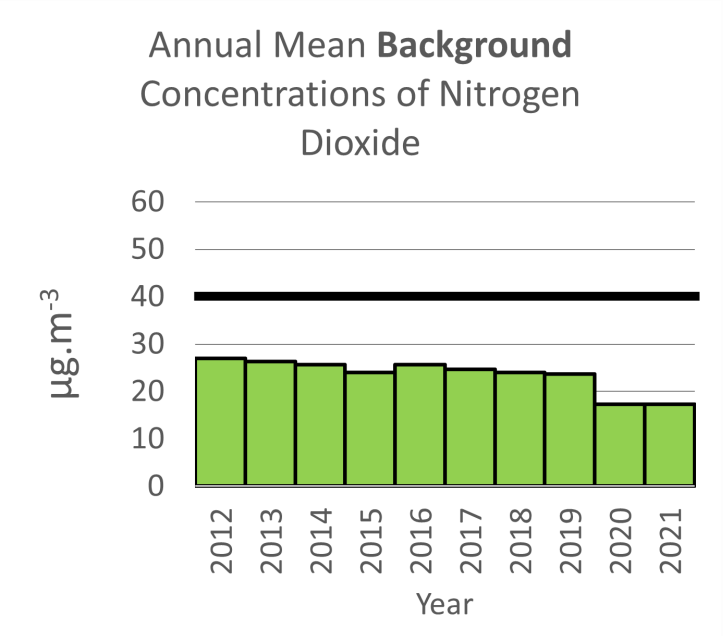
Notes: Exceedance of the NO2 annual mean AQO of 40 µgm-3 are shown in bold.

NO2 annual means in excess of 60 µg m-3, indicating a potential exceedance of the NO2 hourly mean AQS objective are shown in bold and underlined.

c Means should be "annualised" in accordance with LLAQM Technical Guidance, if valid data capture is less than 75%

The charts below compare the measured annual mean concentrations at roadside and background locations of nitrogen dioxide with the national air quality objective (40µgm-3). Bexley has seen a slow and steady decrease in concentrations of this pollutant. The measured levels for 2020 can be seen as being much greater that would have been expected without the impact from the COVID-19 lockdown. The mean levels for background measurements is the arithmetic mean of each of the background measurements above.



## Table D. NO2 Automatic Monitor Results: Comparison with 1-hour Mean Objective

| Site ID | Valid data capture for monitoring period | Number of Hourly Means > 200 µgm$^{-3}$ | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2013[c] | 2014 [c] | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| BX1 (Slade Green) | 96% | 0 (87.0% data) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| BX2 (Belvedere Primary School) | 94% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| BQ7 (Bexley Business Academy) | 99% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GB6 (A2 at Falconwood) | 97% | 11 | 11 (88% data) | 2 | 3 | 1 | 0 | 0 | 0 | 0 |

Notes: Exceedance of the NO2 short term AQO of 200 µgm-3 over the permitted 18 days per year are shown in bold.

c Means should be "annualised" in accordance with LLAQM Technical Guidance, if valid data capture is less than 75%.

## Table E. Annual Mean PM10 Automatic Monitoring Results (µg m-3)

| Site ID | Valid data capture for monitoring period | Valid data capture 2021[b] | Annual Mean Concentration (µgm$^{-3}$) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2013[c] | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| BX1 (Slade Green) | 95% | 100% | 16 | 15 | 14 | 18 | 17 | 18 | 17 | 13 | 14 |
| BX2 (Belvedere Primary School) | 95% | 89% | 21 | 17 | 14 | 14 (89%) | 17 | 19 | 19 | 18 | 16 |
| BQ7 (Bexley Business Academy) | 95% | 96% | 20 | 19 | 18 | 15 | 15 | 15 | 14 | 14 | 14 |
| GB6 (A2 at Falconwood) | 95% | 99% | 30 (72%) | 26 (35%) | 22 | 22 | 19 | 21 | 19 | 18 | 19 |

Notes: Exceedance of the PM10 annual mean AQO of 40 µgm-3 are shown in bold.

c Means should be "annualised" in accordance with LLAQM Technical Guidance, if valid data capture is less than 75%.

