2014 Air Quality Progress Report for
Tower Hamlets Council

In fulfillment of Part IV of the
Environment Act 1995
Local Air Quality Management

April 2014

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Executive Summary

Tower Hamlets Council is committed to becoming a Clean Air Borough through working with the Greater London Authority and others to improve air quality in the Borough. As such the Council is demonstrating its political leadership; taking action; leading by example; using the planning system; integrating air quality into the public health system; and informing the public. This 2014 Air Quality Progress report for Tower Hamlets fulfils one aspect of this ongoing commitment.

The Council's Air Quality Progress report updates recent air quality monitoring in Tower Hamlets and considers other local developments that might affect local air quality. If major changes are noted the Council is required to undertake a Detailed Assessment. This is in accordance with Defra LAQM guidance.

The report also considers the actions that the Council and others are undertaking in pursuit of the objectives under Part IV of the Environment Act 1995.

The report identifies that:

From the monitoring results, the modelling predictions shown, plus local developments there is no need to undertake a Detailed Assessment.

For nitrogen dioxide and particles (specifically PM_{10}) the Council has previously designated an Air Quality Management Area (AQMA) across the Borough. The findings from this report indicate that the AQMA should be maintained.

In view of the findings the Council will undertake the following actions:

1. Undertake consultation with the statutory and other consultees as required.

2. Maintain the existing monitoring programme.

3. Continue with its Air Quality Action Plan programme in pursuit of the AQS objectives.

4. Prepare for the submission of its next Air Quality report.

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1 Introduction

1.1 Description of Local Authority Area

The London Borough of Tower Hamlets is situated in the east of London. The River Thames borders to the south, with the London Boroughs of Newham to the east, Greenwich to the south (i.e. the other side of the River Thames), the City of London to the west and Hackney to the north. It covers an area of about 7.5 square miles (1,900 hectares) and includes the Canary Wharf development in Docklands. Part of the Borough also lies within the Thames Gateway; the largest regeneration area in Europe. The estimated population is 256,000 (from the 2011 Census).

The Borough includes the following areas: Bethnal Green, Bow, Isle of Dogs, Millwall, Mile End, Poplar Stepney, Wapping and Whitechapel. The European or world headquarters of many global financial businesses employing some of the highest paid workers in London are located within the Borough. Conversely it also includes the highest level of child poverty in England, very high rates of long term illness and premature death and the 2nd highest unemployment rate in London.

The main sources of atmospheric pollutants are from road transport, although there are important industrial sources close to its boundaries. The principal roads include sections of the A13, A12, and A11 trunk roads; plus the Borough Principal Roads: A1203, A1261, A1000 and A1205. The Borough includes the portals for the Blackwall and Rotherhithe Tunnels (on the north side of the Thames) and also Tower Bridge, which forms part of the eastern edge of central London's Congestion Charging area.

The other major sources of emissions in the Borough include those from residential and commercial premises, which mainly relate to gas boilers used for space and water heating; and construction sites, including dust and machinery emissions.

1.2 Purpose of Progress Report

This report fulfils the requirements of the Local Air Quality Management (LAQM) process as set out in Part IV of the Environment Act (1995), the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 and the relevant Policy and Technical Guidance documents. LAQM places an obligation on the Council to regularly review and assess air quality in its area, and to determine whether or not the air quality objectives are likely to be achieved. Where exceedences are considered likely, the local authority must then declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives.

Progress Reports are required in the intervening years between the three-yearly Updating and Screening Assessment reports. Their purpose is to maintain continuity in the LAQM process.

These reports are not intended to be as detailed as Updating and Screening Assessment Reports, or to require as much effort. However, if the Progress Report identifies the risk of exceedence of an Air Quality Objective, the Council should undertake a Detailed Assessment immediately, and not wait until the next round of Review and Assessment.

1.3 Air Quality Objectives

The air quality objectives applicable to LAQM **in England** are set out in the Air Quality (England) Regulations 2000 (SI 928), The Air Quality (England) (Amendment) Regulations 2002 (SI 3043). These are shown in Table 1.1. This table shows the objectives in units of micrograms per cubic metre µg m^{-3} (milligrammes per cubic metre, mg m^{-3} for carbon monoxide) with the number of exceedences in each year that are permitted (where applicable). The objectives include dates by which the objectives are to be achieved, all of these, without exception, are now in the past.

Table 1.1 Air Quality Objectives included in Regulations for the purpose of LAQM in England

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 µg m^{-3}	Running annual mean	31.12.2003
	5.00 µg m^{-3}	Annual mean	31.12.2010
1,3-Butadiene	2.25 µg m^{-3}	Running annual mean	31.12.2003
Carbon monoxide	10 mg m^{-3}	Running 8-hour mean	31.12.2003
Lead	0.50 µg m^{-3}	Annual mean	31.12.2004
	0.25 µg m^{-3}	Annual mean	31.12.2008
Nitrogen dioxide	200 µg m^{-3} not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 µg m^{-3}	Annual mean	31.12.2005
Particulate Matter (PM_{10}) (gravimetric)	50 µg m^{-3}, not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 µg m^{-3}	Annual mean	31.12.2004
Sulphur dioxide	350 µg m^{-3}, not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 µg m^{-3}, not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 µg m^{-3}, not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

Table 1.2 Air Quality Objectives not included in Regulations for the purpose of LAQM in England

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
$PM_{2.5}$ (Not Scotland)	25 µg m^{-3}	Annual mean	2020
	Target of 15% reduction in concentrations at urban background locations	3-year mean	Between 2010 and 2020
Ozone	100 µg m^{-3} not to be exceeded more than 10 times a year	8 hour mean	31.12.2005

1.4 Summary of Previous Review and Assessments

The London Borough of Tower Hamlets previously completed all earlier stages of air quality review and assessment as required under the LAQM regime. As part of its earlier duties the Council completed a Detailed Stage 4 Assessment for nitrogen dioxide (NO_2) and particles (PM_{10}). The aim of the Council's Detailed Assessment was to determine with reasonable certainty whether or not there was a likelihood of the AQ objectives being achieved. The assumptions in the Detailed Assessment were therefore in depth and the data used were quality assured to a high standard. This allowed the Council to have confidence in reaching a decision whether to declare an Air Quality Management Area or not. When carrying out this Detailed Assessment the Council applied its best estimates to all of the components used to produce the estimated future concentrations.

These earlier predictions highlighted that large areas exceeded the objectives, mainly close to busy roads and junctions throughout the Borough. Relevant public exposure was identified in these areas and on the basis of the findings **the Council designated the whole Borough an Air Quality Management Area (AQMA) for the NO_2 and PM_{10} in 2000**. The Council also completed all previous rounds of LAQM. The conclusion of this previous work was that the Council should maintain its AQMA.

