2019 Air Quality Annual Status Report (ASR)

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

June 2019

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Executive Summary: Air Quality in Our Area

Air Quality in South Staffordshire Council

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas[1,2].

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion[3].

Air Quality is an important consideration in the health of the population of our district. Within South Staffordshire previous reviews and assessments have proved sufficient evidence to be satisfied that the Council's area is only likely to see exceedances of the NO_2 annual mean objective. This was again confirmed by Air Quality Consultants Ltd in April 2019 who were initially employed to scrutinise a large planning application for the West Midlands Interchange whom we then also employed to review our local air quality management to ensure there was nothing that we were missing and that the situation remains the same with regards to likely pollutants and their levels over the district. Monitoring has therefore been limited to this pollutant: NO_2.

Our current Air Quality Management Area is located in Hatherton at Oak Farm: AQMA No.5, on the A5 which can be seen further on in this report and at:

https://uk-air.defra.gov.uk/aqma/details?aqma_ref=1495#809

There are no new major sources of emissions within the district and no new AQMA's to be designated. Two AQMA's have been revoked as a result of long term data demonstrating levels continually under the objective level, these are: Wedges Mills AQMA No.4 and Woodbank AQMA No. 1. Monitoring has now ceased at these locations.

Levels of NO_2 over the district remain stable and below objective level.

[1] Environmental equity, air quality, socioeconomic status and respiratory health, 2010
[2] Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006
[3] Defra. Abatement cost guidance for valuing changes in air quality, May 2013

The air quality within our district is of a good standard on the whole. However we acknowledge that traffic does contribute to elevated levels of NO_2 within our AQMA. With this in mind we continue to be actively engaged with the EcoStars scheme both across our district and neighbouring authorities where we are all working together to sign up companies to the scheme to improve air quality across a number of areas around our locality by increasing the efficiency of HGV's travelling through the district. This action is on-going.

Actions to Improve Air Quality

We have contributed to the improvements in our air quality with the launch of ECO Stars on 24th February 2016. This will help improve the efficiency of the HGV's travelling throughout our district both now and in future years.

We also have purchased a new piece of air quality monitoring kit the AQ Mesh which we will use to supplement our current monitoring and also begin to look at levels of $PM_{2.5}$ within the district and hope to be purchasing two pieces of monitoring kit shortly.

Conclusions and Priorities

There are no new developments within the district that will have an effect on air quality moving forward. However, for future reference there is an application about to be submitted for a West Midlands Interchange hub at Four Ashes incorporating warehouses, trains and HGV's which will obviously have an impact on traffic. We have now analysed all information submitted and also employed air quality consultants to scrutinize the work and will continue to work with the applicant on matters involving air quality going forward should permission be given.

Two AQMA's were revoked this year due to prolonged data gathering demonstrating levels comfortably below objective: Wedges Mills, Saredon and Woodbank, Penkridge. Monitoring within the remaining AQMA at Oak Farm this year shows levels below the objective level as with remaining tube locations. As the tube on the façade of the property within the AQMA is not dramatically below objective we will leave the AQMA in place and continue to keep a close eye for now. However, we will be removing the two tubes located further away from the façade as they are well below the objective level and not at representative locations. They were originally only put up to look at how the levels were tailing off with distance from the truck stop.

It is planned to renew and update the action plan due to the changes happening in the monitoring and the revocation of AQMA's within the district

The main priorities for the local authority this year will be to begin the monitoring of $PM_{2.5}$ within the district. We have also faced issues with our new piece of air quality monitoring kit – AQMesh and will be looking to get this up and running and producing results for us to support tube data over the district.

We will continue in signing up companies to our ECOStars scheme over this and neighbouring districts.

Local Engagement and How to get involved

You can obtain further information about air quality within the district at: https://www.sstaffs.gov.uk/environment/air-quality.cfm

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1 Local Air Quality Management

This report provides an overview of air quality in South Staffordshire Council during 2018. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995) and the relevant Policy and Technical Guidance documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must 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. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by South Staffordshire Council to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England can be found in Table E.1 in Appendix E.

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority must prepare an Air Quality Action Plan (AQAP) within 12-18 months setting out measures it intends to put in place in pursuit of compliance with the objectives.

A summary of AQMAs declared by South Staffordshire Council can be found in Table 2.1. Further information related to declared or revoked AQMAs, including maps of AQMA boundaries are available online at:
https://www.sstaffs.gov.uk/environment/air-quality.cfm

Alternatively, see Appendix D: Map(s) of Monitoring Locations and AQMAs, which provides for a map of air quality monitoring locations in relation to the AQMA(s).

We have now revoked AQMA's 1 and 4: Woodbank, Penkridge and Wedges Mills Saredon following the many years of NO_2 levels below the objective (see monitoring section). There is now only one AQMA left which is Oak Farm, Hatherton. Recent years monitoring has now shown levels below objective at this location. However, as the level below is marginal it has been decided to keep the AQMA and watch it carefully over the future years. It should be noted that only the tube at the façade of the property will be left in position. The 2 remaining tubes located further out will be taken down as they merely demonstrate how the NO_2 levels fall off the further from the entrance / exit of the truck stop and are comfortably below objective and are not actually at representative locations.

We also hope to purchase two $PM_{2.5}$ monitors and locate one within the Oak Farm AQMA.

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	City / Town	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance (maximum monitored/modelled concentration at a location of relevant exposure)				Action Plan		
						At Declaration		Now		Name	Date of Publication	Link
AQMA 1 - Woodbank	**2006**	**NO2 Annual Mean**	**Penkridge**	**An area encompassing one porperty next to the M6 motorway between junctions 12 and 13.**	**YES**	**38.2**	**µg/m3**	**26.4**	**µg/m3**		**2008**	
AQMA 4 - Wedges Mills	**2006**	**NO2 Annual Mean**	**Saredon**	**An area encompassing a number of properties along the A4601.**	**YES**	**33.1**	**µg/m3**	**29.6**	**µg/m3**		**2008**	
AQMA - Oak Farm	2007	NO2 Annual Mean	Hatherton	An area encompassing a residential property along the A5 opposite a truck stop.	YES	39.3	µg/m3	35.4	µg/m3		2008	

☒ South Staffordshire Council confirm the information on UK-Air regarding their AQMA(s) is up to date
AQMA 1 and 4 were revoked early 2019.

2.2 Progress and Impact of Measures to address Air Quality in South Staffordshire Council

Defra's appraisal of last year's ASR concluded that we needed more detailed maps, and pointed out a few errors including missing data in February (tubes were missed due to no staff), and questions over whether some data had been distance adjusted.

South Staffordshire Council has taken forward a number of direct measures during the current reporting year of 2019 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2.

More detail on these measures will be included in the new Action Plan which is currently being worked on to coincide with the revoked AQMA's reflecting the fact that we now only have one AQMA.

South Staffordshire Council expects the following measures to be completed over the course of the next reporting year: continued uptake of the ECOStars scheme and the completion of a new Action Plan for our remaining AQMA at Oak Farm. Also the installation of two new $PM_{2.5}$ monitors within the district to begin looking at levels in the area and to get our AQMesh monitoring system up and running. We will also continue to work with the applicants of the Midlands Interchange to ensure there are no detrimental effects on local air quality should the application be accepted.

The principal challenges and barriers to implementation that South Staffordshire Council anticipates facing are lack of staffing resources.