## Table F. PM10 Automatic Monitor Results: Comparison with 24-Hour Mean Objective

| Site ID | Valid data capture for monitoring period | Annual Mean Concentration (µgm$^{-3}$) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| BX1 (Slade Green) | 100% | 0 | 0 | 1 | 3 | 3 | 1 | 8 | 1 | 1 |
| BX2 (Belvedere Primary School) | 89% | 8 | 6 | 1 | 3 (89%) | 7 | 7 | 11 | 7 | 3 |
| BQ7 (Bexley Business Academy) | 96% | 5 | 6 | 2 | 5 | 3 | 1 | 4 | 3 | 1 |
| GB6 (A2 at Falconwood) | 99% | 28 (72%) | 11 (35%) | 15 | 7 | 12 | 2 | 8 | 6 | 4 |

Notes: Exceedance of the PM10 short term AQO of 50 µg m-3 over the permitted 35 days per year or where the 90.4th percentile exceeds 50 µg m-3 are shown in bold. Where the period of valid data is less than 90% of a full year, the 90.4th percentile is shown in brackets after the number of exceedances.

c Means should be "annualised" in accordance with LLAQM Technical Guidance, if valid data capture is less than 75%.

## Table G. Annual Mean PM2.5 Automatic Monitoring Results (□g m-3)

| Site ID | Valid data capture 2021 % [b] | Annual Mean Concentration (µgm$^{-3}$) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| BX1 (Slade Green) – FIDAS from 2021 | 100% | 16 | 16 | 15 | 11 | 11 | 12 | 12 | 9 | 9 |

| Site ID | Valid data capture 2021 % [b] | Annual Mean Concentration (µgm$^{-3}$) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| GB6 (A2 at Falconwood) - FDMS | 92% | 16 | 14 | 14 | 15 | 13 | 13 | 12 | 11 | 13 |

Notes: Exceedance of the PM2.5 annual mean AQO of 25 µgm-3 are shown in bold. Measurements made at BX2 Belvedere and BQ7, Belvedere West have not been included as measurements were made using a TEOM not FDMS.

## Table H. SO2 Automatic Monitor Results for 2021: Comparison with Objectives

| Site ID | Valid data capture for monitoring period % [a] | Number of: [c] | | |
|---|---|---|---|---|
| | | 15-minute means > 266 µgm$^{-3}$ | 1-hour mean > 350 µgm$^{-3}$ | 24-hour mean > 125 µgm$^{-3}$ |
| BX1 (Slade Green) | 99% | 0 | 0 | 0 |

Exceedances of the SO2 AQOs are shown in bold (15-min mean = 35 allowed a year, 1-hour mean = 24 allowed a year, 24-hour mean = 3 allowed / year).

# 2. Action to Improve Air Quality

2.1 Air Quality Action Plan Progress

2020 was dominated by the impact of the Covid 19 pandemic. Normal working and travel patterns were disrupted with public transport stopping for months and very few people travelling into work. This has had a significant impact on our ability to progress our anticipated action plan as can be seen below.

Table K provides a brief summary of London Borough of Bexley's progress against the existing Air Quality Action Plan, showing progress made this year.

## Table I. Delivery of Air Quality Action Plan Measures

| No. | Measure | Focus | Planning Phase | Implementation Phase | Indicator | Progress to Date | Progress in Last 12 Months | Estimated Completion Date | Comments Relating to Emission Reductions |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Working In Partnership with the Environment Agency (EA) | To encourage or where necessary require, that a high standard of housekeeping on sites that where the occupier holds a Waste Management Licence (WML). | 2007-09 | 2009-20 | Development of effective working relationship with the EA | The Council has established an effective working relationship with the EA, through regular meetings with local EA officers | An effective working relationship has been formed. The regulated sites in Manor Road are a key priority for action. | Completed | |