2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

Automatic monitoring in the Borough has been undertaken at three fixed long-term sites. The automatic sites operating at the time of report writing are:

Tower Hamlets 2 (at Mile End Road (TH2)) – this is a roadside site on the A11 in a central part of the Borough. This site has been operating since March 1994. The site monitors nitrogen dioxide and carbon monoxide.
(see
http://www.londonair.org.uk/london/asp/publicdetails.asp?site=TH2&Maptype=Google&mapview=All&la_id=30&zoom=11&lat=51.5157&lon=-0.0346346999999696&laEdge=Y&details=general)

Tower Hamlets 4 (at Blackwall Tunnel (TH4)) – this is a roadside site on the A12 near Blackwall Tunnel on the east of the Borough. This site has been operating since September 2006. The site monitors nitrogen dioxide, PM_{10} (by FDMS), $PM_{2.5}$ (by FDMS) and ozone.
(see
http://www.londonair.org.uk/london/asp/publicdetails.asp?site=TH4&Maptype=Google&mapview=All&la_id=30&zoom=11&lat=51.5157&lon=-0.0346346999999696&laEdge=Y&details=general)

Tower Hamlets 5 (at Victoria Park (TH5)) – this is a urban background site approximately 300m west of the busy A12 towards the edge of the Borough close to Hackney and Newham. This site started operating since July 2012 and the sample inlet is located around 2.5m above ground level. The site monitors nitrogen dioxide, PM_{10} (by TEOM), sulphur dioxide and ozone.
(see
http://www.londonair.org.uk/london/asp/publicdetails.asp?site=TH5&Maptype=Google&mapview=All&la_id=30&zoom=11&lat=51.5157&lon=-0.0346346999999696&laEdge=Y&details=general)

One other site was in operation during 2012, as follows:

Tower Hamlets 1 (at Poplar (TH1)) – this site was at an urban background site in the grounds of a primary school in Poplar, towards the south of the Borough. This site started operating in January 1994 and the sample inlet is located around 2.5m above

ground level. The site monitored nitrogen dioxide, PM_{10} (by TEOM), sulphur dioxide and ozone. The site closed in July 2013.

(see http://www.londonair.org.uk/london/asp/publicdetails.asp?site=TH1&Maptype=Google&mapview=All&la_id=30&zoom=11&lat=51.5157&lon=-0.0346346999999696&laEdge=Y&details=general)

The above sites are also representative of relevant exposure. All the sites are part of the London Air Quality Network and therefore the standards of QA/QC are similar to those of the government's AURN sites. Regular calibrations are carried out, with subsequent data ratification undertaken by the ERG at King's College London. In all cases the data are fully ratified unless reported otherwise. Further details of the monitoring can be found at www.londonair.org.uk.

The Council ceased its non-continuous monitoring in 2009 when funding ended. Hence no results from this monitoring are provided in this report. Please see earlier Tower Hamlets air quality reports for details.

Table 2.1 Details of Automatic Monitoring Sites

Site Name	Site Type	Easting	Northing	Pollutants Monitored	In AQMA?	PM_{10} Monitoring Technique	Relevant Exposure? *(Y/N with distance (m) to relevant exposure)*	Distance (m) to kerb of nearest road *(N/A if not applicable)*	Does this location represent worst-case exposure?
Poplar (TH1) *(closed July 2013)*	Background	537509	180867	NO_2 PM_{10} SO_2 (and O_3)	Y	TEOM	Y	N/A	N
Mile End (TH2)	Roadside	535927	182221	NO_2 CO	Y	N/A	Y	4.2	Y
Blackwall (TH4)	Roadside	538290	181452	NO_2 PM_{10} $PM_{2.5}$ (and O_3)	Y	FDMS	Y	4	Y
Victoria Park (TH5)	Background	536487	184238	NO_2 PM_{10} SO_2 (and O_3)	Y	TEOM	Y	300	N

2.2 Comparison with Air Quality Objectives

The monitoring reported below represents the continuous results for recent years up to the end of 2013. The results are reported in accordance with the requirements of TG09. Further details of the automatic sites, including site maps, site photographs, etc can also be found on the London Air Quality Network website (See http://www.londonair.org.uk/london/asp/lahome.asp).

2.2.1 Nitrogen Dioxide (NO_2)

The nitrogen dioxide monitoring results for the automatic sites in the Council's area are compared directly to the annual mean and hourly mean objectives. The following tables (Tables 2.2 and 2.3) provide results for the period from 2009 to 2013 inclusive and the 2013 data only includes provisional data. The sites locations are considered typical of public exposure in much of the Borough. However as noted earlier, it is the roadside areas within the Borough that have the highest concentrations.

Data capture for 2013 at three sites was very good; achieving more than 90%. There was also good data capture for the background TH1site, until it closed in the middle of the year. For previous years the data capture was also mainly good, other than 2010 and 2011 at the Poplar (TH1) site when 90% data capture was not achieved.

The results that are presented include both 2013 measured data and estimated annual mean results for TH1; the latter were derived using annualising factors as outlined in the TG09 guidance (and are presented in brackets in the Table 2.2). These indicate that the measured concentrations both underestimated the final adjusted annual means.

Both background sites met the AQS annual mean objective of 40 µg m^{-3} for 2013, with concentrations of around 33 µg m^{-3}. These represent high concentrations for background sites, thus confirming that the area has relatively poor air quality due to its close proximity to central London.

The roadside sites exceeded the objective for all years reported, monitoring annual mean concentrations of around 60 µg m^{-3}. Both sites are located close to busy roads in the area and both represent nearby relevant public exposure.

Table 2.3 provides a comparison with the AQS hourly mean objective, which requires that the number of periods that exceed a 24-hour mean of 200 µg m^{-3} does not arise more than 18 times over a calendar year. These episodic periods arise during meteorological conditions that are conducive e.g. such as settled conditions in the wintertime when there is reduced dispersion from local sources.

Periods exceeding the 200 µg m^{-3} hourly standard were measured at the roadside sites only, however the hourly mean objective was not exceeded, despite concentrations greater than 60 µg m^{-3} being recorded as an annual mean. For these sites the highest number of periods exceeding the 200 µg m^{-3} hourly standard was 7 at the Blackwall site (TH4), this was in 2010.

Table 2.2 Results of Automatic Monitoring for NO_2: Comparison with Annual Mean Objective

Site ID	Site Type	Within AQMA?	Valid Data Capture for Monitoring Period %	Valid Data Capture 2013 % [a]	Annual Mean Concentration (µg m^{-3})				
					2009	2010	2011	2012	2013 [b c]
Poplar (TH1)	Background	Y	100	50	36	*36*	*34*	33	*33* (34)
Mile End (TH2)	Roadside	Y	-	99	**61**	**65**	**57**	**60**	**57**
Blackwall (TH4)	Roadside	Y	-	96	**64**	**73**	**63**	**61**	**58**
Victoria Park (TH5)	Background	Y	-	97	-	-	-	*33*	33

[a] i.e. 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%)

[b] the results in brackets are the adjusted results to represent full data capture.

