The London Borough of Hillingdon

Air Quality Action Plan

Air Quality Annual Status Report, 2018

London Borough of Hillingdon
Air Quality Annual Status Report for 2018

Date of publication: July 2019

This report provides a detailed overview of air quality in the London Borough of Hillingdon during 2018. It has been produced to meet the requirements of the London Local Air Quality Management statutory process[1].

Contact details

Val Beale
Air Quality officer, London Borough of Hillingdon
vbeale@hillingdon.gov.uk

This report has been produced by:
Val Beale, London Borough of Hillingdon
Mike Holland, EMRC
Ana Grossinho, AQE Global

[1] LLAQM Policy and Technical Guidance 2016 (LLAQM.TG(16)). https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/working-boroughs

CONTENTS

Tables

Abbreviations

AQ	Air quality
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
AQO	Air Quality Objective
AQSPG	Air Quality Supplementary Planning Guidance
ATC	Automatic Traffic Counter
ATM	Air Traffic Movement
BAA	(Formerly) British Airports Authority
CAB	Cleaner Air Borough
CAZ	Central Activity Zone
CHP	Combined Heat and Power
CO	Carbon monoxide
COMEAP	Committee on the Medical Effects of Air Pollutants
EV	Electric Vehicle
FDMS	Filter Dynamics Measurement System
FIDAS	Fine Dust Analysis System
FORS	Fleet Operator Recognition System
GLA	Greater London Authority
GSK	GlaxoSmithKline
HAL	Heathrow Airport Limited
LAEI	London Atmospheric Emissions Inventory
LAQM	Local Air Quality Management
LEZ	Low Emission Zone
LLAQM	London Local Air Quality Management
MAQF	Mayor's Air Quality Fund
NO_2	Nitrogen dioxide
NPPF	National Planning Policy Framework
NRMM	Non-Road Mobile Machinery
O_3	Ozone
PM_1	Particulate matter less than 1 micron in diameter
PM_{10}	Particulate matter less than 10 microns in diameter
$PM_{2.5}$	Particulate matter less than 2.5 microns in diameter
QA/QC	Quality Assurance / Quality Control
SO_2	Sulphur dioxide
TEOM	Tapered Element Oscillating Microbalance (for PM measurement)
TfL	Transport for London
ULEZ	Ultra-Low Emission Zone
VCM	Volatile Correction Model
WHO	World Health Organization

Summary

This report provides information on:

- Air quality in the London Borough of Hillingdon in 2018;
- Progress with the Borough's Air Quality Action Plan;
- Planning applications with relevance to air quality in the Borough; and

Over the last years, Hillingdon has observed an overall trend towards improved air quality in the Borough. However, as elsewhere within the Greater London Area, exceedances of the annual mean limit value for NO_2 still remain at certain locations.

A mild trend to improvement of annual mean NO_2 concentrations is observed in the 2018 data, though exceedances of the annual mean limit value are still present, some of them substantial. However, for PM_{10} there is no discernible improvement, though for this pollutant the Borough meets the statutory objectives.

The Borough has continued to make good progress on implementation of its air quality action plan. Lessons learned from the plan since its inception in 2004 are reported. A new AQAP for the Borough covering the period 2019-2024 has recently been finalised. Details are provided, and the new plan will shortly be available online.

A number of planning applications have been submitted that have implications for air quality in the Borough. Appropriate conditions have been recommended to be considered in the planning process. In addition, and in line with the new London Plan (December 2017), developments within Focus Areas have been subject to more stringent conditions with the aim to encourage developers to introduce clean design and mitigation measures to significantly reduce emissions and their impacts in these air quality sensitive areas. Wherever such measures were not able to achieve the required reductions, contributions to section 106 were sought to improve local air quality in the areas affected by the proposals.

1 Introduction

1.1 The purpose of this report

This report provides a detailed overview of air quality in the London Borough of Hillingdon during 2018. It has been produced to meet the requirements of the London Local Air Quality Management statutory process[2].

National Air Quality Standards and Objectives are given in Table A.

Table A. Summary of National Air Quality Standards and Objectives

Pollutant	Objective (UK)	Averaging Period	Date[1]
Nitrogen dioxide - NO_2	200 μg m^{-3} not to be exceeded more than 18 times a year	1-hour mean	31 Dec 2005
	40 μg m^{-3}	Annual mean	31 Dec 2005
Particles - PM_{10}	50 μg m^{-3} not to be exceeded more than 35 times a year	24-hour mean	31 Dec 2004
	40 μg m^{-3}	Annual mean	31 Dec 2004
Particles - $PM_{2.5}$	25 μg 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: [1] by which to be achieved by and maintained thereafter

1.2 Description of the Local Authority Area

Hillingdon is, geographically, the second largest local authority in London and has approximately 250,000 residents. Parts of the Borough to the north of the A40 are semi-rural, with Ruislip as the district centre. The south of the Borough is more densely populated, urban in character, and contains the metropolitan centre of Uxbridge and the towns of Hayes and West Drayton. It also contains numerous important transport links. As well as being home to Heathrow Airport the Borough is crossed by the M4 and the A40 and bordered to the west by the M25 and to the east by the A312, attracting traffic into the

[2] LLAQM Policy and Technical Guidance 2016 (LLAQM.TG(16)). https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/working-boroughs

Borough and encouraging traffic to pass through it. These roads generate a significant air pollution burden for the Borough.

1.3 Hillingdon's Air Quality Management Area (AQMA)

An AQMA was declared in Hillingdon against exceedance of objectives for NO_2 in 2003. Air quality problems in the Borough continue to be most severe around Heathrow Airport and the major road network that goes through the Borough, reflecting the largest sources of nitrogen oxide (NO_x) emissions within the AQMA which covers the southern half of the Borough (Figure 1). The possible inclusion of areas in the north of the Borough has been kept under review.

Figure 1. Hillingdon's AQMA.

An Action Plan, showing how Hillingdon Borough Council intended to tackle these problems, was issued in 2004. This contains a series of 8 packages, each containing a number of measures, that address emissions from traffic, Heathrow Airport, industry, existing housing and new developments. A revised plan was finalised in June 2019. In addition to information on air quality in the Borough in 2018, this report also provides a brief review of the achievements made under the original air quality action plan.

2 Air Quality Monitoring in Hillingdon

2.1 Automatic monitoring sites

There were 11 operational automatic continuous monitoring sites in the London Borough of Hillingdon in 2018 (Table B). Hillingdon 1 (South Ruislip), Hillingdon 3 (Oxford Avenue), London Sipson, London Harmondsworth, Hillingdon Hayes, and London Harmondsworth Osiris (HIL4) are all part of the Borough monitoring network. London Hillingdon is part of the Defra - owned Automatic Urban and Rural Network (AURN). London Heathrow (LHR2), Heathrow Oaks Road, Heathrow Green Gates, and London Harlington are all part of the Heathrow Airport monitoring network. A map showing the location of the automatic stations is shown in Figure 2.

The method used by the Osiris monitoring system at HIL4 has been validated for the UK monitoring network and results for the site are included in this report.

2.2 Non-automatic monitoring sites

Passive diffusion tube monitoring of NO_2 is carried out at several locations across the Borough, supplementing the information generated by the more expensive automatic network (Figure 3). During 2018, NO_2 monitoring was undertaken using diffusion tubes at 39 sites. One of these sites (that has triplicate tubes) is co-located with the London Hillingdon automatic monitoring site. Additional details are presented in Table C1.

A bias adjustment factor of 0.99 extracted from the latest version of the national database of co-location studies[3] conducted for tubes prepared (50% TEA in acetone) and analysed by Gradko has been used to adjust the diffusion tube results. Only tubes with precision classified as "Good"[4] were used in the derivation of the bias adjustment factor.

Full details of the diffusion tube QA/QC including justification for the choice of bias adjustment factors are presented in Appendix A. Monthly NO_2 diffusion tube data are also provided in Appendix B.

A further 17 non-automatic sites were operated in 2018 in the north of the Borough outside the AQMA. Fifteen of these were used to investigate whether the AQMA should be expanded north of the AQMA (Table C2) and two, with diffusion tubes set up by a local residents' group were located in Northwood (Table C3).

[3] http://laqm.defra.gov.uk/bias-adjustment-factors/bias-adjustment.html

[4] Tube precision is determined as follows: G = Good precision - coefficient of variation (CV) of diffusion tube replicates is considered G when the CV of eight or more periods is less than 20%, and the average CV of all monitoring periods is less than 10%

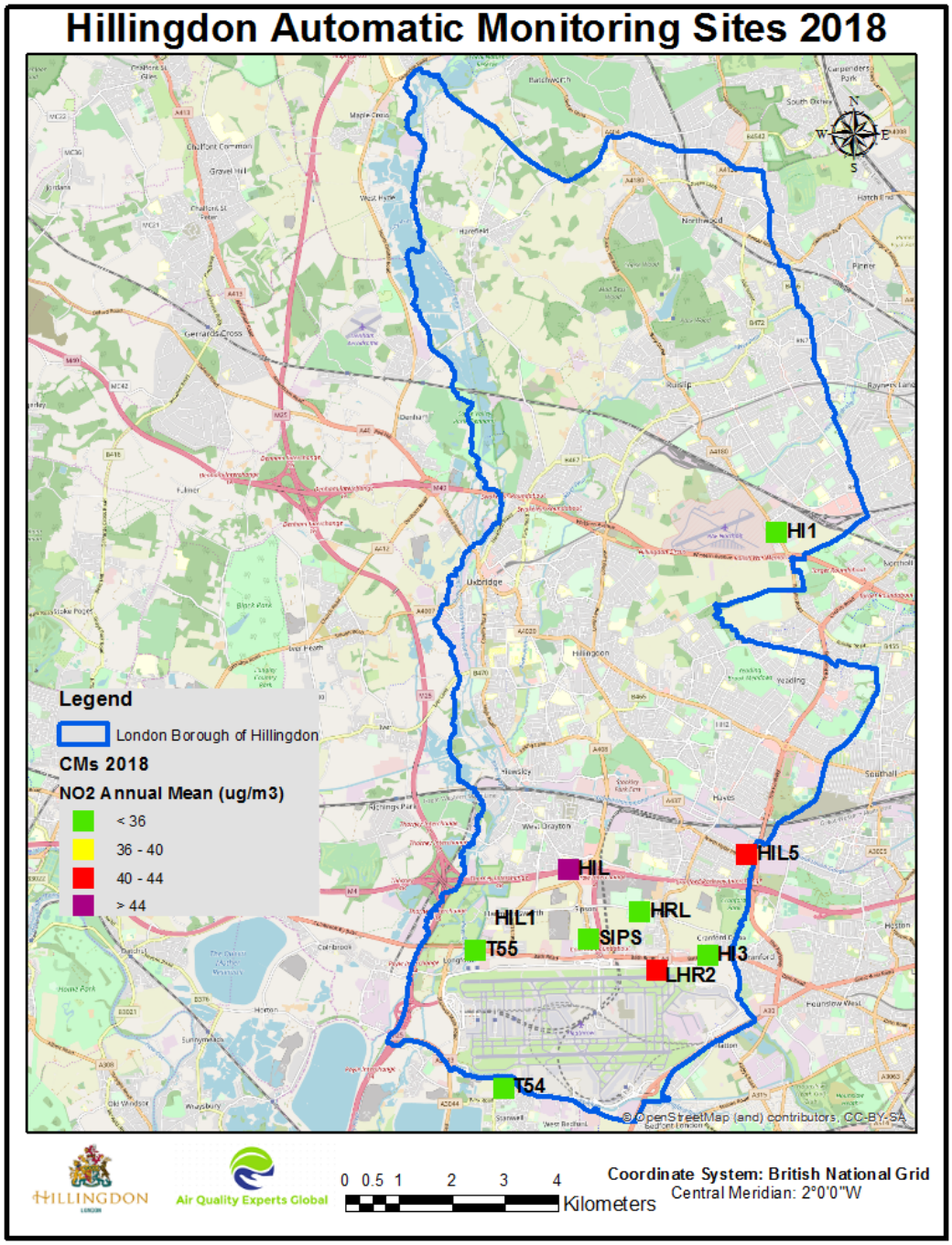


Figure 2. Location of the automatic monitoring sites in Hillingdon, nitrogen dioxide annual mean concentrations (ug/m^3) 2018.

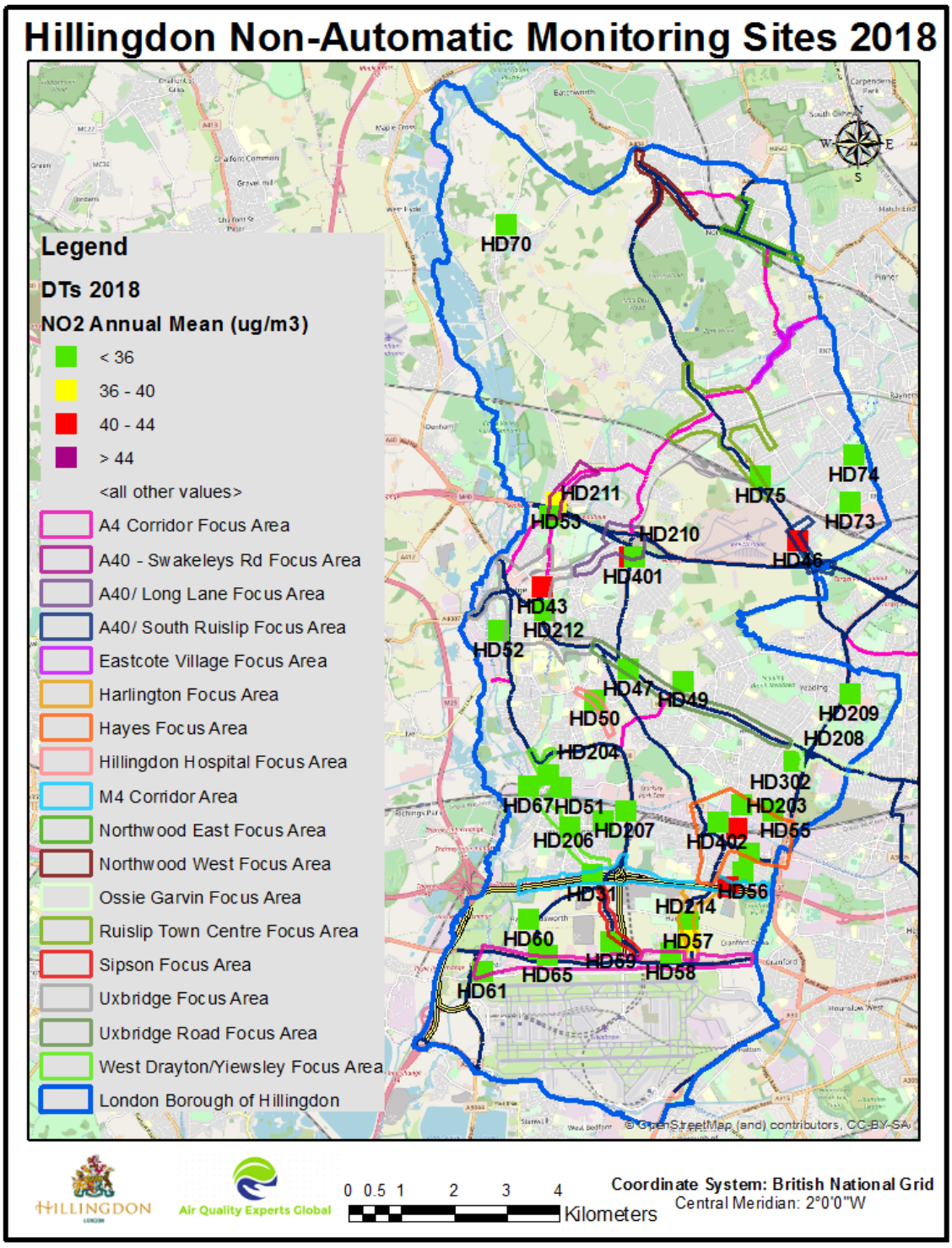


Figure 3. Location of the non-automatic monitoring sites in Hillingdon, NO_2 annual mean concentrations (ug/m^3) 2018. The figure also shows the Focus Areas that are being used for Local Air Quality Management

Table B. Details of Automatic Monitoring Sites for 2018

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA? (Y/N)	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
LHR2	London Heathrow	508600	176700	Airport	Y	N/A	N/A (inside airport)	1.5	NO_2, PM_{10}, $PM_{2.5}$	Chemiluminescence FIDAS
HIL	London Hillingdon	506951	178605	Urban background	Y	16m	2.5m (30m to M4)	1.5	NO_2, O_3	Chemiluminescence
HI1	Hillingdon 1 - South Ruislip	510857	184917	Roadside	Y	11m	2.5m	1.5	NO_2, PM_{10}	Chemiluminescence TEOM
HI3	Hillingdon 3 - Oxford Avenue	509557	176994	Roadside	Y	8m and 17m	33m to A4 Bath Road (2m to Oxford Avenue)	1.5	NO_2, PM_{10}	Chemiluminescence TEOM
HRL	London Harlington	508295	177800	Airport	Y	N/A	3m	1.5	CO, NO_2, O_3, PM_{10}, $PM_{2.5}$	Chemiluminescence TEOM FDMS
SIPS	Hillingdon Sipson	507325	177282	Urban background	Y	9m	2.5m	1.5	NO_2	Chemiluminescence
HIL1	London Harmondsworth	505561	177661	Roadside	Y	20m	1m	1.5	NO_2, PM_{10}	Chemiluminescence BAM
HIL4	London Harmondsworth Osiris	505671	177605	Urban background	Y	1m	13m	1.5	TSP, PM_{10}, $PM_{2.5}$, PM_1	Optical
T55	Heathrow Green Gates	505207	177072	Airport	Y	32m	N/A (background for the airport) (62m to airport boundary)	1.5	NO_2, PM_{10}, $PM_{2.5}$	Chemiluminescence FIDAS
T54	Heathrow Oaks	505729	174496	Airport	Y	N/A	5m	1.5	NO_2, PM_{10}, $PM_{2.5}$	Chemiluminescence FIDAS
HIL5	Hillingdon Hayes	510303	178882	Roadside	Y	15m	1m	1.5	NO_2, PM_{10}	Chemiluminescence BAM

Table C1. Details of Non-Automatic Monitoring Sites for 2018

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA? (Y/N)	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	Tube co-located with an automatic monitor? (Y/N)
HD31	AURN Site, Keats Way, West Drayton	506926	178614	Roadside	Y	0	30m from M4	1.5	NO_2	Y
HD43	Uxbridge Day Nursery Park Road Uxbridge (on wire Fence)	505996	184058	Roadside	Y	0	4	1.5	NO_2	N
HD46	South Ruislip Monitoring Station West End Road	510821	184923	Roadside	Y	14	2.5	1.5	NO_2	Y
HD47	Hillingdon Primary School Uxbridge Road Hillingdon (on wire fence)	507617	182506	Roadside	Y	0	5	1.5	NO_2	N
HD49	83 Hayes End Drive Hayes End Middlesex (on drainpipe)	508651	182274	Roadside	Y	7	7	1.5	NO_2	N
HD50	Hillingdon Hospital Monitoring Station Colham Road (Near John Rich House on former junction to Pield Heath Road)	506989	181920	Roadside	Y	7	2	1.5	NO_2	N
HD51	Top of Colham Avenue (4) Yiewsley (lamp post at end of road)	506335	180263	Roadside	Y	0	4	1.5	NO_2	N
HD52	Lamp post near 101 Cowley Mill Road Uxbridge	505159	183232	Roadside	Y	95	1	1.5	NO_2	N
HD53	Warren Road Ickenham Uxbridge (1st lamp post on left)	506243	185653	Roadside	Y	1	23	1.5	NO_2	N
HD55	Harold Avenue (first lamp post on left)	509918	179015	Roadside	Y	4	30	1.5	NO_2	N
HD56	15 Phelps Way Hayes (lamp post outside of)	509798	178654	Roadside	Y	7	1.5	1.5	NO_2	N
HD57	25 Cranford Lane Harlington (lamp post on the left after car park)	508758	177718	Roadside	Y	7	1	1.5	NO_2	N
HD58	Brendan Close Harlington (1st lamp post on the left)	508414	177125	Roadside	Y	0	1	1.5	NO_2	N
HD59	Bomber Close (7) Sipson (1st lamp post on left)	507296	177323	Roadside	Y	8	1	1.5	NO_2	N

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA? (Y/N)	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	Tube co-located with an automatic monitor? (Y/N)
HD60	Harmondsworth Green Harmondsworth (lamp post outside nursery)	505736	177752	Roadside	Y	0	1	1.5	NO_2	N
HD61	Heathrow Close Longford (1st lamp post on the right)	504851	176770	Roadside	Y	0	2	1.5	NO_2	N
HD65	28 Pinglestone Close Sipson Middlsex (on drainpipe)	506079	177081	Roadside	Y	0	4	1.5	NO_2	N
HD67	31 Tavistock Road (on lamp-post outside house)	505731	180288	Roadside	Y	3	1	1.5	NO_2	N
HD70	Harefield Hospital Hill End Road (lamp-post outside entrance)	505299	190923	Background	N	0	5	1.5	NO_2	N
HD73	Queensmead School South Ruislip (lamp-post opposite Jubilee Drive) (outside AQMA)	511825	185655	Roadside	N	0	1	1.5	NO_2	N
HD74	Field End Road/Field End School S.Ruislip 3rd Lamp-post south of school entrance (outside AQMA)	511889	186563	Roadside	N	8	1	1.5	NO_2	N
HD75	Sidmouth Drive South Ruislip (2nd lamppost from West End Road outside Nursery) (outside AQMA)	510125	186144	Roadside	N	4	2	1.5	NO_2	N
HD200	49 Zealand Avenue Lamp Post	505920	177188	Roadside	Y	8	13	1.5	NO_2	N
HD202	49 Silverdale Gardens, Hayes Lamp Post (8)	510361	179820	Background	Y	9	14	1.5	NO_2	N
HD203	Blyth Road, Hayes Lamp Post (4)	509683	179486	Roadside	Y	6	2	1.5	NO_2	N
HD204	Side of 104 Yiewsley High Street (front of 1A Fairfield Road) Lamp Post (2)	506108	180493	Background	Y	9	37	1.5	NO_2	N
HD205	1 Porters Way (corner with Kingston Lane) Lamp Post (1)	506503	179510	Background	Y	12	9	1.5	NO_2	N
HD206	5-7 Mulberry Crescent, West Drayton Lamp Post (18)	507141	179628	Background	Y	10	2	1.5	NO_2	N
HD207	35 Emden Close, West Drayton Lamp Post (14)	507580	179812	Background	Y	7	60	1.5	NO_2	N
HD208	Side of 50 St. Christopher's Drive Lamp Post (13)	510761	180766	Background	Y	5	180	1.5	NO_2	N

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA? (Y/N)	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	Tube co-located with an automatic monitor? (Y/N)
HD209	*29 Pendula Drive, Hayes Lamp Post (2)*	*511828*	*182023*	*Background*	*Y*	*10*	*79*	*1.5*	*NO_2*	*N*
HD210	*340 Long Lane, Uxbridge Lamp Post (71)*	*507649*	*184611*	*Roadside*	*Y*	*18*	*2*	*1.5*	*NO_2*	*N*
HD211	*198 Harefield Road, Uxbridge Lamp Post (2)*	*506143*	*185395*	*Background*	*Y*	*9*	*33*	*1.5*	*NO_2*	*N*
HD212	*59 Hillingdon Road, Uxbridge Lamp Post (56)*	*506035*	*183611*	*Roadside*	*Y*	*12*	*1.5*	*1.5*	*NO_2*	*N*
HD213	*10 West End Lane, Harlington Lamp Post (2)*	*508773*	*177352*	*Background*	*Y*	*11*	*33*	*1.5*	*NO_2*	*N*
HD214	*R/O 130 Cleave Avenue, Hayes Lamp Post (33)*	*509499*	*178370*	*Roadside*	*Y*	*18*	*27*	*1.5*	*NO_2*	*N*
HD302	*Botwell House RC Primary School (Side-fence)*	*509755*	*179934*	*Roadside*	*Y*	*5*	*12*	*1.5*	*NO_2*	*N*
HD401	*15 Victoria Avenue, Hillingdon Lamp Post (2)*	*507730*	*184623*	*Background*	*Y*	*5.6*	*2.7*	*1.5*	*NO_2*	*N*
HD402	*Blyth Road 2nd Tube, Hayes Lamp Post (17) (western most lamp post in front of 133 Enterprise House)*	*509328*	*179603*	*Roadside*	*Y*	*5*	*2*	*1.5*	*NO_2*	*N*

Table C2. Details of Non-Automatic Monitoring Sites for the Investigative NO_2 Monitoring 2018 Survey Outside the AQMA

Site ID	Site Description	X (m)	Y (m)	Site Type	In AQMA? (Y/N)	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	Tube co-located with an automatic monitor? (Y/N)
DT-R1	*Kerbside lamppost alongside West End Road, to the south of Sidmouth Drive, outside Aroma House Chinese restaurant, Ruislip*	*510053.4*	*186080.7*	*Kerbside*	*N*	*10.9*	*1.4*	*1.80*	*NO2*	*N*
DT-R2	*Kerbside lamppost outside 191 West End Road, opposite Roundways, Ruislip*	*509935.6*	*186285.6*	*Kerbside*	*N*	*9.0*	*1.4*	*1.80*	*NO2*	*N*
DT-R3	*Roadside lamppost, at the back of the pavement outside 54 Pembroke Avenue. Opposite the pathway through to Brickwall Lane, Ruislip*	*509697.0*	*187179.7*	*Roadside*	*N*	*8.6*	*2.8*	*1.80*	*NO2*	*N*
DT-R4	*Roadside signpost, centre of pavement, outside hair + beauty workshop, 137-139 High Street, Ruislip. Of the two posts, we used the closest to the buildings. The tube was underneath the sign (rather than behind it).*	*509401.3*	*187176.9*	*Roadside*	*N*	*3.2*	*1.9*	*1.80*	*NO2*	*N*
DT-R5	*Roadside lamppost, at the back of the pavement outside 13 Kingsend, Ruislip*	*509330.8*	*187068.2*	*Roadside*	*N*	*10.7*	*1.8*	*1.80*	*NO2*	*N*
DT-R6	*Lamppost in centre of pavement, outside the Vodaphone store, 69 High Street, Ruislip*	*509272.8*	*187342.3*	*Kerbside*	*N*	*2.9*	*3.1*	*1.80*	*NO2*	*N*
DT-R7	*Roadside lamppost, at the back of the pavement adjacent to the Hart estate*	*509095.1*	*187595.5*	*Roadside*	*N*	*0*	*3.5*	*1.80*	*NO2*	*N*

Site ID	Site Description	X (m)	Y (m)	Site Type	In AQMA? (Y/N)	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	Tube co-located with an automatic monitor? (Y/N)
	agents, 2/6 High Street, Ruislip									
DT-R8	Roadside lamppost, at the back of the pavement outside 3 Bury Street	509011.6	187656.2	Roadside	N	6.7	3.1	1.80	NO2	N
DT-R9	Roadside lamppost, towards the rear of the pavement outside 113 Bury Street.	508738.1	188183.0	Roadside	N	2.5	2.2	1.80	NO2	N
DT-E1	Kerbside lamppost, outside Georgian Lodge, Field End Road, Eastcote	510668.8	188593.6	Kerbside	N	2.4	0.8	1.80	NO2	N
DT-NE1	Roadside lamppost, at the rear of the pavement outside Northwood School, opposite 87 Pinner Road, Northwood	510420.8	190449.9	Roadside	N	3.4	2.3	1.80	NO2	N
DT-NE2	Kerbside lamppost outside Roundabout House, 34 Pinner Road, Northwood	510283.6	190522.0	Kerbside	N	0.3	4.6	1.80	NO2	N
DT-NE3	Roadside lamppost, at the rear of the pavement outside 177/179 Pinner Road. Triplicate tubes, Northwood	509899.1	190648.1	Roadside	N	0	3.4	1.80	NO2	N
DT-NE4	Roadside lamppost, at the rear of the pavement outside 94 High Street, Northwood	509807.3	191093.5	Roadside	N	0.9	0.9	1.80	NO2	N
DT-NW1	Roadside lamppost, at the rear of the pavement adjacent to Merrows Close, and opposite Holy Trinity CE Primary School, Northwood	508274.7	191728.7	Roadside	N	22.8	1.8	1.80	NO2	N

Table C3. Details of Non-Automatic Monitoring Sites for 2018 - Green Lane – Northwood's Voice Local Group

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA? (Y/N)	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	Tube co-located with an automatic monitor? (Y/N)
A	*Hard 8 Bar & Kitchen, 1 Eastbury Road, Northwood HA6 3BG*	*509236.0*	*1911478.0*	*Kerbside*	*N*	*2.7*	*1.0*	*1.8*	*NO_2*	*N*
B	*Steve's Hairdressers, 60 Green Lane, Northwood HA6 2XW*	*509279.8*	*191450.1*	*Roadside*	*N*	*0*	*3.6*	*1.8*	*NO_2*	*N*

2.3 Comparison of Monitoring Results with Air Quality Objectives

Monitoring results are presented in the following summary Figures and Tables:

- Figure 4. Annual mean NO_2 concentrations measured at the automatic monitoring stations, 2009-2018. Dashed red line = annual mean objective.
- Figure 5. London Borough of Hillingdon annual mean NO_2 monitoring data for 2010 – 2018 showing a mild downward trend in concentrations, at diffusion tube locations (average across all sites).
- Figure 6. Annual mean PM_{10} concentrations measured at the automatic monitoring stations, 2009-2018. No sites exceed the annual mean objective.
- Tables D1-D4 providing information on annual mean NO_2 concentrations
- Table E. NO2 Automatic Monitor Results: Comparison with 1-hour Mean Objective
- Table F Annual Mean PM10 Automatic Monitoring Results (µg.m-3)
- Table G PM10 Automatic Monitor Results: Comparison with 24-Hour Mean Objective
- Table H Annual Mean PM2.5 Automatic Monitoring Results (g.m-3)

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.