## Table I. Delivery of Air Quality Action Plan Measures

| No. | Measure | Focus | Planning Phase | Implementation Phase | Indicator | Progress to Date | Progress in Last 12 Months | Estimated Completion Date | Comments Relating to Emission Reductions |
|---|---|---|---|---|---|---|---|---|---|
| 2 | | LBB will work in partnership with the EA to encourage or where necessary require, all loaded goods vehicles using Manor Road to access sites where the occupier holds a WML, are suitably covered. | 2007-09 | 2009-20 | To eliminate any uncovered loaded goods vehicles | Any uncovered loaded goods vehicles observed by Council officers are reported to the EA by telephone. | Most vehicles using sites in the area are covered. | This action requires ongoing assessment. | Full time monitoring is not possible, so observations are only undertaken during site visits |

## Table I. Delivery of Air Quality Action Plan Measures

| No. | Measure | Focus | Planning Phase | Implementation Phase | Indicator | Progress to Date | Progress in Last 12 Months | Estimated Completion Date | Comments Relating to Emission Reductions |
|---|---|---|---|---|---|---|---|---|---|
| 3 | Working in Partnership with Businesses | LBB will work in partnership with businesses to encourage a high standard of housekeeping on all sites where goods vehicles use Manor Road. | 2007-09 | 2009-20 | | LBB has contacted all local businesses using Manor Road to advise on AQ issues outlining measures to ensure high standards of housekeeping at sites | | Completed | |

## Table I. Delivery of Air Quality Action Plan Measures

| No. | Measure | Focus | Planning Phase | Implementation Phase | Indicator | Progress to Date | Progress in Last 12 Months | Estimated Completion Date | Comments Relating to Emission Reductions |
|---|---|---|---|---|---|---|---|---|---|
| 4 | | LBB will work in partnership with businesses to encourage all sites to be covered with a hard standing, where goods vehicles use Manor Road. | 2007-09 | 2009-20 | | LBB has contacted all local businesses using Manor Road to encourage the provision of a hard standing | | Completed | This only applies to certain sites This is a joint action with Action 1 and the EA |

## Table I. Delivery of Air Quality Action Plan Measures

| No. | Measure | Focus | Planning Phase | Implementation Phase | Indicator | Progress to Date | Progress in Last 12 Months | Estimated Completion Date | Comments Relating to Emission Reductions |
|---|---|---|---|---|---|---|---|---|---|
| 5 | Vehicle Cleaning | LBB will work in partnership with the EA to encourage or require where necessary, the installation of effective wheel and vehicle cleaning facilities at sites that where the occupier holds a WML. | | | | Relevant sites have been identified. Effective vehicle cleaning facilities are likely to be required as part of the waste license review. | | This action requires ongoing assessment. | Requires regular inspections to confirm that facility is used and well maintained |

## Table I. Delivery of Air Quality Action Plan Measures

| No. | Measure | Focus | Planning Phase | Implementation Phase | Indicator | Progress to Date | Progress in Last 12 Months | Estimated Completion Date | Comments Relating to Emission Reductions |
|---|---|---|---|---|---|---|---|---|---|
| 6 | Road Surface Cleaning | LBB will maintain this existing enhanced level of cleaning carriageway and footpaths in Manor Road. | | | | LBB's service contractor maintains frequent cleaning of the road. | | | Note- increasing dry cleaning does remove some material; it also has the effect of sweeping material into tyre paths, possibly increasing emissions. |

## Table I. Delivery of Air Quality Action Plan Measures

| No. | Measure | Focus | Planning Phase | Implementation Phase | Indicator | Progress to Date | Progress in Last 12 Months | Estimated Completion Date | Comments Relating to Emission Reductions |
|---|---|---|---|---|---|---|---|---|---|
| 7 | Speed Reduction | LBB will consider reducing the maximum speed limit in the residential section of Manor Road as part of the proposed Reddy Road 20 mph zone. | | | | The Council included this scheme within its LIP and has since implemented the scheme. | | Completed | |

## Table I. Delivery of Air Quality Action Plan Measures

| No. | Measure | Focus | Planning Phase | Implementation Phase | Indicator | Progress to Date | Progress in Last 12 Months | Estimated Completion Date | Comments Relating to Emission Reductions |
|---|---|---|---|---|---|---|---|---|---|
| 8 | Development Control | LBB will continue to resist planning applications which would result in additional lorry traffic using Manor Road. | | | | The Unitary Development Plan has a policy to control additional lorry vehicle movements in Manor Road (TS8). | Increases in lorry traffic continue to be resisted in the area. | | This policy will be maintained until relief has been provided for the residential section of Manor Road. |