[c] includes provisional data

Table 2.3 Results of Automatic Monitoring for NO_2: Comparison with 1-hour Mean Objective

Site ID	Site Type	Within AQMA?	Valid Data Capture for Monitoring Period %	Valid Data Capture 2013 % [a]	Number of Hourly Means > 200µg m^{-3}				
					2009	2010	2011	2012	2013 [b]
Poplar (TH1)	Background	Y	100	50	0	*0*	*0*	0	*0*
Mile End (TH2)	Roadside	Y	-	99	5	5	0	2	0
Blackwall (TH4)	Roadside	Y	-	96	2	7	0	0	0
Victoria Park (TH5)	Background	Y	-	97	-	-	-	*0*	0

[a] i.e. 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%)

[b] includes provisional data

2.2.2 Particulate Matter (PM_{10})

The TG09 guidance highlights that any PM_{10} monitoring undertaken must conform to criteria relating to the gravimetric European reference method or its approved equivalent. The monitoring sites in the Borough use an FDMS analyser, which was found to be equivalent, and TEOM instruments, which were not found to meet the equivalence criteria, without correction. Previously for the TEOM a correction using a factor of 1.3 was accepted; now however the VCM (Volatile Correction Model) has been adopted for this purpose.

This method is based on the assumption that the volatile component of PM_{10} lost during the heated sampling of PM with the standard TEOM is consistent across a defined geographical area. The model uses the FDMS purge measurement as an indicator of this volatile component. As FDMS instruments have met the equivalence criteria, the VCM correction is also considered equivalent to the European reference method.

The results for the Tower Hamlets sites are reported below as **reference equivalent**, these represent either FDMS measurements (where no correction has been made) or TEOM measurements that were corrected using the VCM. The data are all fully ratified other than for 2013, which includes provisional data.

The monitoring sites in Tower Hamlets met the annual mean objective for the 2009 to 2013 period shown in Table 2.4. The highest annual mean concentration monitored was at the TH4 site at Blackwall in 2009, when the measured concentration was 34 µg m^{-3}. This site is located close to the busy A12. Concentrations have since reduced to around 28 µg m^{-3} but these are still the highest levels measured in the Borough due to the proximity of road traffic.

The annual mean concentrations at the Poplar (TH1) urban background monitoring site, for the 2009 to 2013 period are also shown in Table 2.4. In 2013 the monitoring site closed and hence the data capture was reduced. As a consequence the data were annualised using a factor from other nearby LAQN background sites (in Bexley,

Greenwich and Tower Hamlets). The factor used was 0.91 and the adjusted annual mean concentration was 21 µg m^{-3}. This is consistent with the earlier years reported, which also did not exceed the objective. It is also consistent with background monitoring sites in other London Boroughs. The briefing note prepared for the GLA (KCL, 2012) confirmed that monthly mean PM_{10} levels across London appear to be relatively stable for the period since 2004.

The daily mean objective, which has been exceeded more widely across the UK than the annual mean objective, is reported in Table 2.5. The monitoring results for the TH1 site did not exceed the objective for years reported, although the number of days exceeding the daily mean standard of 50 µg m^{-3} increased in 2011 and 2012 to around 15 days, but dropped back in 2013. At the TH4 broadside site the number of days exceeding the objective approached the objective in 2011 and remained over 20 in the two subsequent years reported.

All years when monitoring was undertaken at the **Tower Hamlets** sites had some periods when the standard was exceeded and the concentrations measured in **Tower Hamlets** are considered typical of those measured elsewhere across London (KCL, 2012).

Table 2.4 Results of Automatic Monitoring for PM_{10}: Comparison with Annual Mean Objective

Site ID	Site Type	Within AQMA?	Valid Data Capture for Monitoring Period %	Valid Data Capture 2013 % [a]	Confirm Gravimetric Equivalent (Y or N/A)	Annual Mean Concentration (µg m^{-3})				
						2009	2010	2011	2012	2013 [c]
Poplar (TH1)	Background	Y	100	50	Y	22	22	23	22	*23* (21) [b]
Blackwall (TH4)	Roadside	Y	-	92	Y	34	*29*	28	26	28
Victoria Park (TH5)	Background	Y	-	96	Y	-	-	-	*18*	21

In bold, exceedence of the PM_{10} annual mean AQS objective of 40µg m^{-3}

[a] i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

[b] the results in brackets are the adjusted results to represent full data capture.

[c] includes provisional data

Table 2.5 Results of Automatic Monitoring for PM_{10}: Comparison with 24-hour Mean Objective

Site ID	Site Type	Within AQMA?	Valid Data Capture for Monitoring Period %	Valid Data Capture 2013 % [a]	Confirm Gravimetric Equivalent (Y or N/A)	Number of Daily Means > 50µg m^{-3}				
						2009	2010	2011	2012	2013 [c]
Poplar (TH1)	Background	Y	100	50	Y	5	6	16	14	*4* (39) [b]
Blackwall (TH4)	Roadside	Y	-	92	Y	**42**	*18*	32	24	24
Victoria Park (TH5)	Background	Y	-	96	Y	-	-	-	*2*	5

In bold, exceedence of the PM_{10} daily mean AQS objective of 50µg m^{-3} not to be exceeded more than 35 times per year

[a] i.e. 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%)

[b] as data capture for full calendar year is less than 90%, the 90.4th percentile of 24-hour means is in brackets

[c] includes provisional data

2.2.3 Sulphur Dioxide (SO_2)

Automatic monitoring of SO_2 is undertaken at a representative urban background site in the Borough; at the TH5 site in Victoria Park. Monitoring was also previously undertaken at the background site in Poplar (TH1) until it closed in July 2013. The results for 2013 at both sites are given in Table 2.6 below. These show that there were no periods that exceeded the 15 minute, hourly or 24 hourly standards of the UK AQS objectives. The results for the period from 2009 also recorded no periods when these standards were exceeded at the TH1 site. As a consequence the AQS objectives were not exceeded and an AQMA for SO_2 has not been declared. This is in line with previous years and also other monitoring sites in London.

Table 2.6 Results of Automatic Monitoring for SO_2: Comparison with Objectives

Site ID	Site Type	Within AQMA?	2013 Valid Data Capture %	Number of Periods Exceeding		
				15-minute Objective (266 μg m^{-3})	1-hour Objective (350 μg m^{-3})	24-hour Objective (125 μg m^{-3})
TH1	Urban	N	49	*0*	*0*	*0*
TH5	Urban	N	77	0	0	0

2.2.4 Carbon Monoxide (CO)

Automatic monitoring of CO was undertaken at the roadside site on Mile End Road (TH2) until March 2013. The data capture for the site exceeded 80% for all years reported other than 2013. There were no periods that exceeded the CO objective (i.e. a maximum rolling daily 8 hour mean of 10 mg m^{-3}) in the years reported (see Table 2.7). Previous Council reports indicated that CO concentrations have decreased over time as a result of stricter emission controls on road vehicles, although this was mostly for the period from 1995 to 2002. Since then however concentrations have been little changed.