Tables D1-4 identify a number of locations in the Borough where the annual mean limit value for NO_2 is exceeded. Tables E to H find no exceedance of either the 1 hour mean NO_2 objective or the objectives for particle concentrations.

The information presented in Figure 4 for the automatic sites and Figure 5 for the diffusion tubes demonstrate a slight trend to reductions in NO_2 levels at most sites. The trend is to be expected given the measures that have been taken. When considering trends, it is important to bear in mind that annual differences in meteorology have a large influence on concentrations and short-term trends may not persist.

In contrast, Figure 6, for PM_{10} shows no evidence of a trend when all sites are considered.

The results shown in Tables D3 and D4 will be used in discussions on a possible northwards extension of the AQMA.

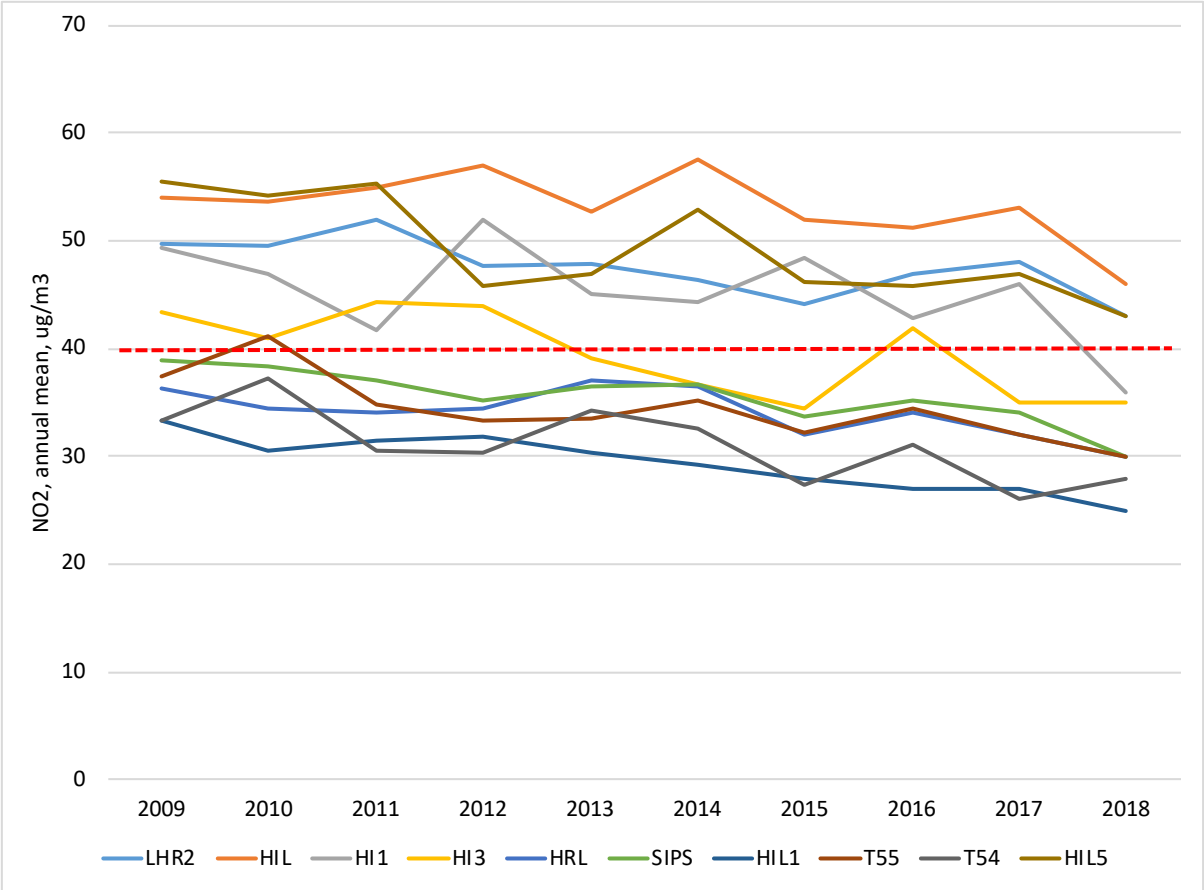


Figure 4. Annual mean NO_2 concentrations measured at the automatic monitoring stations, 2009-2018. Dashed red line = annual mean objective.

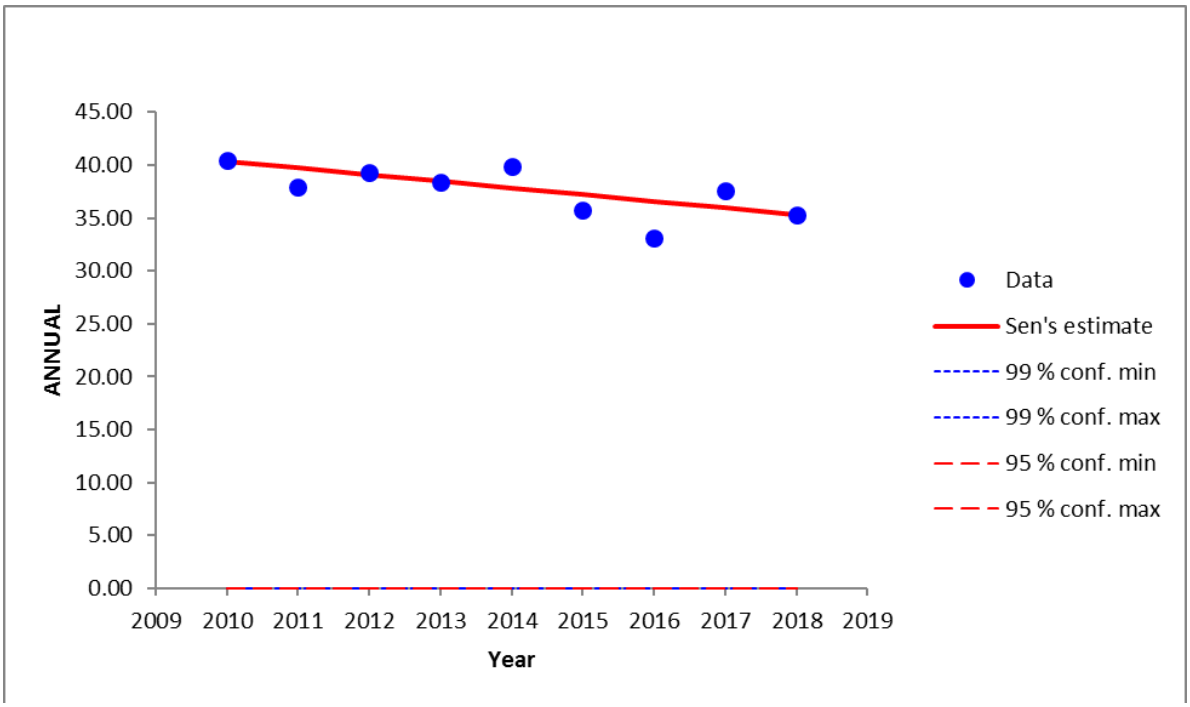


Figure 5. London Borough of Hillingdon annual mean NO_2 monitoring data for 2010 – 2018 showing a mild downward trend in concentrations, at diffusion tube locations (average across all sites).

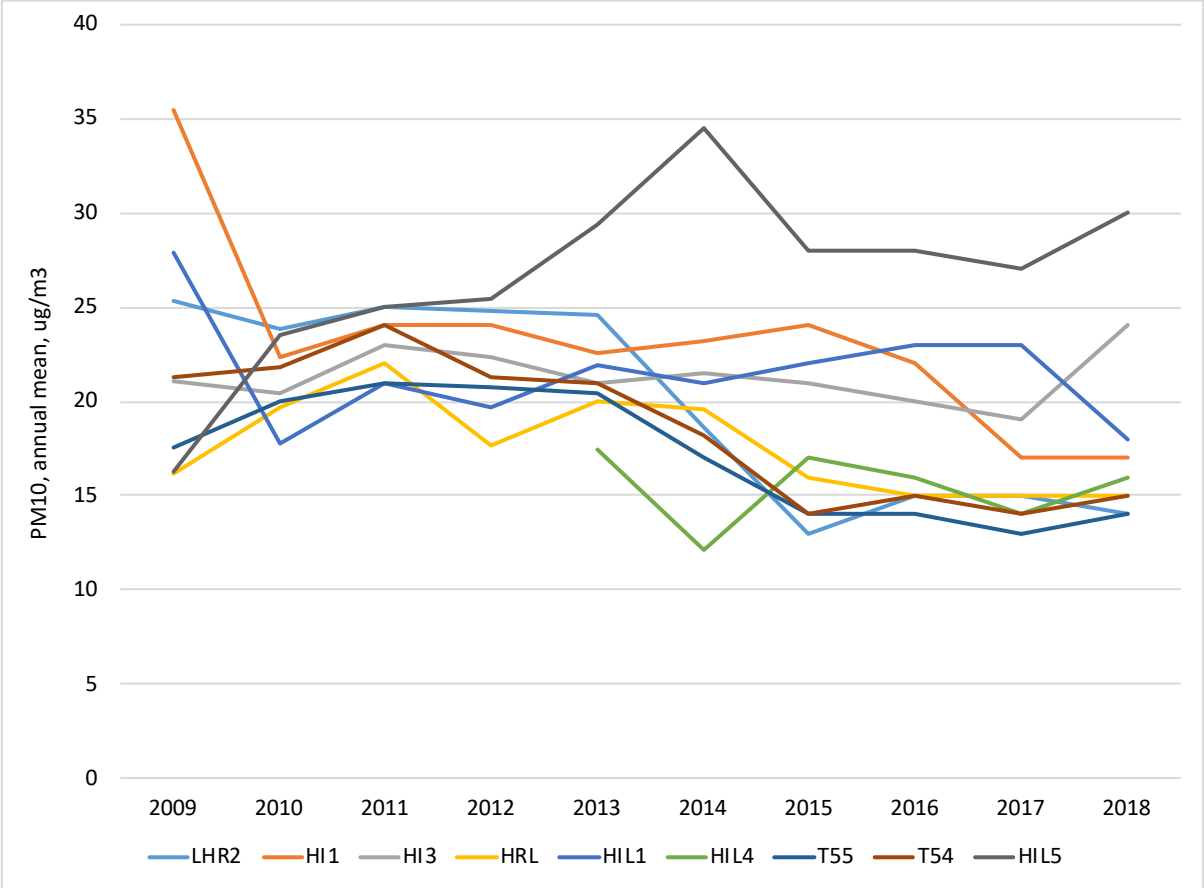


Figure 6. Annual mean PM_{10} concentrations measured at the automatic monitoring stations, 2009-2018. No sites exceed the annual mean objective.

Table D1. Annual mean NO_2 ratified and bias-adjusted monitoring results ($\mu g\ m^{-3}$) for 2018.

Site ID	Site type	Valid data capture for monitoring period % [a]	Valid data capture, 2018, % [b]	Annual Mean Concentration ($\mu g.m^{-3}$) [c]						
				2012 [c]	2013 [c]	2014 [c]	2015 [c]	2016 [c]	2017 [c]	2018 [c]
LHR2	*Automatic*	*94.50*	*94.50*	***47.7***	***47.9***	***46.4***	***44.2***	***47.0***	***48***	***43***
HIL	*Automatic*	*92.63*	*92.63*	***57.1***	***52.8***	***57.5***	***51.9***	***51.2***	***53***	***46***
HI1	*Automatic*	*94.20*	*94.20*	***52.0***	***45.0***	***44.4***	***48.4***	***42.9***	***46***	*36 **
HI3	*Automatic*	*97.63*	*97.63*	***44.0***	*39.2*	*36.7*	*34.5*	***41.9***	*35*	*35*
HRL	*Automatic*	*92.39*	*92.39*	*34.5*	*37.1*	*36.5*	*32.0*	*34.0*	*32*	*30*
SIPS	*Automatic*	*98.66*	*98.66*	*35.2*	*36.5*	*36.6*	*33.7*	*35.2*	*34*	*30*
HIL1	*Automatic*	*98.66*	*98.66*	*31.8*	*30.4*	*29.2*	*28.0*	*27.0*	*27*	*25*
T55	*Automatic*	*95.67*	*95.67*	*33.4*	*33.5*	*35.1*	*32.2*	*34.4*	*32*	*30*
T54	*Automatic*	*99.81*	*99.81*	*30.3*	*34.2*	*32.6*	*27.4*	*31.0*	*26*	*28*
HIL5	*Automatic*	*99.78*	*99.78*	***45.9***	***47.0***	***52.9***	***46.2***	***45.9***	***47***	***43*** *(39.1)*

Notes: Exceedance of the NO_2 annual mean AQO of 40 µg m^{-3} are shown in **bold**

NO_2 annual means in excess of 60 µg m^{-3}, indicating a potential exceedance of the NO_2 hourly mean AQS objective are shown in **bold** and <u>underlined</u> (no such cases are present)

[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%)

[c] Means were "annualised" in accordance with LLAQM Technical Guidance, when valid data capture is less than 75%

[d] This is a triplicate measurement. Two of the monitors had a data capture of 66.7% and were annualised – see Appendix A3 for further details

Brackets indicate concentration at relevant exposure

* Site being checked to see if the fall in 2018 is a consequence of relocation.

Table D2. Annual mean NO_2 ratified and bias-adjusted monitoring results (µg m^{-3}) for 2018.

Site ID	Site type	Valid data capture for monitoring period % [a]	Valid data capture, 2018, % [b]	Annual Mean Concentration (µg.m^{-3}) [c]						
				2012 [c]	2013 [c]	2014 [c]	2015 [c]	2016 [c]	2017 [c]	2018[c]
HD31	Diffusion Tube	100.0[d]	100.0[d]	**46.8**	**43.4**	**47.3**	**41.1**	34.3	**45.3**	**42.0**
HD43	Diffusion Tube	100.0	100.0	**45.6**	**47.6**	**46.3**	**42.8**	**42.8**	**40.1**	**40.7**
HD46	Diffusion Tube	100.0	100.0	**45.4**	**45.8**	**46.7**	**43.2**	**40.2**	**46.7**	**43.4**
HD47	Diffusion Tube	100.0	100.0	31.4	33.2	32.4	28.9	26.8	28.2	28.5
HD49	Diffusion Tube	91.7	91.7	26.0	25.4	26.5	22.1	20.9	26.5	23.6
HD50	Diffusion Tube	100.0	100.0	39.7	39.8	**42.6**	**40.6**	32.3	36.1	33.4
HD51	Diffusion Tube	91.7	91.7	36.6	34.3	36.7	33.3	29.3	32.9	30.6
HD52	Diffusion Tube	91.7	91.7	37.4	38.5	37.6	32.3	30.0	34.0	35.3
HD53	Diffusion Tube	91.7	91.7	**45.1**	**40.7**	**46.8**	**42.3**	39.0	**45.6**	37.6
HD55	Diffusion Tube	100.0	100.0	**41.0**	38.9	40.0	35.7	34.7	**43.3**	37.7
HD56	Diffusion Tube	100.0	100.0	37.0	35.5	35.4	31.4	32.1	33.4	33.9
HD57	Diffusion Tube	100.0	100.0	39.7	37.9	39.9	35.6	35.5	39.4	37.2
HD58	Diffusion Tube	100.0	100.0	40.4	38.4	**42.1**	37.2	34.2	**47.5**	39.6
HD59	Diffusion Tube	100.0	100.0	36.1	35.5	33.6	29.1	30.3	32.6	32.9
HD60	Diffusion Tube	91.7	91.7	32.5	31.1	31.9	26.8	24.2	27.8	28.5
HD61	Diffusion Tube	100.0	100.0	34.5	37.5	37.3	34.4	31.9	34.0	36.0
HD65	Diffusion Tube	100.0	100.0	33.3	31.5	34.1	29.9	26.7	30.0	30.9
HD67	Diffusion Tube	100.0	100.0	29.5	29.8	30.7	28.7	25.8	26.9	29.5
HD70	Diffusion Tube	100.0	100.0	25.7	24.0	23.8	19.8	19.1	22.1	20.5
HD73	Diffusion Tube	91.7	91.7	28.1	27.1	28.1	21.7	32.8	27.7	25.4
HD74	Diffusion Tube	100.0	100.0	28.7	28.6	29.4	24.6	24.0	24.4	26.9
HD75	Diffusion Tube	100.0	100.0	29.3	28.5	28.7	23.7	22.8	26.9	25.8
HD200	Diffusion Tube	100.0	100.0	36.7	**41.7**	**40.8**	35.2	29.4	**42.7**	38.6
HD202	Diffusion Tube	100.0	100.0	32.5	35.9	35.5	26.7	26.1	32.7	31.0
HD203	Diffusion Tube	91.7	91.7	**44.8**	**43.4**	**46.8**	**41.9**	**40.9**	**49.0**	38.5
HD204	Diffusion Tube	100.0	100.0	37.5	38.3	39.7	**40.9**	32.0	37.0	35.0
HD205	Diffusion Tube	100.0	100.0	**41.8**	40.0	**42.0**	**41.1**	35.9	37.9	36.6
HD206	Diffusion Tube	100.0	100.0	29.5	29.2	35.0	30.0	29.6	34.7	34.9
HD207	Diffusion Tube	91.7	91.7	30.9	35.2	38.1	31.2	24.9	33.3	37.1
HD208	Diffusion Tube	58.3	58.3	28.5	29.6	30.5	27.3	28.9	27.3	30.8
HD209	Diffusion Tube	91.7	91.7	33.7	32.0	33.7	30.5	30.9	32.1	29.0
HD210	Diffusion Tube	100.0	100.0	**48.7**	**48.3**	**51.0**	**43.3**	**42.5**	**45.5**	**42.4** (33.2)

HD211	*Diffusion Tube*	*100.0*	*100.0*	*33.4*	*35.9*	*38.8*	*34.0*	*34.8*	*34.2*	*35.1*
HD212	*Diffusion Tube*	*100.0*	*100.0*	*33.1*	***42.3***	***45.4***	*38.5*	*35.5*	*40.0*	*36.9*
HD213	*Diffusion Tube*	*100.0*	*100.0*	*37.5*	***40.5***	*39.8*	*37.0*	*37.4*	***45.6***	*39.3*
HD214	*Diffusion Tube*	*100.0*	*100.0*	***48.3***	***44.5***	***50.5***	***43.7***	***42.1***	***51.5***	***42.0 (41.1)***
HD302	*Diffusion Tube*	*100.0*	*100.0*	*-*	*-*	*38.9*	*30.7*	*30.8*	*33.8*	*32.5*
HD401	*Diffusion Tube*	*100.0*	*100.0*	*-*	*-*	*-*	*30.0*	*27.6*	*29.4*	*28.6*
HD402	*Diffusion Tube*	*100.0*	*100.0*	*-*	*-*	*-*	*32.1*	*32.3*	*35.7*	*31.7*

Notes: Exceedance of the NO_2 annual mean AQO of 40 µg m^{-3} are shown in **bold**

NO_2 annual means in excess of 60 µg m^{-3}, indicating a potential exceedance of the NO_2 hourly mean AQS objective are shown in **bold** and underlined (no such cases are present)

[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%)

[c] Means were "annualised" in accordance with LLAQM Technical Guidance, when valid data capture is less than 75%

[d] This is a triplicate measurement. Two of the monitors had a data capture of 66.7% and were annualised – see Appendix A3 for further details

Brackets indicate concentration at relevant exposure

Table D3. Annual mean NO_2 ratified and bias-adjusted monitoring results - Investigative NO_2 monitoring 2018 survey outside the AQMA.

Site ID	Site type	Valid data capture for monitoring period % [a]	Valid data capture, 2018, % [b]	Annual Mean Concentration (µg.m^{-3}) [c]	
				Raw	2018
DT-R1	Diffusion Tube	100	100	38.59	37.43
DT-R2	Diffusion Tube	100	100	38.51	37.36
DT-R3	Diffusion Tube	100	100	32.49	31.51
DT-R4	Diffusion Tube	100	100	36.11	35.03
DT-R5	Diffusion Tube	100	100	35.33	34.27
DT-R6	Diffusion Tube	100	100	**40.23**	39.02
DT-R7	Diffusion Tube	100	100	**44.29**	**42.96**
DT-R8	Diffusion Tube	100	100	36.9	35.79
DT-R9	Diffusion Tube	100	100	32.58	31.6
DT-E1	Diffusion Tube	83	83	**50.17**	**48.66**
DT-NE1	Diffusion Tube	100	100	30.78	29.86
DT-NE2	Diffusion Tube	100	100	**40.94**	39.72
DT-NE3 A	Diffusion Tube	92	92	38.06	36.92
DT-NE3 B	Diffusion Tube	100	100	36.84	35.73
DT-NE3 C	Diffusion Tube	92	92	36.6	35.5
DT-NE4	Diffusion Tube	100	100	33.49	32.49
DT-NW1	Diffusion Tube	100	100	31.17	30.23

Notes: Exceedance of the NO_2 annual mean AQO of 40 µg m^{-3} are shown in **bold**

NO_2 annual means in excess of 60 µg m^{-3}, indicating a potential exceedance of the NO_2 hourly mean AQS objective are shown in **bold** and underlined (no such cases are present)

[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%)

[c] Means were "annualised" in accordance with LLAQM Technical Guidance, when valid data capture is less than 75% (does not apply to any of the sites).

Table D4. Annual Mean NO_2 Ratified and Bias-adjusted Monitoring Results (µg m^{-3}).

Site ID	Site type	Valid data capture for monitoring period % [a]	Valid data capture, 2018, % [b]	Annual Mean Concentration (µg.m^{-3}) [c]		
				2016 [c]	2017 [c]	2018[c]
A	*Diffusion Tube*	*100*	*100*	***40.6***	*37.1*	***41.8*** *(36.3)*
B	*Diffusion Tube*	*100*	*100*	*35.7*	*31.6*	*35.4*

Notes: Exceedance of the NO_2 annual mean AQO of 40 µg m^{-3} are shown in **bold**
NO_2 annual means in excess of 60 µg m^{-3}, indicating a potential exceedance of the NO_2 hourly mean AQS objective are shown in **bold** and underlined (no such cases are present)
[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%)
[c] Means were "annualised" in accordance with LLAQM Technical Guidance, when valid data capture is less than 75% (does not apply to either site).
Brackets indicate concentration at relevant exposure

Table E. NO_2 Automatic Monitor Results: Comparison with 1-hour Mean Objective.

Site ID	Valid data capture for monitoring period % [a]	Valid data capture 2018 % [b]	Number of Hourly Means > 200 µg.m^{-3}						
			2012 [c]	2013 [c]	2014 [c]	2015 [c]	2016 [c]	2017 [c]	2018 [c]
LHR2	94.50	94.50	0	3	0	2	8	12	0
HIL	92.63	92.63	0	0	0	1	2	0	0
HI1	94.20	94.20	14	0	0	0	2	2	0
HI3	97.63	97.63	0 (124)	1 (132)	0 (124)	2	0	1	0
HRL	92.39	92.39	0	5 (172)	0	0	0	0	0
SIPS	98.66	98.66	0	0	0	3	0	0	0
HIL1	98.66	98.66	0 (123)	0	0	1	0	0	0
T55	95.67	95.67	0	0	0	0	0	0	0
T54	99.81	99.81	0	0	0	0	0	0	0
HIL5	99.78	99.78	2	4	2	2	1	12	0

Notes: Exceedance of the NO_2 short term AQO of 200 µg m^{-3} over the permitted 18 days per year or where the 99.8th percentile exceeds 200 µg m^{-3} are shown in **bold.** Where the period of valid data is less than 85% of a full year, the 99.8th percentile is shown in brackets after the number of exceedances.
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%)
c) Means are "annualised" in accordance with LLAQM Technical Guidance, if valid data capture is less than 75% (does not apply to any of the sites).