Table 2.2 – Progress on Measures to Improve Air Quality

Measure No.	Measure	EU Category	EU Classification	Organisations involved and Funding Source	Planning Phase	Implementation Phase	Key Performance Indicator	Reduction in Pollutant / Emission from Measure	Progress to Date	Estimated / Actual Completion Date	Comments / Barriers to implementation
1	ECO Stars Scheme	Vehicle Fleet Efficiency	Driver training and ECO driving aids	DEFRA grant. SAQF councils: Stafford, Cannock, Stoke, Lichfield, Newcastle, East Staffs, Tamowrth.	2014	2015	AQMA No2 levels reduce below objectiv elevel		ECO stars is now up and running with new businesses being added each year.	Ongoing	Lengthy Timescale
2	Continued Integration with planning system	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	South Staffordshire Council	Ongoing	Ongoing			Ongoing	Ongoing	Funding
3	Continue close working with SAQF	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	SAQF councils: Stafford, Cannock, Stoke, Lichfield, Newcastle, East Staffs, Tamowrth.	Ongoing	Ongoing			Ongoing	Ongoing	First phase successful, second phase on-going
4	Regulation of industrial processes under the Environmental Permitting Programme to control emissions to air	Environmental Permits	Other	South Staffordshire Council	Ongoing	Ongoing			Ongoing	Ongoing	

2.3 $PM_{2.5}$ – Local Authority Approach to Reducing Emissions and or Concentrations

As detailed in Policy Guidance LAQM.PG16 (Chapter 7), local authorities are expected to work towards reducing emissions and/or concentrations of $PM_{2.5}$ (particulate matter with an aerodynamic diameter of 2.5µm or less). There is clear evidence that $PM_{2.5}$ has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

Particulate matter, or PM, is the term used to describe particles found in the air, including dust, dirt and liquid droplets. PM comes from both natural and man-made sources, including traffic emissions and Saharan-Sahel dust. These particles can be suspended in the air for long periods of time, and can travel across large distances.

PM less than 10 micrometres in diameter (PM_{10}) pose a health concern because they can be inhaled into and accumulate in the respiratory system. PM less than 2.5 micrometres in diameter ($PM_{2.5}$) are referred to as "fine" particles and are believed to pose the greatest health risks, as they can lodge deeply into the lungs and also pass into the bloodstream.

$PM_{2.5}$ is the pollutant which has the biggest impact on public health and on which the Public Health Outcomes Framework (PHOF) indicator 3.01[5] is based.

The Royal College of Physicians (RCP) undertook a review in February 2016 [6] where they found that long term exposure to air pollution impairs lung function growth in children, and that outdoor exposure is linked to lung cancer in adults. Within Staffordshire it is estimated that 4.8%of all deaths can be attributed to exposure to $PM_{2.5}$, compared to 5.1% across England (40,000 deaths annually)[4]. Overall, the estimated cost to individuals and society is more than £20 billion annually for the UK.

2.3.1 Particulate Matter ($PM_{2.5}$) Levels in Staffordshire and Stoke-on-Trent

A number of the Staffordshire Authorities currently monitor locally for PM_{10}. Defra's Automatic Urban and Rural Network (AURN) site, Stoke-on-Trent Centre has a dedicated $PM_{2.5}$ monitor. Table 2.3 presents data on the local level of $PM_{2.5}$ annual mean concentrations for the Staffordshire Authorities. Where the data is derived from PM_{10} monitoring this has been adjusted by applying a correction factor of 0.7 to derive the $PM_{2.5}$ component. The correction factor has been derived from the average of all ratios of $PM_{2.5}/PM_{10}$ for the years from 2010 to 2014 for forty sites within the Automatic Urban and Rural Network (AURN) where these substances are measured on an hourly basis and follows the guidance published in LAQM (TG16).

[4] Mortality attributable to particulate air pollution Public Health Outcomes Framework
[5] Public Health Outcomes Framework 2016 – 2019 indicator 3.01 Fraction of mortality attributable to particulate air pollution
https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/3/gid/1000043/pat/6/par/E12000005/ati/102/are/E10000028/iid/30101/age/230/sex/4
[6] ['Every Breath we Take: The Lifelong Impact of Air Pollution; Report of a working Party, February 2016, ISBN 978-1-86016-567-2],

Table 2.3 Annual Mean PM_{10} and $PM_{2.5}$ results of monitoring by Staffordshire Authorities 2014 to 2018

Annual Mean PM10 and PM2.5 Results from monitoring Staffordshire Authorities 2013- 2017									
Authority	**Site Type**	**Monitor Location**	**OS Grid Ref**		**Year**				
					2014	**2015**	**2016**	**2017**	**2018**
Newcastle under Lyme	Roadside	Queen`s Gardens	E385057	PM_{10}	22	22.9	(5)	(5)	(5)
			N346137	$PM_{2.5}$	15.4(1)	16(1)	(5)	(5)	(5)
Cannock Chase	Roadside	Cannock A5190	E401392 N309954	PM_{10}	-	-	-	14	18
				$PM_{2.5}$	-	-	-	9.8	12.6
Stoke on Trent	Roadside	Basford	E386288	PM 10	-	-	-	23	23
			N346802	$PM_{2.5}$	-	-	-	16	16
	Roadside	A50 Meir Tunnel	E392548	PM 10	-	20(2)	20(2)	18	19
			N342572	$PM_{2.5}$	-	14(2)	14(2)	13	13
	Urban Background	Stoke on Trent Central	E388351 N347895	PM 2.5	10	12	12	9	9
	Roadside	Middleport	E385780	MP10	24	22	(3)	(3)	(3)
			N349376	PM2.5	17(1)	15(1)	(3)	(3)	(3)
East Staffordshire	Roadside	Derby Tum	E424671 N324019	PM 10	31	23	(4)	(4)	(4)
				PM 2.5	21.7(1)	16.1(1)	(4)	(4)	(4)

Notes: (1)$PM_{2.5}$ results are derived from PM10 monitored results corrected with a 0.7 correction factor in accordance with TG16 – Annex B: Derivation of $PM_{2.5}$ to PM_{10} Ratio. All other results are directly monitored.
(2) Valid data capture for 2015 was 59%. The site was commissioned on 22 May 2015.
(3) Middleport monitor was decommissioned at the end 2015
(4) East Staffordshire`s monitors were decommissioned 2016
(5) Newcastle under Lyme monitors were Decommissioned 2016

As can be seen from the results, concentrations of $PM_{2.5}$ within the Staffordshire Authorities are below the 2020 EU limit value of 25µg/m3.

2.3.2 $PM_{2.5}$ and Mortality in Staffordshire & Stoke-on-Trent

Although the levels of $PM_{2.5}$ within the County and City of Stoke on Trent are below the 2020 EU Limit value, the impact on adult mortality directly attributable to $PM_{2.5}$ is nonetheless still an important public health issue within Staffordshire and Stoke-on-Trent. This is revealed in data obtained from Public Health England used to inform Public Health Outcomes Framework indicator 3.01[7], as shown in Figure 1

The percentage estimated number of deaths attributable to $PM_{2.5}$ in adults over 30 has been translated into the estimated number of attributable deaths for each local authority area within Staffordshire, and are shown in Figure 2. The data presented to 2017 is the latest data available at time of publication of this report. Approximately 5% of deaths within the County can be attributed to $PM_{2.5}$.

Figure 1 Estimated number of deaths by local authority area attributable to $PM_{2.5}$ within Staffordshire for adults over 30 2013 to 2017

District/County	Percentage
Newcastle-under-Lyme	4.5%
Stafford	4.7%
East Staffordshire	5.1%
South Staffordshire	4.9%
Lichfield	5.0%
Staffordshire Moorlands	4.3%
Cannock Chase	5.0%
Tamworth	5.4%
Stoke on Trent	4.8%
Staffordshire County	4.8%
England	5.1%

7 Public Health Outcomes Framework 2016-2019Indicator 3.01 Fraction of mortality attributable to particulate air pollution
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/520457/At_a_glance.pdf

Figure 2 Public Health Outcomes Framework Indicator 3.01- Fraction of annual all cause adult mortality attributable to anthropogenic (human made) particulate air pollution (measured as fine particulate matter, $PM_{2.5}$) for Staffordshire Authorities 2013 to 2017[8]

Estimated numbers of annual all-cause adult mortality attributable to anthropogenic (human-made) particulate air pollution (measured as fine particulate matter, $PM_{2.5}$*) for Staffordshire 2013 to 2017[8]
*** Fraction of annual all-cause adult mortality attributable to anthropogenic (human-made) particulate air pollution (measured as fine particulate matter, $PM_{2.5}$*)**