## Table I. Delivery of Air Quality Action Plan Measures

| No. | Measure | Focus | Planning Phase | Implementation Phase | Indicator | Progress to Date | Progress in Last 12 Months | Estimated Completion Date | Comments Relating to Emission Reductions |
|---|---|---|---|---|---|---|---|---|---|
| 9 | Road Surface Contamination | To control deposition of material from vehicles onto the highway, LBB will consider taking enforcement action under section 161 of the Highway Act 1980, where appropriate. | | | | LBB maintains regular checks on the condition of the road. | No enforcement action has been taken to date | | Carriageway re-surfacing was undertaken in 2014. The impact of this will be assessed in future reports. |

2.2 Revised Air Quality Action Plan

Bexley's Air Quality Action Plan has been completely revised and updated. The Air Quality Action Plan brings together measures being taken across all areas of the Council's responsibilities in dealing with Public Health, education, urban renewal, and traffic and transportation. The Action Plan also introduces new measures aimed specifically at improving local air quality.

The Council is committed to improving air quality and the Council's Air Quality Management Area, covers the whole of the Borough of Bexley. The intention of the Action Plan is to reduce pollution levels and where there are concentrations that exceed air quality objectives the reduction will be in pursuit of the achievement of the objectives. There are key measures which are being delivered through the Local Implementation Plan for Transport Policy.

The focus of this plan is to encourage a shift towards more sustainable transport modes. Some key policies include:-

**Cleaner Transport**

**Encouraging modal shift to electric – new developments**

The Council is securing electric vehicle charging points in new developments and there are 316 individual charging points which have either been or are in the process of being installed. The vast majority of these are in private parking areas/driveways within new residential developments. However, this number will significantly increase as the Housing Zone (up to 1622 residential units with various other mixed uses) and other developments come forward. Also included in this number are points in industrial/business developments and at new retail schemes, being available to the public. There are also a further 608 'passive' charging points, where the ducting has been installed and can easily be converted to charging points in the future.

Bexley will continue to work with TfL to identify the potential and business case for installing electric charging points at new large developments and in town centres. The provision of charging points will be included in the Council's Detailed Policies and Sites Local Plan which is in production.

**Encouraging walking and cycling**

**Cycle parking**

The Council has recently installed cycle parking stands outside local shopping parades, funded through TfL's Borough Cycling Programme. Further cycle parking will be provided as part of the public realm and regeneration schemes in the Council's Programme of Investment (PoI), including Bexleyheath Town Centre Revitalisation Phase 2, Sidcup Town Area Renewal Phase 3, Yarnton Way Streetscape and Secondary Town Centre Improvements. Cycle parking will be secured in new developments in accordance with the standards laid out in the London Plan.

**Cycle Superhighways and Quietways**

The Council is the managing authority for the Mayor's Quietways programme and is planning and implementing two Quietways in the borough; Q14 Thames Path and Q1+ Greenwich to

Bexleyheath. There are plans for a cycle hub at Abbey Wood for rail users for Crossrail and mainline services with ~380 parking spaces to be provided. The Bexleyheath Town Centre Revitalisation Stage 2 Phase 2 major scheme includes cycle tracks, cycle lanes and crossings.

**Better Streets**

The PoI has a number of schemes that aim to enhance the streetscape, encourage walking, cycling and the use of public transport and improve the perception of the urban realm and therefore contribute to the 'healthy streets' agenda. These initiatives include Bexleyheath Town Centre Revitalisation Phase 2, Sidcup Town Area Renewal Phase 3, Yarnton Way Streetscape and Secondary Town Centre Improvements.

Additional street planting has been identified within the measures for Bexleyheath Town Centre Revitalisation Phase 2 and Yarnton Way Streetscape. One option being considered for the Yarnton Way proposal is to replace extensive lengths of carriageway with a linear parkway, incorporating native planting, shrubs and trees.

**Encouraging modal shift to public transport**

The Council is working in partnership with TfL to assess where bus improvements can be implemented that will improve reliability and reduce journey times, particularly around the north of the borough where the commencement of Elizabeth line services will change the way people travel across the borough and into London.