Table F Annual Mean PM_{10} Automatic Monitoring Results ($\mu g.m^{-3}$).

Site ID	Site name	Valid data capture for monitoring period % [a]	Valid data capture 2016 % [b]	Annual Mean Concentration (μgm^{-3})						
				2012 [c]	2013 [c]	2014 [c]	2015 [c]	2016 [c]	2017 [c]	2018 [c]
LHR2	*Heathrow*	*99.75*	*99.75*	*24.8*	*24.6*	*18.6*	*13*	*15*	*15*	*14*
HI1	*South Ruislip*	*96.22*	*96.22*	*24.1*	*22.6*	*23.2*	*24*	*22*	*17*	*17*
HI3	*Oxford Avenue*	*95.55*	*95.55*	*22.4*	*21*	*21.5*	*21*	*20*	*19*	*24*
HRL	*London Harlington*	*96.72*	*96.72*	*17.7*	*20*	*19.6*	*16*	*15*	*15*	*15*
HIL1	*Hillingdon Harmondsworth*	*74.44*	*74.44*	*19.7*	*21.9*	*21*	*22*	*23*	*23*	*18*
HIL4	*London Harmondsworth Osiris*	*91.93*	*91.93*	*-*	*17.4*	*12.1*	*17*	*16*	*14*	*16*
T55	*Heathrow Green Gates*	*99.83*	*99.83*	*20.8*	*20.4*	*17*	*14*	*14*	*13*	*14*
T54	*Heathrow Oaks Road*	*99.58*	*99.58*	*21.3*	*21*	*18.2*	*14*	*15*	*14*	*15*
HIL5	*Hillingdon Hayes*	*95.64*	*95.64*	*25.4*	*29.4*	*34.5*	*28*	*28*	*27*	*30*

Notes: Exceedance of the PM_{10} annual mean AQO of 40 µg m^{-3} are shown in **bold**.

[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%)

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

Table G **PM_{10} Automatic Monitor Results: Comparison with 24-Hour Mean Objective.**

Site ID	Site name	Valid data capture for monitoring period % [a]	Valid data capture 2018 % [b]	Number of Daily Means > 50 µgm^{-3}						
				2012 [c]	2013 [c]	2014 [c]	2015 [c]	2016 [c]	2017 [c]	2018 [c]
LHR2	*Heathrow*	*99.75*	*99.75*	*18*	*12*	*6*	*3*	*3*	*7*	*0*
HI1	*South Ruislip*	*96.22*	*96.22*	*16*	*10*	*18*	*3*	*9*	*6*	*0*
HI3	*Oxford Avenue*	*95.55*	*95.55*	*10*	*6 (34)*	*6*	*3*	*11*	*4*	*0*
HRL	*London Harlington*	*96.72*	*96.72*	*8 (37)*	*9*	*6 (36)*	*3*	*5*	*3*	*0*
HIL1	*Hillingdon Harmondsworth*	*96.22*	*96.22*	*5 (37)*	*7*	*7*	*4*	*4*	*6*	*0*
HIL4	*London Harmondsworth Osiris*	*91.93*	*91.93*	*-*	*2 (34)*	*0*	*17*	*0*	*1*	*0*
T55	*Heathrow Green Gates*	*99.83*	*99.83*	*8*	*8*	*2*	*3*	*3*	*3*	*0*
T54	*Heathrow Oaks Road*	*99.58*	*99.58*	*11*	*8*	*2*	*5*	*2*	*4*	*0*
HIL5	*Hillingdon Hayes*	*95.64*	*95.64*	*15 (47)*	*17 (46)*	*45 (60)*	*14*	*32*	*26*	*0*

Notes: Exceedance of the PM_{10} 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 85% of a full year, the 90.4th percentile is shown in brackets after the number of exceedances.

[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%)

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

Table H Annual Mean $PM_{2.5}$ Automatic Monitoring Results ($\mu g.m^{-3}$).

Site ID	Valid data capture for monitoring period % [a]	Valid data capture 2018 % [b]	Annual Mean Concentration (μgm^{-3})						
			2012 [c]	2013 [c]	2014 [c]	2015 [c]	2016 [c]	2017 [c]	2018 [c]
LHR2	*99.75*	*99.75*	*11.0*	*11.0*	*9.9*	*9.0*	*10*	*9*	*8*
HRL	*96.72*	*96.72*	*13.0*	*14.0*	*14.0*	*10.0*	*10*	*9*	*9*
HIL4	*91.90*	*91.90*	-	-	*6.9*	*7.0*	*6*	*7*	*6*
T55	*99.83*	*99.83*	*10.0*	*10.0*	*10.0*	*9.0*	*10*	*8*	*7*
T54	*99.58*	*99.58*	*10.0*	*10.0*	*10.0*	*10.0*	*10*	*9*	*10*

Notes: Exceedance of the $PM_{2.5}$ annual mean AQO of 25 μgm^{-3} are shown in **bold**.

[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%)

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

3 Action to Improve Air Quality

3.1 Background

This is the final report for Hillingdon's original Air Quality Action Plan which has been in place as a live document since 2004. Annual reports on progress have been submitted to DEFRA and now the GLA for approval throughout the life of the plan and are available at the Borough's air quality website.

Following the Mayor of London's release of updated pollution maps and new Action Plan guidance the Council reviewed the original plan taking the new guidance into account. The new Air Quality Action Plan (AQAP) 2019-2024 has been developed through a consultation process including a statutory and public consultation which ended on 19th April 2019. The Plan has now been adopted by Cabinet and details the actions to be taken to improve air quality over the next 5 years. At this point the Plan will again be subject to review.

3.2 A brief history

3.2.1 The position in 2004

- Pollution levels were observed to be particularly high around Heathrow Airport and the major road network. Through traffic was a major contributor to pollution as well as local traffic. Public transport provision was inadequate especially in the north-south axis of the Borough, and this was seen as an obstacle for modal shift;
- Designing local actions specifically on improving air quality that took specific account of the characteristics of pollution hotspots was relatively new. Actions taken under the UK's earlier Clean Air Acts had introduced measures like clean air zones across large areas, for example the whole of London.
- Local authorities were encouraged to look at all actions with the potential to improve air quality. This led to a large number of actions being included in the original AQAP;
- The development of action plans raised the profile of air quality and started to influence planning policy and transport policy;
- The scientific evidence started to build for a positive switch to cleaner technologies for energy and for road vehicles.

There was Government support for expansion of Heathrow, with the caveat that this support was only if air quality limits could be met. The 2003 White Paper on Air Transport stated that:
"The further development of Heathrow is supported, including a further new runway and additional terminal capacity to be delivered as soon as possible (within the 2015-2020 period) after the new runway at Stansted, but only if stringent environmental limits can be met. An urgent programme of work and consultation will be started to examine this issue further and to consider how best use can be made of the existing airport."

3.2.2 The position now

Since 2004 a vast amount of new medical evidence has been published that has highlighted the urgency of improving air quality.

The original action plan has been implemented with most actions taken through to completion. A few measures were not pursued past an initial exploratory phase when it became apparent that they were unlikely to be cost-effective. Measures that were not implemented were for the most part allocated to external bodies such as Heathrow Airport, who developed their own separate plan over the implementation phase for Hillingdon's 2004 AQAP. Measures that were introduced included:

- Members of the public being given access to free pollution alert forecasting services;
- Improved public transport, with anticipated arrival of Crossrail;
- First north-south bus route is now planned within Hillingdon;
- Cleaner technologies for road vehicles have been encouraged and enforced by LEZ and now ULEZ policies, together with planning policies for new developments;
- All schools in the Borough are part of the accredited system (TfL STARS) for encouraging targeted school travel plans and monitoring of new development travel plans;
- Planning developments are required to quantify and mitigate their impacts

In spite of the actions taken, pollution levels remain high in the Heathrow Airport area and the major road network. Through traffic remains a major contributor as well as local traffic. Increased population and increased road traffic have outweighed some of the benefits of cleaner technologies. The anticipated benefits of the original AQAP were hampered particularly by the proliferation of diesel vehicles and a failure of motor manufacturers to market vehicles that met required emission standards on the road, outside of test conditions.

Having been rejected by the Coalition Government on environmental grounds, there is once again Government support for expansion at Heathrow, again with the caveat that support is only if air quality legal obligations are met:
"In order to grant development consent, the Secretary of State will need to be satisfied that, with mitigation, the scheme would be compliant with legal obligations that provide for the protection of human health and the environment." (Airports NPS)
As recognised in the original Action Plan in 2004, the Council remains opposed to further expansion of the airport and is actively involved in a legal challenge of the Airports NPS. However, whilst the potential expansion raises important issues for the Council in the longer term, it does not affect the need to take action to improve air quality for residents as soon as possible.

The development of the new Plan is described in Section 3.5 and will form the basis of future annual progress reports.

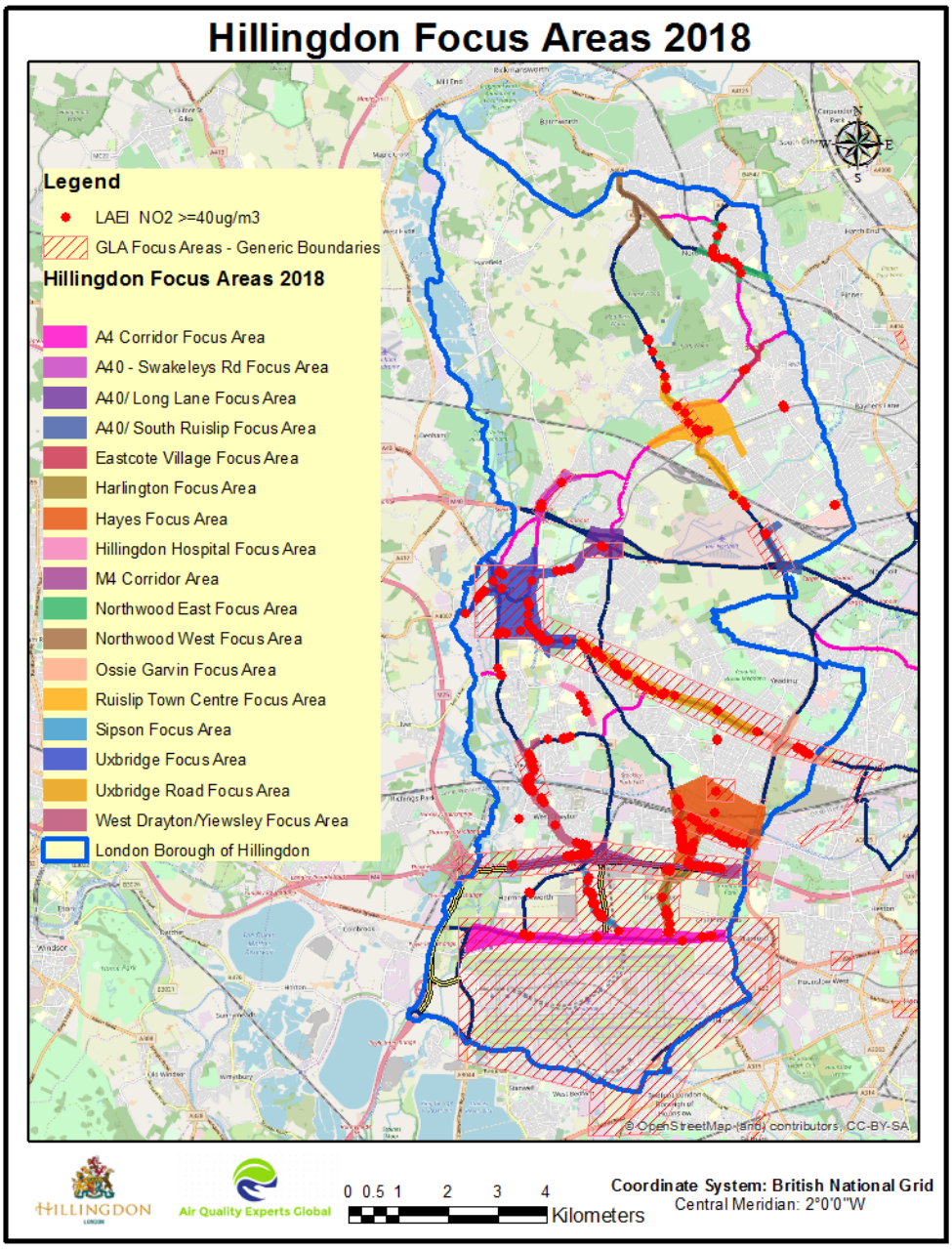
3.3 AQAP Highlights 2018

This section reports on the actions taken during 2018.

3.3.1 Establishing an accurate baseline

The Council Air Quality Focus Areas are illustrated in Figure 7. Based upon 11 Air Quality Focus Areas identified by GLA, these represent the key places in the borough where air quality is predicted to be poor and public exposure is the highest. The Council has taken a precautionary approach and extended the area of focus in each case to allow actions to be taken over a wider area, to account for locations where public exposure has been predicted above the limit values.

Figure 7. Air Quality Focus Areas in Hillingdon



Additional focus areas have also been added to the original GLA list, such as Northwood, Eastcote and Ruislip, where the updated GLA pollution mapping has indicated there may be pockets of poorer air quality. An air quality monitoring study has been undertaken in these areas to assess the extent of any areas at risk of exceeding where there is relevant public exposure. Results were reported above (Tables D3 and D4).

In 2019 the Council will incorporate the results from this monitoring study to undertake a full review of all the monitoring in the Borough to ensure there is sufficient coverage in the Air Quality Focus Areas, as well as allowing for maintenance of a number of background sites to continue to monitor trends over time.

There are two further activities relevant to work on the baseline:

- Hillingdon has participated in the Breathe London air quality pod monitoring exercise. A pod has been located close to the Ruislip Focus Area for a number of months. It is anticipated the pod will be relocated in 2019 to a school within an Air Quality Focus Area in close proximity to a busy road.
- Permission has been given for an MSc project to be undertaken within the Hayes Focus Area. The project will use passive monitoring in the form of diffusion tubes plus chemi-luminesence monitoring as a portable unit both on walking routes and driving routes in the area. The project will include assessment at different times of the day including peak times. The project results will be shared with the Council.

3.3.2 Providing information to the public

Two particular activities relevant here concern the consultation on the revision of the AQAP (described in Section 3.5) and the AirTEXT service.

AirTEXT provides users with automatic information on days when air pollution is rated as ‘moderate’ or higher, providing advice for both at-risk individuals and the general population. An example of the information sent out is shown below.

In 2018, a subscribers' survey was carried out to assess whether this was considered to be providing a valuable service. The summary of the public consultation is detailed below, this is based upon the 507 AirTEXT subscribers who responded to the Subscriber Survey:

- 97% say that AirTEXT increases their awareness of high pollution days;
- 83% say that when they receive an AirTEXT alert they take action to reduce their pollution exposure;
- 94% say that AirTEXT is useful to them, with 66% saying that AirTEXT is very useful; and
- 98% say that either they or someone they care for suffers from a health condition adversely affected by air pollution.

Each local authority makes a small annual contribution to ensure this service is still made available for its subscribers. Based upon the feedback above, the AirTEXT service will be continued.

MODERATE air pollution alert for Hillingdon View this email in your browser

Air quality, pollen, UV and temperature forecasts for Greater London and the South-East

Maximum expected level during Friday 28th June to Sunday 30th June:

MODERATE air pollution alert for Hillingdon

Alert issued: Fri 28th Jun 2019 08:01

Hillingdon air pollution alert status for the next three days:

Friday	Saturday	Sunday
No Alert	**MODERATE**	*No Alert*

To see detailed maps of predicted air pollution levels in Hillingdon for the next three days, go to www.airtext.info.

What does the air pollution alert mean?

The table below shows you what action the Government says you should take to protect your own health and the health of those you care for.

Air pollution alert status	Accompanying health message for at-risk individuals*	Accompanying health messages for the general population
No Alert	**Enjoy** your usual outdoor activities.	**Enjoy** your usual outdoor activities.
MODERATE	Adults and children with lung problems, and adults with heart problems, **who experience symptoms** should **consider reducing** strenuous physical activity, particularly outdoors.	**Enjoy** your usual outdoor activities.
HIGH	Adults and children with lung problems and adults with heart problems should **reduce** strenuous physical exertion, particularly outdoors and particularly if they experience symptoms. People with asthma may find they need to use their reliever inhaler more often. Older people should also **reduce** physical exertion.	Anybody experiencing discomfort such as sore eyes, cough or sore throat should **consider reducing** activity, particularly outdoors.
VERY HIGH	Adults and children with lung problems, adults with heart problems, and older people, should **avoid** strenuous physical activity. People with asthma may find they need to use their reliever inhaler more often.	**Reduce** physical exertion, particularly outdoors, especially if you experience symptoms such as cough or sore throat .

*Adults and children with heart or lung problems are at greater risk of symptoms. Follow your doctor's usual advice about exercising and managing your condition. It is possible that very sensitive individuals may experience health effects even on low air pollution days. Anyone experiencing symptoms should follow the guidance provided above.
Click here for more information about the UK Government's air quality index and alert scale.

From July 2017 to end of August 2018 a total of 4,580 alerts were sent out to subscribers in Hillingdon. Of these 1,751 were emails, 2,549 were texts and 280 were voicemails. An additional 8 new subscribers signed up in this year bringing the total number of subscribers in Hillingdon to 160.

GP surgeries, care homes and all schools throughout the borough are automatically alerted to the pollution alerts via the Mayor of London's office.

3.3.3 Planning actions

Hillingdon Tree Planting Scheme

A further thirty-nine street trees were planted in 2018/2019. All the trees were located in poor air quality areas. The choice of tree species has been considered in regard to the Urban Tree Air Quality Score (UTAQ) (Urban Air Quality, Woodland Trust) with the majority of trees chosen in the high and medium UTAQ ranges. This is in addition to trees planted via improvement schemes or associated with new developments.

Air quality and planning via the Hillingdon Local Plan Part 2

The planning system has a key role in protecting people from unacceptable risks to their health and in providing adequate protection to the amenity value of land. Whereas these considerations must be balanced against other aims of the planning system, protecting human health is one of the priority aspects of Local Authorities' policy.

In August 2019 the Hillingdon Local Plan Part 2 went through the examination in public process. This included a specific public session on air quality. The following text is the latest agreed version:

Policy DMEI 14: Air Quality

A) Development proposals should demonstrate appropriate reductions in emissions to sustain compliance with and contribute towards meeting EU limit values and national air quality objectives for pollutants.

B) Development proposals should, as a minimum:

i) be at least "air quality neutral";

ii) include sufficient mitigation to ensure there is no unacceptable risk from air pollution to sensitive receptors, both existing and new; and

iii) actively contribute towards the improvement of air quality, especially within the Air Quality Management Area

The Council is currently awaiting the final report from the Inspector before final adoption, currently anticipated for later in 2019.

The Council request a more stringent approach for the assessment of new development within the Hillingdon Focus Areas. Where increased emissions from the proposed development have not been appropriately addressed either at the design stage or through the application of quantified mitigation, compensation for air quality impacts will be addressed through a section 106 agreement. The contribution required is calculated by use of the damage cost approach for NOx emissions, as set out in Defra's Air Quality Damage Cost Guidance[5]. The results of this work will then be used to implement measures to ensure air quality improvements are made in the areas of concern.

[5] https://www.gov.uk/government/uploads/.../air-quality-econanalysis-damagecost.pdf
https://www.gov.uk/guidance/air-quality-economic-analysis

In April 2018 - end of March 2019 the Council reviewed 60 planning applications with respect to air quality impacts and requested appropriate mitigation and set relevant conditions as appropriate. Further information is given in Section 4.

3.3.4 Working with schools

Green barriers

Following the successful screening project last year, a further two establishments were identified within the Uxbridge Air Quality Focus Area where play areas for the pupils were close to busy roads. One was a day nursery where the play area is bordered by the main dual carriageway linking the A40 and Uxbridge Town centre, the other, a primary school where the outdoor playing area was in close proximity to the busy town bypass. Green boundaries, backed by sheeted willow hurdles, have been erected to protect pupil exposure when using the outdoor space, using money secured via the LIP and s106 (Section 106) agreements.

Nursery

Primary school

An air quality presentation was delivered to the Schools Travel Plan conference outlining the impacts of air pollution and the practical steps that can be taken in order to reduce pupil exposure.

TfL STARTS programme

There continues to be active engagement with schools in the borough on the TfL STARS programme with an additional eight schools awarded Gold status, seven awarded Silver and seven Bronze in 2018/2019.

In response to the success of the Council's various cycle training initiatives, the number of pupils cycling to school in Hillingdon continues to grow. As cycle numbers increase, so does the demand for cycle parking. Capital release is requested to fund the acquisition of secure cycle parking stands and infrastructure such as shelters. These will be provided at schools where the demand for cycle parking exceeds supply and where cycle parking is identified in the School Travel Plan.

An air quality education programme, secured via s106, has been commissioned for a school in the West Drayton/Yiewsley Focus Area. It is anticipated that active promotion and raising awareness of air quality issues will lead to enhanced engagement on sustainable travel modal

shift and the TfL STAR rating for the school. If this proves successful funding will be sought to engage with schools within Air Quality Focus Areas across the borough.

School Keep Clear Zones
CCTV cameras have been installed outside most Hillingdon schools. This is done to ensure the safety of all school children within the borough and also acts as a mechanism to stop vehicles idling in close proximity to the school gates where there is potentially a large potential for public exposure as the children walk to school.

Monthly reports are collated for every school detailing the number of PCN notices served. In 2018/2019 a total of 3,734 were served. Although the Council can only work with schools where there is an appetite for engagement, this information will be used to evaluate where a proactive engagement and awareness raising scheme is most needed.

Parent parking pledge initiative
Promoted by the School Travel Plan team, the parent parking pledge sets a number of principles for parents to sign up to at individual schools. The Hillingdon -wide principles include the following as a minimum although schools are encouraged to include other location specific issues:

- I agree to help my child / children travel actively at least once a week
- I agree to drive with consideration for others
- I agree to park away from the school gates
- I agree to never block a driveway
- I agree to turn off my engine when parked

The numbers of pledges will be collated on a regular basis and provide information on the schools where engagement is successful and the schools where the engagement on the initiative is currently poor. With appropriate funding in place, this could allow for a more proactive engagement with schools where the take up is currently poor, with success of the engagement being measured by more pledges signed.

School safety schemes
Improvements continue to be made to areas around schools across the borough to enable a safe environment for walking and cycling. These schemes are accompanied by promotional events such as Walking Bears, Happy Shoes Day, Walk to School Week, and Walk on Wednesdays. In 2018/2019 this has included schemes within the Northwood, Ruislip, Yiewsley, Uxbridge and Hayes Focus Areas.

With the introduction of the walking zones project the school travel plan team work with schools to identify the routes that people use and then deliver a package of measures to create a safe and pleasant walking zone around the school, for example safer crossing points and legal car parking away from the school entrance etc

3.3.5 Idling vehicles - borough-wide enforcement

Hillingdon was one of the first London boroughs to tackle the issue of using enforcement against idling vehicles via the issuing of Fixed Penalty Notices (FPNs) under a Public Spaces

Protection Order (PSPO). This started as a trial in the Heathrow Villages ward where many complaints were received in regard to vehicles idling outside residential areas waiting for airport pickups. This trial has now been expanded to cover the whole of the borough under the PSPO signed on 19th April 2017. The Order is for the duration of three years.

The enforcement is carried out by Environmental Enforcement Team (EET) with FPNs issued when a vehicle has been observed with its engine running for over 5 minutes. As well as known problem areas near to the airport, the team also respond to complaints received from other areas of the borough.

In regard to licensed private hire minicabs and taxis, the EET carry out regular joint enforcement exercises with TfL officers. TfL are the licensing body for private hire minicabs and taxis and therefore have a role to play in their correct operation. When an FPN has been issued for idling by Hillingdon EET officers, the TfL officers then check the vehicle for compliance against their licences at the same time.

There have also been successful joint action days organised by the Hillingdon Community Safety Team with EET and TfL where communities can be made aware of issues such as the reporting of idling vehicles, personal safety when using minicabs and other related issues.

The numbers of FPNs issued, and the location in which they were issued is collected on a monthly basis. This information helps evaluate where the problem areas for no idling are being reported and allows for the development of a targeted approach.

In 2018/2019 the following notices were served (by ward):

- Botwell - 2
- Heathrow Villages - 503
- Hillingdon East - 1
- Northwood - 1
- Townfield - 5
- Uxbridge North - 14
- Uxbridge South - 15
- West Drayton - 8
- **Total = 549.**

3.3.6 Promotion of sustainable transport modes

The LIP, with additional s106 funds where relevant, remains the funding mechanism to take forward the borough-wide programme on improving access to public transport and supporting the promotion of alternative modes of transport. For example:

Active promotion

Two local events, the Hayes Carnival and May Fayre on the Green in West Drayton were used to promote travel awareness in 2018. Both events are close to the Hayes and the West Drayton Focus Areas. The transport team also attend Stockley Park annual event which represents 28 corporate businesses and Uxbridge BID events to promote alternatives to car use.

Pedestrian Training
A funding allowance was allocated for this which allowed for up to 10,100 children to be trained across the borough.

Cycling promotion
In 2018/2019, 1,344 bikes were checked for free via the Dr Bike scheme and 39 guided rides were facilitated through the borough.

Travel Plans
Hillingdon continues to monitor the implementation of travel plans in the Borough via the West Trans group which funds an officer to work across all of the Boroughs in the group.

3.3.7 Neighbourhood improvements

Hayes and West Drayton Focus Areas
Improvements continue to be made around the two stations (Hayes and West Drayton) set to receive Elizabeth line services in due course. Schemes are being implemented, based upon the Healthy Streets indicators, to enhance the surrounding environment to provide safe accessible spaces to create a pleasant walking environment to the stations with provision for cyclists and pick up and set down areas.

Ossie Garvin Focus Area
This area is subject to congested, slow moving traffic. A project to aid safe access to the Guru Nanak Sikh Academy by sustainable travel modes has been taken forward with the provision of a zebra crossing, footway improvements and widening to create shared pedestrian cycle footways and the creation of a mini roundabout at the existing turning head to ease the flow of traffic and prevent inappropriate parking which creates road safety and congestion problems.

Uxbridge Road Focus Area
Public realm improvements have been put in place along a long stretch within this Focus Area. The improvements have included the planting of 58 new trees and the use of soft landscaping to provide a barrier between the road source and cyclists/pedestrians.

3.3.8 Shopping Parade improvements

The Council invests in the upgrade of local shopping parades to encourage residents to make short local journeys by walking and cycling rather than making longer journeys to a supermarket by car. All improvements are expected to incorporate the Healthy Streets approach which includes clean air. Opportunities were taken to include planting in the schemes providing barriers, where possible, between the road source and pedestrians and cyclists.