Table 2.7 Results of Automatic Monitoring for CO: Comparison with running 8-hour mean objective (2009-2013)

Objective	2009	2010	2011	2012	2013
TH2	0	0	0	0	*0*

2.2.5 Ozone monitoring (O_3)

Continuous measurement of ozone was undertaken at the background site in Poplar (TH1) site until closure in 2013, plus the roadside site at Blackwall TH4. The results for the period 2009 – 2013 are given in Table 2.11. The data capture for all years exceeded 90%; except TH1 site in 2013, which was 34%.

The Government's air quality objective, not to exceed 10 periods in a calendar year, was exceeded only at the background site during the period reported. This was during 2011 and 2012, although the objective was approached in the other years reported too, apart from 2013 when monitoring ceased.

The LAQN annual mean index for ozone (which is based on an average of selected sites dependant on type and availability of data) has also shown that since 1996 through to the end of 2007 a 37% increase in levels (ERG, 2009). Thus this confirms that concentrations of ozone have increased across London.

The roadside site met the objective for the period shown. Lower ozone concentrations are normally expected at roadside sites as higher concentrations of NOx lead to a local depletion of ozone concentrations. However the decrease in NOx emissions within London has led to an increase in ozone concentrations, with 2012 having the highest number of periods exceeding for the five years shown at the TH4 roadside site. With diminishing NOx concentrations, it is likely that future ozone concentrations in London will more closely resemble those in surrounding rural areas. It is this decrease in NOx concentrations in London that is thought to be the main cause of the increase in annual mean ozone. The roadside sites monitoring ozone continue to provide an understanding of oxidation close to polluted areas and also future changes over time.

Table 2.11 Number of daily maxima exceeding 100 µg m^{-3} based on 8-hour running mean objective for ozone (2009-2013)

Objective	2009	2010	2011	2012	2013
TH1	7	7	**30**	**12**	*3*
TH4	2	0	0	4	1

(Note - italics indicates < 90% data capture; bold exceeds the objective)

2.2.6 $PM_{2.5}$ monitoring

The continuous measurement of $PM_{2.5}$ was undertaken at the TH4 roadside site in Blackwall. The site used an FDMS instrument. The unadjusted annual mean results for the monitoring sites are given in Table 2.12. For all years reported there was more than 90% data capture.

Table 2.12 $PM_{2.5}$ annual mean results (µg m^{-3}) (2009 - 2013)

Objective	2009	2010	2011	2012	2013
TH4	19	18.2	17.6	15.2	16.4

Reviews by the WHO and the Committee on the Medical Effects of Air Pollutants (COMEAP) suggested exposure to $PM_{2.5}$ gives a stronger association with the observed ill-health effects of particles. It is also noted that there is evidence that the coarse fraction between (PM_{10} – $PM_{2.5}$) has some effects on health (Defra, 2007).

As a consequence of this a $PM_{2.5}$ objective was included in the 2007 Air Quality Strategy. This is based on the health advice for $PM_{2.5}$, which shows that there is no accepted threshold effect, i.e. there is no recognised safe level for exposure to fine particles. As a result in its strategy, the Government adopted an 'exposure reduction' approach for $PM_{2.5}$ to seek a more efficient way of achieving further reductions in the health effects of air pollution. This is intended to provide a driver to improve air quality everywhere in the UK rather than just in a small number of localised hotspot areas.

The exposure reduction approach is based on the principle that for a pollutant with a low or no threshold for adverse effects, it will generally be more beneficial to public health, and potentially more cost-effective to reduce pollutant levels across the whole population of an urban area or region rather than in a small area or "hotspot". The framework of delivering this approach contains two inseparable parts:

• Air quality objectives/limit values (often called "backstop objective" or "concentration cap") to ensure some basic level or quality of air which all citizens should experience, embodying the "environmental justice" concept

• An objective based on reducing average exposures across the most heavily populated areas of the country (often called "percentage reduction" or "exposure reduction" objective), to generate further cost effective public health improvements over and above the basic level of protection generated by the objective above.

While the percentage reduction objective is a relative measure of improvement (in this strategy, it is a 15 per cent reduction in average concentrations in urban background areas across the UK between 2010 and 2020), the backstop objective (or concentration cap) is designed to deliver a minimum level of protection applicable to all areas i.e. 25µg m^{-3} as an annual mean.

The above results for the Tower Hamlets site were obtained using an FDMS instrument; thus the results for the FDMS instrument meet the equivalence criteria (as for PM_{10}). The measurement results for all years indicate that the backstop objective was not exceeded, with annual mean concentrations between 15 and 19 µg m^{-3}.

2.2.7 Summary of Compliance with AQS Objectives

The Tower Hamlets Council has examined the results from monitoring across the Borough. Concentrations are (or have been recently) above the objectives for annual mean nitrogen dioxide, plus daily mean PM_{10} within the designated Borough wide AQMA. As a result of these findings there is no need to proceed to a Detailed Assessment based on monitoring.

Concentrations of the other LAQM pollutants monitored; sulphur dioxide and carbon monoxide are all below the relevant objectives; therefore there is no need to proceed to a Detailed Assessment for these pollutants.

$PM_{2.5}$ and ozone are not LAQM pollutants and are reported for information purposes.

3 New Local Developments

3.1 Road Traffic Sources

There have been no new potential road traffic sources, such as those listed below, identified since the Council's previous air quality report:

- Narrow congested streets with residential properties close to the kerb.
- Busy streets where people may spend one hour or more close to traffic.
- Roads with a high flow of buses and/or HGVs.
- Junctions.
- New roads constructed or proposed since the last Updating and Screening Assessment.
- Roads with significantly changed traffic flows.
- Bus or coach stations.

3.2 Other Transport Sources

There have been no new potential other transport sources, such as those listed below, identified since the Council's previous air quality report

- Airports.
- Locations where diesel or steam trains are regularly stationary for periods of 15 minutes or more, with potential for relevant exposure within 15m.
- Locations with a large number of movements of diesel locomotives, and potential long-term relevant exposure within 30m.
- Ports for shipping.

3.3 Industrial Sources

There have been no new potential industrial sources, such as those listed below, identified since the Council's previous air quality report (the updated list of permitted installations are listed in the Appendix):

- Industrial installations: new or proposed installations for which an air quality assessment has been carried out.
- Industrial installations: existing installations where emissions have increased substantially or new relevant exposure has been introduced.
- Industrial installations: new or significantly changed installations with no previous air quality assessment.
- Major fuel storage depots storing petrol.
- Petrol stations.
- Poultry farms.