**Deliveries, Servicing and Freight**

Awareness campaign for freight operators – encouraging FORS membership

Quiet Delivery Project.

The Council is working with Transport for London (TfL) to trial out-of-hours deliveries using quiet vehicle technology at local stores which would aim to reduce freight traffic during peak periods.

**Localised Solutions**

**Manor Road**

The London Borough of Bexley will be maintaining where relevant, the measures implemented in the Air Quality Action Plan to deal with the PM10 emissions arising at Manor Road, Erith. Circumstances in the road have changed over recent years, with a change of operator at one of the key sites in the road, resulting in a change of materials recycled from general building waste to solely timber and wood recycling. Airborne concentrations of PM10 now comply with the National Air Quality Objectives. The existing measures will be maintained to ensure that this situation does not change.

**Focus Area**

The GLA have identified a focus area within the London Borough of Bexley, The A206 from Erith Queens Road Roundabout to Northend Roundabout. The A206 is a strategic route servicing the industrial areas East of Erith and North of Belvedere, and also provide access for the communities close to the Thames.

The road in the focus area is fronted with residential properties, with a primary school situated within 50 metres of the road.

The action plan will contain the following:

- An anti-idling information campaign to challenge drivers idling vehicles parked in streets, particularly close to any schools.
- Investigating the need for an information campaign to ask drivers to switch off engines when stationary.
- Bus diversion off Queens Road to travel through Erith town centre.
- Borough Fleet Actions

**Civic strategy**

The new Civic Offices were opened in 2014, which brought together most Council staff onto one site, minimising the need for travel between sites. Desk space was provided at a ratio of 7 desks for every 10 employees, and remote working is normal for most workers. This has minimised travel by Bexley employees.

**Travel Plan**

The aim of the travel plan is to reduce the number of single occupancy car trips to and from the site (including those parking remotely) by encouraging sustainable travel in order to minimise the following:

- Overspill parking onto neighbouring residential streets
- Occupying public car parking spaces which will reduce the number of spaces available for shoppers
- Adverse Local transport network impacts, including highway impacts
- Adverse Environmental impacts

**Pool Cars**

A fleet of pool cars operates from the Civic Offices minimising the need for staff to bring their own cars into the office, enabling greater choices in transport modes including car sharing, cycling, running/walking public transport.

**Cleaner through Procurement**

Nearly all the Street Services fleet (recycling & waste collection and street cleansing) will be replaced in the next two years, to meet the Euro VI standard. Serco, the Council's Street Services contractor, has a Carbon Reduction Commitment of 40% by 2020, which will be achieved through:

Refuse and recycling rounds optimisation; Serco Minimum Miles™ – area-based resource scheduling and deployment in street cleansing operations;

**Public Health, Awareness and Publicity**

The new Air Quality Action Plan will include a proposed program of engaging with local schools. This will include looking at School Travel Plans, publicising and encouraging participation in the STARS project, and a new program of dissuading car idling near schools through an information and engagement campaign.

Bexley will continue to promote AirTEXT to the public.

Emissions from Developments and Buildings

**AQ neutral policies**

Major development proposals are required to submit air quality assessments for consideration in the planning consultation process. The air quality assessments will be expected to include an "air quality neutral" appraisal of the development in accordance with London Plan Policy 7.14 requirements and GLA Supplementary Planning Guidance together with appropriate mitigation measures.

**Non Road Mechanical Machinery**

Bexley is placing appropriate conditions on all relevant planning permissions. NRMM of net power between 37kW and 560kW used in London will be required to meet the standards set out below. This will apply to both variable and constant speed engines for both NOx and PM. We are continuing to participate in the London wide NRMM project.

**Enforcement of Smoke Control Areas**

The whole of the London Borough of Bexley has been declared as a Smoke Control Area. The Council has a strong approach to continuing to enforce compliance with the Smoke Control Orders. The Council also takes a strong approach regarding domestic and trade bonfires.