In Uxbridge a mixture of bollards and tree planting has been used to prevent the unofficial waiting, drop off and idling of vehicles in an area close to the shopping area in the town

centre. This has helped improve the local air quality environment from the removal of a source of vehicle movements and idling.

An innovative scheme in Eastcote Town Centre has incorporated flood alleviation measures as the area is also prone to flooding. Although flood mitigation is not part of the Healthy Streets approach the Council took the opportunity to create rain gardens which provides immediate mitigation for flooding incidents with planting, which when established, will provide future air quality benefits in regards to creating a barrier.

3.3.9 Mayor's Air Quality Fund (MAQF)

Hillingdon has signed up to three potential projects for funding from the MAQF in 2019/2020:

- Pan-London idling vehicle campaign
- Pan- London enforcement of NRMM
- West London Clean van Commitment project.

The award of funding is anticipated to be confirmed in summer 2019.

3.3.10 Heathrow

Heathrow 2.0 Sustainability update [6] provides the following information against headline objectives:

Reduce emissions from road transport by working with partners

- Reduce nitrogen oxide (NOx) emissions from airport related traffic by at least 40% by 2020 and 60% by 2025 (from 2013 baseline) - data not yet available to track progress;
- Trial electric buses for airside, passenger and colleague transfers in 2018, completed;
- Trial of Zapinamo EV charging facility, using battery storage to provide 20 EV charging points in the Authorised Vehicle Area. This area is reserved for private hire vehicles and now black cabs too, helping to support the gradual change of the 3,000 daily users to become EVs with zero tailpipe and zero emissions;
- Year on year increase in kWh consumed at landside electric vehicle (EV) charging points - significant increase in the use of electric vehicle chargers located in landside areas. Usage stayed consistent in the passenger car parks. An increase in 2018 of 147,593 increase in kWh consumed, from 39,986 increase in kWh consumed in 2017;
- Year-on-year increase for % of vehicles using logistics centre that are Euro VI or better. Increase in 2018 to 65% from 23% in 2017.

Reduce emissions from airside vehicles by working with partners

- Reduce NOx emissions from airside vehicles by at least 50% by 2020 and 70% by 2025 (from 2013 baseline) - data not yet available;
- An increase in kWh consumed at airside electric vehicle charging points, in 2018 23,859 from 13,726 in 2017;

[6] https://www.heathrow.com/file_source/Company/Static/PDF/Communityandenvironment/HEA-2018-Report.PDF

- Over 108 electric vehicle charging points across the airport which assisted the introduction of electric ground support equipment to the airport's operation;
- 72 of Heathrow fleet of cars and small vans are now electric or plug-in hybrid. On track for all of the fleet (75) to be converted to electric or plug-in hybrid by the end of 2020.

50% of airport passenger journeys made by public transport by 2030, supporting no more airport-related cars on the road, so local areas can thrive without increased congestion and halve colleague car trips

- At least 43% of passengers to use public transport by end of 2018 to support our flagship goal of 50% of airport passenger journeys made by public transport by 2030. Expected target not met, 40.6% in 2018. Reason given as delay in the provision of the Crossrail rail service and passengers increasingly using Uber and other similar services;
- Reduce the number of colleague car trips by 25% by 2030 and 50% by 2040 - data not yet available.

Become the world leader in delivering the cleanest aircraft and operations possible

- 0% of flights by pre-CAEP standard aircraft by 2020. An improvement in 2018 compared to 2017, with 4.0% of all fights made by pre-CAEP aircraft. Slightly behind track to reach target for 0% pre-CAEP fights by 2020;
- At least 60% of fights by CAEP 6 or newer aircraft by 2020 - target already exceeded with 64% in 2018;
- Year on year increase in kWh of pre-conditioned air (PCA) consumption. In 2018, there was a reduction in the use of PCA, which was partly due to performance issues with the equipment. Measured as 1.4 m kWh in 2018, from 2.9m kWh in 2017;
- Year on year increase in % aircraft using electric towing or single engine taxiing. Continued decline in the numbers of airlines reporting reduced engine taxiing (RET) from to 14.6 in 2018 from 18.6 in 2017.

The results show that some objectives have been met, though for several data are still awaited. There are, however, some areas where Heathrow Airport is behind in its actions, for example, the requirement to cease services by pre-CAEP aircraft and the target for passenger access using public transport.

3.4 Overview of the 2004 AQAP - lessons learned

1. Most measures were completed and achieved their goals, as indicated above. When the plan was devised it was unclear which measures would prove to be most effective. With that in mind a very large number of measures was adopted. A simpler framework for the revised plan, with fewer, but better targeted measures, was recommended.

2. Clearer identification of focus areas is required to ensure that the plan delivers for those parts of the community that are subject to the worst breaches of the air quality limit values. However, it is recognised that it is desirable to improve air quality across the whole of the Borough.

3. A few measures were not carried through to completion either because of a lack of external support, or initial investigation revealed that they would not be effective. It is,

however, useful to keep such measures under review. There are two particular examples of measures for which there was little support in the original plan, for which interest has grown since – the installation of no-idling signs (measure 3.06 in the original plan) and the use of parking charges (measure 3.11). Both measures feature in the new plan.

4. Cooperation between Council departments has been good. The early co-operation of transport and planning departments as measures were introduced under the original AQAP has been key throughout its life. As air quality has become a greater priority, it has become an integral part of the LIP[7] with funds being made available for joint air quality and transport work and with planning processes concentrated on more stringent conditions being applied in areas of poor air quality and a focus within the Health and Wellbeing Strategy. The new AQAP has been developed form the start across the council with the identification of Hillingdon Focus Areas and key support from the SMT (Senior Management Team).

5. The need for cooperation with organisations outside the Council (GLA, Heathrow Airport, Highways England, in particular) is clear. Collaboration with neighbouring authorities, for example via the West London Cluster Group is also useful. Closer working with the external organisations will be necessary under the new AQAP, and agreement of respective responsibilities needs to be a priority for the first year of the plan.

6. Secondary benefits in terms of improvements to fitness, reduced congestion, etc. important in the development of air quality policies. Synergies between policies need to be recognised in order that they can be maximised, enabling the Council to derive most benefit from money spent.

7. There is a need for more detailed reporting of actions to include information on the costs and benefits of air quality improvement. Key performance indicators have been identified.

3.5 Hillingdon's AQAP for 2019-2024

3.5.1 Development of the new Air Quality Action Plan

The new Air Quality Action Plan has been developed taking account of GLA guidance. It has been further developed to ensure that it reflects specific issues affecting the Borough, in particular, the role of external stakeholders such as Heathrow Airport and Highways England that have a significant effect on air quality within the Borough. Within the Council, the development of the plan was influenced particularly by:

- Residents' Environmental Services Policy and Overview Committee (RESPOC)
- Air Quality Action Plan Steering Group
- Air Quality Action Plan Officer Group

[7] Local Implementation Plan for transport

It was also informed by a full consultation, discussed below.

3.5.2 Objectives for the Air Quality Action Plan 2019-2024

Specific objectives were defined as:

a) improve the areas of poorer air quality as soon as possible;

b) to continue to improve air quality across the borough and reduce public exposure to air pollution, especially for vulnerable groups within our communities such as the young, the old and those already suffering with associated respiratory illnesses.

3.5.3 Council priorities

Priorities for the new action plan were defined as:

- *Lead by example*
- *Prioritise reducing public exposure and improving air quality around schools*
- *Prioritise the implementation of improvement strategies in the Air Quality Focus Areas*
- *Ensure the integration of the Healthy Streets approach in relevant council work programmes*
- *Ensure the planning system supports the achievement of air quality improvements in relation to new developments*
- *Raise awareness via targeted campaigns*
- *Promote the use of greener walking and cycling routes to help the delivery of the Council's transport objective of an increased mode share for walking and cycling*
- *Work with external stakeholders*

3.5.4 Consultation

The Hillingdon Air Quality Action Plan has been the subject of a full public consultation process. This has included all the statutory consultees as defined in the GLA guidance (GLA/TfL, Environment Agency, Highways England, neighbouring boroughs, bodies representing local business interests) and a local public consultation.

With the inclusion of the statutory consultees who have responded, the total number of responses to the AQAP consultation totalled 106.

Full details of the consultation and the responses made will be published as part of the new AQAP on the Council’s air quality website.

3.6 Air Quality Action Plan Progress

Table J summarises progress against each measure for the original action plan in the reporting year (2018). The column headed 'Progress' provides an indication of the status of each measure, as follows:

- **Complete**: Measures for which objectives have been met and further action is not required.
- **Ongoing**: Measures which are fully in place but require continuing action. Examples include providing access to information on public transport, the implementation of school travel plans and annual reporting on progress with the action plan.
- **In progress**: A small number of measures that are not fully implemented but for which the council believes that additional resource or interest from external organisations would be of benefit.
- **Stopped**: A small number of measures that featured in the original AQAP, but which were concluded on more detailed assessment to not warrant implementation, with resource better spent elsewhere.

Specific progress in the reporting year is also documented in this column. The column headed 'Further information' provides additional details on the overall implementation of each measure.

Table J. Delivery of Air Quality Action Plan Measures.

	Action	Progress	Further information
1. Switching to Cleaner Transport Modes			
1.01	Establish a Green Travel Plan for Hillingdon.	In progress.	The Borough has undertaken a number of activities to promote cycling and modal shift more generally amongst council staff.
1.02	Improve access to, and quality of, public transport travel information for people living and working in the Borough.	Ongoing. Implemented by TfL	Info available from TfL at https://www.tfl.gov.uk/plan-a-journey/. The provision of public transport information will be part of planning obligations in relevant qualifying developments.
1.03	Encourage the development of more dedicated cycle (priority) lanes and signalling.	Ongoing. Integral part of the planning process; Action in reporting year includes development of cycle ways in several of the Focus Areas.	Earlier activities include improving 17 cycling routes across the AQMA and funding for cycle training Actions also include improvements to Hillingdon Canal Cycle Path and Hanworth Cycle Way improvements.
1.04	Extend provision of more parking for motorcycles, mopeds and bicycles at public sites and new developments.	Ongoing. Integral part of the planning process	Past work has improved parking opportunities at various locations in the Borough, e.g. Hayes and Harlington Station. Also, funding of the Brunel University Student Cycling Champion whose responsibilities include identifying the need for cycle parking. See also 1.07.
1.05	Improve provision for pedestrians.	See 2.01. Integral part of the planning process; Also, actions have been taken to improve footpaths in several of the Focus Areas, including the Ossie Garvin Focus Area with a package of works to improve road safety and encourage active travel.	Various actions to improve pedestrian access and safety have been implemented in the course of the AQAP.

	Action	Progress	Further information
1.06	Introduce more Safe Routes to School throughout the Borough with special regard to the schools within the highest exceedance areas.	Ongoing. Implemented via the LIP Road safety schemes implemented at schools in Northwood, Yiewsley and Ruislip Focus Areas to encourage active travel to schools. Two further green infrastructure schemes implemented in the Uxbridge Focus Area. The day nursery playing area is close to the busy strategic road connecting Uxbridge Town centre and the A40, the primary school playing fields is close to the Uxbridge Town centre Bypass.	All schools in the Borough have travel plans. The use of green infrastructure is also being trialled at Bitwell School. 72 schools have been working with the Council on their school travel plan to try and achieve a level of accreditation for their plans. 39 schools achieved engaged recognition. Of the 38 schools that were able to provide detailed modal shift data - 27 schools showed a positive move away from car use. In July 2015 15 Bronze, 12 Silver and 6 Gold awards were presented. The six schools which have received Gold Accreditation include 4 within the AQMA.
1.07	Ensure Green Travel Plans are a requirement for all businesses (new and existing) employing more than a specified number of people in the Borough.	Ongoing. Implemented via the planning process; Monitoring of the Travel Plans funded by the LIP. Where new developments are in Focus Areas there is an additional requirement to ensure travel plans are sufficiently stringent and include stretch targets for reductions in vehicle trips.	Monitoring of the implementation of development control travel plans across the region is undertaken via WestTrans on behalf of the boroughs. For Hillingdon there are 65 sites with travel plans invoked as planning conditions, 34 of these are currently being implemented as the sites become operational. Brunel University was identified as a major source of Borough traffic. Brunel University Student Cycling Champion funded via WestTrans group. To include route planning, cycle parking and security, bike loans and training. Other highlights for 2015/2016 include: • Increase in cycling for a large factory from 3 cyclists in 2012 to 31 in 2015; • Reductions in driving a car alone for employees at an industrial unit from 72% (2014) to 66.7% (2015) accompanied by a 3% increase in cycling and 4% increase in walking and bus use.
1.08	Improve access to, and quality of, public transport travel information on a regional basis both inside and outside the GLA boundary.	Complete Implemented by TfL	Actions led by TfL. See 1.02.

	Action	Progress	Further information
1.09	Seek to ensure improvements in overall public transport service (facilities, cleanliness, safety, frequency, reliability) across the Borough and West London, and particularly in declared AQ Management Areas AQMAs.	Ongoing. Implemented via the LIP	In 2015, improvements made to bus stop accessibility. Work on all bus stops on 10 routes now completed, including key routes within AQMA. Includes links from Uxbridge to Hayes and Harlington rail station which will increase in importance with CrossRail. Objective to complete all bus stops in the Borough by end 2016.
1.10	Improve the north-south public transport provision in the Borough.	Ongoing. Plans are now in place for a North-South link to be introduced in 2019 (Service 278)	
1.11	Support multi modal travel by further development of public transport interchanges for rail/cycle/bus/walking both within Hillingdon and the West London area.	Ongoing. The Crossrail stations of Hayes and West Drayton have planned enhancement schemes designed to ensure they provide pleasant, safe and clean environments for walking and cycling	Various actions have been undertaken in the life ot he AQAP, including station access improvements.
1.12	Encourage development of efficient and high quality bus corridors.	Ongoing, see 1.09.Implemented by TfL	
1.13	Investigate potential for more night buses.	Complete. Implemented by TfL	Actions led by TfL, with an increase n the number of night buses operating in the Borough over the course of the AQAP.
1.14	Investigate the feasibility of working with relevant stakeholders to subsidise bus, train and underground fares in order to achieve significant modal shift.	Complete. To be investigated and implemented by TfL	Recognised that in the current economic climate there is no potential for further subsidies to public transport.

2. Tackling Through Traffic

2.01	Introduce Home Zones/20 mph in residential areas subject to significant amounts of through traffic that should use alternative routes.	Ongoing. Implemented via the LIP	In the course of the AQAP, Home Zones have been introduced in the Borough, informed by data from traffic counters. A freight study was conducted on Cowley Mill Road in response to HGV use, and mitigatory measures introduced.
2.02	Support the West London Transit Scheme project if appropriate.	Complete.	Scheme withdrawn by GLA.

	Action	Progress	Further information
2.03	Ensure the provision of sufficient signage and details of spaces for public car parks.	Ongoing. Implemented via the LIP	New electronic signage in place directing traffic to spaces. Electric charging points also introduced.
2.04	Investigate the creation of Clear Zones.	Ongoing. Investigation via the LIP	Initial feasibility study indicated that this would not be significant benefit in Hillingdon. However, use of parking regulations to control congestion is being revisited, and benefits for air quality will be considered.
2.05	Develop best practice advice to ensure air quality assessments are made for proposals for new transport infrastructure and changes to traffic management.	Complete. Integral part of the planning process	This is now an integral part of the planning process.
2.06	Work in partnership with TfL to implement schemes along the high exceedance corridors designed to smooth traffic flows.	Ongoing. Hillingdon Focus Areas have been identified where joint working with TfL is needed to achieve improvements in air quality; Implemented by TfL	TfL have identified Focus Areas for improvements in air quality which includes high exceedance corridors such as the A40.
2.07	Improve coordination of road works and provide more effective signing around them.	Ongoing.	
2.08	Investigate use of high occupancy vehicle lanes and freight priority schemes along the major exceedance corridors such as the M4, A4, A40 and A312.	Ongoing. Hillingdon Focus Areas have been identified where joint working with TfL and HE is needed to achieve improvements in air quality;	Actions on major roads are the responsibility of Highways England and Tfl.
2.09	Investigate the use of light rail/tram schemes along other high exceedance corridors such as the A4 and A40.	Complete.	Concluded that in the current economic climate it is very unlikely that funding would be made available for such a significant infrastructure project. However, the potential to expand any similar initiatives led by Heathrow Airport is being monitored.
2.10	Investigate measures such as variable message signing to smooth traffic flows on the HA/TfL routes M4 and surrounding link roads.	Ongoing. Highways England has responded to the AQAP consultation, a meeting has been requested to discuss the implementation of mitigation for the residents in close proximity to the M4.	Smart motorway proposal being led by Highways England. Hillingdon has considered and responded to initiatives led by Highways England, including raising objection to over-optimistic projections used in modelling.

	Action	Progress	Further information
2.11	Investigate use of speed limits on major roads at the optimal level for NOx and PM10 emissions for the current traffic profile.	Ongoing. Highways England to implement via Smart Motorway	Subject to continuing research by Highways England.
2.12	Identify air quality congestion-related hotspots throughout West London and the appropriate measures for delivering improvement in both congestion and air quality e.g. new access road from the A40 to Ruislip industrial areas.	Ongoing. Hillingdon Air Quality Focus Areas have been identified across the borough for further investigation, to be implemented via the LIP	Hotspots in Hillingdon have been identified using the new GLA data. Led by TfL. Initial findings of the Hillingdon hotspot project have been incorporated into a proposal being led by TfL.
2.13	Support rail projects that have the potential effect to cut through traffic e.g. CrossRail and extending the Underground system (e.g. Central Line to Uxbridge).	Ongoing. Implemented via TfL	Hillingdon has responded to all consultations on rail developments affecting the Borough, providing consideration of impacts on air quality.
2.14	Work in partnership to investigate use of fiscal measures, such as road pricing, for reducing traffic on major road networks.	In progress. It is anticipated that the forthcoming consultation on Heathrow Expansion will include the potential for the airport to implement a congestion/emissions charge for entry to the expanded airport.	Limitations on various consultations in connection with Heathrow have meant that this has not been debated in detail. 2014 press release from HAL to say that congestion charging could be considered in the Heathrow area once public transport upgrades are in place.
2.15	Consider establishment of cross-agency regional group to address air quality issues with regards to roads.	Completed.	Heathrow Area Transport Forum rejected measure, but most relevant stakeholders working together on Smart Motorways Management.
3. Promotion of cleaner vehicle technology.			
3.01	Develop and implement an Action Plan via the BAA Heathrow Clean Vehicle Programme to make improvements in the Council vehicle fleet with regard to reducing emissions.	Ongoing. See Package 4.	Driver training has been implemented across all council drivers. Vehicle procurement now specifies cleaner vehicles.
3.02	Encourage local businesses and freight operators in Hillingdon to sign up to the Clean Vehicle Programme and develop and implement action plans for reducing emissions.	Ongoing.	Freight audits undertaken.
3.03	Provide training for local authority drivers to minimise emissions, and consider opening training opportunities to other drivers working for businesses in Hillingdon.	Ongoing.	All council drivers were trained. Needs to be considered for future action.

	Action	Progress	Further information
3.04.01	Ensure the implementation of the Idling Vehicles Regulations.	Ongoing. The use of a Public Spaces Protection Order has been widened from the Heathrow Villages to the whole Borough. In 2018/2019 a total of 549 FPNs were served for idling vehicle across the borough, the highest recorded numbers in Heathrow Villages close to the Heathrow Airport; The school travel plan team have introduced a parents pledge scheme including " I will not idle my vehicle"; The School Clear Zone scheme uses camera enforcement to ensure no stopping/idling at all school clear zones at school entrances.	Regulations enforced, signage erected as need be. Public Spaces Protection Order has been invoked on the Heathrow Villages to address problems associated with minicab drivers idling whilst waiting to collect passengers from Heathrow
3.04.02	Actively promote the use of the Dirty Diesel Hotline for reporting smoky vehicles spotted in Hillingdon.	Ongoing.	Incorporated into the London No Idling Campaign by TfL.
3.05	Consider the recommendations of the London Low Emission Zone Feasibility Study jointly with the GLA, ALG and TfL.	Completed.	The Council has collaborated with TfL during the set up and operation of the LEZ, for example through consultation process. Hillingdon has also cooperated in planning for the new LEZ.
3.06	Install signs in waiting areas of Council premises, bus garages, coach stations and major leisure venues, etc. advising drivers to switch off engines when stationary.	Stopped. See 3.04.01. This option will be re-examined as part of the new AQ Action Plan	After initial consideration, it was concluded that resource would be better spent on mobile traffic counters.
3.07	Lead the way in trialling new technology, where appropriate, and act as a point of information for businesses and other stakeholders in Hillingdon for cleaner vehicle technologies, national schemes and grant systems for the use of alternative fuels.	Ongoing. Rapid EV charger installed in Uxbridge Town Centre, with public access. All public council car parks have EV charging points	Council has been active in investigation of electric and hybrid vehicles since 2010, including trialling Electric Vehicle audit concluded that charging provision for taxis at Heathrow was insufficient, and T5 chargers should be upgraded to fast charging.
3.08	Participate in the London-wide Vehicle Emissions Testing programme.	Completed.	The Council is interested to participate in any future programme of this type, but measure will not be taken forward until future funding is agreed.

	Action	Progress	Further information
3.09	Investigate the provision of low or zero emission buses for schools within the high exceedance areas.	Completed.	Now linked to Measure 1.06, and specifically the Schools Cleaner Air Zone Project.
3.10	Focusing on areas and corridors of high exceedance within residential areas, investigation into the banning or restricting of traffic, or particular types of traffic, from identified roads.	Ongoing. Implemented via the LIP	Implemented via LEZ on strategic routes, but Borough looking at actions on residential roads (as in the South Ruislip case). Camera monitoring of vehicles in South Ruislip has enforced ban on HGVs in a residential area.
3.11	Investigate the potential for discounts for residents with low emission vehicles in Parking Management Areas.	Completed, To be investigated as an action in the AQ Action Plan 2019-2024	Concluded that this was not possible under the current economic climate.
3.12	Develop sub-regional Bus Quality Partnerships focussed on addressing the contribution of buses and coaches to emissions.	Completed. Implemented via TfL	This measure was superseded by the LEZ.
3.13	Work in partnership for the provision of low emission buses in the West London/Heathrow region.	Ongoing, to be implemented via TfL and Heathrow	Council requested that this be a specific mitigation measures in the event that the Cranford Agreement is ended.
3.14	Ensure freight developments in the West London area are subjected to an air quality assessment before implementation.	Completed.	Developments are now subject to detailed consideration of air quality impact as a matter of routine.
3.15	Work with the West London Freight Quality Partnership to develop a Freight Strategy to include reducing the air quality impact of freight maximising opportunities to move freight from road to other modes e.g. canals.	In progress. WestTrans represents six west London boroughs, the group has a Freight Strategy which has identified six key objectives including improve air quality and reduce emissions. Actions under this Strategy include investigation of consolidation opportunities, last mile logistics, low/zero emission technologies, road to rail/water. With successful implementation the Strategy could impact positively on reducing emissions from the freight sector.	Baseline freight map of West London produced. Major signage and HGV routing project undertaken. Hillingdon has also looked at HGV routing around Cowley Mill industrial estate.
3.16	Facilitate the uptake and use of alternative fuels, including water-diesel emulsion. This should include development of appropriate alternative	Ongoing. Integral part of the planning process, Also implemented via the LIP: All council public car parks have EV charging points;	Earlier work includes best practice review of emissions technologies for cab companies, installation of EV charging points and trialling vehicles operating with alternative fuels. The

	Action	Progress	Further information
	refuelling infrastructure where necessary e.g. charging points for electric vehicles.	Opportunities for rapid vehicle charging points are being investigated across the borough, the first one is to be installed in Uxbridge.	council has funded maintenance of EV charging points. The council is also signed up to FORS (Fleet Operator Recognition Scheme). Hillingdon electric vehicle project introduced following a successful MAQF regional project. 10 businesses, large and small, involved, providing experience of electric vehicles, and associated costs and benefits. Key recommendation from the trial was for the development of a wider electric vehicle charging infrastructure across the Borough with public access. Information on electric vehicles and charging networks has been provided to car dealers in the Borough.
3.17	Lobby national government to provide incentives through the fuel duty system for cleaner fuels, including further vehicle excise duty reductions for retrofitting to smaller vehicles and increased retrofitting grants.	Ongoing. To be implemented by national government	Taken forward by the West London Alliance, recognising the need for a more holistic approach.
3.18	Work to ensure fiscal encouragement of the adoption of low and zero emissions vehicles through the provision of discounts when entering any proposed LEZ or Congestion charging zone.	Completed. Implemented via TfL	Taken forward by TfL.
3.19	Promote best practice in terms of emissions management with the train operators, the Strategic Rail Authority and Network Rail.	Completed.	Electrification of the Great Western line will lead to a significant reduction in emissions from the railway in the next decade. No further action required.

4. Measures specific to Heathrow Airport

4.01	Continue to oppose any further expansion at Heathrow that leads to negative air quality impacts.	Ongoing. The council are part of a consortium challenging the Airports NPS, the failure to demonstrate that air quality limits can be achieved and maintained with expansion continues to be one of the main grounds of legal challenge.	Analysis and lobbying activities have been carried out continually through the life of the AQAP.
4.02	Develop system for auditing the ATM limit and parking provisions for operational T5.	Ongoing. Information provided by Heathrow	The Council continues to keep developments in this area under review. Annual report supplied

	Action	Progress	Further information
			as part of T5 planning conditions with regard to ATM limit.
4.03	Audit all air quality conditions for the construction phase of Terminal 5.	Completed.	PM levels continue to be monitored around T5, NO2 also monitored at these sites..
4.04	Pursue the retaining of the T5 related air quality monitoring network post T5 construction.	Completed.	2011-2020 Heathrow AQ Strategy commits to continuation of funding for LHR2, Oaks Road, Harlington sites for NO2, particles and (Harlington only) ozone. Monitoring results to be made available with 24 hours on Heathrow AirWatch website. Highways England monitoring traffic levels linked to Heathrow operation. ATCs in place on Borough roads to monitor Heathrow traffic.
4.05	Quantify and pursue emission reductions for all new on-airport development.	Ongoing. Where relevant, implemented via the planning process	Enforced through the planning process, which also covers off-airport development including some linked to Heathrow (e.g. developments of hotels and B&Bs).
4.06	Evaluate best practice from European and International airports with regard to the minimisation of air quality impacts and assess feasibility of application at Heathrow.	Ongoing.	Hillingdon part of a European group (Frankfurt, London, Amsterdam, Paris, FLAP group) exchanging information on best practice.
4.07	Work with National Government to ensure the use of all relevant fiscal measures to reduce emissions from Heathrow in order to achieve the 2010 EU limit.	Ongoing. National Government has not brought fiscal measures into place around Heathrow, the current action is to support expansion of Heathrow despite the area being recognised as non-compliant with air quality limits under current two runway operation.	Hillingdon continues to lobby government.
4.08	Assess the potential to set an emissions cap for Heathrow.	Completed.	Concluded that there is no willingness by Heathrow Airport or central government to pursue this option. Such a cap is in place at Zurich.
4.09.1	Assess the potential to use landing emissions charges scheme to create revenue stream for public transport improvements.	Ongoing. Implemented by Heathrow	Council continue to lobby for this option, though levies from car parking do go to public transport improvements.