	2013			2014			2015			2016			2017		
District/County	Deaths - all causes persons 30+	%*	Estimated attributable deaths	Deaths - all causes persons 30+	%*	Estimated attributable deaths	Deaths - all causes persons 30+	%*	Estimated attributable deaths	Deaths - all causes persons 30+	%*	Estimated attributable deaths	Deaths - all causes persons 30+	%*	Estimated attributable deaths
Newcastle-under-Lyme	1295	4.9	60	55	4.7	60	55	4.2	50	1291	4.7	60	1197	4.2	50
Stafford	1261	4.9	60	65	4.8	60	60	4.7	60	1254	4.8	60	1267	4.3	50
East Staffordshire	1097	5.1	60	55	5.1	50	55	4.8	50	1065	5.6	60	1098	5.0	50
South Staffordshire	1102	5.1	60	55	5	50	55	4.7	60	1128	5.1	60	1239	4.5	60
Lichfield	1050	5.1	50	50	5	50	50	4.6	50	1044	5.5	60	1070	4.9	50
Staffordshire Moorlands	1085	4.7	50	45	4.5	50	45	4	40	1110	4.6	50	1127	3.9	40
Cannock Chase	787	5.1	40	45	5.1	40	45	4.6	40	879	5.4	50	940	4.7	40
Tamworth	592	5.5	30	35	5.4	30	30		30	615	6	40	634	5.3	30
Stoke on Trent	2412	5.2	125	2318	5.0	115	2479	4.9	110	2454	5.0	120	2490	4.4	110
Staffordshire County	8269	5	420	400	4.9	400	390	4.5	390	8386	5.2	430	8572	4.5	390

8 Source Public Health England https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/3/gid/1000043/pat/6/par/E12000005/ati/102/are/E10000028/iid/30101/age/230/sex/4

2.3.3 Actions being taken within Staffordshire to reduce $PM_{2.5}$

A number of the Staffordshire Authorities are currently involved in implementing measures to reduce levels of $N0_2$ within their areas, which are detailed elsewhere in this report. Whilst there is currently no statutory duty imposed on Local Authorities in England to reduce $PM_{2.5}$, a number of the measures are complementary. A mapping exercise completed by the Staffordshire Air Quality Forum members details the measures currently in place which are considered to have an impact in reducing $PM_{2.5}$ within the County. These are produced in Table 2.4 below;

Table 2.4 Actions being taken within Staffordshire to reduce $PM_{2.5}$

Measures category	Measure Classification	Effect on reducing NOx and PM10 emissions(low, medium, high)	Reduces PM2.5 emissions	Local Authority								
				Stoke on Trent CC	Staffordshire Moorlands DC	Newcastle under - Lyme BC	Stafford BC	Cannock Chase DC	East Staffs BC	Lichfield DC	South Staffs DC	Tamworth BC
Traffic Management	**Urban Traffic Control systems, Congestion management, traffic reduction**	low	✓	✓	UTC in Leek Town Centre	UTC in areas of Newcastle Town Centre AQMA and Kidsgrove AQMA	UTC in Stafford Town Centre	UTC in Cannock Town Centre	Town Centre Regeneration Programme a number of schemes are currently being progressed which will aid traffic management. Many of these will then help improve traffic flow within the AQMA	LDC is liaising with Midlands Connect to increase volume of traffic using M6 Toll to reduce congestion on the A5 as well as lobbying Highways England to upgrade the A38 & A5 to expressways.		UTC in Tamworth Town Centre at Ventura Park
	Reduction of speed limits, 20mph zones	low	✓	✓			20mph zones near some schools in residential areas	20mph zones in Brereton, Hendesford and Rugeley & Plans for Norton Canes	20 mph zones near some schools in residential areas	.	20mph zones in Trysull, Bradley, Kinver and Bilbrook	
	Road User Charging (RUC)/ Congestion charging	low	✓					M6 Toll		M6 Toll	M6 Toll	
	Anti-idling enforcement	low	✓									
	Other		✓									
Promoting Travel Alternatives	**Workplace Travel Planning**	low	✓	A limited programme delivered through DfT Access Fund	Staffordshire CC has successfully acquired funding for a 2 year work & school travel plan programme for work in the vicinity of AQMAS in Staffs & Stoke. https://www.staffordshire.gov.uk/transport/greentravel/travelplans/home.aspx							
	Encourage / Facilitate home-working	low	✓	Agile working adopted by Stoke-on-Trent CC			✓	Homeworking policy adopted	Homeworking policy adopted	Homeworking policy adopted	Agile working policy adopted	Homeworking policy adopted
	School Travel Plans	low	✓	Modeshift STARS	https://www.staffordshire.gov.uk/activeschooltravel							
	Promotion of cycling	low	✓	Stoke-on-Trent Cycle Map & Guide	https://www.staffordshire.gov.uk/transport/cycling/Cycle-maps/cyclemaps.aspx							
	Promotion of walking	low	✓	Travel Smart	https:/www.staffordshire.gov.uk/environment/eLand/RightsofWay/PromotedRoutes/home.aspx							
	Staffordshire Share a Lift Scheme		✓	Stoke on Trent Share a Lift Scheme	https://www.staffordshire.gov.uk/transport/greentravel/carsharing/Car-sharing.aspx							
	Promote use of rail and inland waterways	medium	✓	North Staffordshire Community Rail Partnership	North Staffordshire Community Rail Partnership operating along the North Staffordshire Line includes Blythe Bridge Rail Station. The County Council Draft Rail Strategy is available from: http://moderngov.staffordshire.gov.uk/documents/s69891/Appendix%201%20for%20Rail%20Strategy.pdf	North Staffordshire Community Rail Partnership operating along the North Staffordshire Line includes Blythe Bridge Rail Station. The County Council Draft Rail Strategy is available from: http://moderngov.staffordshire.gov.uk/documents/s69891/Appendix%201%20for%20Rail%20Strategy.pdf	North Staffordshire Community Rail Partnership operating along the North Staffordshire Line includes Blythe Bridge Rail Station. The County Council Draft Rail Strategy is available from: http://moderngov.staffordshire.gov.uk/documents/s69891/Appendix%201%20for%20Rail%20Strategy.pdf ✓	SCC is a member of West Midlands Rail Ltd which will bring a change in the way that local rail services are managed and operated. The County Council Draft Rail Strategy is available from: Link & Link	Improvements at Burton Rail Station commenced.	Staffordshire County Council has produced a Draft Rail Strategy, April 2016 to improve the way local rail services are managed and operated https://www.staffordshire.gov.uk/transport/transportplanning/Rail-strategy/Rail-Strategy.pdf		

Measures category	Measure Classification	Effect on reducing NOx and PM10 emissions(low, medium, high)	Reduces PM2.5 emissions	Local Authority								
				Stoke on Trent CC	Staffordshire Moorlands DC	Newcastle under - Lyme BC	Stafford BC	Cannock Chase DC	East Staffs BC	Lichfield DC	South Staffs DC	Tamworth BC
Transport Planning & Infrastructure	**Local Transport Plans and District Strategies**	high	✓	Local Transport Plan					https://www.eaststaffsbc.gov.uk/sites/default/files/docs/planning/planningpolicy/examination/c/C43IntegratedTransportStrategyamended14thJuly2014.pdf			
	Public transport improvements- interchanges stations and services	low	✓			Kidsgrove Station interchange plans	Recent improvements completed at Stafford Rail Station	Planned improvements at Cannock Station as part of Mill Green development	Improvements at Burton Rail Station commenced.	Improvements planned at Lichfield City Station as part of Friarsgate development scheme. There are also plans to improve accessibility to all users at Lichfield Trent Valley Station		Planned improvements at Tamworth station
	Public cycle hire scheme	low	✓	Stoke Railway Station 'Brompton Dock' Bike Hire & Cycle Hub				In house Cycle to work scheme				
	Cycle network	low	✓	A comprehensive network of on-street & traffic free routes. A forthcoming LCWIP will identify where improved maintenance & connectivity required.	www.saffordshire.gov.uk/transport/cycling/cyclemaps/cyclemaps.aspx							
	Bus route improvements	high	✓	Transforming Cities Fund is currently investigated options for some limited improvements.	Potential bus stop upgraded in Cheadle Town Centre	RTPI routes 3 & 4 Newcastle Town Centre. Improved future bus services to Chatterley Valley	Improved bus priority and interchange on A518, Stafford post-SWAR	RTPI & improved stops at key locations within Rugeley. Upgraded bus stops to serve Cannock rail station	Removal of obstructions on New Street.	.	Bus stop upgrades in Wombourne.	Improved bus infrastructure route 2 Tamworth-Perrycrofts. RTPI Tamworth Town Centre and Ventura Park. Victoria Road, Tamworth upgraded interchange.
Alternatives to private vehicle use	**Bus based Park & Ride**	medium	✓					nil		New bus central station as part of Friarsgate development scheme		
	Car Clubs	low	✓					nil				
Policy Guidance and Development Control	**Planning applications to require assessment of exposure / emissions for development requiring air quality impact assessment**	high	✓				✓	Local plan - Policy CP16 - Climate Change and Sustainable Resource Use Cannock chase. Www.cannockchasedc.gov.uk/sites/default/files/local_plan_part_1_09.04.14_low_res.pdf	http://www.eaststaffsbc.gov.uk/planning/planning-policy/local-plan-2012-2031	https://www.lichfielddc.gov.uk/Council/Planning/The-local-plan-and-planning-policy/Planning-policy.aspx		Local & National Validation requirements 2017: http://www.tamworth.gov.uk/sites/default/files/planning_docs/National-and-Local-Validation-requirements-2017.pdf