3.4 Commercial and Domestic Sources

There have been no new potential commercial and domestic sources, such as those listed below, identified since the Council's previous air quality report:

- Biomass combustion plant – individual installations.
- Areas where the combined impact of several biomass combustion sources may be relevant
- Areas where domestic solid fuel burning may be relevant.

3.5 New Developments with Fugitive or Uncontrolled Sources

The Crossrail project, which is a major construction project in London, will provide a new east/west rail crossing for London that includes a new Isle of Dogs station and

numerous construction shafts in the Borough. The project will run until 2017, with construction lasting into 2015. The Council currently monitors compliance with environmental and planning controls, including dust, at the active construction sites in the Borough.

There have been no other new potential sources of fugitive or uncontrolled particulate matter, such as those listed below, identified since the Council's previous air quality report:

- Landfill sites.
- Quarries.
- Unmade haulage roads on industrial sites.
- Waste transfer stations, etc.
- Other potential sources of fugitive particulate emissions.

The Tower Hamlets Council confirms that there are no new or newly identified local developments, which may have an impact on air quality within the Borough.

4 Planning Applications

The Council's planning guidance consists of a series of documents that provide a positive approach to managing development by helping to assess planning applications and create a more vibrant, sustainable community to improve quality of life for all.

The Development Plan for Tower Hamlets is comprised of the London Plan (produced by the Mayor of London), Local Plan and Neighbourhood Plans (should any be adopted).

Following the adoption of the Managing Development Document MDD, the retained policies of the Unitary Development Plan (UDP) and Interim Planning Guidance (IPG) documents have been formally removed from the Council's Development Plan.

The Local Plan (previously Local Development Framework) guides and manages development in the Borough. It comprises the Core Strategy and the MDD. Neighbourhood planning enables the community to guide development in their local area through neighbourhood forums and Neighbourhood Plan documents. Neighbourhood planning Areas and Forums include those at East Shoreditch, Wapping, Limehouse and Network Wapping.

Thee Council; also uses Supplementary guidance to provide further details in the Local Plan. Adopted guidance includes:

Whitechapel Vision masterplan supplementary planning document (SPD) (2013)
Fish Island area action plan (2012)
Bromley-by-Bow masterplan (2012)
Planning obligations (2012)

The latter two forms part of the Local Plan for the London Legacy Development Corporation (LLDC).

5 Air Quality Planning Policies

The Greater London Authority (GLA) published its Sustainable Design and Construction Supplementary Planning guidance in April 2014. This SPG provides guidance on the implementation of London Plan and includes detailed guidance on the implementation of the “air quality neutral” provisions of the London Plan and minimum emission standards for combined heat and power (CHP) and biomass plant.

Draft supplementary planning guidance (SPG) on The Control of Dust and Emissions during Construction and Demolition was also produced in November 2013. This SPG provides guidance on the implementation of London Plan policy 7.14 - Improving Air Quality, as well as a range of policies that deal with environmental sustainability, health and quality of life.

To support the policies in the London Plan this draft SPG includes guidance on:

The preparation of an Air Quality Statement for construction and demolition activities, including air quality (dust) risk assessments;

The stages of development the Air Quality Statement is to cover, that is for demolition, earthwork, construction stages and trackout (vehicles leaving the site) stages of the works;

The identification of the potential scale (large, medium, small) of dust emissions for each stage of work;

The identification of the level of risk due to the scale of dust emissions on health, soiling (dirt) and the natural environment, depending on activities, their intensity and the sensitivity of receptors

Best practice methods for controlling dust on-site and to prevent trackout

Recommendations for monitoring

Early notification of new 2015 and 2020 standards for non-road mobile machinery

The Council will use this guidance with relevant development proposals in the Borough.

6 Local Implementation Plans and Strategies

At a London wide level, the Mayor for London continues to implement an ambitious package of London wide measures including LEZ standards, retiring the oldest, most polluting taxis and cleaning up the bus fleet. Together these have reduced PM_{10} emissions by 15% and NOx emissions by 20%.

In February the Mayor also announced his intention to establish a new Ultra Low Emissions Zone in central London from 2020 to further improve air quality.

The Mayor has published changes to the Local Implementation Plan (LIP) guidance, which now highlights air quality as a key consideration in the assessment criteria.

7 Implementation of Action Plans

The Council was required to implement an Air Quality Action Plan following its original designation of its AQMA under Part IV of the Environment Act 1995. The Action Plan encompassed many Council and other measures to improve air quality in the Borough; the Action Plan was set out in pursuit of the government's air quality objectives. The Council has thus met and continues to meet its obligations.

Many of the original action plan measures however required updating and enhancing, both as a result of the completion of the original task, but also in view of the changes and ongoing air quality problems that have prevented a sufficient reduction in concentration in major cities in the UK and also Europe. The revised AQAP for Tower Hamlets is currently being adopted internally prior to external consultation. The final revised AQAP is expected to be published in July 2014.

The Council has also successfully sought funding to permit it to optimise and focus its air quality actions from the Mayor's Air Quality Fund. See separate details below.

In addition to the above, the Mayor for London and TfL are to undertake the following measures that seek to reduce air pollution:

Extra hybrid buses - with 600 new Bus for London vehicles, which alongside a new commitment to deliver another 600 conventional hybrid buses over the next three years would increase the number of hybrid buses to more than 1,600 by 2016

New Euro Standard 6 buses - the £18m programme to retire the last 900 Euro 3 standard buses in London so that all of TfL's bus fleet will be of Euro 4 Standard or better for NOx emissions by the end of 2015

Measures to clean up construction sites - these sites are responsible for around 12 per cent of London's NOx emissions and to tackle that the Mayor will introduce a new Low Emission Zone for construction machinery. The standards will be agreed with

the construction industry and will be consulted on as part of new Supplementary Planning Guidance.

7.1 MAQF projects

7.1.1 Zero Emissions Network Project (ZEN)

In August 2013 a tri-borough bid between LB Tower Hamlets, Hackney and Islington received £300,000 of funding over three years from the Mayors Air Quality Fund as part of a joint bid to expand ZEN into Tower Hamlets (and also the London Borough of Islington). By covering a greater number of businesses the expanded ZEN scheme will increase the chances of improving air quality in the Shoreditch area and extend the benefits of the scheme to the Weavers ward of Tower Hamlets.

The focus of the project is to create a business network with the aim of improving air quality in Shoreditch by changing businesses behaviour. This is to be achieved by creating a business network with a strong local identity, encouraging the up-take of lower emission energy and travel options through provision of high quality information, direct engagement, business surveys, enhanced infrastructure, trials and incentives. This is particularly suited to the Shoreditch area due to the high concentration of high tech, creative and other small to medium sized businesses.