	Action	Progress	Further information
4.09.2	Introduce differentiated landing charges at a level that would force cleaner engine technology.	Ongoing. Implemented by Heathrow	Differentiated landing charges are in place, though it is unclear whether this is at a level that encourages change.
4.10	Audit progress on the BAA Heathrow Air Quality Action Plan (2001-2006).	Ongoing. Progress has been monitored throughout all iterations of the Heathrow Action Plans. Heathrow's most recent document is Heathrow 2.0,	Hillingdon continues to monitor progress on Heathrow Airport's air quality action plans (including developments since the 2001-6 plan).
4.11	Review air quality monitoring regime at Heathrow and identify potential gaps.	Completed.	The monitoring system at Heathrow has been kept under review by Hillingdon, and additional monitors have been installed and maintained as necessary.
4.12	Maintain production of externally audited Emissions Inventory on bi-annual basis.	Ongoing. Implemented by Heathrow	Heathrow Airport has continued to produce the emissions inventory. It continues to be externally audited.
4.13	Identify the areas where the existing BAA 5 year Action plan can be strengthened.	Ongoing. Heathrow Air Quality Working Group with implementation of actions by Heathrow	Hillingdon has maintained contact with Heathrow Airport throughout and provided comment on plans as appropriate. Heathrow has published its 'Blueprint for reducing emissions' and 'Reducing traffic: a new plan for public transport'.
4.14	Pursue quantification of measures in the BAA Air Quality Action Plan and Surface Access Strategy in terms of air quality impacts.	Ongoing. See 4.15, 4.16 , 4.17	Hillingdon continue to comment on plans from Heathrow and have pushed where necessary for quantification of targets and their effects (for example on modal shift).
4.15	Assess feasibility of Congestion/Access Charging at Heathrow to reduce overall travel movements to the airport.	Ongoing. There has been no public consultation on this measure to reduce the overall traffic movements for the current two runway airport. The Airports NPS indicates the option for an emissions based charge as a potential mitigation measure but only linked with expansion, not for addressing the current poor air quality or reducing the current levels of associated traffic.	Hillingdon continue to lobby on this issue. The Airports Commission has stated that any expansion of Heathrow may require congestion charging to be put in place.

	Action	Progress	Further information
4.16	Assess feasibility of a Heathrow specific LEZ to reduce emissions and accelerate take up of cleaner vehicle technology.	Ongoing. To be implemented by Heathrow	Heathrow is considering implementation of ULEZ on the airport.
4.17	Assess appropriate target for modal shift to maximise air quality improvements.	Ongoing. The Heathrow target for public transport access for passengers has remained a 40% throughout the majority of the Action plan. The Heathrow 2.0 Action Plan has a target of "*at least 43% passengers by public transport by 2018*". This has not been achieved with a fall from 42.3% in 2017 to 40.6% in 2018.	
4.18	Define programme for the establishment of code of practice for airlines best operating practice to maximise reduction of emissions.	Completed. Implemented by Heathrow.	Programme is defined under Actions 2.1 to 2.7 of the Heathrow Air Quality Strategy 2011-2020.
4.19	Develop best practice guidelines to ensure air quality impact assessments are integral part of relevant transport and transport infrastructure proposals, and that appropriate mitigation measures are inclusive part of any scheme.	Completed. Integral part of the planning process	AQ impact assessments are part of all relevant transport related developments.
4.20	Assess feasibility of specifying emissions criteria for Heathrow taxis, buses and coaches using the Central Bus Terminal, and car hire shuttles, hopper buses etc.	Completed. Heathrow is considering implementation of ULEZ on the airport	Completed via the LEZ. Heathrow is also considering implementation of ULEZ on the airport.
4.21	Ensure the minimisation of the air quality impact of freight deliveries to and from Heathrow is a key objective of the West London Freight Quality Partnership (WLFQP).	Ongoing. Sustainable Freight Group established, implemented by Heathrow.	Freight deliveries are addressed via the BAA Clean Vehicle Programme and the Freight Consolidation Centre on-airport. Expansion of the airport would increase movements and so this issue must be kept under consideration.
4.22	Assess the use of bus priority, guided buses and high occupancy vehicle lanes in the Heathrow area.	Ongoing. The Smart motorway for the M4 is currently being implemented. It is anticipated to be in full operation by Spring 2022. The Smart Motorway scheme will bring traffic closer to residential properties, as well as increasing traffic volumes. Mitigation will be	Hillingdon continues to lobby for similar opportunities to be adopted. It is notable that the priority bus lane on the M4 has been discontinued over the course of the AQAP.

	Action	Progress	Further information
		sought from HE to protect residents from further public exposure.	
4.23	Assess the feasibility of a Park and Ride scheme specifically for Heathrow.	Ongoing. To be investigated by Heathrow.	
4.24	Assess the health impact of Heathrow Airport and associated activities.	In progress. This issue has been recognised by the Hillingdon Health and Wellbeing Board as a matter of concern.	Hillingdon has sought to engage with the Airports Commission for a thorough health impact assessment to be undertaken in the context of the 3rd Runway proposal. This request has not been taken up.
4.25	Lobby Central Government to pursue more stringent emission standards for plant, aircraft and airside vehicles.	Ongoing. Improvements on aircraft reported on annual basis by Heathrow - 60% of aircraft CAEP6 compliant in 2018 59% in 2017, 57.6% in 2016.	
4.26	Explore feasibility of reducing fares on the Heathrow Express.	Ongoing. For Heathrow to investigate and implement	Initially concluded that this is not a possibility under the current economic climate. To be led by the airport but may be considered if expansion is given the go-ahead.
4.27	Pursue relevant organisations to prioritise public transport provision to Heathrow, particularly rail links to the west, east and south.	Ongoing. Crossrail and Piccadilly line upgrades are deemed necessary to help improve rail access to the current two runway airport. The Airports Commission recognised that an expanded Heathrow would need additional rail schemes including Southern rail Access. The Airports NPS, whilst recognising additional rail access is important to support expansion, fails to secure the additional schemes required.	Hillingdon continues to lobby for improved public transport access to Heathrow.
4.28	Explore feasibility of an airport passenger tax, ring-fenced for increased public transport.	Completed.	Not adopted, but Hillingdon will continue to lobby if opportunity arises.

	Action	Progress	Further information
5. Measures Concerning Local Industries and Other Businesses			
5.01	Support opportunities for Combined Heat and Power where appropriate within the Borough.	Ongoing. It is now recognised that CHP can be a significant source of local emissions and needs careful assessment in terms of local air quality.	Biomass use is discouraged because of its AQ impact, though Hillingdon now has a framework in place whereby schemes can be assessed for air quality impact, providing developers with the certainty that they need with respect to planning requirements when making applications.
5.02	Introduce (within reason) progressively stricter conditions on Part A processes, including incineration processes, especially when located within high exceedance areas or where the impact is predicted to be within high exceedance areas.	Ongoing.	Additional monitoring in place near specific sites. Heathrow Air Quality Strategy 2011-2010 Action 2.20 commits to conducting a best available techniques analysis for all major boiler plant, and then to seek funding for application, as appropriate, on a 'suitable timescale'.
5.03	Work with the Environment Agency to improve public dissemination of industrial pollutant emissions data and other relevant information, for example on performance against permit conditions.	Completed.	
5.04	Discourage the use of bonfires on all industrial sites.	Completed. Integral part of the planning process	Use of Best Practice Guidance advised on all relevant planning applications
5.05	Adopt best practice strategy for all proposed demolition and development projects. This will include the use of low emission vehicles and equipment and the use of dust minimisation techniques.	Completed. Integral part of the planning process	Use of Best Practice Guidance advised on all relevant planning applications
5.06	Ensure continued regulation of part B processes and maintenance of part B register. Ensure register is available on-line.	Ongoing. Implemented by ASBET team	All inspections carried out by external contractors, reports given to LA and all information available via specialised website including online application.
5.07	Investigate introduction of Air Quality Action Plans for local industries, including those currently un-regulated under EA.	Completed.	Current resources do not permit this to extend beyond statutory actions.
5.08	Consider introduction of Environmental Award system for local industries and businesses.	Stopped.	Concluded that benefits of this measure would not be justified by resource demanded.

	Action	Progress	Further information
5.09	Encourage businesses to participate in environmental management schemes and to continue to improve environmental performance.	In progress.	Original idea for this measure has been adapted over time to make better use of the planning system, e.g. via S106 agreements. Improvements to Northwood Hills Town Centre and Hayes Town Centre have included extensive tree planting schemes along the road corridors. There is a current consideration for the inclusion of the use of green infrastructure for improving air quality and protect sensitive receptors from sources of emissions to be included as an objective within landscaping planning conditions.
6. Improving Eco-efficiency of current and future developments, including Council properties			
6.01	Provide a consolidated platform for advising businesses and the public of the risks of air pollution, ways of reducing pollution, and campaigns such as Bike to Work Week, combining information from various Council departments and other bodies.	Ongoing. Implemented via the LIP with raising awareness campaigns such as Dr Bike sessions, cycling and pedestrian training, bikeability events.	Over the life course of the AQAP, advice has been provided by various means, including via AirText, Green Roadshow, Go Green event. Public Health teams are integrated into the Council's actions.
6.02	Work with existing buildings and housing stock to secure improvements in emissions.	Ongoing. Implemented by Property Services, all new boilers to meet GLA emissions standards	Ongoing campaign to promote energy efficiency via several events throughout the year Energy efficiency awareness campaigns are underway for local residents. Establishment of the Green Doctor scheme in Hillingdon
6.03	Ensure continued use of existing mechanisms such as Section 106 agreements for improvements in air quality.	Ongoing. Integral part of the planning process. In Air quality Focus Areas s106 agreements are sought based upon Defra's damage cost calculator. .	
6.04	Review and update Air Quality Supplementary Planning Guidance when appropriate.	Ongoing.	Materials revised as and when appropriate. Hillingdon will use the new Mayor's template to update the current Hillingdon AQSPG.
6.05	Quantify cumulative effects of new developments within AQMA.	Ongoing. Integral part of the planning process The Council requests cumulative impact assessments for relevant developments	Local Plan 2 is considering cumulative impact for Hayes Town Centre of transport.
6.06	Develop supplementary planning guidance for sustainable design and construction.	Completed. Integral part of the planning process	

	Action	Progress	Further information
		The Council refers to the policies in the Mayor of London Sustainable Design and Construction SPG	
6.07	Raise awareness of sustainable waste management practices.	Completed.	
6.08	Development of West London Air Quality SPD to ensure consistency across Borough boundaries, explore opportunities for joint Section 106 agreements.	Stopped.	Detailed analysis once the AQAP was in place concluded that the benefits of this measure were too limited for the measure to be taken forward.

7. Actions to be Taken Corporately, Regionally and in Liaison with the Mayor

7.01	Ensure that the London Development Framework, Borough Transport Strategy the Community Plan and future corporate strategies incorporate the Borough air quality action plan and local air quality strategy measures where appropriate.	Ongoing. AQ included in the Local Plan Part 1 and 2, the LIP, the Health and Wellbeing Strategy	Policies are regularly checked, as they are published for consultation or in final form, for consistency with the Borough's AQAP. The Local Plan Part 2 has been through the process of public consultation and is now awaiting examination in public. Account is taken of the need to improve air quality.
7.02	Develop an environmental management system for Hillingdon Borough Council.	Not started	
7.03	Establish an Environment Coordination Office for more effective integration of actions to improve environmental performance within and outside the Council.	Complete. The Residents Services Senior Management Team will act as the Steering Group for the AQAP 2019-2024. This includes senior managers from the relevant disciplines such as planning, transport, public health	Alternative approach being followed for this measure, with good coordination between (e.g.) air quality, climate and transport, planning officers.
7.04	Implement an integrated procurement strategy so that purchase of goods and services is evaluated against London sustainability targets. This to include support to environmental industries in London, where appropriate.	Ongoing. Evaluation of Council Procurement Strategy a target in AQAP 2019-2024	Procurement policy for fleet vehicles in place. Requirement for relevant Green Spaces contractors to use electric vehicles. Electric vehicle purchased for project and events team.
7.05	Provide air quality information to interested parties and link with other health initiatives.	Ongoing. To be implemented via the LIP airTEXT, no idling vehicles, enforcement of smoke control zones are all targets for promotion in AQAP 2019-2024	AirText regularly promoted at events around the Borough, residents and businesses kept informed of developments on air quality.
7.06	Work with the London Sustainable Distribution Partnership to implement infrastructure for	Stopped.	Initial assessment revealed this to be low priority for Hillingdon.

	Action	Progress	Further information
	effective and integrated distribution of goods in London.		
7.07	Work in partnership to ensure consistency of Action Plan measures and explore all opportunities for regional measures for reducing emissions.	Ongoing. Implemented across London via the west London Air Quality group, London Air Quality Steering Group, bids to the Mayors Air Quality Fund including pan London projects such as NRMM, Idling vehicles, airTEXT	Collaborated with GSK and Heathrow Airport on MAQF-funded study focussing on integration of employment opportunities with key transport hubs. 10 publicly available charging points installed and maintained in the Borough during the reporting period.
7.08	Development of regional Air Quality Strategy to tackle cross-boundary issues and include all National Air Quality Strategy pollutants, climate change etc.	Completed.	Hillingdon has liaised with GLA and with neighbouring local authorities in and outside London through the course of the Action Plan. However, the measure is superseded by TfL now looking at transport and air quality strategy in West London.
7.09	UK Government to actively support air quality improvement in Hillingdon.	Ongoing. For Hillingdon the major pollution sources such as the impacts of the major road network and the operation of Heathrow are in the control of national Government. They were pollution sources in 2004 and remain so in 2019. Decisions by Government to support infrastructure projects such as HS2 construction and Heathrow expansion will simply compound the problem.	Hillingdon has continued to respond to all national and subnational consultations relevant to air quality in the Borough, and has also engaged with the European Commission to highlight issues faced by local authorities with airports.

8. Action Plan Management

8.01	Develop and maintain management system for implementation of the plan.	All actions in this package are ongoing, with systems fully in place to implement the AQAP. Update of the AQAP is currently underway. Recommendations have been made by the Residents and Environmental Services Policy Overview Committee (RESPOC) via a series of witness and evidence sessions. Draft recommendations for inclusion of specific	Evidence regarding all measures listed here is provided through the data presented in this progress report, and the reports issued in previous years. Plans are in place for the revision of the AQAP in 2016/17.
8.02	Identify and secure all potential funding for Action Plan initiatives.		
8.03	Maintain, and where necessary expand, the existing air quality monitoring network.		
8.04	Review and assessment of air quality in line with Defra guidance.		

	Action	Progress	Further information
8.05	Prioritise measures, providing a schedule for implementation.	measures have been made. This forms an important part of the consultation on the revised plan.	
8.06	Provide progress report to Defra on annual basis.		
8.07	Review and adapt the action plan according to opportunity and circumstance.		
8.08	Maintain consultation process to disseminate information on progress against defined targets to other stakeholders.		
8.09	Examine potential for the development of regional action plan on cross boundary issues.		

4 Planning Update and Other New Sources of Emissions

4.1 Planning applications relevant to air quality

Planning applications that have relevance to air quality are routinely assessed by the Council. Table K provides information on the total numbers of applications assessed. Further information on these applications is provided in Appendix C.

Table K. Planning Requirements Met by Planning Applications in London Borough of Hillingdon in 2018.

Action	Number	Notes
a) Number of planning applications where an air quality impact assessment was performed	60	A presentation on Air Quality aims, constraints and requirements was made to planning and transport colleagues. This has raised awareness internally and a higher number of applications were scrutinised for air quality evaluations.
b) Number of planning applications required to monitor for construction dust	0	
c) Number of CHPs/Biomass boilers refused on air quality grounds	0	
d) Number of CHPs/Biomass boilers subject to GLA emissions limits and/or other restrictions to reduce emissions	12	
e) Number of developments required to install Ultra-Low NO_x boilers	12	
f) Number of developments where an AQ Neutral building and/or transport assessments undertaken	45	
g) Number of developments where the AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation	11	
h) Number of planning applications with S106 agreements including other requirements to improve air quality	34	
i) Number of conditions related to Non-Road Mobile Machinery included.	27	

4.2 New or significantly changed industrial or other sources

No new sources have been identified, but the potential further development of Heathrow is noted. The Council continues to monitor progress on this issue.

Appendix A Details of Monitoring Site QA/QC

A.1 Automatic Monitoring Sites

Automatic monitors within Hillingdon are operated as part of the Borough monitoring network, the Heathrow Airport monitoring network and Defra's AURN. Data have been provided and ratified by Ricardo-AEA following the national procedure guidance and standards.

All TEOM data have been converted to gravimetric equivalent using the VCM method and BAM data have been corrected by applying a factor of 0.8333. All data are reported at ambient temperature and pressure.

A.2 Diffusion Tube Quality Assurance / Quality Control

Hillingdon uses Gradko International for their diffusion tube analysis. These are prepared using the 50% TEA in acetone method. The bias adjustment factor for Gradko in 2018 (as per March 2019 issue), obtained from the national bias adjustment spreadsheet (based on 8 studies) is 0.92. Gradko International follows the procedures set out in the Practical Guidance.

Whilst co-location studies have been carried out within Hillingdon, it was not possible to calculate a local bias adjustment factor due to the poor data quality observed at the location used for this purpose during 2018. As such, the bias adjustment factor for 2018 derived from the national bias adjustment spreadsheet has been used. The use of a national bias adjustment factor is in line with the approach taken in recent progress reports published by Hillingdon, ensuring a consistency in reported results.

A.3 Adjustments to the Ratified Monitoring Data

Where data capture is less than 75% of a full calendar year (less than 9 months), the means have been "annualised" using the methodology outlined in LLAQM.TG(16) before being compared to annual mean objectives. Data adjustment factors are shown in the following tables for the periods January to March and July to November for site HD208 and January to August for site HD31 (see Table L0 below).

Table L0. Dates for Period Mean Short-Term to Long-Term Monitoring Data Adjustment.

Month	Start Date	End Date
Jan	*05/01/2018*	*02/02/2018*
Feb	*02/02/2018*	*02/03/2018*
Mar	*02/03/2018*	*30/03/2018*
Apr	*30/03/2018*	*04/05/2018*
May	*04/05/2018*	*08/06/2018*
Jun/Jul	*08/06/2018*	*03/08/2018*
Aug	*03/08/2018*	*07/09/2018*
Set	*07/09/2018*	*13/10/2018*
Oct	*13/10/2018*	*02/11/2018*
Nov	*02/11/2018*	*07/12/2018*

Table L1. Short-Term to Long-Term Monitoring Data Adjustment – Site HD208.

Jan-Mar	Annual Mean (2018)	Period Mean (2018)		Ratio Am/Pm
Enfield - Prince of Wales School	23.4	29.2		0.8
Windsor and Maidenhead - Aldebury Road	17.6	22.7		0.8
Haringey - Priory Park South	31.8	37.5		0.8
Wandsworth Town Hall	38.4	42.1		0.9
			AVERAGE	**0.8**

Jul-Nov	Annual Mean (2018)	Period Mean (2018)		Ratio Am/Pm
Enfield - Prince of Wales School	23.4	20.8		1.1
Windsor and Maidenhead - Aldebury Road	17.6	15.6		1.1
Haringey - Priory Park South	31.8	28.3		1.1
Wandsworth Town Hall	38.4	35.2		1.1
			AVERAGE	**1.1**

ADJUSTMENT FACTOR **0.97**

Table L2. Short-Term to Long-Term Monitoring Data Adjustment – Site HD31.

Jan-Aug	Annual Mean (2018)	Period Mean (2018) CM		Ratio Am/Pm
Enfield - Prince of Wales School	23.4	22.5		1.0
Windsor and Maidenhead - Aldebury Road	17.6	16.2		1.1
Haringey - Priory Park South	31.8	26.9		1.2
Wandsworth Town Hall	38.4	37.9		1.0
			AVERAGE	**1.1**

ADJUSTMENT FACTOR **1.10**

A.4 Distance Adjustment

Where an exceedance is measured at a monitoring site which is not representative of public exposure, it is recommended to use the procedure specified in LLAQM.TG(16) to estimate the concentration at the nearest receptor. This process was followed in this report and concentrations reported accordingly.

Appendix B Full Monthly Diffusion Tube Results for 2018

Table M1. NO_2 Diffusion Tube Results – London Borough of Hillingdon.

Site ID	Valid data capture for monitoring period % [a]	Valid data capture 2018 % [b]	Annual Mean NO_2													
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual mean – raw data [c]	Annual mean – annualised and bias adjusted [cd]
HD31(1)	100.0	100.0	44.9	34.9	36.4	43.0	31.9	36.5	36.5	43.4	40.3	49.2	62.4	26.4	40.5	**40.1**
HD31(2)	66.7	66.7	49.7	44.1	33.3	37.3	30.8	36.7	36.7	43.7	missing	missing	missing	missing	39.1	**42.6**
HD31(3)	66.7	66.7	49.8	39.6	33.0	48.9	33.6	33.9	33.9	45.0	missing	missing	missing	missing	39.7	**43.3**
HD43	100.0	100.0	31.1	44.9	37.4	44.7	52.1	41.4	41.4	35.8	40.7	51.9	34.2	37.7	41.1	**40.7**
HD46(1)	100.0	100.0	38.0	53.5	40.6	46.3	45.8	42.4	42.4	38.3	39.6	48.2	63.4	29.6	44.0	**43.6**
HD46(2)	100.0	100.0	35.0	51.2	38.0	45.8	45.0	40.5	40.5	37.0	43.1	55.7	60.4	32.7	43.7	**43.3**
HD47	91.7	91.7	23.0	35.0	25.7	31.4	missing	25.0	25.0	23.1	27.8	42.3	30.5	28.4	28.8	28.5
HD49	91.7	91.7	25.9	31.4	22.3	25.1	18.6	18.3	18.3	19.3	27.6	missing	36.1	19.7	23.9	23.6
HD50B	100.0	100.0	28.3	42.3	29.4	37.7	27.6	27.8	27.8	30.7	36.0	45.8	41.1	30.5	33.7	33.4
HD51	91.7	91.7	40.6	34.5	27.8	29.1	21.9	27.2	27.2	missing	34.5	42.0	29.8	25.8	30.9	30.6
HD52	91.7	91.7	41.4	36.9	28.4	33.9	32.3	27.0	27.0	missing	35.9	48.1	54.9	27.0	35.7	35.3
HD53	91.7	91.7	35.9	44.9	36.0	36.6	32.3	32.8	32.8	38.8	missing	45.6	41.9	40.5	38.0	37.6
HD55	100.0	100.0	32.7	50.9	29.5	40.3	35.3	31.7	31.7	36.2	38.6	48.3	52.0	29.2	38.0	37.7
HD56	100.0	100.0	31.2	47.7	28.5	33.1	27.0	24.9	24.9	28.5	36.1	42.5	57.6	28.5	34.2	33.9
HD57	100.0	100.0	36.8	43.7	31.9	33.1	32.5	32.0	32.0	38.6	41.9	48.5	48.8	30.4	37.5	37.2
HD58	100.0	100.0	38.9	47.9	34.0	40.2	29.4	33.5	33.5	43.7	48.1	38.7	58.2	33.6	40.0	39.6
HD59	100.0	100.0	39.1	37.6	23.8	33.5	28.6	25.5	25.5	28.0	36.0	40.1	55.2	25.9	33.2	32.9
HD60	91.7	91.7	38.0	missing	24.5	28.8	21.5	21.6	21.6	27.0	28.3	38.7	44.0	22.7	28.8	28.5
HD61	100.0	100.0	40.0	34.2	30.3	38.2	28.6	31.0	31.0	36.0	37.5	41.9	57.9	29.8	36.4	36.0
HD65	100.0	100.0	36.7	30.3	24.1	31.5	25.5	26.7	26.7	31.2	31.6	37.9	48.7	24.0	31.2	30.9
HD67	100.0	100.0	31.5	30.9	27.0	32.0	27.3	22.7	22.7	27.0	28.9	36.6	48.9	22.3	29.8	29.5
HD70	100.0	100.0	18.0	30.9	19.1	19.6	16.9	15.5	15.5	14.5	21.5	26.8	27.8	22.6	20.7	20.5
HD73	91.7	91.7	28.6	39.3	18.6	26.7	22.1	21.0	21.0	22.6	28.4	35.9	missing	18.1	25.7	25.4
HD74	100.0	100.0	24.3	30.8	23.8	28.6	26.6	21.9	21.9	22.7	26.9	39.1	31.2	27.8	27.1	26.9

Site ID	Valid data capture for monitoring period % [a]	Valid data capture 2018 % [b]	Annual Mean NO_2													
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual mean – raw data [c]	Annual mean – annualised and bias adjusted [cd]
HD75	100.0	100.0	23.2	32.2	25.0	29.1	19.5	19.1	19.1	22.6	25.1	36.8	32.4	27.8	26.0	25.8
HD200	100.0	100.0	45.3	38.6	33.4	35.8	33.3	31.9	31.9	38.9	36.9	50.6	59.1	31.8	38.9	38.6
HD202	100.0	100.0	29.7	45.9	27.1	30.4	23.2	21.6	21.6	28.4	28.9	43.1	50.7	25.0	31.3	31.0
HD203	91.7	91.7	missing	52.3	34.2	36.6	28.3	33.6	33.6	36.0	41.0	49.4	57.8	25.2	38.9	38.5
HD204	100.0	100.0	39.7	37.2	31.3	35.0	33.0	28.5	28.5	34.2	30.5	45.3	51.8	29.0	35.3	35.0
HD205	100.0	100.0	41.5	36.2	28.7	35.5	31.1	34.4	34.4	36.4	39.2	44.8	53.6	27.6	37.0	36.6
HD206	100.0	100.0	41.3	37.3	27.5	37.1	29.8	25.8	25.8	31.2	35.8	48.5	61.5	21.1	35.2	34.9
HD207	91.7	91.7	46.5	36.5	missing	40.4	34.2	28.6	28.6	29.7	35.8	46.3	59.9	25.9	37.5	37.1
HD208	58.3	58.3	25.4	43.2	27.6	missing	missing	missing	missing	24.0	29.4	38.2	37.9	missing	32.2	30.8
HD209	91.7	91.7	28.3	36.9	24.6	28.4	24.4	25.3	25.3	29.4	missing	32.3	41.0	26.0	29.3	29.0
HD210	100.0	100.0	36.3	51.1	37.7	46.4	48.1	31.5	31.5	37.9	43.7	61.9	43.7	44.7	42.9	**42.4**
HD211	100.0	100.0	27.2	44.3	32.0	37.0	44.8	33.8	33.8	29.9	31.3	44.3	35.0	32.3	35.5	35.1
HD212	100.0	100.0	32.3	45.1	31.3	38.1	41.3	31.3	31.3	33.6	36.6	56.9	32.6	37.1	37.3	36.9
HD213	100.0	100.0	37.8	52.8	32.7	43.5	33.3	30.6	30.6	39.2	42.9	47.8	56.3	29.0	39.7	39.3
HD214	100.0	100.0	41.0	56.2	36.2	48.0	34.4	33.7	33.7	42.0	45.9	45.8	57.7	34.9	42.5	**42.0**
HD302 (gate)	100.0	100.0	29.4	39.3	30.3	33.8	31.1	24.7	24.7	27.0	35.2	42.5	52.2	23.3	32.8	32.5
HD401	100.0	100.0	25.8	35.6	27.7	32.0	26.0	21.5	21.5	22.2	30.3	42.9	32.6	28.8	28.9	28.6
HD402	100.0	100.0	26.4	50.6	27.0	31.5	28.0	27.0	27.0	27.2	33.5	37.9	45.5	22.8	32.0	31.7

Exceedance of the NO_2 annual mean AQO of 40 µg m^{-3} are shown in **bold**.