Measures category	Measure Classification	Effect on reducing NOx and PM10 emissions(low, medium, high)	Reduces PM 2.5 emissions	Local Authority								
				Stoke on Trent CC	Staffordshire Moorlands DC	Newcastle under - Lyme BC	Stafford BC	Cannock Chase DC	East Staffs BC	Lichfield DC	South Staffs DC	Tamworth BC
hhPolicy Guidance and Development Control	**Air Quality Strategy**		✓	Local Air Quality Strategy - Stoke-on-Trent City Council			✓	nil	http://www.eaststaffsbc.gov.uk/environmental-health/pollution/air-quality			
	Planning Guidance for developers		✓	To develop planning guidance for developers and to develop into SPD once Local Plan Policies in Place			✓	http://www.cannockchasedc.gov.uk/residents/planning/planning-policy/supplementary-planning-policy-documents	http://www.eaststaffsbc.gov.uk/sites/default/files/docs/pollution/Air%20Quality%20Policy%20for%20Development%20Control%20%28Public%20Version%29.pdf			
	Developer Contributions based on damage cost calculation		✓	To develop policies to secure contributions to offset pollution				http://www.cannockchasedc.gov.uk/sites/default/files/local_plan_part_1_09.04.14_low_res.pdf	Yes			
	Planning Policies		✓	To influence policies to support improvements in emissions through development of Staffordshire abd Stoke-on-Trent Joint Local Plan			✓		http://www.eaststaffsbc.gov.uk/sites/default/files/docs/pollution/Air%20Quality%20Policy%20for%20Development%20Control%20%28Public%20Version%29.pdf	https://www.lichfieldddc.gov.uk/Council/Planning/The-local-plan-and-planning-policy/Planning-policy.aspx		
	STOR Sites (Short Term Operating Reserve) Energy Generation . Regulation via planning / permitting regime	high	✓									
	Low Emissions Strategy	high	✓									

Measures category	Measure Classification	Effect on reducing NOx and PM10 emissions(low, medium, high)	Reduces PM 2.5 emissions	Local Authority								
				Stoke on Trent CC	Staffordshire Moorlands DC	Newcastle under-Lyme BC	Stafford BC	Cannock Chase DC	East Staffs BC	Lichfield DC	South Staffs DC	Tamworth BC
Freight and Delivery Management	**Freight Consolidation Centre**	medium	✓									
	Route Management Plans/ Strategic routing strategy for HGV's	high	✓		https://www.staffordshire.gov.uk/transport/transportplanning/localtransportplan/appendixl-staffordshirefreightstrategy.pdf							
	Quiet & out of hours delivery	low	✓				✓	✓				
	Delivery and Service plans	medium	✓									
	Freight Partnerships for city centre deliveries	high	✓									
Vehicle Fleet Efficiency	**Driver training and ECO driving aids**	medium	✓	SOTCC provide driver assessment & driver CPC training service for drivers of large goods vehicles. SOTCC operational fleet fitted with Stop/Start technology where available to reduce fuel usage. 70% of SOTCC recycling waste collection vehicles have `Fuel Sense` technology fitted to reduce fuel usage.			✓	✓	✓			
	Promoting low emission public transport	high	✓									
	Vehicle retrofitting programmes	medium	✓	70% of SOTCC operational fleet meet, the EURO VI emission standard 90% of SOTCC`s waste collection vehicles have electric bin lifting equipment fitted to reduce fuel usage.						Retrofitting of old Council owned HGVs and Buses with pollution abatement equipment will be considered by the Council where technically and financially feasible		
	Fleet efficiency and recognition schemes	medium	✓	SOTCC are a 3 star member of Eco Stars Fleet Recogniton Scheme	Staffordshire and Stoke-on-Trent Eco-Stars http://www.ecostars-uk.com/eco-stars-schemes/							

Measures category	Measure Classification	Effect on reducing NOx and PM10 emissions(low, medium, high)	Reduces PM 2.5 emissions	Local Authority								
				Stoke on Trent CC	Staffordshire Moorlands DC	Newcastle under - Lyme BC	Stafford BC	Cannock Chase DC	East Staffs BC	Lichfield DC	South Staffs DC	Tamworth BC
Promoting low emission transport	**Low emission zone (LEZ) Clean Air Zone (CAZ)**	high	✓									
	Public Vehicle Procurement - Prioritising uptake of low emission vehicles	high	✓	SOTCC`s procurement process includes the valuation of alternatively fuelled vehicles for the operational fleet. Services are challenged to consider alternatively fuelled vehicle at the point of replacement.				Waste fleet vehicles comply with Euro VI.				
	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	high	✓	SOTCC`s procurement process includes the evaluation of alternatively fuelled vehicles for the operational fleet.			✓			LDC looking to replacing old vehicles within the fleet with more modern cleaner vehicles, which comply with the prevailing EURO standard. This will be extended to all Council owned vehicles.		
	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	high	✓	SOTCC installed electric charging infrastructure in 2017 for the operational fleet.			✓					
	Priority parking for LEV's	high	✓	Electric Vehicle charging spaces						Electric Vehicle charging spaces		
	Taxi Licensing conditions	medium	✓	Hackney Carriage & Private Hire Licensing Policy 2016-2019								
	Taxi emission incentives	medium	✓	Successful joint bid for funds to install Taxi ELV charging points								
Environmental permits	**Introduction/increase of environment charges through permit systems and economic instruments (Permit fees set centrally)**	medium	✓				✓	Unable to achieve at a local level without central government approval				
	Measures to reduce pollution through IPPC Permits going beyond BAT	medium	✓	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/211863/env-permitting-general-guidance-a.pdf (Chapter 15)								
	Large Combustion Plant Permits and National Plans going beyond BAT	high	✓									
	Other		✓									

Measures category	Measure Classification	Effect on reducing NOx and PM10 emissions (low, medium, high)	Reduces PM2.5 emissions	Local Authority								
				Stoke on Trent CC	Staffordshire Moorlands DC	Newcastle under -Lyme BC	Stafford BC	Cannock Chase DC	East Staffs BC	Lichfield DC	South Staffs DC	Tamworth BC
Other measures	**Smoky Diesel Hotline**		✓	https://www.gov.uk/report-smoky-vehicle								
	A5 and M6 Partnership		✓					http://www.hinckley-bosworth.gov.uk/info/10020/strategies_plans_and_policies/1272/a5_partnership		Strategy for the A5 2011-2026	Strategy for the A5 2011-2026	
	Domestic Smoke Control advice and Enforcement		✓	Smoke control advice	-	-	✓	http://www.cannockchasedc.gov.uk/residents/environmental-health/environmental-protection/chimney-smoke	http://www.eaststaffsbc.gov.uk/environmental-health/pollution/smoke-control-areas	https://www.lichfielddc.gov.uk/home-garden/bonfires-barbecues-smoke/1	https://www.sstaffs.gov.uk/environment/smoke-control-areas.cfm	
	Garden Bonfires - Advice and nuisance enforcement		✓	Garden bonfires advice	-	-	✓	http://www.cannockchasedc.gov.uk/residents/environmental-health/environmental-protection/bonfire-smoke-nuisance	http://www.eaststaffsbc.gov.uk/environmental-health/pollution/bonfires	https://www.lichfielddc.gov.uk/home-garden/bonfires-barbecues-smoke/1	https://www.sstaffs.gov.uk/crime-nuisances/bonfires-and-smoke.cfm	http://www.tamworth.gov.uk/air-quality
	Commercial burning advice and enforcement		✓		-	-	✓	http://www.cannockchasedc.gov.uk/residents/environmental-health/environmental-protection/bonfire-smoke-nuisance	http://www.eaststaffsbc.gov.uk/environmental-health/pollution/bonfires	https://www.lichfielddc.gov.uk/home-garden/bonfires-barbecues-smoke/1		http://www.tamworth.gov.uk/air-quality
	Multi agency working with Fire Service and Environment Agency for trade burning		✓		-	-	✓	Information shared as appropriate		Information shared as appropriate		Information shared as appropriate
	Multi agency working with Staffordshire Fire Service and Local Authority Building Controlregarding chimney fires and complaints about DIY domestic heating systems		✓		-	-		Information shared as appropriate		Information shared as appropriate		
	Stoke-on-Trent Low Carbon District Heat Network		✓	Stoke-on-Trent Low Carbon District Heat Network	-	-						