To monitor the success of ZEN, apart from setting challenging targets for making direct contact, recruiting, delivering surveys, uptake of incentives and implementation of improvements, we will be gauging the impact of the scheme on businesses and air quality by:

- Comparing surveys of businesses taken at the point of recruitment, during the business survey process and after the business survey process to judge the impact of ZEN-E on businesses
- Estimating the impact of ZEN-E on modal shift and the likely resulting reductions in air quality emissions for participating businesses

- Considering whether trends in traffic and air quality data may be apportioned to the ZEN-E
- Random surveys on streets targeting local workers knowledge of the ZEN business initiative

The project progress will be reported at the end of each financial year and at the end of the project. Each report will include consideration of air quality monitoring data from local air quality monitoring networks, traffic/cycling data and uptake data from companies involved in providing incentives and trials.

7.1.2 Tower Bridge Anti-Idling Project

The London Borough of Tower Hamlets and London Borough of Southwark have received £100k which will be match-funded to implement an anti-idling scheme in Tower Bridge area. The purpose of this project is to reduce idling during bridge lift times at Tower Bridge, and to assess the impacts on air quality of reduced idling and improve awareness of air quality issues. This will be done through the use of variable message signs (VMS) on the approach roads requesting the drivers to switch off engines and giving information on the likely duration of the delay to avoid unnecessary vehicle idling. Monitoring of air quality on the approach roads will be used to assess the impact of the reduced idling to inform similar projects in the future. The scheme will raise awareness of air quality issues by using the VMS signs to promote airTEXT outside of bridge lift times.

The objectives of this project are three fold:

To reduce engine idling
Reduction of idling through the use of VMS signs and information on Air Quality, achieved through vehicles switching off their engines whilst queuing and a reduction in the number of vehicles using the route during bridge lift times (which may be reduced if VMS signs include time until next bridge lift during non-countdown times). Idling will be monitored through on site surveys during bridge lift times.

To assess the impacts of reduced idling and VMS information on air quality in the area

Assessment of the impacts of reduced idling will involve three air quality monitoring techniques, namely diffusion tubes to monitor NOx, Emotes to measure Carbon and Nitrogen oxides and Turnkey Osiris monitors to monitor particulates. Cyclist and pedestrian counts will be used to understand the number of beneficiaries from the scheme.

To raise awareness of air quality issues amongst drivers in London
Awareness will be raised through the VMS signs which will display airTEXT messages outside of bridge lift times. This will be assessed through user surveys

The project progress will be reported at the end of each financial year and at the end of the project. Defra have also contributed £20k to the project for the year 2014/15 and is a project sponsor under the Air Quality Grant Scheme.

Expected project deliverables include:

- A 60% reduction in idling during 6 month trial and no more than a 50% increase on this new baseline in the 6 months following the trial (to be reviewed once baseline data collected).

- A quantifiable figure for the reduction in carbon and nitrogen oxides and particulates as a result of reduced idling and the project. This will be from direct on-street monitoring but supplemented with expected reductions from the number and type of vehicles that switch off their engine.

- Established number of beneficiaries (pedestrians and cyclists).

- Established changes to travel behaviour mode choice during the trial period and after (though it will not be possible to directly attribute this to the scheme).

- Increased awareness of air quality issues and improved satisfaction of drivers using Tower Bridge (on a baseline to be established).

The expected outcomes include reduced idling in traffic queues and reduced impact on local air quality. An increased understanding of the impact of anti-idling promotion on behaviour change in terms of both idling and travel behaviour and an increased awareness of air quality issues and the importance of reducing engine idling increased amongst drivers.

7.1.3 BART'S Project

The aim of this project is to raise awareness of air pollution (the risk to health as well as the mitigation strategies) and to encourage behaviour change at the Bart's Royal London Hospital and Whitechapel sites, as well as the wider communities surrounding these hospitals.

The project also aims to create clean air zones around the hospital sites through the installation of infrastructure measures, which will reduce concentrations of local air pollution and will directly benefit the health of patients, staff and visitors.

The project will focus on the following three elements;

1. Creation of hospital clean air zones
   Each of the hospital sites will be assessed and where feasible the following measures will be installed;
   Green infrastructure (walls, screens, roofs)
   Energy efficiency measures (to reduce on site emissions and hospital fuel costs)
   Sustainable transport measures, including additional cycling and Legible London infrastructure
   No engine idling signage and banners
   Optimisation of entrances, exits and movement of street furniture to minimise exposure

2. Reducing emissions footprint at the hospital sites

   The delivery team will carry out a range of activities within the hospitals to engage patients, staff and visitors. These activities could include;

   Auditing current emission footprint

   Training clean air champions

   Events and communications campaign

   Smarter travel solutions for staff, patients and visitor

   Delivery servicing plans

   No engine idling campaign for Trust and visitor vehicles

   Helping deliver Barts Health's low emission vehicle strategy

   Using AirTEXT and Breathe Better Together to target changes in behaviour across the hospital community

Each hospital will be audited and the infrastructure measures will be determined based upon available budgets.

3. Education and outreach to at risk communities

With the support of Barts Health the delivery team will work with surgeries and health care professionals to train staff and enable them to communicate key air quality messages to the residents they come into contact with. Cleaner air champions will deliver awareness raising workshops including travel advice, promoting AirTEXT and using new tools such as cleaner air for London personalised advice to enable people to take adaptive action to minimise their exposure.

The following table provides details of the original Tower Hamlets Air Quality Action Plan, which as mentioned above, has been revised and is now being finalised. Completed actions are not shown. The table highlights the original actions that are part completed or ongoing.

Table 7.1 Action Plan Progress - original (Note – previously completed actions not included in list, see earlier reports for information)

No	Target	Action	Original Timescale	Progress with measure	Outcome to date	Comments
2	**Monitoring Air Quality**	Identify pollution trends and areas of high pollution	Ongoing		LBTH completed its previous rounds of Review and Assessment (R&A) of Air Quality.	To continue reporting annually to Defra and GLA GLA = Greater London Authority
3		Provide information to Defra and the GLA for research purposes	Ongoing	These data are reported to Defra/ GLA as part of the R&A process and made available on the London Air Quality Network website	This is ongoing.	See http://www.londonair.org.uk/
5		Management of Air Pollution Monitoring Network	Ongoing	The Council is maintaining its 3 permanent continuous sites to assess pollutant concentrations across the Borough.		
13	**Planning Policy and Control**	Review of Section 106 of Town & Country Planning Act 1990	Ongoing	LBTH has successfully used s106 agreements to mitigate air quality impacts e.g. we have sought Section 106 funding with a view to mitigating air quality effects of new developments in the Borough.	This is ongoing	
14		Review of Air Quality in UDP (replaced by Local Plan)	Ongoing	Local Plan prepared and documents are being prepared.	This is ongoing.	