# 3. Planning Update and Other New Sources of Emissions

## Table L - Planning requirements met by planning applications in London Borough of Bexley in 2020

| Condition | Number<br>*Please complete all fields in this column with the total numbers* | |
|---|---|---|
| Number of planning applications where an air quality impact assessment was reviewed for air quality impacts | 11 | |
| Number of planning applications required to monitor for construction dust | 0 | |
| 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 | 0 | |
| Number of developments required to install Ultra-Low $NO_x$ boilers | 5 | |
| Number of developments where an AQ Neutral building and/or transport assessments undertaken | 11 | |
| Number of developments where the AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation | 6 | |
| 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 | |
| **NRMM: Central Activity Zone and Canary Wharf**<br>Number of conditions related to NRMM included.<br>Number of developments registered and compliant.<br>Please include confirmation that you have checked that the development has been registered at www.nrmm.london and that all NRMM used on-site is compliant with Stage IIIB of the Directive and/or exemptions to the policy. | N/A | |

| | | |
|---|---|---|
| **NRMM: Greater London (excluding Central Activity Zone and Canary Wharf)**<br>Number of conditions related to NRMM included.<br>Number of developments registered and compliant.<br>Please include confirmation that you have checked that the development has been registered at www.nrmm.london and that all NRMM used on-site is compliant with Stage IIIA of the Directive and/or exemptions to the policy. | 11 conditions included<br>7 registered and compliant<br><br>4 not yet registered (consents not yet implemented). | |

All planning applications except for some small domestic extensions are reviewed by the Environmental Protection Team. The applications are screened for their potential environmental impact and the suitability of the environment for the proposed use.

Environmental Protection Team Officers are in close contact with Officers in Development Control, and work closely with them. All Planning Applications are audited by Team Leaders before decision notices are confirmed.

All applications decided by the Development Control Sub Committee are thoroughly reviewed by all disciplines before being heard at the sub-committee meeting.

3.1 New or significantly changed industrial or other sources

No new sources identified.

# Appendix A Details of Monitoring Site QA/QC

A.1 Automatic Monitoring Sites

Daily automatic calibration Zero air is generated by passing air through scrubbers and passed through the reaction cell. Span gas is generated by a permeation tube and passed to the reaction chamber to give the span calibration response. The daily automatic calibrations are used as a check on the instrument performance and drift.

Fortnightly analyser inspection and manual calibration.

Manual calibrations are carried out on a fortnightly basis using zero air generators and calibration gases traceable to national standards. The analyser is taken out of service and the inlet filter is changed prior to connecting the calibration gases. The zero air and span gases are run through the analyser and the responses noted together with the instrument gain factor.

The output of the analyser is then adjusted to the correct certificated value and the new instrument gain factor noted. The calibrations are used to rescale the generated raw data from the analyser, using calculated instrument span factors. This work is carried out by the Environmental Research Group (ERG) at Kings College, London, who also handle the data from the stations on behalf of Bexley Council.

Any anomalies noted during these fortnightly calibrations are followed up with a service call out, and additional checks are made on the data for that period. TEOM filters are changed when required in accordance with the manufacturer's instructions. Inlet heads are cleaned at this time.

Six Monthly Checks.

All stations are serviced in accordance with the manufacturer's recommendations at 6 monthly intervals. In addition, 6 monthly calibration checks are made by a third party (AEA Technology in the case of Bexley 1, Slade Green) and by the National Physical Laboratory in the case of the other monitoring stations. Data Ratification Measurements from analysers have to go through a number of checks before they are considered 'ratified'. The first stage of ratification occurs automatically as data is downloaded from the analysers. Data is checked by a series of protocols and then scaled using results from manual calibrations.

Measurements appearing on the hourly bulletin ('current air quality') has undergone automatic checks only. 44 The second stage occurs each day as air quality analysts manually check the data, confirm any automatic checks and flag up any faults that require attention. Measurements appearing on the daily bulletin ('Yesterday's Air Quality') and the seven and 30 day graphs will have undergone this second stage. The third and fourth ratification stages occur in the coming months as more information becomes available. Data can be viewed over a longer time periods and results from fortnightly manual calibrations, equipment services and equipment audits can be considered. Measurements cannot be considered 'final' until all stages of the ratification process are complete. The time lag is usually between six month and a year.