2.3.4 $PM_{2.5}$ in Staffordshire & Stoke-on-Trent - Next steps

As $PM_{2.5}$ is an issue requiring collaboration between the district, county and city authorities within Staffordshire, the following actions are proposed in addition to those outlined in the action plan. Progress on these and the action plan will be detailed in the 2019 ASR.

✓To agree a target for reducing Fraction of All Cause Mortality from $PM_{2.5}$ in each district, city and county authority by 2020

✓To agree a target for reducing $PM_{2.5}$ exposure (calculated from PM_{10} exposure / background maps / local monitoring where available)

✓To maintain compliance with the 2020 EU limit value of 25µg/m3

✓ To include Public Health Outcome Framework Indicator 3.01 in the Staffordshire and District Authority and City Council Joint Strategic Needs Assessment for 2018/2019 onwards and to report progress to the relevant Health and Wellbeing Boards.

✓ To continue to identify risks affecting $PM_{2.5}$ which need to be addressed at a national level e.g.

○A number of authorities within Staffordshire are receiving applications for STOR (Short Term Operating Reserve) sites to supplement power to the National Electricity Grid at times of peak demand. These sites typically operate during the autumn / winter months and can be high emitters of PM.

South Staffordshire Council will also be purchasing two $PM_{2.5}$ monitors so that we can place them out onto the district to ensure that there are no problems.

3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

This section sets out what monitoring has taken place and how it compares with objectives.

South Staffordshire Council undertook automatic (continuous) monitoring at 1 site during 2018. Table A.1 in Appendix A shows the details of the site. National monitoring results are available at https://uk-air.defra.gov.uk/networks/

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on how the monitors are calibrated and how the data has been adjusted are included in Appendix C.

3.1.2 Non-Automatic Monitoring Sites

South Staffordshire Council undertook non- automatic (passive) monitoring of NO_2 at 13 sites during 2018. Table A.2 in Appendix A shows the details of the sites.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g. “annualisation” and/or distance correction), are included in Appendix C.

There are a number of tubes which have or will be discontinued in future years. Details follow in 3.2.1.

3.2 Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for bias, “annualisation” and distance correction. Further details on adjustments are provided in Appendix C.

3.2.1 Nitrogen Dioxide (NO_2)

Table A.3 in Appendix A compares the ratified and adjusted monitored NO_2 annual mean concentrations for the past 5 years with the air quality objective of 40µg/m^3.

For diffusion tubes, the full dataset of monthly mean values is provided in Appendix B.

Table A.4 in Appendix A compares the ratified continuous monitored NO_2 hourly mean concentrations for the past 5 years with the air quality objective of 200µg/m^3, not to be exceeded more than 18 times per year.

There has been no exceedances of the air quality objective over the district at any locations during 2018. All data has been ratified and bias adjusted.

It should be noted that there are only 2 months of data for ES4, ES4 and ES6 in the Bursnips AQMA. This is because the AQMA was revoked and therefore after leaving the tubes in place for a time they were taken down in February and moitoring ceased at these locations.

Monitoring site HA 5 and 6 in the AQMA Oak Farm will be dis continued. They were orignally to illustrate the effect of the entrance exit effect of the NO2 levels and how it decreased further away. They have never shown levels over objective and are not at relevant locations.

We have now revoked Wedges Mills and Woodbank AQMA's and therefore monitoring will also cease at these locations shortly.

Air Quality Consultants pointed out that the real time analyser has been perfroming poorlly over recent years. It is a very old piece of kit that is expesive to run. It is likely that we will phase this out once maintenance and data contracts are finished within th next 12 months. It is 16 years old and at an end of its useful life. The data is no longer considered reliable.

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Inlet Height (m)
PE	Penkridge	Other	393171	313859	NO2	NO	Chemiluminescent	10	3.5	2

Notes:

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

(2) N/A if not applicable.

Table A.2 – Details of Non-Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube collocated with a Continuous Analyser?	Height (m)
ES4	ES4	Roadside	396957	303269	NO_2	YES	Adjacent	6	NO	3
ES5	ES5	Roadside	396969	303269	NO_2	YES	Adjacent	8	NO	3
ES6	ES6	Roadside	396994	303433	NO_2	YES	Adjacent	11	NO	3
HA2	HA2	Roadside	394776	309756	NO_2	YES	Adjacent	1	NO	3
HA5	HA5	Roadside	394828	309737	NO_2	YES	30	1	NO	3
HA6	HA6	Roadside	394905	309708	NO_2	YES	50	1	NO	3
PE2	PE2a	Roadside	393177	313866	NO_2	NO	10	11	YES	3
PE11	PE11	Other	393519	315327	NO_2	YES	Adjacent	20	NO	3
SA2	SA2	Roadside	396716	308742	NO_2	YES	Adjacent	2	NO	3
SA5	SA5	Roadside	396704	308673	NO_2	YES	Adjacent	2	NO	3
SA6	SA6	Roadside	396701	308613	NO_2	YES	Adjacent	2	NO	3

Notes:

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on/adjacent to the façade of a residential property).

(2) N/A if not applicable.

Table A.3 – Annual Mean NO_2 Monitoring Results

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2018 (%) (2)	NO_2 Annual Mean Concentration (µg/m³) (3)				
					2014	2015	2016	2017	2018
PE	Other	Automatic	99.6	99.6	**45**	36	39	**42**	35
ES4	Roadside	Diffusion Tube	17	16	33.7	31.5	35.6	27.2	N/A
ES5	Roadside	Diffusion Tube	17	16	30.3	27.8	32	23.7	N/A
ES6	Roadside	Diffusion Tube	17	16	31.2	30.1	31.4	27.5	N/A
HA2	Roadside	Diffusion Tube	100	100	**40.4**	37.4	37.9	33.3	33.2
HA5	Roadside	Diffusion Tube	100	100	31.4	31.6	31.9	27.3	28.8
HA6	Roadside	Diffusion Tube	100	100	32	31.3	29.7	26.5	30.4
PE2a	Other	Diffusion Tube	92	92	31.4	27.2	31.1	26	27.5
PE2b	Other	Diffusion Tube	100	100	31.1	26.3	31.1	24.8	27.8
PE2c	Other	Diffusion Tube	92	92	31.3	27.6	31	25.2	30.8
PE11	Roadside	Diffusion Tube	100	100	29.3	30	31.5	30.4	26.4
SA2	Roadside	Diffusion Tube	92	92	34.1	30.9	32.6	29.1	29.4
SA5	Roadside	Diffusion Tube	92	92	36.7	35.3	36.5	31.6	31.9
SA6	Roadside	Diffusion Tube	92	92	29.6	28.3	29.3	27.1	27.6

☒ **Diffusion tube data has been bias corrected**

☒ **Annualisation has been conducted where data capture is <75%**

Notes:

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

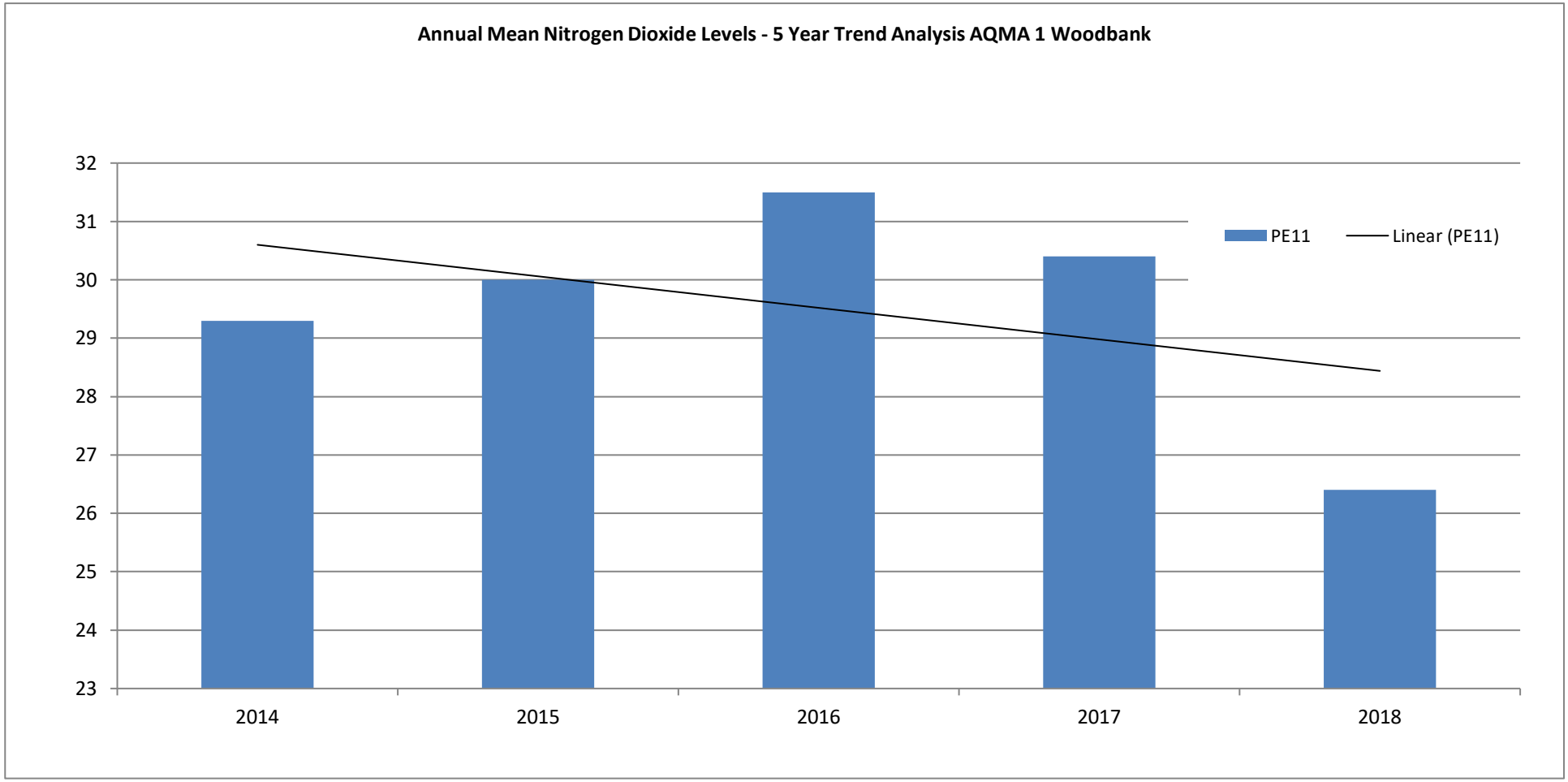
NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined.**

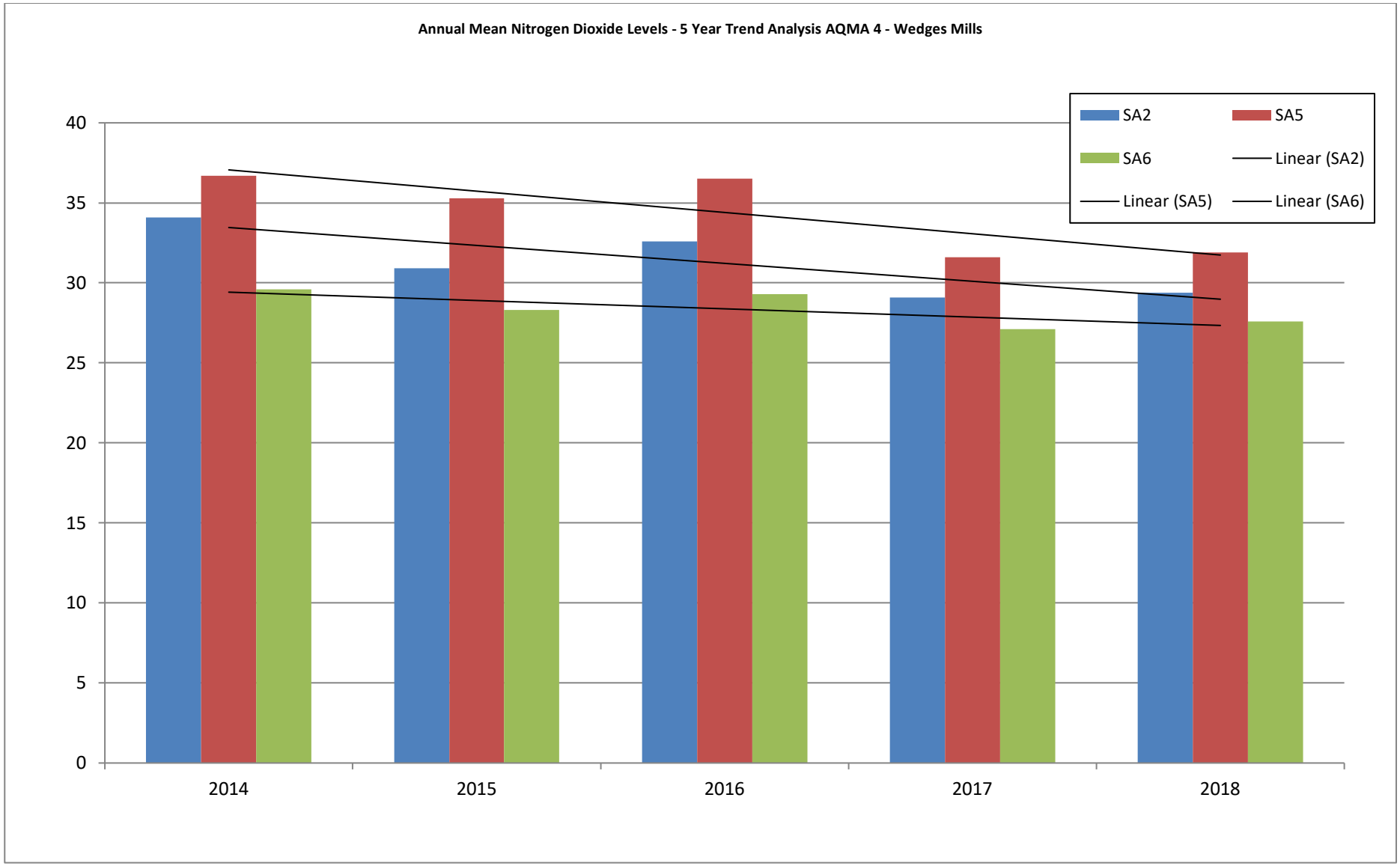
(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

(3) Means for diffusion tubes have been corrected for bias. All means have been "annualised" as per Boxes 7.9 and 7.10 in LAQM.TG16 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

Figure A.1 – Trends in Annual Mean NO_2 Concentrations




Annual Mean Nitrogen Dioxide Levels - 5 Year Trend Analysis AQMA 4 - Wedges Mills
SA2
SA5
SA6
Linear (SA2)
Linear (SA5)
Linear (SA6)
40
35
30
25
20
15
10
5
0
2014
2015
2016
2017
2018