[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%)

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

[d] National bias adjustment of 0.92 was applied to the data

Missing = no data

Table M2. NO_2 Diffusion Tube Results – Green Lane – Northwood's Voice Local Group

Site ID	Valid data capture for monitoring period % [a]	Valid data capture 2016 % [b]	Annual Mean NO_2													
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual mean – raw data [c]	Annual mean bias adjusted [cd]
A	100	100	45.55	50.13	50.53	46.71	49.50	41.11	45.03	34.42	43.48	48.75	47.65	41.95	45.4	**41.8**
B	100	100	44.82	39.18	41.99	38.68	37.43	28.78	40.72	31.63	38.09	39.43	40.73	40.08	38.5	35.4

Exceedance of the NO_2 annual mean AQO of 40 μgm^{-3} are shown in **bold**.

[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%)

[c] Means were "annualised" in accordance with LLAQM Technical Guidance, where valid data capture was less than 75%.

[d] National bias adjustment of 0.92 was applied to the data

Appendix C Details of planning applications for 2018 – selected sample per Focus Area

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
HAYES FOCUS AREA				
Planning Ref	**71371/APP/2018/580**			**YES**
UNIT 7B HAYES BRIDGE RETAIL PARK UXBRIDGE ROAD HAYES UB4 ORH Application for planning permission for physical works to reconfigure and extend Unit 7B to create two new units for use as a food store (Class A1) and a cafe (mixed use including Classes A1 and A3).	The location of the development is within an area identified as an Air Quality Focus Area. These areas, agreed between the GLA and the individual boroughs, represent the areas where the pollution levels are in exceedance and the public exposure is highest. The relevant Focus Area extends across the borough boundaries between Hillingdon and Ealing and encompasses the main access route A4020, to this development location i.e. the A4020. The borough has to work towards improvements in these areas and report back to the GLA annually on progress. In these circumstance all new development is expected to bring with it	The air quality assessment concludes the development is air quality neutral for transport and building emissions. However, it is acknowledged that there are no specified details yet as to the type of boilers or plant to be installed therefore this is an assumption of being neutral for building emissions, not one calculated on factual evidence within the air quality assessment. Due to the sizing of the development the current 462 car parking spaces available for the whole retail park is stated to be reduced by 73, the air quality assessment states there is no material impact on the local highways network, however the operation of a food-store will also	Should this development be approved the following conditions should be applied. <u>Construction and demolition phase</u> In order to control the dust and emissions from the demolition and construction phases, the Construction Management Plan must be developed in accordance with the Air Quality Management (IAQM) 'Guidance on the assessment of dust from demolition and construction" and the GLA, Control of Dust and Emissions from Construction and Demolition Supplementary Planning Guidance. All Non-Road Mobile Machinery (NRMM) used during construction must meet Stage IIIA criteria of EU Directive 97/68/EC and must be registered online on the NRMM website at http://nrmm.london/. Confirmation of the registration must be submitted to the LPA. <u>Operational phase</u> *Building emissions* Prior to the commencement of the development, details of the energy provision shall be submitted to, and approved in writing, by the LPA. The technologies used must comply with the GLA Sustainable Design and Construction SPD. This includes but is not limited to the use of ultra-low NOx boilers. *Transport emissions* Prior to commencement of the development, details of a Low Emissions Strategy (LES) shall be submitted to, and approved in writing, by the LPA. The LES shall include, but not be limited to: Setting targets for the use of low/zero emission vehicles technologies for the servicing and delivery element of the store. This should include, but not be	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	the highest of standards on design and operation to ensure improvements can be secured from the outset as opposed to having to be secured through off-setting. The emerging London Plan supports the requirement to look at air quality focus hotspots and is seeking air quality positive approaches, not just neutral, in such areas.	require the use of service and delivery vehicles, no detail of these or the numbers associated specifically with the development have been given in the air quality assessment. The air quality comments are based upon the traffic assessment being deemed to be suitable and robust. These comments may need to be reviewed if transport comments indicate issues such as increased congestion on the surrounding road network	limited to, technologies such as EURO V and V1 HGVs, Euro 5 and 6 non-HGVs; Active promotion of cleaner vehicle technologies for all users of the development with targets set for increased trips by zero emission vehicles; Active promotion and enforcement of no idling *Reason:* *To ensure the development reduces and manages its air quality impacts in an air quality management area in accordance with Policy EM8 of the Local Plan* As the development is in an area where the air quality is poor, a contribution should be sought.	
Planning Ref	**36678/APP/2017/1774**			**YES**
3 VIVEASH CLOSE HAYES UB3 4RY Demolition of the existing building (Use Class B8) and the redevelopment of the site to include the erection of a part 8, part 10 storey building linked by podium level comprising 68 residential units (21 x 1 bedroom, 24 x 2	Summary of issues for air quality a) DMRB is still mentioned which is inadequate for air quality assessments within AQMAs and specially within Focus Areas where sensitive receptors are already well above limit value; b) No traffic data are presented in the report	Submission of an Updated Air Quality Assessment report	Should the planning application be considered based on current information and viable in other disciplines, a S106 Air Quality contribution of £70,565 is required prior to approval.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
bedroom and 23 x 3 bedroom) (Use Class C3) and 1620 m2 commercial floorspace at ground, mezzanine and first floor levels (Use Class B1) with associated parking and landscaping	for both baseline and opening years which does not allow a suitable replication of the methodology of the report; c) Baseline - existing levels of air quality (2015) is outdated – it is 3 years old! A lot has changed since then in Hayes d) Emission factors have been updated since 2015 - Emission Factors Toolkit (Version 7.0) is outdated – alterations due to updated emission factor data have been published since (current version of the EFT is version 8.0.1) e) model adjustment inadequate – see attached calculations - a much higher adjustment factor should had been applied f) Neutral Assessment – incorrectly calculated given the use of outdated emission factors g) No cumulative assessment calculated			

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	which is key being in a Focus Area and in a major development area (near Nestle major development).			
Planning Ref	**13226/AP/2018/2112**			**YES**
3- BULLS BRIDGE CENTRE NORTH HYDE GARDENS HAYES UB3 4QRDemolition of existing unit and redevelopment of the site to provide two modern employment units consisting of 16,918 sq m (GIA) for flexible employment purposes within Use Classes B1c/B2/B8 with ancillary offices, car parking, landscaping, service yard areas and ancillary uses as well as associated external works.	The Application site is within a Focus Area	The air quality damage calculation has reached £140K, this has been calculated following correspondence between our respective specialists. A Low Emission Strategy (LES) was required to achieve further reductions to this value.	Additional observations: The emission reduction was clearly quantified in terms of NOx tonnes per year abated or saved, via Defra's EFT for traffic and spreadsheet calculations for building emissions. Traffic emission reductions can be achieved either by securing a cleaner or zero emission fleet with concrete and effective enforcement pathways defined and or securing highways improvements/traffic management systems that alleviate congestion and hence improve traffic flow with its associated reductions in NOx emissions. The LES will have to clearly describe the measures using the SMART approach with quantified NOx reductions - an example table as per the LES group template. The setting of stringent targets in the associated operator travel plans would be one of the options as this also builds upon, and secures the benefits of, the efforts being put in place by the developer in terms of EV points for refrigerated lorries and vans, future-proofing for more EV points and the increases in cycling and associated facilities. In the absence of any agreed contribution to highway improvements being made to address congestion in the area, a further option for consideration would be to: A) Provide the LES detailing the enhancements being put in place; this allows the Council to acknowledge that the developer has addressed the issue of extra measures being required in an area where the air quality is already poor. B) Provide the remaining damage cost towards schemes in the area which will enhance the cycling and walking that the LES is attempting to address and enhance, e.g. contribution towards the	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
			provision of access to grand union canal which is in close proximity to the site plus towpath enhancements, contribution towards enhancing the walking and cycling connectivity from the canal at North Hyde Gardens through to Cranford Park - this can be secured by a s106 agreement for improvements in the vicinity of the site.	
Planning Ref	**1927/APP/2018/1232**			**YES**
LEGION HOUSE UXBRIDGE ROAD HAYES UB4 0RP Proposed conversion of the first floor from a former Church and Nursery (Class D1) to 11 residential units (Class C3)	The proposed development is within a Focus Area.	Whereas the applicant states the traffic is reduced, a total 40 parking spaces are provided for the flats. Therefore, and in alignment with other planning applications within sensitive areas, LBH requires a S106 and a LES condition. The Value of the AQ contribution is £58,594	Low Emission Strategy Condition required No development shall commence until a low emission strategy has been submitted to and approved in writing by the Local Planning Authority. The low emission strategy shall address 1) the specification of the CHP as low NOx emissions; 2) show what benefits are given to development purchasers that own a Euro 5 or above or have implemented retrofitting devices that will enable compliance with such Euro standards; 3) a travel plan for residents; and 4) an electric vehicle bay charging with a minimum of three charging points. The strategy shall detail the steps that will be followed in addressing the lower emissions requirements stated above and what measures will be taken to take into account future changing standards and available technologies and be updated accordingly in agreement with the local planning authority. The Low Emission Strategy shall have targets for emission reduction and timescales, with pollution savings quantified. At the end of each calendar year an implementation plan shall be submitted for approval in writing by the local planning authority, which on approval shall be fully implemented in accordance with the details and measures so approved. The measures in the agreed scheme shall be maintained throughout the life of the development. *Reason - As the application site is within an Air Quality Management Area and to comply with paragraph 124 of the NPPF, policy 7.14 of the London Plan, and policy DMEI 14 of the London Borough of Hillingdon Local Plan (part 2).*	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
Planning Ref	**73785/APP/2018/3115**			**NO**
LAND NORTH OF NORTH HYDE ELECTRICITY SUBSTATION NORTH HYDE GARDENS HAYES UB3 4QR Redevelopment of the site for a gas-powered electricity generator and related infrastructure	The application site falls within Hays Focus Area with the probability of impacting local air pollution levels. The proposed Facility is composed of 11 natural gas fired 4.5 MW generators. The likely effect of potential emissions to air from a proposed Facility to generate electricity for the National Grid, on an as required basis, has been assessed. Whereas the proposed Facility does not have fixed hours of operation, it is expected that the majority of operating hours would occur during the colder months of the year and be restricted to periods of greatest power demand (07:00 to 09:00 and 16:30 to 19:00). The extent of the demand in future years will be largely dependent on weather conditions that occur and consequently there will be	11 engines operating for 2000 hours per annum and emitting NOx at 0.87g/s per engine, result in total emissions of 68.9 tonnes per annum. This would equate to a Damage Cost of £609,181 based on Defra's new 2018 base year spreadsheet. LBH wish to see a situation where emissions have been abated as much as technologically possible and therefore no damage cost derived contributions would be required. The performance of the modular system used by Clearstone makes it disproportionately expensive to modify to incorporate SCR or similar technology. In the current energy market, it is not an economically viable option to fit SCR to this plant to reduce total emissions, primarily due to the size of the upfront costs.	N/A	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	considerable variation in the number of hours per year during which emissions occur. The assessment undertaken assumed a level of usage of no more than 2,000 hours per year. The maximum process contribution estimated was of 0.6ug/m3 at receptor R3 which, as per GLA's mapping, is likely to be close to or in exceedance of the annual mean limit value for NO2 (see map attached). According to the IAQM significance criteria, this is a moderate adverse impact on local air quality.	Reducing the number of operational hours of 1500 hrs per annum, would reduce the amount of power fed into the grid, and would reduce emissions by 25% to 51.7 tonne per annum. 11 engines operating for 1500 hours per annum and emitting NOx at 0.87g/s per engine, equates to an emission of 51.7 tonnes per annum. This would equate to a Damage Cost of £457,107 based on Defra's new 2018 base year (attached), which is still a considerable effort to clean up produced emissions.		
Planning Ref	**73238/APP/2018/1145**			**NO**
AND AT 3, 233-236 NESTLES AVENUE HAYES UB3 4SB Demolition of existing buildings, site clearance and redevelopment to provide a mixed use scheme, including 474 residential units,	1)There is no information to evaluate the assessment results as no information was provided on model adjustment factors used and RMSE (root mean square error) to evaluate the uncertainty associated with the	The proposed development is located in a Focus Area, bringing traffic and energy production emissions which will add to the current exceedances. As per the new London Plan, developments need to be neutral as minimum and	Therefore, a financial contribution for S106 is sought of the value of £720,220 Hillingdon will work with the consultants to see what mitigation measures proposed by the developer are quantifiable and deduct from this amount the achieved reductions in pollutant emissions.	Transport

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
264 sqm (GEA) A1 retail use, 229 sqm (GEA) A3 cafe use and 341 sqm (GEA) B1 office, together with 286 car parking spaces and 703 cycle parking spaces, hard and soft landscaping, refuse and recycling facilities, and public and private amenity space	predicted change in ambient air concentrations. 2) During the consultation phase it was also requested that worst case receptors where exceedences are observed as per GLA mapping were included in the model – a map was provided by the LPA locating such sensitive locations – these seem to be missing in the analysis 3) In addition, cumulative results need to be clearly presented for both the energy production and traffic emissions associated with the proposed development – this information is required. More importantly, cumulative assessment with the granted planning applications was not undertaken. Being located in the Hays Focus Area, and as per mapped in Figure 11.1, air quality cumulative assessment	positive in Focus Areas, contributing to the reduction of emissions in these sensitive areas.		

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	with relevant schemes is required using both ADMS roads and 5.A clarification is needed to what model was used to model CHP/boiler emissions - the report refers to ADMS roads which is inadequate to compute dispersion of such emissions - it could be a typo but needs clarifying. 4) Finally, the neutral assessment as per GLA requirement indicates the development is not neutral with a Total Transport Emissions for NOx of 1684.4kgNOx/annum.			
Planning Ref	**13226/APP/2018/2112**			**YES**
3- BULLS BRIDGE CENTRE NORTH HYDE GARDENS HAYES UB3 4QR Demolition of existing unit and redevelopment of the site to provide two modern employment units consisting of 16,918 sq m (GIA) for	The assessment predicted a moderate adverse impact at one receptor but a negligible impact at all other locations of relevant exposure within the AQFA. An Air Quality Neutral (AQN) assessment has been undertaken in accordance with relevant	A damage cost calculation has been carried out based on the anticipated annual trip generated from the operational development compared to the existing site use.	The total damage cost has been calculated as £135,861, which would be further reduced to £128,820 following implementation of measures set out within the draft Travel Plan, which aims to reduce single occupancy vehicle use by 5%.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
flexible employment purposes within Use Classes B1c/B2/B8 with ancillary offices, car parking, landscaping, service yard areas and ancillary uses as well as associated external works	guidance. The proposals would be AQN in terms of both building and transport emissions.			
Planning Ref	**68974/APP/2018/2146**			**N/A**
30/32 BLYTH ROAD HAYES MIDDLESEX UB3 1BY Application for demolition of all buildings on site to enable redevelopment to provide 118 new residential units (Use Class C3) and commercial floor space (Use Class A1-A5 and B1) with a new vehicle access, associated vehicle and cycle parking, communal amenity space, child play space and associated landscaping and plant.	Application within Hays FA therefore need an air quality assessment undertaken to prove it is at least AQ neutral and demonstrate it is air quality positive for both building and traffic emissions	Condition for Energy centre to be ultra-Low NOx or cleaner Damage cost contribution for emissions issued.	Condition Air Quality - Mechanical Ventilation using NOx/NO2 removal systems No development shall commence until a scheme detailing mechanical ventilation to be installed at the premises with the systems / filters required to extract NOx/NO2 from outdoor ambient air and secure indoor NO2 levels below 40ug/m3 has been submitted to and approved in writing by the Local Planning Authority. The approved scheme shall be carried out before the use/operation commences and be thereafter maintained. *Reason - As the application site is within an Air Quality Management Area and to comply with paragraph 124 of the NPPF, policy 7.14 of the London Plan, and policy DMEI 14 of the London Borough of Hillingdon Local Plan (part 2). (please check if this can be used)* Condition Air Quality - Construction Phase No development shall commence until proof of the registration in GLA's database (nrmm.london/nrmm/about/what-nrmm-register) and compliance with the London's Low Emission Zone for non-road mobile machinery requirements is submitted to and approved in writing by the Local Planning Authority.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
			The London's Low Emission Zone for non-road mobile machinery shall be complied with as per requirements as of 1st September 2015. From 1 September 2015 NRMM of net power between 37kW and 560kW used in London are required to meet the standards set out at Supplementary Planning Guidance 'The Control of Dust and Emissions from Construction and Demolition'. This will apply to both variable and constant speed engines for both NOx and PM. These standards will be based upon engine emissions standards set in EU Directive 97/68/EC and its subsequent amendments. NRMM used on the site of any major development within Greater London will be required to meet Stage IIIA of the Directive as a minimum. *Reason: Compliance with the London's Low Emission Zone for non-road mobile machinery as per requirements as of 1st September 2015, and Supplementary Planning Guidance 'The Control of Dust and Emissions from Construction and Demolition'.*	
Planning Ref	**37977/APP/2018/1117 / 37977/APP/2018/4339**			**NO**
ROLOGIS PARK WEST LONDON HORTON ROAD YIEWSLEY Details pursuant to the discharge of Condition 35 (Air Quality - Backup Power) of planning permission reference 37977/APP/2018/1117 [Section 73 application for Removal of Condition 27 (Data	A targeted emission reduction plan over 15 years with priority given to front-loading the first 5 years for reducing the emissions asap was explored as a possible solution for reducing the NOx emissions associated with the proposed development. However, cost and technology did not allow the solution found as	A Deed by Unilateral Undertaking is required pursuant to Section 106 of the Town and Country Planning Act 1990 and other powers in relation to development at land known as Development of The Land At Phase 3 Stockley Park Stockley Road West Drayton, Middlesex	A Deed by Unilateral Undertaking was agreed with LBH. On 19 October 2018 the Council granted consent by way of an application under section 73 under number 37977/APP/2018/1117 to vary the Second Planning Permission and in respect of that the parties entered into a deed of variation dated 19 October 2018 in relation to the section 106 agreement dated 11 December 2015. The Council is willing subject to the completion of a Unilateral Undertaking to approve the details submitted to discharge planning condition 35 of the Third Planning Permission for Premises DC3 and Premises DC4 and to issue a notice of discharge in respect of the same. The Unilateral Undertaking is supplemental to the Section 106 Agreement dated 11 December 2015 (as varied by the deeds of variation dated 9 August 2017 and 19 October 2018) and is not intended to vary the Section 106 Agreement which shall remain in full force and effect.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
Centre Use) and variation of Condition 6 (Approved documents) of planning permission 37977/APP/2017/1634 dated 14.08.17 (Section 73 application for variation of Conditions 5 (approved drawings), 6 (approved documents), 25 (insertion of mezzanine floors) and 27 (use as data centre) as attached to planning permission ref. 37977/APP/2015/1004 dated 14-12-2015: Hybrid Application for the phased comprehensive redevelopment of the site to provide an overall maximum gross floorspace of 45,000sqm of light industrial uses (Use Class B1c and/or	being viable and other solutions were discussed.		THIS DEED BY UNILATERAL UNDERTAKING is made in pursuance of the powers contained in Section 106 of the Act and is a planning obligation for the purposes of Section 106 of the Act where an "Air Quality Contribution" towards mitigation measures aimed at improving air quality within the Council's administrative area the total sum of which is Four hundred and Sixteen thousand pounds (£416,000) payable in accordance with the terms of the Unilateral Undertaking and the Schedule to this Unilateral Undertaking.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
Use Class B2) and/or storage and distribution uses (Use Class B8) and ancillary offices, together with servicing, parking, access roads and open space. Full planning permission is sought for Phase 1 containing 18,900sqm of floorspace in two buildings up to 16.2 metres in height (to ridge), together with associated highways works, open space, hard and soft landscaping, car parking and associated infrastructure. Outline planning permission is sought for Phase 2 for up to 26,100sqm of floorspace with all matters, except for access, reserved for later determination.]				

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
Planning Ref	**11026/APP/2018/3361**			**YES**
THE CRANE PH WATERSPLASH LANE HAYES UB3 4QS Demolition of existing buildings (Use Class A3) and replacement with a 3 storey building comprising 27 self-contained apartments (Use Class C3), new access and associated parking. Location	The development is in the Hayes Focus Area in close proximity to North Hyde Road where pollution levels exceed the current limits set for health. Development in such places is required to protect future occupiers for elevated levels of pollution, reduce any impacts arising from any associated traffic and offset any remaining emissions.	See Local Plan Part 1: All development should not cause deterioration in the local air quality levels and should ensure the protection of both existing and new sensitive receptors. All major development within the Air Quality Management Area (AQMA) should demonstrate air quality neutrality (no worsening of impacts) where appropriate; actively contribute to the promotion of sustainable transport measures such as vehicle charging points and the increased provision for vehicles with cleaner transport fuels; deliver increased planting through soft landscaping and living walls and roofs; and provide a management plan for ensuring air quality impacts can be kept to a minimum.	This development incorporates clean by design measures such as set back by 10m from the road, inclusion of Low NOx boilers however it still contributes a total of 0.23 tonnes of NOx per year into this already polluted area. This has been calculated as £94, 098 in terms of damage costs. LBH have taken account of matters as presented which may reduce the damage costs which are: Fully implemented travel plan (10% reduction); Improved landscaping scheme for the protection of future residents (10% reduction) This leaves a damage cost of £70, 573.50. It is suggested that should this development be approved a s106 obligation for £70,573.50 should be secured for public realm improvements to actively contribute the promotion of sustainable transport measures such as increased walking and cycling in the area.	
Planning Ref	**2102/APP/2018/4231**			**N/A**
CHAILEY INDUSTRIAL ESTATE PUMP	LBH have evaluated both the Air Quality Report and the LES	In line with "Policy 7.14 - Improving air quality	LBH will arrange a meeting with the applicant to agree the best way forward. Producing the air quality neutral report should not take longer than a day or	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
LANE HAYES UB3 3ND Redevelopment of the site to provide three buildings ranging from 2 to 11 storeys in height delivering 333 residential units and 710 sq.m of ground floor commercial floorspace (Use Classes A1, A2, A3, B1, D1 or D2), including the provision of private and communal amenity areas, child play space, car parking, secure cycle parking, refuse storage areas and other associated development.	submitted to support the planning application and have the following observations: 1) the proposal is a major application with 333 dwellings being proposed in addition to the commercial faction and originates 424 vehicle movements a day which is significant given it is located within Hays Focus area (FA) with possibility of also impacting Ossie Garvin FA, due to users commuting activities. 2) The site currently has an industrial use. The proposal is a residential led application, which in effective terms is a change of use from industrial activity to predominately residential activity. When change of use is to be ascertained for air quality, various considerations need to be taken into account to correctly estimate the impact on local air	Development proposals should: "… ensure that where provision needs to be made to reduce emissions from a development, this is usually made on-site. Where it can be demonstrated that on-site provision is impractical or inappropriate, and that it is possible to put in place measures having clearly demonstrated equivalent air quality benefits, planning obligations or planning conditions should be used as appropriate to ensure this, whether on a scheme by scheme basis or through joint area-based approaches." In line with emerging Policy SI1 Improving Air Quality of the new London Plan "Air Quality Focus Areas (AQFA) are locations that not only exceed the EU	two max and the updating of the report results takes a couple of hours so none of the above would impose delays in reaching a planning agreement with the Applicant.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	quality. Of these, the most important one is the capability of emission control management and enforcement of emission reduction plans so that work developed by the LBoH towards achieving compliance with limit values is not counterfeited by the proposed development. Industrial fleets can be managed by internal business mechanisms including procurement activities and replacement of its fleet to meet current standards (euro 6 and VI) by environmental management systems (EMS) in place. Residential uses do not afford such capability, with users being completely free to use any vehicle standard if still in use and passing the required MOT tests. Therefore, assumptions that the existing use is more polluting than the	annual mean limit value for nitrogen dioxide (NO2) but are also locations with high human exposure. AQFAs are not the only areas with poor air quality but they have been defined to identify areas where currently planned measures to reduce air pollution may not fully resolve poor air quality issues…." Therefore, an additional effort from the LA to solve the air quality problems in these sensitive areas is required to safeguard human health and proposals within Focus Areas are to contribute actively REQUIREMENTS The Applicant will need to a) correct the adjustment factor to suitably adjust the model and correctly estimate the impacts of the proposed		

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	proposed change are not necessarily correct. Only by evaluating current baseline conditions for air quality (which the applicant did via a local specific monitoring survey) and estimating future impacts based on those levels can such changes be quantified in the context of current levels and trends. 3) The applicant has undertaken a site-specific survey to monitor baseline 2018 conditions. These data will also be crucial to adjust the modelled results that typically underestimate NOx road contributions near the source. Map attached indicates that the location of the monitoring sites reflects locations where GLA mapping of nitrogen dioxide annual mean exceeds this limit value for this pollutant of concern within Hays and	development which may range from moderate to substantial, considering sensitive receptors already above the limit value and the new adjustment factor. Use all monitoring sites available as they are relevant to ascertain the impacts of the proposed scheme on local air quality. b) produce and submit the air quality neutral assessment. This is required for reporting to GLA as part of the ASR. c) Once the two above are produced and submitted to the LA, then a suitable list of mitigation measures to be agreed with the LBoH department of transport to reduce the scale of impacts anticipated. As a backstop, a S106 amount must be applied for the purposes of improvement of local air quality through traffic management interventions or other means to be agreed with		

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	Ossie Garvin Focus Areas. However, of the 7 sites deployed, only 2 were used to verify and adjust the model. This is totally inappropriate, as the sites reflect locations of exceedance and should had been included in the modelling for both exposure predictions in baseline and opening year with development and model verification purposes. Since road contributions are the main source, regardless of distance to the road, and for completeness purposes, all sites should had been considered, with results presented and discussed in the report, if to disregard any site in the varication exercise but still including them in the opening year to ascertain impact as mentioned in point 2) above.	LBH. Please note that the starting year is 2021, not 2018.		