No	Target	Action	Original Timescale	Progress with measure	Outcome to date	Comments
20	**Routing Traffic & Road Hierarchy**	Providing Information to the Mayor & GLA	Ongoing	A review has been carried out through Mayor's London Plan.	This process is ongoing	
21		Planning officers updated on roads for review of UDP	Ongoing	This is currently being achieved through the LIP2 and Local Plan.	This is an ongoing process	
22		Review of land use along local distributor roads	Ongoing	This is currently being achieved through the Local Plan process.	This is an ongoing process	
28	**Parking Management & Control**	Regular Review of parking fees and charges to deter unnecessary car use	Annually	The Parking fees and charges are reviewed annually.		
33	**Encouraging Local Cycling**	Promote the use of and improve facilities around the borough	Ongoing	The Tower Hamlets Cycling Plan has been finalised. Action items within the plan include cycle parking provisions on-street and within Council Estates	This is on-going	.
34		Liaise with cycle groups & schools	Ongoing	2700 children now in cycle training scheme	This is an ongoing process. We have a dedicated School Travel Plan Officer working on increasing cycling within school travel plans.	TH works with Tower Hamlets Wheelers by attending monthly meetings and holding cycle events like Dr Bike Week.

No	Target	Action	Original Timescale	Progress with measure	Outcome to date	Comments
36		Improve road safety for cyclists	Ongoing	TH made cycling a priority in the design and implementation of new traffic management schemes and developments. We are aiming to comply with the Mayors Targets for Vulnerable Road User Groups for 2010. For e.g. a cycle lane is being provided on Westferry Circus to improve accessibility and road safety.	This is an ongoing process	
37	**Encouraging Walking**	Implement/ support TH Walking Strategy	Ongoing	We are in the process of writing a Walking Strategy. We conduct a programme of 10 health walks across the borough. We are also piloting walking referrals by Local GPs to us. Through the "Get Walking Keep Walking" programme, ramblers hold walking sessions during lunchtimes.	This is an ongoing process	
38	**Partnerships and Travel Plans (Workplace and school)**	To produce a Council Travel plan	Ongoing	A Travel Plan has been developed for both the Council and other small local enterprises. There has been an increase of 4-5% increase in cycling to work.	This is an ongoing process	

No	Target	Action	Original Timescale	Progress with measure	Outcome to date	Comments
39		Implement the Safe routes to School scheme and produce borough wide safer routes to school strategy	Ongoing	TH has a School Travel Plan officer to help schools develop travel plans and safer routes to school. For 2008 there has been 11 new School Travel Plans adopted, bringing the total for LBTH to 93.	This is an ongoing process that has built upon Walk to School days. The aim is to get all 112 schools in the borough to draw up travel plans. The target for the rest of 2010/11 will be to get the other schools to deliver their travel plans.	
40		Promote the development of sustainable transport schemes while achieving local regeneration	Ongoing	TH aims are central to the attainment of sustainable transport in the Mayor's Plans	This is an ongoing process	
46	**Urban Traffic Control Systems (UTS)**	Monitoring and review of traffic signals to achieve best balance for traffic flow & pedestrians	Ongoing	TH works in conjunction with TfL to meet its LIP policies of reducing congestion and increasing levels of walking, cycling and public transport	This is an ongoing process as part of other projects	
47		Assist with development of London Bus Initiative (LBI)	Ongoing	TH has supported the LBI through BusPlus Enforcement agreement to reduce illegal parking and use of bus lanes	This is an ongoing process	LBTH works in conjunction with TfL
48	**Reallocated Road Space**	Contribute to reviews of bus and cycle lanes particularly in areas of poor air quality	Ongoing	Bus lanes and cycle lanes are prioritised according to strategic network plans and congestion hotspots.	This is ongoing.	

No	Target	Action	Original Timescale	Progress with measure	Outcome to date	Comments
50	**Public Transport Initiatives - Bus**	Work with other boroughs to implement schemes to improve traffic flow on TfL roads	Ongoing	Bus services are assessed through ongoing reviews such as the Westferry Road Holistic Review.	This is ongoing.	
51	**Public Transport Initiatives-Rail**	Support and encourage public transport infrastructure projects	Ongoing	TH works with the Thames Gateway London Partnership on initiatives such as ELLX, the DLR (3 Carriage) project and Crossrail.	We are working with Crossrail to mitigate the Environmental impacts on all sites within TH. Crossrail: to be completed in 2018.	ELLX =East London Line Extension DLR = Docklands Light Railway
54	**Maritime, Ports and Waterways**	Encourage an increase in the use of the River Thames as a freight corridor	Ongoing		This is ongoing as per LBTH Transport Strategy and in conjunction with TfL. We also secure this through planning conditions.	
55		To support the movement of freight by water	Ongoing	This is encouraged / supported where appropriate via the planning process.	This is ongoing as per LBTH Transport Strategy and in conjunction with TfL. We also secure this through planning conditions.	
56		To work with TfL to increase the use of waterways that run through the borough	Ongoing	This is encouraged / supported where appropriate via the planning process.	This is being progressed through the boroughs Transport Strategy.	
57	**Rail Infrastructure**	If Stansted airport is expanded the Council will lobby for a increase in rail infrastructure	Ongoing	This is currently under review by TH	This is ongoing.	

No	Target	Action	Original Timescale	Progress with measure	Outcome to date	Comments
60		The Council supports the opportunities afforded by Crossrail project	Ongoing	We are managing the environmental impacts from construction activity at all Crossrail sites within the borough through Crossrail's Environmental Minimum Requirements.	We will continue to work closely with contractors to mitigate dust and emissions from these sites until the end of the project.	
61	**Fleet Management & Clean Fuels**	Promote and encourage the use of alternatively powered vehicles to all Council departments and improving availability of alternative fuels.	Ongoing	LBTH has a green fleet strategy as part of our Fleet Management system. All council fleet comply with the LEZ where applicable.		
64		Maximise potential from grant schemes to reduce the financial burden of introducing cleaner vehicles and technology	Ongoing	This is being implemented in accordance with the availability of funding.		These equipment research programmes are being supported by financial grants from the Energy Saving Trust. DPF = Diesel Particulate Filter
65	**Domestic & Commercial Energy**	Encourage, support and develop Combined Heat and Power Schemes	Ongoing	This is being primarily dealt with via the Planning Process.	Developers are encouraged to decentralise power generation.	
66		Reducing Fuel Poverty across the Borough through implementation of the Affordable warmth strategy	Ongoing	(2009/10) £17, 702 budgeted for the Affordable Warmth Strategy.	This is an ongoing action.	
68		Promote the replacement of more efficient boilers	Ongoing	Advice is provided to the Technical Resources dept and the installation of condensing boilers is encouraged.	East End Energy Savers Interest Free Loan scheme is continually promoted to residents to reduce the financial burden of replacement.	Council communal systems, technical resources, major works, individual households