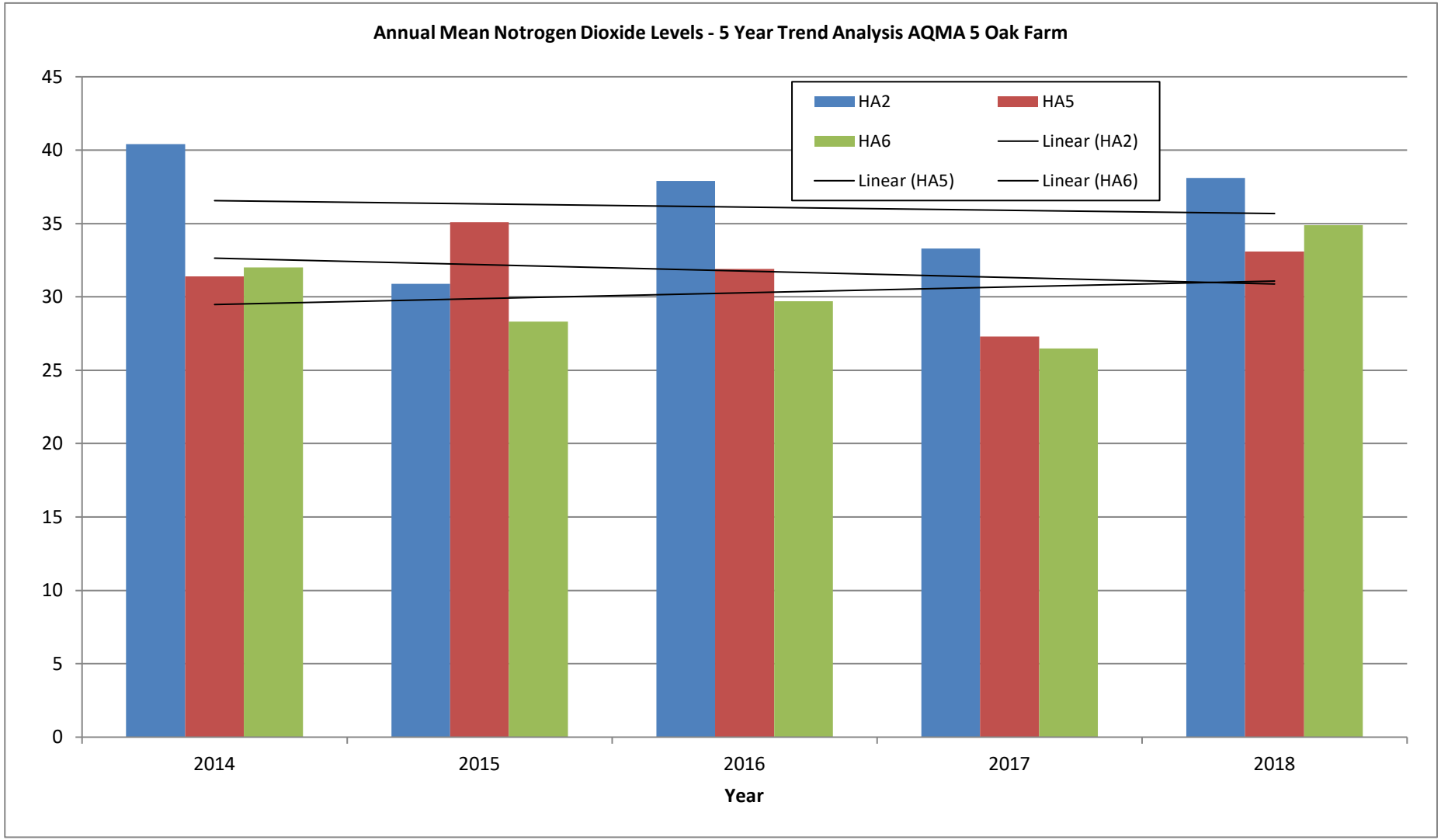

Annual Mean Notrogen Dioxide Levels - 5 Year Trend Analysis AQMA 5 Oak Farm
45
40
35
30
25
20
15
10
5
0
HA2
HA5
HA6
Linear (HA2)
Linear (HA5)
Linear (HA6)
2014
2015
2016
2017
2018
Year

Table A.4 – 1-Hour Mean NO_2 Monitoring Results

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2018 (%) (2)	NO_2 1-Hour Means > 200µg/m^3 (3)				
					2014	2015	2016	2017	2018
Penkridge	Other	Automatic	99.6	99.6	**0**	0	0	0	**0**

Notes:

Exceedances of the NO_2 1-hour mean objective (200µg/m^3 not to be exceeded more than 18 times/year) are shown in **bold.**

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

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

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

Appendix B: Full Monthly Diffusion Tube Results for 2018

Table B.1 – NO_2 Monthly Diffusion Tube Results – 2018

Site ID	NO_2 Mean Concentrations (µg/m^3)														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean		
													Raw Data	Bias Adjusted (0.87) and Annualised (1)	Distance Corrected to Nearest Exposure (2)
ES4	34.7	41.1	N/A												
ES5	293.3	35.8	N/A												
ES6	33.7	32.5	N/A												
HA2	40.2	39.2	37.4	37.8	35.1	33.5	42.5	37.7	36.4	46.9	31.7	39	38.1	33.2	
HA5	37.1	38.2	32	31	32.3	29.4	33.5	27.8	27.7	44.7	29.5	33.4	33.1	28.8	
HA6	36.6	35.1	35.5	31.9	33.3	51.4	32.1	27.9	31.2	36.6	31.4	36.1	34.9	30.4	
PE2a	34.6	35.9	40.6	34.8	31.3		27.4	23.4	23.8	35.7	37.2	23.6	31.7	27.5	
PE2b	33.6	37.6	40.1	39.3	32.4	23.2	28.2	24.4	25.8	35	30.4	32.9	31.9	27.8	
PE2c	35.9	37.5	39.4	34.1	33.4		50.6	24.6	26.1	38.6	36.3	32.7	35.4	30.8	
PE11	39.2	23.6	31	29.1	24.5	22.8	32.6	35.2	35.7	28.5	28.9	33.3	30.4	26.4	
SA2	41.2	38.1	36	33.1	32.4	26.3	30.7	30.2	33.2	40.8		30.1	33.8	29.4	
SA5	40.5	37.1	36.7	40	35.9	35.1	36.7	31.8	33.5	41.8		33.8	36.6	31.9	
SA6	36.9	35.4	36.1	31.8	29.2	26.2	30.5	27.3	28.2	36.3		30.8	31.7	27.6	

☐ **Local bias adjustment factor used**

☒ **National bias adjustment factor used**

☐ **Annualisation has been conducted where data capture is <75%**

☐ **Where applicable, data has been distance corrected for relevant exposure**

Notes:

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined.**

(1) See Appendix C for details on bias adjustment and annualisation.

(2) Distance corrected to nearest relevant public exposure.

Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC

QA/QC of automatic monitoring

The Council held a contract with Matts Monitors for the service and maintenance of the automatic analyser in 2018.

Routine maintenance of the real time analyser is undertaken on a fortnightly basis by a technical officer at South Staffordshire Council and the results or sent through to our data management person – Geoff Broughton.