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	In addition, and of key importance for both the adjustment factor applied and report conclusions, is that the bias adjustment is incorrectly applied. I attach the September 2018 Defra's bias adjustment factor which is 0.96 if all sites are included and 0.98 if only good precision sites are considered. These values differ from the reported 0.88 adjustment factor which produces significantly reduced results. Table below illustrates the differences between the reported monitored results and the correctly bias adjusted results (in ug/m3). It is observed that significantly higher values were captured during the survey which indicate high levels of pollution and would significantly increase the adjustment factor and hence the significance of the impacts reported.			

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	Finally, even underestimating the monitored values, reported values are above the limit value at various location. 4) A non-conservative approach was followed in predicting vehicle emissions in the opening year assuming declining emissions as per national estimates. Whereas using CURED V3A which uses a slightly more pessimistic estimate than Defra's estimates of post-2019 diesel cars and vans, there is greater uncertainty in 2021 emissions and a common conservative approach is to do a sensitivity analysis considering different years of emissions (e.g. 2019, 2020, and 2021) to account for the fact that the LBoH may not have the national average in terms of affluence and the local fleet may not be			

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	renewed as per national average estimates on a year per year basis. 5) No neutral assessment has been undertaken as per "Policy 7.14 - Improving air quality - this is a requirement for this size of application, and we must report to GLA in April 2019 on this. LOW EMISSION STRATEGY 6) The Low Emission Strategy does not suitably quantify the NOx reduction in terms of tonnes per year for the measures listed and only the travel plan reduction (10%) and the LBoH flat rate of 5% discount for all the other non-quantifiable measures can be considered. 7) The application of the IAQM is not suitable for the following reasons:			

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	a) The text is guidance and gives as an example situation where the existing permission (granted use) on the site has not been exercised. However, the principle is what is to be considered and applied, not the example. Whenever the case reflects circumstances where the granted use increases or decreases the emissions in relation to the proposed use of the land, impacts are to be assessed for the new permission sought against the current baseline for the site, disregarding the extant permission as this will reflect the real world increase experienced by receptors. b) This principle is key for suitable air quality management. As mentioned in point 2, industrial uses can be managed in terms of fleet emissions moving towards reduction			

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	through internal EMS procedures to upgrade of the business fleet, through traffic management orders or procedures to limit the circulation of HGVs along certain problematic routes and or times of the day, etc. This is not possible to enforce in residential led uses and hence there is no evidence that the current use is more polluting than the proposed one, other than comparing baseline conditions (as per Air Quality proposal specific monitoring survey) with predicted opening year conditions, to ascertain the real impact of the proposal on existing receptors.			
Planning Ref	**51175/APP/2019/187 / 51175/APP/2018/4260**			**N/A**
STANFORD HOUSE, 9 NESTLES AVENUE HAYES Demolition of existing buildings and redevelopment	The proposed development is located in a Focus Area, bringing traffic and energy production emissions which will add	As per the new London Plan, developments need to be neutral as minimum and positive in Focus Areas, contributing to the	Condition Air Quality - Low Emission Strategy No development shall commence until a low emission strategy has been submitted to and approved in writing by the Local Planning Authority. The low emission strategy shall address 1) the specification of the CHP as low NOx emissions and boilers as ultra-low NOx emissions; 2) show what benefits are	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
to provide a building up to 10 storeys, comprising 84 residential units to the upper floors, associated landscaping, access, car parking and cycle parking	to the current exceedances. 1) the report does not acknowledge that the application is within Hays Focus Area and that it should aim at being air quality positive, i.e. contribute to the improvement of air quality within the area; 2) given it is in a Focus Area, the extant use (as per LBH standard practice within these areas) the extant trip generation cannot be used as benchmark for vehicle emissions; the application generates traffic which needs to be accounted for cumulatively with other granted planning applications within the area; 3) it does not assess the cumulative effects of the energy centre on Hays Focus Area;	reduction of emissions in these sensitive areas. Therefore, a section 106 agreement with the LAP of £5,371 is to be paid for Hillingdon to deliver its air quality local action plan and or implement specific measures on/along the road network affected by the proposal that reduce vehicle emissions and or reduces human exposure to nitrogen dioxide levels.	given to development purchasers that own a Euro 6 or cleaner or have implemented retrofitting devices that will enable compliance with such Euro standards; 3) a travel plan for residents; and 4) an electric vehicle bay charging aligned with the London Plan requirements. The strategy shall detail the steps that will be followed in addressing the lower emissions requirements stated above and what measures will be taken to take into account future changing standards and available technologies and be updated accordingly in agreement with the local planning authority. The Low Emission Strategy shall have targets for emission reduction and time-scales, with pollution savings quantified. At the end of each calendar year an implementation plan shall be submitted for approval in writing by the local planning authority, which on approval shall be fully implemented in accordance with the details and measures so approved. The measures in the agreed scheme shall be maintained throughout the life of the development. The LES shall include details of the following components: • Travel plan including mechanisms for discouraging high emission vehicle use and encouraging the uptake of low emission fuels and technologies • A Welcome Pack available to all new residents online and as a booklet during the sales period, containing information and incentives to encourage the use of sustainable transport modes • Car club provision within development or support given to local car club/eV car clubs • Designation of parking spaces for low emission vehicles *Reason - As the application site is within an Air Quality Management Area and Focus Area and to comply with paragraph 124 of the NPPF, policy 7.14 of the London Plan, and policy DMEI 14 of the London Borough of Hillingdon Local Plan (part 2).* Condition - Air Quality – Construction Phase No development shall commence until proof of the registration in GLA's database (nrmm.london/nrmm/about/what-nrmm-register) and compliance with the London's Low Emission Zone for non-road mobile machinery requirements is submitted to and approved in writing by the Local Planning Authority.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	4) it does not undertake neutral assessment calculations as per GLA requirements;		The non-road mobile machinery shall comply with the standards set out at Supplementary Planning Guidance 'The Control of Dust and Emissions from Construction and Demolition'. This will apply to both variable and constant speed engines for both NOx and PM. These standards will be based upon engine emissions standards set in EU Directive 97/68/EC and its subsequent amendments. NRMM used on the site of any major development within Greater London will be required to meet Stage IIIA of the Directive as a minimum. Reason: Compliance with the London's Low Emission Zone for non-road mobile machinery as per requirements as of 1st September 2015, and Supplementary Planning Guidance 'The Control of Dust and Emissions from Construction and Demolition'.	
Planning Ref	**71737/APP/2018/4003**			**NO**
GETHCELN HOUSE DAWLEY ROAD HAYES Proposed demolition of existing dwelling and warehouse/workshops and erection of one flexible use class B1(c)/B2/B8 building comprising 3 units with associated access and parking.	LBH have evaluated the content of the air quality report and the proposed development is not air quality neutral for transport.	Therefore, as per the London Plan Sustainable Design and Construction SPG, appropriate onsite mitigation measures will have to be incorporated to off-set the excess in emissions. The developer should investigate options for providing NOx abatement measures offsite in the vicinity of the development. This will involve working with LBoH to identify suitable mitigation measures, as part of a Low Emission Strategy such as • green planting/walls and screens, with special consideration given to	Measures could be provided in whole or part directly by the developer or by making a contribution to an existing project e.g. Highways - to be discussed further with LBH. Measures to be secured by s106.	Transport

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
		planting that absorbs or suppresses pollutants; • updating of captive fleets to meet euro 6 or VI or implementation of retro-fitting abatement technology for vehicles - this is to be secured by the occupier; and • exposure reduction measures.		
WEST DRAYTON/YIEWSLEY FOCUS AREA				
Planning Ref	**37977/APP/2018/1615**			**N/A**
PROLOGIS PARK WEST LONDON HORTON ROAD YIEWSLEY Details pursuant to the discharge of Condition 32 (Air Quality Assessment) as attached to approved planning **application 37977/APP/2017/1634 (14-08-17)**		To be able to discharge the condition, we will require a declaration/note from the developer to complement the report findings, clearly stating the following:	Required declaration from developer clearly stating the following Demonstrate, by the form of signed declaration, that a) no installed generators shall support STOR and triad management activities (Scenarios 1 and 2) during the lifetime of the development; b) The generators installed and in operation during the lifetime of the development shall not be used for any other purpose other than providing emergency back-up power generation. c) Should the installed generators be considered also for demand site response activities, then their technical specification will be either: o Prime mover / generator sets with emissions performance compliant with the 190 mg/m3 NOx emission limit value should be selected; or	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
			o Emissions abatement (focused on NOx reduction) is to be implemented to the project designs, such that the 190 mg/m3 NOx emission limit value is achieved	
Planning Ref	**2370/APP/2018/2793**			**N/A**
MORRISON SUPERMARKET 41-67 HIGH STREET YIEWSLEY Demolition of the existing buildings and the redevelopment of the site to provide a part 4 to part 8 storey building comprising a replacement Class A1 1,643sq.m (GIA) foodstore, 144 residential units, basement car parking and associated works.	The proposed development is within an Air Quality Focus Area. This is defined as an area where limit values are exceeded, and improvements are required.	The following conditions are required plus consideration for a s106 contribution: A financial contribution of £24, 435 was calculated on the number of car parking spaces associated with the proposal of the transport assessment. LBH have deducted 10% of their emissions due to the travel plans submitted and committed to.	Condition – Low Emission Strategy with Delivery and Implementation Plan of Measures No development shall commence until a low emission strategy (LES) has been submitted to and approved in writing by the Local Planning Authority. The LES shall address 1) the specification of the CHP as low NOx emissions, ultra-low NOx gas boilers, with associated Air Quality Impact Assessment; should the Impact assessment identify significant impacts cumulative with traffic and other energy centres in the vicinity of the application site, operation shall not commence until proof of technology alteration or retrofitting devices is issued to and approved in writing by the LA 2) Demonstrate that delivery/servicing fleets are EURO VI (or equivalent through implemented retrofitting devices that will enable compliance with such Euro standards) and or zero emission (e.g. Electric) 3) Detail the provision of, and number of, electric vehicle charging units. The Low Emission Strategy shall have targets for emission reduction and timescales, with pollution savings clearly quantified and a clear Delivery and Implementation Plan of Measures. At the end of each calendar year an implementation plan shall be submitted for approval in writing by the local planning authority, which on approval shall be fully implemented in accordance with the details and measures so approved. The measures in the agreed scheme shall be maintained throughout the life of the development. *Reason - As the application site is within an Air Quality Management Area and to comply with paragraph 124 of the NPPF, and policy 7.14 of the London Plan and Policy EM8 of the Local Plan.*	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
			Condition - Air Quality – Construction Phase No development shall commence until proof of the registration in GLA's database (nrmm.london/nrmm/about/what-nrmm-register) and compliance with the London's Low Emission Zone for non-road mobile machinery requirements is submitted to and approved in writing by the Local Planning Authority. Reason: Compliance with the London's Low Emission Zone for non-road mobile machinery as per requirements as of 1st September 2015, and Supplementary Planning Guidance 'The Control of Dust and Emissions from Construction and Demolition'. As the development is within an Air Quality Focus Area the damage costs of the extra emissions arising from the residential aspect of the development have been calculated on the number of car spaces associated with the transport assessment. A deduction has been applied of 10% resulting from the full implementation of the associated travel plans. The resulting cost of £24, 435 should be considered as a s106 obligation for improvements in the local area.	
UXBRIDGE ROAD FOCUS AREA				
Planning Ref	**16299/APP/2018/1849**			**YES**
LAND OFF HAREFIELD ROAD UXBRIDGE UB8 1JS Demolition of existing buildings and erection of 3 blocks (part 4, 5, 8, 9 and 12 storeys) to provide 267 self-	The assessment has included the provision of air quality monitoring which has indicated there is no requirement for the provision of mechanical ventilation to protect future residents from the ingress of polluted air. However,	However, the proposed development is just within the Uxbridge Air Quality Focus Area and in these cases the Council require a calculation of the damage costs of the increased emissions associated with the development. This has	Should this scheme be approved the following conditions should be applied: Non-road mobile machinery condition (NRMM) No development shall commence until proof of the registration in GLA's database (nrmm.london/nrmm/about/what-nrmm-register) and compliance with the London's Low Emission Zone for non-road mobile machinery requirements is submitted to and approved in writing by the Local Planning Authority. From 1 September 2015 NRMM of net power between 37kW and 560kW used in London have been required to meet the standards set out at	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
contained units (32 x studios, 107 x 1-bedroom, 115 x 2-bedroom and 13 x 3-bedroom) with commercial floorspace at ground floor level (Use Classes A1, A2, A3 and B1) and associated landscaping, including public realm improvements, provision of 9 accessible car parking spaces and ancillary works. (Amendments include design changes and increase of 3 units)	there is no detail as yet in regard to the provision of energy. The car parking associated with the proposed development is drastically reduced from current use therefore it is not anticipated, in the air quality assessment, that the operation will cause additional congestion on the highway. The submitted Travel Plan also indicates proposed targets for a 13% increase in the use of sustainable mode of transport. The air quality neutral assessment indicates the development is within the benchmarks set for building and transport emissions.	been calculated as £29,049, however this is without the reductions in costs that would be applied from mitigation measures which reduce these emissions such as the high level of modal shift from the Travel Plan and any public realm enhancements in terms of increased facilities for cycling and walking. Once mitigation has been applied it is likely this amount could be reduced substantially	Supplementary Planning Guidance 'The Control of Dust and Emissions from Construction and Demolition'. *Reason: Compliance with the London's Low Emission Zone for non-road mobile machinery as per requirements as of 1st September 2015, and Supplementary Planning Guidance 'The Control of Dust and Emissions from Construction and Demolition', Compliance with London Plan policy 7.14 and Local Plan Part 1 policy EM8* Energy Condition No development shall commence until proof that the energy installation meets the appropriate standard required by the GLA Sustainable Design and Construction SPG is submitted to and approved in writing by the LPA as required by the GLA. This must include an Air Quality Assessment which quantifies any potential impacts on existing pollution levels as a result of emissions from the proposed energy installation along with proposed mitigation to reduce the impact including the design and positioning of any flues to not compromise the internal air quality for the proposed residents or the users of any proposed amenity spaces." *Reason: Compliance with the GLA Sustainable Design and Construction SPG, 2014, Compliance with London Plan policy 7.14 and Local Plan Part 1 policy EM8* Low Emission Strategy No development shall commence until a low emissions strategy outlining the steps taken to reduce emissions from the development has been submitted to the LPA. This should include, but is not limited to, the demolition and construction phase, the choice of energy provision, the promotion of low/zero emissions technologies for occupiers of the site, targets set for increased modal shift to sustainable travel modes, enhanced public realm to support walking and cycling.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
			Reason: Compliance with GLA 'The Control of Dust and Emissions from Construction and Demolition' SPG, Compliance with the GLA Sustainable Design and Construction SPG, 2014, Compliance with London Plan policy 7.14 and Local Plan Part 1 policy EM8	
Planning Ref	**72722/APP/2019/347**			**N/A**
25-30 BAKERS ROAD UXBRIDGE UB8 1RG Demolition of existing buildings and redevelopment to provide a new hotel and retail unit, along with refurbishment of part of the existing car park and service area	Results underpredicted as verification is unsuitable – therefore impacts likely to be higher (using HD43 and HD212 the adjustment factor is 1.99 as opposed to 1.29. For the purpose of the assessment traffic data for 2020 was utilised as the development opening year. Air quality is predicted to improve in the future. However, in order to provide a robust assessment, emission factors and background concentrations for 2016 were utilised within the dispersion model.	The development may include gas boilers and/or a gas fired Combined Heat and Power (CHP) unit to provide heat and hot water to the site. At the time of assessment full details of the energy strategy were not available as they will be confirmed during the detailed design phase. Therefore, given that the proposed hotel is within Uxbridge Focus Area, LBH have calculated damage cost of £84, 146 and offer a condition for the Low Emission Strategy as required.	Condition - Air Quality No development shall commence until a low emission strategy (LES) has been submitted to and approved in writing by the Local Planning Authority. The LES shall address 1) the fleet composition serving the Hotel to be Euro 6/VI or above and or have implemented retrofitting devices that will enable compliance with such Euro standards. 2) the supply of energy to the Hotel. Any CHP or gas boiler will have to conform with the London Ultra-Low NOx requirements; The strategy shall detail the steps that will be followed in addressing the lower emissions requirements stated above and what measures will be taken to take into account future changing standards and available technologies and be updated accordingly in agreement with the local planning authority. 3) an electric vehicle charging bay. This is to be implemented as part of the proposal with a minimum of three fast charging points. 4) a clear and effective strategy to encourage staff to a) use public transport; b) cycle / walk to work where practicable; c) enter car share schemes; d) purchase and drive to work zero emission vehicles.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
			The measures in the agreed scheme shall be maintained throughout the life of the development. Reason - As the application site is within an Air Quality Management Area and to comply with paragraph 124 of the NPPF, policy 7.14 of the London Plan, and policy DMEI 14 of the London Borough of Hillingdon Local Plan (part 2).	
Planning Ref	**585/APP/2019/829**			**YES**
LAND OFF THOMPSON RD & ST LUKE'S RD, FORMER RAF UXBRIDGE, HILLINGDON ROAD UXBRIDGE Erection of a building containing 72 assisted living apartments and communal facilities (Use Class C2) with associated parking and landscaping.	The application site is within Uxbridge Focus Area	In alignment with LBH planning system it is required to contribute actively to reduce emissions within the area.	A total damage cost S106 contribution of £83, 743 is due to support the implementation of LBH Local Action Plan. Should the travel plan be judged effective by transport colleagues a 10% discount can be applied.	
A40/ LONG LANE FOCUS AREA				
Planning Ref	**266/APP/2017/3183**			**NO**
FORMER MASTER BREWER SITE FREEZELAND WAY HILLINGDON Construction of a residential-led, mixed use development	A new Air Quality Report has been submitted to the LA to support the planning application. a) the new Air Quality report (December 2018) does not use the same reference for the original	Therefore, the need for mechanical ventilation remains with NOx specific filters to remove exceeding levels of NOx from the atmosphere	Condition Air Quality - Mechanical Ventilation using NOx/NO2 removal systems No development shall commence until a scheme detailing mechanical ventilation to be installed at the premises with the systems / filters required to extract NOx/NO2 from outdoor ambient air has been submitted to and	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
comprising buildings between 4 and 9 storeys to provide 437 residential units (Use Class C3); employment floor space (Use Classes B1(a-c)); flexible commercial floor space (Use Classes A1/A3); associated car and cycle parking; and hard and soft landscaping, plant and other associated ancillary development.	receptors modelled and with which both GLA and Hillingdon had concerns about due to their proximity to busy roads. These are Receptors 24 and 25 facing onto the A40, placed approximately 30m and 20m (respectively) from the roadside and Receptors 26 and 27 facing onto Long Lane, placed approximately 30m and 10m (respectively) from the roadside. As we don't have the same labelling we cannot identify any improvements at this locations. b) the updated air quality report does not offer any mitigation measures. The key issue here is to make sure receptors in proximity to the A40 have mechanical ventilation with NOx/NO2 filters with a removal efficiency of 95% or higher (97% can	The application is within a Focus Area and alike other major planning applications we are requiring proposals are air quality positive contributing to reduce emissions / exposure from hazardous levels of pollution and enabling the LA to fulfil their LAQM duties. The proposal brings into the area additional 338 trips daily creating additional 665 kg NOx per annum which is counterfeiting the LA efforts to clean up the area. Therefore a S106 contribution of £247,906 is required. We have already discounted 10% due to the travel plan offered by the applicant within their Transport Assessment and remain available for enabling the inclusion any quantifiable additional measures the applicant may wish to consider. Please see the required conditions on next column	approved in writing by the Local Planning Authority. The approved scheme shall secure indoor NO2 levels belown40ug/m3, with a NO2 efficiency removal of at least 95%, shall be carried out before the use/operation commences, and be thereafter maintained. *Reason - As the application site is within an Air Quality Management Area and to comply with paragraph 124 of the NPPF, policy 7.14 of the London Plan, and policy DMEI 14 of the London Borough of Hillingdon Local Plan (part 2).* Air Quality - Low Emission Strategy Condition Prior to the commencement of development, a Low Emission Strategy, with accompanying air quality action plan, demonstrating the the management, control and reduction of NO2 and PM2.5 ('the emissions') shall be submitted to and approved in writing by the Local Planning Authority. The action plan shall identify all sources for the emissions and the measures and technology to reduce and manage them. The measures shall include but not limited to: Vehicular Traffic Setting targets for and incentivising the use of Euro VI standards for operational traffic associated with the development. This should include the measures to be taken to take account of future cleaner technologies and standards as appropriate throughout the life of the development; Travel plan for users/employees incentivised to ensure the use of sustainable modes of transport; Provision of rapid electric vehicle charging points with access for the public; Technology	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	be reached with available technology). To note that these are worst case receptors - receptor 27 can be well above 40 as the consultant did not provide the RMSE (Root mean square error) of the model outputs - and receptor 35 can be very close to exceedance.	.	Use of low emission boilers and energy technology, including low NOx boilers, that comply with the GLA Sustainable Design and Construction SPD; Consideration of the use of green infrastructure to ensure the protection of sensitive receptors from pollution emissions associated with the operation of the development; Emissions The action plan must include forecasts for the emissions associated with the development and set annual reduction targets. *REASON* *To ensure the development reduces and manages its air quality impacts in line with Policy EM8 of the Local Plan and 7.14 of the London Plan*	
Planning Ref	**35805/APP/2019/137**			**YES**
1 & 1A BATH ROAD HEATHROW TW6 2AA Outline planning application for demolition of two existing buildings, including a banqueting/ conference hall (Use Class D2) and office/warehouse (Use Class B1/B8), and erection of a five storey 192-bedroom hotel (Use Class C1), with associated works (landscaping reserved for	The proposed development is located with the A4 Corridor Focus Area, bringing traffic and energy production emissions which will add to current exceedances. As per the new London Plan, developments need to be neutral as minimum and positive in Focus Areas, contributing to the reduction of emissions in these sensitive areas.	Therefore, a section 106 agreement with the LAP of £155,013 is to be paid for Hillingdon to deliver its air quality local action plan and or implement specific measures on/along the road network affected by the proposal that reduce vehicle emissions and or reduce human exposure to pollution levels. In addition, an Air Quality condition is required to develop and implement a Low Emission Strategy. See text below.	Condition Air Quality - Low Emission Strategy No development shall commence until a low emission strategy (LES) has been submitted to and approved in writing by the Local Planning Authority. The LES shall address 1) the fleet composition serving the Hotel to be Euro 6/VI or cleaner (e.g. electric) or have implemented retrofitting devices that will enable compliance with such Euro standards. 2) the supply of energy to the Hotel. Any CHP or gas boiler will have to conform with the London Ultra Low NOx requirements; The strategy shall detail the steps that will be followed in addressing the lower emissions requirements stated above and what measures will be taken to take into account future changing standards and available technologies and be updated accordingly in agreement with the local planning authority.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
subsequent approval).			3) an electric vehicle fast charging bay. This is to be implemented as part of the proposal with a minimum of three charging points. 4) a clear and effective strategy to encourage staff to a) use public transport; b) cycle / walk to work where practicable; c) enter car share schemes; d) purchase and drive to work zero emission vehicles. The measures in the agreed scheme shall be maintained throughout the life of the development. *Reason - As the application site is within an Air Quality Management Area and to comply with paragraph 124 of the NPPF, policy 7.14 of the London Plan, and policy DMEI 14 of the London Borough of Hillingdon Local Plan (part 2).*	
A4 CORRIDOR FOCUS AREA				
Planning Ref	**35293/APP/2018/317**			**N/A**
LAND AT 276 BATH ROAD SIPSON UB7 0DQ Redevelopment of the site for a 250-bed hotel (Use Class C1) and multi-storey car park, including landscaping, plant and associated works.	Within A4 Corridor Focus Area The application was submitted without an air quality assessment	The proposal Transport Assessment mentions a multi-storey car park associated with the application site operation. Therefore, the conditions are requested in order to address the impact of the construction and operational phases of the development given its location in an Air Quality Focus Area.	AIR QUALIY CONDITIONS Condition Air Quality - Low Emission Strategy No development shall commence until a low emission strategy (LES) has been submitted to and approved in writing by the Local Planning Authority. The LES shall address 1) the fleet composition serving the Hotel to be Euro 5/VI or above or have implemented retrofitting devices that will enable compliance with such Euro standards or above. 2) the supply of energy to the Hotel. Any CHP or gas boiler will have to conform with the London Ultra Low NOx requirements;	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
			The strategy shall detail the steps that will be followed in addressing the lower emissions requirements stated above and what measures will be taken to take into account future changing standards and available technologies and be updated accordingly in agreement with the local planning authority. 3) Provision of a public fast electric vehicle charging bay. This is to be implemented as part of the proposal with a minimum of three charging points. 4) a clear and effective strategy to encourage staff to a) use public transport; b) cycle / walk to work where practicable; c) enter car share schemes; d) purchase and drive to work zero emission vehicles. The measures in the agreed scheme shall be maintained throughout the life of the development. The Low emissions strategy shall make reference to The London Councils 'Air Quality and Planning Guidance'; DEFRA Practice Guidance 3: Practice guidance on Measures to Encourage the Uptake of Low Emission Vehicles, February 2009; and Low Emission Strategies: Using the Planning System to Reduce Transport Emissions, Good Practice Guidance prepared by the Beacons Low Emission Strategies, June 2008. *Reason - As the application site is within an Air Quality Management Area and to comply with paragraph 124 of the NPPF, policy 7.14 of the London Plan, and policy DMEI 14 of the London Borough of Hillingdon Local Plan (part 2) (please check we can refer to DMEI 14)*	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
			In addition, the construction condition was required as there is a lot of construction activity (two hotels being constructed adjacent to each other)	
Planning Ref	**10181/APP/2018/4485**			**NO**
FROGSDITCH FARM SHEPISTON LANE HAYES Outline planning application for the demolition of 5 existing buildings and construction of replacement building/s with a combined floor space of 1,402.9 sqm and associated hard standing, fencing and landscaping for use class B8.	The application site is within the M4 Corridor Focus Area, This Focus Area is a hot spot where several exceedances to the annual mean limit value for nitrogen dioxide are observed. The proposed development is predicted to generate at least a total of 202 two-way annual average daily traffic (AADT) movements / day on the adjoining highway which is a considerable impact on local air quality. The proposal generates a significant number of additional vehicles on the local road network, being very important to not counterfeit LBH efforts to improve Air Quality in this sensitive area.	Therefore, a good travel plan is required to minimise such vehicle emissions and promote the use of public transport into sensitive locations. In addition, a S106 contribution towards the implementation of LBH Local Action Plan is sought.	The total air pollution emissions, if not removed or offset by other contributions, amount to an air quality damage cost of £258,106.	
Planning Ref	**74351/APP/2018/4098**			**NO**
WORLD BUSINESS CENTRE 5 NEWALL	The proposal is for an office building (WORLD BUSINESS CENTRE at	Therefore, it is required to actively contribute to the improvement of air	The total value of £281,480 is due as S106 for Air Quality contributions. This value already includes a discount of 10% for the inclusion of a travel plan.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
ROAD HEATHROW AIRPORT TW6 2SN Erection of office building (Outline application with all matters reserved)	5 Newall Road) and is located within the A4 Corridor Focus Area. Please see below the comments on the air quality assessment results. 1) the proposal is not air quality neutral for transport emissions. 2) the proposed development is within a Focus Area.	quality within the Focus Area. Damage cost calculations undertaken used the average travel distance of 11.1km for Hillingdon and an average speed of 40kph for consistency with other planning applications.	Therefore, will rely on transport colleagues to make sure such benefits can be achieved via negotiation of an effective travel plan.	
OUTSIDE FOCUS AREAS				
Planning Ref	**51458/APP/2018/889**			**N/A**
Unit 366 STOCKLEY CLOSE WEST DRAYTON UB7 9BL Alterations and Extensions to existing food factory to include a two storey 'DAF' processing plant extension to the south elevation, with single storey bunded compound adjacent for storage tanks; a two storey extension to south elevation for transport office on	A detailed study was submitted to discharge the conditions.	Decision note has the following condition Prior to occupation of the data centres (Phase 1), a detailed air quality assessment shall be submitted to and approved by the Local Planning Authority. This should assess levels of both nitrogen dioxide and PM10 against both long-term and short-term limit values. The IAQM/EPUK2017 guidelines should be used to describe and	Air Quality Condition No development shall commence until a technical note has been submitted to and approved in writing by the Local Planning Authority. The note is to be signed by the applicant and clearly state compliance with the following requirements: a) the new boiler meets the London ultra-low NOx boiler emission requirements (< 40mg/kWh); b) the new diesel generator shall not be used for any other purpose other than providing emergency back-up power generation. Should the installed generator be considered also for demand site response activities, then its technical specification will be either: - Prime mover / generator sets with emissions performance compliant with the 190 mg/m3 NOx emission limit value should be selected; or - Emissions abatement (focused on NOx reduction) is to be implemented such that the 190 mg/m3 NOx emission limit value is achieved.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
first floor and ancillary rooms on the ground floor; an internal first floor extension to create a new plant room above the existing plant room; a new internal enclosure to form a new boiler room with a new external flue; external site alterations to provide 10 extra car parking spaces, a site security kiosk with double barriers, a new cycle shelter, a smoking shelter and a self contained diesel standby generator inside acoustic cladding sited on a new concrete plinth on the west side plus additional soft landscaping		assess predicted impacts. The air quality modelling will use an advanced dispersion model to evaluate the overall impact of project-related emissions on nearby receptors. The model shall take into account the 3D data of the surrounding buildings, the exhaust stack heights/locations, and conservative meteorological data. The assessment should also include a study of flue height/location optimisation. The assessment must include the consideration of several scenarios, including scenarios where it is assumed that the generators will join STOR and undertake triad management (i.e. the assessment must capture the range of plausible running hour outcomes). Likely 'worst case' scenarios could include the following: a) All units operating for 50 hours per year; b) All	*REASON* *To safeguard the amenity of the surrounding area in accordance with Policy OE1 of the Hillingdon Local Plan (November 2012) and Policy 7.15 of the London Plan (March 2016).* However, it now appears diesel generator has been omitted although a lot more A/C units here, also an HV Transformer.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
		units operating for 200 hours per year. Additional bespoke scenarios shall be developed based on proposed equipment configuration and operating philosophies for the project - this will also be included within the assessment. All scenarios considered should be environmentally conservative. The study should optimise both location and height of flues and use worst case meteorological conditions. The assessment shall serve to demonstrate whether the current proposals succeed in causing no significant impacts on existing receptors in relation to baseline conditions. Should the assessment conclude that it will be necessary to implement mitigation/management measures to achieve this outcome, these will be clearly defined and demonstration of the		