No	Target	Action	Original Timescale	Progress with measure	Outcome to date	Comments
70		Support and develop initiatives to promote alternative energy	Ongoing	LBTH continues to promote solar water heating & solar PV to RSL for inclusion into new social housing projects.	This is incorporated into planning process.	We have identified conflicting local policy in terms of the use of biomass as a renewable energy fuel and its impacts on air quality. This is being looked at through the Local Plan.
74	**Industrial Sources**	Review Permits to operate	Ongoing	Statutory duties under EPR being met.	This is an ongoing statutory function	
76	**Construction**	Meet regularly with major developers having submitted EIA at planning stage to review and assess dust control measures	Ongoing	This is done by the submission and agreement of Environmental management Plans or CoCPs, via the planning process. Dust monitoring is undertaken for large construction sites.		We are engaging applicants more frequently during the pre-planning application process to discuss mitigation for dust and emissions.
79		Ensure dust control planning conditions are included for small, medium and large developments	2004	This is ensured via the TH development control process and risk assessments are conducted	This is an ongoing function	

8 Conclusions and Proposed Actions

8.1 Conclusions from New Monitoring Data

The monitoring results within the Borough confirmed that the annual mean nitrogen dioxide objective continues to be exceeded widely at roadside and nearby locations. The sites monitored are considered to represent relevant exposure. The results also indicate that the hourly objective is potentially exceeded.

The Council's most recent PM_{10} monitoring indicates that the daily mean objective has been exceeded in recent years within the Borough at a roadside site. Other background sites within the Borough have met the objectives. A separate analysis of trends in London (KCL, 2012) confirms that concentrations do not appear to be reducing and that there is also evidence indicating that close to roadsides, PM_{10} from primary sources may be increasing. The monitoring of sulphur dioxide and carbon dioxide confirms that the objectives for these pollutants have been met.

Based on these findings, the Council does not need to undertake a Detailed Assessment, as no new potential or actual exceedences at relevant locations were established. The Council previously designated the whole Borough as an Air Quality Management Area for NO_2 and PM_{10}.

8.2 Conclusions relating to New Local Developments

The Council has assessed local developments of road transport, other transport, industrial processes, commercial/domestic, fugitive emissions, plus residential and commercial sources. The findings for these have indicated that there are no new changes that require the Council to undertake a Detailed Assessment.

8.3 Other Conclusions

The measures outlined in the Council's Action Plan are either completed or continuing as ongoing commitments. The Council is now working with partners across London on air quality improvement projects. The Council is also continuing to seek funding to optimise and focus further air quality actions.

8.4 Proposed Actions

This report follows the technical guidance (TG09) and fulfils this part of the continuing LAQM process.

The findings from following this methodology are that the Council has not identified a need to amend air quality boundaries and thus need not proceed to a Detailed Assessment. The findings also indicate that the AQMA should be maintained.

The Council will therefore undertake the following actions:

1. Undertake consultation on the findings arising from this report with the statutory and other consultees as required.

2. Maintain the existing monitoring programme.

3. Continue with its Air Quality Action Plan in pursuit of the AQS objectives.

4. Prepare for the submission of its next Air Quality report.

9 References

Defra, 2007. Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Volume 1). Defra, London. Cm 7169.

Defra, 2009a. Local Air Quality Management, Technical guidance LAQM.TG09. Defra, London.

KCL, 2012. Air Quality in London GLA Health and Environment briefing note. KCL July 2012.

Appendices

Appendix 1: Part B installations in Tower Hamlets

Table 1 List of Part B processes in the Council's area

PG Note	Company Name	Site Address/ Home Address of Mobile Plant
PG6/34 Respraying of Road Vehicles	KPM Taxis	Hemming House, Hemming Street, London, E1 5BL
PG3/1 Bulk Cement	London Concrete Ltd	Bow Plant, Wick Lane, Bow, London, E3
PG3/16 Mobile Crushing and Screening	McGrath Bros (mobile)	Wansbeck Road, London, E9 5HW
PG3/16 Mobile Crushing and Screening	McGrath Bros (own site)	Wansbeck Road, London, E9 5HW
PG3/1 Bulk Cement	Modern Mix Concrete	Unit 1, Lusty Industrial Estate, Empson Street, London, E3 3LT
PG3/1 Bulk Cement	J B Riney & Co. Ltd	455 Wick Ln, London, Bow E3 2TB
PG3/1 Bulk Cement	Gavigan Paving Ltd	London House, 120 Bow Common Lane, London, E3 4BH
PG3/1 Bulk Cement	Cemex South East	477 The Highway, Stepney, London, E1 9HN

Table 2 List of permitted petrol stations in the Council's area

Company Name	Site Address
Tower Connect	BP Service Station, 102-106 The Highway, London E1 9BU
Somerfield St Katherines	Co-op, 77-101 The Highway, London E1 9BN
Shell Cotton Street	Shell UK Ltd, 40 Cotton Street, London E14 0AJ
Co-op Bow Road	Co-op, 127-139 Bow Road, London E3 2AN
Orchard Wharf S/ Station	Orchard Wharf Service Station, Leamouth Road, London E14 0JG
Shell Whitechapel	Shell UK Ltd, 139-149 Whitechapel Road, London E1 1DT
Shell Old Ford	Shell UK Ltd, 445-453 Wick Lane, London E3 2TB
Tesco Filling Station	Tesco Petrol Filling Station, Hancock Road, London E3 3DA
Vallance Self S/Station	Vallance Self S/Station, 112 Vallance Road, Bethnal Green, London E1 5BW
Asda Petrol Station Grove Road Filling Station	Asda Petrol Station, 151 East Ferry Road, London E14 3BT Grove Road Filling Station, 51-53 Grove Road, London E3 4PE
Museum Service Station	Museum Service Station, 319-329 Cambridge Heath Road, London E2 9LH
Burdett Road F/ Station	Burdett Road Filling Station, 222 St Pauls Way, London E3 4AR

Table 3 List of permitted dry cleaners in the Council's area

Company Name
Goldstar Dry Cleaners
Milligan Street Trading Ltd Royal Deluxe Dry Cleaners
Bright Clean Dry Cleaners
Champers Dry Cleaners
Professionals Dry Cleaners
Spitalfields Dry Cleaners & Shirt Service
Five Star Dry Cleaners
Spotless Clean
Nazal Dry Cleaners
Soleil Dry Cleaners
E3 Dry Cleaners
Quality Dry Cleaners
Diamond Tailors and Dry Cleaners
Amigos Dry Cleaning
Kemps Dry Cleaners
Attaboy Cleaners
Smarty Pants Dry Cleaners & Launderette
A Fresh Start Dry Cleaners
State Express Cleaners & Launderette
Royal Dry Cleaners
E1 Dry Cleaners Ltd
River Dry Cleaners

Appendix 2: Environment Agency permitted installations in Tower Hamlets

Permission no.	Company Name	Site Address
EP3235GK	Morgan Property Development Company Ltd	Riverside South Energy Centre, Riverside South, Canary Wharf
XP3330GR	Cofely East London Energy Ltd	Kings Yard Energy Centre, Carpenters Lane