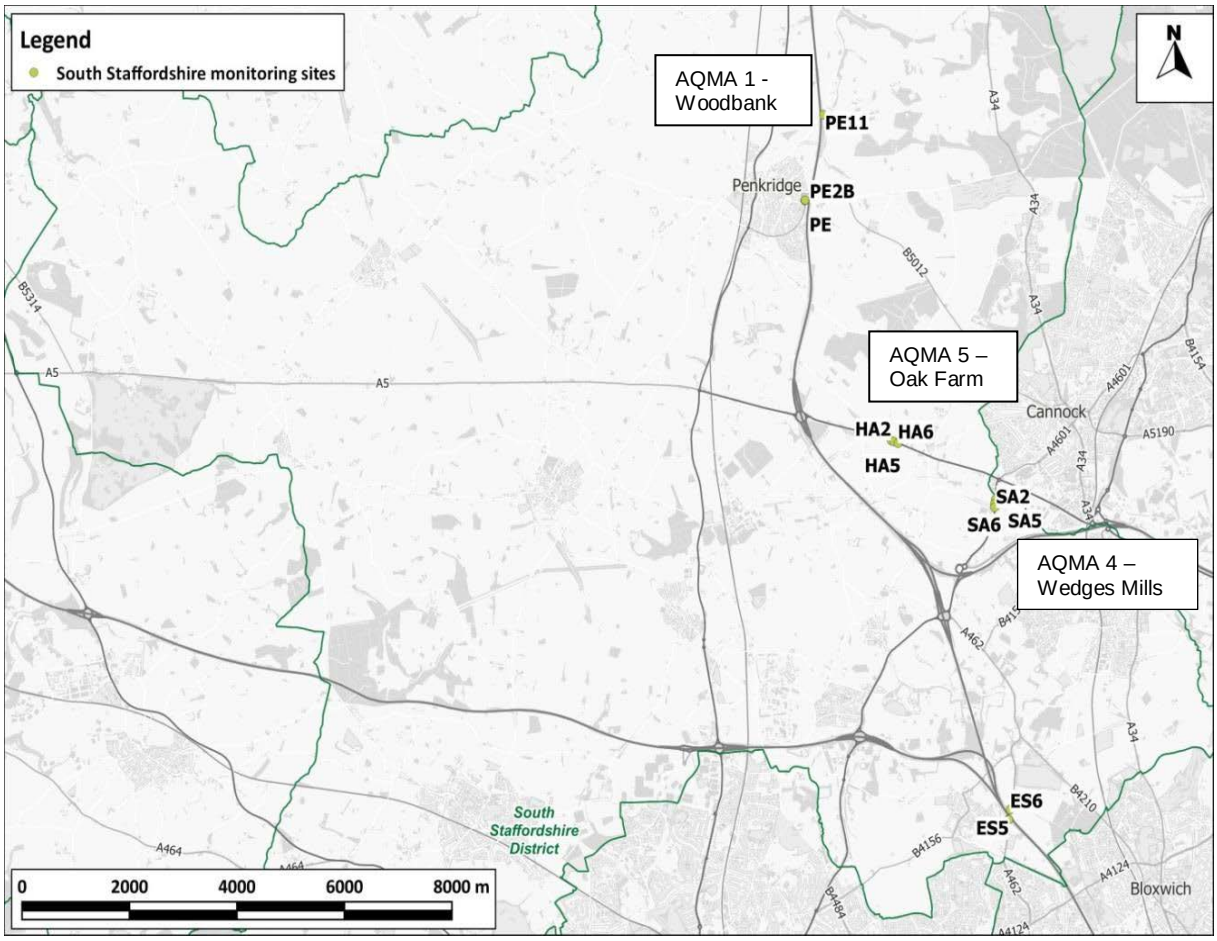
QA/QC of diffusion tube monitoring

Quality Assurance and Control is undertaken within the AIR NO_2 Proficiency Testing Scheme. This was started in April 2014 and combines the LGC Standards STACKS and the HSL WASP schemes.

Staffordshire County Council Scientific Service has demonstrated results which were considered to be GOOD for precision. Between 75-100% SATISFACTORY for data provided.

Appendix D: Map(s) of Monitoring Locations and AQMAs

Map of monitoring locations



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AQMA No.1 – Woodbank, Penkridge

The site includes a single dwelling adjacent to the M6 motorway between junctions 12 and 13.

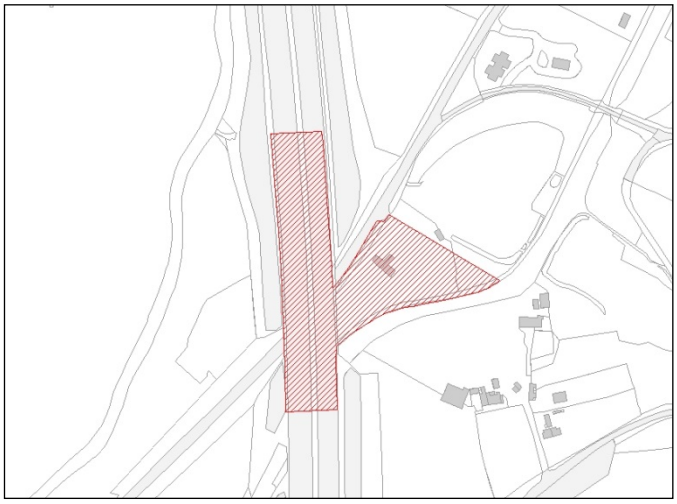

Figure 1.1a: AQMA No.1 – Woodbank

This AQMA has now been revoked.

AQMA No. 4 – Wedges Mills, Saredon

The area is alongside the A4601 (formerly A460) Wolverhampton Road.

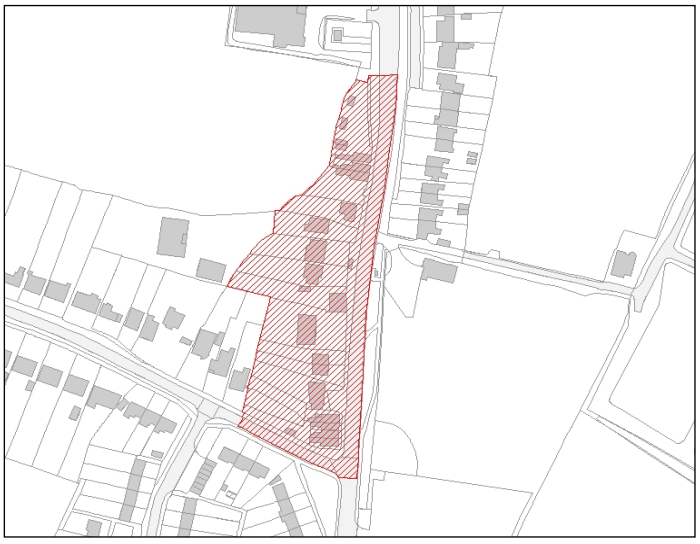

Figure 1.1c: AQMA No.4 – Wedges Mills

This AQMA has now been revoked.

AQMA No.5 – Oak Farm, Hatherton

This area is located along the A5 between junction 12 of the M6 and Cannock.

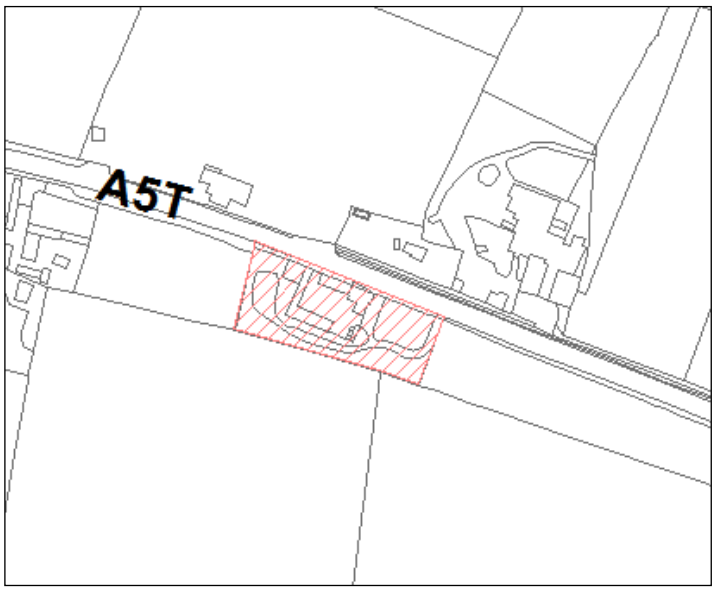

Figure 1.1d : AQMA No.5 – Oak Farm

Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England

Pollutant	Air Quality Objective[4]	
	Concentration	Measured as
Nitrogen Dioxide (NO_2)	200 µg/m^3 not to be exceeded more than 18 times a year	1-hour mean
	40 µg/m^3	Annual mean
Particulate Matter (PM_{10})	50 µg/m^3, not to be exceeded more than 35 times a year	24-hour mean
	40 µg/m^3	Annual mean
Sulphur Dioxide (SO_2)	350 µg/m^3, not to be exceeded more than 24 times a year	1-hour mean
	125 µg/m^3, not to be exceeded more than 3 times a year	24-hour mean
	266 µg/m^3, not to be exceeded more than 35 times a year	15-minute mean

[4] The units are in microgrammes of pollutant per cubic metre of air (µg/m^3).

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Air quality Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by Highways England
EU	European Union
FDMS	Filter Dynamics Measurement System
LAQM	Local Air Quality Management
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
PM_{10}	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
$PM_{2.5}$	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SO_2	Sulphur Dioxide
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