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
		mitigation level achieved explicitly quantified. REASON: To safeguard the amenity of the surrounding area in accordance with Policy OE1 of the Hillingdon Local Plan (November 2012) and Policy 7.15 of the London Plan (2016).		
Planning Ref	**24597/APP/2018/2452**			**N/A**
WATERCRESS BEDS SPRINGWELL LANE HAREFIELD WD3 8UX Installation of a biomass boiler and wood chip fuel store within an existing building	LBH calculations have indicated a likely emission rate of 0.21 g/s for NOx and 0.02 g/s for PM_{10}, if the Mayor's required specification is applied for a 13% Oxygen and a 0.11g/s for NOx and 0.01g/s for PM_{10}, if the Mayor's required specification is applied for a 6% Oxygen . The calculations indicate the need to have a minimum of a total 8m stack to have emission rates below the target values in the first case and 6m in the later.	Therefore, a full biomass unit specification is required to ascertain the impact on local air quality. 1) The nearest receptors downwind are approximately 75 to 97m from the source (see attached map with wind rose for Heathrow 2017. The background values of NO2 and PM10 in 2019 in the area according to Defra are 14.2ug/m3 and 14.5ug/m3 respectively, which are considered to be low. 2) the biomass unit can be approved subject to	CONDITION AIR QUALITY - BIOMASS FULL SPECIFICATION REPORT No development shall commence until a full biomass specification has been submitted to and approved in writing by the Local Planning Authority. The unit specification shall comply with the London Plan and associated Supplementary Planning Guidance (SPG), Sustainable Design and Construction – Supplementary Planning Guidance, Annex 7, and the actual emission rates for NOx and PM10 be below the Target Emission Rate calculated using the Biomass Calculator available for download on the LAQM Support website http://laqm.defra.gov.uk/review-and-assessment/tools/emissions.html). For the calculations required the following information for the biomass installation will be used • Stack internal diameter; • Actual stack height above ground level; • NOx and PM10 actual maximum emission rates; • Height of nearby buildings, which may prevent good dispersion of the plume; and • NO2 and PM10 background concentrations around the installation.	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
		confirmation of the height of the stack and the application of the Mayor's requirements for biomass units which require a minimum emission standard of 275mgNOx/Nm3 and 25mgPM/Nm3. The calculations shall produce emission rates for NOx andPM10 below the target rate as per LLQAM guidance To secure this a condition requiring the above to be satisfied is required.	To determine background pollutant concentrations, suitable pollution monitoring sites nearby or, if unavailable, the UK background maps should be used. *Reason - As the application site is within a Smoke Control Area and to comply with paragraph 124 of the NPPF, policies 5.3 and 7.14 of the London Plan, and policy DMEI 14 of the London Borough of Hillingdon Local Plan (part 2).*	
Planning Ref	**74342/APP/2018/4084**			**N/A**
FORMER GARAGES SITE A REAR OF 38-84 COLERIDGE WAY WEST DRAYTON UB4 9HR Demolition of existing garages and construction of 1 x one bedroom attached bungalow, 2 x two storey (with rooms in the roof space), four bedroom dwellings	The planning application site falls outside any Focus Area and, whereas in close proximity to two FAs, the size of the proposal is likely to have negligible impacts on local air quality.	None	N/A	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
and 4 x two storey, three bedroom dwellings, with associated parking and landscaping				
Planning Ref	**11068/APP/2018/1852**			**N/A**
DOUGLAS WEBB HOUSE, 546 SIPSON ROAD SIPSON Demolition of the existing buildings, the extension to the basement and development of a part 2/3 and part 4 to 6 storey hotel comprising 275 hotel beds centred around an atrium along with ancillary facilities including; car parking, coach parking and associated landscaping	Transport comments and the conclusion that the information provided is not sufficient to understand the full transport and highways implications in regard to certain aspects of the development. Given that the accuracy of the air quality assessment and its conclusions will depend upon the inputs of the full implications of the transport impacts this raises doubts as to whether the full air quality implications have been adequately demonstrated.	Until these issues have been resolved it is not possible to make informed comments in regard to the air quality impacts of this development.	N/A	
Planning Ref	**68069/APP/2019/22**			**NO**
FORMER BELMORE ALLOTMENT SITE BURNS CLOSE HAYES UB4 0EJ	The application has been supported by a good air quality assessment report which is very helpful.	As the proposal is not neutral, a S106 contribution of £54,530 is recommended. In	Condition Air Quality - Low Emission Strategy No development shall commence until a low emission strategy (LES) has been submitted to and approved in writing by the Local Planning Authority. The LES shall specify the following	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
Re-development of former allotment site to provide 5 x two to three storey blocks comprising 111 residential units including 32 x 1-bed, 48 x 2-bed and 31 x 3-bed units with associated access, parking and amenity space.	The review of the air quality assessment has indicated that whereas the proposal is not within a Focus Area, it is not neutral for transport. In addition, we don't know its impact on the exceeding residential sensitive receptors nearby within Uxbridge Road Focus Area which 333 additional vehicles will certainly have (or a share of them), because the receptors modelled are only in the vicinity of the application site. Levels are well below LVs but is close to Grange Park school.	addition, the following conditions will apply.	1) Any CHP or gas boiler will have to conform with the London Ultra Low NOx requirements; 2) A clear and effective strategy to encourage users of the residential units to a) use public transport; b) cycle / walk to work where practicable; c) enter car share schemes; d) purchase and drive to work zero emission vehicles. The measures in the agreed scheme shall be maintained throughout the life of the development. *Reason - As the application site is within an Air Quality Management Area and to comply with paragraph 124 of the NPPF, policy 7.14 of the London Plan, and policy DMEI 14 of the London Borough of Hillingdon Local Plan (part 2).* Condition Air Quality - Construction and demolition phase In order to control the dust and emissions from the demolition and construction phases, the Construction Management Plan must be developed in accordance with the Air Quality Management (IAQM) 'Guidance on the assessment of dust from demolition and construction" and the GLA, Control of Dust and Emissions from Construction and Demolition Supplementary Planning Guidance. All Non-Road Mobile Machinery (NRMM) used during construction must meet Stage IIIA criteria of EU Directive 97/68/EC and must be registered online on the NRMM website at http://nrmm.london/. Confirmation of the registration must be submitted to the LPA. Reason:	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
			To ensure the development reduces and manages its air quality impacts in an air quality management area in accordance with Policy EM8 of the Local Plan	
Planning Ref	**74291/APP/2018/3861**			**N/A**
SPRINGWELL LANE CLOSED LANDFILL SPRINGWELL LANE HAREFIELD Proposed demolition of an existing derelict industrial building and erection of 9 four-bedroom residential units with associated access and parking	Application is located in a non-problematic area in terms of air quality and the size of the application only generates 36 vehicular trips per day on the network.	Therefore, it does not afford any air quality constrains both in terms of exposure to new residents nor impacts on existing sensitive locations.	N/A	
Planning Ref	**5805/APP/2019/137**			**NO**
1 & 1A BATH ROAD HEATHROW TW6 2AA Outline planning application for demolition of two existing buildings, including a banqueting/ conference hall (Use Class D2) and office/warehouse (Use Class B1/B8), and erection of a five	The proposed development is located with the A4 Corridor Focus Area, bringing traffic and energy production emissions which will add to current exceedances. As per the new London Plan, developments need to be neutral as minimum and positive in Focus Areas, contributing to	Therefore, a section 106 agreement with the LAP of £155,013 is to be paid for Hillingdon to deliver its air quality local action plan and or implement specific measures on/along the road network affected by the proposal that reduce vehicle emissions and or reduce human exposure to pollution levels	Condition Air Quality - Low Emission Strategy No development shall commence until a low emission strategy (LES) has been submitted to and approved in writing by the Local Planning Authority. The LES shall address 1) the fleet composition serving the Hotel to be Euro 6/VI or cleaner (e.g. electric) or have implemented retrofitting devices that will enable compliance with such Euro standards. 2) the supply of energy to the Hotel. Any CHP or gas boiler will have to conform with the London Ultra Low NOx requirements;	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
storey 192-bedroom hotel (Use Class C1), with associated works (landscaping reserved for subsequent approval).	the reduction of emissions in these sensitive areas.		The strategy shall detail the steps that will be followed in addressing the lower emissions requirements stated above and what measures will be taken to take into account future changing standards and available technologies and be updated accordingly in agreement with the local planning authority. 3) an electric vehicle fast charging bay. This is to be implemented as part of the proposal with a minimum of three charging points. 4) a clear and effective strategy to encourage staff to a) use public transport; b) cycle / walk to work where practicable; c) enter car share schemes; d) purchase and drive to work zero emission vehicles. The measures in the agreed scheme shall be maintained throughout the life of the development. *Reason - As the application site is within an Air Quality Management Area and to comply with paragraph 124 of the NPPF, policy 7.14 of the London Plan, and policy DMEI 14 of the London Borough of Hillingdon Local Plan (part 2).*	
Planning Ref	**37403/APP/2018/4475**			**N/A**
6 ROUNDWOOD AVENUE STOCKLEY PARK Refurbishment and extension of B1 office building including two-storey extension (net increase of 1,120sqm GEA floorspace), recladding of the	LBH have evaluated the application site for air quality constrains and the AQ assessment submitted by the applicant and have no concerns regarding air quality both in terms of new occupiers and impacts at existing locations. As they are not within a Focus Area	N/A	N/A	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
retained structure and rooftop plant enclosures, and reconfiguration of hard and soft landscaping and vehicular and cycle parking.	and only add 44 vehicles per day the impact of the proposal is considered negligible.			
Planning Ref	**53827/APP/2019/345**			**YES**
61 HIGH ROAD ICKENHAM Outline planning application for the erection of a 5/6 storey building with 38 no. residential units, comprising 22 no. 2 bedroom flats, 13 no. 1 bedroom flats and 3 no. 1 person flats with associated works (appearance and landscaping reserved for subsequent approval).	The application site is approximately 370 m from Ruislip Town Centre Focus Area (FA). The proposed development has been supported by a Transport Assessment which estimates it is likely to generate approximately additional 71 vehicle movements / day on the adjoining highway. The transport assessment does not provide information on a travel plan. Whereas the proposal's trip generation is below 100 AADT, it could be a significant number of additional vehicles on the local road network given the congested nature of High Road. Given the proximity to	Therefore, a good travel plan is required to minimise any vehicle emissions and promote the use of public transport into sensitive locations and this should be requested should the planning application be approved.		

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	Ruislip Town Centre Focus Area it is important to control and minimise to the possible maximum extent the impacts on this area where exceedances to the annual mean limit value for nitrogen dioxide are observed.			
Planning Ref	**532/APP/2018/3375**			**YES**
JOHN CRANK BUILDING, BRUNEL UNIVERSITY KINGSTON LANE HILLINGDON UB8 3PH Erection of a new 7 storey 7,300m2 learning and teaching centre (Use Class D1) with associated landscaping and access works, involving the demolition of the existing John Crank building.	LBH have evaluated the air quality assessment report and the levels of exposure for users are well below the limit values for the pollutants of concern (NO_2 and $PM_{10}/_{2.5}$). The report indicates that there will be no traffic generation associated with the new building. If this is the case then there are no concerns regarding air quality.	Should the new building and its users generate additional traffic in the network, then we will need t re-evaluate as it could have significant impacts on the near by Focus Area and areas of exceedance (red dots on map attached). If there are no transport related concerns all good for air quality.	N/A	
Planning Ref	**1660/APP/2019/1018**			**N/A**
PRODUCTION FACILITY STONEFIELD	The proposed development is not within a Focus Area being in the vicinity of	A section 106 agreement with the LAP of £18,285 is recommended be paid for Hillingdon to deliver	Condition Air Quality - Low Emission Strategy No development shall commence until a low emission strategy (LES) has been submitted to and approved in writing by the Local Planning Authority.	

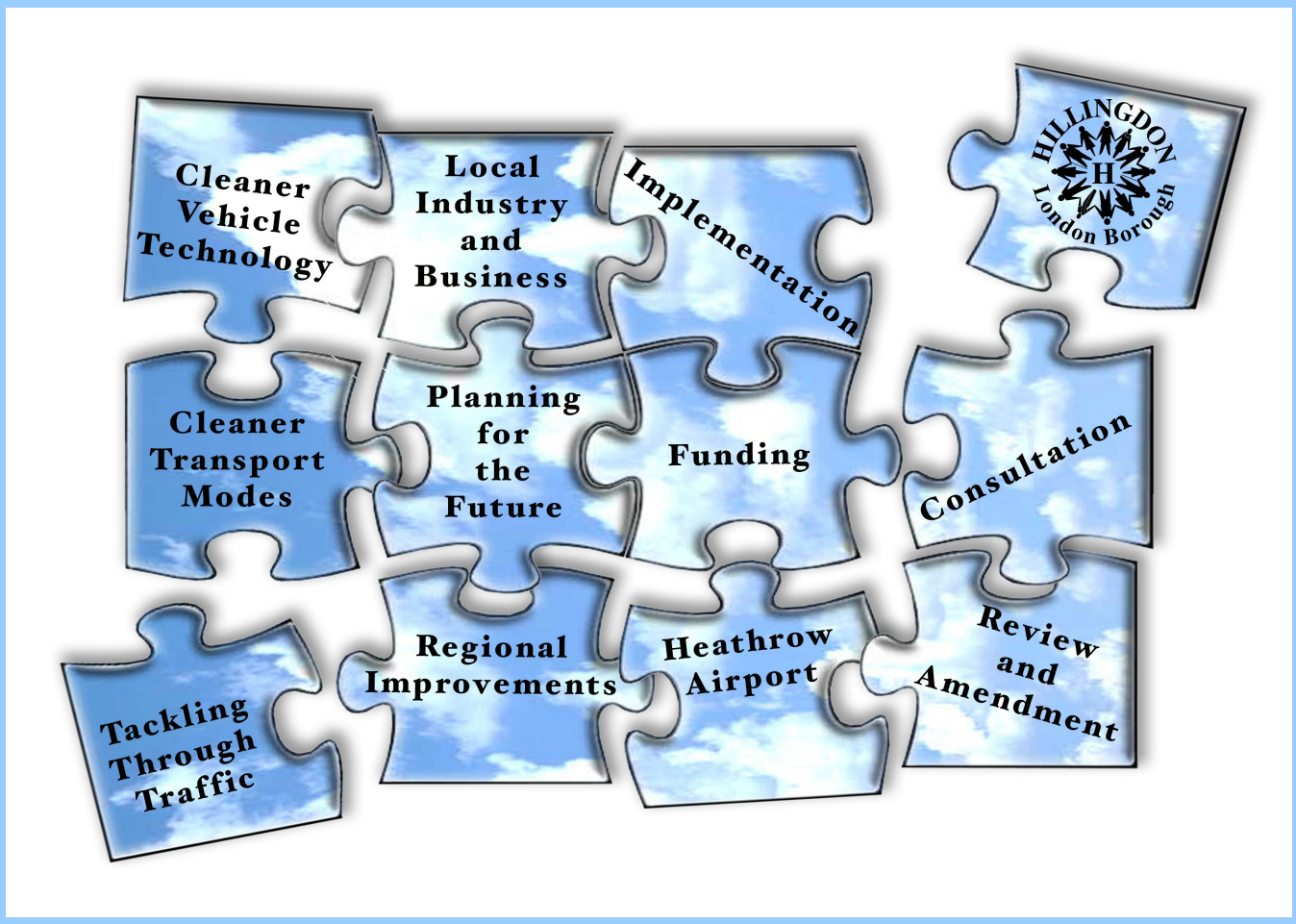
Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
CLOSE RUISLIP HA4 0YH Demolition of existing buildings and the erection of 4,367 sq.m to provide flexible commercial use (Use Class B1/B2/B8) with associated access, landscaping and servicing	the A40/South Ruislip Corridor and Ruislip Town Centre Focus Areas. This is a change of use planning application. Therefore, in terms of Air Quality whereas the proposed development indicates a net reduction in traffic movements with improvement to air quality in relation to extant use, another planning application for the same site could have even lower trip generation and zero emissions. Given the application to change to uses B1; B8. B8 (Storage and Distribution), whereas the assessment indicates a reduction in vehicle movements in relation to the extant use, due to different traffic distribution patterns, the proposed development may have a higher impact within the Focus Areas nearby	its air quality local action plan and or implement specific measures on/along the road network affected by the proposal that reduce vehicle emissions and or reduce human exposure to pollution levels.	The LES shall specify ways to manage the use of the site to conform with the following 1) the fleet composition of the users of the site to be Euro 6/VI or cleaner (e.g. electric) or have implemented retrofitting devices that will enable compliance with such Euro standards. 2) Any CHP or gas boiler will have to conform with the London Ultra Low NOx requirements; The strategy shall detail the steps that will be followed in addressing the lower emissions requirements stated above and what measures will be taken to take into account future changing standards and available technologies and be updated accordingly in agreement with the local planning authority. 3) a clear and effective strategy to encourage users of the site to a) use public transport; b) cycle / walk to work where practicable; c) enter car share schemes; d) purchase and drive to work zero emission vehicles. The measures in the agreed scheme shall be maintained throughout the life of the development. *Reason - As the application site is within an Air Quality Management Area and to comply with paragraph 124 of the NPPF, policy 7.14 of the London Plan, and policy DMEI 14 of the London Borough of Hillingdon Local Plan (part 2).*	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	than the previous use bringing traffic emissions into these areas.			
Planning Ref	**68153/APP/2019/1319**			**YES**
15 GREEN LANE NORTHWOOD HA6 2UZ Redevelopment of site to erect a two storey building with a basement and accommodation at roof level to provide 12 residential units with associated works.	The proposed development is not within a Focus Area and has a relatively small trip generation. As such, potential air quality impacts associated with operational phase road vehicle exhaust emissions are predicted to have an insignificant effect.	Nonetheless the application site is close to an emerging area of concern (Northwood West Focus Area) and a cleaner energy production facility (if any) is required. This is to be secured by condition as text below.	Condition Air Quality - Low Emission Strategy No development shall commence until a low emission strategy (LES) has been submitted to and approved in writing by the Local Planning Authority. The LES shall specify the following 1) Any CHP or gas boiler will have to conform with the London Ultra Low NOx requirements; 2) a clear and effective strategy to encourage users of the residential units to a) use public transport; b) cycle / walk to work where practicable; c) enter car share schemes; d) purchase and drive to work zero emission vehicles. The measures in the agreed scheme shall be maintained throughout the life of the development. *Reason - As the application site is within an Air Quality Management Area and to comply with paragraph 124 of the NPPF, policy 7.14 of the London Plan, and policy DMEI 14 of the London Borough of Hillingdon Local Plan (part 2).*	
Planning Ref	**532/APP/2018/3375**			**YES**
JOHN CRANK BUILDING, BRUNEL UNIVERSITY KINGSTON LANE	LBH have evaluated the air quality assessment report and the levels of exposure for users are well below the limit	Should the new building and its users generate additional traffic in the network, then we will need t re-evaluate as it	N/A	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
HILLINGDON UB8 3PH Erection of a new 7 storey 7,300m2 learning and teaching centre (Use Class D1) with associated landscaping and access works, involving the demolition of the existing John Crank building.	values for the pollutants of concern (NO_2 and $PM_{10/2.5}$). The report indicates that there will be no traffic generation associated with the new building. If this is the case then there are no concerns regarding air quality.	could have significant impacts on the near by Focus Area and areas of exceedance (red dots on map attached). If there are no transport related concerns all good for air quality.		
Planning Ref	**10112/APP/2019/1244**			**N/A**
THE LONDON SCHOOL OF THEOLOGY GREEN LANE NORTHWOOD HA6 2UW Erection of a residential building comprising 15 flats with associated parking, cycle storage, motorcycle parking, disabled parking and bin storage following demolition of existing residential block and pair of semi-detached houses.	The application site is approximately 190 m from Northwood West Focus Area, along the road network. The proposed development generates a total of 20 movements / day on Green Lane (the adjoining highway). Whereas it is not a significant number of additional vehicles on the local road network, it is important to control an minimise to the possible maximum extent the impacts within this Focus Area where several exceedances to	Therefore, a good travel plan is required to minimise such vehicle emissions and promote the use of public transport into sensitive locations	N/A	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
	the annual mean limit value for nitrogen dioxide are observed.			
Planning Ref	**73585/APP/2018/2484**			**YES**
501 & 504 STONE CLOSE YIEWSLEY UB7 8JU Demolition of existing buildings and erection of building for the purposes of Use Class B1c/B2/B8 with associated access and parking	The air quality assessment indicates that as the application represents a reduction in vehicle trips from the existing use no mitigation is required.	However, as the development is within the Air Quality Management Area the following conditions and inclusion in the relevant s106 are considered.	Construction Phase Construction Management Plan (CEMP) No development shall commence until a CEMP has been submitted to, and approved in writing by, the LPA. The Plan must be drawn up in accordance with the GLA Control of Dust and Emissions from Construction and Demolition SPG. Reason: Compliance with London Plan Policy 7.14 Condition Air Quality - NRMM No development shall commence until proof of the registration in GLA's database (nrmm.london/nrmm/about/what-nrmm-register) and compliance with the London's Low Emission Zone for non-road mobile machinery requirements is submitted to and approved in writing by the Local Planning Authority. *Reason: Compliance with London plan Policy 7.14 and the standards set out in the Mayor of London, Supplementary Planning Guidance 'The Control of Dust and Emissions from Construction and Demolition'.* As part of the s106 agreement for the Travel Plan the following was included: Provision of Occupier Low Emissions Strategy Travel Plans, to include, but not be limited to: Setting targets for the increased use of low/zero emission vehicles technologies for the servicing and delivery vehicles; Active promotion of cleaner vehicle technologies for all users of the development with targets set for increased trips by zero emission vehicles; Active promotion and enforcement of no idling on site	

Name, Location & Proposal description	Air Quality Issues in AQ Assessment	LA Requirements	Planning Conditions Text/S106 Agreements/ Status/Outcome	Neutral
			Reason: Compliance with Hillingdon Local Plan Part 1 Policy EM8	


Cleaner Vehicle Technology
Local Industry and Business
Implementation
HILLINGDON
H
London Borough
Cleaner Transport Modes
Planning for the Future
Funding
Consultation
Tackling Through Traffic
Regional Improvements
Heathrow Airport
Review and Amendment